

Photoshop®



MASKING & COMPOSITING

By the author of the bestselling *Photoshop Restoration & Retouching*

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With photo illustrations by Mark Beckelman,
a winner of the 2003 Adobe International Digital Imaging Contest

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7

THE POWER OF LAYER MASKING

Some men have commitment problems—or so the cliché goes. Well, I’ve met quite a few Photoshop users with deep-rooted commitment problems, and yes, I count myself among them. We fear the commitment of making an irrevocable image-editing decision that we’ll regret in the morning. In fact, if it wasn’t for one essential feature in Photoshop—layer masks—I would be a nail-biting, sleep-deprived wreck.

Layer masks allow the commitment-wary and -weary the opportunity to try various approaches to their images without losing the flexibility to change their minds. In this chapter, you’ll be introduced to the perfect partnership—layers and layer masks—and how they work hand in hand (or should I say pixel in pixel?). This chapter addresses

- How to work with painted, gradated, and selective layer masks
- When to use pixel or vector layer masks
- Why layer masks are powerful, flexible, and creative
- How to combine multiple image exposures

If I had to decide between giving up coffee or layer masks, I wouldn’t think twice. I hear that tea has caffeine, too. So brew a cup of your favorite beverage and let’s explore one of the most exciting and essential features of Photoshop.



WORKING WITH LAYER MASKS

Layer masks are the soul of Photoshop—the key to combining images in a completely nondestructive manner. They enable you to move, hide, blend, conceal, and experiment with image combinations to your heart’s content—all without ever losing a single pixel.

Each layer can support a pixel and a vector layer mask. Pixel-based masks are used for blending photographs together, to gradually have images or tone and color changes fade in and out, and wherever painted or soft edge quality is desired. Vector-based masks are employed when Bézier accuracy and crispness is required. Both types are very useful, but the pixel-based mask is the true workhorse of the compositing artist.

Background and type layers do not support layer masks. Adjustment Layers automatically come with a layer mask. To add a layer mask to an image layer, either click on the Mask button in the Layers palette to add a white layer mask, or (Option-click) [Alt-click] to add a black layer mask. You can also choose Layer > Add Layer Mask > Reveal All to add a white layer mask, or Layer > Add Layer Mask > Hide All to add a black layer mask.

Just like Channel masks, pixel layer masks can be black or white with all shades of gray in between. Wherever the mask is darker, less image effect will show through; wherever it is lighter, more image effect shows through. In a nutshell, black conceals and white reveals—meaning that if you want part of an image to show through, then the corresponding mask must be light. If you don’t want an image area to be visible, the mask must be black.

Tip

Use the masking mnemonic, “White Reveals and Black Conceals” when working with layer masks.

Painted Layer Masks

When layers were introduced with Photoshop 3.0, I was having a problem adopting the new layered, dimensional approach to combining images. To understand how layers and layer masks worked, one night I opened two images that I liked ([figure 7.1](#)), literally plopped one on top of the other by dragging the Pegasus image over to the tree image, added a layer mask to the top one, and then started painting. If you, too, have struggled to grasp the concept of combining images using layer masks, following the same steps I did may help:

  **ch7_wintertrees.jpg**

  **ch7_pegasus.jpg**



figure 7.1

The two source images.

1. Open both images and decide which one will serve as the image background. I chose the winter tree branches image as the background, and the Pegasus image as the foreground subject.
2. Use the Move tool to drag the Pegasus over to the winter tree branches image and name the layer *Pegasus*.

3. Click on the Layer Mask button. Notice that nothing has changed in your image and that Photoshop has added a white layer mask to the Pegasus layer ([figure 7.2](#)).
4. Paint with a soft, black brush over those areas of the Pegasus layer that you do not want to see ([figure 7.3](#)). If by accident you paint over an area that you do want to see, press *x* to switch the foreground and background colors, and paint over the area you want to see with white. Keep in mind, white reveals and black conceals—meaning that if you paint with black on the layer mask, you will be hiding “Pegasus” pixels.



figure 7.2

Adding a white layer mask does not alter the image in any way.

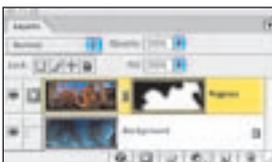


figure 7.3

Painting with a large, soft black brush quickly conceals areas of the Pegasus image you do not want to see.

5. In a few minutes, you should have the image roughly combined. To fine-tune the image edges, zoom in on an area ([figure 7.4](#)) and paint with a smaller, harder brush. Press *x* to paint with black or conceal, or white to reveal the Pegasus layer. (Option-click) [Alt-click] on the layer mask to view it ([figure 7.5](#)).

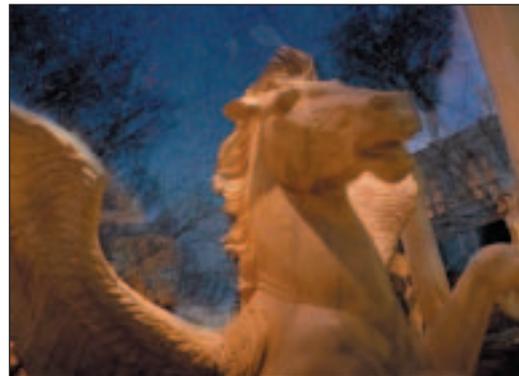


figure 7.4

Zoom in and paint with a smaller, harder brush to fine-tune how the image elements come together.

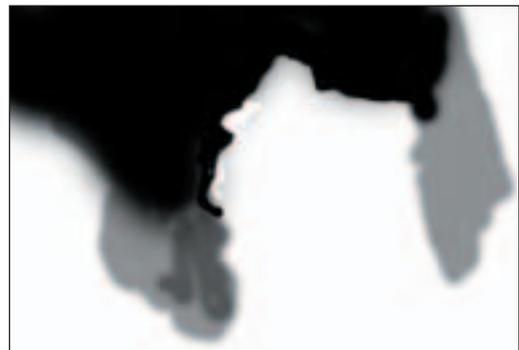


figure 7.5

Viewing the layer mask shows that white reveals and black conceals.

6. When you've finished, select File > Save As and save the file in the PSD or TIFF format (these are the two recommended formats that will maintain the layers). When you return to this image, you can readjust it any way you want by painting on the layer mask again.

Now you know how I learned layer masking—I spent an evening with these two images and kept painting back and forth to create the image shown in [figure 7.6](#). It took me a few hours, but I finally got it and haven't looked back since.

White and Black Layer Masks

When you click on the Layer Mask button in the Layers palette, Photoshop adds a white layer mask, which reveals the entire image. Starting with a white layer mask is a subtractive mode of working. You see the entire image and paint away with black or gray the areas you do not want to see.

(Option-clicking) [Alt-clicking] the Layer Mask button adds a black layer mask, which hides the entire layer. You need to paint with white to add the image back—to work additively you bring the image back into view.

This technique is used very often in portrait retouching. Photographers will sharpen the entire portrait, and then by adding a black layer mask to the sharpened layer, they paint back in the sharpness only where it is needed—in most cases the eyes and lips ([figure 7.7](#)).



figure 7.6

The final image playfully reveals winter trees interspersed with a Las Vegas shopping arcade.



Without sharpening



Sharpened eyes

© Mark Beckelman

**figure 7.7**

The layer mask controls where the sharpening effect is applied to the original image.

Gradated Layer Masks

The largest paintbrush in Photoshop is the Gradient tool. You can use it on layer masks to control tonal and color effects and to seamlessly blend images together.

Darkening Image Edges

Adjustment Layers in combination with blending modes and layer masks offer a straightforward method for lightening and darkening (traditionally called *dodging* and *burning*) areas in an image where

you want to draw attention. Light areas attract the viewer's focus, whereas dark areas are of less visual interest.

Traditionally, photographers often burned or darkened the edges of their prints to focus the viewer's attention on the center. If you employ this technique, you should do it as subtly as possible so that it's not noticeable. After finishing a composite, I often add a slight edge burn to darken the outer edges and keep the viewer's eyes focused on the center, as [figure 7.8](#) illustrates.

  [ch7_pear.jpg](#)



figure 7.8

Framing the pear with a hint of darkness maintains the focus on the center of the image.

You can quickly create this darkening effect using an Adjustment Layer and the Gradient tool:

1. Activate the topmost layer of your composite or image.
2. Add a Levels or Curves Adjustment Layer—it doesn't matter which one you choose. As soon as the interface pops up, click OK without changing anything.
3. Change the blending mode to Multiply and reduce the opacity to 50%. The entire image will become darker (**figure 7.9**).

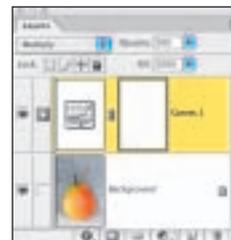


figure 7.9

Changing the layer blending mode to Multiply darkens the entire image.

4. Select Image > Adjustments > Invert or (Cmd + I) [Ctrl + I] to invert the layer mask, which will turn it black.
5. Activate the Gradient tool and select the second gradient from the Gradient picker—Foreground to Transparent (**figure 7.10**). Verify that white is the foreground color; if it isn't, press x to switch the foreground and background colors.



figure 7.10

You need the *Foreground to Transparent* gradient for this technique to work.

6. Press *f* to place the image into full-screen mode and zoom out to see the entire image. I prefer to start the gradient well outside the image (**figure 7.11**). Pull the first gradient from the upper left toward the center of the image, and then repeat on all four corners (**figure 7.12**). Continue as necessary to create an image to your liking, as I did in **figure 7.13**.
7. Turn the Image Adjustment Layer view column on and off to view the image with and without the darkening effect. If you like what you see, save the file. If you are not satisfied—maybe it's too light or too dark—adjust the layer opacity to create the desired effect.

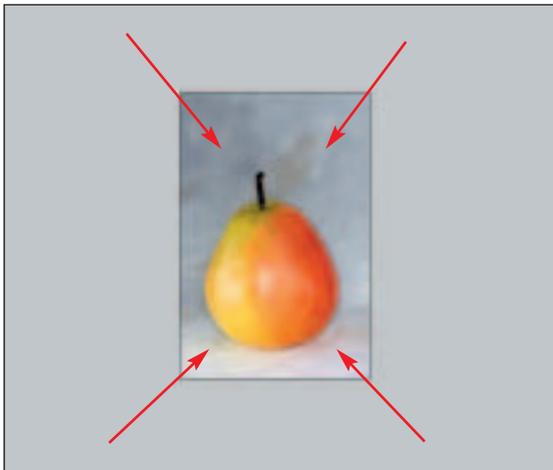


figure 7.11

Working in full-screen mode and starting well outside the image lets you subtly darken the image edges.

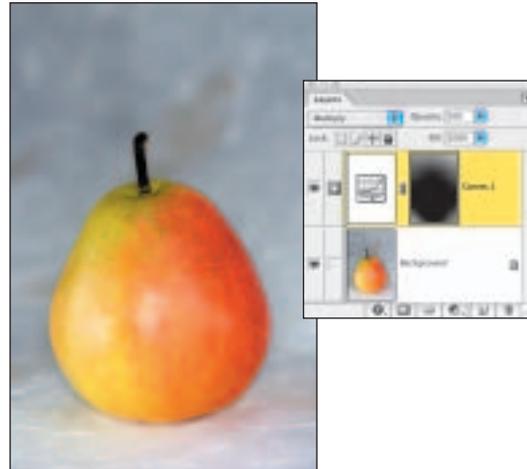


figure 7.12

After one gradient pull from each corner, the image is more focused.

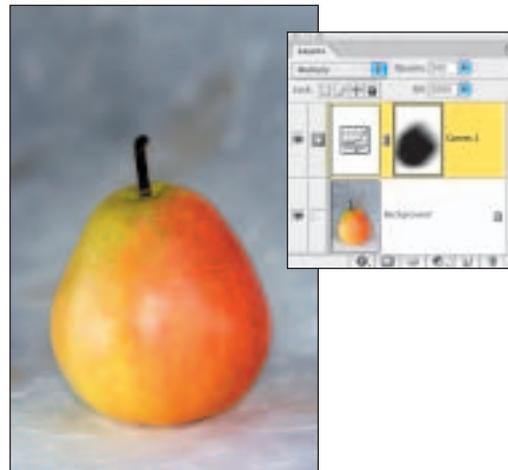


figure 7.13

Continue adding gradients to create an image to your liking.

8. If you are not at all happy with the effect, throw away the entire Adjustment Layer and start over.

Once you've darkened image edges like this a few times you'll be able to do it very quickly, giving your images a professional and subtle polish.

Balancing Image Exposure

Using the Gradient tool on a Levels or Curves Adjustment Layer is a quick and easy method for balancing exposure, as John Warner did with the panoramic image shown in [figure 7.14](#).

To balance the image exposure, John used a Curves Adjustment Layer with a graduated mask as follows:

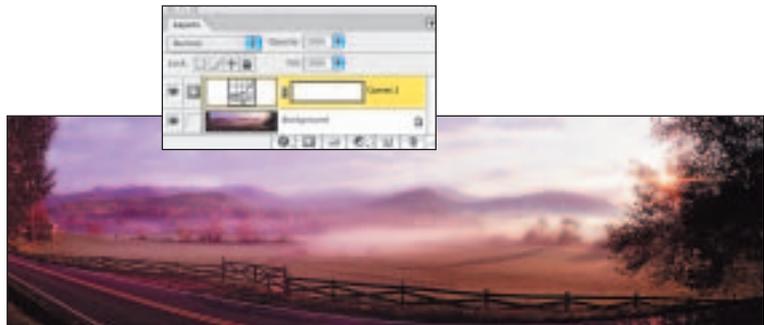
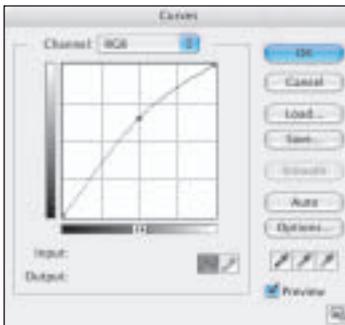
1. After scanning in the image, John added a Curves Adjustment Layer and lightened the entire image ([figure 7.15](#)).
2. By using a black-to-white gradient from right to left, he concealed the tonal change on the correct side of the image and let the change show through on the left, which lightened the left side and balanced the exposure perfectly ([figure 7.16](#)).

© John Warner Photography



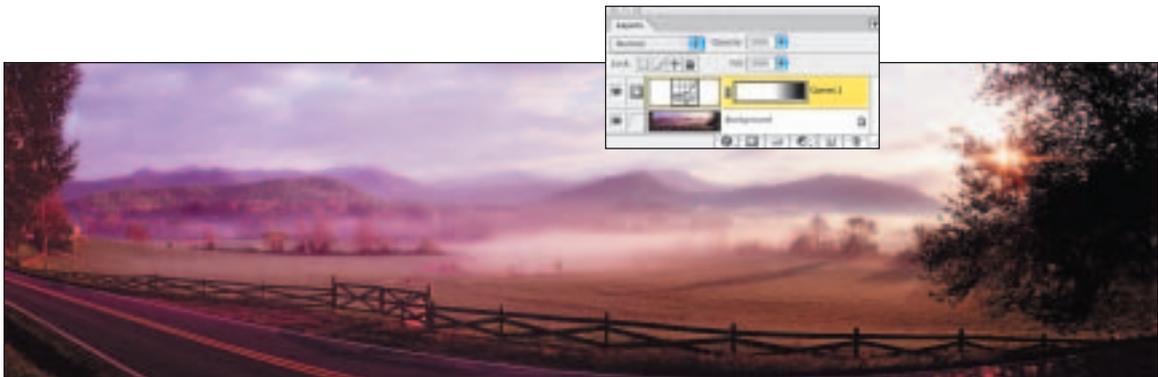
[figure 7.14](#)

The left side of the original image is just a little too dark.



[figure 7.15](#)

Lighting the entire image using a Curves Adjustment Layer.



[figure 7.16](#)

The Gradient tool concealed the change on the right side of the image and revealed it on the left side.

Seamlessly Blending Images

Building image backgrounds by combining two or more images is a fantastic method for building up a stock of creative backdrops. The Gradient tool can help you achieve good results very quickly.

 **ch7_sunset.jpg**

 **ch7_reflection.jpg**

1. Open the two images you want to blend and determine which one will serve as the background and which one will be in the foreground. Drag the top image over to the bottom image with the Move tool. When dragging images—especially Background layers—it helps to do it with confidence or as I like to say, *with schwing*. Otherwise, Photoshop will pop up the polite yet irritating message: “Could not complete your request because the layer is locked.” So drag quickly and with confidence. Pressing and holding the Shift key will place the top image exactly on the center point of the bottom image.
2. Add a layer mask to the top image and reduce the layer opacity to 50%. This helps you find the best position for the image, since you can see through to the lower image (see [figure 7.17](#)).

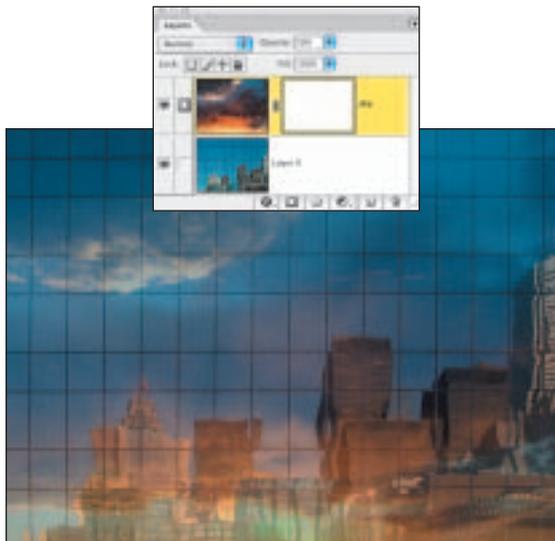


figure 7.17

After dragging one image onto another, reduce the layer opacity so that you can view the relationship between the two.

3. Click on the layer mask to make sure it is active, activate the Gradient tool, and choose the third gradient from the gradient library—black to white. Start the gradient where you want the bottom image to show through completely and draw up. Release the mouse when you reach the point in the top image that you want to see completely ([figure 7.18](#)).
4. Increase the layer opacity to 100% to see the results ([figure 7.19](#)).

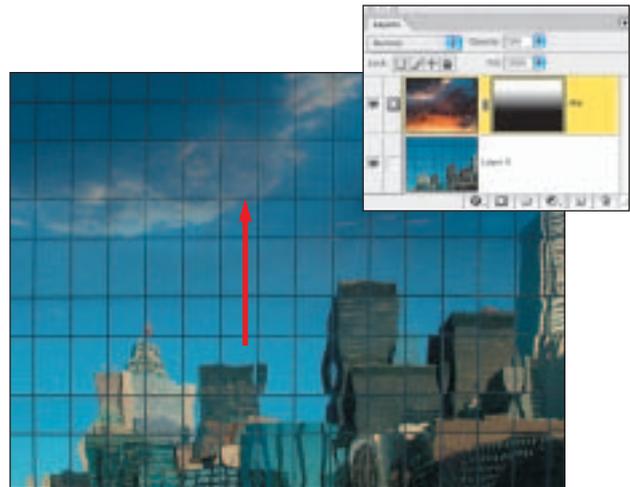


figure 7.18

Using a black-to-white gradient to reveal the buildings in the lower part of the image.

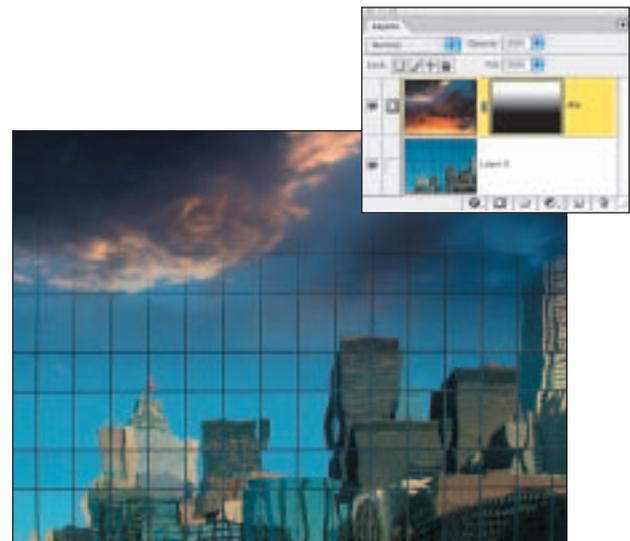


figure 7.19

Set layer opacity to 100% to see the image combination.

Adjusting Position

The layer and the layer mask can be moved together or independently of one another. To move the layer and mask together, make sure they are linked; to move either one independently, unlink them by clicking on the small chain between the layer and the Layer Mask icon.

To change the position of the sky:

- Move the sky with the layer mask ([figure 7.20](#)) by grabbing the top layer in the image and moving it using the Move tool.



figure 7.20

Moving the layer and the layer mask together.

- Move just the sky by unlinking the sky pixels from the layer mask. Click on the small chain between the layer and Mask icon ([figure 7.21](#)) and then make sure the layer is active before moving it.
- Move just the mask by unlinking the sky pixels from the layer mask. Click on the small chain between the layer and Mask icon, and then move the layer mask ([figure 7.22](#)).

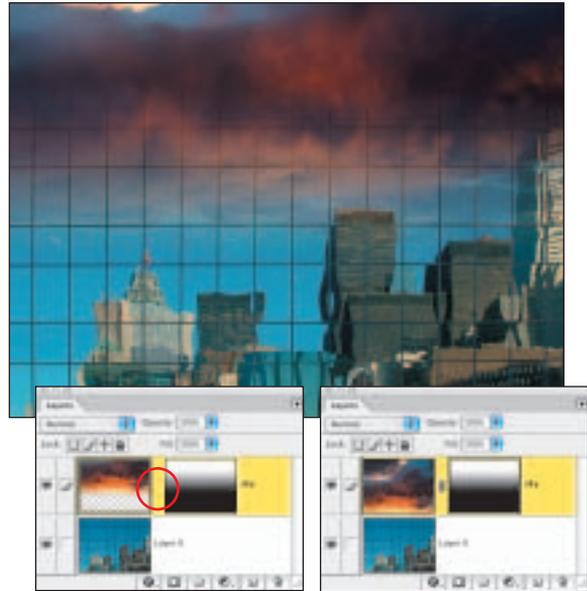


figure 7.21

Unlinking the layer and layer mask by clicking the link icon lets you move just the layer or the mask.

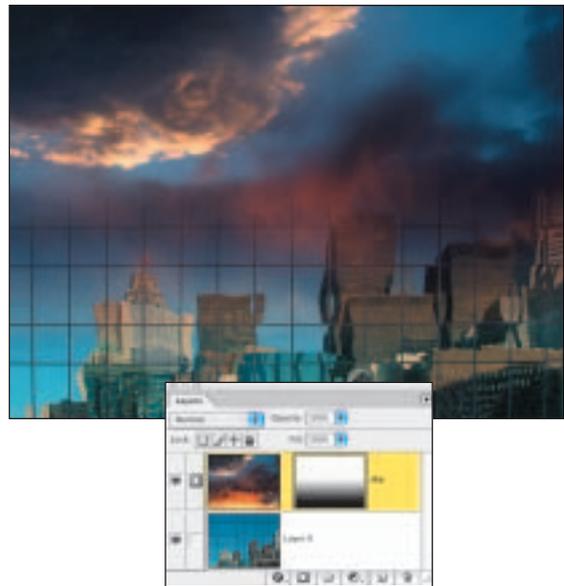


figure 7.22

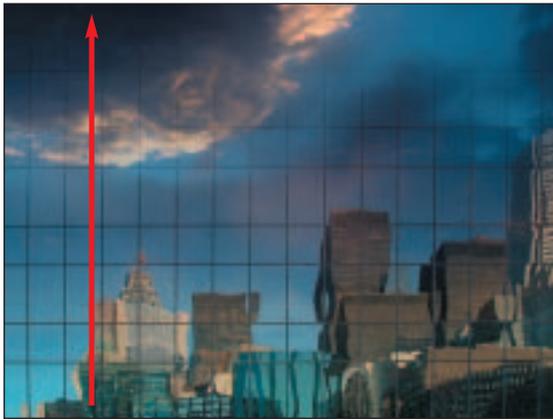
Moving the layer mask is very useful for fine-tuning the transition position.

There are many times when you want the mask to stay linked with the layer, but very often it is quite useful to move the layer mask—for example, when the steepness of the blend is perfect, but you want to change its position slightly.

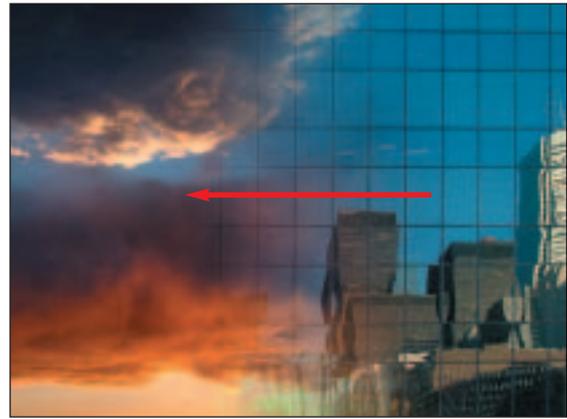
Experimentation

The best thing about the Gradient tool and layer masks is that you can redo the blend over and over again to get the image exactly right. Take a moment to experiment with the Gradient tool—create very steep transitions by only drawing for a short distance; create a very long transition by drawing the

gradient across the entire image. Try it going from right to left, or diagonally. I've provided a few variations in [figure 7.23](#). Every time you draw a new gradient, the previous blend is overwritten, letting you experiment to your heart's content.



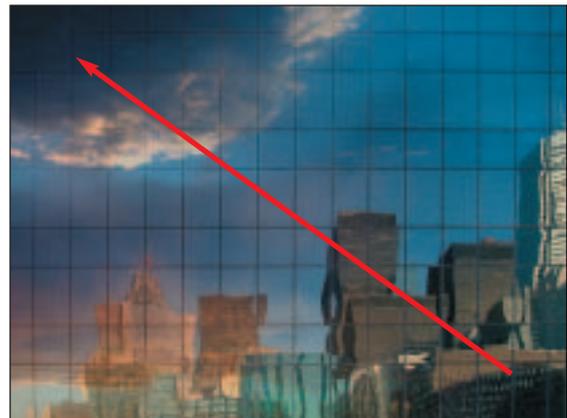
Long gradient



Right to Left gradient



Steep gradient



Diagonal gradient

[figure 7.23](#)

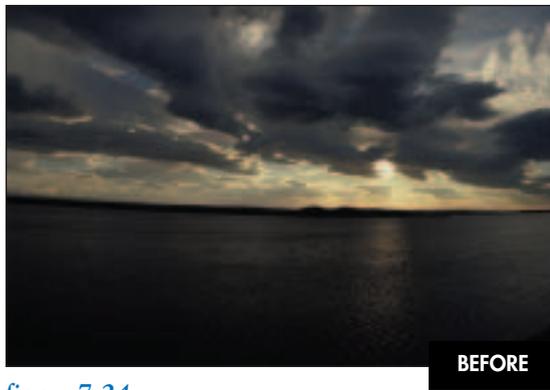
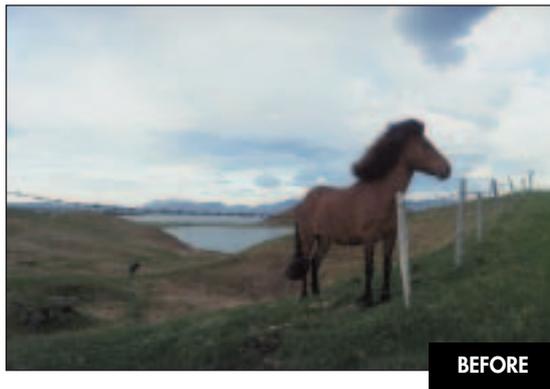
Experiment with the Gradient tool to create a variety of image effects.

Refining Blended Images

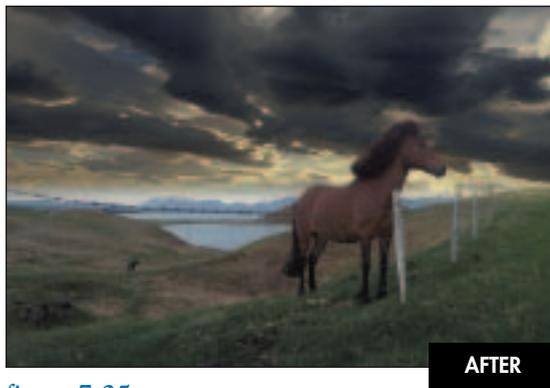
Many times an image combination requires more than a straight-line gradient to blend in a new background or sky, as shown in [figures 7.24](#) and [7.25](#), in which I replaced the sky with a more dramatic one.

 >< [ch7_stormsky.jpg](#)

 >< [ch7_pony.jpg](#)



[figure 7.24](#)

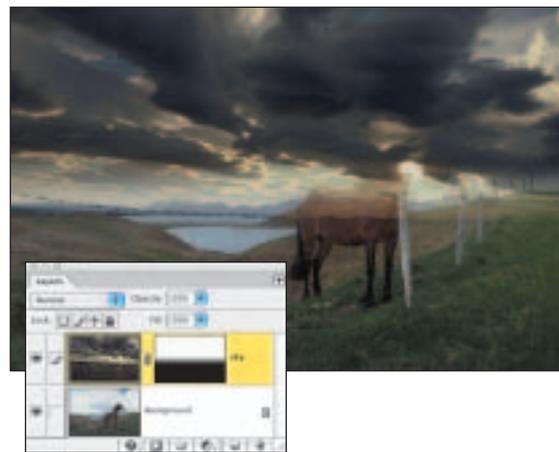


[figure 7.25](#)

Combine the Gradient and Brush tools to refine layer masks to improve images as described here.

1. Open both images and drag the sky image on top of the pony image.
2. Add a layer mask to the sky image and draw a gradient from below the horizon to the top of the new sky to create the results shown in [figure 7.26](#).

Now the problem is that the new sky is covering the pony, which of course needs to be in front of the sky.



[figure 7.26](#)

The initial gradient on the layer mask adds the sky but covers the pony.

3. Click on the sky layer mask, and using a black brush with 50% hardness, carefully paint inside the pony to block the sky from being visible, as shown in [figure 7.27](#).
4. (Option-click) [Alt-click] the layer mask to see exactly what is going on—the gradient is letting the new sky blend in, and the black areas are blocking the sky from affecting the pony ([figure 7.28](#)).
5. If by chance you paint into the sky and see a telltale halo ([figure 7.29](#)), (Option-click) [Alt-click] the gradient directly adjacent to the mistake. This samples the gray with the density of the gradient, and as you paint the sky will blend in without showing any density differences.

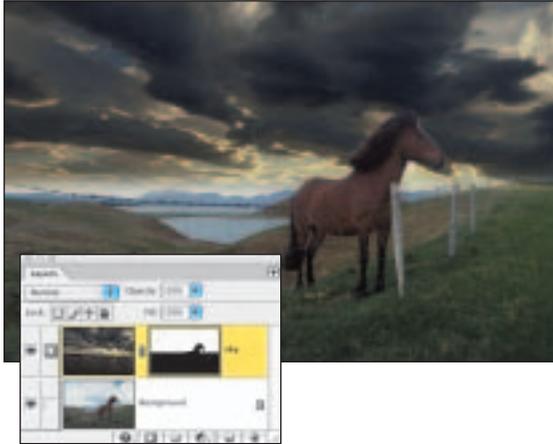


figure 7.27

Painting on the layer mask protects the pony from being affected by the sky layer.

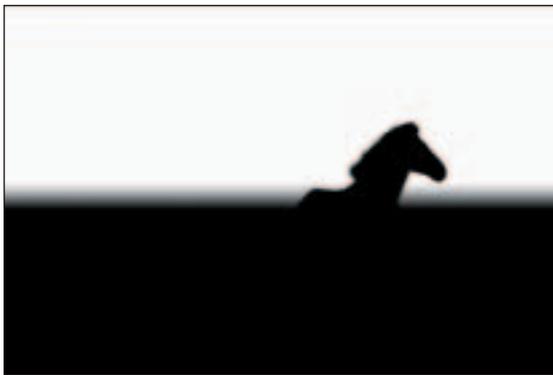


figure 7.28

Viewing the layer mask is often a good way to catch errors.



figure 7.29

The lighter halo around the pony's head is a telltale sign of poor masking.

6. If necessary, (Option-click) [Alt-click] to sample darker or lighter density areas from the gradient as you work up or down the pony's head. You can see the detail work I did in [figure 7.30](#).

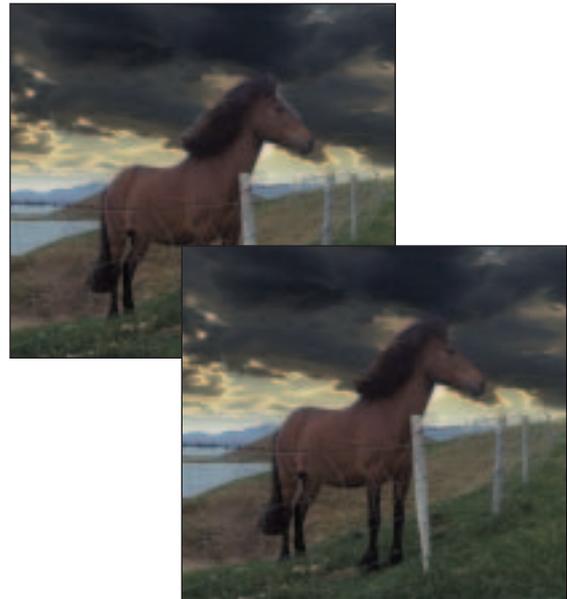


figure 7.30

Sampling the density of the gradient lets you paint on the layer mask to remove halos.

Selective Changes

When you make a selection and then add an Adjustment Layer, Photoshop automatically transfers the active selection to the layer mask and the adjustments only take place within the active areas. Starting with a selection is demonstrated here to correct the backlit photograph of the golf course sign:

  **ch7_golfsign.jpg**

1. Select the sign with the Polygon Lasso tool and feather the selection by 1 pixel to soften the edges ever so slightly ([figure 7.31](#)).
2. Add a Curves Adjustment Layer and raise the midtones ([figure 7.32](#)). As you can see, Photoshop has transferred the Lasso selection into the layer mask. The selected area—the sign—is white, so the Curves correction only takes place through the white areas of the mask, lightening the dark sign.



figure 7.31

Select the area you need to change.

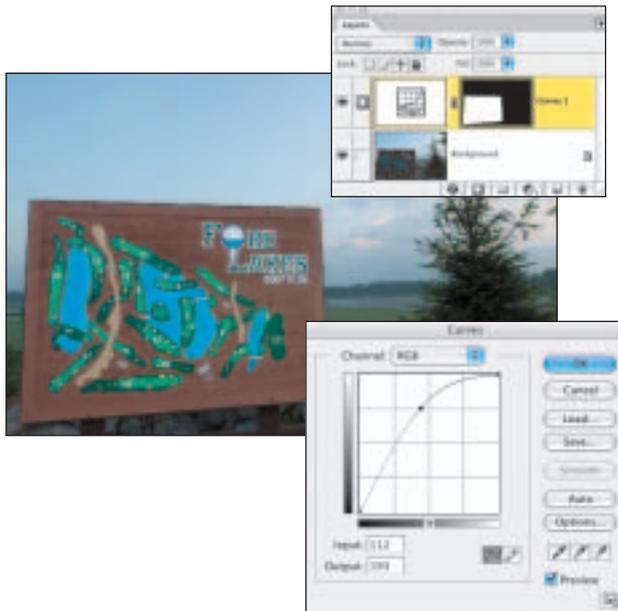


figure 7.32

Adding an Adjustment Layer with an active selection lets you work on the active area without affecting the rest of the image.

3. To soften the transition between the lighter sign and the background, choose Filter > Blur > Gaussian Blur and use a low setting of 1.

All active selections will automatically be transferred into the layer mask when you add an Adjustment Layer, allowing you to fine-tune images with great precision and care. You'll find lots more information on applying tonal and color corrections in one of my other books, *Photoshop Restoration and Retouching*.

MERGING PHOTOGRAPHIC EXPOSURES

Photographers are always looking for better tools and techniques to express their vision and not let the limitations of their tools negatively impact the quality of the final image. Some of the limitations they face include:

- The dynamic range of the scene is wider than what the digital camera or film can capture.
- The lens isn't wide enough to frame the full grandeur of the scene.
- The natural light doesn't illuminate the scene properly.
- The scene contains mixed color temperatures that conflict with one another.

Today photographers still face these challenges, but their tools have improved—they use professional digital cameras and can preview their images on laptops while on location or on set. The huge advantage of working with a professional digital camera is that a photographer can combine a series of exposures or acquire the file with multiple settings in Photoshop to achieve the following:

- Extend the dynamic range
- Expand the view of the scene
- Capture light over time
- Color balance a scene without having to gel or filter the lights or lens

Note that you can achieve similar results when working with film capture. However, the advantage of working with a high-quality digital RAW file—which is the native, unprocessed data as it was captured by the camera sensor—and the precision with which you can register the multiple files does give digital capture the definitive upper hand.

Adobe Camera RAW

Many prosumer and professional digital cameras produce RAW files, which offer a number of advantages, including hi-bit depth, lack of compression artifacts, and flexibility in image processing. Check

your camera's documentation to determine if it will shoot RAW files.

I use the Adobe Camera RAW feature in Photoshop CS to process RAW files from my Nikon and Fuji cameras. In the example in the following section, we'll process the same RAW file twice to create a well-exposed image.

Luminance Masking

Very often a scene will have too much contrast. No matter how you adjust the camera exposure or tweak the file in software, either the highlights are too bright or the shadows are blocked. To create a file with detail in both the highlights and shadows, start by acquiring the same RAW file twice—once for the highlights and once for the shadows—so that you can capture the best of both images and create an image that has good shadow information and bright highlights with detail.

 [ch7_helmet.nef](#)

1. Working with RAW files in Photoshop CS opens the Adobe Camera RAW interface. Use the sliders to process the image so that it captures good highlight information. The shadows will look washed out, but that is fine. Make sure to keep the file in 16-bit ([figure 7.33](#)) and save it to your hard drive using the name *your subject_light.psd*.
2. Open the original image in Adobe Camera RAW again, but this time process it so that it captures good shadow information ([figure 7.34](#)). Now the highlights will be completely blown out and without detail—that is OK. Save the file to your hard drive using the name *your subject_dark.psd*.
3. Drag the light file on top of the dark file. Press the Shift key while dragging so that the file lands in perfect registration. Rename the layers to make it easier to keep track of which is which.

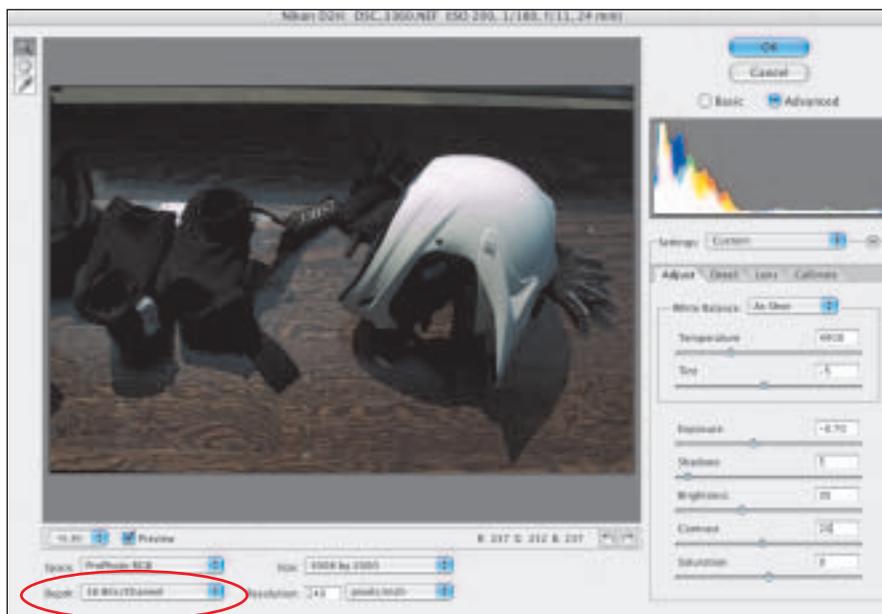


figure 7.33

Acquiring the file for the highlight values.

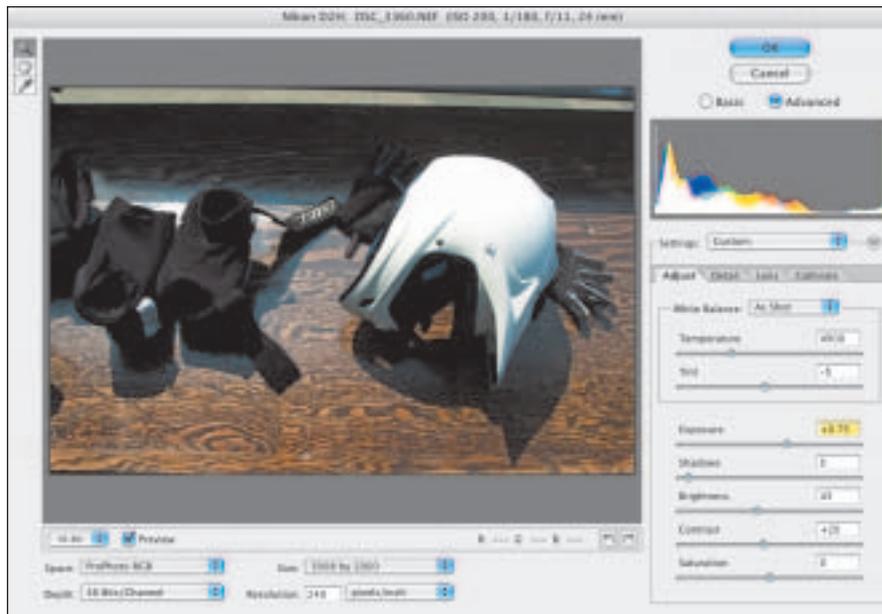


figure 7.34

Acquiring the file for the shadow values.

4. Turn off the highlight layer, click on the dark layer to activate it, and load the image luminosity by pressing (Cmd + Option + ~) [Ctrl + Alt + ~]. If your keyboard doesn't have a tilde key (~), (Cmd-click) [Ctrl-click] on the RGB icon in the Channels palette. Loading the luminosity activates the brightness values in each channel that are above 128, and the resulting selection is shown in [figure 7.35](#).
5. Turn on and activate the highlight layer. Click on the Layer Mask button, which transfers the luminosity mask to the layer mask and seamlessly combines the images ([figure 7.36](#)).
6. To refine the layer mask, use Curves to darken the mask ([figure 7.37](#)). Keep an eye on the image highlights via the Info palette; you don't want them to go above 245. Make sure the helmet maintains subtle tonal detail in the highlights.

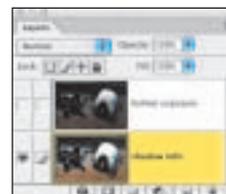


figure 7.35

Turn off the top layer and activate the Background layer before loading the image luminosity.



figure 7.36

Turn on the top layer and activate it. Clicking on the Layer Mask button transfers the active selection to the layer mask.

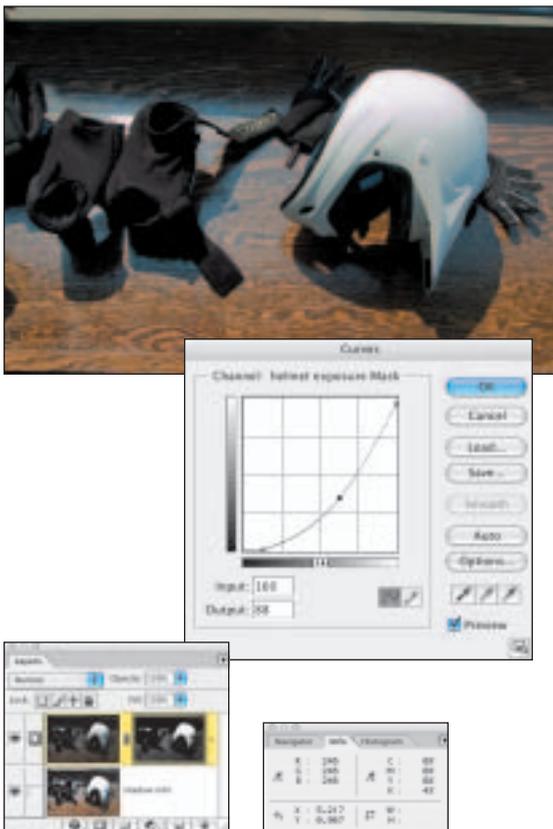


figure 7.37

Adjusting the layer mask using Curves lets you fine-tune the image combination.

- Adjust the layer opacity for the desired effect. I often experiment at the same time with the layer blending modes to see if the effect is pleasing. To create the final image, I reduced the top layer opacity to 80%.

Tip

After acquiring a RAW file, duplicate it and close the original without saving changes. This lets you reopen the same RAW file without having to save the first one to your hard drive.

Once the images are combined and you've saved the new combination version, you can delete the saved files. All in all, this is a good technique to quickly help you bring image contrast within a printable range—special thanks to Stephen Johnson and Jeff Schewe for showing me this technique.

Emphasizing the Essential

Similar to the luminance-masking technique I just discussed, you can also extend an image's dynamic range to increase image drama by deciding which areas you want to reveal or conceal in creating the final image.

ch7_cloudtower.nef

- Follow Steps 1 and 2 of the previous task to acquire the same image file twice—once for the highlights, in this example the clouds (**figure 7.38**), and once for the shadow information of the castle ramparts (**figure 7.39**). Remember to save the first file after you acquire it to your hard drive so that you can open the original RAW file again with different Camera RAW settings.
- Drag the images into one file, add a layer mask, and use the Gradient tool to initially combine the images (**figure 7.40**).
- Use a large soft, black brush to paint over the towers to complete the photograph, as shown in **figure 7.41**.

This technique is useful for accentuating specific image areas with the ability to paint information back and forth via the layer mask.

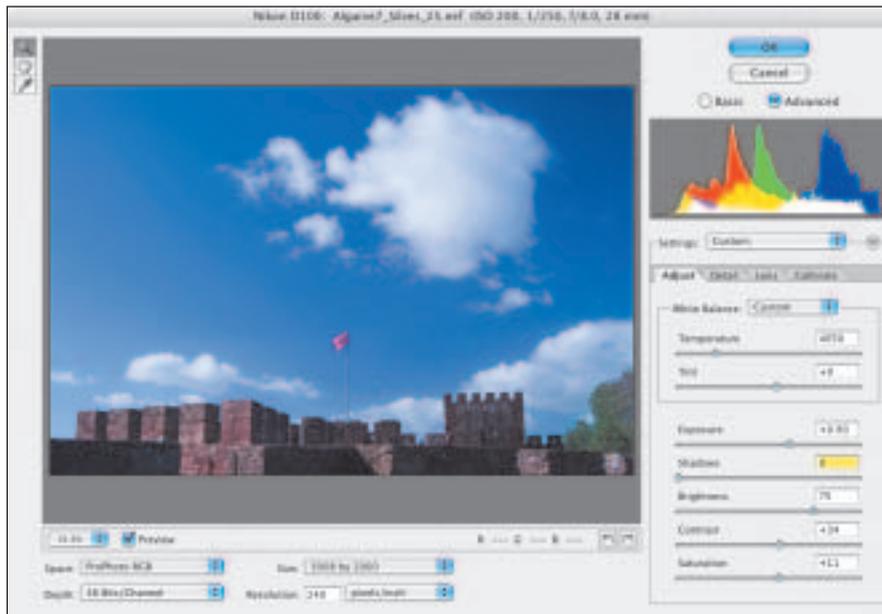


figure 7.38

Acquiring the file for the highlight values.

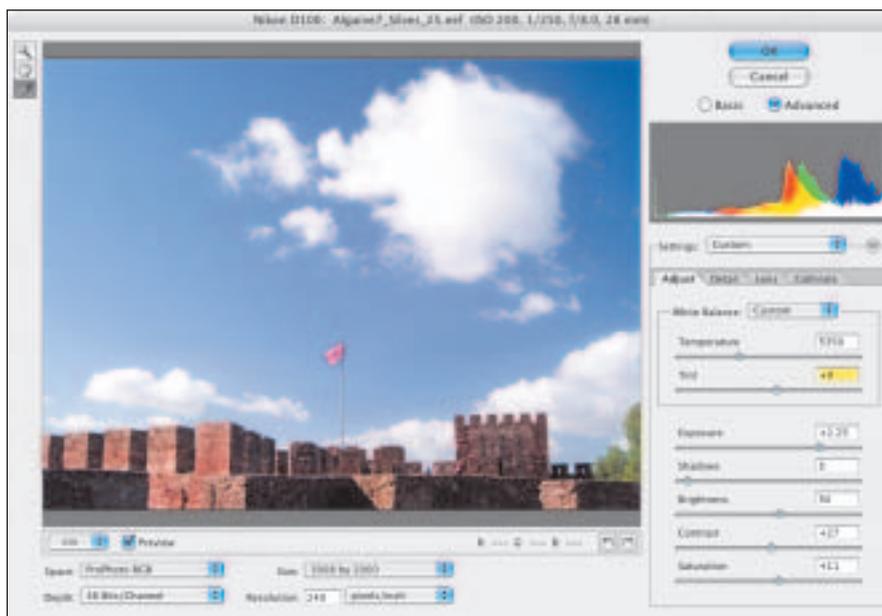


figure 7.39

Acquiring the file for the shadow information of the tower stone.

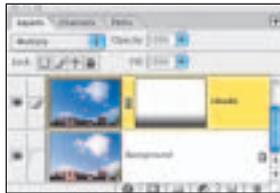


figure 7.40

Use the Gradient tool on the layer mask to create the initial image combination.

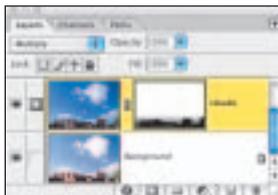


figure 7.41

Painting over the towers in the layer mask with a soft black brush allows the shadow information to show through.

Increasing Dynamic Range

John Warner is the consummate professional photographer—skilled, talented, creative, conscientious, and always ready to try new tools and techniques to produce better images. Having worked for over 20 years with film technology, John is now an avowed digital photographer who takes great pleasure in planning, composing, and compositing images. One of John's specialties is interior and exterior architectural photography—a field that brings many constraints and challenges with it. For example, it's pretty hard to move a building to face the light, or to close the window to control the exposure, when the client wants to simultaneously see the beautiful view and the interior of the room.

John photographs with high-end, digital cameras. After framing the image, he locks down the camera on the tripod and takes separate exposures for shadows, midtones, and highlights to create images that hold information from the darkest shadows to the brightest highlights.

Caution

When photographing multiple exposures, it is very important to set the camera to either manual exposure or Aperture Priority, both of which let the photographer set the f-stop (the aperture) and adjust exposure by changing the shutter speed. The slightest variation in f-stop will change the depth of field and the size of the subject in the image ever so slightly, making it more difficult to seamlessly combine the images.

Combining Exposures Using Layers and Masks

After photographing two exposures for the bedroom scene—one for the room ([figure 7.42](#)) and one for the exterior setting sun ([figure 7.43](#))—John acquired and saved each file with the respective names *outside* and *inside*, and then blended them in Photoshop as follows:



figure 7.42

John always exposes for the brightest values first, which in turn determine the ensuing exposures.



figure 7.43

The exposure for the window light.

1. After bringing the two exposures into one file, John needs to mask the windows to combine the two exposures. He inspected the three channels of the inside layer and saw that the blue channel had the clearest window information (**figure 7.44**).
2. He duplicated the blue channel and increased its contrast with Curves (**figure 7.45**). He then selected all the nonessential image area—everything that is not window—and filled it with black (**figure 7.46**).
3. Returning to the Layers palette, John activated the window alpha channel using (Cmd + Option + 4) [Ctrl + Alt + 4]. He made sure the inside layer was active and clicked the Layer Mask button, which transferred the active selection to the layer mask (**figure 7.47**).



Red



Green



Blue

figure 7.44

The blue channel has the clearest window definition.



figure 7.45

Increasing the contrast using Curves makes the alpha mask denser and better defined.

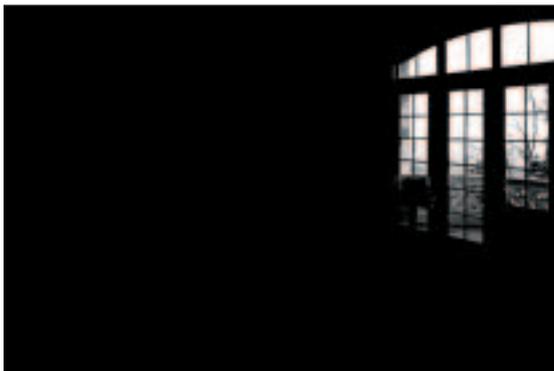


figure 7.46

Areas that don't contain window information are filled with black.

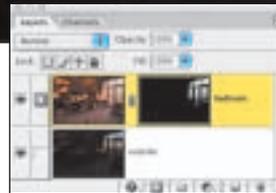
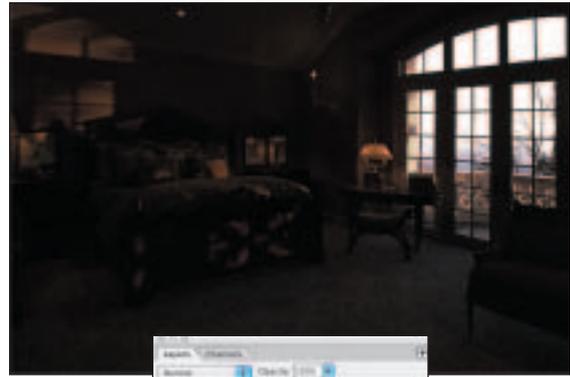


figure 7.47

After transferring the alpha mask to the layer mask.

4. John inverted the layer mask to reveal the room interior (**figure 7.48**).
5. Upon careful inspection, John refined the layer mask using a slight Gaussian Blur and a bit of painting to repair any unsightly seams to create the final image shown in **figure 7.49**.

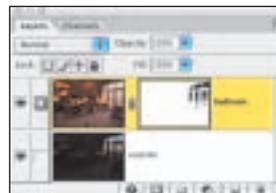


figure 7.48

Inverting the layer mask reveals the window exposure.

**figure 7.49**

The final image.

All in all, this technique works best with static subjects such as buildings and still lifes. In the example shown in [figure 7.50](#), the final image required three separate exposures: the room interior, the outside scene, and the fireplace. John then combined the three exposures and added a few additional flames to the fire to make the room even more inviting.

Combining Color Temperature

Photographing an interior scene with natural daylight coming in through the windows has always been a challenge for architectural photographers. This is because in most cases the room is lit with tungsten light, which has a color temperature of 3,400 degrees Kelvin and is inherently orange. The daylight coming through the windows is approximately 5,500 degrees Kelvin and is much bluer than the tungsten light.

To compensate for this, the photographer could either cover the windows with expensive gels (filters) to bring the color temperature down, or use daylight-balanced light to illuminate the interior, which in turn would conflict in color temperature with the room's lighting fixtures.

Working with a Canon digital camera, Mark Beckelman developed an elegant solution that requires him to photograph the scene only once as a RAW file, acquire the file three times in Adobe Camera RAW with different color temperature settings, and then combine the separate files as described here:

  [ch7_kitcheninterior.jpg](#)

  [ch7_kitchenexterior.jpg](#)

  [ch7_kitchenstove.jpg](#)



© John Warner Photography

figure 7.50

After photographing the scene three times, John Warner combined the exposures to create this final image.

1. Mark shoots only in the RAW file format, which yields both higher image quality and greater creative interpretation upon acquiring the file. In this instance he acquired the same image three times ([figure 7.51](#))—once with tungsten for the interior scene, once with daylight color balance for the exterior light seen through the windows, and once as a darker version that maintained the detail in the bright wall above the stove.



Interior exposure



Exterior exposure

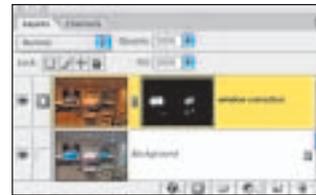


Highlight exposure

figure 7.51

Acquiring the same exposure three times using different Camera RAW settings is the foundation of the composite.

2. Using the primary interior exposure as the Background layer, he Shift-dragged the window layer on top and named the layer *window*.
3. Mark outlined the windows with the Pen tool, turned the path into a selection, and clicked the Layer Mask button of the window layer, which added a layer mask. The mask reveals only the windows ([figure 7.52](#)) and now combines the daylight-balanced exterior with the interior.

**figure 7.52**

Combining the interior with the exterior exposures.

4. Mark noticed some daylight spill ([figure 7.53](#)) that was contaminating the scene. He removed it by painting on the window layer mask with a low-opacity, soft white brush to reveal the color-corrected layer.
5. After Shift-dragging the stove highlight file onto the composite, he (Option-clicked) [Alt-clicked] on the Layer Mask button to add a black layer mask that concealed the entire layer. He then subtly painted back the highlights with a low-opacity, soft-edged white brush ([figure 7.54](#)).

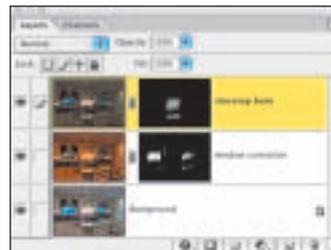
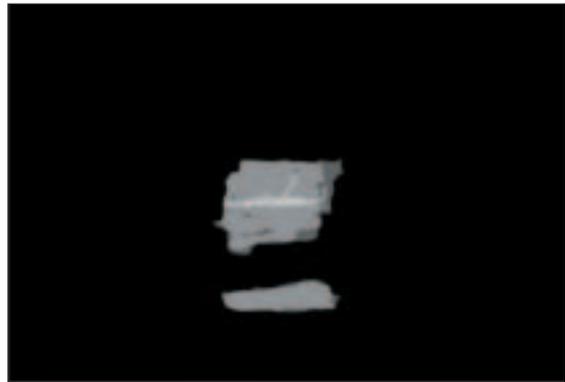


figure 7.54

The light brick above the stove was acquired separately and then blended with a painted layer mask.

figure 7.53

Light has a tendency to spread and spill, which can be corrected with layer masking.

Removing Color Contamination

Being the accomplished professional that he is, Mark noticed a few hints of blue, caused by the daylight that hit the reflective surfaces of the lighting fixtures and on the kitchen counters (**figure 7.55**). He used the following sophisticated technique to neutralize the color spill:

1. After zooming in on the blue, Mark added a Photo Filter Adjustment Layer, clicked on the square Color picker, and sampled the offending blue color (**figure 7.56**). For additional information on working with the Photo Filter Adjustment Layer feature, see Chapter 12, “Photorealistic Compositing.”
2. To neutralize the blue, he needed the exact opposite color, which is only possible to calculate with the LAB values. LAB is a color mode that defines the image as Luminance and two color channels. It is used to calculate color relationships. If the A or B values are positive, making them negative, or vice versa, will flip the color values exactly to the opposite (**figure 7.57**). To neutralize the color completely, Mark increased the density of the color correction to 100%.
3. He then inverted the layer mask and painted over the offending blue with a small, soft-edged white brush to remove the color along the kitchen curtain and the chrome lights (**figure 7.58**).



figure 7.55

Paying attention to the smallest reflections and color details is part of being a professional photographer.

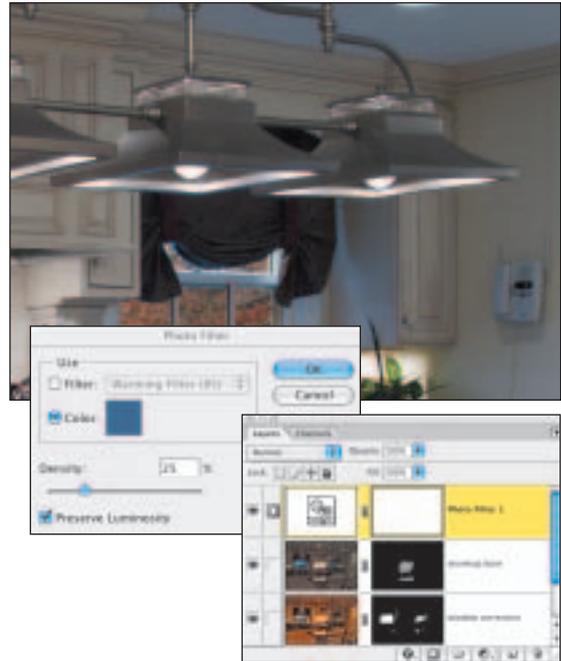


figure 7.56

After adding a Photo Filter layer, Mark sampled the offending blue color.

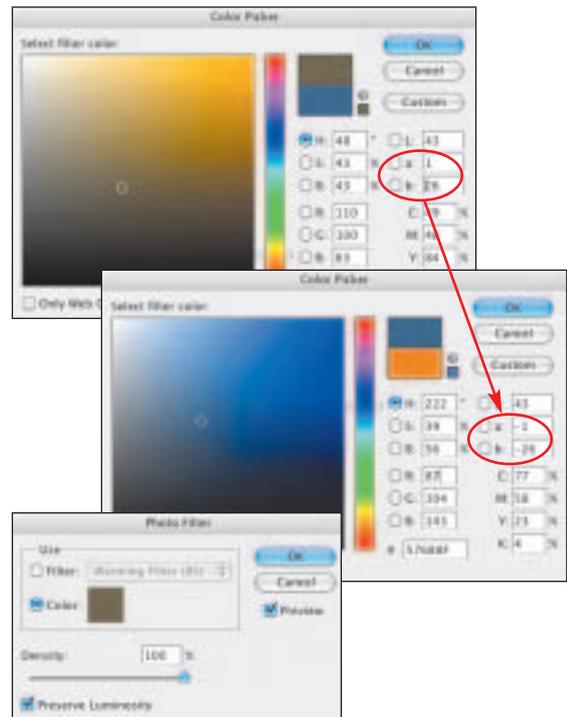


figure 7.57

Invert the A and B values to create the opposite color.



© Mark Beckelman

figure 7.58

Painting away the blue reflections polishes the image.

Creative Color Interpretations

Accentuating color temperature differences can add a beautiful creative twist to your images. [Figure 7.59](#) shows the same camera RAW file acquired twice—once with daylight settings and once with interpretive color settings. As John Warner explains, “The first version is color balanced as if the light source were near tungsten, so the Blue Ridge Mountains become very blue. For the second

version, I re-adjusted the Adobe Camera RAW settings to yield a smoky sepia and dialed down the exposure to keep the sky from burning out.”

After acquiring and saving both files, John Shift-dragged the warmer file onto the blue file, and added a layer mask to the top file (the warmer file). He then used a large, soft brush to paint in the sepia tones. After changing the blending mode of the sky to Color, the image comes together ([figure 7.60](#)).



figure 7.59

Acquiring the same camera RAW file twice using different color balance settings.

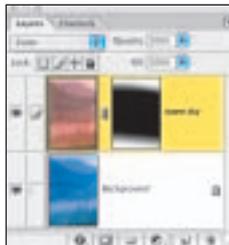


figure 7.60

Combining the two color-interpreted files using a layer mask creates a hauntingly beautiful image.

Note

You can use the Mergenator script to automatically combine files that were acquired with different color temperature or exposure settings. Developed by Thomas Ruark and Julieanne Kost from Adobe Systems, Mergenator makes layered documents on which you apply layer masking to create the final image. To use the Mergenator, first install the script into the Presets/Scripts folder, make three folders (for example, Color 1, Color 2, and Done), and then select File > Script > Mergenator (**figure 7.61**) to create a new composite image without your having to open and drag the images manually.

🌐 ch7_Mergenator.sit



figure 7.61

To automatically combine the images, point the Mergenator Script at the two images containing the color-interpreted files and the composite folder.

Extending the Time of Day

For me, watching a sunset is as good as watching a thrilling Hollywood movie. But often when I photograph the scene, I'm disappointed by the results. In most cases, this is because either the sky looks good but the landscape is too dark, or the landscape looks good but the sky is washed out.

In the following example, John Warner set up his camera on a rooftop high above Asheville, North Carolina, and made two separate exposures—one for the cityscape, which required a longer shutter speed to capture the shadow detail, and one for the sunset. For a first-person commentary from John about the differences between getting multiple exposures using film versus digital, see the sidebar.

Obtaining Multiple Exposures Using Film and Digital: An Imagemaker Reflects

“When I worked with sheet film and a 4 × 5 Sinar view camera, doing double exposures on the same piece of film was tedious at best. It required exposing for the mountains and the sky at sunset, which left the city buildings looking like dark cardboard cutouts. After the sun went down, I had to keep the camera absolutely still for another hour until the sky was black and the city lights were gleaming. Then with a 40 magenta filter over the lens, I would re-photograph the scene for 8 minutes to ‘burn’ the city lights into the dark building shapes. Because the sky was black, no additional exposure would wash out the sunset, sky, and mountains. Of course, with this technique I had only one chance per sunset to get it right.

“Digital is far more forgiving. The approach is essentially the same as with film—it requires getting a good sunset shot that correctly exposes the sky and the mountains but leaves the foreground buildings as dark objects. About 45 minutes after sunset, I capture some additional shots exposing for the city lights ([figure 7.62](#)). Using Adobe Camera RAW, I can correct the color balance of the artificial lights away from their greenish cast, which eliminates the need

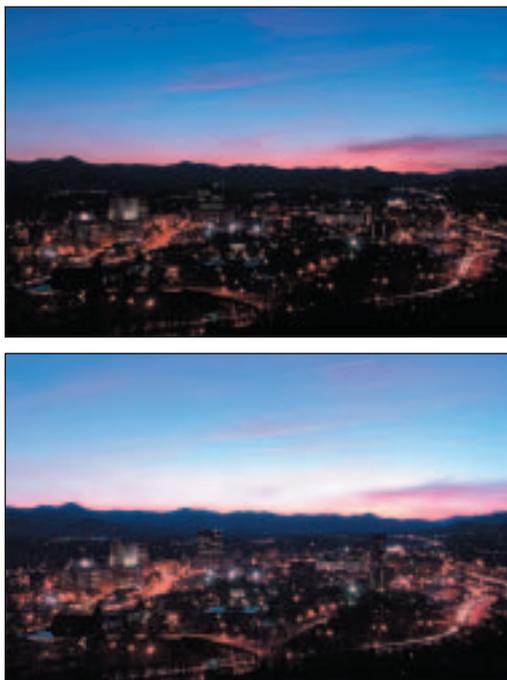


figure 7.62

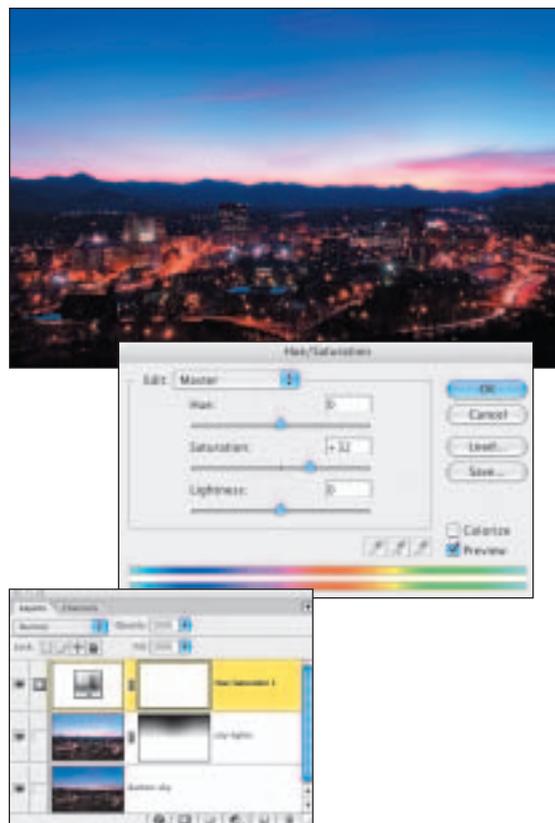
The proper sky exposure is on the top, while the proper city lights exposure is on the bottom.

for the 40 magenta filter. Shift-dragging the night exposure over to the sunset using the Lighten blending mode completes the composite. Another key advantage of digital is having multiple sunset frames to choose from, unlike the film example where you get one per session.”

—John Warner

To combine the multiple exposures of the sunset scene, John did the following:

1. After Shift-dragging the city file onto the sunset file, John added a layer mask and used a large, soft-edged, black brush at 35% opacity to paint over the sky, which concealed the washed-out sky and revealed the properly exposed sky.
2. To boost the saturation of the sunset, he added a Hue/Saturation layer and increased the saturation by 30% to create the final image ([figure 7.63](#)).



© John Warner Photography

figure 7.63

After blending the two exposures together, John used a Hue/Saturation layer to saturate the sky.

Modeling Architecture Using Light

One of the best aspects of working on a book like this is the opportunity to learn from many different imagemakers. Take a look at the home in [figure 7.64](#). Now take a look at the seven separate photographs John took to capture the best light for the

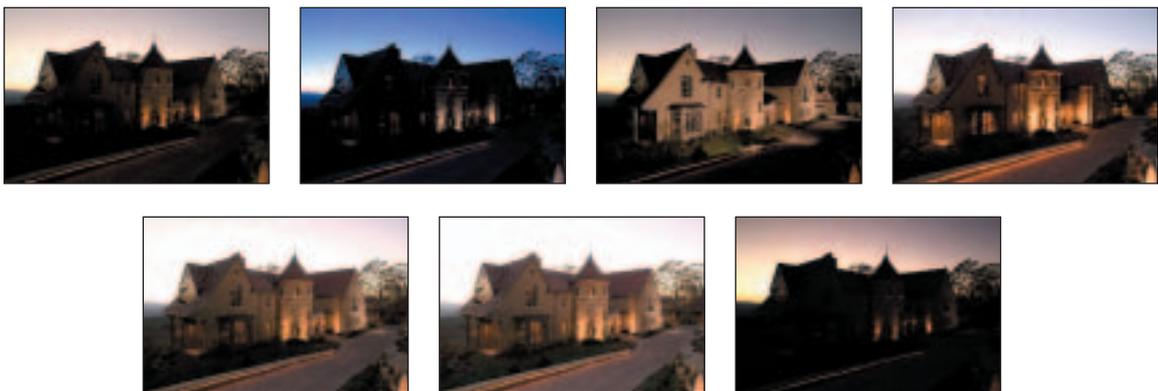
various aspects of the home, from the façade he lit with portable flash units; to the rooms where he used a warmer, more inviting light; to the exposures for the driveway, the sky, and the mountains in the background ([figure 7.65](#)).

© John Warner Photography



[figure 7.64](#)

The final composite was created from seven separate exposures.



[figure 7.65](#)

The seven component images were shot over a three-hour time period.

John arrived a few hours before sunset to find the best angle to photograph the house and to plan the lighting. As he told me, “I always begin with the exposures of the exterior first, as they are the overall brightest elements in the image.”

1. After downloading the files, John identified the best exposures for each element of the building. Starting with the initial exposure, he added the sky file and painted away the driveway with the layer mask and a soft-edged brush (**figure 7.66**).
2. He then added the lighter layers for the façade and room lights, all of which he set to the Lighten blending mode and adjusted the opacity to lighten the areas without overexposing them (**figure 7.67**).
3. John added the roof exposure and a layer mask and then painted away everything except the roof (**figure 7.68**).
4. He used two layers to enhance the driveway. Finishing touches included removing the distracting stripe of lights along the walkway and color correcting the stones on the right side of the frame to create the image shown in **figure 7.69**.



figure 7.66

Using the initial exposure as a guide, the sky is added.

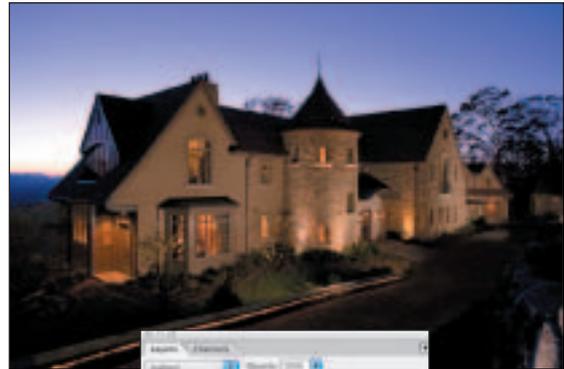


figure 7.67

The Lighten blending mode adds natural-looking window lights.

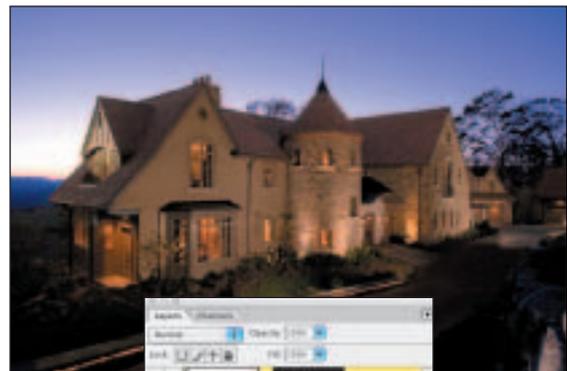


figure 7.68

The roof was photographed earlier in the day.

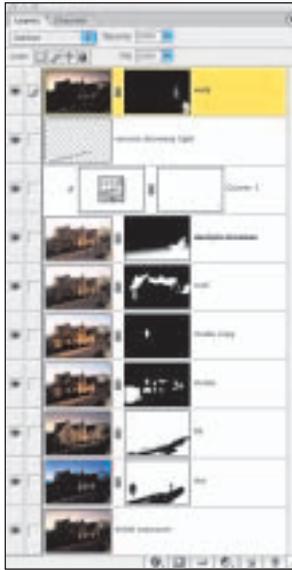


figure 7.69

The final composite.

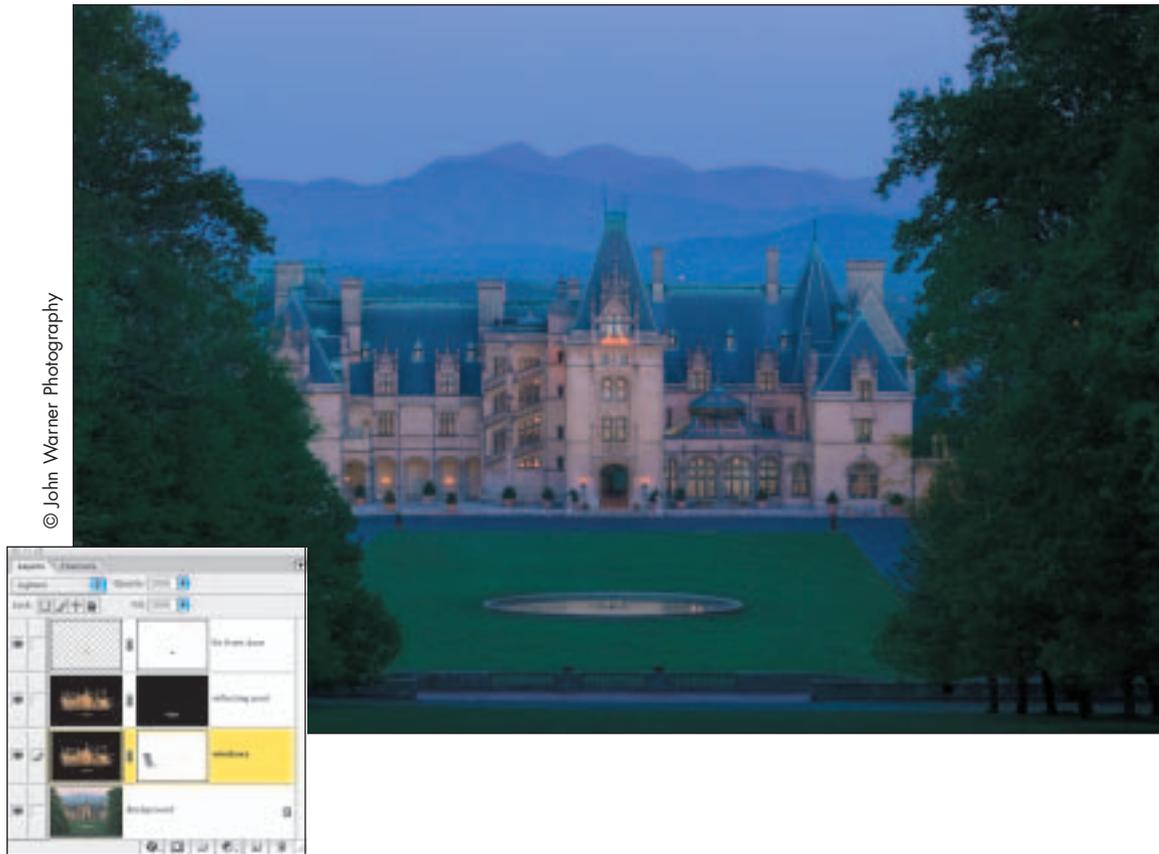
Extending the Seasons

Photographing a large subject over time requires patience—but the results are certainly worth it as the photograph of the Biltmore Estate in Asheville, North Carolina, reveals. Taken over a period of a few months, the final composite combines a night shot with a late spring photograph in which the trees frame the estate (figure 7.70) to create the final composite shown in figure 7.71.



figure 7.70

Photographed over a period of a few months, the two images each carry important information.



© John Warner Photography

figure 7.71

The final composite is a stunning example of combined images.

Tip

To photograph the same subject over the course of days, weeks, or months, it is necessary to triangulate the tripod. After you set up the first shot, measure and write down the height from the tripod head to the ground. Then measure and note two vertical distances to fixed objects and the tripod head. If you use a zoom lens, also note the exact zoom setting you used. In the example of the Biltmore Estate, John was standing between two columns which he used as anchor points to triangulate the exact position of the tripod head so that he could return months later and set up in the same spot.

CLOSING THOUGHTS

Remember, if you want to conceal an area, paint the layer mask with black; if you want to reveal more of a certain area, the layer mask must be white. That's all there is to it—so grab a few files, stack them on top of one another, add some layer masks, and then start painting to hide, reveal, and conceal the image areas. I promise that if you do this a few times, you'll become a happy Photoshopper who can finally say, "I get it!" More importantly, you'll enjoy working with Photoshop more.

Photoshop®

Masking and compositing are two of the most fascinating aspects of creative imagemaking and are essential to master if you're trying to create truly inspiring images. Working with Adobe Photoshop, digital imaging artists use masking to separate subjects from their original environments and then seamlessly composite, or combine, image elements to create movie posters, contemporary book covers, and stunning fine art. The possibilities are endless: Designers often composite images for advertising, placing products into fantastic environments. Editorial illustrators use compositing to create compelling images that express abstract concepts. Professional photographers often use compositing to create photographs with perfect lighting and exposure range. And many amateur photographers create composites when they replace drab or distracting backgrounds in their family photos.

In *Photoshop Masking & Compositing*, Katrin Eismann, author of the bestselling *Photoshop Restoration & Retouching*, zeros in on the fine points of this craft, such as creating detailed selections, employing advanced masking techniques, harnessing professional layer effects and channel strategies, and working with color and lighting to blend images while preserving fine detail. Whether you are a professional photographer, commercial illustrator, graphic designer, dedicated amateur, or teacher, Katrin can help you work more skillfully and efficiently than ever before to realize the images in your imagination.

Computer Book Shelf Category: Photoshop
User Level: Intermediate-Advanced



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800-283-9444 • 510-524-2178
510-524-2221 fax
www.peachpit.com

Cover Design: Aran Howell
Cover Images, from left to right: Mark Beckelman,
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Katrin Eismann is an internationally respected lecturer and teacher on the subject of creative imaging, restoration, retouching, digital photography, and the impact of emerging technologies upon professional photographers, artists, and educators. Her photography and artwork have been featured in numerous magazines, books, and exhibits. Her previous books include *Photoshop Restoration & Retouching* and *Real World Digital Photography*.



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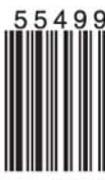


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ISBN 0-7357-1279-4



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