



# Targeting Change with Layers

One of the primary values of working in Layers is isolating image areas for change. This gives you the freedom to correct image areas independently and revisit changes as part of image development and work flow. Once you use Layers to isolate changes, you can make adjustments and then fine-tune the adjustments in non-destructive ways that are impossible using selection alone.

Layers allow you to isolate changes in many different ways. In fact, the bulk of this book is really dedicated to describing how different layer features enable change in images. This chapter looks at the simplest concepts behind isolating change and the non-destructive editing work flow, including the purpose and use of Adjustment layers, and the idea of isolating objects and areas within images in the simplest form. As we go, we'll look at several key concepts for image correction that apply to just about any image you will work with to

form the core of your correction work flow. This includes adjusting dynamic range, color correction, and color balance as an initial application of layers in your images.

### Adding Layers for a Change

As mentioned in the previous chapter, you want to add a new layer for each change. Some layers may follow this rule very strictly: one layer one change. Other times it can get a little more complicated, but it still follows the same idea. There will be times, for example, that you will use a single layer and correct 100 dust specks. There will be other times that making an adjustment will take several layers to do it effectively. Occasionally you will make a layer to isolate an image area or object (to give freedom in adjusting, positioning, repairing, and replacing objects), and the layer will actually not represent a change at all in-and-of itself. So one-layer-one-change is a general guideline. Common sense and experience will lead you through variations on that theme.

One thing I would recommend not doing is failing to make a layer for a change. That is, even if you are going to remove dust or do other adjustments to an image that you feel are absolutely permanent, make the correction on a layer. I have heard the question many times “Why can’t I just make this correction right on the background?” Of course it is possible. It is possible but if you start there, you are already ignoring the premise of non-destructive editing, which is that you do not permanently change the original image content. I can not possibly recount all of the instances where a direct change of the original information might prove important. At the very least, following the non-destructive path from the outset assures that you have the source. Another advantage may be in being able to demonstrate corrections from beginning to end (no doubt very effective in copyright battles).

A complete list of layer types can be found in Appendix 1. Any one of these can be used to make changes to your images. One of the simplest in concept is Adjustment Layers. This allows you to make changes in the appearance of an image using Photoshop features and functions in a way where the changes are not applied directly to – isolated from – the pixels.

### Isolating Correction in Adjustment Layers

Adjustment layers are layers that are added to images based on correction functions. Instead of applying the adjustments directly to the image, adjustment settings are retained in a separate layer. The layer settings can be readjusted later, temporarily hidden, or even removed at any point in the processing. The ability to change your mind later is a key advantage to non-destructive work flows. The point again is that the correction or change remains distinct within the layer stack and never directly changes the original image pixel information.

Creating and applying an adjustment layer is easy, as is altering the adjustment or hiding it, or deleting the adjustment entirely. To create an adjustment layer, just choose a function from the New Adjustment Layer submenu (Layer>New Adjustment Layer). This will open the New Layer dialog. When you click OK, the new layer is created in the Layers palette, and the dialog for the adjustment will appear in the Adjustments palette. Be sure you have the Layers palette and Adjustments palette in view so you can see everything that is going on.

The hard part about adjustment layers is making the adjustment. You can fiddle randomly with tools, but it takes a lot longer to get anywhere with them than if you know what to do. To kill several of the proverbial birds with one stone, let's look at adjustment layers and get some hands-on experience with the feature in the context of our correction process.

## Levels Adjustment Layers for Tone and Color Correction

The outlines from Chapter 1 suggest that corrections work better from general to specific: making good general corrections will keep you from making changes to multiple parts of an image that a general correction could have taken care of. A general tone and color correction is where I start with nearly every image. The correction helps make the most of the dynamic range (brightness from white to black) and helps establish color balance that can bring out richness in image color. The technique uses a series of corrections involving Levels and Color Balance adjustments that apply to the whole image, and will work on virtually any image when you learn how to do it correctly. In this case, the adjustments are also useful in demonstrating an application of adjustment layers.

First we'll look at some background theory about how the correction works by learning something about what I call light's fingerprint, and then we'll apply the correction.

Objects in a scene reflect the quality and color of the available light. If the light isn't completely neutral (with even amounts of red, green, and blue light), lacks full spectrum (absolute black to absolute white), tends to favor a particular color over a range of tone, and/or has multiple light influences (different colors of ambient and direct light, for example), the scene reflects those qualities of the light. As a scene can reflect only the colors in the original light source(s), a capture serves as a reliable fingerprint of the general qualities of the lighting in the scene.

This fingerprint is a valuable clue to detecting the correct color for your image. If you examine the fingerprint and learn how to read it, you can identify deficiency of the light, and you can correct image color. When an exposure is captured, the camera captures a fingerprint of the lighting for the scene. Natural lighting at sunset or sunrise, when lighting tends to color objects with warmer tones of

### Tip

Adjustment layers can also be created using the New Adjustment Layer button at the bottom of the Layers palette; when created this way the layer is created without having to address the New Layer dialog by default. You can force the New Layer dialog to appear by holding down the Option/Alt key (Mac/PC) when clicking the button.

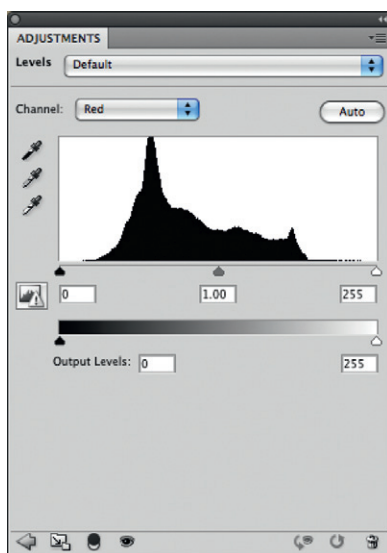
### Light's Fingerprint

The idea of light leaving a fingerprint is something I talk about to teach the idea behind the theory of color and tone correction. If you talk with other people who are not familiar with this book about "light's fingerprint," there is a good chance they will have no idea what you are talking about. Feel free to refer them to where you heard about it.

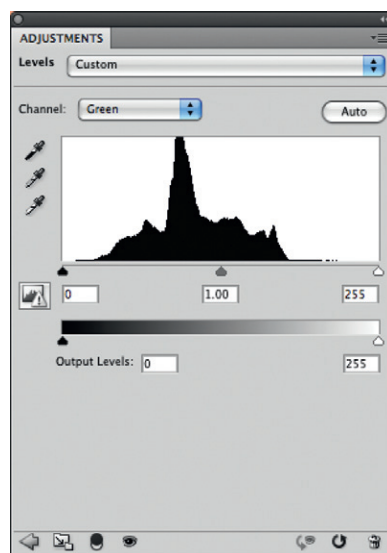
yellow and red, is an example of light creating an effect in a scene and leaving its fingerprint. But, taking that further, if your light is pure red, everything in the room will reflect only the red light, and everything (with any red in it to reflect) will appear red. White objects will appear red. Objects with no red at all will appear black. On the other hand, a red object in full-spectrum (white) light will still reflect light broadly. A picture taken of a red object in white light that fills the frame will still have measurable green and blue light components to register the color of the source light accurately. Green and blue may not be measured in the red, but in the textures, spectral highlights and shadows.

These differences in the intensity of light components and the quality of those components can easily be measured in Photoshop and it doesn't take a science degree. In fact, just a glance at the image histogram can give you a good idea of the quality of light that illuminated the scene originally. An image's histogram (see [Figures 2.1–2.3](#)) shows a definitive mapping of exactly how the light fingerprint reacts with the objects in the scene. This measured light quality is the light's fingerprint. It can be fairly accurate in even small samples. When you know more about the light by evaluating the histogram, you can determine what changes to make to balance the color.

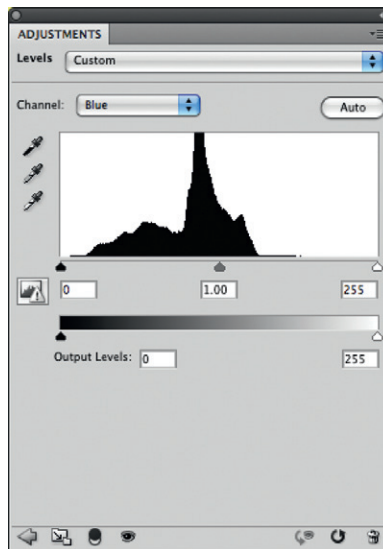
A Levels correction based on a simple evaluation of the histogram can work wonders on an image. The changes compensate for exposure and lighting conditions and improve color balance and the dynamic range, without a lot of complicated decision making. The results are non-destructive when the change is made with an adjustment layer. The following section outlines the details of how to make that levels change and how to employ it on virtually any image.



**FIG 2.1** Histogram of the Red light component (also called the Red Channel)



**FIG 2.2** Histogram of the Green light component (also called the Green Channel)



**FIG 2.3** Histogram of the Blue light component (also called the Blue Channel)

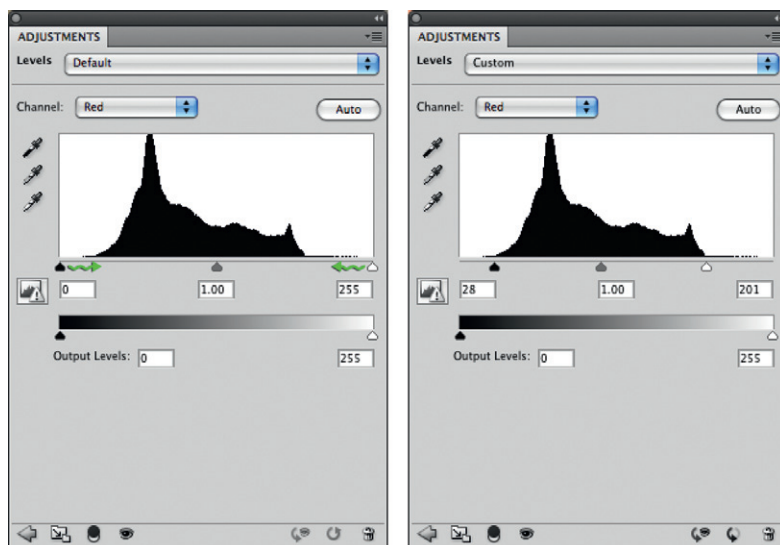
## Detailing the Levels Slider Changes

Making the Levels slider adjustments is a fairly simple process, once you have an outline for what to do. The histogram on the Levels dialog will become your visual guide to all you need to know to make the basic adjustment. Additional changes can be made that reflect user preferences once you get used to using the feature and method.

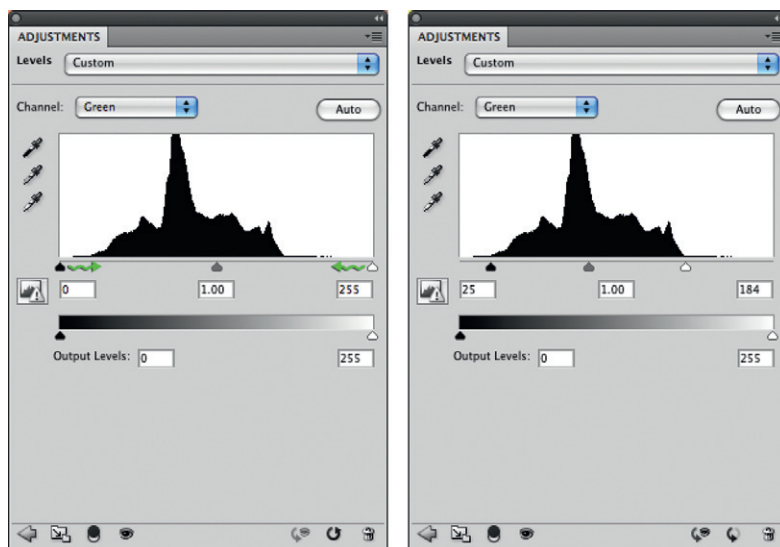
The primary characteristic that Levels can help with is shortened tonal range. Shortened tonal range is represented by a histogram that does not have information (or so little consistent information that it is more likely image noise than detail) across the entire range of the histogram graph. Specifically, a shortened range is depicted as a gap at either the light end (right, highlights) or the dark end (left, shadows) of the graph or both. A shortened tonal range in any of the channel components indicates that the light source was not full spectrum. When you correct the spectrum, you fix the color (as well as other problems like lifelessness/flatness, lack of contrast, and muted color).

Levels is an extraordinary tool for making adjustments in this situation. All you do to correct a shortened range is move the sliders (black/shadow and white/highlight) to maximize the range of each component. Move the right, white, slider to the left to a position at which the graph shows anything more than image noise; this will make whites brighter. Move the left, black, slider to the right, again to a position at which significant information is displayed in the graph; this will make shadows darker. See the histogram examples in [Figures 2.4–2.6](#) for the Red, Green, and Blue channels.

**FIG 2.4** Compensate for the shortened tonal range in each of the channels by moving the black and white sliders directly under the graph



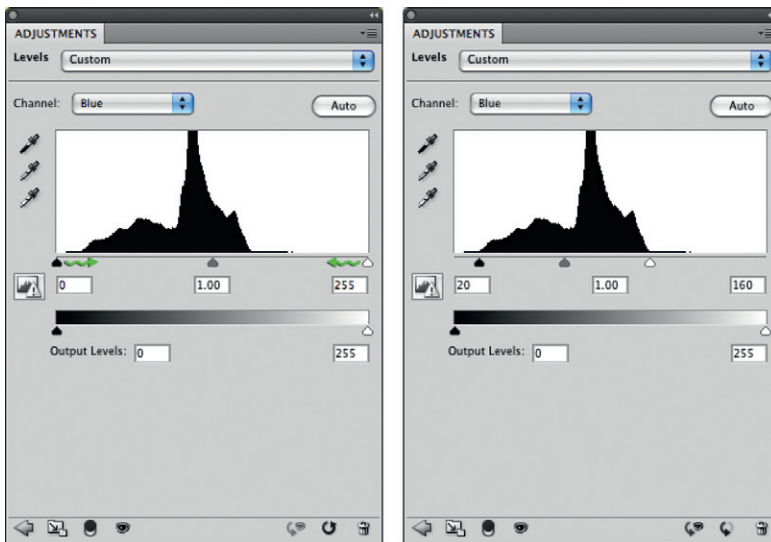
**FIG 2.5** Careful positioning of the sliders maximizes the benefits while reducing the loss of important detail



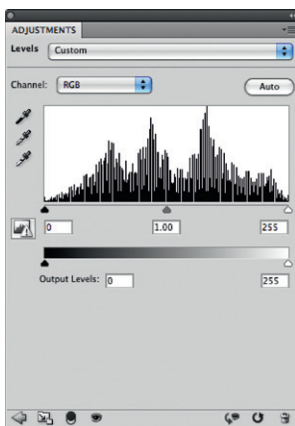
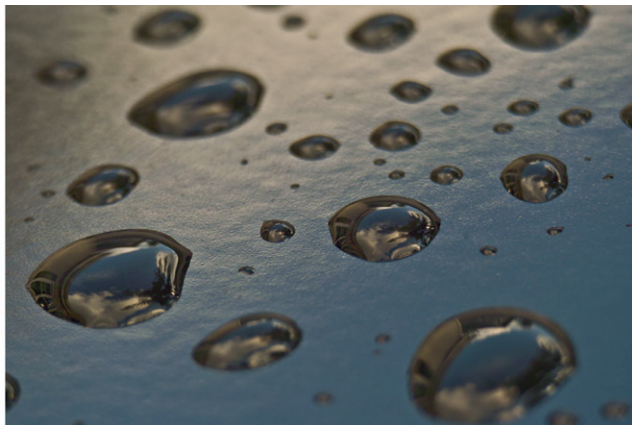
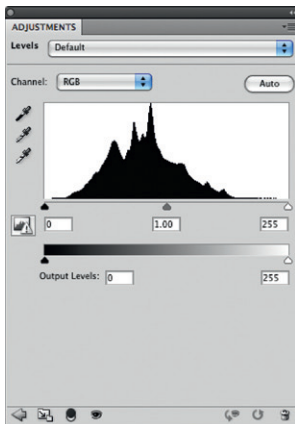
Information that falls outside the range of the black and white sliders is discarded, and the image information is redistributed over the tonal range. The new range of the graph is extended as in [Figure 2.7](#). You want to balance all the image information, and be careful to retain as much information as possible so as not to compromise details.

Let's take a look at the levels correction and practical application of adjustment layers in a hands-on exercise.





**FIG 2.6** After setting the sliders, your image should appear to have stronger contrast and richer, more balanced color



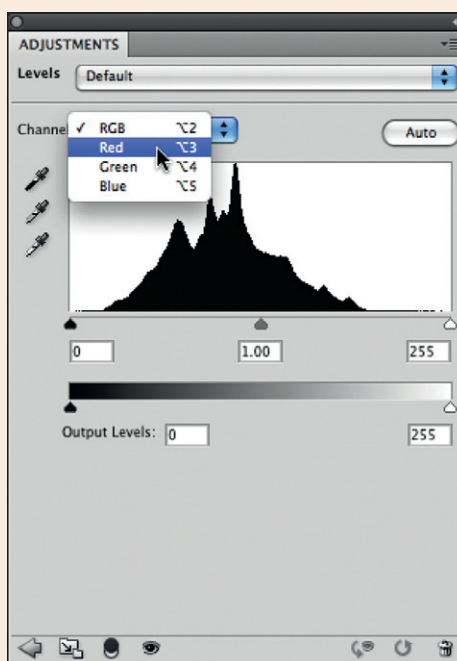
**FIG 2.7** This image is shown before and after the levels adjustment. Note the dramatic change in image dynamics

The Adjustments palette is new as of Photoshop for CS4. If you are using Photoshop versions earlier than CS4, you will need to address the Levels dialog rather than the Adjustments palette.

When positioning the sliders, keep in mind that graph information that falls to the right of the white slider and left of the black is cut from the image. Tailing on the histogram in the highlights or shadows usually represents image noise rather than real detail. You can generally cut a histogram tail without affecting the image negatively. However, sometimes you will crop none, some, or all of a tail, depending on the content of the image, desired color shift, and length of the tail. Usually you cut less of a very long tail (say 50% of a tail that takes 50% of the graph width). Often you will cut none of a tail that is in the highlights of a high-key image (a snow scene, waterfall, white birds). Shadows are usually more forgiving, but similar tail handling may apply.

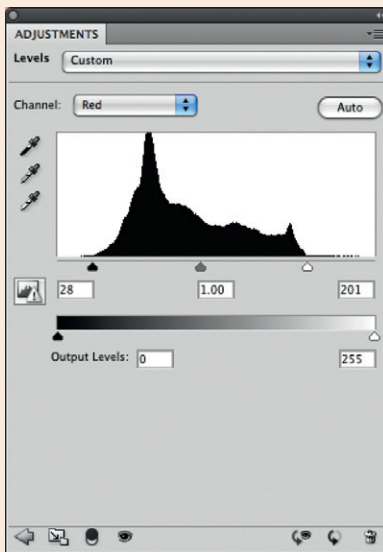
## Try It Now: Applying Levels for Color Correction

1. Open the image you want to correct. For this exercise, open Sample\_2.1.psd from the downloads.
2. Choose Layer>New Adjustment Layer>Levels. This opens the New Layer dialog box.
3. When the New Layer dialog appears, change the layer name to **1 – General Levels Adjustment**, leave the other defaults, and click the OK button. This will accept the settings, create a new Levels Adjustment layer, and display the Levels dialog controls in the Adjustments palette. Display the Adjustments palette by choosing Adjustments from Photoshop's Window menu.
4. Select Red from the Channel drop-down list. This reveals the histogram for the red light component. See [Figure 2.8](#).
5. Make a Levels correction for the Red light component. Do this correction by evaluating the histogram and moving the sliders. (See [Figure 2.9](#) for slider placement.)

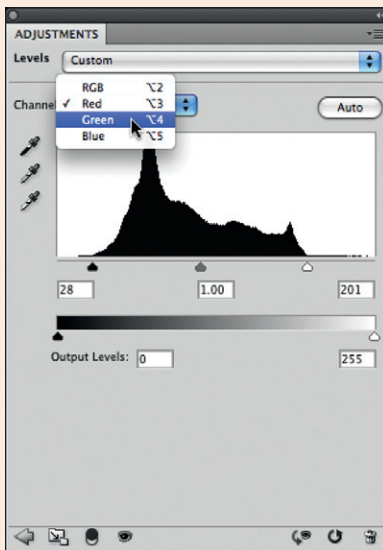


**FIG 2.8** This selection isolates your Levels change to the Red light component in the image





**FIG 2.9** Both ends of the graph need adjustment. The thin black lines trailing to the left and right of the graph generally represents image noise in highlights and shadows

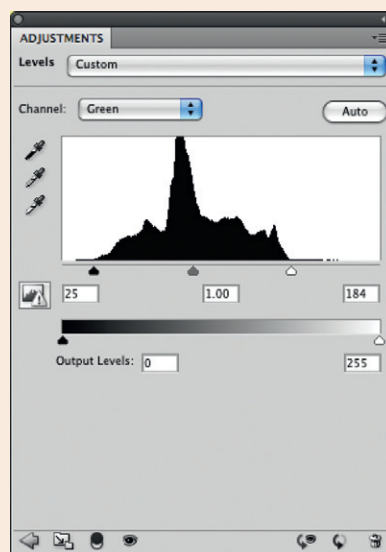


**FIG 2.10** This selection isolates your Levels change to the Green light component in the image

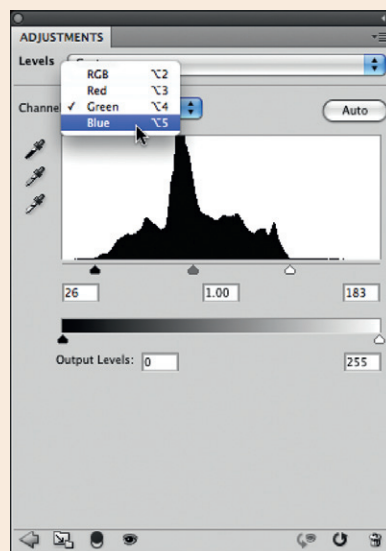
6. Select Green from the Channel drop-down list (see [Figure 2.10](#)). This reveals the histogram for the Green light component. The adjustments for the Red light component have already been stored.

7. Make a Levels correction for the Green light component. Again you want to evaluate the histogram and make appropriate changes in the position of the sliders. (See [Figure 2.11](#) for how to place the sliders.)
8. Select Blue from the Channel drop-down list. This reveals the histogram for the Blue light component. (See [Figure 2.12](#).)

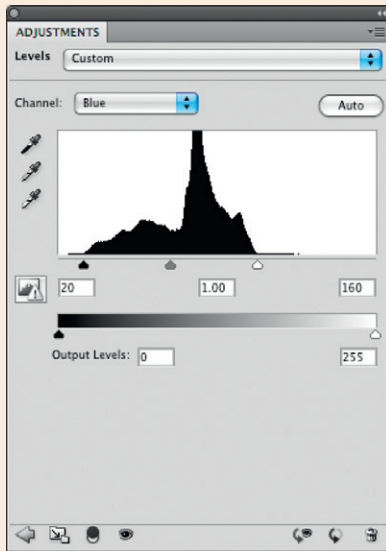
**FIG 2.11** Again, you want to bring the sliders in to the position where the graph content becomes significant – more than just a trailing tail of noise



**FIG 2.12** Selecting Blue from the Channels list isolates the representation of the histogram graph to the content of the Blue light component in the image



9. Make a Levels correction for the Blue light component. Again you want to evaluate the histogram and make appropriate changes in the position of the sliders. (See [Figure 2.13](#) for how to place the sliders.)
10. Make a tone adjustment to the image midtones. To do this, choose RGB from the Channels drop-down list and make an adjustment with the middle (gray) slider to brighten (left) or darken (right) the image.

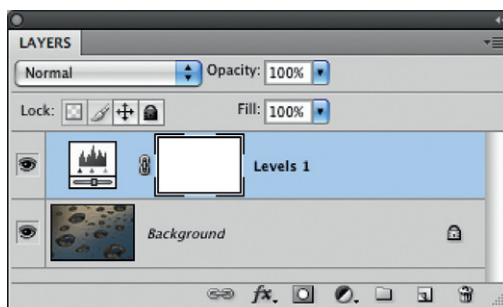


**FIG 2.13** While the movement of the black and white sliders is similar for each of these histograms, it is not identical. Making changes to each channel separately helps to balance – and correct – image color

After making the Levels adjustment for each of the channels, evaluate the change by eye, on screen (preferably on a calibrated monitor!). You can compare the before and after for the correction by toggling the view for the Levels Correction layer (click the view toggle for the 1 – General Levels Adjustment layer just to the left of the layer in the Layers palette). If you toggle the view for the layer on the Layers palette as suggested, the change in the image should appear to improve image dynamics, contrast, and color. If the changes seem extreme, you can moderate them by changing the position of the sliders in the Levels layer (click it to show the current settings in the Adjustments palette) or by adjusting the opacity of Levels layer. Lowering the opacity of the adjustment layer will reduce the intensity of the correction. These after-the-fact adjustments could not be done if the levels were applied directly to the layer content.

This Levels adjustment for the three channels is one you can often make almost strictly by looking at the appearance of the histogram and adjusting it accordingly – without looking at the image, just as we have done here. If you look at the image while correcting, you may actually be tempted to shy away

**FIG 2.14** You should have just the Background layer and the 1 – General Levels Adjustment layer. Be sure the visibility for the adjustment layer is on



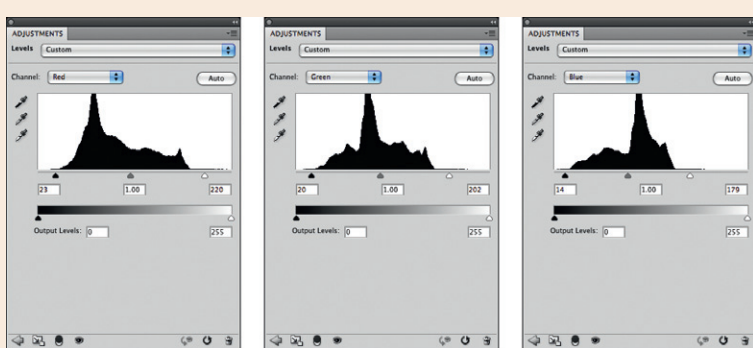
from applying the correction completely (e.g., you make the adjustment to the Red light component and the color gets wacky so you feel you are doing something wrong). The Levels adjustment is not complete until you adjust all three channels; evaluating the change before that is meaningless.

A Levels adjustment will not always work well with images that have inherent color casts (sunsets) or when color filters have been used to achieve color-shifting effects that are desired, as it will tend to moderate or counteract the desired color shifts. However, it should work well to balance color and enhance most images.

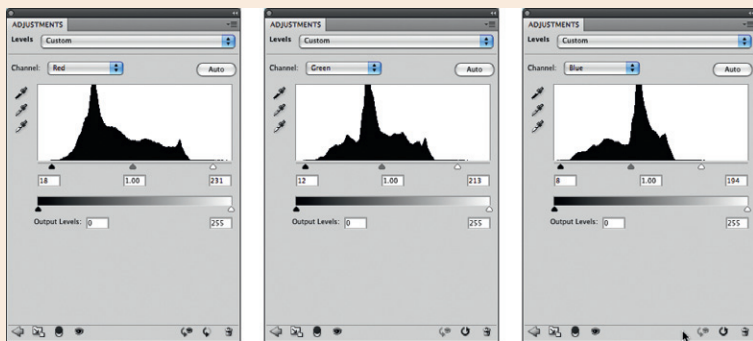
When trying to decide if the Levels adjustment is as you want it, you may wish to compare versions. The following exercise walks through how to compare some results with the image from the previous exercise. First we'll set up some variations and store them as History Snapshots. This gives you the ability to compare versions easily. Continue with the image from the previous exercise. The layers should look like the content of [Figure 2.14](#).

### Try It Now: Adjustment Layer History Comparison

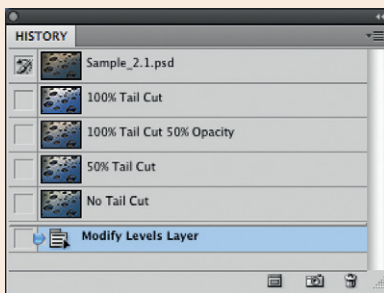
1. Take a snapshot of the image. To do this, have the History palette open, and click the Create New Snapshot button at the bottom of the palette. This will create **Snapshot 1** below the existing snapshot. There should already be a snapshot named **Sample\_2.1.psd**.
2. Change the name of the Snapshot 1 item to **100% Tail Cut**. Double-click directly on the name in the History palette to change the name of the snapshot.
3. Change the Opacity of the 1 – General Levels Adjustment layer to 50%.
4. Take a snapshot of the image. This will create Snapshot 1.
5. Change the name of the Snapshot 1 item to **100% Tail Cut, 50% Opacity**.
6. In the Adjustments palette, make changes to the position of the black and white sliders so that they cut approximately 50% of the tails. See [Figure 2.15](#) for the positioning of the sliders.
7. Take a snapshot of the image. This will create **Snapshot 1**.
8. Change the name of the Snapshot 1 item to **50% Tail Cut**



**FIG 2.15** Positioning the sliders by eye in the middle of the tails will serve the purpose for this comparison



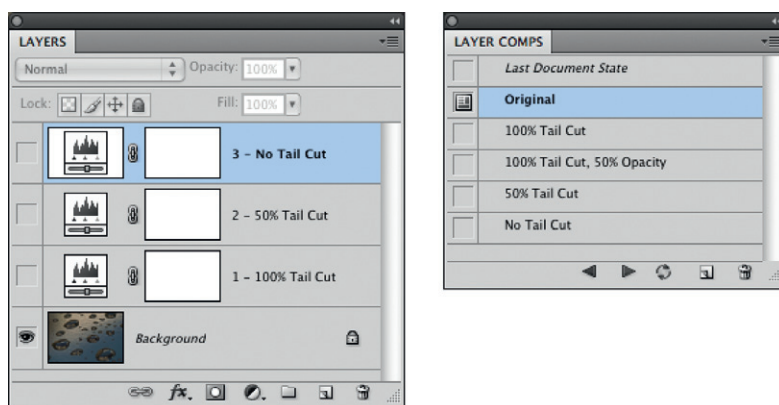
**FIG 2.16** Positioning the sliders by eye at the end of the tails will serve the purpose for this comparison



**FIG 2.17** The History should contain five snapshots. With one click you can compare versions

9. In the Adjustments palette, make changes to the position of the black and white sliders so that they cut approximately 0% of the tails. See [Figure 2.16](#) for the positioning of the sliders.
10. Take a snapshot of the image. This will create **Snapshot 1**.
11. Change the name of the Snapshot 1 item to **No Tail Cut**. Your History palette should look like the contents of [Figure 2.17](#).
12. Click directly on a snapshot thumbnail to swap to a different version of the image.

**FIG 2.18** Why only three adjustment layers and not four – one to represent each of the four corrected versions? Layer Comps can retain layer styles, and Opacity is a part of layer styles. 100% Tail Cut and 100% Tail Cut, 50% Opacity can use the same adjustment



The advantage of Adjustment layers is demonstrated in this exercise in a nutshell: you can make repeated changes and comparisons to your adjustments without starting over. Even in this simple exercise, it saves several steps; in a more complicated correction, you can multiply the savings exponentially.

Snapshot comparisons are a huge advantage in this case. If you didn't use Snapshots, you would have to apply the Levels correction and write down the changes you made, undo the changes, and redo them. The disadvantage is that you will not be able to keep the snapshots after closing the image. The content of the active Snapshot and any additional steps in the history is the content that will save when you choose the Save command.

The other choice you have here for comparing versions is Layer Comps. The difference in using Layer Comps is that you will want to make a new adjustment layer for each actual change that involves different settings in the adjustment layers (see the Layers palette in [Figure 2.18](#)). You will also create one Layer Comp for each version.

The Layer Comps version of the image used in the example is available in the downloads, named Sample\_2.1-layer-comp. Open the file in Photoshop and click through the versions either using the Previous and Next buttons at the bottom of the Layer Comps palette, or by clicking the Layer comps indicator to the left of the comp you want to view.

Even more advanced adjustments can be made with Levels using the center, gray, sliders for each channel. Moving these sliders allows you to adjust midtone color balance. However, using a separate correction for Color Balance will give more control and a better overall result than effecting the color balance adjustment with levels. Let's take a look at Color Balance to continue the process of color adjustment you will normally follow in layers.



## The Art of Color Balance

Although Levels are excellent tools for normalizing color, extending dynamic range, and even balancing color, they may not always produce the absolute best correction for color casts used on their own. A tweak to color balance, using the dedicated Color Balance feature, will often do quite a lot to enhance your image's color.

The idea of the Color Balance function is to allow you to shift the balance between opposing colors: cyan balances against red, green against magenta, and blue against yellow. These adjustments are made in pre-defined highlight, midtone, and shadow ranges. Working through a Color Balance correction by gauging the changes on screen can often clear up muddy appearances caused by lighting conditions. The goal of Color Balance adjustment is to achieve more vibrant, balanced color.

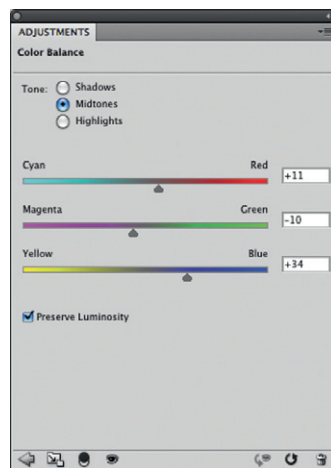
### Try It Now: Applying a Color Balance Adjustment Layer

1. Open the Sample\_2.2.psd file from the downloadable files.
2. Open Color Balance by choosing Color Balance from the Adjustment Layers submenu (Layer>New Adjustment Layer>Color Balance).
3. In the Adjustments palette, start with the Midtones radio button selected, and slide the Cyan/Red slider between -50 and +50, watching the effect on the image. Narrow down the range that looks best by swinging the slider in smaller ranges until the best position is achieved based on the screen preview. The "best" position is where the color seems most balanced against the extremes and where the most detail is retained. Key on areas of the image that should be a familiar color; neutral areas, like the gray stone walk, usually provide the best visual clues. Pushing the slider between -50 and +50 provides the preview.
4. Repeat the slider adjustment for the Magenta/Green slider.
5. Repeat the slider adjustment for the Yellow/Blue slider.
6. Click the Highlights radio button on the Color Balance dialog and repeat the slider adjustments for the three color ranges (Cyan/Red, Magenta/Green, and Yellow/Blue). This will make adjustments to Color Balance for the Highlights.
7. Click the Shadows radio button on the Color Balance dialog and repeat the slider adjustments for the three color ranges (Cyan/Red, Magenta/Green, and Yellow/Blue). This will help you make adjustments to Color Balance for the Shadows.
8. Revisit the adjustments for midtones, highlights, and shadows, checking the positions of each slider to be sure the best result is achieved. This will allow you to review earlier adjustments in the context of the changes you made to the Shadows.

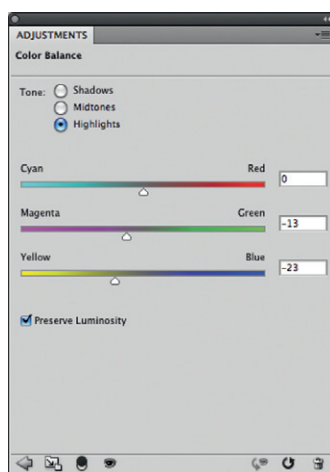
The steps here might seem an oversimplification, but this is really all you have to do with Color Balance to achieve the desired result (Figures 2.19–2.23). The critical part of this exercise is that you have to be able to trust your monitor, so it has to be calibrated (and hopefully tested against output as well). Practicing



**FIG 2.19** This shot seems overwhelmed by green, and balancing the color will make the whole scene richer



**FIG 2.20** Your choices may be quite different than these depending on what you expect to see. However, in the end you may compensate differently with other sliders and get a similar result



**FIG 2.21** Choices here reflect balance in the highlights and interact with choices already made for the midtones



**FIG 2.22** Choices here reflect balance in the shadows and interact with choices already made for the midtones and highlights



**FIG 2.23** Once the changes are complete, there has been some reduction in the green at every level, and the color is generally more balanced allowing other color ranges to have their voice in the image

looking at the changes and how details are affected will help a lot and the adjustment will become far more automatic for you over time. Depending on your choices, the Sample\_2.2.psd image will show a dramatic difference after Color Balance, even with small movements of the sliders. Changes will influence color, saturation, dynamics, and even details in the image. You can see the effect on details most easily in the highlights.

The result of a correction on the image appears in the corrected download files. You'll want to toggle the view for the Color Balance 1 layer to see the difference before and after the application of the adjustments as I performed them.

What we have done here with the Levels and Color Balance corrections using Adjustment Layers is look at layers in the context of the working correction outline. The earliest steps should be general corrections, and these non-destructive adjustments help enhance and normalize color, contrasts, and tone to get the most out of the images you shoot.

Another example of general initial corrections is overall cleanup and repair. Let's take a look at that as the next step in our process.

## Repair and Cleanup in Layers

If you still shoot film, have tried to convert old photos to digital, or have ever had a dirty sensor or lens, you will be no stranger to minor imperfections in

your images that come in the way of dust and debris. Digital shooters may not see as much dust as they see other minor imperfections in their images, like litter, crumbs, fine spider webs, random leaves, cigarette butts, etc., but they might also see annoying and persistent spots resulting from dust on the sensor.

You can often make quick work of dust and minor debris issues, no matter where it comes from, by applying the Clone Stamp and/or Healing tool directly to an image background. However, applying these corrections to a blank layer offers much more flexibility, and maintains non-destructive editing goals. Once you are sure the correction is the way you want it, you can commit the change by merging the layers, or just leave them in separate layers (the latter is suggested). The advantage here is that if you muff up part or all of the correction, you still have the opportunity to fix it. You also have the opportunity to use tools in combination with one another such as using both the Clone Stamp and the Healing tool for a correction.

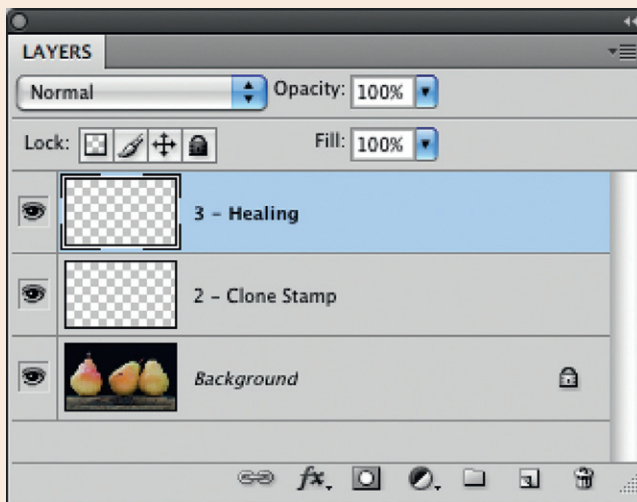
The pears in the Sample\_2.3.psd image (see [Figure 2.24](#)) have some obvious imperfections that need to be taken care of. One large dent in the middle of the three pears obviously needs some fixing, but there are smaller dings, bruises, and even minor annoyances like slightly larger pores that could be evened out. This is taken care of with simple layered repair.

**FIG 2.24** This image has a few challenges when using Clone Stamp and Healing tools for correction, as well as some opportunity for interesting choices about what needs to stay and what needs to go



### Try It Now: Clone Stamp and Healing Repairs in Layers

1. Open the Sample\_2.3.psd image in Photoshop.
2. Create a new layer above the Background and call it **2 – Clone Stamp**.
3. Create a new layer above the 2 – *Clone Stamp* layer and call it **3 – Healing**. See [Figure 2.25](#) for how the layers should look at this point.
4. Activate the Clone Stamp layer by clicking on it in the Layers palette. Choose the Clone Stamp tool and set the options to Sample All Layers – if you don't, the tool will not stamp to a blank layer. Apply the tool to make a correction of the damaged areas.



**FIG 2.25** You have a total of three layers, Background, 2 – Clone Stamp, and 3 – Healing. So it wouldn't get in the way for the purposes of the exercise, the levels correction was merged with the Background

### Applying the Clone Stamp Tool

To apply the Clone Stamp, note the color and shape of the damaged area and try to find a spot in the image that will make a good replacement. Set the brush size to just slightly larger than the width of the problem area, and use 50–80% hardness (leaving a soft edge to blend corrections). Usually I set the tool to Aligned (check the box), which keeps the alignment angle and distance between the brush and the sample point constant. Sample the area you will be using to replace the damage by holding down the Option/Alt key and clicking on the area you want to sample from. Move the brush over the damage and apply by holding down the mouse button. It is best to apply the Clone Stamp in short bursts, and it is a good idea to resample from different areas as you work often to avoid obvious patterning and to blend in texture, contour, and detail from multiple directions. Doing so will help create unique corrections of the areas. When using the Clone Stamp and Healing tool together, the Clone Stamp application does not need to be exact, but making a best effort will improve the result.

Activate the Healing layer by clicking on it in the Layers palette, and then choose the Healing tool. Set the brush and Options like you did for the Clone Stamp, but make the brush 100% hard – the nature of the tool blends in the edges and does so better if you use a hard brush. Make a sample and apply the tool to make a second correction over areas corrected with the Clone Stamp to blend in the corrections.

The resulting image can be seen in [Figure 2.26](#), and you can check your work against the `Sample_2.3-corrected.psd` image from the downloads. In the corrected version of the image, I included a black-filled layer (**4 – Show Fixes**) that can be turned on to reveal the cloning and healing changes at a glance (represented in [Figure 2.27](#)). In the layers, I created a group for the clone stamp and healing layers so that you can shut off either view for clone stamp or healing, or both at the same time (using the group).

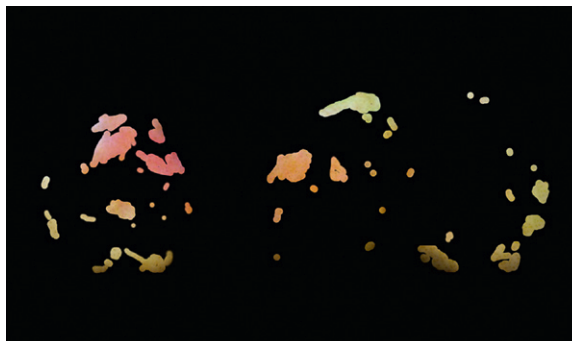
Applying the Healing tool directly to a problem can lead to similar results, but it has been my experience that applying the Clone Stamp first to neutralize the ugliest part of the damage and then applying the Healing tool will yield better results (less noticeable edges) more consistently.

The most difficult parts of Healing and Cloning corrections is damage near edges – where there is a transition to another object, color, or tone.

**FIG 2.26** The corrected pears have a more regular and attractive appearance with the flaws mitigated



**FIG 2.27** This may look like a lot of correction, but you can see that it is not so extreme by toggling the correction group





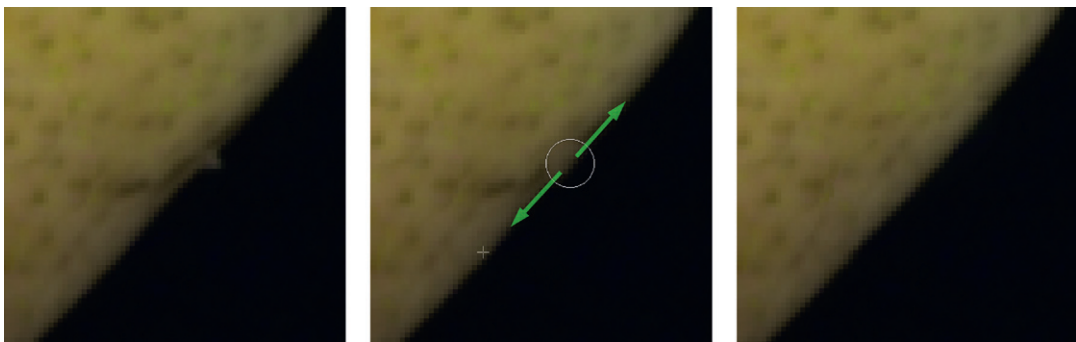
The problem will be that the Healing tool tries to do too much: it pulls in too much surrounding image information in the repair that it tries to make. There are two things you can do to eliminate this problem:

- Use only the Clone Stamp near edge areas.
- Heal along the edge by sampling right on the edge line (see [Figures 2.28 and 2.29](#)).

Following these techniques you can make freehand corrections to any image in infinitely different ways, each equally as convincing. Check your handiwork by toggling the view for the Cloning and Healing correction layers. You may want to group them so you can toggle the view as a group. This will let you compare before and after with a click.



**FIG 2.28** If you use the Healing brush, sampling from an object and applying the sample near the edge, the correction can bleed in color and tone from the surrounding area



**FIG 2.29** A better method for using Healing on an edge is to sample the edge and apply along the edge

### Summary

In this chapter we have begun to use Layers to actually make a difference in image appearance, first with adjustment layers, then with blank layers and the Cloning and Healing tools. These correction techniques are things you will use in nearly every image to some extent. Thinking about your images and your corrections as made up of separate, layered adjustments is the key concept that should be coming across here. Layers offer opportunities for isolated correction. Separation poses advantages while making the change, as well as having additional advantages once the correction has been created, in that it can be changed later.

These steps are just a starter. When using the whole process, you will make a unique plan for what you would like to see in this image, and it will almost always include these adjustments. Practice with the changes is helpful; even practice thinking about how you will make corrections (and specifically what corrections you want to make) will help make you become better at applying changes and choosing techniques.

A valuable thing to do with the information in this chapter is to begin applying the changes to your own images. Choose one or more of your images and test out selective enhancements using layers. You don't have to do everything from this chapter to every image, but you should make an attempt to try out everything to see how the techniques might apply to your corrections:

- A. Open your image and think about the corrections you might make as an evaluation.
- B. Start a correction by making a Levels Adjustment layer to correct image color.
- C. Fine-tune color and remove color casts with Color Balance.
- D. Locate some image area(s) that you want to improve with simple Cloning and Healing corrections, and create new layers to help you incorporate the change. Then stamp out and heal problem areas.

Keep in mind that working with additional images can be an exercise without a real goal of achieving improvement in the image: it is enough to perform the techniques as exercises or practice. Do, however, make serious corrections if they are warranted in your images to exercise the true value of layers. If you have additional questions about the techniques, visit the forums at [photoshopcs.com](http://photoshopcs.com) to discuss how to use the techniques and ask questions.