

## Chapter 1

# Welcome to Photoshop!

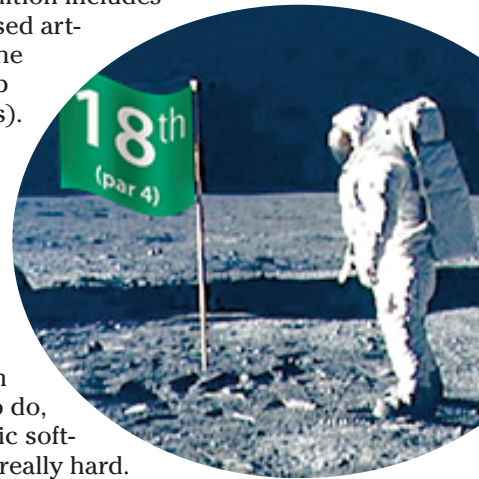
### *In This Chapter*

- ▶ What Photoshop does very well, kind of well, and just sort of, well . . .
- ▶ Taking a look at what you need to know to work with Photoshop

**A**dobe Photoshop is, without question, the leading image editing program in the world. Photoshop has even become somewhat of a cultural icon. It's not uncommon to hear Photoshop used as a verb ("That picture is obviously Photoshopped!"), and you'll even see references to Photoshop in the daily comics and cartoon strips. And now you're part of this whole gigantic phenomenon called Photoshop.

You might have purchased Photoshop as a new full version, as an upgrade, or as part of the Adobe Creative Suite. The Creative Suite (that's where the CS comes from) comes in two versions. The Standard Edition includes Photoshop, Adobe Illustrator (for creating vector-based artwork), and Adobe InDesign (for page layout work). The Premium Edition also includes Adobe GoLive (for Web design) and Adobe Acrobat (to create PDF documents).

Whether you're new to Photoshop, upgrading from Photoshop CS or earlier, or transitioning from Elements to the full version of Photoshop, you're in for some treats. Photoshop CS2 has some intriguing new capabilities that enable you to do more, and more easily, than ever. Before I take you on this journey through the intricacies of Photoshop, I want to introduce you to Photoshop in a more general way. In this chapter, I tell you what Photoshop is designed to do, what it can do (although not as capably as job-specific software), and what you can get it to do if you try really, really hard. I also review some basic computer operation concepts, and point out a couple of places where Photoshop is a little different than most other programs. At the end of the chapter, I have a few tips for you on installing Photoshop to ensure it runs properly.



## Exploring Adobe Photoshop

Photoshop is used for an incredible range of projects, ranging from editing and correcting digital photos to preparing images for magazines and newspapers to creating graphics for the Web. You'll also find Photoshop in the forensics departments of law enforcement agencies, scientific labs and research facilities, and dental and medical offices, as well as in classrooms, offices, studios, and homes around the world. As the Help Desk Director for the National Association of Photoshop Professionals (NAPP), I solve problems and provide solutions for Photoshop users from every corner of the computer graphics field and from every corner of the world. People are doing some pretty amazing things with Photoshop, many of which are so far from the program's original roots that it boggles the mind!

### *What Photoshop is designed to do*

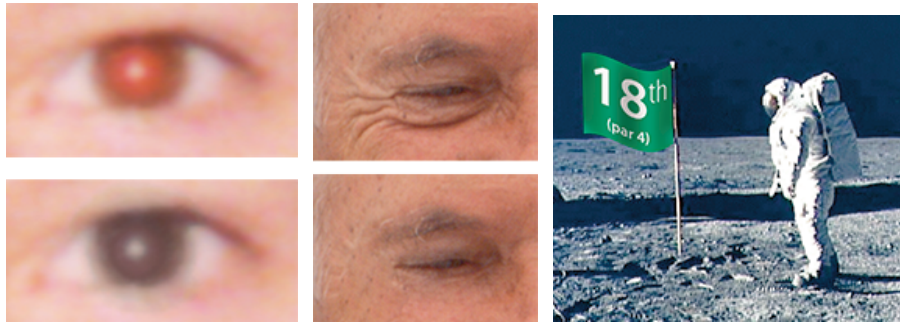
Adobe Photoshop is an image editing program. It is designed to help you edit images, digital or digitized images, photographs, and otherwise. This is the core purpose of Photoshop. Over the years, Photoshop has grown and developed, adding features that supplement its basic operations. But at its heart, Photoshop is an image editor. At its most basic, Photoshop's workflow goes something like this: You take a picture, you edit the picture, and you print the picture (as illustrated in Figure 1-1).



**Figure 1-1:** Basic Photoshop: take photo, edit photo, print photo. Drink coffee (optional).

Whether captured with a digital camera, scanned into the computer, or created from scratch in Photoshop, your artwork consists of tiny squares of color, which are picture elements called *pixels*. (Pixels and the nature of digital imaging are explored in depth in Chapter 2.) Photoshop is all about changing and adjusting the colors of those pixels — collectively, in groups, or one at a time — in order to make your artwork look precisely how you want it to look. (Photoshop, by the way, has no *Good Taste* or *Quality Art* filter. It's up to

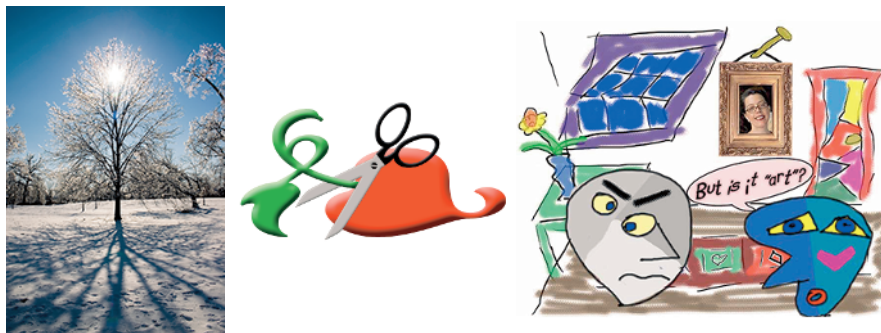
you to decide what suits your artistic or personal vision and what meets your professional requirements.) Some very common Photoshop image editing tasks are shown in Figure 1-2: namely, correcting red-eye and minimizing wrinkles (both discussed in Chapter 9); and compositing images (see Chapter 10).



Astronaut image courtesy of NASA

**Figure 1-2:** Some common Photoshop tasks.

Over the past few updates, Photoshop has developed some rather powerful illustration capabilities to go with its digital imaging power. Although Photoshop is still no substitute for Adobe Illustrator, Photoshop certainly can serve you well for smaller illustration projects. (Keep in mind that Photoshop is a *raster art program* — it works with pixels — and vector artwork is only simulated in Photoshop.) Photoshop also has a very capable brush engine, which makes it feasible to paint efficiently on your digital canvas. Figure 1-3 shows a comparison of raster artwork (the digital photo, left), vector artwork (the illustration, center), and digital painting (right). The three types of artwork can appear in a single image, too. (Simulating vector artwork with Photoshop's shape layers is presented in Chapter 11, and you can read about painting with Photoshop in Chapter 14.)

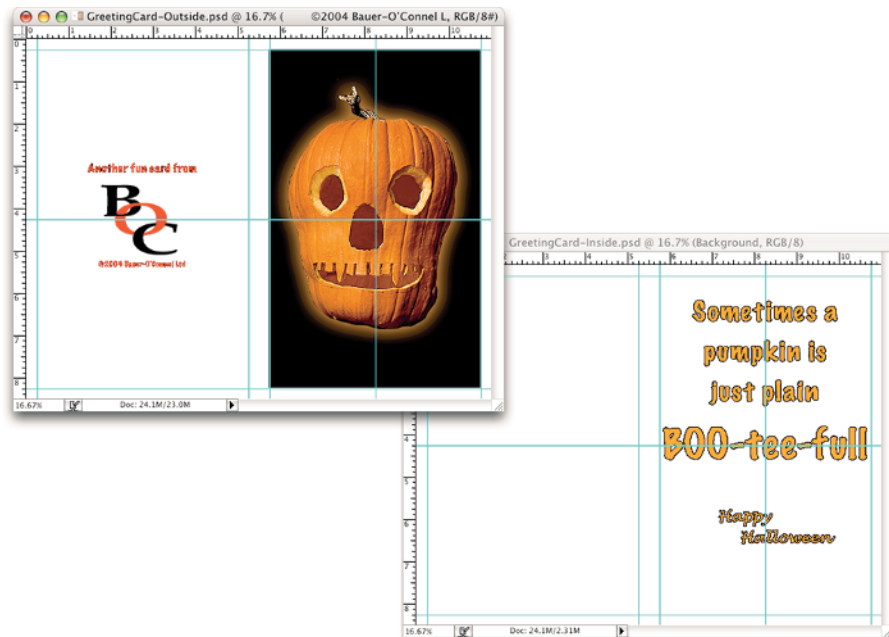


**Figure 1-3:** You can use Photoshop with raster images, vector artwork, and even to paint.

By using *ImageReady*, the partner program to Photoshop (installed with Photoshop into the same Photoshop folder), you can create advanced Web graphics, such as rollover buttons and animations (see Chapter 17). Photoshop even includes special features to help you create an entire Web site to display your artwork (Web Photo Gallery), and a feature to prepare onscreen presentations, complete with transition effects between slides (PDF Presentation). (Read about Web Photo Gallery in Chapter 4 and PDF Presentation in Chapter 16.)

### *Other things you can do with Photoshop*

Although Photoshop is not a page layout or illustration program, you certainly can produce simple brochures, posters, greeting cards, and the like using only Photoshop. (See Figure 1-4.) One of the features that sets Photoshop apart from basic image editors is its powerful type engine, which can add, edit, format, and stylize text as capably as many word processing programs. Photoshop even has a spell check feature — not bad for a program that's designed to work with photos, eh?



**Figure 1-4:** You can use Photoshop to create cards, posters, and brochures.





Photoshop CS2 takes yet another giant step toward filling in for InDesign or Illustrator with the introduction of Smart Objects. Smart Objects can be created in Photoshop through the Layers palette or pasted into your artwork from Illustrator. A Smart Object is a designer's dream. You add the Smart Object to your project; then, you can edit the original file and have the Smart Object updated to match. For example, suppose you add a sponsor logo to a poster as a Smart Object, and then use that same Smart Object in a direct-mail piece, a flyer, a magazine ad, and a couple of other related projects. Just before the approval date for the project, however, the sponsor drops out and is replaced by a new sponsor. You simply change the original file from which you created the Smart Object and then update the various instances of the Smart Object in your various projects. Done! Not only is this approach faster than manually changing each instance of the logo, but it ensures accuracy. Each Smart Object retains any effects you've applied, but those effects are applied to the updated artwork.

On the subject of special effects, Photoshop CS2 also introduces *object warping*, which you use to bend and twist elements in your artwork. As Photoshop moves more toward an object-based interface, it provides you with more ways to work with the content of a layer as a single unit rather than as independent pixels. Sure, you can still work with pixels, but treating a layer as an object certainly can be convenient. Take a look at Figure 1-5. Using a warp mesh to manipulate the artwork makes short work of what would otherwise have been a difficult edit. Click and drag an intersection within the mesh to reform the shape.

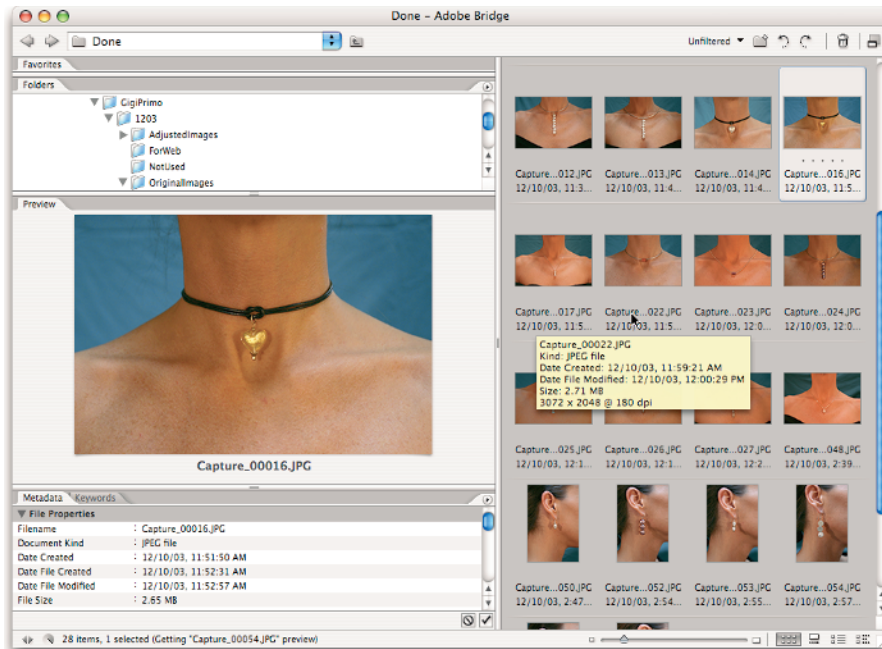


**Figure 1-5:** Warping the content of a layer is faster than selecting and moving pixels.

You can certainly supplement your video editing program with Photoshop (even if Photoshop can't open and play movies you capture with your video camera). From Adobe Premiere (or other professional video programs), you can export a series of frames in the FilmStrip format, which you can open and edit in Photoshop. Photoshop even provides support for nonsquare pixels, just in case you find yourself developing a project for television. You can create new documents that use nonsquare pixels and, through Photoshop's View menu, work on them as if they were regular old square-pixel digital images. No more "guesstimating" distortion factors or trying to calculate what is round or square in the artwork.



When you install Photoshop CS2, you also install a separate program named Adobe Bridge. (Unlike ImageReady, Bridge isn't inside the Photoshop folder.) Bridge is a standalone version of the File Browser from the previous version of Photoshop. As an asset management tool, it's even more capable. And because it's a separate program, it can be used throughout the Adobe Creative Suite or even independently to organize your images and artwork. (Figure 1-6 shows Adobe Bridge.) See Chapter 4 for more on Adobe Bridge.



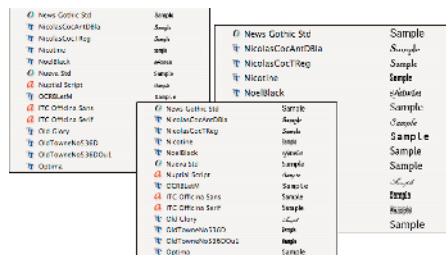
**Figure 1-6:** Use Adobe Bridge to manage your collection of images and artwork.

### *If you don't have specialized software*

Admittedly, Photoshop CS2 just plain can't do some things. It won't make you a good cup of coffee. It can't press your trousers. It doesn't vacuum under the couch. It isn't even a substitute for iTunes, Microsoft Excel, or Netscape Navigator — it just doesn't do those things.

However, there are a number of things for which Photoshop isn't designed that you *can* do in a pinch. If you don't have InDesign, you can still lay out the pages of a newsletter, magazine, or even a book, one page at a time. (With PDF Presentation, you can even generate a multipage PDF document from your individual pages.) If you don't have GoLive, you can use Photoshop to create a Web site, again one page at a time, complete with rollover buttons,

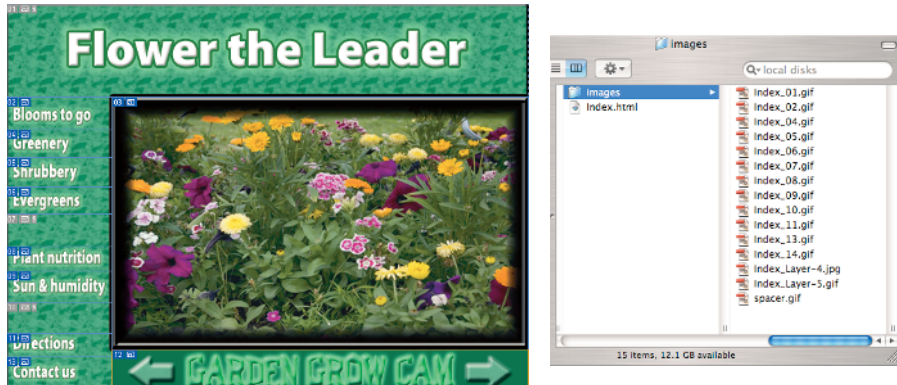
Page layout in Photoshop isn't particularly difficult for a one-page piece or even a trifold brochure. Photoshop has a quite-capable type engine, considering the program is designed to push pixels rather than play with paragraphs. And, for the first time, Photoshop shows you a sample of each typeface in the Font menu — no more trying to remember which fonts are which! Choose from three sizes of preview in Photoshop's Preferences (as shown in Figure 1-7). However, you can't link Photoshop's type containers, so a substantial addition or subtraction at the top of the first column requires manually recomposing all following columns. After all, the biggest advantages of a dedicated page layout program are the continuity (using a master page or layout) and flow from page to page. If you work with layout regularly, use InDesign CS2.



**Figure 1-7:** Being able to finally see typeface samples is definitely a plus.

Adobe GoLive CS2 is a state-of-the-art Web design tool, whose interoperability with Photoshop is exquisite. It's a piece of cake to use Photoshop and ImageReady to create complex Web graphics, including rollover buttons (buttons that change appearance when clicked) and animations, and then drop those PSD files right into a GoLive Web page. (Read about creating complex Web graphics in Chapter 17.) However, if you don't have GoLive and you desperately need to create a Web page, Photoshop comes to your rescue. After laying out your page and creating your slices, links, and rollovers in ImageReady, use the Save Optimized As command to generate an HTML document (your Web page) and a folder filled with the images that form the page (see Figure 1-8). One of the advantages to creating a Web page in GoLive rather than Photoshop is HTML text. (Using Photoshop and ImageReady, all the text on your Web pages is saved as graphic files. HTML text not only produces smaller Web pages for faster download, but it's resizable in the Web browser.)

Although Photoshop doesn't actually work in three dimensions (digital images have width and height, but not depth), you can use it in conjunction with your 3-D software. In addition to creating textures, Photoshop now includes the very powerful Vanishing Point feature, which lets you map artwork onto simulated 3-D surfaces. (Read about Vanishing Point in Chapter 10.)



**Figure 1-8:** You can create an entire Web page in Photoshop/ImageReady.

## Viewing Photoshop's Parts and Processes

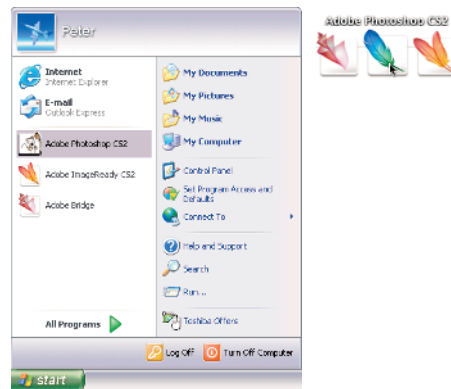
In many respects, Photoshop CS2 is just another computer program — you launch the program, open files, save files, and quit the program quite normally. Many common functions have common keyboard shortcuts. You enlarge, shrink, minimize, and close windows as you do in other programs.

### Reviewing basic computer operations

Chapter 3 looks at Photoshop-specific aspects of working with floating palettes, menus and submenus, and tools from the Options bar, but I want to take just a little time to review some fundamental computer concepts.

#### Launching Photoshop

You can launch Photoshop (start the program) by double-clicking an image file or through the Applications folder (Mac) or the Start menu (Windows) — and Mac users can drag the Photoshop program icon (the actual program itself) to the Dock to make it available for one-click startup. Figure 1-9 shows both the Dock and the Start menu. You'll find the file named Adobe Photoshop CS2 inside the Adobe Photoshop CS2 folder, inside the main Applications folder. You can open a file in ImageReady either by launching the program directly or by



**Figure 1-9:** Start Photoshop through the Start menu (Windows) or the Dock (Mac).

clicking the button at the bottom of the Toolbox in Photoshop. (Chapter 3 shows you the Photoshop interface and how to get around in the program.)



Never open an image into Photoshop from removable media (CD, DVD, your digital camera or its Flash card, Zip disks, jump drives, and the like) or from a network drive. Always copy the file to a local hard drive, open from that drive, save back to the drive, and then copy the file to its next destination. You can open from internal hard drives or external hard drives, but to avoid losing your work (or the entire image file) because of a problem reading from or writing to removable media, always copy to a local hard drive.

### *Working with images*

Within Photoshop, you work with individual image files. Each image is recorded on the hard drive in a specific file format. Photoshop opens just about any image consisting of pixels as well as some file formats that do not. (File formats are discussed in Chapter 2.) Remember that to change a file's format, you open the file in Photoshop and use the Save As command to create a new file. And, although theoretically not always necessary on the Mac, I suggest that you *always* include the file extension at the end of the filename. If Photoshop won't open an image, it might be in a file format that Photoshop can't read. It cannot, for example, open an Excel spreadsheet or a Microsoft Word DOC file because those are not image formats — and Photoshop is, as you know, an image editing program. If you have a brand new digital camera and Photoshop won't open its Raw images, check for an update to the Adobe Camera Raw plug-in at

[www.adobe.com/products/photoshop/cameraraw.html](http://www.adobe.com/products/photoshop/cameraraw.html)

You will also find installation instructions for the update there.

### *Saving your files*

You must use the Save or Save As command to preserve changes to your images. And after you save and close an image, those changes are irreversible. When working with an important image, consider these two tips:

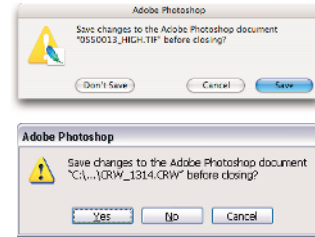
- ✓ **Work on a copy of the image file.** Unless you're working with a digital photo in the Raw format (discussed in Chapter 7), make a copy of your image file as a backup before changing it in Photoshop. That ensures that should something go horribly wrong, you can start over. (You never actually change a Raw photo — Photoshop can't rewrite the original file — so you are always, in effect, working on a copy.)
- ✓ **Save your work as PSD, too.** Especially if your image has layers, save it in Photoshop's PSD file format (complete with all the layers) before using Save As to create a final copy in another format. If you don't save a copy with layers, going back to make one little change can cost hours of work.



If you attempt to close an image or quit Photoshop without saving your work first, you will get a gentle reminder asking whether you want to save, close without saving, or cancel the close/quit (as shown in Figure 1-10).

### Keyboard shortcuts

Keyboard shortcuts are customizable in Photoshop (check out Chapter 3), but some of the basic shortcuts are the same as those you use in other programs. You open, copy, paste, save, close, and quit just as you do in Microsoft Word, your e-mail program, and just about any other software. I suggest that you keep these shortcuts unchanged, even if you do some other shortcut customization.



**Figure 1-10:** Photoshop reminds you if you haven't saved changes to an image.

### Photoshop's incredible selective Undo

Here is one major difference between Photoshop and other programs you use. Almost all programs have some form of Undo, enabling you to reverse the most recent command or action (or mistake). Like many programs, Photoshop uses the  $\text{⌘}+Z/\text{Ctrl}+Z$  shortcut for Undo/Redo (but remember that you can change the shortcut, as described in Chapter 3). Photoshop also has, however, a couple of great features that let you *partially* undo.

### Painting to undo with the History Brush

You can use the Photoshop History Brush to partially undo just about any filter, adjustment, or tool by painting. You select the History Brush, choose a history state (a stage in the image development) to which you want to revert, and then paint over areas of the image that you want to change back to the earlier state.

You can undo as far back in the editing process as you want, with a couple of limitations: The History palette (where you select the state to which you want to revert) holds only a limited number of history states. In the Photoshop Preferences ➤ General pane, you specify how many states you want Photoshop to remember (to a maximum of 1,000). Keep in mind that storing lots of history states takes up computer memory that you might need for processing filters and adjustments. That can slow things down. The default of 20 history states is good for most projects, but when using painting tools or other procedures that involve lots of repetitive steps, a larger number (perhaps as many as 60) is generally a better idea.

The second limitation is pixel dimensions. If you make changes to the image's actual size (in pixels) with the Crop tool or the Image Size or Canvas Size commands, you cannot revert to prior steps with the History Brush. You can

choose as a source any history state that comes *after* the image's pixel dimensions changed but none that come before.

Here's one example of using the History Brush as a creative tool. You open a photograph in Photoshop. You desaturate the image to make it appear to be grayscale, which gives it the appearance of a black-and-white photo. In the History palette, you click in the left column next to the Open step to designate that as the *source state*, the appearance of the image to which you want to revert. You select the History Brush and paint over your eyes, lips, and hair, restoring them to the original (color) appearance (see Figure 1-11). There you have it — a grayscale image with a couple of areas of color, compliments of the History Brush!



©2002 PhotoSpin, PhotoSpin image #0770118

**Figure 1-11:** Painting to undo with the History Brush.

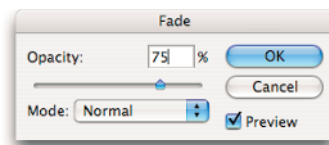
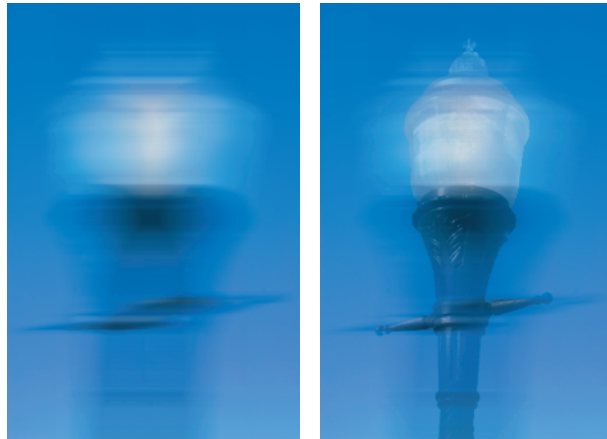
### *Reducing to undo with the Fade command*

Immediately after applying a filter or adjustment or using most of Photoshop's tools, you can choose the Edit⇨Fade command and change the opacity or blending mode with which the previous step was performed. You might, for example, apply a sharpening filter and then use the Edit⇨

Fade Unsharp Mask command to change the blending mode from Normal to Luminosity.

(Sharpening only the luminosity of your image, whether with this technique or in the L\*a\*b color mode, prevents unwanted color shifts along edges in your images. Color modes are discussed in Chapter 6.)

Or you might apply the Motion Blur filter and then use Edit⇨Fade Motion Blur (yes, the name of the command



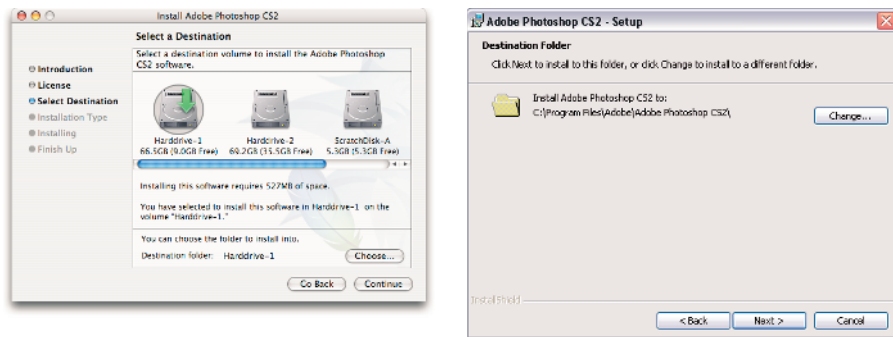
**Figure 1-12:** Compare the original blur with a reduction using the Fade command.

actually changes for you) to reduce the opacity of the blur to 75%. That gives you the appearance of a back-and-forth motion while leaving the subject recognizable (see Figure 1-12).

## Installing Photoshop: Need to know

If you haven't yet installed Photoshop CS2 (or the Adobe Creative Suite), here are a few points to keep in mind:

- ✓ **Install only into the default location.** Photoshop is a resource-intensive program. Installing it into the default location (Applications on a Mac/Program Files for Windows, as shown in Figure 1-13) ensures that it has access to the operating system and hardware as necessary. Installing into any other location or attempting to run Photoshop across a network can lead to frustrating problems and loss of work in progress.



**Figure 1-13:** Install into the default location to avoid future problems.

- ✓ **Disable all antivirus software before installing.** Antivirus software can intercept certain installation procedures, deeming them to be hazardous to your computer's health. That can lead to malfunctions, crashes, lost work, frustration, and what I like to call Computer Flying across the Room Syndrome. If you use antivirus software (and if you're on Windows, you'd better!), turn it off before installing any program, especially one as complex as Photoshop. You might find the antivirus program's icon in the Windows taskbar; or you might need to go to the Start menu, use All Programs to locate the antivirus software, and disable it. On Mac, check the Dock. And don't forget to restart your antivirus software afterward! If you already installed Photoshop and antivirus software was running at the time, I urge you to uninstall and reinstall. (On Mac, drag the Adobe Photoshop CS2 folder from the Applications folder to the Trash and empty the Trash. On Windows, choose Start⇨Control Panel⇨Add/Remove Programs.)

- ✓ **If you use auto-backup software, shut it down, too.** Never run auto-backup software when installing software. Like antivirus software, it can also lead to problems by interfering with the installer.
- ✓ **Connect to the Internet and activate right away.** It's best to run the Photoshop installer while your computer is connected to the Internet. That enables Photoshop's activation process to happen right away, making sure you can get started as soon as the installer finishes.
- ✓ **If you have third-party plug-ins, install them elsewhere.** Third-party *plug-ins* — those filters and other Photoshop add-ons that you buy from companies other than Adobe — can be installed into a folder outside the Photoshop folder. You can then make an alias (Mac) or shortcut (Windows) to that folder and drag the alias/shortcut to Photoshop's Plug-Ins folder. (If you have a multibutton mouse, right-click the folder to create an alias/shortcut; Control-click if you're still using a one-button mouse.) Why install outside the Photoshop folder? Should you ever need to (gasp!) reinstall Photoshop, you won't need to reinstall all your third-party plug-ins. Just create a new alias/shortcut and move it into Photoshop's new Plug-Ins folder.
- ✓ **If you have *lots* of plug-ins, create sets.** Plug-ins require *RAM* (computer memory that Photoshop uses to process your editing commands). If you have lots of plug-ins, consider dividing them into groups according to how and when you use them. Sort (or install) them into separate folders. (**Hint:** Plug-ins that you use in many situations can be installed into multiple folders.) When you need to load a specific set, do so through Photoshop's Preferences ⇨ Plug-Ins & Scratch Disks pane by designating a second plug-ins folder and relaunching Photoshop.
- ✓ **If you love fonts, use a font management utility.** If you have hundreds of fonts (over the years, I've somehow managed to collect upward of 3,000 fonts), use a font management utility to create sets of fonts according to style and only activate those sets that you need at any given time. The Mac OS has Font Book built right in, and Windows users might want to take a look at Suitcase ([www.extensis.com](http://www.extensis.com)). Too many active fonts can choke Photoshop's type engine, slowing performance.

