Tools and Terminology

The following chapters of this book focus on giving you straightforward solutions to common challenges associated with acquiring, organizing, and processing digital images. This first chapter, however, is more reference-oriented, zooming in on the details of some of Photoshop Elements' preferences, tools, and features. This is by no means a definitive guide. For that, it's best to refer to Photoshop Elements 4's excellent Help database, located in the toolbar under the word Help, where you'll find a massive hyperlinked and searchable document with tons of information.

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Chapter Contents

Setting Preferences

Adobe ships Photoshop Elements with preferences set in a way that may or may not suit your particular needs. Through these settings, you can change how Photoshop Elements handles a whole range of tasks, from color management to memory allocation to saving files. Let's look at some of the more important choices you can make, and see what you can do to customize the program so that it works better for you. (These preferences refer to the Photoshop Elements Editor workspace, not the Organizer. I'll cover many of the Organizer preferences in Chapter 2.)

Color Settings

Every scanner, every computer system, and every printer handles color differently. In order to maintain some control over the way your digital images look in this chaotic world, you need to know how Photoshop Elements handles color.

Photoshop Elements 4 can assign an International Color Consortium (ICC) color profile to your image file, depending on your choice of color setting, as described in this section. It can also preserve an already embedded ICC color profile. A *color profile* is a universally accepted point of reference developed by the ICC. In theory, this means that when you open the file with another computer and monitor, the image will be displayed exactly as it was on your monitor. Also, in theory, if you have an ICC-compliant printer, you'll get a printout that closely matches the image on your monitor. This is fine in theory, but in reality it doesn't always work. All the devices need to understand your color profile, and if they don't, you may have unexpected results.

Elements 4 preserves *existing* color profiles in images that you open—with one exception. If you use the No Color Management setting, existing profiles in images that you open are discarded. For this reason alone I do not recommend this setting unless all other attempts to have your monitor and printer reflect true colors fail.

On the Edit menu at the top of the Photoshop Elements Editor window, you'll see an option for Color Settings. When you choose this, you are faced with four options:
• No Color Management
• Always Optimize Colors for Computer Screens
• Always Optimize for Printing
• Allow Me to Choose

These settings are described in this section. The default setting is Always Optimize Colors for Computer Screens.

The two color profiles supported by Elements are sRGB and Adobe RGB. Adobe RGB has a wider color gamut, the ability to handle a wider range of colors. The sRGB profile is primarily used for images destined for the Web and for many inkjet printers. Adobe RGB is primarily used for images destined for printers that can handle the wider color gamut. A large number of monitors work well with sRGB and may not benefit from the larger color space of Adobe RGB.

No Color Management This option discards any assigned profiles when opening images and does not assign profiles by default to newly created or saved images. If you use Save As, however, an option exists for saving your default monitor profile with the image,

which is commonly sRGB. If you have created a custom monitor profile using Adobe Gamma or a third-party product, this profile will be listed as the ICC Profile in the Save As dialog. Images are displayed and edited in the color space of your monitor. Figure 1.1 is an example of the Save As dialog when a monitor profile has been created. In this case, a colorimeter from Monaco Systems was used to create the custom profile. This normally lists sRGB as the ICC profile if you have not created a custom profile. (☞ "Calibrate Your Display" in Chapter 3.)
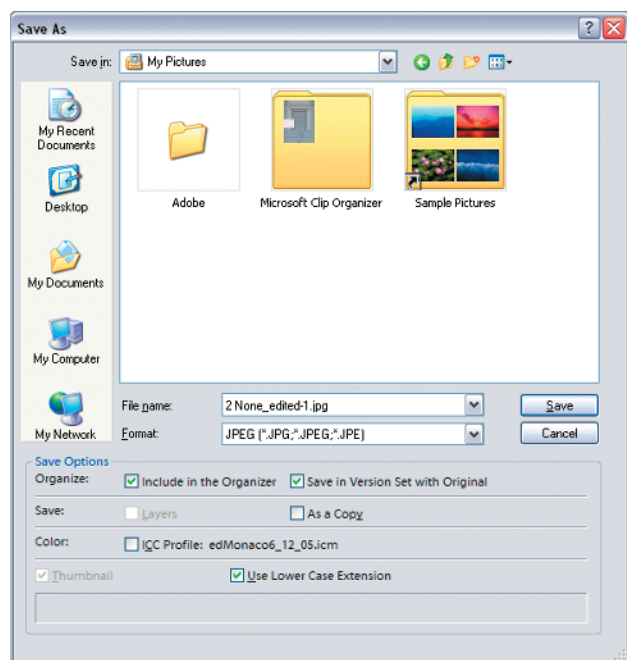

Figure 1.1: Your monitor profile is listed as the ICC Profile.

Always Optimize for Computer Screens (Default) With this setting—which is the default—you will find yourself working in the sRGB color space. This setting preserves any existing color profiles in images that you open. All newly created documents are assigned an sRGB profile. When you open an image without an existing color profile, it is assigned the sRGB profile. You can elect to use Save As and turn off the profile assignment—just remove the check from the ICC profile box.

Always Optimize for Printing If you choose this setting, you'll work in the Adobe RGB color space. This setting preserves any existing color profiles in images that you open. All newly created documents are assigned an Adobe RGB profile. When you open an image without an existing color profile, it is assigned the Adobe RGB profile. In this case, you can still elect to use Save As and turn off the profile assignment—just remove the check from the ICC profile box.

Allow Me to Choose This color setting allows you to assign a profile when you open an image with no existing profile. When you open such an image, the dialog shown in Figure 1.2 appears. Your choices are to leave the image as is or to attach one of the two profiles shown in the dialog.
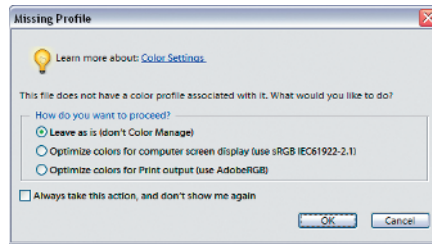
Figure 1.2: Choosing a color profile.

If you place a check in the "Always take this action, and don't show me again" box, when you subsequently open images without a profile, the choice you made is always applied without bothering you. For example, if you always want to work in the sRGB space and you make that choice here, all subsequent images that are opened without a profile are assigned the sRGB profile. If you wish to reinstate this dialog, open the Color Settings and select Allow Me to Choose.

Identifying the Image's Profile

You can always tell which color profile is attached to your image (if any) by looking at the status bar, provided you have enabled this feature. Just click the black arrow and check Document Profile. You can also use the Info palette (Window ➤ Info). In the Info palette, click the More button, select Palette Options, and place a check in Document Profile.
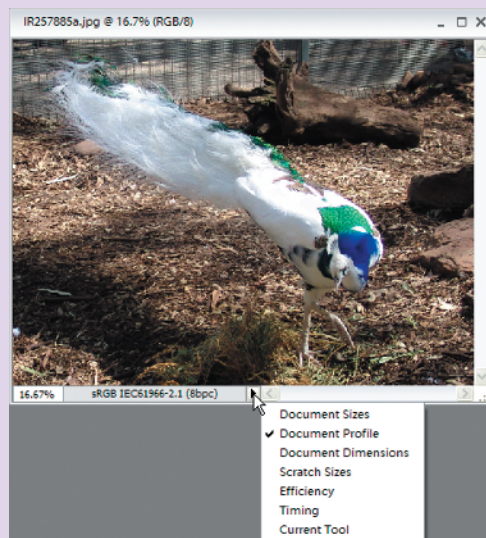
Color Management Commands

Elements 4 added a couple of new features related to color management. However, it's possible in a majority of situations to edit and print images and obtain excellent results without ever using these features. Since there may be an instance when these features might be useful, a description of them follows.

The new menu items related to color management that have been added are accessed in the Image menu (Image ➤ Convert Color Profile). Notice three choices in the submenu: Remove Profile, Apply sRGB Profile, and Apply Adobe RGB Profile. The active choices depend on the existing profile, if any, in the selected image. For example, if your image is already assigned the sRGB profile, the choice to apply that profile is grayed out.

Applying a profile can either Assign a Profile or Convert to Profile. The default is Convert to Profile but that can be temporarily changed to Assign Profile by holding the Control key while using the Apply command.

Using these new commands, assigning and converting to profiles, is not something to do casually. Without some knowledge of color management, you might irreversibly alter the color data in an image beyond what you had intended. Therefore, always work with copies of your images and keep the originals in a safe place.

Assigning a profile tells Elements how to interpret the color information in an image. An example of using this command is when you know the color profile of an image but it has no profile assigned to it. When you open such an image without a profile attached, Elements assigns a profile automatically if you have set your Color Settings preferences to either Optimize for Computer Screens or Optimize for Printing. If your setting is Allow Me to Choose, a window opens allowing you to make a choice.

Apply sRGB Profile or Apply RGB Profile, which defaults to Convert to Profile, is generally used when you know what type of color an output device expects. For example, if you have an image with an Adobe RGB profile attached and you know your printer prefers sRGB data, or if the image is destined for the Web, use the default Apply sRGB command to convert the image to sRGB.

Even though Elements only allows you to assign/convert with just two profiles, it recognizes other profiles that are attached to images. For example, if you have an image that has a scanner profile attached, Elements displays the colors correctly on your monitor. After opening the image, you can convert the profile to sRGB or Adobe RGB. Don't use Assign, or the colors may not look correct.

Preset Manager

When you use a brush, gradient, pattern, or swatch, you are presented with a default set of corresponding brushes, gradients, patterns, or colors. Except for the swatches, these options appear in the options bar at the top of the Photoshop Elements window. The swatches are found in the Color Swatches palette. For most people, the default sets provide enough options, but you can add or customize sets by using the Preset Manager, which is found on the Edit menu. Select the Preset Type to see the default options. To load a set of *custom libraries,* as the custom sets are called, you can click Load and select a saved library to open, or click the More icon at the top of the Preset Manager dialog box. A pop-up menu appears with a list of choices, including the choice to reset back to the default set. You can also create your own set by Ctrl+clicking various brushes and clicking Save Set.

Undo History States

Most of the time, when you work on the pixels of a digital image, Photoshop Elements records each step of the process in the Undo History palette. You can go back to a previous step at any point, but only as long as that step remains in the Undo History palette. Photoshop Elements records 50 steps by default, but if you have enough RAM, you can boost that number to as many as 1000. To change the default, choose Edit ➢ Preferences ➢ General and then simply type in a new number.

Saving Files

There are three options for saving files; your choice will depend on your workflow. The selection is made using the On First Save option. The default setting is Ask If Original, and in most cases, you'll find this setting works just fine (see Figure 1.3).
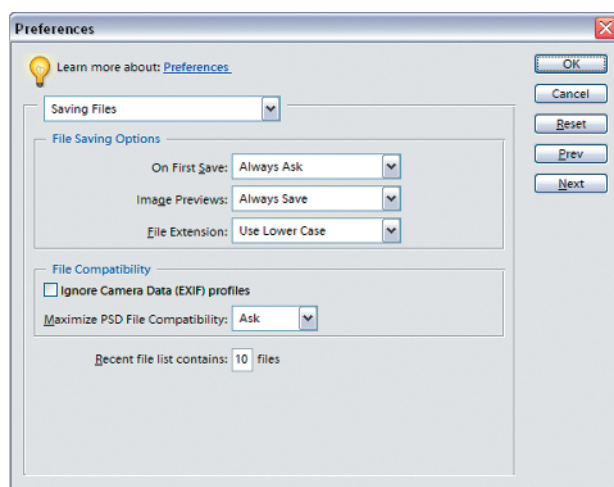
Figure 1.3: Preferences for saving files.

Taking the options in the On First Save box in order, here is how they behave:

Always Ask This setting opens the File Save As dialog on the initial save of any image, whether it is part of a version set or not. (A *version set* is when Elements saves a copy of an image and leaves the original unchanged. For more on version sets, ↝ "Using Version Sets" in Chapter 2.) For example, if you open an image, edit it, and choose File ➢ Save, the Save As dialog opens instead. You can obviously overwrite the original if you choose.

Should you close the image and reopen it, the same behavior occurs on the initial save. This setting is to provide protection against unintentionally overwriting images.

Ask If Original (Default) This option brings up the Save As dialog for all original images. These are images that are not part of a version set. The advantage of this setting is that it asks you if you want to specify a version set the first time, but not if it is already a version. If you're happy with one original and one version set image, and don't care to create multiple versions, you can use the Save command and be assured that you will not add additional versions to your file. You can always use Save As to create an additional version.

Save Over Current File This option just saves over the original file. An exception would be if you added a layer to a JPEG file, you would get the Save As dialog with PSD as the suggested file format. Of course, you can always use Save As to avoid overwriting the original.

With any option you choose, you can always accidentally or purposely overwrite an original image. For that reason alone, always keep a backup set of your images in a safe place.

Here are the rest of file-saving options:

Image Preview When you save a file, Photoshop Elements can create an image preview thumbnail. Many applications, including Microsoft Office 2003 and the Windows XP operating system, create their own thumbnails, allowing you to turn this option off.

File Extension This should be set to Use Lower Case for maximum compatibility with other applications.

Ignore Camera Data (EXIF) Profiles This option really pertains to opening images, not saving them. If this option is enabled (checked), Elements ignores the EXIF color data in camera images. This is best illustrated by an example.

Let's assume that your camera creates an image in the sRGB color space, but you want to edit your images in the Adobe RGB color space. Here's what you do:

1. In your Editor Preferences (Edit ➢ Preferences ➢ Saving Files), place a check next to Ignore Camera Data (EXIF) Profiles.
2. In your Color Settings (Edit ➢ Color Settings), select Always Optimize for Printing.
3. Transfer images from your camera to your computer.
4. Your images are now in the Adobe RGB color space.

If you want to have a choice of profiles, change the color settings to Allow Me to Choose.

Maximize PSD File Compatibility In the Saving Files Preferences dialog box, you also have the choice of whether to Always Maximize Compatibility for Photoshop (PSD) Files. To save up to a third of your file size, I suggest you turn this option off. You need this option only if you are planning to use Photoshop version 2.5 or earlier, which is unlikely. Keep in mind that turning off backward compatibility affects only PSD files, not GIFs or JPEGs.

Recent File List By default, the recent file list (found under File ➢ Open Recently Edited File) includes 10 recent files. In the Saving Files Preferences dialog box, you can change this to any value from 0 to 30.

Units and Rulers

Photoshop Elements displays dimensions in inches by default (in the U.S.). You can change that setting to centimeters, millimeters, or pixels in the Units & Rulers dialog box (Edit ➢ Preferences ➢ Units & Rulers). You can also change these preferences in the Info palette. When I am working on images destined for the Web, I always use pixels; otherwise, I leave my setting at inches. (Picas, points, and percent are useful for only a select few users.)

Plug-Ins

When Photoshop Elements is launched, it automatically searches for a folder called Plug-Ins in the application folder. Plug-ins are mini software programs developed by Adobe or third-party vendors to add various functionalities to Photoshop Elements. You may also be using another program that uses compatible Photoshop plug-ins. You can tell Photoshop Elements where to find and open those plug-ins by going to Edit ➢ Preferences ➢ Plug-Ins & Scratch Disks.

Memory

If you don't have enough RAM, Photoshop automatically creates and uses a portion of your startup hard drive as a scratch disk. It's never as fast or as optimal as having enough RAM, but if you have a large hard disk, you'll avoid the dreaded "out-of-memory" warning. If you have more hard drives, you can assign scratch disks to them by choosing Edit ➢ Preferences ➢ Plug-Ins & Scratch Disks. Choose the drive that is the fastest and has the most contiguous free space to use as your primary scratch disk. You can create up to 200GB of scratch disk space.

The Memory and Image Cache preferences allow you to specify how much memory you want to use for Photoshop Elements. The cache levels affect the speed of zooming and drawing, and the Use Cache for Histograms setting affects how quickly histograms display. These settings are best left at the default levels for most projects.

Note: Sometimes cameras and other devices that mount themselves on the desktop as drives show up as valid options in the Memory Preferences dialog box. It is important that you do not choose them. They are usually small in size and slow. Choose only devices that are real hard disks, and not removables.

Customizing and Organizing the Work Area

Look at anyone's desk and you'll see variations in the way people like to work. It's the same with the Photoshop Elements Editor work area. One person might prefer a desktop tiled with palettes, whereas someone else might find this cluttered look distracting. With Photoshop Elements, palettes can be stacked and tiled and moved wherever you want. Look at Figure 1.4; it shows the entire editing work area of Photoshop Elements.
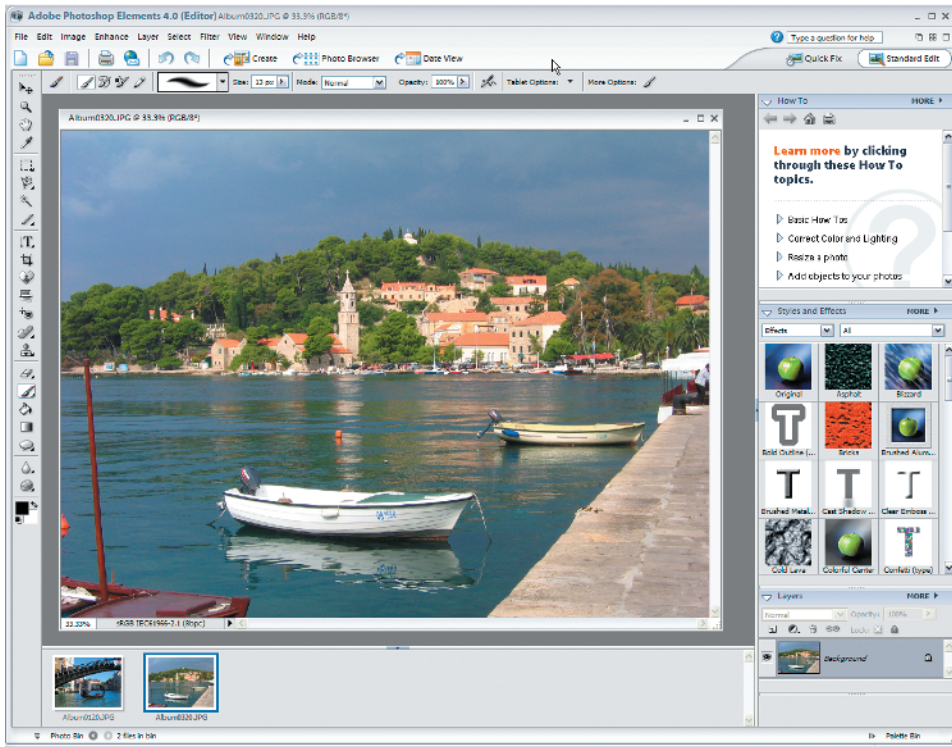
Figure 1.4: The Photoshop Elements Editor work area.

At the top is the *menu bar,* which contains drop-down menus for performing tasks. On the Enhance menu, for example, you'll find ways to modify the contrast and color of your digital image. Unlike most of the other components of the work area, the menu bar can't be moved or altered in any way. There is a search field for using keywords to access the Help database in the upper-right corner. Additionally, there are two icons at the upper right that allow you to either cascade or tile open images. A third icon there maximizes the active image. As in any Windows program, clicking the Maximize button causes it to be replaced by both a Minimize and Restore button. This Restore button, which restores a maximized window, shouldn't be confused with the buttons directly above, which operate on the Elements application.

Below the menu bar is the *shortcuts bar.* Position the pointer over any icon in the shortcuts bar, and its name appears. Here you'll find buttons for common commands such as Open, Print, Save, and Undo. You'll also find buttons that jump you to the Organizer, actually labeled Photo Browser (denoted by a sweeping arrow, or swoosh). There are also icons on the right that allow you to switch between the Quick Fix and Standard Edit workspace modes.

Below the shortcuts bar and palette well is the *options bar,* which contains various options for using a selected tool. As you select a tool from the toolbox, different options appear in the options bar. Some settings are common to several tools, and others are specific to one tool.

To the left of the work area is the *toolbox.* The icons in the toolbox give you access to various tools for creating and editing images. When you position the pointer over an icon in the toolbox, the name of the tool appears. An icon with a small arrow in its lower-right

corner indicates a group of tools. When you select one of these icons, the tools it provides appear on the options bar. You can also click and hold the mouse on one of these icons to display a pop-up menu of the tools it provides. By default, the toolbox is docked, but it can be torn off into a floating palette by grabbing on to its gripper and dragging.

To the right of the work area is the *palette bin*. Palettes help you modify and monitor images. You open a palette by clicking its "twist down" arrow. A palette will remain open until you click its arrow again. The palette bin is closed easily by clicking the Close button (a right-facing arrow) at the bottom of the bin—you can actually click the words Palette Bin. You can also drag a palette's tab to move the palette from the bin to any place you want on the screen (☞ "Docking, Stacking, and Resizing Tool Palettes," next).

At the bottom of the work area is the *photo bin*. This container displays the currently opened files. For every open image you see a live thumbnail representation. You can switch between files by clicking the thumbnails. You can also close, minimize, duplicate, or rotate images via the photo bin by right-clicking a thumbnail.

Docking, Stacking, and Resizing Tool Palettes

When you open Photoshop Elements for the first time, the How To, Styles and Effects, and Layers palettes are in the palette bin. You can move a palette to and from the palette bin and the work area by dragging the palette's tab in or out of the bin. You can change the order of palettes in the bin by dragging the title bar above or below other palettes found in the bin. You can resize a palette found in the palette bin by grabbing the gripper at the bottom of the palette. You can also dock palettes together on the work area by dragging one palette's tab onto the body of the other palette (see Figure 1.5).
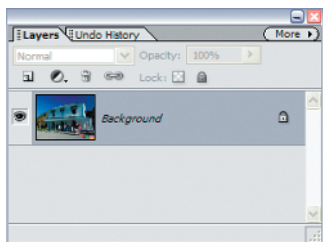

Figure 1.5: For easy access, dock palettes together on the work area.

Personally, because I use them so much, I make both the Layers and Undo History palettes visible in the palette bin.

Note: Choosing Window ➤ Reset Palette Locations places all palettes back in their default locations.

The Welcome Screen

When you open Photoshop Elements, you are greeted with a Welcome screen (Figure 1.6), where you have seven options:

- See a brief overview of the Photoshop Elements product.
- Open the Organizer (View and Organize Photos).
- Open the Editor's Quick Fix mode (Quickly Fix Photos).

- Open the Editor's Standard Edit mode (Edit and Enhance Photos).
- Open directly into the Organizer's Creation Setup dialog (Make Photo Creations).
- Create a new file (Start From Scratch).
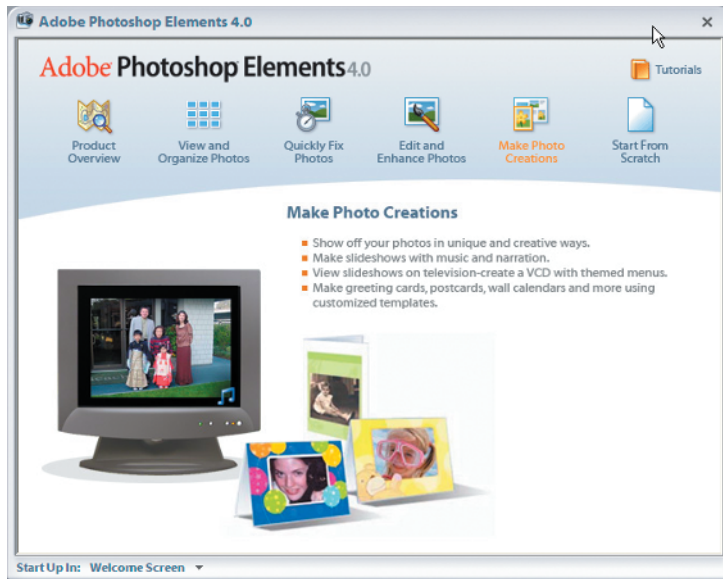- Access Adobe's online tutorials.

Figure 1.6: The Welcome screen.

The Welcome screen disappears when you select an option, but you can get it back at any time by choosing Window ➢ Welcome from either the Editor or the Organizer.

Histograms

A *histogram* shows the distribution of an image's pixel value in a bar chart representation. The left side (level 0) shows the values of an image's darker areas, and the right side (level 255) shows the image's highlight values. For a properly exposed photo, you want the entire spectrum to be covered, with the base high in the center.

You can view the current histogram of your frontmost document by choosing Window ➢ Histogram from the main menu. You can change which channel you view along with the source from the Histogram palette (see Figure 1.7).
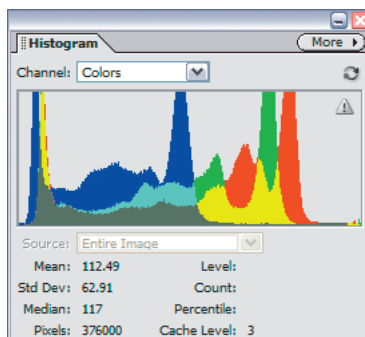

Figure 1.7: The Histogram.

From the Channel pop-up menu you can select RGB, Red, Green, Blue, Luminosity, or Colors. RGB displays a composite of individual color channels. Red, Green, and Blue display the histogram for the individual color channel. Luminosity displays the luminance (or intensity) values of the composite channel. Colors displays

- Red, Green, and Blue colors represented as individual channels
- Cyan, Magenta, and Yellow colors represented as an overlap of channels
- Gray represented as an overlap of all three channels

From the Source pop-up menu you can select Entire Image, Selected Layer, or Adjustment Composite. Entire Image does just that—it looks at the whole image to get its values (including all layers). Selected Layer uses only the selected layer to base the histogram on. Adjustment Composite displays the histogram for all layers below the selected adjustment layer in the Layers palette.

All about Layers

Following most of the examples in this book requires an understanding of layers and the Layers palette. Layers are one of the most powerful features in Photoshop Elements, and once you get used to using them, you will never understand how you managed without them. Some people use layers as a filing cabinet where they keep various versions of their work, as well as commonly used templates. One such template is a screen shot of a web browser window that is used for previewing web graphics and type. Many users make changes on a duplicate layer while always keeping an original version of their work handy on a separate layer, for comparison.

When you first open a digital image, Photoshop Elements places the image on a layer that is by default called the `Background` layer. Many Elements users may never need to go beyond this point. Later in the book, you will learn to resize, crop, or apply simple color and tonal corrections to a digital image, without going beyond one layer (☞ Chapter 3). However, even if you never consciously create a new layer, layers will creep into your document. For example, a new layer is added automatically when you cut and paste a selection or if you add text to an image.

The minute you have more than one layer, the relationship between different layers is controlled by the Mode and Opacity settings in the Layers palette. For example, if the Mode is set to Normal and the Opacity is set to 100 percent, pixels in the top layer replace pixels in the layer underneath. This relationship changes when you select another Mode, or you lower the Opacity. Several ways of using different Mode settings for effects will be shown throughout this book.

Figure 1.8 shows the Layers palette. Note the various states of the layers. Some layers have their visibility turned on, as indicated by the eye icon in the leftmost side; other layers are turned off, as indicated by the absence of the eye. Only a single layer can be selected at a time, as indicated by the gray shading. One of the most common mistakes people make is not selecting the layer they want to work on. The result is that a command, such as a blur filter, doesn't affect the desired image at all, but in fact affects the content of another layer instead.
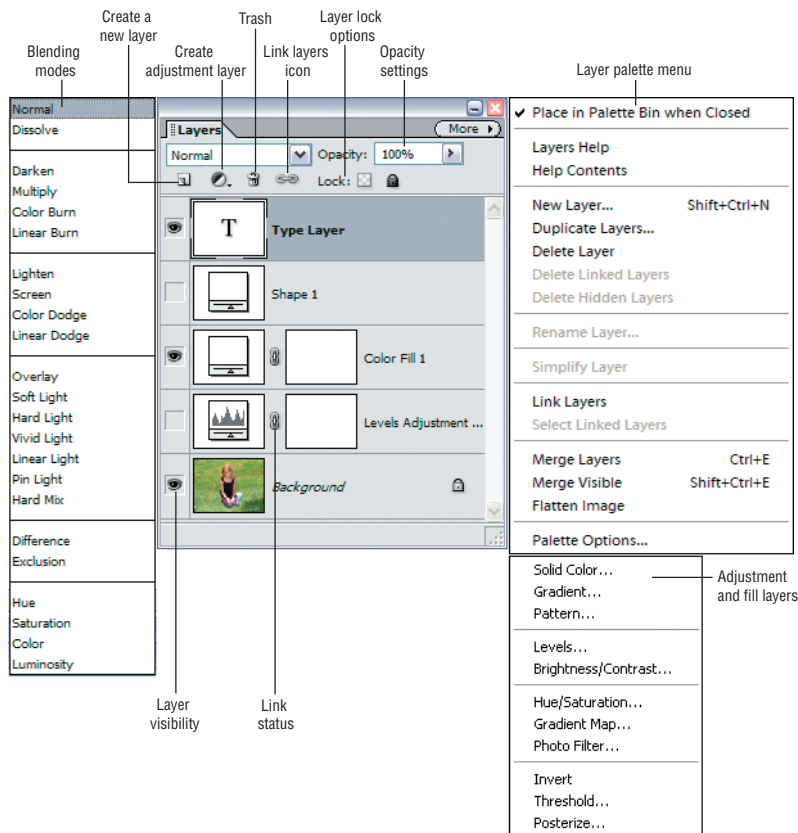
Figure 1.8: The Layers palette revealed.

Most of the time, when you add a layer, you increase the file size of your image—how much depends on the contents of the layer. Adjustment and fill layers, which are discussed later in this section, don't add any appreciable file size. Also remember that you'll need to save your work in the PSD or advanced TIFF file formats in order to keep layers intact. The JPEG file format, for example, doesn't allow you to save layers, and if you save your file as an animated GIF, layers are retained, but not in the same state as they were saved.

Here are some of the other things you need to know to create and otherwise work with and manage multiple layers. Photoshop Elements offers many ways to accomplish the same tasks:

Turn the visibility of layers on and off by toggling the eye icon in the leftmost side of the Layers palette.

Select a layer by clicking its thumbnail or name in the Layers palette. Highlighting indicates the layer is active. Choosing the Move tool ( ) from the toolbar and clicking an image in the image window selects the layer containing that image (as long as Auto Select Layer is selected in the Move tool options bar). With the Move tool selected, right-clicking the image opens a pop-up menu listing the names of the various layers that are under the cursor. To select a layer, click its name in the pop-up menu.

Link layers by first selecting the layers you wish to link; multiple layers can be selected by Shift+clicking or Ctrl+clicking. After selecting the layers, click the Link

Layers button at the top of the Layers palette. In Figure 1.9, the `Background` and `Layer 2` layers have been linked. The small linked icon appears on the right side of the layer. To unlink these layers, select them again and click the Link Layers button.
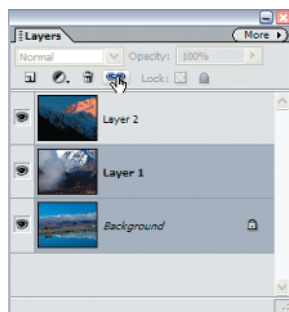

Figure 1.9: The Link Layers icon.

Group layers by holding down the Alt key and positioning the pointer over the line dividing two layers in the Layers palette. Click when the pointer changes to two overlapping circles (⬤). When layers are grouped together, the bottommost layer, called the *base layer,* becomes dominant and defines the subsequent layers. Imagine a base layer consisting of type grouped with another layer containing texture. The type would define the shape of the texture. You can also choose Layer ⊳ Group with Previous (Ctrl+G) after selecting a layer. To ungroup layers, choose Layer ⊳ Ungroup, or hold down the Alt key, position the pointer over the line dividing the layers, and click.

Lock the properties of a layer by selecting it and clicking the Lock All button (🔒). Note the appearance of a solid black lock icon to the right of the layer name, indicating that the layer is protected from any changes.

Lock a layer's transparency by selecting it and clicking the Lock checkered square button. Note the hollow lock icon in the layer bar, which indicates that changes will be made in this layer only on existing pixels. This is useful for modifying an image while maintaining its exact shape and size.

Move a layer by selecting it and then dragging and dropping it into a new position in the Layers palette. A background layer cannot be moved from its background position without first changing its name. You can also reorder layers by choosing Layer ⊳ Arrange.

Add a layer by clicking the More button and choosing New Layer from the palette menu, or by clicking the Create a New Layer icon (🗔) at the top and far left. Some actions, such as cut and paste, automatically create a new layer. You can also choose Layer ⊳ New ⊳ Layer or press Ctrl+Shift+N.

Duplicate a layer by clicking the More button and choosing Duplicate Layer from the palette menu. Or in the Layers palette, select the layer you wish to duplicate and drag it to the Create a New Layer icon (🗔) at the top of the Layers palette. Or choose Layer ⊳ Duplicate Layer.

Delete a layer by dragging a selected layer to the trash icon (🗑) at the top of the Layers palette, or select a layer and click the trash icon. You can also choose Layer ⊳ Delete Layer, or choose Delete Layer from the More palette menu.

Rename a layer in the Layers palette by double-clicking the layer name, or clicking the More button and choosing Rename Layer from the palette menu. Or choose Layer ➢ Rename Layer.

Flatten linked layers into one layer by clicking the More button and choosing Merge Linked from the palette menu. Or choose Layer ➢ Merge Linked (Ctrl+E).

Flatten visible layers by clicking the More button and choosing Merge Visible from the palette menu. Or choose Layer ➢ Merge Visible, or press Ctrl+Shift+E.

Flatten all layers by clicking the More button and choosing Flatten Image from the palette menu. All layers will become one. All layer information is lost after the image is flattened. You can also choose Layer ➢ Flatten Image.

Note: Many of the commands described in this section are available by right-clicking a layer in the Layers palette.

Adjustment and Fill Layers

When Adobe first added layers to Photoshop many years ago, I was thrilled. When they came up with adjustment and fill layers, I was amazed. As you'll see throughout this book, adjustment layers enable you to affect a single layer or group of layers while making it possible to remove the effect any time later without changing the rest of the image or greatly increasing your file size. Adjustment and fill layers retain the same opacity, blending, and grouping properties.

You access adjustment and fill layers by clicking the black-and-white circle at the top of the Layers palette ( ) or by choosing Layer ➢ New Adjustment Layer or Layer ➢ New Fill Layer.

You can choose from the following kinds of adjustment layers: Levels, Brightness/ Contrast, Hue/Saturation, Photo Filter, Gradient Map, Invert, Threshold, Solid Color, Gradient, Pattern, and Posterize. In the chapters that follow, I'll mostly refer to the first four types. However, I encourage you to try the others. *Gradient Map,* for example, is a great way to create special color effects by mapping the equivalent grayscale range of your image to a colorful gradient fill. *Invert* makes your image look like a negative. Threshold converts images into high-contrast, black-and-white images that look like lithographs. *Posterize* gives you control over the number of tonal levels; choosing lower numbers radically changes the look and feel of your image.

Fill layers include fills based on a solid color, a gradient, or a pattern. I'll use fill layers throughout this book, especially when manipulating product shots (👉 Chapter 7).

To change an adjustment or fill layer, double-click the thumbnail in the Layers palette or choose Layer ➢ Layer Content Options. To delete an adjustment or fill layer, drag it to the trash icon at the bottom of the Layers palette, or with the adjustment layer selected, choose Layer ➢ Delete Layer.

Layer Styles

Another amazing feature is layer styles. You most likely have no idea how long it used to take to create a simple drop shadow before Photoshop introduced layer styles. Now you can do it with a click of the mouse.

Layer styles provide a way to apply a predetermined look and feel to a layer itself. These are removable and nondestructive, just like adjustment and fill layers. You can choose the way layer styles are displayed—list or thumbnails—via the More button at the top of the Styles and Effects palette. Thumbnails are the most useful in previewing a style's effect. Figure 1.10 shows a few layer styles.
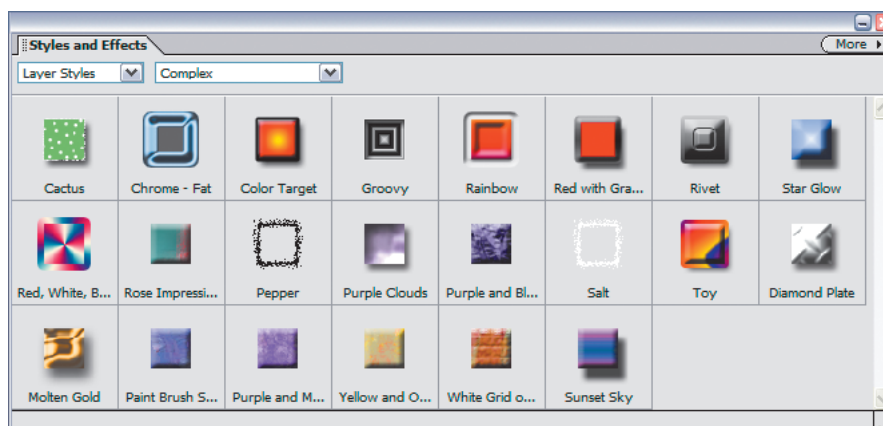

Figure 1.10: Here are a few of the many layer styles.

To apply a layer style, be sure the Layer Styles option is selected in the first popup of the Styles and Effects palette and then drag and drop a style from the palette onto an image. You can also double-click a style to apply it to the active layer. Be careful: clicking more than one style will apply all your choices additively. This is great if this is what you want, but if not, make liberal use of the Undo History palette or the Undo command.

The Styles and Effects palette offers 14 categories of styles as starting points. However, with the power to customize style settings, the possibilities are endless. You can manipulate layer styles in the following ways:

Customize a layer style by double-clicking the f symbol in the Layers palette, which brings up a dialog box where you can specify the exact thickness, angles, and other characteristics of the style you desire. Or choose Layer ➢ Layer Style ➢ Style Settings from the menu.

Repeat a custom layer style on other layers by simply copying and pasting styles from one layer to another. Choose Layer ➢ Layer Style ➢ Copy Layer Style and then choose Layer ➢ Layer Style ➢ Paste Layer Style.

Clear a layer style by choosing Layer ➢ Layer Style ➢ Clear Layer Style or by right-clicking the layer in the Layers palette and choosing Clear Layer Style.

Effects

Effects are like automatic cameras. They make you look good even if you don't know what you are doing. Built into most effects are a complex series of filters, layer styles, and/or program functions. Figure 1.11 shows all the effects in the Styles and Effects palette window.
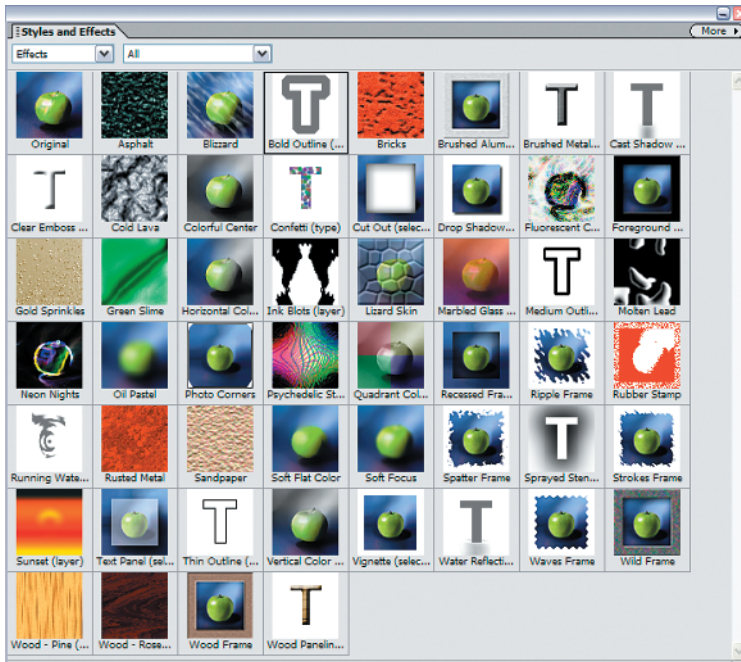
Figure 1.11: Thumbnails provide a useful preview of an effect.

To apply an effect, first select Effects from the first pop-up in the Styles and Effects palette. Then you select an effect and drag it from that palette onto an image, or simply double-click the effect. Remember that you don't have to apply an effect to an entire image. If you make a selection before applying an effect, some effects will apply only to that selection. (Each effect has its own policy for honoring selections.)

It may seem that effects are similar to layer styles, but there are some huge differences: Effects are not changeable in the same way that layer styles are, and they often require you to simplify a type layer before you apply an effect to it. Some effects flatten the image, some replace content, and some make entirely new layers (or combine with other layers). Blending modes may or may not be relevant.

Selection Tools

Much of the power of Photoshop Elements lies in its capability to manipulate both entire images and discrete portions of images. Selection tools enable you to target which pixels to operate upon. As you'll see throughout this book, knowing which selection tool to use when makes a big difference. Some selection tools, such as the Rectangular Marquee, are straightforward to use; others, such as the Magic Wand and the Magnetic Lasso, are more complex and require a little more skill to use. Most users will find that the Selection Brush tool falls somewhere in between. Each selection tool has multiple options for its use, which are accessed via the options bar found below the shortcuts bar.

Marquee Tools

The Marquee tools include the Rectangular (⬚) and Elliptical (⬭) selection tools. They share the same spot on the toolbar. When you click the Marquee tool, buttons for both tools appear on the options bar. Switch between the two by clicking one of the

buttons, or by clicking and holding the Marquee tool and then selecting Rectangular or Elliptical from the flyout.

Press M at any time (except when you are in text edit mode) to select the Marquee tool. Pressing M repeatedly toggles back and forth between the Rectangular and Elliptical tools.

These tools are most appropriate for making selections in the general area of what you want. Holding down the Shift key forces a Marquee tool into a circle or square shape. You can also use either Marquee tool as a rectangular cropping tool. Just make your selection and then choose Image ➢ Crop. If you are using the Elliptical Marquee tool, the crop will go to the outermost points of the ellipse but still be rectangular.

Lasso Tools

Lasso tools include the Lasso, Magnetic Lasso, and Polygonal Lasso. All three tools are at the same spot on the toolbar. When you click the Lasso tool, buttons for all three tools appear on the options bar. Switch between the tools by clicking one of the buttons, or by clicking and holding the Lasso tool and then selecting Lasso, Magnetic Lasso, or Polygonal Lasso from the pop-up menu.

Press L at any time (except when you are in text edit mode) to select the Lasso tool. To toggle among the three Lasso tools, press the L key repeatedly. While using the Magnetic Lasso, pressing the Alt key switches it to the Lasso; release the Alt key to revert to the Magnetic Lasso.

The Lasso tool (⌗) is great for tracing areas with jagged edges. Hold down the mouse button and freehand trace the desired selection shape. When you release the mouse, Photoshop Elements closes the shape if you haven't already done so. For maximum accuracy, magnify the image to see the border details.

The Magnetic Lasso tool (⌗) is an enhanced version of the Lasso tool that snaps to pixels of similar colors. Width, edge-contrast, and frequency parameters let you specify the range of pixel similarity to which the lasso is attracted. Double-click to finish making your selection. Again, Photoshop Elements closes the shape if you haven't already done so. I explain the Magnetic Lasso in great detail elsewhere in this book (⌗ "Separating a Product from Its Background" and "Adding Motion Blur" in Chapter 7).

The Polygonal Lasso tool (⌗) lets you specify the points of a multi-sided shape you wish to select. This is useful for selections with straight edges.

While using either the Magnetic Lasso or Polygonal Lasso selection tools, you can start over by pressing the Esc key.

Magic Wand

The Magic Wand tool (⌗), located in its own spot in the toolbar, magically chooses pixels of the same color within the specified tolerance limits throughout your image. Use this tool for irregularly shaped areas of the same color. I explain the Magic Wand in great detail elsewhere in this book (⌗ "Separating a Product from Its Background" in Chapter 6).

Selection Brush

The Selection Brush tool (), which shares a spot with the Magic Selection Brush tool in the toolbar, selects an area by painting over it. To add to a selection, simply paint over the area you wish to add. To subtract from a selection, hold the Alt key, and the areas you paint will be deselected. At any time you can start over by choosing Select ➢ Deselect from the menu bar or by using the keyboard command Ctrl+D. Holding the Shift key while dragging this tool will approximately constrain it to straight lines or connect two clicked points. In the Selection Brush options bar, you can control the brush size and hardness. Increasing the Hardness setting is much like using the feather command found in the other selection tool options. 0 percent produces a soft selection edge, while 100 percent makes the edge of the selection more sharply defined. (Keep in mind that this is only a slight feathering. For radical feathering, you need to use Select ➢ Feather and choose higher pixel values.)

In the Selection Brush options bar, you can choose between working in Selection mode or Mask mode. The default, Selection mode, produces the familiar pulsing, dotted "marching ants" lines that define and protect the area contained within the dots. If you select Mask, the areas you paint over will be colored. The default is a red overlay at a 50 percent opacity, but you can change both the color and the opacity in the options bar.

Keep in mind that Selection and Mask modes are essentially opposite selection methods. When you use Mask mode, areas that are colored by the Selection Brush are "protected" as opposed to being "selected." It's really important to understand the difference. When something is selected, either by using the Selection Brush in Selection mode or one of the other selection tools, you can apply Enhance commands, filters, or effects only to the selected areas. But when you use the Selection Brush in Mask mode, the colored areas are the areas that won't be affected by such commands. In other words, they are protected (remember this by thinking of the Mask mode as a way to put virtual "masking" tape over parts of an image to protect it). Now this gets really confusing if you go from Mask mode back to Selection mode. The color overlay you created with the Selection Brush is replaced by the familiar pulsing dotted line; however, don't be fooled. The area within the parameter of the dotted line is still protected, not selected. If you look carefully, you'll see more dotted lines that show the boundaries of the actual selection.

You can selectively deselect masked areas by holding down the Alt key while painting with the Selection Brush in Mask mode.

Magic Selection Brush

The Magic Selection Brush tool can do amazing things—sometimes. There are images that are meant for this tool, and there are some that are not. The Magic Selection Brush selects an object by having you just scribble or draw a line on it. Items that are easily selected with this tool include flowers, fruit, and Halloween pumpkins of all things. The best way to explain this tool is with an example.

Here's what I did to quickly select the pumpkin in an image:

1. Using the pumpkin image, I chose the Magic Selection Brush tool, which shares a palette location with the Selection Brush tool (press the F key).

2. I changed the color for the selection markup to yellow to make it stand out; I also changed the brush size to 7 pixels. If your selection is more than you expected, try a smaller brush.

3. I drew a line from the top of the stem to the bottom of the pumpkin, as shown in Figure 1.12 on the left. If I had started below the stem, just the pumpkin would have been selected. Since the tool always switches to the option with the plus sign (+), it adds to the selection when next used. This can be easily forgotten, so keep an eye on it.
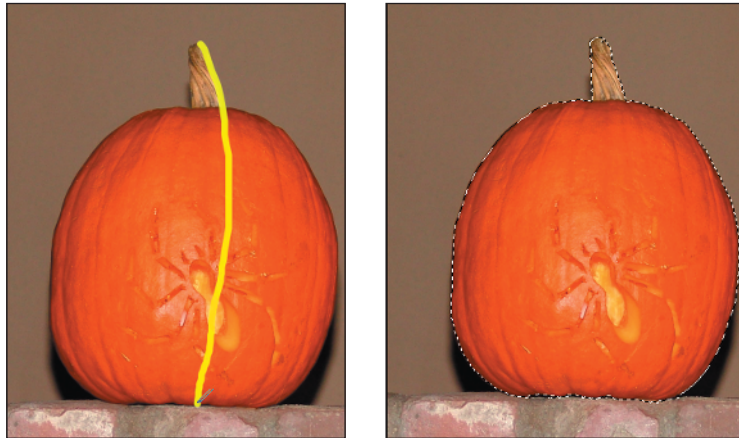

Figure 1.12: Left, during selection. Right, after selection.

4. After releasing the mouse, the marquee appeared around the pumpkin, as seen in the right-hand image of Figure 1.12. It may be necessary in some cases to touch up the selection with the Selection Brush.

Magic Extractor

The Magic Extractor tool is not a selection tool per se, but it can be used to extract an object from its background, and like the Magic Selection Brush, it performs better with some images than others. An example of this tool in action is presented in Chapter 7. In that chapter, I mention that this tool is not the only way to extract an object, but just one more option to call upon when the need arises. Sometimes it's necessary to use a combination of tools to extract an object from its background, depending on the level of difficulty. Examples of techniques for doing this are also explained in Chapter 7.

Selection Tool Options

Generally, options for the selection tools other than the Selection Brush include the following:

Adding, subtracting, or merging selection shapes. You can add to (Shift), subtract from (Alt), or intersect with selections (Shift+Alt) by holding down these additional keys while making selections. You can also click the respective icons in the

options bar. If you use the options bar, the setting remains until you change it. Using the keyboard has its advantages.

Moving, copying, or pasting selections and layers. After you make a selection shape, you can move the outline of the defined area by dragging it with your mouse, provided a selection tool is still selected, or you can more precisely position it with the arrow keys. However, the New Selection option must be selected on the options bar. You can move a selection this way with either the Marquee, Lasso, or Magic Wand selected, regardless of which tool made the selection. For example, you can make a selection with the selection brush and move it by selecting a marquee tool and dragging it with your mouse.

Softening edges of a selection. You can blur the edges of selections by typing a specific number of pixels in the Feather field, or by choosing Select ➢ Feather (Ctrl+Alt+D).

Anti-aliasing a selection. This controls the smoothness of a selection's edges by including transition pixels. By default, the anti-aliasing option is selected.

Controlling Selections

There are several ways to control the shape and size of a selection:

- You can specify the exact dimensions or proportions of a Marquee selection in the options bar Mode pop-up menu.
- You can reverse or invert any selection and choose unselected pixels by choosing Select ➢ Inverse or by pressing Ctrl+Shift+I.

There are several ways you can modify a selection:

Select ➢ Modify ➢ Border selects a border of pixels the specified number of pixels inside and outside the current selection.

Select ➢ Modify ➢ Smooth excludes pixels outside the specified range from the current selection. This is especially useful when you use the Magic Wand and get small selections all over the image. The Smooth option unifies the many selections into one.

Select ➢ Modify ➢ Expand makes the current selection larger by the specified number of pixels.

Select ➢ Modify ➢ Contract makes the current selection smaller by the specified number of pixels.

Select ➢ Grow incorporates, into the current selection, pixels that are similar and in a contiguous area.

Select ➢ Similar incorporates, into the current selection, pixels that are similar anywhere within the image.

Select ➢ Save Selection allows you to save a selection and load it for later use.

Except for the options that apply specifically to the Marquee selection tool, all of these commands apply to a selection created by the Selection Brush.

At any time, you can remove a selection by using the Esc key or by pressing Ctrl+D. If you change your mind, you can get the selection back using the trusty Undo command (Ctrl+Z) or by choosing Select ➢ Reselect.

You can turn a selection into a colored outline by using the Stroke command. Make a selection with any of the selection tools and choose Edit ➤ Stroke. In the Stroke dialog box, specify a line width and color, as well as the location of where the pixels fall in relationship to the selection outline: inside, center, or outside. You can also select a blending mode and opacity.

Cookie Cutter Tool

The Cookie Cutter tool (☺) crops an image into a shape you can choose. An example of this is shown in Figure 1.13. First, choose the shape you want to constrict your image to by selecting it in the Cookie Cutter's options bar. Then click and drag over your image to see the shape appear. You can move or resize the shape by moving the cursor over the edge of the bounding regions. Once you are happy with the placement, commit the selection by choosing the Commit button in the options bar. There are a few options you can select for your Cookie Cutter tool: the shape's options, the amount to feather the selection, and whether to crop the image.

Figure 1.13: The Cookie Cutter tool automatically turns an image into a shape.

Under the shape's options you can choose Unconstrained, Defined Proportions, Defined Size, Fixed Size, and From Center. Choosing Unconstrained enables you to draw the shape to any size you like. Defined Proportions keeps the height and width of the shape in proportion. Use Defined Size to crop the image to a defined size (as determined by clicking and dragging the bounding boxes), and use Fixed Size to enter the exact size you want for the completed shape. Select From Center to draw the shape from the center of your first click.

Viewing and Navigation Tools

For precise work, it is essential to be able to zoom in and out of an image, and to navigate around the window if the image is large. Several tools and commands are available to help you.

Zoom Tool

To select the Zoom tool (🔍), click it on the toolbar or press Z. The Zoom In tool (🔍) enlarges image detail, and the Zoom Out tool (🔍) achieves the opposite effect. You

can switch between Zoom In and Zoom Out by clicking their buttons on the toolbar. Hold down the Alt key to temporarily change the currently selected Zoom tool to the opposite tool; when you release the Alt key, the tool changes back to its original state. Double-clicking the Zoom tool icon in the toolbox returns the image to 100 percent.

The percent magnification appears in the lower-left corner of the work area. You can type a desired percent magnification in this box. You can also choose View ➢ Zoom In or View ➢ Zoom Out.

With the Zoom In tool selected, you can fill the screen with a particular area of an image by clicking and dragging the mouse to define a bounding box surrounding the area of interest. Let go of the mouse, and zoom!

In the Zoom tool options bar, if Resize Windows to Fit is selected, the Photoshop Elements window is resized as necessary to display the image. When the option is deselected, the window remains the same size regardless of magnification.

If you have more than one image open, you can have the Zoom tool zoom in on all the images at the same time by selecting the Zoom All Windows check box in the options bar. To temporarily set this behavior, you can hold down the Shift key while clicking the Zoom tool. You can also Shift+double-click the Zoom tool to display all open images at 100 percent.

View Commands

Several view commands are found in the main menu bar. These include the following:

View ➢ New Window for ‹*Filename*› creates multiple views of the same image. Any changes made are applied to all views. You can close any but the last view before you are prompted to save the file.

View ➢ Fit on Screen fills the entire window with the entire image. This is equivalent to double-clicking the Hand tool.

View ➢ Actual Pixels displays an image at 100 percent while taking into account the height and width of the image, as well as the resolution of the monitor. Two images can have the same height and width and different resolutions, and yet appear the same size on the monitor.

View ➢ Print Size displays an image at 100 percent if the resolution is 72ppi. This view takes into account the resolution of the image, as well as the resolution of the monitor. Two images can have the same height and width in pixels, but if the resolution is different, they will appear as different sizes on the monitor.

Navigator Palette

The Navigator palette is hidden by default. (You can find it by choosing Window ➢ Navigator from the main menu bar.) The colored view box in this palette helps orient your current position in the image. This is useful when an image gets too large to display on-screen. The slider at the top of this palette offers yet another option to increase or decrease the percent magnification of the image. Change the color of the view box by selecting Palette Options from the More pop-up menu.

Hand Tool

The Hand tool ( ), located in the toolbar, is used to move the image around in the work area when the image is magnified outside the boundaries of the work area. The Navigator palette provides a thumbnail view to orient your position relative to the entire image. Use the hand in the Navigator palette to move the view box to target areas within the image. Areas outside the view box remain intact but are simply off-screen.

You can access the Hand tool temporarily at any time by holding down the spacebar, or you can switch to it by pressing H. Double-click the Hand tool to reveal the entire image in the image window. You can optionally select the Scroll All Windows check box in the options bar. This enables you to scroll all windows at the same time, which is useful when you have similar images side by side. To temporarily set this behavior, hold down the Shift key while dragging the Hand tool. You can also Shift+double-click the Hand tool to apply the Fit on Screen option to all open images.

Scrubbers

Scrubbers originate in Adobe's After Effects and provide a whole new way to control items in numeric entry fields. To use this feature, place your cursor over the numeric field you want to change. Then move your cursor to the left, over its textual label. You should see the cursor change to a double-ended arrow, as shown in Figure 1.14. If you click and drag to the left, the numeric entry decreases; if you click and drag to the right, it increases. A common scrubber you may use can be found on the Options bar when using a brush. Just scrub the word Size or Opacity to change the numeric field.
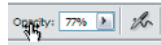

Figure 1.14: Move your cursor over a label, and it turns into a scrubber, which gives you mouse control over numeric entry fields.

Brushes

Many Photoshop Elements tools use brushes to apply different effects. These brushes can be customized far beyond their size and shape. Elements makes it especially easy to customize a brush and control the look and feel of a particular brush stroke.

When you select the Brush (B) tool from the toolbar, options for controlling the brush size, shape, and characteristics appear in the options bar. For the other tools that use brushes—Blur, Sharpen, Sponge, Smudge, Dodge, Burn, Clone Stamp, Pattern Stamp, Pencil (N), Color Replacement Tool (B), Selection Brush (A), Impressionist Brush (B), Spot Healing Brush (J), Healing Brush (J), Magic Selection Brush (F), and eraser tools—you have more limited options.

Available to all tools that use brushes are several brush presets, including the default set shown on the left in Figure 1.15. There are several other presets as well, including Calligraphic Brushes, Drop Shadow Brushes, and Web Media Brushes. You can control the size of the preset brushes in the options bar.
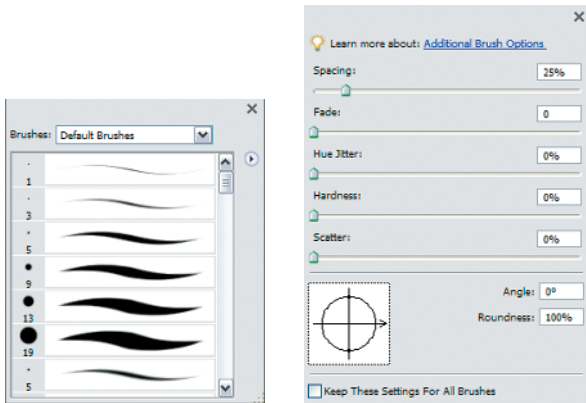
Figure 1.15: The default brush presets (left). More presets are found in the drop-down menu. The More Options menu (right) provides additional ways to customize the Brush tool.

When you select the Brush tool, you can use the options on the More Options drop-down menu (shown on the right in Figure 1.15) to control the Spacing, Fade, Hue Jitter, Hardness, Scatter, and other characteristics of the brush, as well as the precise shape of the tip through Angle and Roundness controls.

If you are feeling really ambitious, you can even create a brush from an image. Make a selection from your image and then choose Edit ➢ Define Brush. Name your brush and select OK. A grayscale brush based on your selection is now available, along with the other preset options.

Impressionist Brush

I don't use the Impressionist Brush in this book. It's a complex tool, and you can spend countless hours just trying to figure out what it does and then realize that you've only scratched the surface. Through different texture and color settings, you can simulate various painting styles—think Van Gogh and Cezanne. Play with different Styles, Fidelity, Area, and Spacing settings. Then when you've figured those out, change the Mode and Opacity settings and see what else you can come up with. The possibilities are limitless. Enjoy!

Healing Brushes

Two great brushes take the pain out of cleaning up and removing unwanted blemishes and artifacts.

If the problem area is small, the Spot Healing Brush ( ) is ideal at fixing it. In most cases you can choose a brush size that is slightly larger than the area you want to fix, center the brush over the area, and click. You can set two options for the Spot Healing Brush: Proximity Match and Create Texture. The Proximity Match option tries to use the pixels around the edge of the selection as a patch. Create Texture uses all the pixels in the selected area to create a texture to place over the selected area.

If, however, the regions are more complex, you can use the more powerful Healing Brush ( ). In fact, the Healing Brush not only covers up unwanted areas, but it also removes objects entirely from view. There are four options available to control the brush: Mode, Source, Aligned, and Sample All Layers. The Mode option controls

how the source blends with the existing pixels. Source allows you to choose where to get the repairing pixels: Sampled uses pixels from the current image, whereas Pattern uses pixels from a pattern. Aligned moves the sampling point relative to where you are stroking. If you want to always use the original sampling point, deselect this option. Sample All Layers samples data from all visible layers. If you want to use only the currently selected layer, deselect this option.

Filters

Photoshop Elements includes a large number of filters, which can be applied through the Filter menu entry or via the Filters palette. Like effects, filters can be applied to a selection. Figure 1.16 shows all of the filters at a glance.
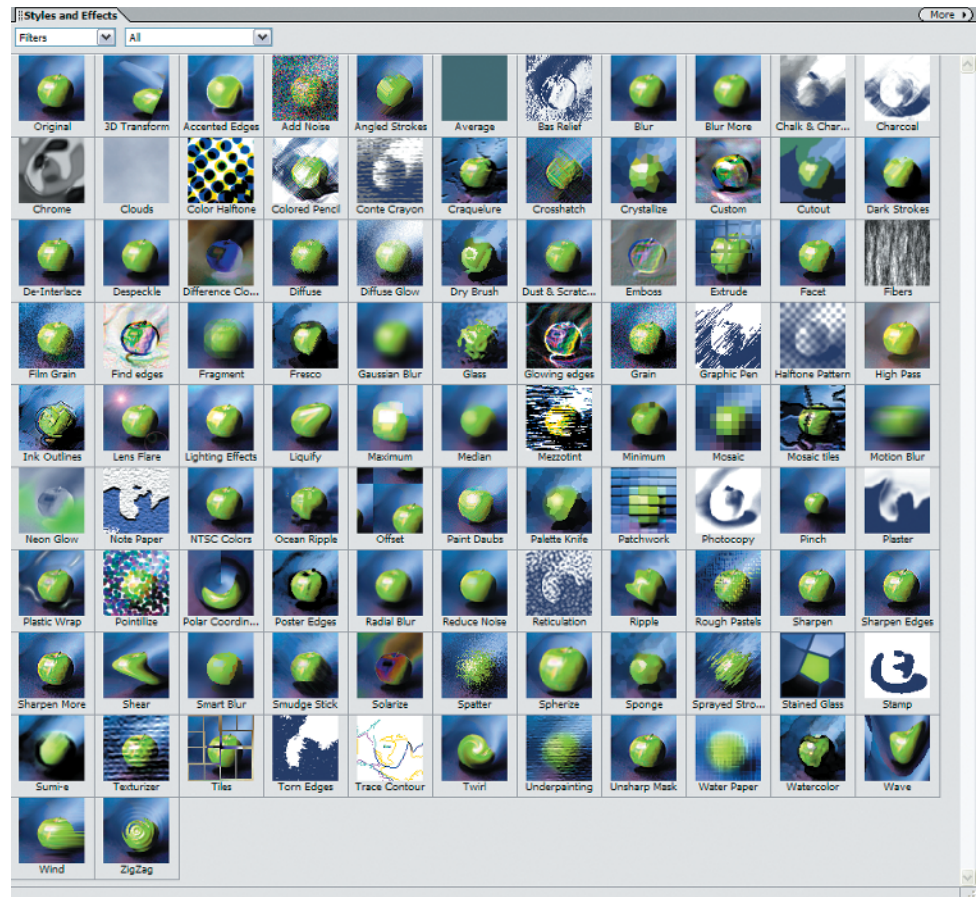

Figure 1.16: All the filters revealed.

Liquify Filter

It seems inappropriate to refer to the Liquify filter as a mere filter in the same way that the Unsharp Mask is a filter. The Liquify filter is more of an experience. When you select the Liquify filter (Filter ➢ Distort ➢ Liquify), you enter a world where the image becomes totally fluid, as if it were molten pixels that you can move and shove around,

much like finger paint. In many ways, it's like an application within an application. Figure 1.17 shows the Liquify filter work area and tools.
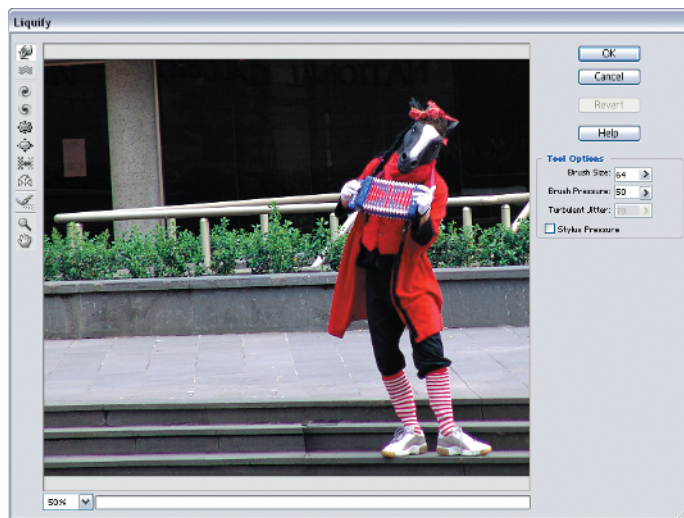

Figure 1.17: The Liquify filter work area and tools.

In this book, I use the Liquify filter for several purposes—for example, straightening a crooked nose, fixing a broken tooth, and altering type. But I encourage you to play around with all the Liquify filter's tools and options. You'll find yourself spending hours and hours getting to know this filter and exploring its creative capabilities.

Some points to keep in mind when using the Liquify filter:

•	To revert an image to its original form, click Revert in the Liquify work area.

•	To reset the Liquify filter tools to their previous settings *and* to revert an image, hold the Alt key and, when the Cancel button changes to Reset, click it.

•	Use the Reconstruct tool to restore specific areas of your image. Just brush over the areas you want to reconstruct.

•	If you are working on a particularly large image, make a selection of the area that you wish to work on first before opening the filter. This greatly speeds up the time it takes for certain Liquify tools (such as the Turbulence tool) to operate.

> **Note:** ☞ "Viewing and Navigation Tools" earlier in this chapter for shortcuts and tips on using the Liquify filter navigation and viewing tools.