

Adobe®

# Photoshop

*fast & easy*

**Look** up tasks and

features



LISA A. BUCKI

**Covers  
Windows and**

# Adobe Photoshop<sup>®</sup> 7.0

***fast&easy***<sup>®</sup>

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# Adobe Photoshop<sup>®</sup> 7.0

***fast&easy***<sup>®</sup>

**Lisa A. Bucki**



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*To Steve, Bo, and Rika, for their  
unconditional love and support.*

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# About the Author

An author and consultant, **Lisa A. Bucki** has been involved in computer training and writing for more than 12 years. She also wrote *Managing with Microsoft Project 2002* and *Mac OS X Fast & Easy*, and revised *Adobe Photoshop 7 Digital Darkroom*, all for Prima Tech. Overall, she has written or contributed to more than 40 books and multimedia products for Premier Press (formerly Prima Tech) and other publishers. She also was the project manager for more than 100 computer and trade titles during her association with Macmillan. Bucki currently also serves as a consultant and trainer in western North Carolina.

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# Introduction

This *Fast & Easy* guide from Premier will help you find success with Adobe Photoshop 7.0 for Windows, whether you are altogether a beginner to working with digital images or simply new to working with Photoshop. This book will show you how to master the many and diverse features in Photoshop, so you can begin to become a digital artist.

*Adobe Photoshop 7.0 Fast & Easy* teaches techniques that will enable you to create logos, images for published documents, Web page graphics, and more. You also will learn how to use filters, correction tools, plug-ins, and other tools to enhance and improve images that you've created from scratch, scanned, or shot from a digital camera.

If you want to create high-quality artwork and have the widest variety of tools and controls, Photoshop 7.0 and this book provide everything you need to exploit your imagination and build arresting, effective images.

## Who Should Read This Book?

This book is geared for novices who are new to digital image creation or new to Photoshop. Because it's the most feature-rich graphics program, Photoshop can be tough to learn. Nearly every step in this book includes a clear illustration, so you won't have to struggle to learn a process or find the right tool in the toolbox. The nontechnical language also helps smooth the transition from newbie to comfortable user.

With each task clearly identified by a heading, you'll also find it easy to use the table of contents to find the steps you need. So, whether you want to work through the book from beginning to end or find just the tricks that you need, this book will accommodate your style and enhance your results.

Mac users also can use this book to learn how to use Photoshop. The features of the Mac version of Adobe Photoshop 7.0 are nearly identical to those in the Windows version (with the exception of a few features). Appendix C, "Mac Command Equivalents," explains the few differences between working with Photoshop in Windows and working with Photoshop on a Mac.

## Added Advice to Make You a Pro

Once you get started, you'll notice that this book presents many steps, with little explanatory text to slow you down. Where warranted, however, the book presents these special boxes to highlight a key issue:

- **Tips** give shortcuts or hints so you learn more about the ins and outs of Photoshop 7.0.
- **Notes** offer more detailed information about a feature, food for thought, or guidance to help you avoid problems or pitfalls in your work.
- **Cautions** point out trouble spots and traps to avoid.

Valuable appendixes at the end of the book highlight additional skills and topics. Learn how to work with digital watermarking, how to set preferences in Photoshop, which command changes you need to know to use Photoshop on a Mac, and where to go online to find more information about Photoshop and Photoshop plug-ins. Finally, the glossary explains key terms that you need to understand to work effectively in Photoshop.

Whether you have an image to edit or want to start with a "blank canvas," have fun as you dive in now!

# PART I

# Starting Out with Photoshop

## **Chapter 1**

**Touring the Work Area . . . . . 3**

## **Chapter 2**

**Working with Image Files . . . . . 23**

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# 1

## Touring the Work Area

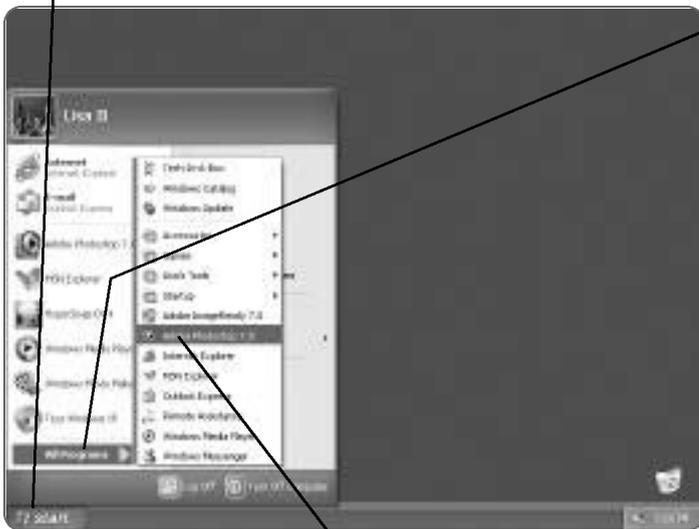
Congratulations for choosing Photoshop, the leading application for creating, correcting, and enhancing image files. Photoshop's wealth of features serves the technical needs of advanced users, but at its core it offers a relatively simple interface that's similar to applications you may have used before. This first chapter leads you through the basics of navigating the Photoshop work area. You'll learn how to:

- Start and exit Photoshop
- Use the toolbox
- Work with a palette or context menu
- View and hide screen elements
- Find help when you need it

## Starting Photoshop

As with other applications, you must start Photoshop to be able to work with its tools and create a new image. Use the following steps to start Photoshop.

**1. Click on the **Start** button** at the left end of the Windows Taskbar. The Start menu will appear.



**2. Point to **All Programs**** (or **Programs** for windows versions prior to XP). The Programs menu will appear.

### TIP

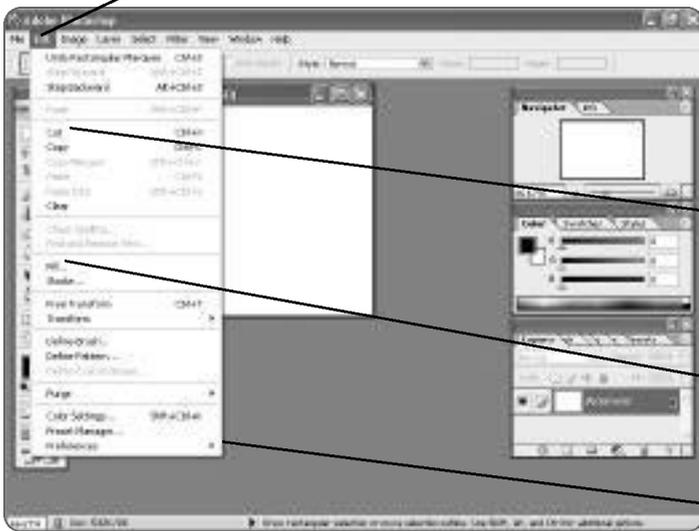
After you click on Start, you can *point* to a menu choice with a right-pointing triangle beside it by moving the mouse pointer over it. Pointing will highlight that menu choice and open a submenu. When you see the name of the program you want to start, click on the program name.

**3. Click on **Adobe Photoshop 7.0****. The Photoshop 7.0 application window will appear.

# Taking Charge of the Tools

The work area in Photoshop includes a menu bar like other Windows applications, as well as a few windows that organize the tools you use to do your work. Although later chapters will cover the tools in greater detail, familiarize yourself now with menus and tools and how to use them.

**1. Click on a menu name.** The menu will open.



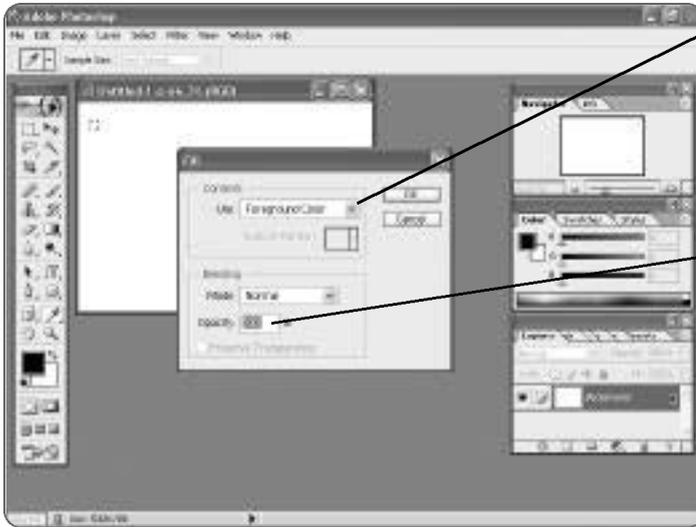
**2. Click on a command.** The result will differ, depending on the nature of the command on which you clicked:

- If the command has no trailing element, Photoshop will execute the command immediately.
- If the command name is followed by an ellipsis (...), a dialog box will appear.
- If the command name has a triangle beside it, a submenu will appear. You can then click on a command in the submenu.

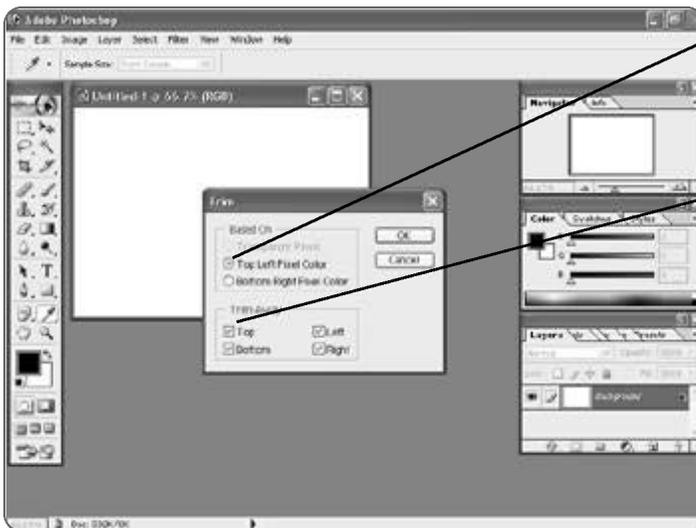
## NOTE

You can't use the various Photoshop tools until you create or open a new file. Chapter 2, "Working with Image Files," explains how to create new files in Photoshop. The illustrations here include a blank file strictly as an example.

**3. Make choices** in the **dialog box**. Typical dialog box choices include the following:

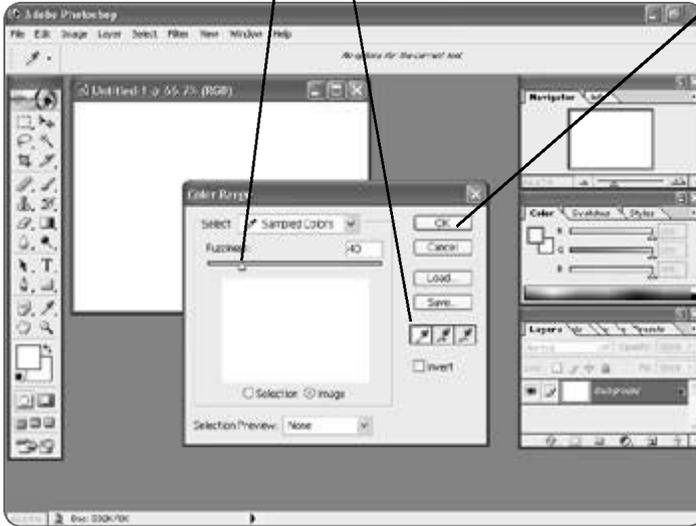


- **Drop-down list box.** Click on the down arrow or scroll arrow to open a drop-down list or scroll through a list's choices, then click on the list item you want.
- **Text box.** Drag over a text box entry to select it, then type a new entry.



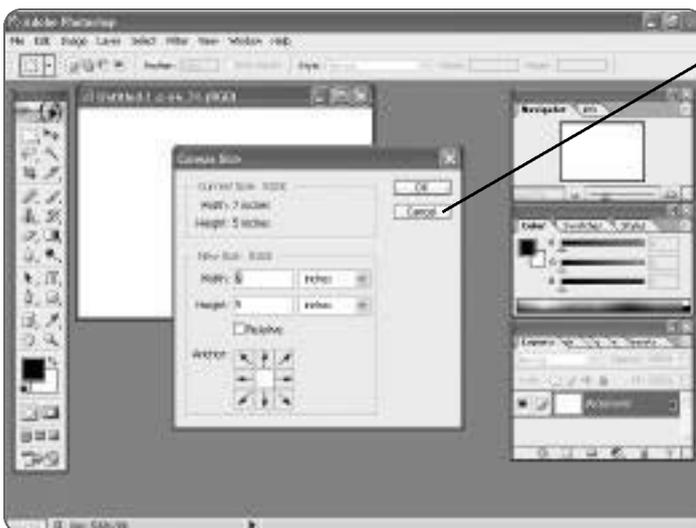
- **Option button.** Click on an option button to choose it and deselect other option buttons in the group.
- **Check box.** Click on a check box to select (check) or deselect (uncheck) it.

- **Slider.** Drag a slider to choose another setting.
- **Palette.** Click on a button (icon) or palette to select it.
- **Command button.** Click on a command button to choose it.



### TIP

Clicking on a command button with an ellipsis (...) displays a dialog box. Clicking on an OK or Done button closes the dialog box and applies your choices. Clicking on a Cancel button closes the dialog box without applying your choices.

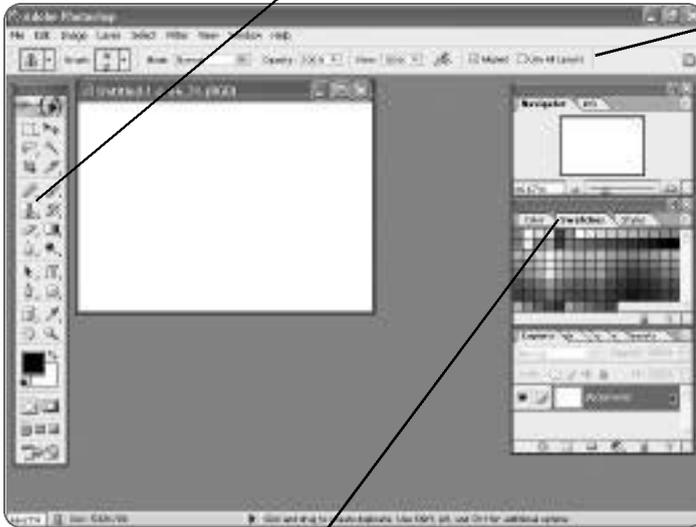


**4a. Click on Cancel.** The dialog box will close.

**OR**

**4b. Press Esc** on the keyboard. The dialog box will close.

**5. Click on a toolbox button.** The *options bar* at the top of Photoshop will change to show available settings for that tool.

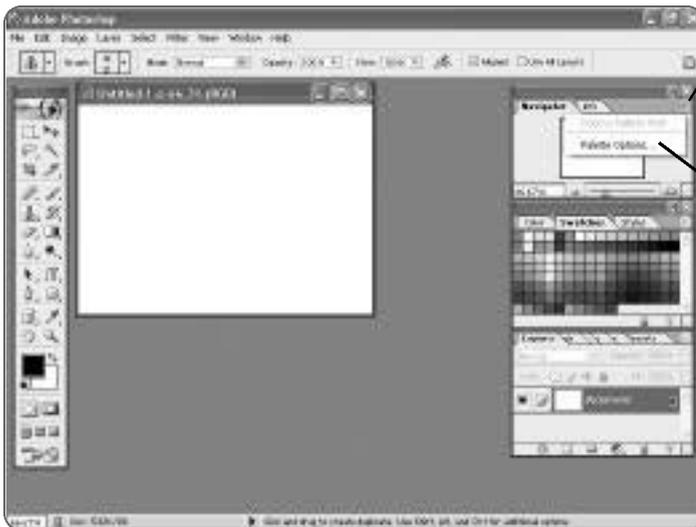


**6. Review the options bar choices.** These choices will work just like dialog box options.

### TIP

For some tools, the options bar includes a Toggle, the (tool name) palette button at the far right end. You can click that button to display and hide a palette window with additional settings for the selected tool.

**7. Click on a palette tab.** The settings on that tab will appear.



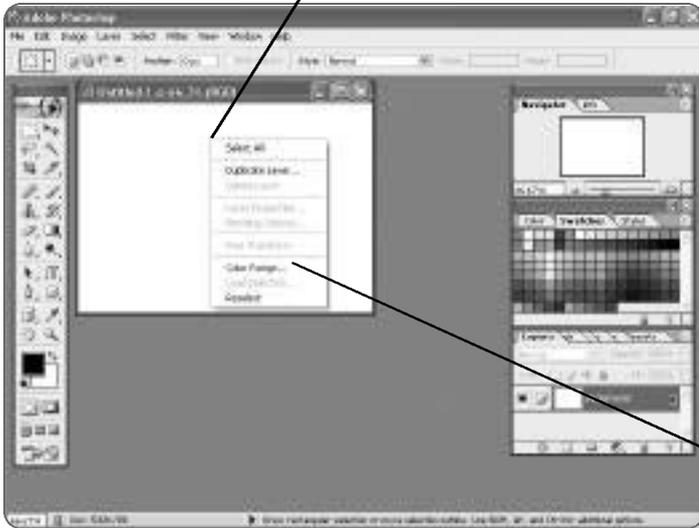
**8. Click on the right arrow button** in the upper-right corner of the palette window. The palette menu will appear.

**9a. Click on an item on the palette.** The item will be selected.

OR

**9b. Press Esc.** The palette menu will close.

**10. Right-click** on the **image**, a **palette**, or a **toolbox tool**. The *context menu* (shortcut menu) with commands pertaining to the object on which you clicked will appear.



## NOTE

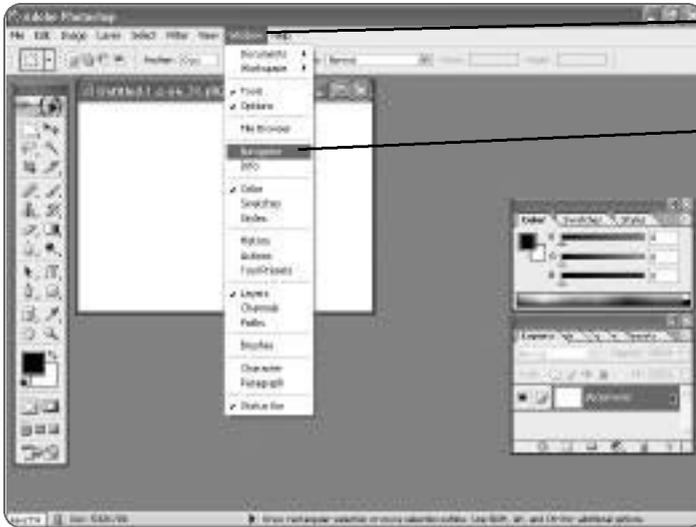
If you have certain toolbox tools selected when you right-click on the image, a pop-up palette of settings for the tool appears instead. You'll learn more about using a palette like this in Chapter 3.

**11. Click** on a **context menu command**. The results will vary depending on the nature of the command:

- If the command name has a triangle beside it, a submenu will appear. You can then click on a command in the submenu.
- If the command name has an ellipsis (...) beside it, a dialog box will appear; you can then make your choices from the dialog box.
- If the command has no trailing element, Photoshop will execute the command immediately.

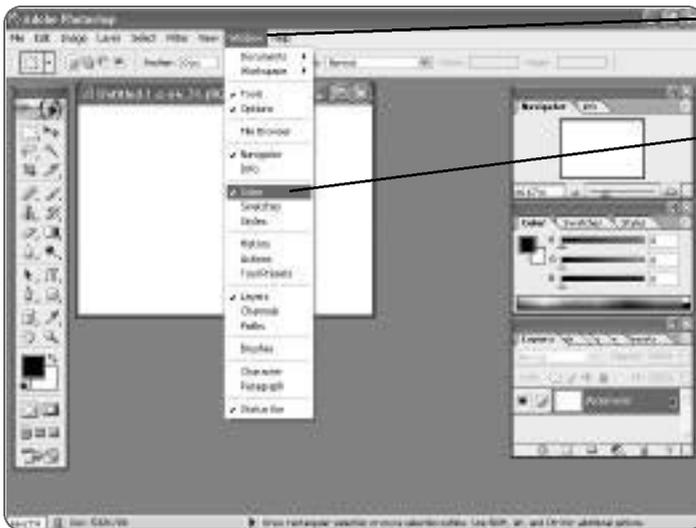






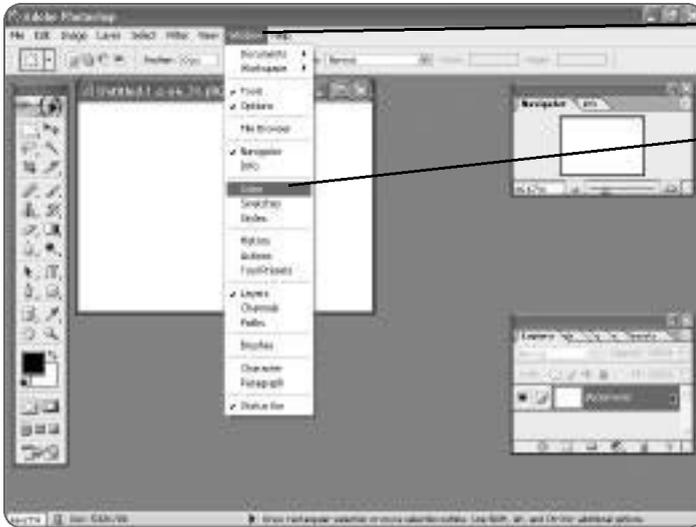
7. Click on **Window**. The Window menu will appear.

8. Click on **Navigator** again. Photoshop will redisplay the Navigator palette.



9. Click on **Window**. The Window menu will appear.

10. Click on **Color**. Photoshop will close the Color palette, which is the middle palette by default.

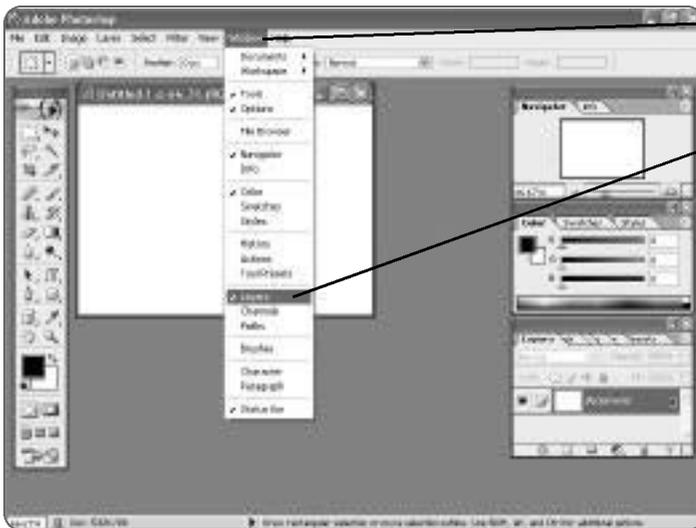


**11. Click on Window.** The Window menu will appear.

**12. Click on Color** again. Photoshop will redisplay the Color palette.

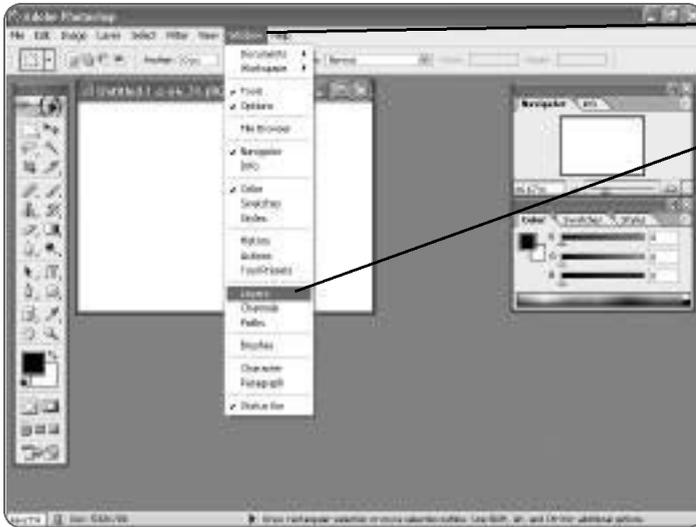
### NOTE

Clicking on many of the other commands on the Window menu, such as Swatches or Paths, selects a particular tab in one of the palettes.



**13. Click on Window.** The Window menu will appear.

**14. Click on Layers.** Photoshop will close the Layers palette, which is the bottom palette by default.



**15. Click on **Window**.** The Window menu will appear.

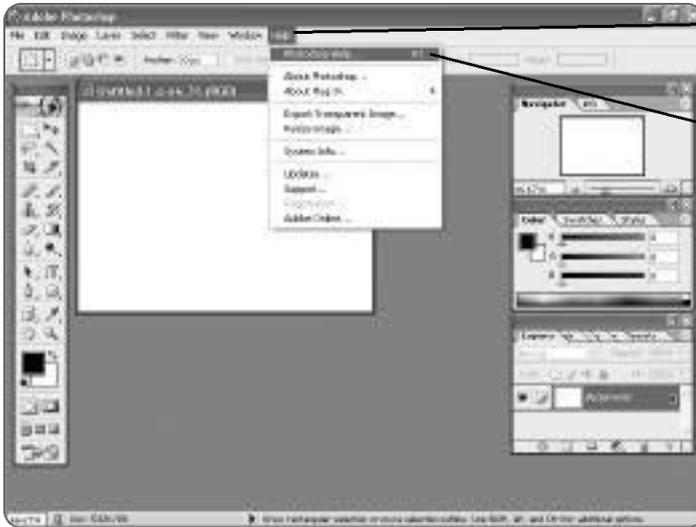
**16. Click on **Layers** again.** Photoshop will redisplay the Layers palette.

## Reviewing Help Features

When you get stuck while working in Photoshop, you can consult the product's Help system. Not only does Photoshop offer Help that you can browse or search, but it also offers Internet Help and news that you can consult to stay up-to-date with the latest Photoshop developments. Adobe, the publisher of Photoshop, offers extensive Help and resources for Photoshop users.

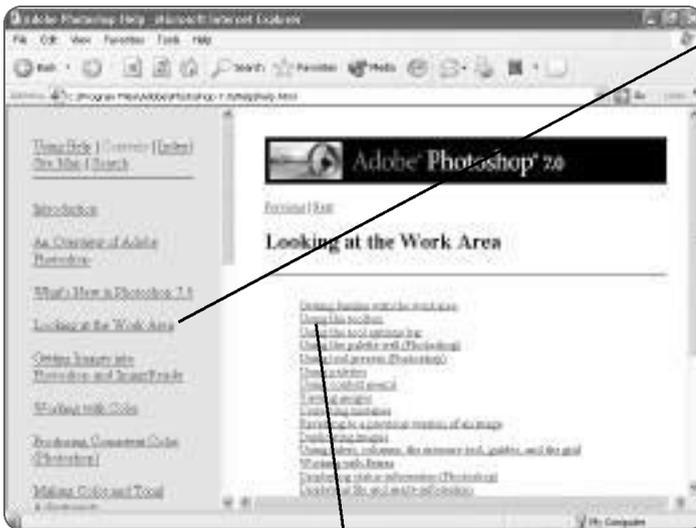
## Using Help Contents and Search Features

Photoshop offers a huge number of features, and using them in combination can be a little tricky. If you get stuck at any point, you can consult Help in Photoshop to learn more about the feature that's at issue. The following steps explain how to browse and search in Help.



**1. Click on Help.** The Help menu will open.

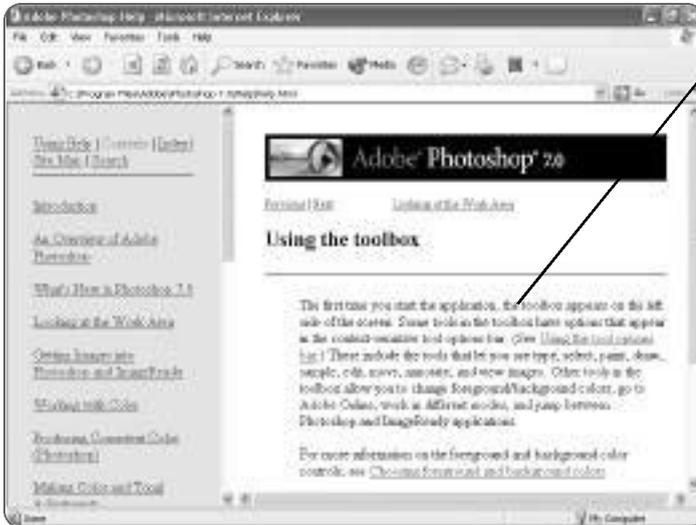
**2. Click on Photoshop Help.** The Photoshop Help system will open in the Web browser installed on your system (typically Internet Explorer).



**3. Click on a topic link** at the left side of the window. The Help topic will appear at the right side of the window, along with links to subtopics.

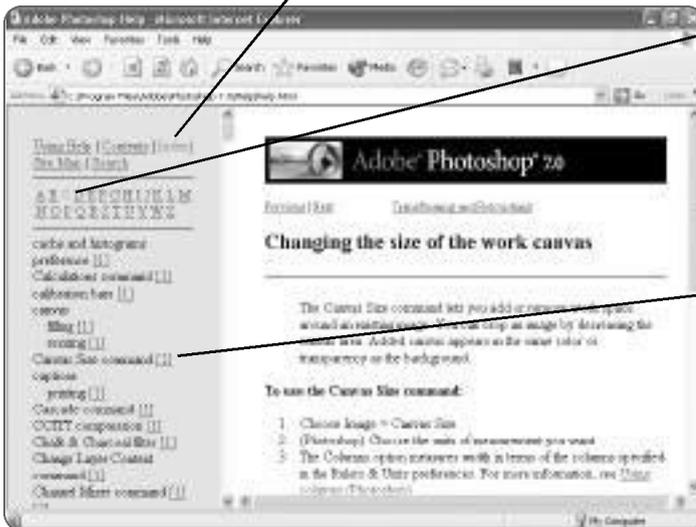
**4. Click on the down scroll arrow.** The window contents will scroll down, so you can read more or see additional subtopics.

**5. Click on a subtopic link.** The subtopic information will appear at the right side of the window, so that you can read it.



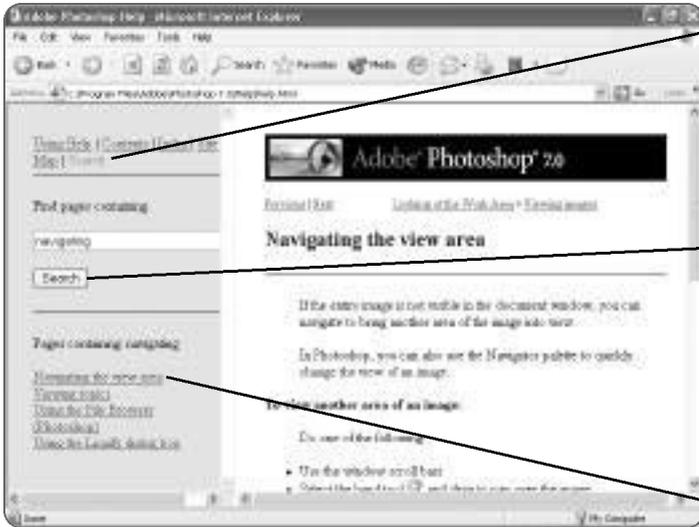
**6. Review the Help.** You will be able to continue to navigate in Help if the information doesn't solve any issue you're having.

**7. Click on the Index link** at the top left of the page. The index letters will appear in the pane at the left side of the screen.



**8. Click on the first letter** of the topic you want Help about. The left pane will display a list of topics beginning with the letter you specified. You can scroll down the list as needed.

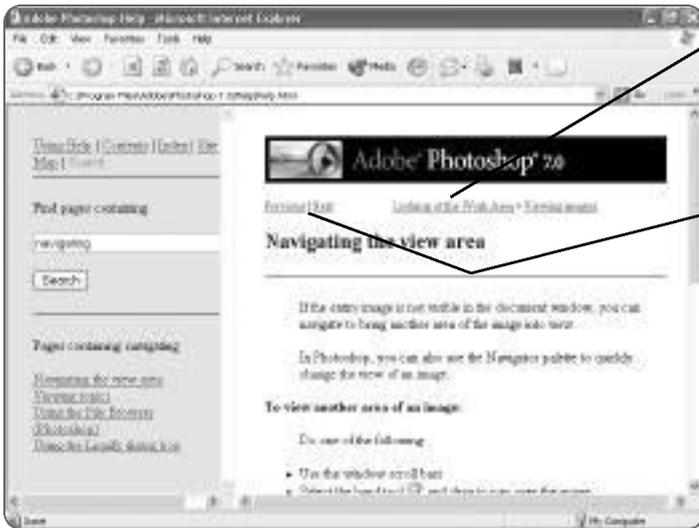
**9. Click on a topic number.** The topic information will appear at the right side of the window, so that you can read it.



**10. Click on the Search link** at the top of the page. The Find pages containing text box will appear at the left side of the screen.

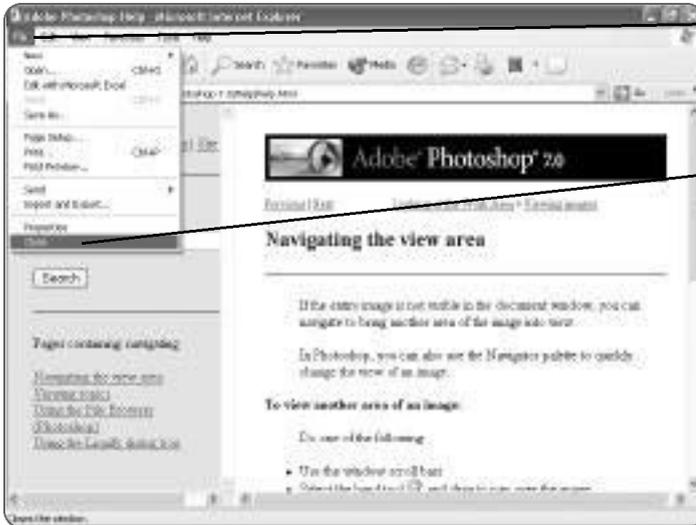
**11. Type the term to search for** in the Find pages containing text box, then **click on Search**. The left pane will display a list of help topics that include the term you specified.

**12. Click on a topic.** The topic information will appear at the right side of the browser window.



**13. Click on a topic link** at the top of the page. The topic information for that earlier topic appears.

**14. Click on the Previous or Next link.** The Help system navigates to another previously viewed topic.



**15. Click on File** in the Web browser. The File menu will appear.

**16. Click on Close.** The Help system (and your system's Web browser) will close.

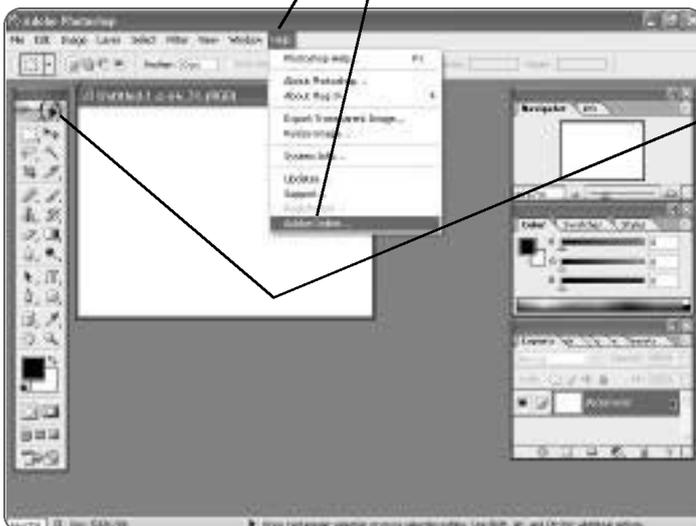
## Reviewing Adobe Online

Adobe Online provides a quick and easy method for retrieving Photoshop Help, news, and

information from Adobe's Web site. The steps here illustrate how to use Adobe Online when you need it.

**1. Click on Help.** The Help menu will appear.

**2a. Click on Adobe Online.** The Adobe Online dialog box will open.

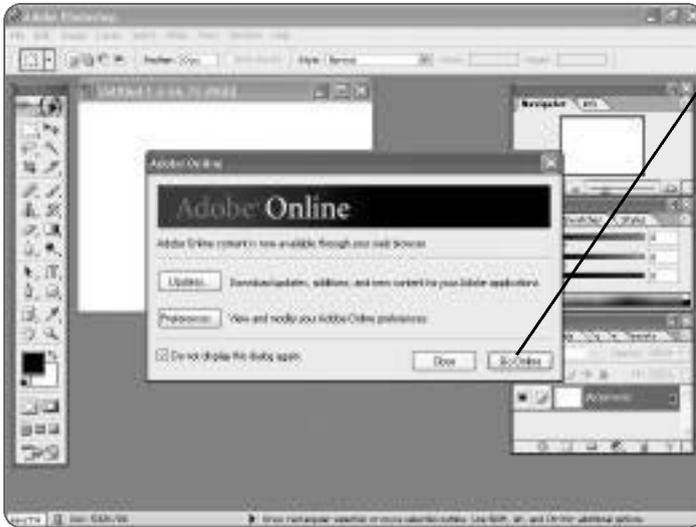


OR

**2b. Instead of Steps 1 and 2a,** you can **click the Go To Adobe Online** button at the top of the toolbox.

### TIP

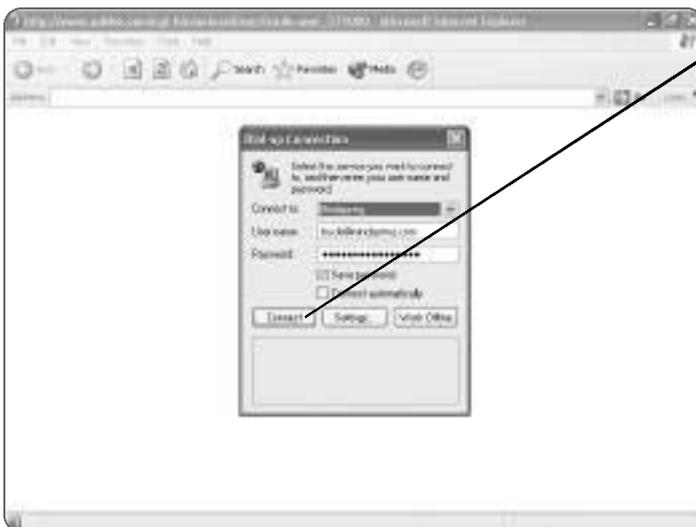
The first time you start Adobe Online, you will be prompted to check for program updates. You can click on Yes to do so, or No to continue without checking for updates.



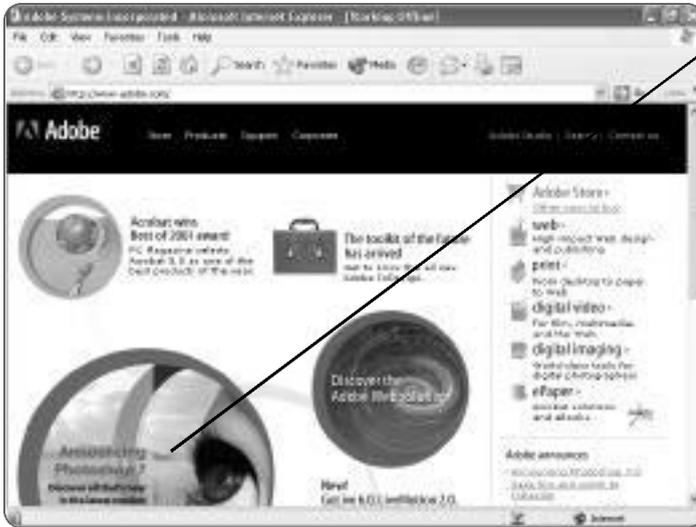
**3. Click on **Go Online**** if the dialog box shown here appears. If your system needs to connect to the Internet, the Dial-Up Connection dialog box will appear.

## NOTE

The first time you connect under Windows XP, the Network Connections dialog box may appear first. If it does, choose your connection in the list, and then click on Connect. Then click on Dial in the next dialog box that appears. If you have an "always on" Internet connection or you have set up your system to dial automatically, skip Step 4.

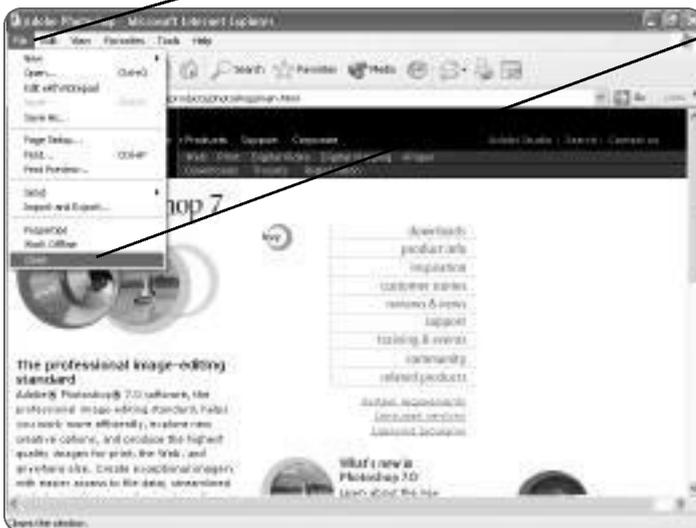


**4. Click on **Connect**.** Your system will dial up and log on to the Internet. The Adobe home page will appear.



**5. Click on a link on the Web page to browse for more information.** Adobe's Web site will display the proper page. You can continue browsing online to topics of interest.

**6. Click on File in the Web browser.** The File menu will open.



**7. Click on Close.** The Web browser window will close.

**8. Disconnect from the Internet, if needed.**

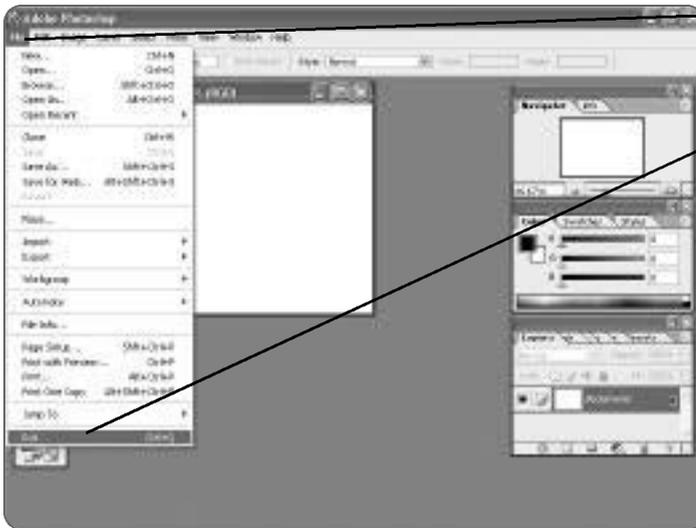
### NOTE

If Windows doesn't prompt you to hang up your Internet connection, you can right-click on the connection icon in the system tray area at the far right end of the Windows Taskbar, and then click on Disconnect.

# Exiting Photoshop

When you finish working in Photoshop or want to shut down your system altogether, you need to exit the Photoshop program. It takes just a few brief steps, as detailed here.

**1. Save the currently open file.** Photoshop will preserve the latest changes to the file. The section called “Saving a File” in Chapter 2 will explain how to save a file.



**2. Click on File.** The File menu will open.

**3. Click on Exit.** The Photoshop application window will close.

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# 2

## Working with Image Files

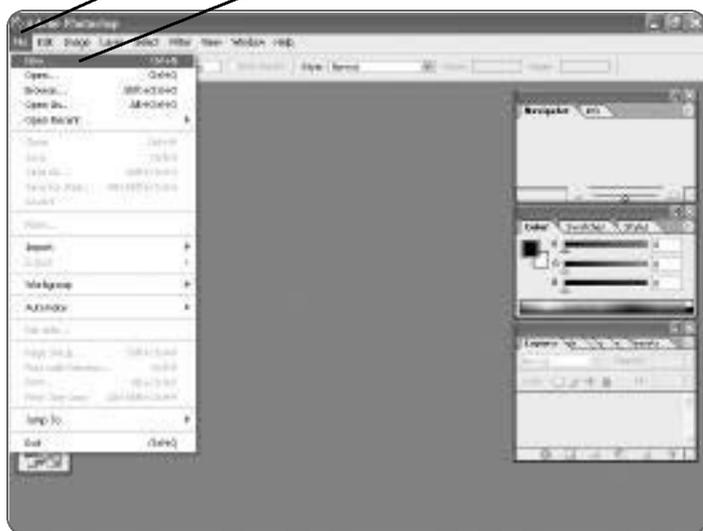
When you use Photoshop to create and work with images, you store those images *digitally* rather than storing them as film negatives or hard copies. So, you need to learn the ins and outs of managing your Photoshop files, as well as how to transfer image files from a device into Photoshop. In this chapter, you'll learn how to do the following:

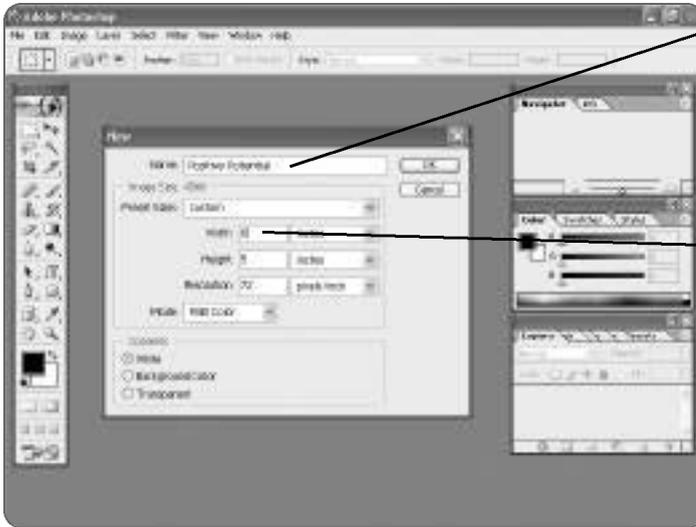
- Create a new image file
- Open a file
- Import a scanner or digital camera image
- Add File Info
- Save and close a file
- Use the new File Browser
- Save your workspace

## Creating a New File

In some cases, you may want to start the creative process with a blank canvas—a new, blank image file. Photoshop doesn't open a blank file by default when you start the program, so you must do it manually. When you create a new file in Photoshop, you can specify the file size, whether it includes a background color, and more.

1. **Click on File.** The File menu will appear.
2. **Click on New.** The New dialog box will open.



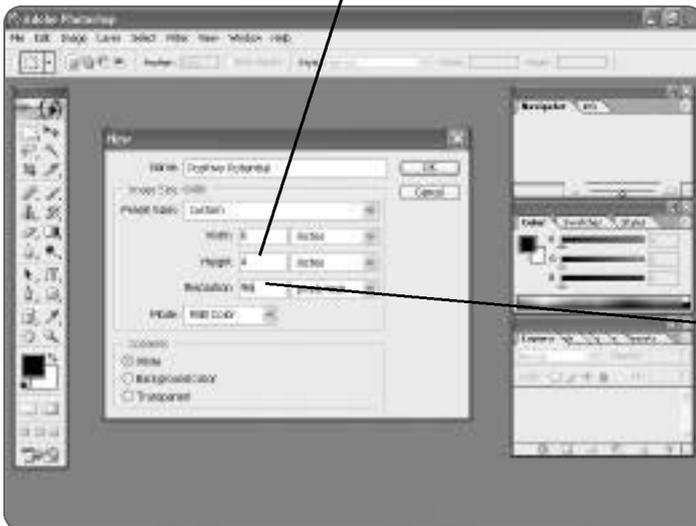


**3. Type a name** for your file in the **Name text box**.

**4. Set the image settings** in the **Image Size box**, as follows:

- **Double-click on the Width text box contents and type a new image width value.** If needed, click on the down arrow for the unit list, and then select another measurement unit.

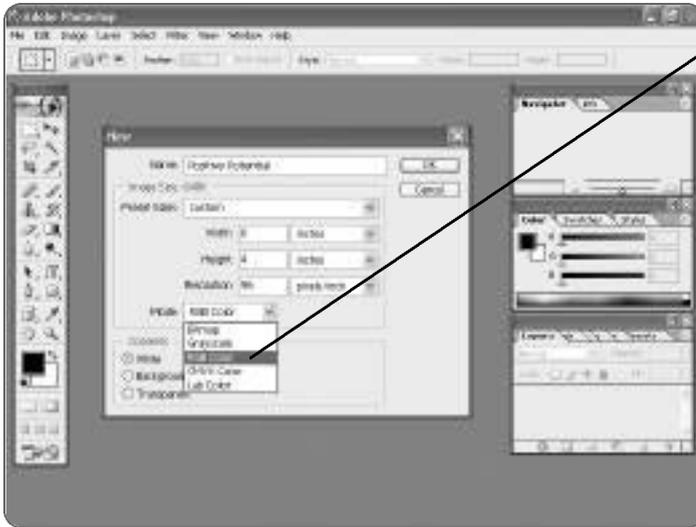
- **Double-click on the Height text box contents and type a new image height value.** If needed, click on the down arrow for the unit list, and select another measurement unit.



### TIP

Rather than specifying image dimensions, you can choose a predefined image size from the Preset Sizes drop-down list.

- **Double-click on the Resolution text box contents and type a new resolution value.** If needed, click on the down arrow for the unit list, and select another resolution unit.

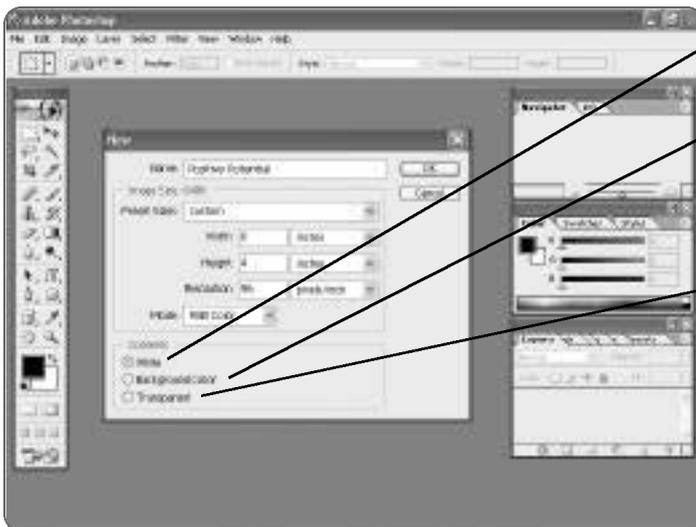


- Click on the **down arrow** for the **Mode list**, and then click on the color mode to use.

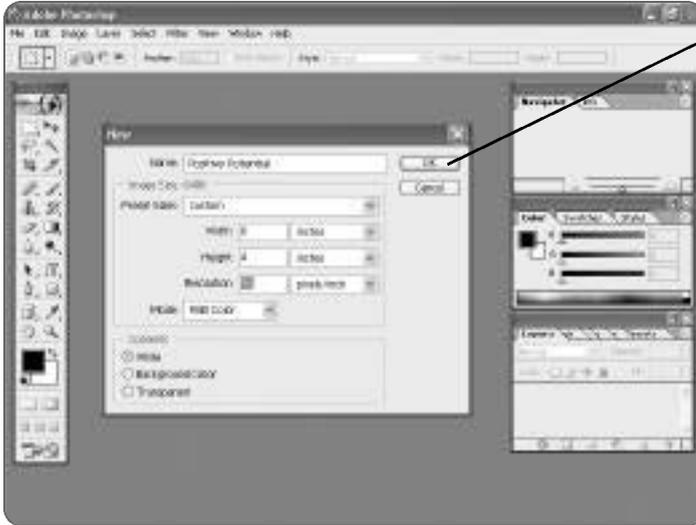
## NOTE

*Resolution* refers to the number of pixels (dots) printed per measurement unit (commonly per inch). The *color mode* controls how many colors define the image, as required by a particular type of display and output. See Chapter 15, "Understanding Colors and Channels," to learn more about color modes.

**5.** Click on a **Contents box option**. The options work as follows:



- **White.** Fills the image with a default white background.
- **Background Color.** Fills the image with the background color currently selected in the Photoshop toolbox.
- **Transparent.** Gives the image a transparent background, so that when you use the image in a document or Web page, the page background and page elements can show through the image file.



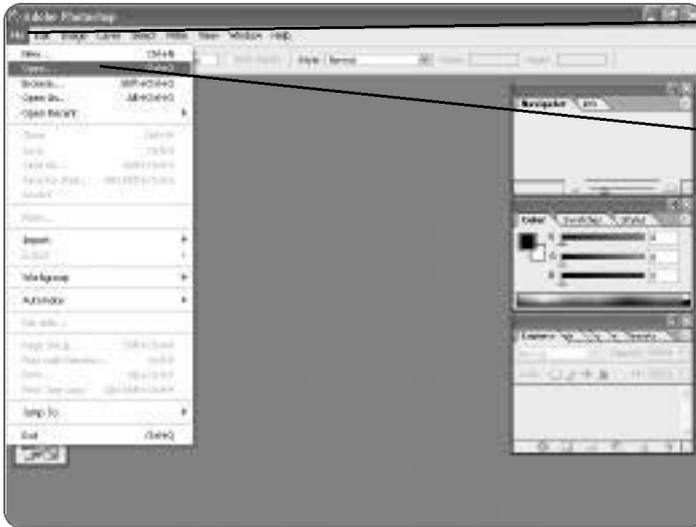
**6. Click on OK.** The New dialog box will close, and the new image file will open onscreen.

### CAUTION

If you choose a white background for a new image and the background appears yellow onscreen (or white areas in other images appear yellow), you can easily fix the problem, which occurs on systems using certain 3D-accelerated video cards. In Windows XP, click on Start, then click Control Panel. In the See Also list at the left, click Other Control Panel Options. Click the Adobe Gamma icon, then follow the instructions that appear to create a new ICC color profile for your monitor, which should solve the problem.

## Opening an Existing File

If you've already saved an image file, you can reopen it at any time to make changes and improvements.



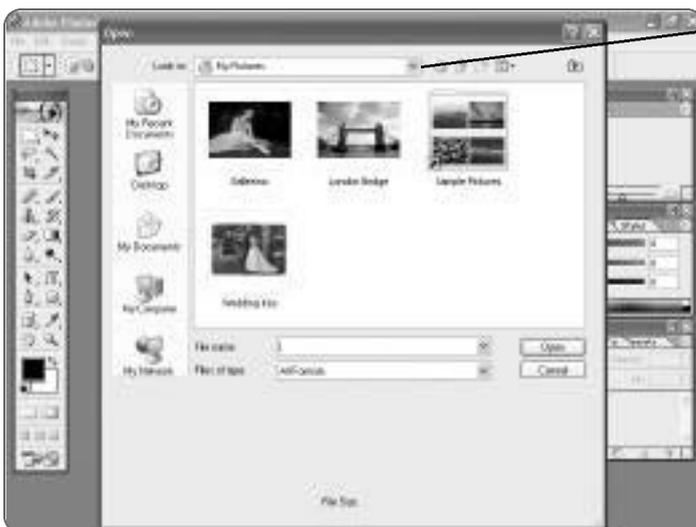
**1. Click on File.** The File menu will appear.

**2. Click on Open.** The Open dialog box will open.

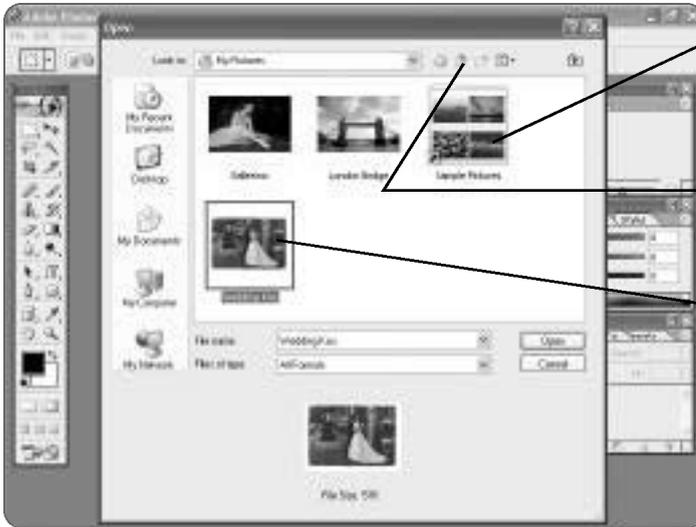
### TIP

To open a file you've recently used, click on the File menu, drag the mouse pointer down to the Open Recent command, and then click on the name of the file you want to open in the submenu that appears.

**3. Navigate to the file location.** The desired file will be displayed in the file list. You may need to do one or more of the following steps to locate the file:



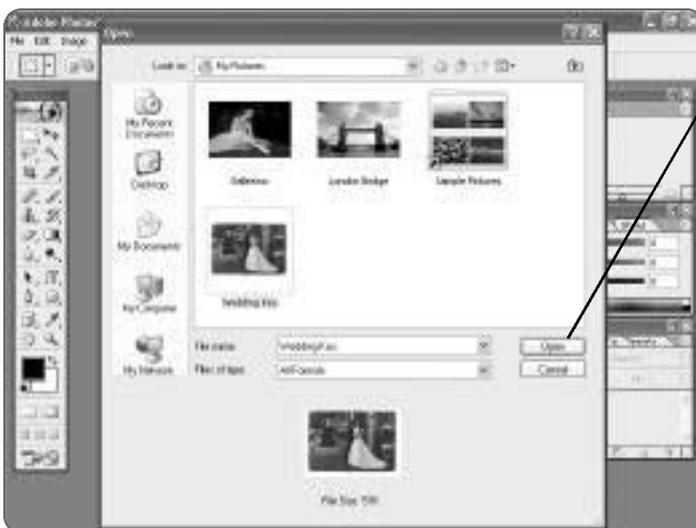
• **Click on the down arrow** to the right of the **Look In** list, then **click** on the **icon** for the disk that holds the file.



- **Double-click** on **folder icons** in the list to navigate to the folder that holds the file to open.
- **Click** on **Up One Level** to return to a folder that's one level higher.
- 4. Click** on the **file** that you want to open. A preview of the file will appear at the bottom of the Open dialog box.

### NOTE

If a scroll bar appears below the list of files, click on the scroll arrow at either end of the scroll bar to scroll the list of files.



- 5. Click** on **Open**. The file will appear onscreen.

## Using File Formats in Photoshop

Photoshop supports more than a dozen different file formats by default, so chances are you can open an image created in another program by selecting the appropriate file type from the Files of type drop-down list in the Open dialog box. Here are some of the common file formats you might use:

- **.BMP.** The Windows Bitmap format created by the Windows Paint applet.
- **.GIF.** A compact file format often used for Web graphics.
- **.PDF.** The Adobe Acrobat file transfer format. Photoshop 7.0 now supports password protection for .PDF files, so you may be prompted to enter a password when you open a .PDF file.
- **.JPG or JPEG.** Another file format often used for Web graphics.
- **.PCX.** An alternate to the Windows Bitmap format that was originally popularized via the PC Paintbrush program.
- **Photo CD.** A format originally developed by Kodak.
- **PICT.** A Macintosh graphics format.
- **.TIF or TIFF.** A common format for scanned images.

## Importing an Image

You may want to use Photoshop to improve images you generate from another source, such as a scanner or digital camera. Assuming you've installed the Windows software driver that came with the scanner or camera, Photoshop should be able to recognize the device and import images directly from it.

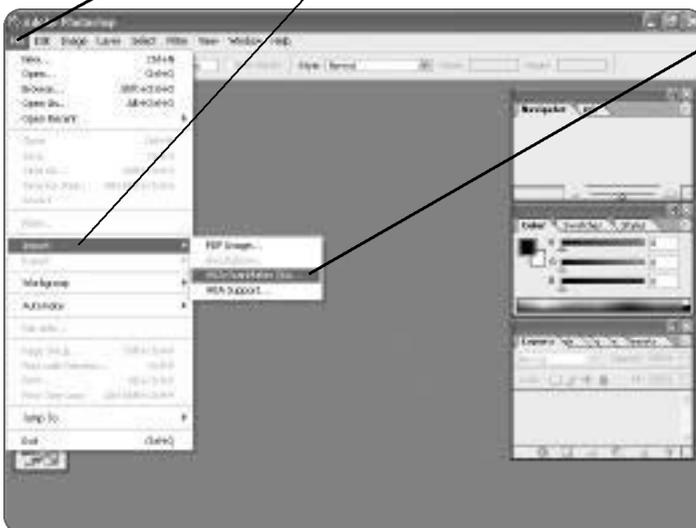
## Grabbing a Scanner Image

Impressive scanners costing \$300 or less have become widely available. You can use Photoshop to scan hard copy photos and other graphics for modifications and editing. When you're ready to scan an image, turn on the scanner and position the image on the scanner bed before continuing with the following steps. If you're not sure how to position it correctly, consult the scanner's user manual.

### NOTE

Be aware that copyright law generally prohibits you from using images created or photographed by others for your own commercial purposes. When in doubt, play it safe and do not use information from another source.

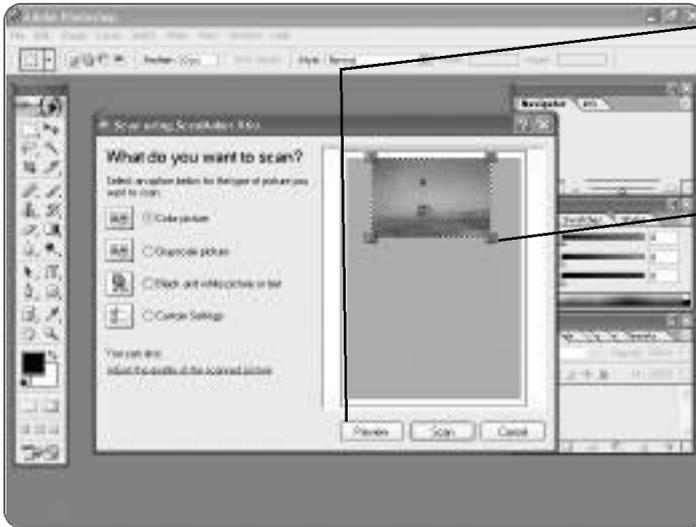
1. **Click on File.** The File menu will appear.
2. **Drag the mouse pointer** down to the **Import** command. (That is, *point* to the command.) A submenu will appear.



3. **Click on the name of your scanner** in the submenu. The scanner software (TWAIN or Windows Image Acquisition [WIA] software) for your scanner will load.

### NOTE

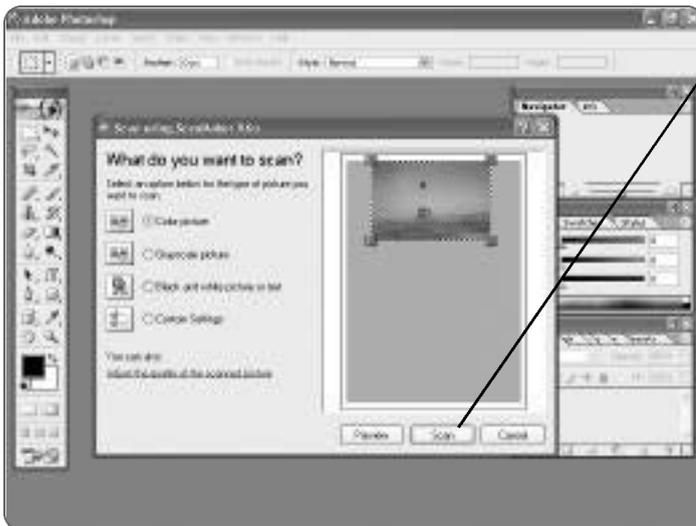
From Step 4 on, the steps that you use and the information that you see onscreen will differ depending on what software came with your scanner.



**4. Click on the **Preview** button** or its equivalent. A preview of the image appears so you can make adjustments.

**5. Size the **scan area**.** This may involve dragging a border to define the scan area or entering width and height settings.

**6. Adjust other settings,** if available. Make other scan setting changes as needed, such as choosing another scan resolution or color setting. (You may have to choose a Custom Settings option or another link to display the available options.)



**7. Click on the **Scan** button** or its equivalent. Your system will scan the image and place it in Photoshop. Note that the scanning process may take a few minutes, depending on the size of the image and the speed of your system.

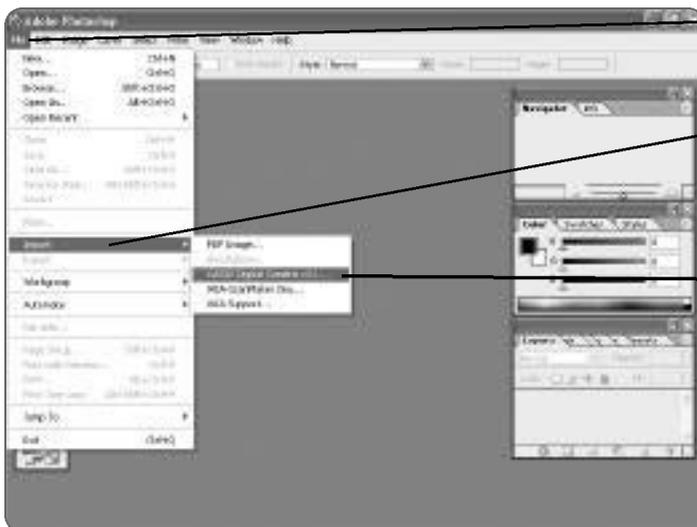
**8. Click on the **Close** button** or its equivalent to close the scanner software if it doesn't close on its own.

## Grabbing a Digital Camera Image

Digital cameras skip the film and hard copy stage, storing images digitally directly within the camera. To work with the images, you need to install the camera software under Windows, connect the camera to your system via the applicable cable, and place the camera in its playback mode. From there, you use the following procedure to copy images from the camera into Photoshop.

### NOTE

Some cameras may not enable you to import images directly into Photoshop. In such cases, an icon for a removable disk representing the camera's removable media appears in the My Computer window, and you can copy the images from that "disk" to the system's hard disk to work with the images.



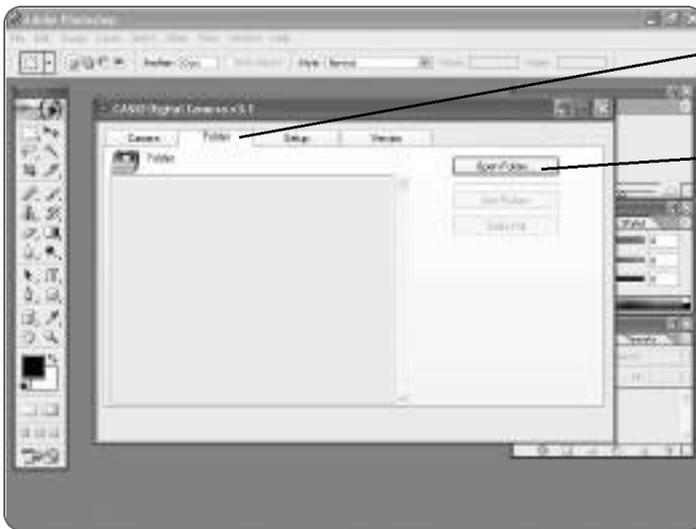
**1. Click on File.** The File menu will appear.

**2. Drag the mouse pointer down to the Import command.** A submenu will appear.

**3. Click on the name of your digital camera** in the submenu. The software (TWAIN or WIA software) for your camera will load.

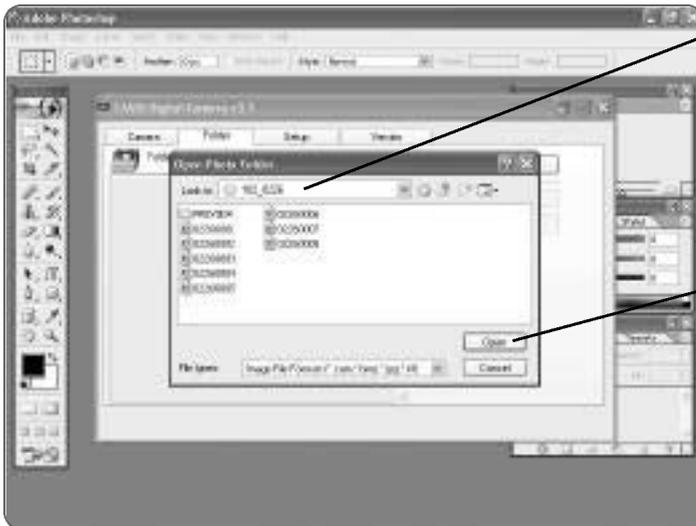
**NOTE**

From Step 4 on, the steps that you use and the information that you see onscreen will differ depending on what software came with your camera. In some cases, you may be able to open a list of all the camera images directly using an Open Camera button or Camera tab rather than using all the steps listed here.



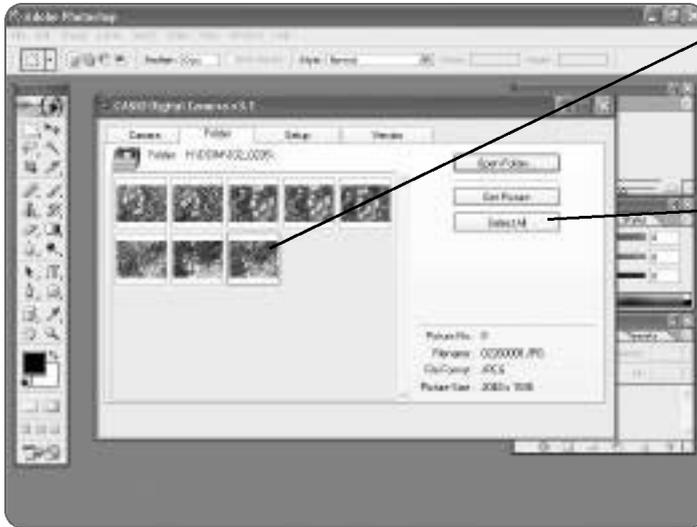
**4. Click** on the **Folder tab** or its equivalent. The tab will appear.

**5. Click** on **Open Folder** or its equivalent. A dialog box will open, enabling you to navigate through the files and folders stored on the camera and then select a folder to open.



**6. Navigate** to the **file location**. The desired file will be displayed in the file list. (See "Opening an Existing File" earlier in this chapter for help with the Open dialog box.)

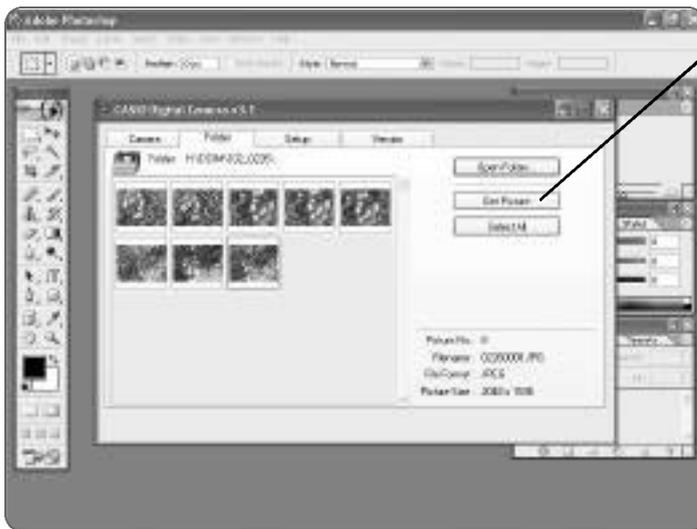
**7. Click** on **Open**. Your system will display a preview of the images from the selected folder.



**8a.** Click on the **thumbnail** for the image to open.

**OR**

**8b.** Click on **Select All** to select all the images.



**9.** Click on **Get Picture**. The selected image(s) will be copied from the camera's storage and opened in Photoshop as a new image file.

### NOTE

If the camera software doesn't close automatically, click on the Taskbar button for the software, and then click on the software window's Close button or the equivalent to close the software.

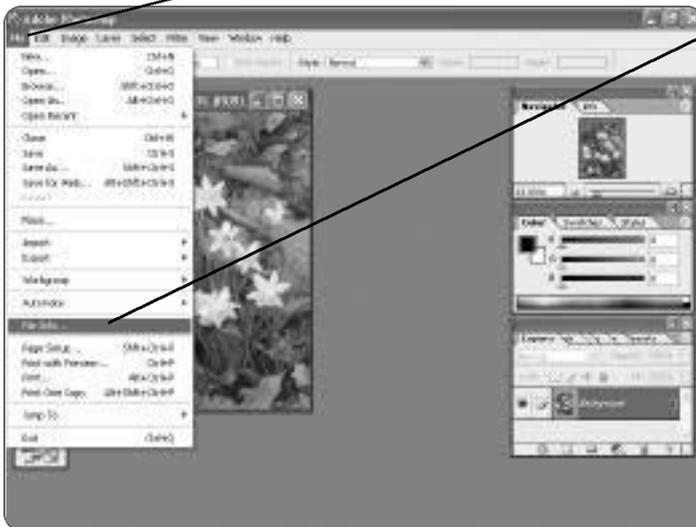
## Adding File Info

You can save special information with an image file to give it a caption, describe its origin, identify who created or shot it, and so on. The information follows professional image identification standards, but even home users may find this information useful in building a digital “photo album.”

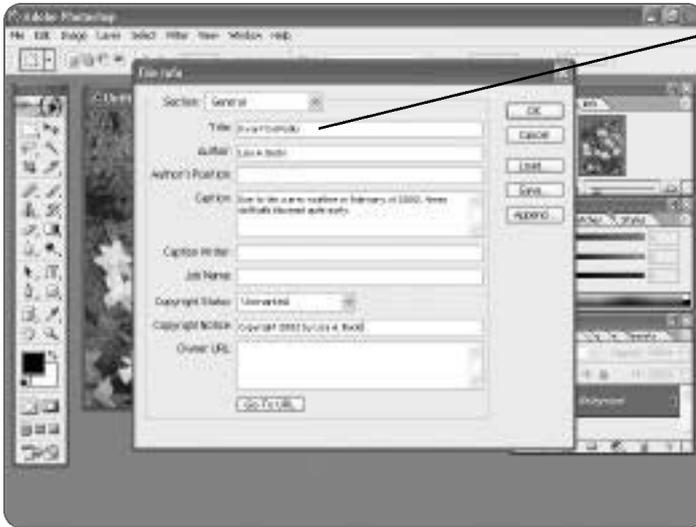
### Embedding Information in the File

Use the following process to store file info for the current file.

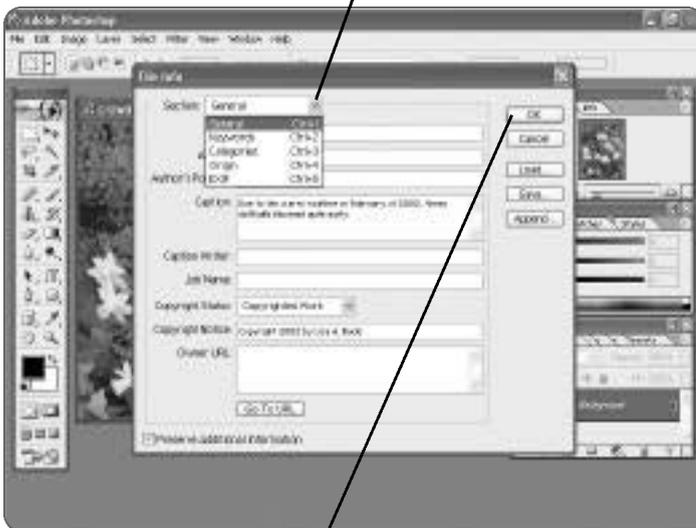
**1. Click on File.** The File menu will appear.



**2. Click on File Info.** The File Info dialog box will open.



**3. Type entries** as desired in the **text boxes** on the tab. Of course, you don't have to use all the entries. You can use only those that are relevant to you.



**4. Click on the down arrow** to the right of the **Section list**, then click on the next category to complete.

**5. Repeat** Steps 3 and 4 to enter information for other categories of File Info.

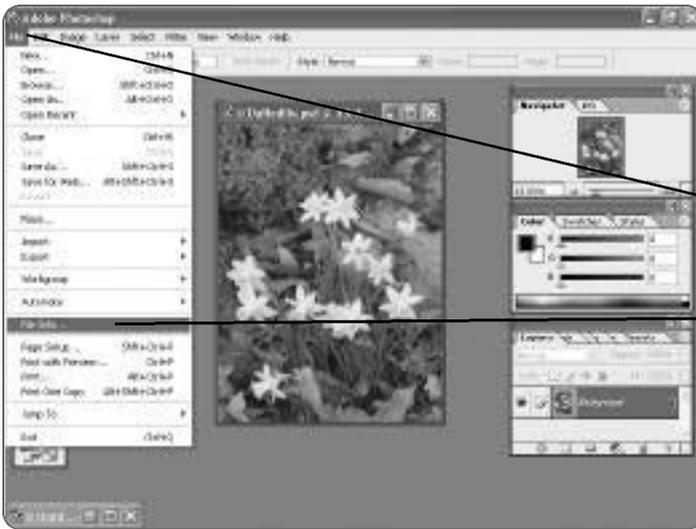
**NOTE**

In some cases, you must enter text box information and click on the Add button to add the entry. Or, you can click on a button like the Today button (in the Origin category) to make the entry automatically.

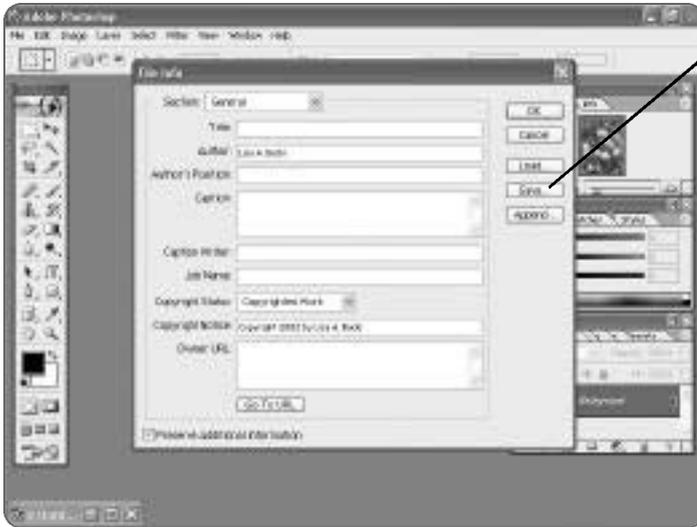
**6. Click on OK.** The File Info dialog box closes, adding the information to the file.

## Saving and Appending XMP Information

Chances are, some of the File Info you want to add will be the same for every image file. Rather than typing that information over and over again, you can save it in a special file and append the file to additional images as needed. Photoshop 7.0 saves File Info files in the .XMP (Extensible Metadata Platform) format. Adobe has developed the .XMP data to help you better track files and to facilitate using the workflow management features in Photoshop. The following steps illustrate how to save File Info and append it to additional Photoshop files:

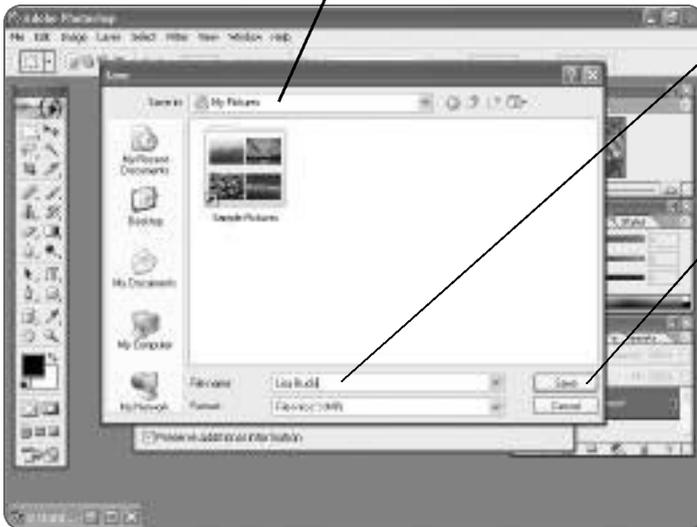


- 1. Open** the **file** in which you've embedded File Info. The file will appear in its own window in Photoshop.
- 2. Click** on **File**. The File menu will appear.
- 3. Click** on **File Info**. The File Info dialog box will open.



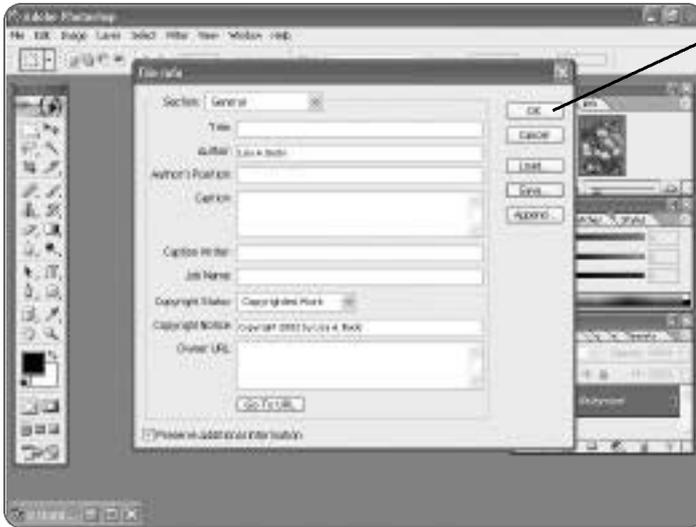
**4. Click on Save.** The Save dialog box will appear.

**5. Navigate to the file location.** The desired file will be displayed in the file list. (See "Opening an Existing File" earlier in this chapter for help with navigating folders.)



**6. Double-click on the File Name text box entry, then type a new name for the file.** The new name will be displayed.

**7. Click on Save.** Photoshop will save the .XMP file and return to the File Info dialog box.

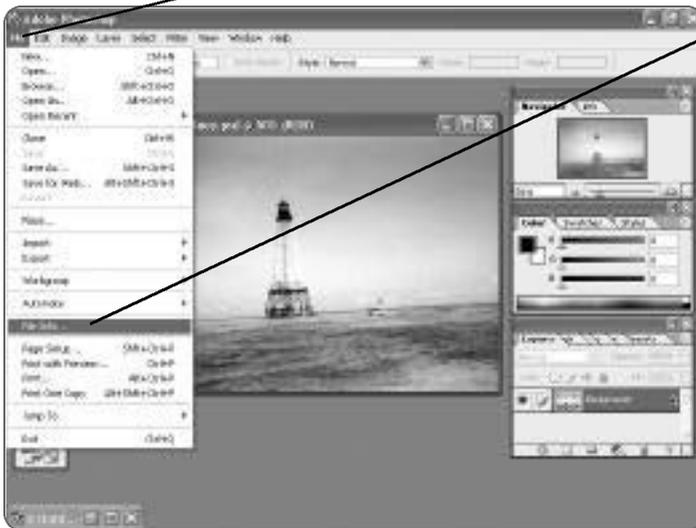


**8. Click on OK.** The File Info dialog box will close, adding the information to the file.

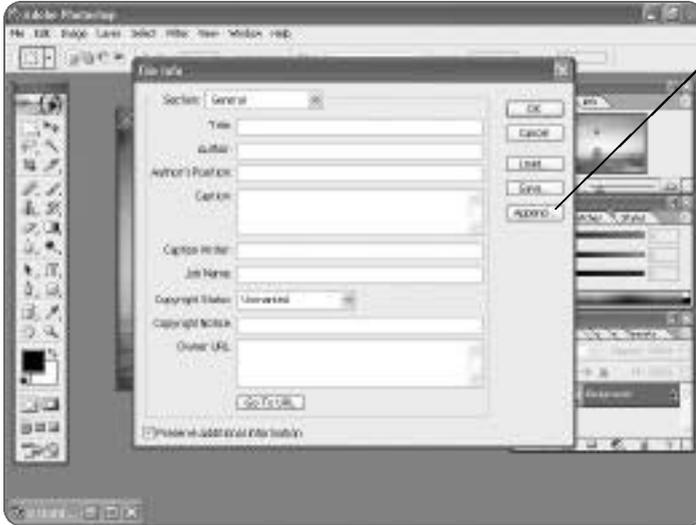
**9. Close the file** that holds the File Info.

**10. Open the file** to which you want to add File Info. The file will appear in its own window in Photoshop.

**11. Click on File.** The File menu will appear.



**12. Click on File Info.** The File Info dialog box will open.

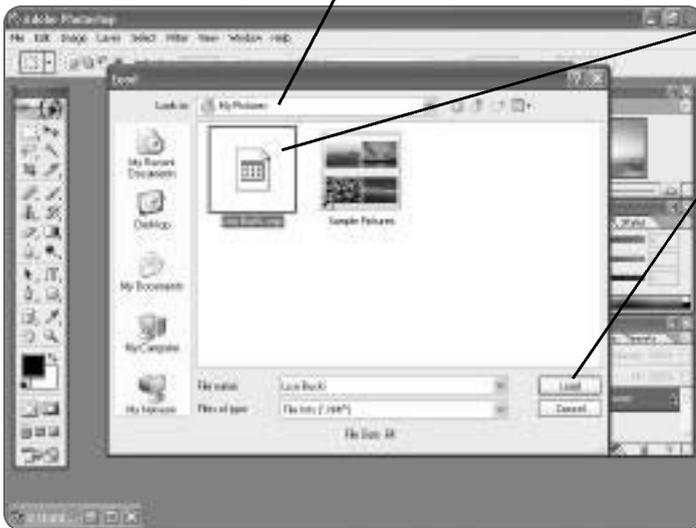


**13. Click on Append.** The Load dialog box will appear.

**TIP**

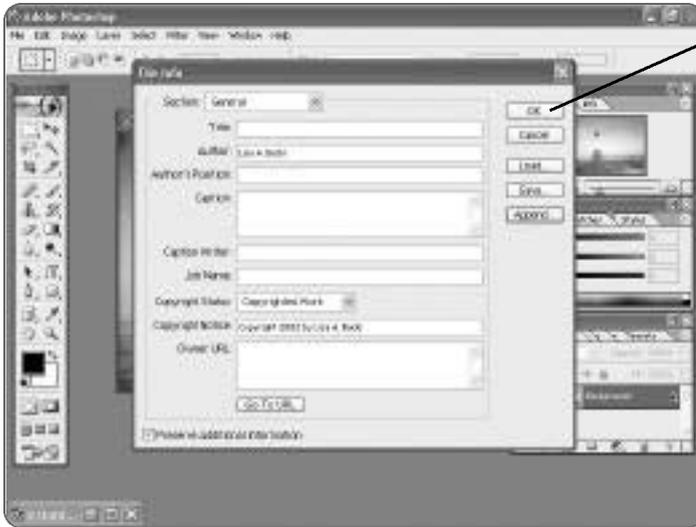
If you click the Load button, all existing File Info will be replaced. When there is no existing File Info, the Append button adds all the stored File Info file information; however, when there is existing File Info, the Append button updates only the Caption and Keywords categories.

**14. Navigate to the file location.** The desired file will be displayed in the file list.



**15. Click on the file in the list.** The file will be selected.

**16. Click on Load.** Photoshop will load the .XMP file information and return to the File Info dialog box.



**17. Click on OK.** The File Info dialog box closes, adding the information to the file.

**18. Save the file.** The File Info will be preserved in the file.

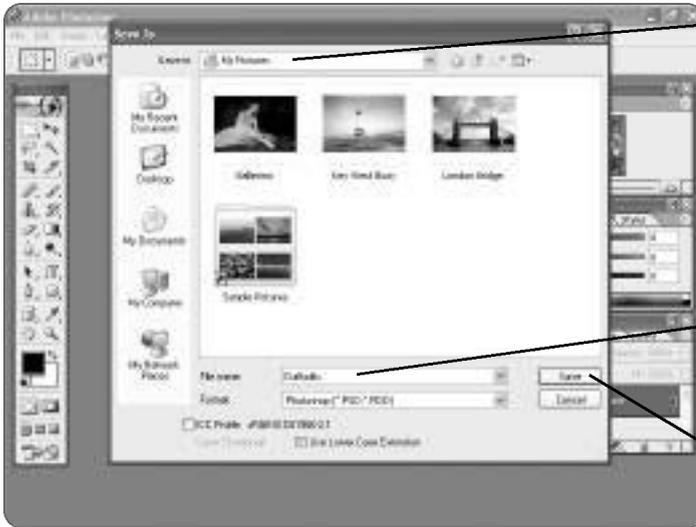
## Saving a File

If you've just created an image file or have just imported it into Photoshop from a scanner or digital camera, you need to save the image file to name it and store it to the location of your choice on your system's hard disk. The following steps lead you through the process for saving the current file.



**1. Click on File.** The File menu will appear.

**2. Click on Save.** The Save As dialog box will open.



**3. Navigate** to the **file location** where you want to save the file. The files in that folder will be displayed in the file list. (See “Opening an Existing File” earlier in this chapter for help with navigating folders.)

**4. Double-click** on the **File name text box entry**, then **type** a new **name** for the file.

**5. Click** on **Save**. The Save As dialog box will close. Photoshop saves the file and leaves it open onscreen for further work.

## NOTE

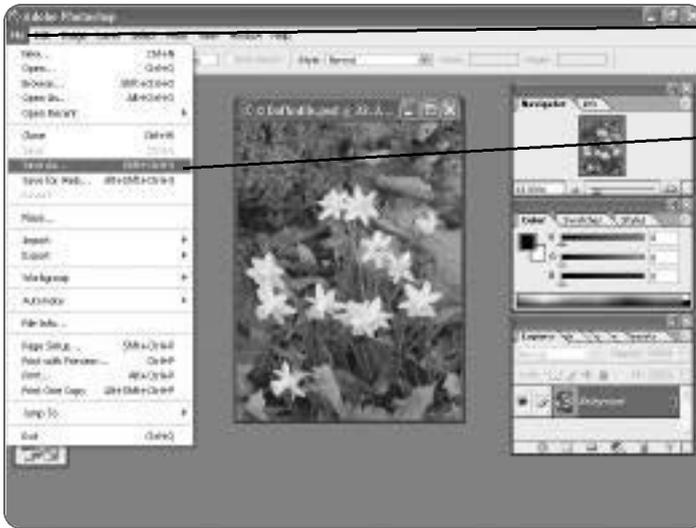
If you make changes to the file, be sure to click on File and then click on Save or press Ctrl+S to save your changes. The Save As dialog box will not appear for subsequent saves unless you click Save As rather than Save on the File menu.

## Saving to Another Format

By default, Photoshop saves new images in its Photoshop (.PSD or .PDD) format. You may need to save an image in another format. For example, you may want to save the file in the Windows bitmap (.BMP) or Paint (.PCX) format to use the file in a word processor document. Photoshop enables you to save images in more than a dozen formats.

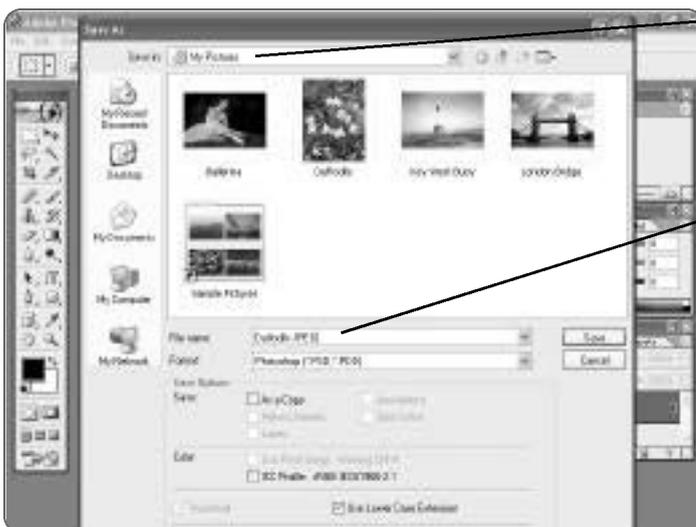
## Using Save As

Use the following process to save the current file to one of the available graphics formats. (The Adobe .PDF format will be covered in the next section.)



**1. Click on File.** The File menu will appear.

**2. Click on Save As.** The Save As dialog box will open.



**3. Navigate to the location** where you want to save the file. The files in that folder will be displayed in the file list.

**4. Double-click on the File name text box entry.** The name will be selected.

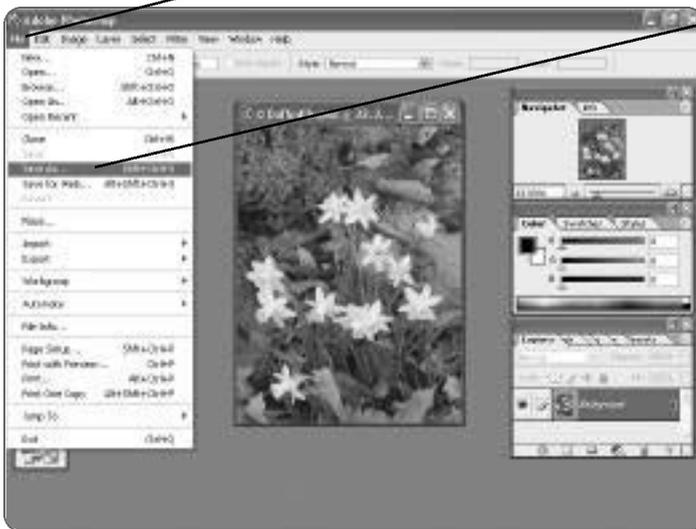
**5. Type an alternate name,** if needed, for the converted file. The new name will be displayed.



## Saving a Password-Protected .PDF File

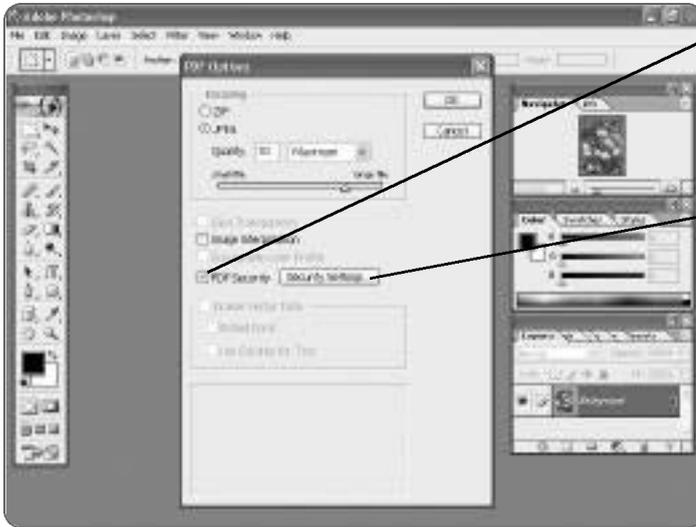
When you save a Photoshop file in Adobe's portable .PDF format, you can now add password protection to the .PDF file. With this new security feature, you can prevent others from making changes to the file or from doing certain things with the file (such as printing it) from Acrobat. Follow these steps to save a Photoshop file as a .PDF file and add password protection to the file:

**1. Click on File.** The File menu will appear.



**2. Click on Save As.** The Save As dialog box will open.

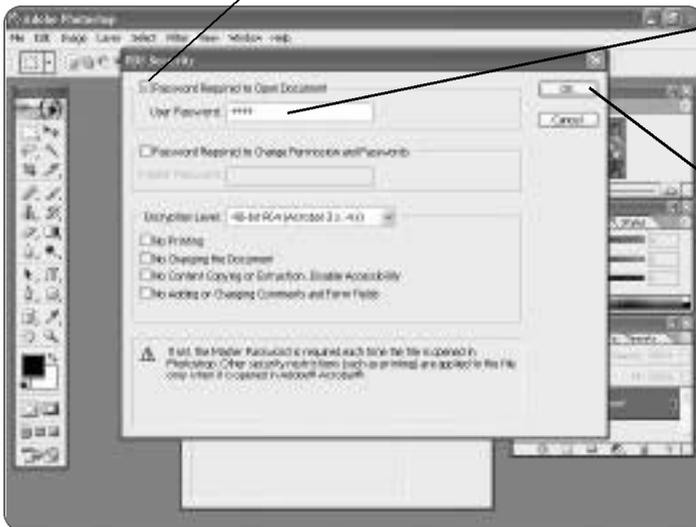




**8. Click on the PDF Security check box.** It will be checked, and the Security Settings button will become active.

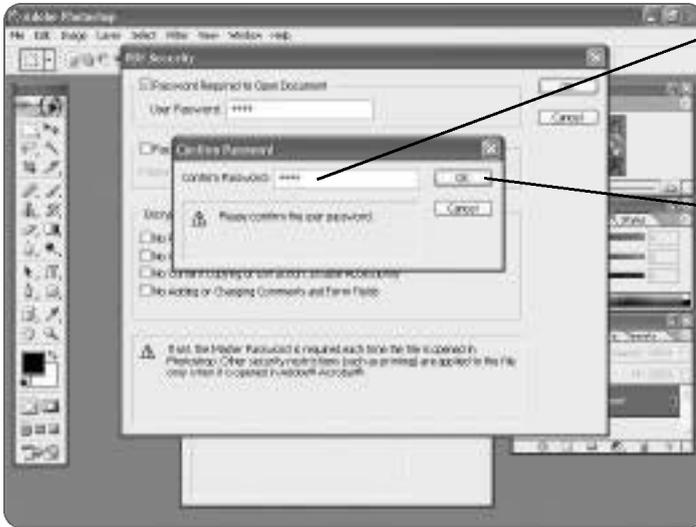
**9. Click on Security Settings.** The PDF Security dialog box will open.

**10. Click on the Password Required to Open Document check box.** It will be checked, and the User Password text box will become active.



**11. Type a password in the User Password text box.** An asterisk will appear for each character you type.

**12. Click on OK.** The Confirm Password dialog box will open.

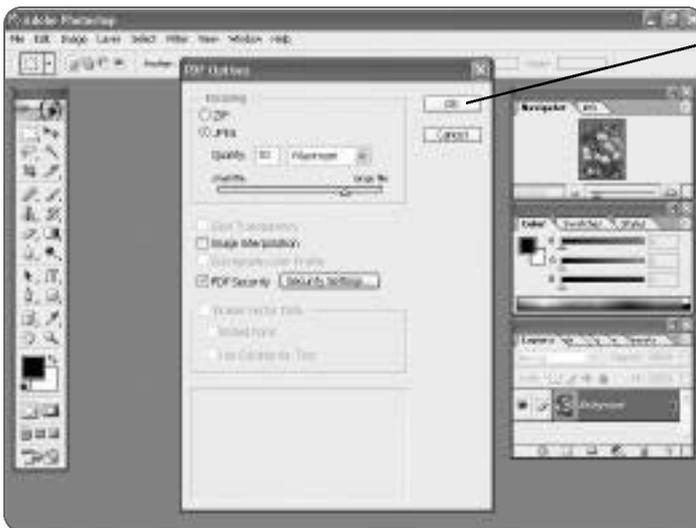


**13.** Type the **password** again in the Confirm Password text box. An asterisk will appear for each character you type.

**14.** Click on **OK**. The Confirm Password and PDF Security dialog boxes will close.

### TIP

At this point, you could click on the Security Settings button in the PDF Options dialog box to reopen the PDF Security dialog box and specify additional security settings.



**15.** Click on **OK**. Photoshop converts and saves the file, closing the original file. The converted file remains open in Photoshop for further work. In the future, users will be prompted to enter the password you specified to open the converted .PDF file in Photoshop 7.0.

## Switching between Files

Photoshop enables you to have multiple image files open, in case you need to compare images or copy information between them. However, you can only work in one image file at a time, called the *current image* or *active image*. The following steps detail how to select a file and make it the current or active file.

**1. Click on **Window**.** The Window menu will appear.

**2. Point to **Documents**.** The Documents submenu will appear.

**3. Click on the **file name**** for the file to display. The file window moves to the top of other open files and becomes the active image, so you can work with the file.



## Closing a File

Although you can have multiple images open, image files tend to consume a lot of system memory, so your system will perform better if you close images that you are not currently using. Again, the following steps identify two methods you can use to close the current image file.

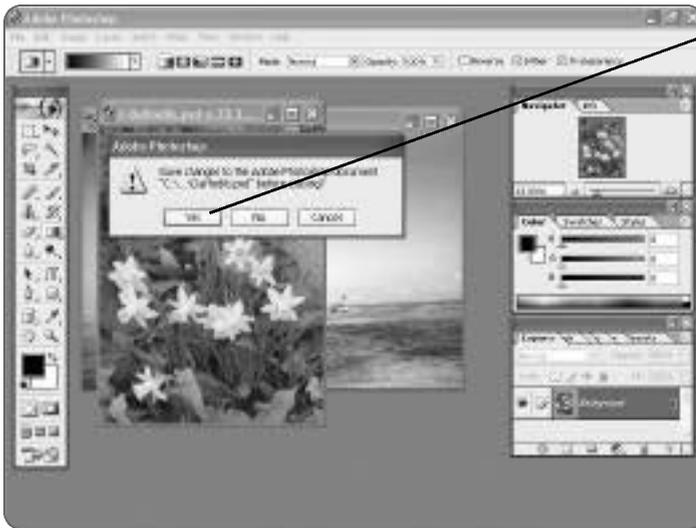


1. Click on **File**. The File menu will appear.

2. Click on **Close**. In some cases, a message window will open.

### NOTE

If you added a new text layer, a dialog box may first prompt you to commit (finish) the layer. Click on Commit to do so.



3. Click on **Yes** if you see the message window prompting you to save the file. Photoshop will finish saving it and the file will close.

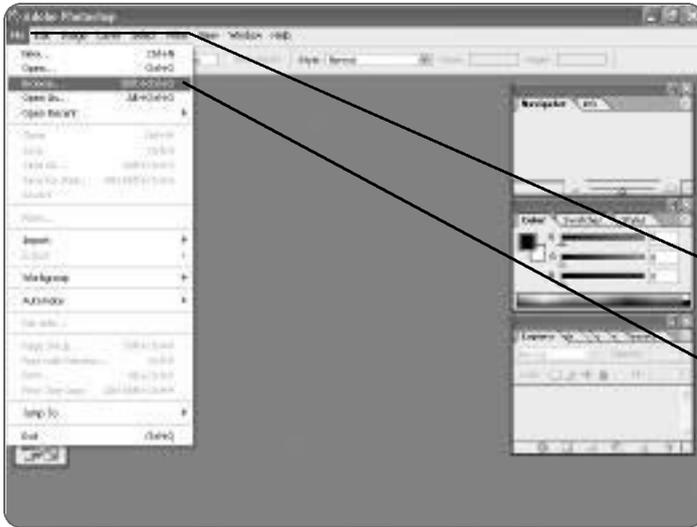
**OR**

4. Click on **Close** for the window of the image file to close. If prompted, save your changes as described in Step 3. Photoshop closes the image window.

## Finding a File with File Browser

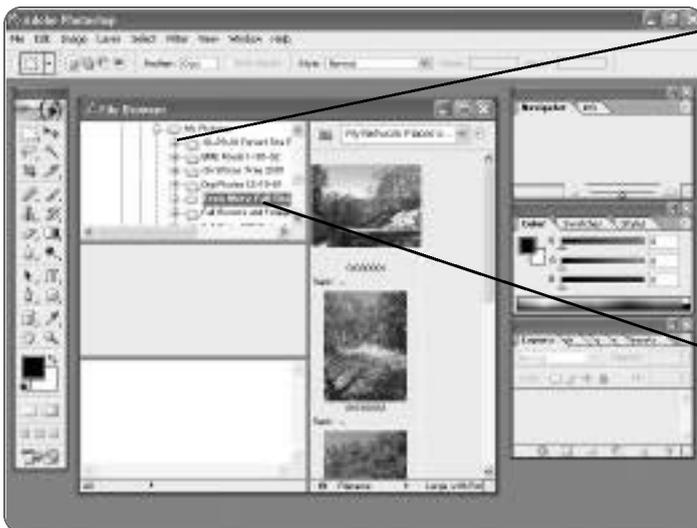
Photoshop 7.0 includes a new feature called File Browser. File Browser displays a preview thumbnail of each image in the currently selected folder. If you click on an image, you also can

see metadata information (such as image size, color mode, and the File Info for a file) in order to verify that you're opening the correct file. The following steps show you how to find and open a file with File Browser.



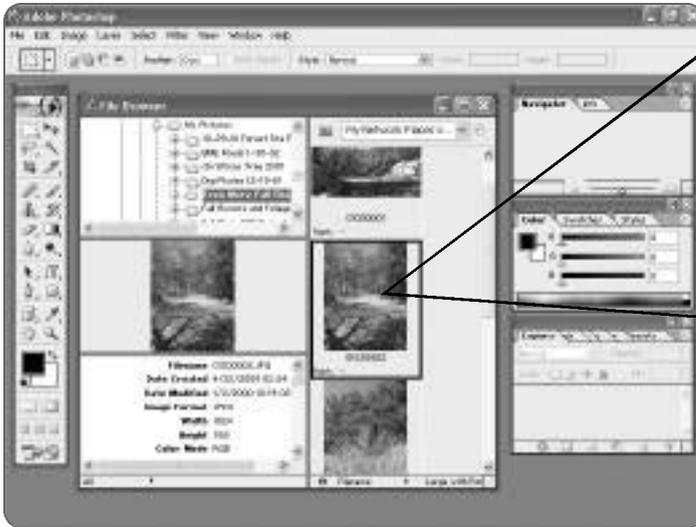
**1. Click on File.** The File menu will appear.

**2. Click on Browse.** The File Browser window will open.



**3. Click on the plus icons** in the folder tree in the upper-left pane in the File Browser to navigate to the desired folder. Clicking a plus icon will display the folders within a particular disk or folder on your system or a network drive.

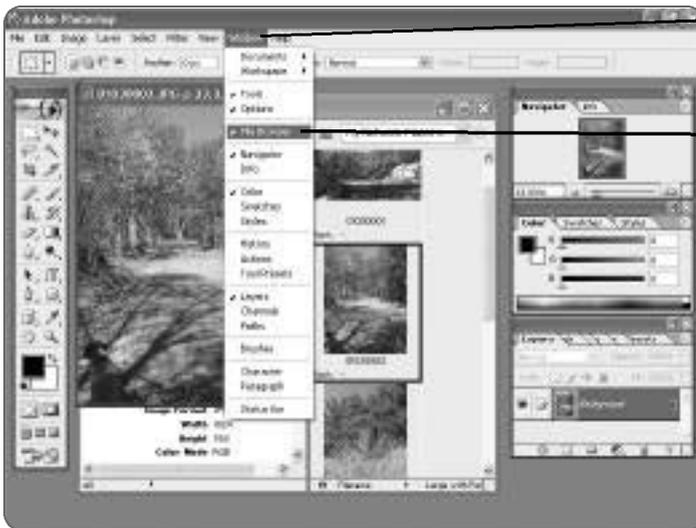
**4. Click on the desired folder** when you see it in the folder tree. The images in that folder will appear in the right pane of the File Browser window.



**5a. Click on the thumbnail** for the desired image. Its metadata will appear in the lower-left pane of the File Browser for you to review as needed.

**OR**

**5b. Double-click on the desired image.** It will open immediately in Photoshop.



**6. Click on Window.** The Window menu will appear.

**7. Click on File Browser.** The File Browser window will close.

## Saving and Loading Your Workspace

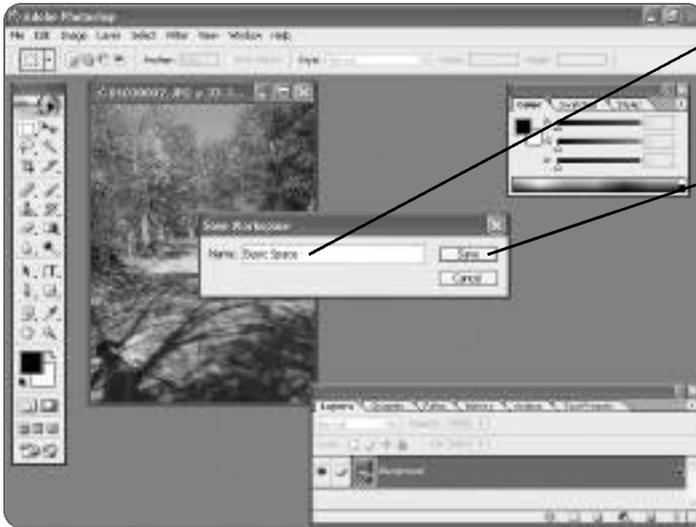
Depending on how you use Photoshop and whether you share your computer with a co-worker, you may find that you spend a lot of time setting up your screen—dragging palettes around, for example. Rather than spending your time setting up for a new task or getting back up to speed after someone has messed with your Photoshop tools, you can save your favorite palette positions in a *workspace*. Later, when you need a particular workspace, you can load it at any time. After you've set the screen up the way you like it, use these steps to save a workspace, reset the palettes, and load a particular workspace.

**1. Click on Window.** The Window menu will appear.

**2. Point to Workspace.** The Workspace submenu will appear.

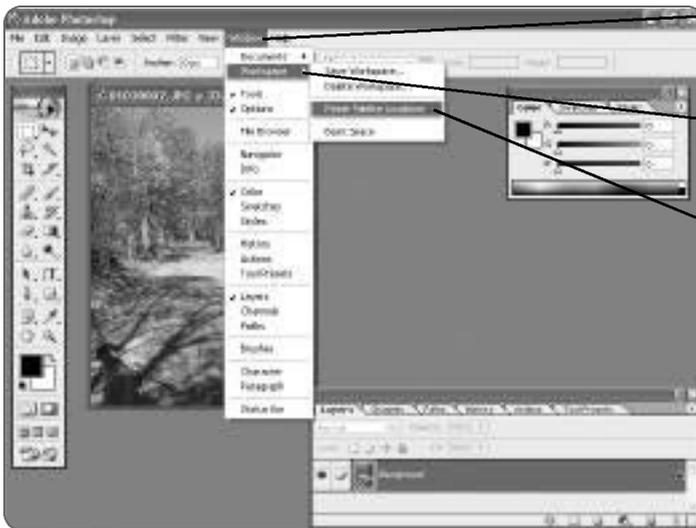
**3. Click on Save Workspace.** The Save Workspace dialog box will open.





**4. Type a name** for the workspace in the **Name text box**.

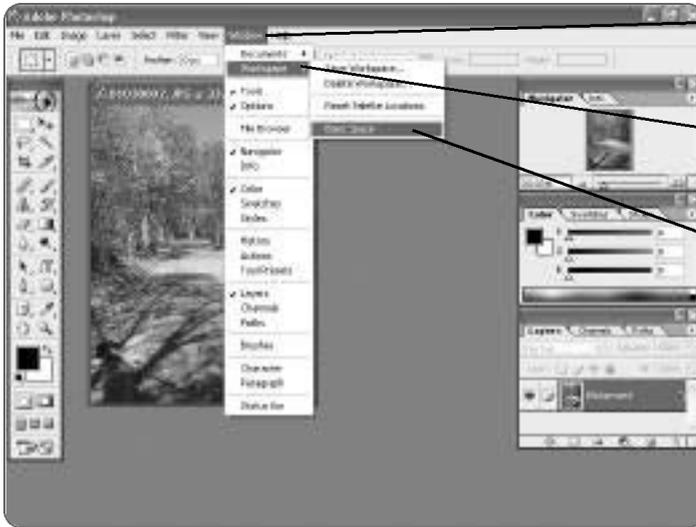
**5. Click on Save.** Photoshop will save your workspace.



**6. Click on Window.** The Window menu will appear.

**7. Point to Workspace.** The Workspace submenu will appear.

**8. Click on Reset Palette Locations.** The palettes will reappear and will be moved back to their default locations.



9. Click on **Window**. The Window menu will appear.

10. Point to **Workspace**. The Workspace submenu will appear.

11. Click on the **desired workspace name**. The palettes will rearrange to the positions saved in the workspace.

## Part I Review Questions

1. How do you open the Photoshop program? See *“Starting Photoshop”* in Chapter 1.
2. What’s the difference between a toolbox and a palette, and how do you use them? See *“Taking Charge of the Tools”* in Chapter 1.
3. Which menu holds the commands for hiding and showing the toolbox and other elements? See *“Hiding and Showing Screen Elements”* in Chapter 1.
4. What kinds of help can you get in Photoshop? See *“Reviewing Help Features”* in Chapter 1.
5. What should you do before you exit Photoshop? See *“Exiting Photoshop”* in Chapter 1.
6. How do you create a new file? See *“Creating a New File”* in Chapter 2.
7. How do you save a file? See *“Saving a File”* in Chapter 2.
8. How do you get an image into Photoshop from your scanner or digital camera? See *“Importing an Image”* in Chapter 2.
9. What is File Info for and how do you add it? See *“Adding File Info”* in Chapter 2.
10. How do you convert a file to another format? See *“Saving to Another Format”* in Chapter 2.

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## PART II

# Making Basic Edits

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# 3

## Adding Content with Tools

Several of the tools in the Photoshop toolbox enable you to add content to a blank image or to an image you've created or opened from another source. Painting and drawing with your computer may take some practice, but like any other skill, the results are worth the effort. In this chapter, you'll learn how to:

- Choose the tool you need
- Set tool options and choose the colors to use
- Paint with the painting tools
- Draw with the drawing tools
- Add and improve text
- Create a note on an image
- Create your own brushes

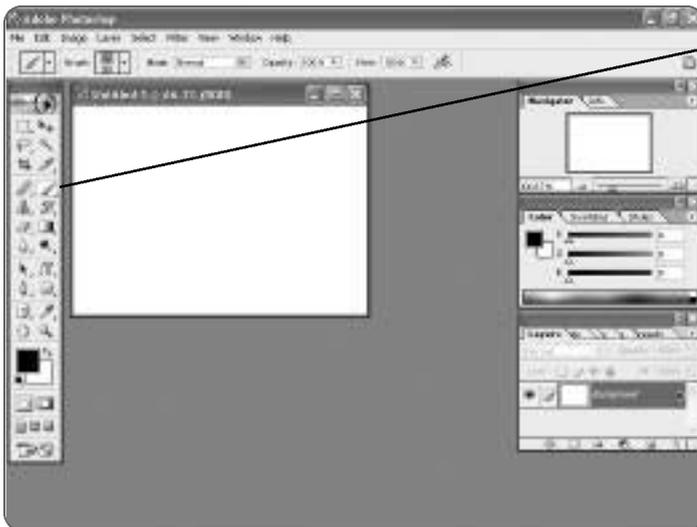
## Selecting a Tool

Photoshop uses the toolbox to organize your tools by type. Because Photoshop offers such a wealth of editing tools, the toolbox looks a bit crowded. What's more, further investigating will reveal even more tools than those you initially see in the toolbox. It's great to have so many options, but it may take more than one step to find the tool you want.

You can access some Photoshop tools with one click. Others you may need to select from a tool "group" shortcut menu.

### NOTE

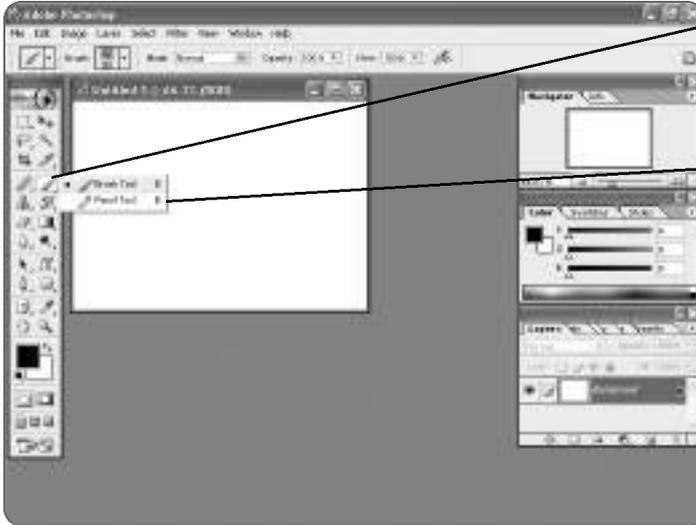
A small triangle in the lower-right corner of a toolbox button indicates that additional tools of this type are available. Move the mouse pointer over such a tool, then press and hold the left mouse button to display the additional tools.



1. Click on a **tool button** in the Photoshop toolbox (after you open a new or existing file, of course). The tool will become active, and available settings for the selected tool will appear on the options bar.

### NOTE

A tool button becomes white while the tool is *active* or selected, and the tool remains active until you choose another tool.



**2. Right-click** on a **tool button**. A shortcut menu that lists similar tools will appear.

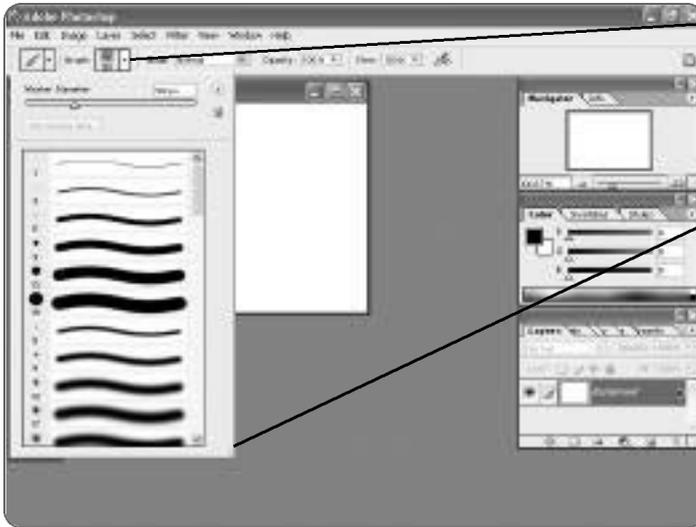
**3. Click** on the **desired tool** in the shortcut menu. The tool will become active, and the available settings for the selected tool will appear on the options bar. Use the active tool to create or edit your picture with that tool's effect.

### TIP

After you select a tool, the right side of the status bar displays a brief description of how to use the tool. Later chapters cover the various tools as needed, because there are so many toolbox tools and they are so diverse in function.

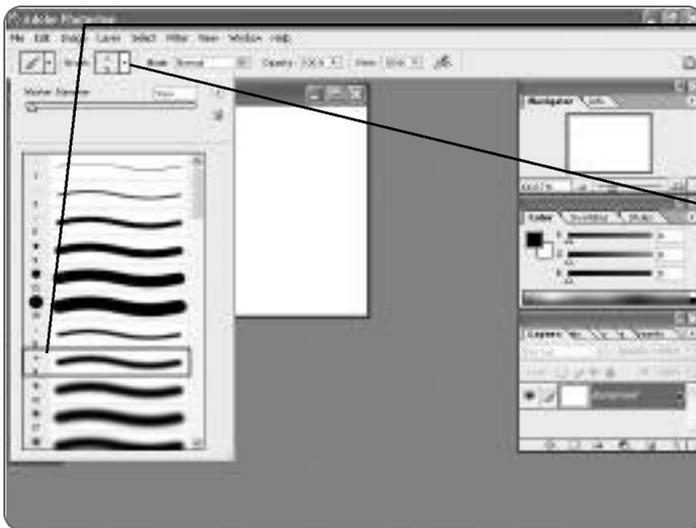
## Setting a Tool's Options in the Options Bar

The options bar below the menu bar displays settings for the currently selected tool, such as a brush size and shape and opacity. The available settings vary widely depending on which tool you have selected. Choosing the correct settings before you draw or paint will save you time, because you won't have to go back and make changes. The following steps show an example of how to use the options bar, but keep in mind that it may display very different settings for each tool that you choose.



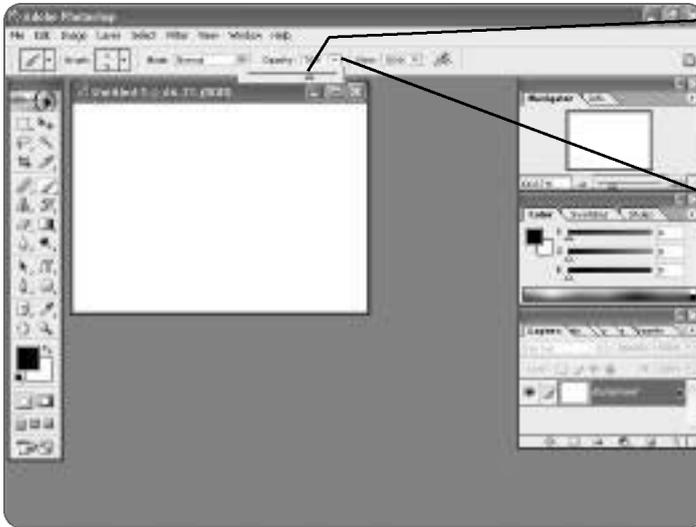
**1. Click** on the **down arrow** for a setting in the options bar. A list or palette will appear with the choices for the selected setting.

**2. Drag** the **lower-right corner** of a palette. Additional palette choices will become visible.



**3. Click** on the **desired setting** in the list palette. That setting will become active for the selected tool.

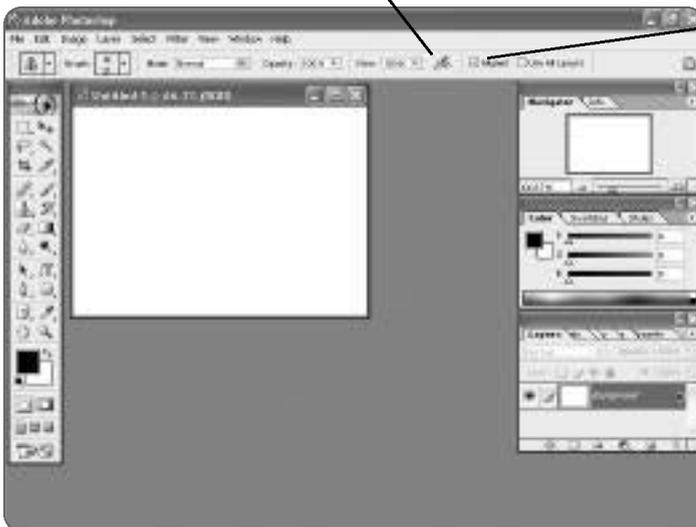
**4. Click** on the **down arrow** again if the list or palette remains open. The list or palette will close.



**5. Drag the slider** if a setting offers a slider rather than a list or palette. This changes the current setting for the selected tool.

**6. Click on the down arrow** again. The slider will close.

**7. Click on a button.** Photoshop will either enable (press) or disable (release) the setting.



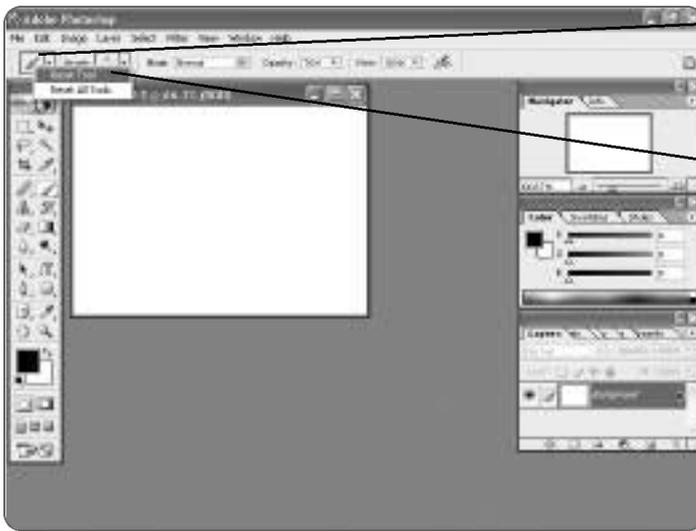
**8. Click on a check box** setting. Photoshop will either check (enable) or uncheck (disable) the setting.

### TIP

For some tools, the options bar includes a Toggle, the (tool name) palette button at the far right end. You can click that button to display and hide a palette window with additional settings for the selected tool.

## Resetting Tool Defaults

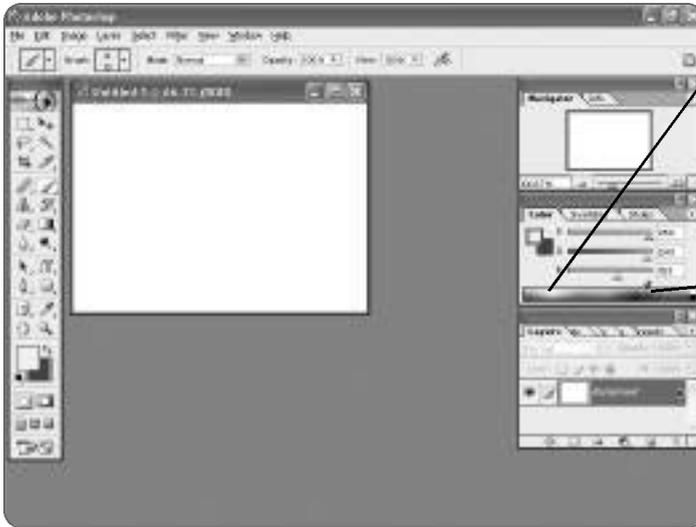
When you choose the settings for a tool, they remain active until you change them. So, as you jump between the various tools, you can reset a tool to its default settings and then choose the settings that apply during your current use of the tool. The following steps show how to reset a tool.



- 1. Right-click on the tool button** at the left end of the options bar. A menu will appear.
- 2. Click on Reset Tool.** Photoshop resets the options bar settings to the default for the tool.

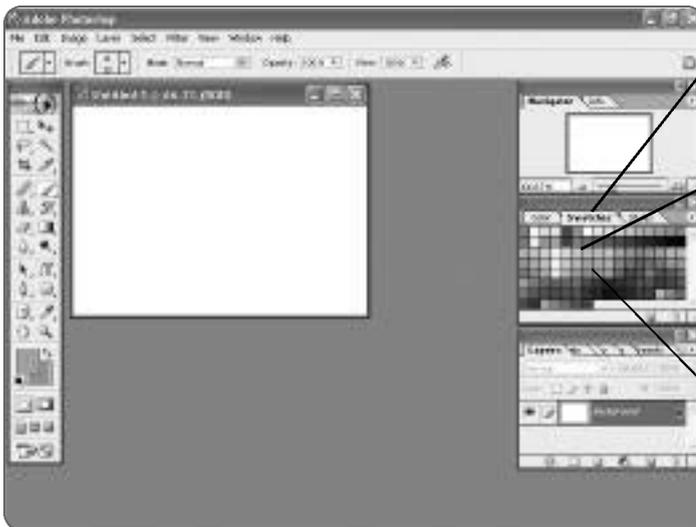
## Choosing Colors

As when you choose other settings for a tool, you should choose the *foreground* and *background* colors to be used by the tool. Generally, Photoshop uses the selected foreground color when you draw lines, and the background color for gradient fills and erased areas. The Foreground Color, Background Color box near the bottom of the toolbox shows the currently selected foreground and background colors. The following steps detail the numerous methods you can use to select a new foreground or background color.



**1. Click on the desired foreground color** on the color ramp in the Color palette. The foreground box on the toolbox changes to show the new foreground color.

**2. Press and hold the Alt key,** then **click on the desired background color** on the color bar in the Color palette. The background box on the toolbox changes to show the new background color.



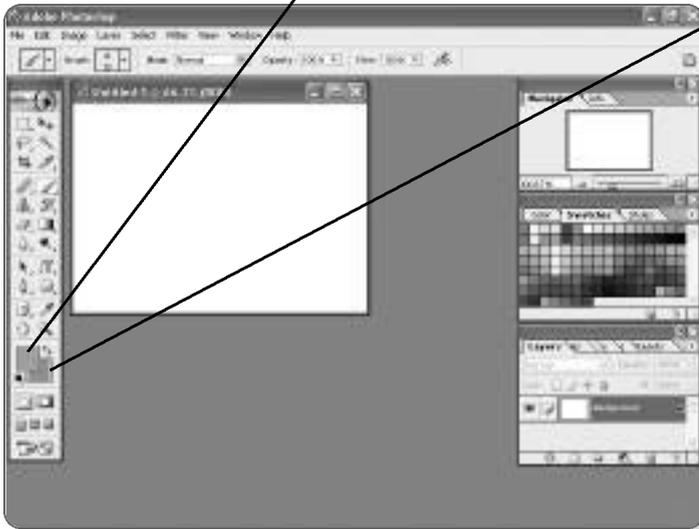
**3. Click on the Swatches tab** in the Color palette. The color swatches appear.

**4. Click on the desired foreground color** on the Swatches tab in the Color palette. The foreground box on the toolbox changes to show the new foreground color.

**5. Press and hold the Ctrl key,** then **click on the desired background color** on the Swatches tab in the Color palette. The background box on the toolbox changes to show the new background color.

## 6. Open the Color Picker dialog box:

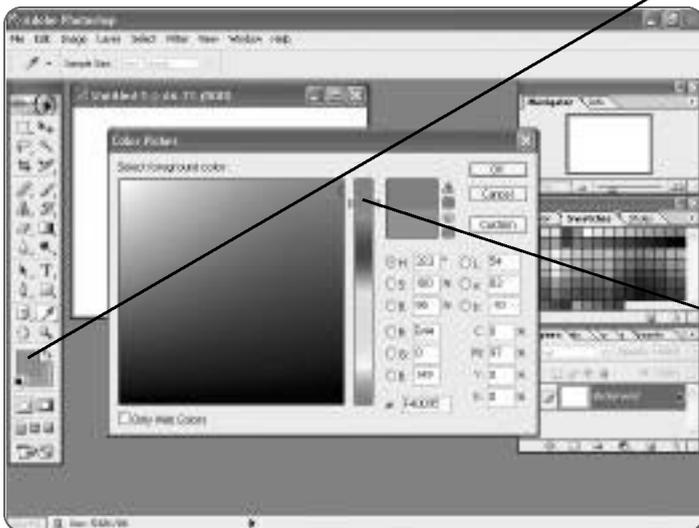
- Click on the **foreground color box** in the toolbox. The Color Picker dialog box will enable you to choose the foreground color.



- Click on the **background color box** in the toolbox. The Color Picker dialog box will enable you to choose the background color.

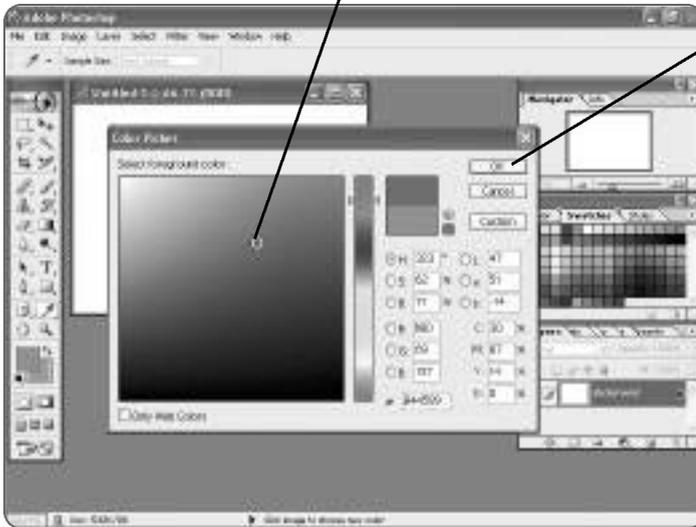
### TIP

Click on the Default Foreground and Background Colors (the small button with the black-and-white color chips on it below and to the left of the larger color chip buttons on the toolbox) to reset the foreground and background colors to the defaults: black for the foreground and white for the background.



- Click on a **color** in the narrow band of colors near the middle of the dialog box. Photoshop will display a different range of colors in the Select foreground color or Select background color box.

**8. Click on a color** in the Select foreground color or Select background color box. The color you click on will become the active spot color.

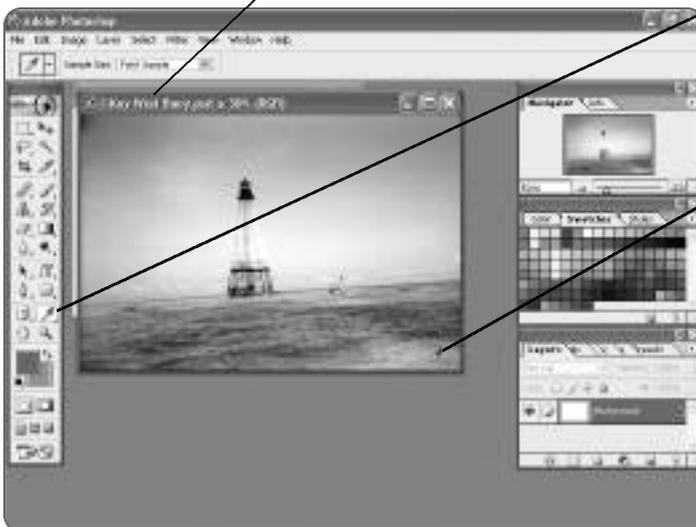


**9. Click on OK.** The Color Picker dialog box will close.

### NOTE

The Color Picker and Color palette may display a special alert icon when you choose a particular color. A cube alert icon indicates that a color may not display correctly on the Web. A triangle with exclamation point icon indicates that a color cannot be accurately reproduced via CMYK printing.

**10. Open a color picture.** The picture will become the active picture.



**11. Click on the Eyedropper tool** in the toolbox. The Eyedropper tool will become the active tool.

**12. Click on the desired foreground color.** Press and hold the **Alt** key and then click on a color to select the background color instead. The color you clicked on will become the active foreground color or background color. You can use those colors to paint and draw in the current image file or another file.

## Working with Painting Tools

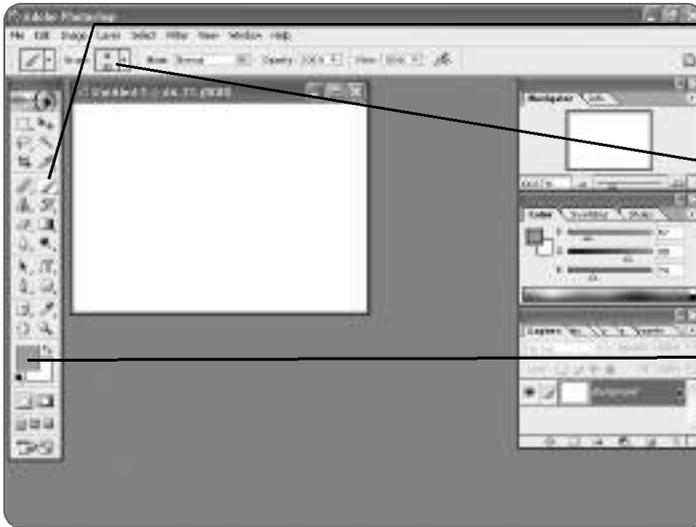
Photoshop combines features of both *paint programs*—which paint to change the color of pixels in the image, so that you cannot later select painted objects—and *draw programs*—which create objects that can be selected, edited, and rearranged later. The images you create with a paint program work much like drawing or painting on paper; to make a change, you need to erase or replace something, which can be tricky if you accidentally erase or paint over an adjoining area. A draw program works more like a collage, where you can pick up the individual collage pieces to move, resize, or reshape them. The steps in this section focus on using drawing tools that basically color different *pixels* (color dots) in the picture.

### NOTE

Photoshop places painted information on the *background layer* by default. You can separate painted information by placing it on different layers in the file, which enables you to move and work with the painted information independent of other information in the image. See Chapter 8, “Working with Layers,” to learn how to place content on different layers in an image.

## Painting with the Paintbrush

The Paintbrush tool enables you to use the mouse to create freehand strokes with any of a number of brush shapes. Photoshop 7.0 includes some neat new brush shapes for painting. One brush shape paints leaves onto the image. Another adds blades of grass. Another adds stars. You can use these interesting new brushes to create pictures from scratch or enhance an existing image.

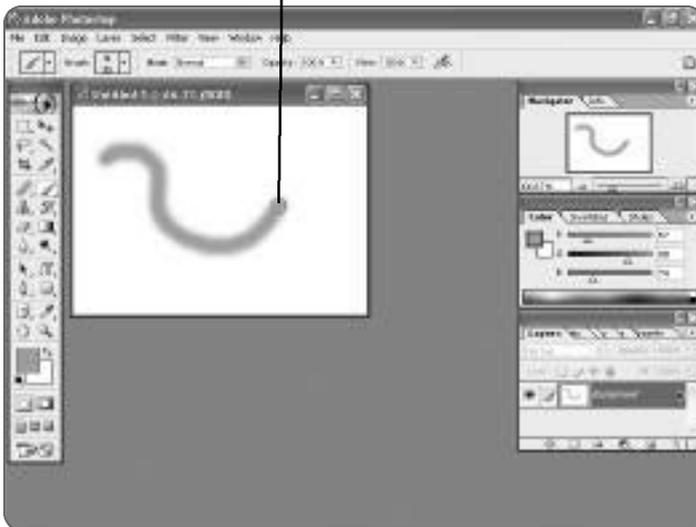


**1. Click on the Paintbrush tool** in the toolbox. It will become the active tool.

**2. Choose the desired settings** in the options bar. Your selections will become the active settings for the tool.

**3. Select the foreground color** using the method of your choice. The color you select will become active for the Paintbrush.

**4. Drag on the picture** in the work area. Keep the mouse button pressed as you drag in any desired direction. When you release the mouse button, the finalized paint stroke will appear.

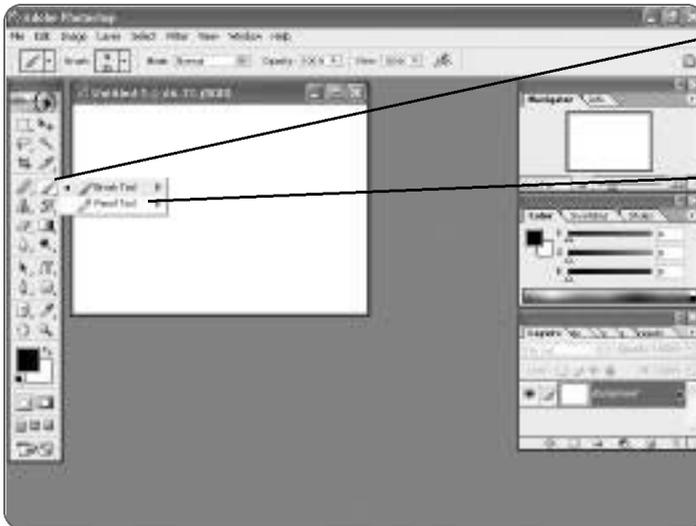


### TIP

If you paint or draw on the image and make a mistake, immediately press **Ctrl+Z** or choose the **Undo (tool) Tool** command on the **Edit** menu to undo the mistake.

## Painting with the Pencil

Technically speaking, the Pencil tool functions as a drawing tool in Photoshop, recoloring pixels as you drag along with the tool. The following example illustrates how to use the Pencil tool.

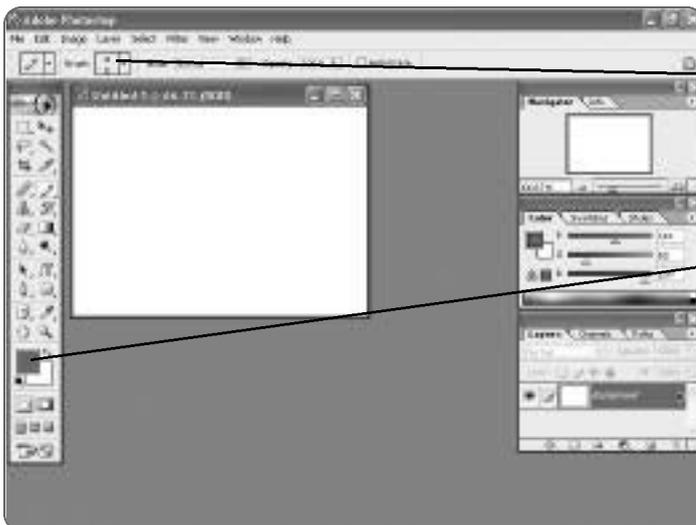


**1. Right-click** on the **Paintbrush tool** in the toolbox. Its shortcut menu will appear.

**2. Click** on **Pencil Tool**. The Pencil tool will become the active tool.

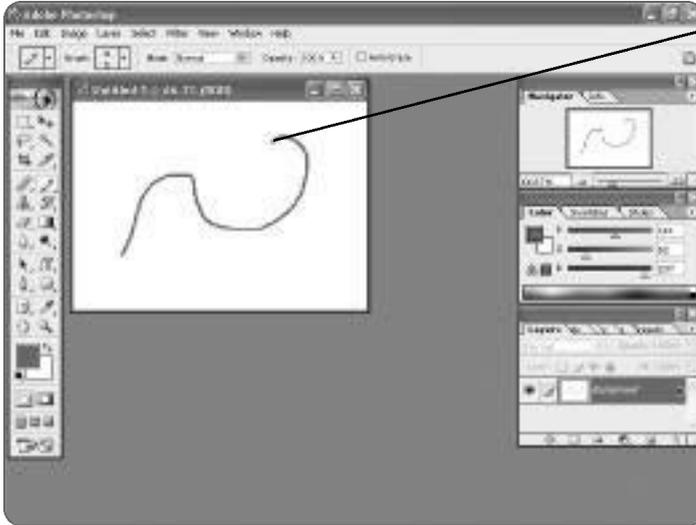
### TIP

When the Pencil tool is active, you must right-click on the Pencil tool in the toolbox, and then click on the Brush Tool choice to return to using the Paintbrush tool.



**3. Choose** the **desired settings** in the options bar. Your selections will become the active settings for the tool.

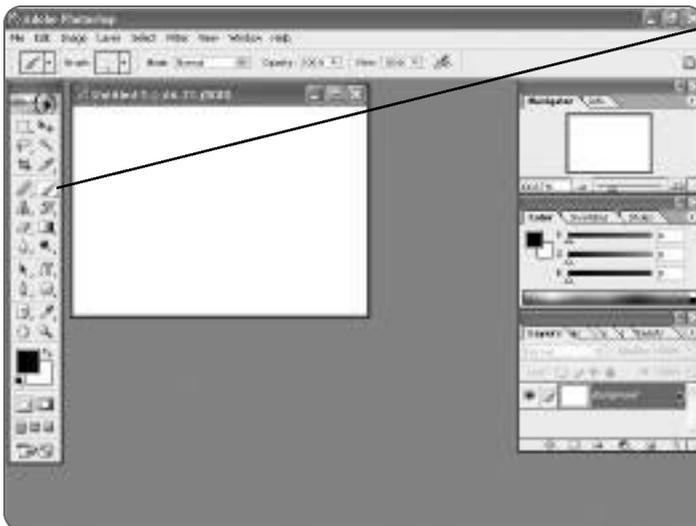
**4. Select** the **foreground color** using the method of your choice. The color you select will become active for the Pencil.



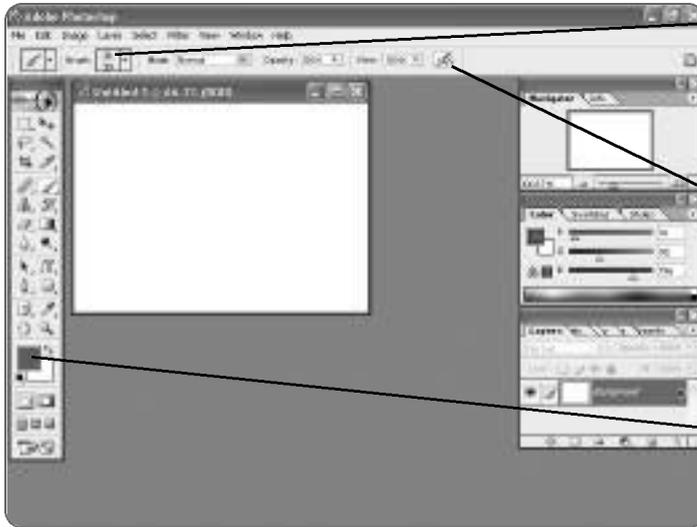
**5. Drag** on the **picture** in the work area. Keep the mouse button pressed as you drag in any desired direction. When you release the mouse button, the finalized pencil stroke will appear.

## Painting with the Airbrush

The Airbrush tool can help you create a more subtle painted effect. It creates a “sprayed” effect rather than laying down solid color, and you can use it by dragging, clicking, or holding down the mouse button to apply the paint.



**1. Click** on the **Paintbrush tool** in the toolbox. It will become the active tool.

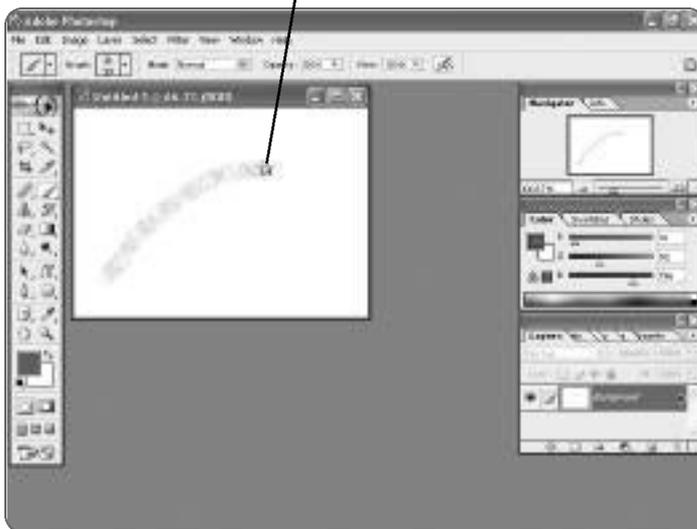


**2. Choose a brush** and other desired settings in the options bar. Your selections will become the active settings for the tool.

**3. Click on the Set to Enable Airbrush Capabilities button** on the options bar. The button will appear pressed and the airbrush will become active.

**4. Select the foreground color** using the method of your choice. The color you select will become active for the Airbrush.

**5. Drag on the picture** in the work area. Keep the mouse button pressed as you drag in any desired direction. When you release the mouse button, the finalized brush stroke will appear.



## NOTE

You also can click on the image while the Airbrush tool is active to “spritz” color onto selected locations. If you hold down the mouse button without moving the mouse, the Airbrush tool increases the amount of paint applied, for a “thicker” application.

## Working with Drawing Tools

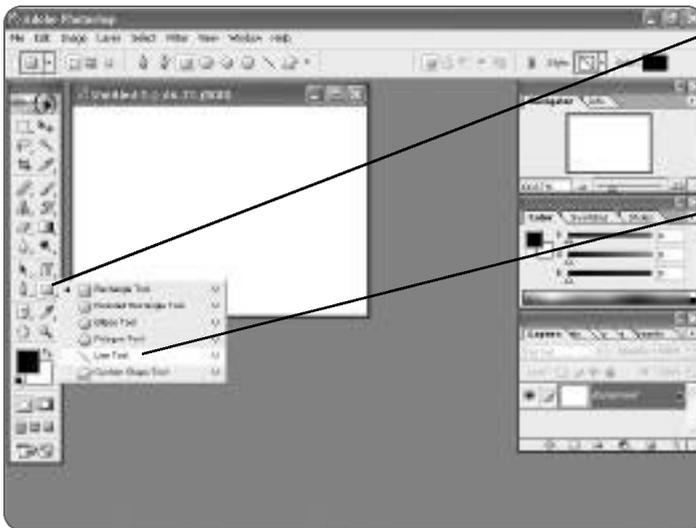
The drawing tools enable you to create regular shapes in an image, such as a rectangle, rounded rectangle, ellipse, polygon, line, or custom shape. When you draw a shape, Photoshop by default places the shape on its own layer in the image, so refer to Chapter 8 if you have a question about working with layers.

### NOTE

The Pen tool is for creating *paths*, not drawing lines. Chapter 10, “Using Paths,” explains how to work with paths.

## Drawing a Line

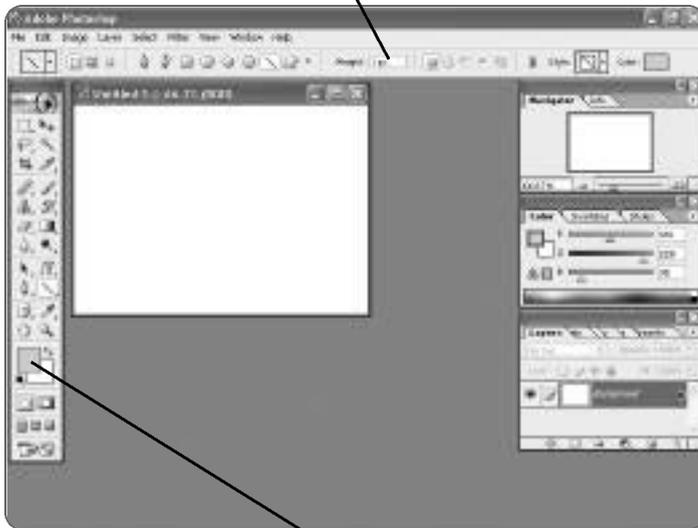
As you might expect, you use the Line tool to draw lines. The following steps explain how to use that tool.



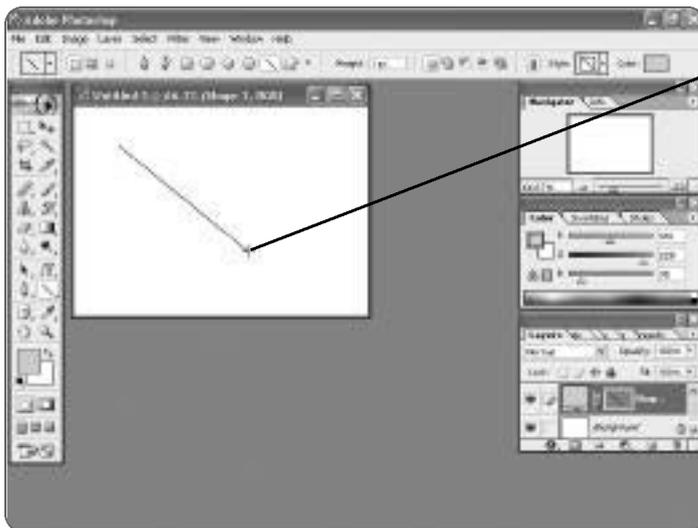
**1. Right-click** on the **Rectangle (or Rounded Rectangle) tool** in the toolbox. Its shortcut menu will appear.

**2. Click** on **Line Tool**. The Line tool will become the active tool.

**3. Choose the desired settings** in the options bar. Your selections will become the active settings for the tool.



**4. Select the foreground color** using the method of your choice. The color you select will become active for the Line tool.



**5. Drag on the picture** in the work area. Keep the mouse button pressed as you drag in any desired direction. When you release the mouse button, the finalized line will appear.

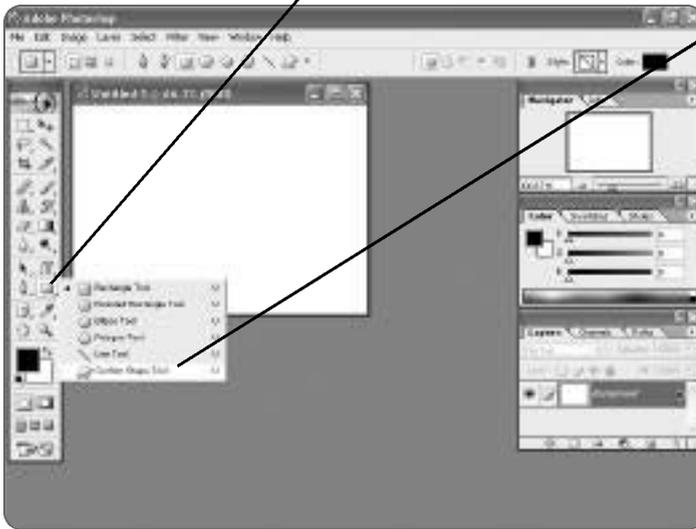
### TIP

Click on the Fill pixels button on the options bar if you want to place the drawing on the background layer rather than on a new layer in your image. Otherwise, leave the Shape layers button selected. If you instead click on the Paths button, Photoshop will create a path and not a line. (You can find these buttons together in a group near the left end of the options bar.) Chapter 10, "Using Paths," explains what paths are and how to use them.

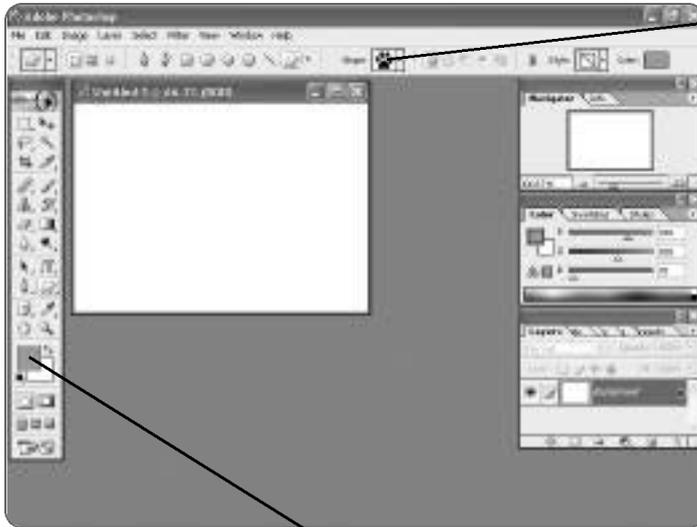
## Drawing a Rectangle, Oval, or Other Shape

As you may have noticed from the preceding set of steps, the shape tools are grouped with the Line tool on the Photoshop toolbox. The following set of steps demonstrates how to use one of the shape tools. (They all basically work in the same way.)

**1. Right-click** on the **Rectangle (or Rounded Rectangle) tool** in the toolbox. Its shortcut menu will appear.



**2. Click** on the **desired shape tool** to use in the submenu. The selected tool becomes the active tool.

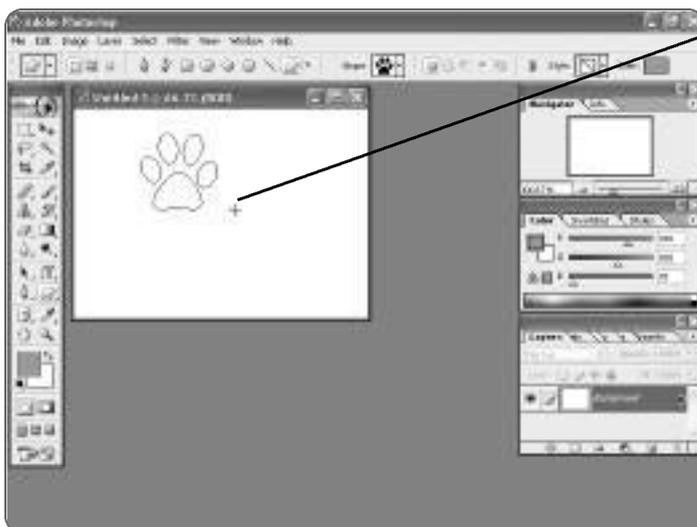


**3. Choose the desired settings** in the options bar. Your selections will become the active settings for the tool.

### NOTE

If you choose Custom Shape Tool, be sure to use the Shape drop-down list on the options bar to specify which kind of shape to draw. Again, leave the Shape layers button selected unless you want to add the shape to the current layer (whether it's the background layer or another layer).

**4. Select the foreground color** using the method of your choice. The color you select will become active for the tool, and will become the fill color for the drawn object.



**5. Drag diagonally on the picture** in the work area. Keep the mouse button pressed as you drag in any desired direction. When you release the mouse button, the finalized shape will appear.

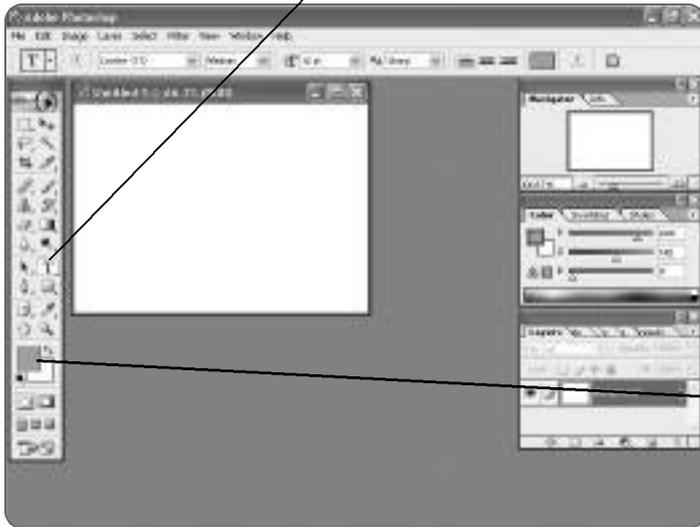
# Adding Text

Photoshop allows you to embellish any image with fun or descriptive text. The text you create appears on a new layer in the image. Photoshop 7.0 now offers additional tools, such as a spell checker and a find and replace feature, to enable you to fine tune the text in your image.

## Creating the Text Layer

You use the Type tool and the options bar to add text to an image. In this case, the options bar gives you a number of choices to customize the text for fun and interesting text treatments in an image.

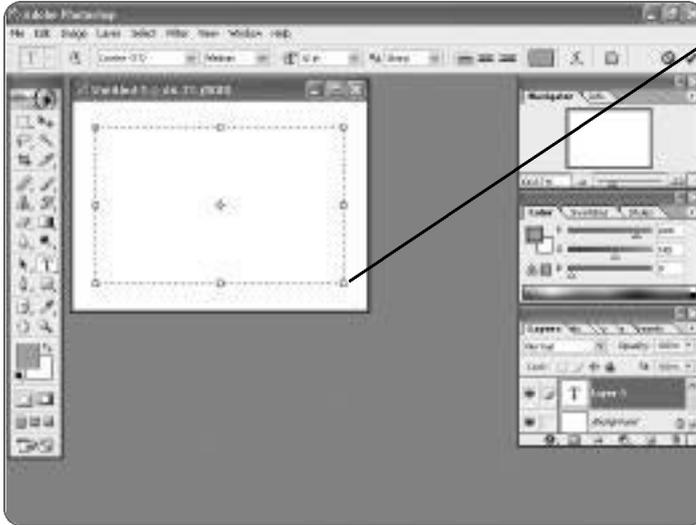
**1. Click on the **Horizontal Type (or Vertical Type) tool** in the toolbox. It will become the active tool.**



### NOTE

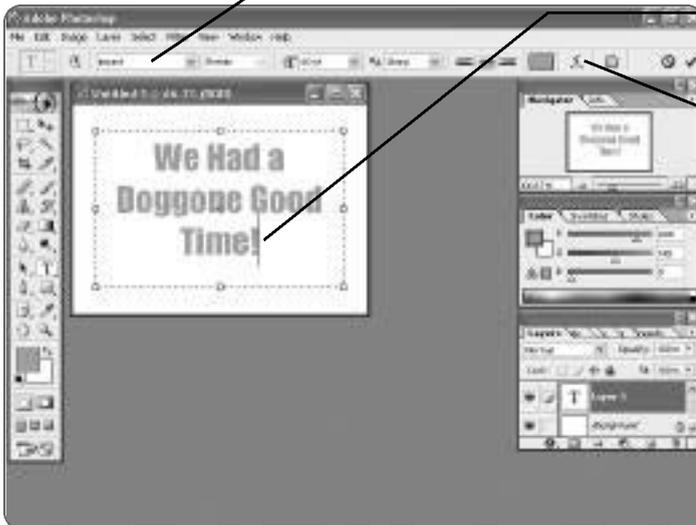
To switch between horizontal and vertical type, right-click on the currently selected Type tool, and then click on the desired option.

**2. Select the desired foreground color** using the method of your choice. The color you select will become active for the tool, and will become the fill color for the text.



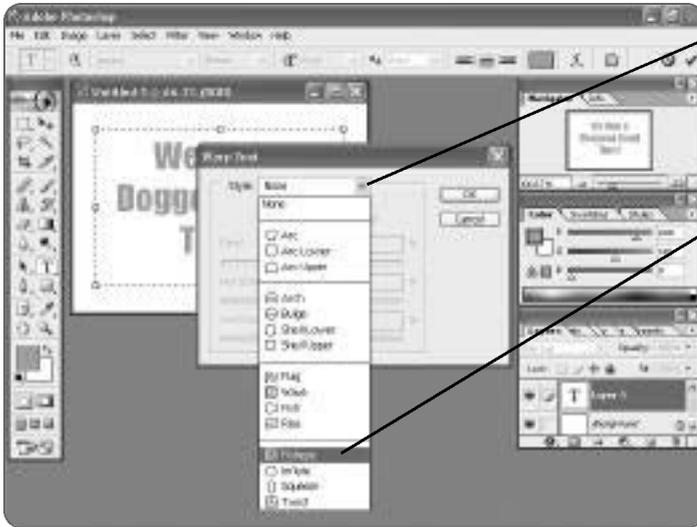
**3. Drag diagonally** on the **image** in the work area. This defines the area that will hold the text.

**4. Choose the desired settings** in the options bar. Your selections will become the active settings for the tool.



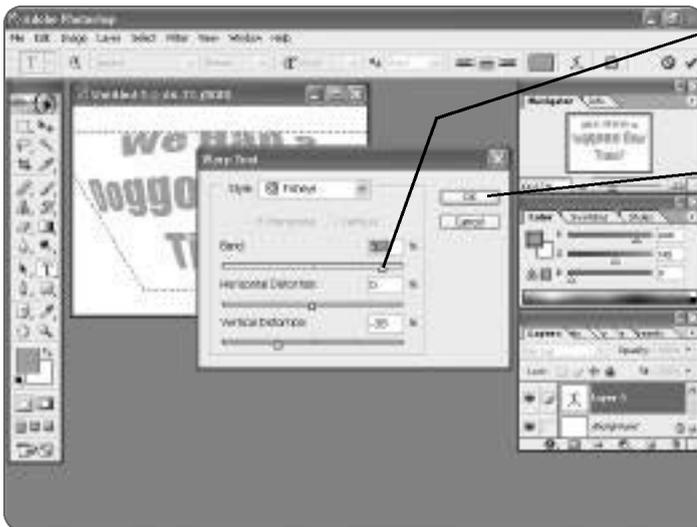
**5. Type the desired text.** Your text will appear in the text box.

**6. Click on the Create Warped Text** button on the options bar. The Warp Text dialog box will open.



**7. Click on the down arrow** next to the Style list. The available styles for warping (bending) text will appear.

**8. Click on the desired warp style.** The list will close, and the settings for the selected style will appear.



**9. Select the desired options.** The text in the image will preview your choices.

**10. Click on OK.** The Warp Text dialog box will close.

**11.** Click on the **Commit Any Current Edits (check)** button on the options bar. Photoshop will insert the text on its new layer.

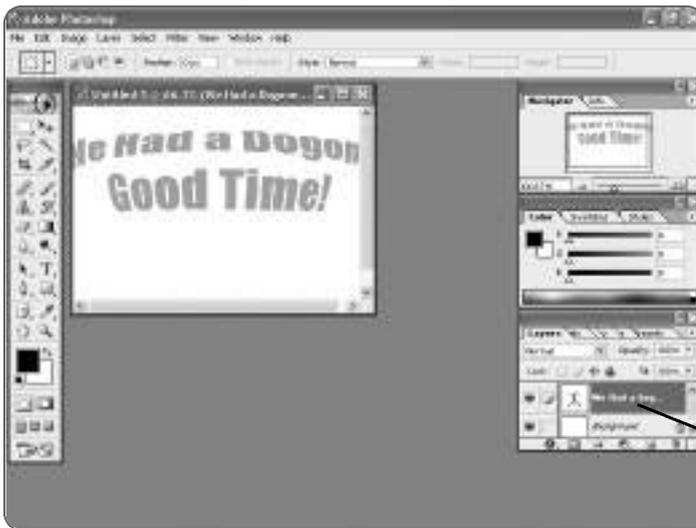


## NOTE

If you later edit text that you've warped, keep in mind that you may have to adjust the warp settings based on the new text contents. You can use the Create Warped Text button on the options bar to redisplay the Warp Text dialog box after you've edited the text.

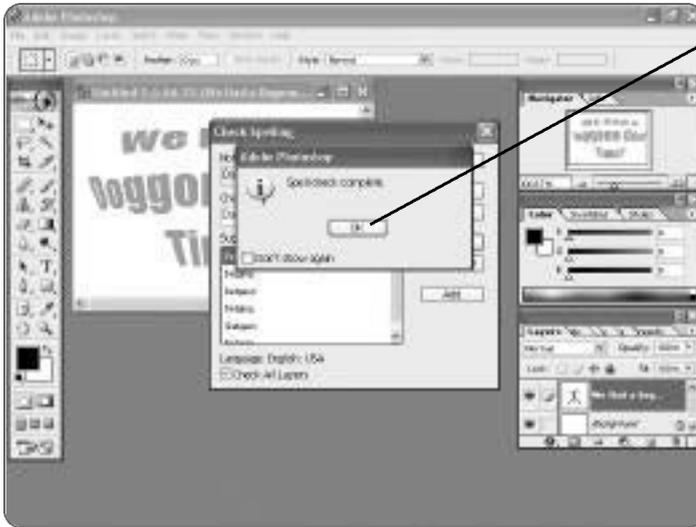
## Spell-Checking the Text

You'll be investing a lot of time to add professional polish to the images you create and edit in Photoshop. To ensure you put your best foot forward in your work, you can spell-check the text that you've included in the image to ensure its accuracy. Follow these steps to spell-check text.



**1.** Click on the **text layer** in the Layers palette. It will become the active layer.



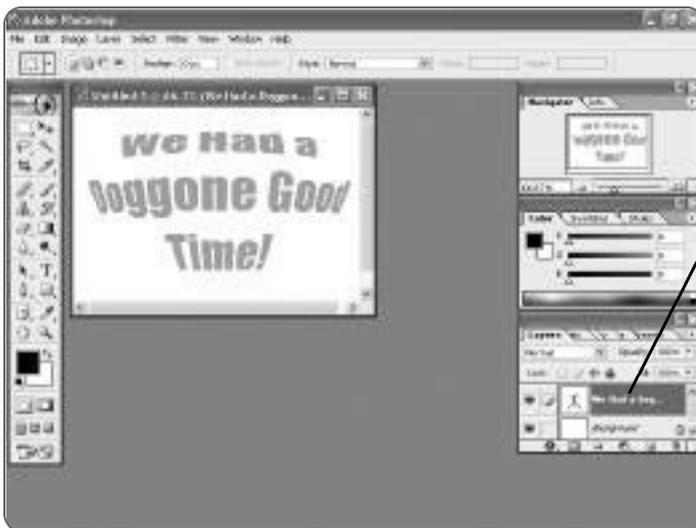


6. Click on **OK**. The Check Spelling dialog box will close.

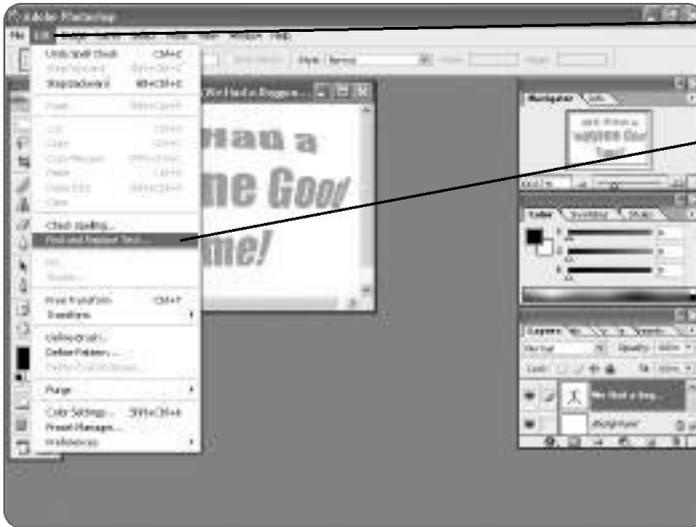
## Finding and Replacing Text

Just as you can repeatedly refine the color and other aspects of an image, you can refine the words you've chosen for the text in an image file. Photoshop 7.0 now includes a find and

replace feature to enable you to update the text in an image with precision. Follow these steps to perform a find and replace.

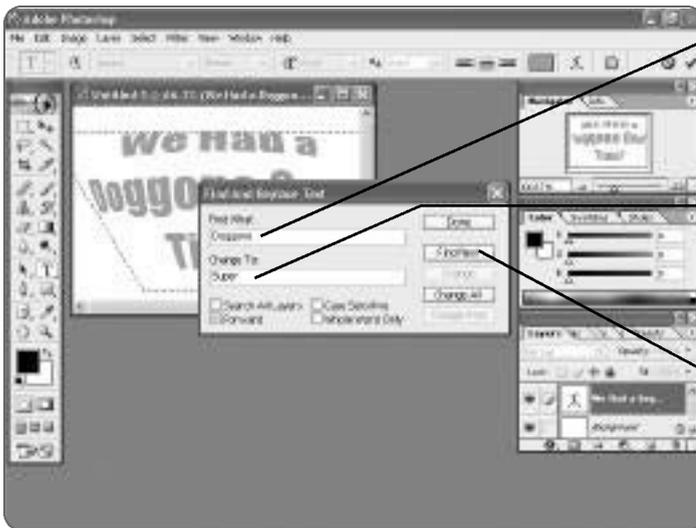


1. Click on the **text layer** in the Layers palette. It will become the active layer.



2. Click on **Edit**. The Edit menu will appear.

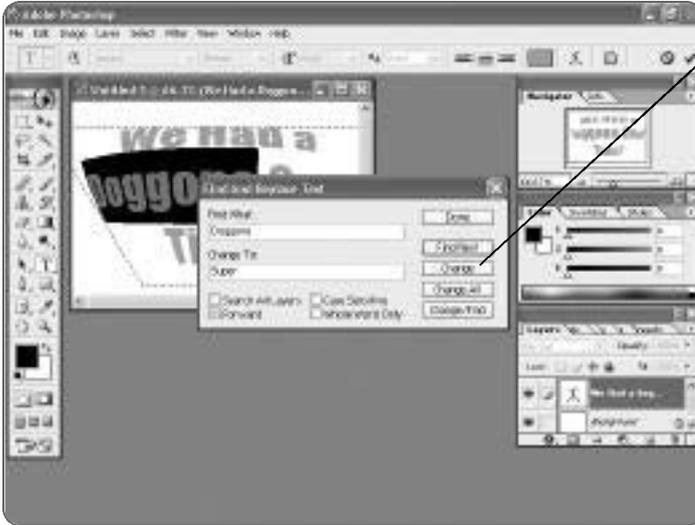
3. Click on **Find and Replace Text**. The Find And Replace Text dialog box will open.



4. Type the **word or phrase** to replace in the Find What text box. The text will appear in the text box.

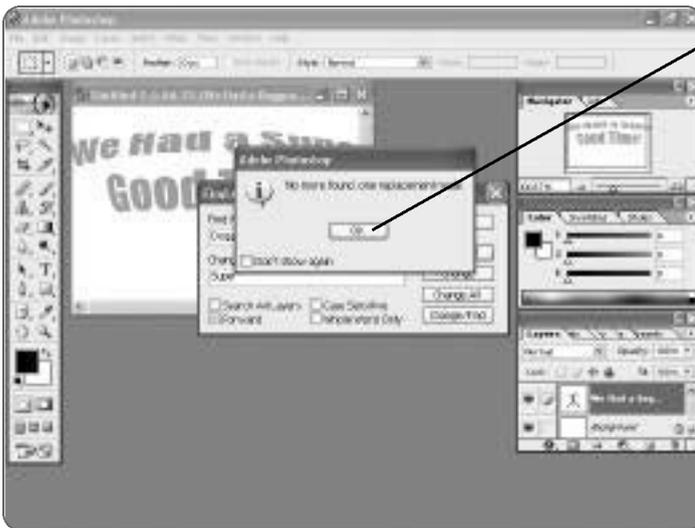
5. Type the **new word or phrase** to use in the Change To text box. The replacement text will appear in the text box.

6. Click on **Find Next**. The find and replace feature will find the first instance of the word or phrase and highlight it in the text.



**7. Click on **Change**.** The find and replace feature will replace the selected word or phrase with the replacement word or phrase, and then look for the next instance of the word or phrase in the text.

**8. Repeat Steps 6 and 7** as needed. The find and replace operation will continue until it finds no additional instances of the word or phrase, at which point it will display a message telling you that no more matches were found.



**9. Click on **OK**.** The Find And Replace Text dialog box will close.

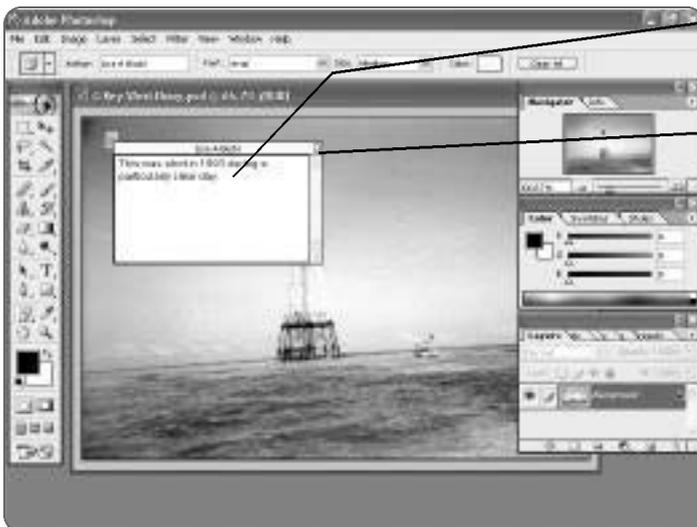
# Adding a Note

If you want to add information to an image that others can read in the file, but that won't print along with the image, add a note. These steps detail the process for adding and working with notes.



**1. Click on the **Notes tool** in the toolbox. It will become the active tool.**

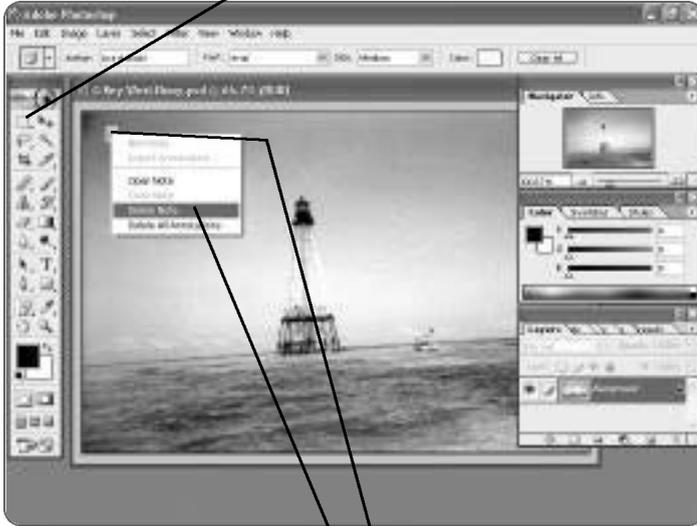
**2. Click on the **image** in the location where you want the note to appear. A blank note box will open.**



**3. Type the **note text**. It will appear in the box.**

**4. Click on the small **Close** box in the upper-right corner of the note. The note box will close and a note icon will appear on the image.**

**5. Click on another tool.** The Notes tool will be deselected, so you don't accidentally add another note.



### TIP

Double-click on a note icon to open the note at any time. Click on the small close box in the upper-right corner of the note when you finish reading it. Be sure to then choose a tool other than the Notes tool before continuing. Otherwise, the Notes tool remains active.

**6. Right-click on the note icon.** Its shortcut menu will appear.

**7. Click on Delete Note.** A message box will open, prompting you to confirm the deletion.



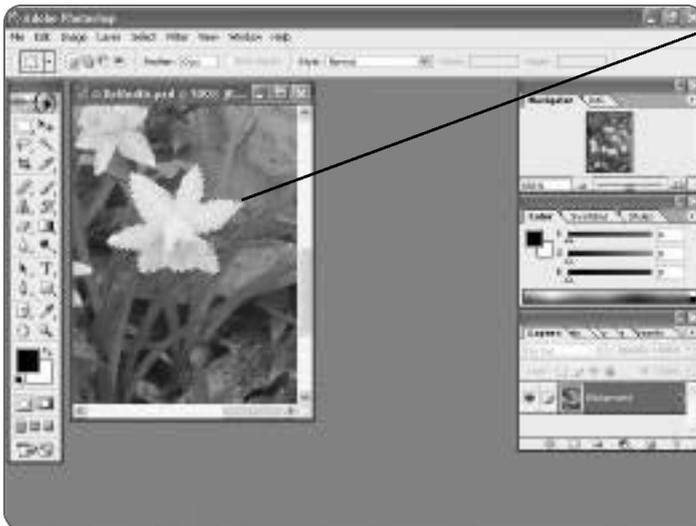
**8. Click on OK.** Photoshop will delete the note from the image.

## Creating or Displaying a Brush

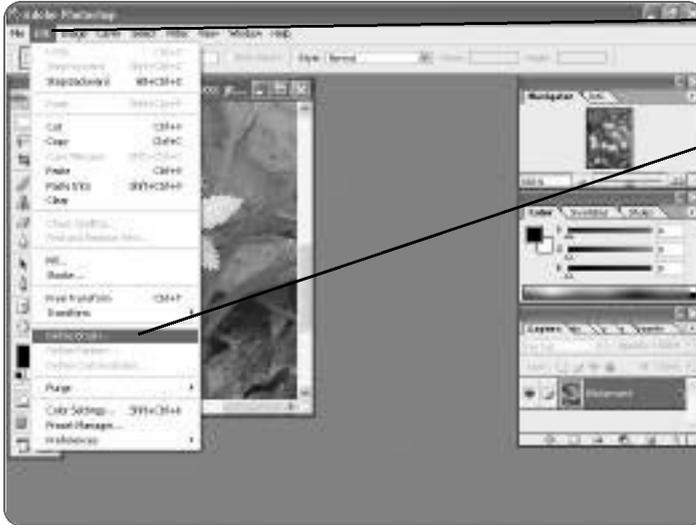
Photoshop 7.0 enables you to create your own custom brushes, giving you maximum creative power for editing and developing image files. This section looks at how to create your own brushes and how to use the new Brushes palette to find and work with available brushes.

### Sampling a New Brush

The fastest way to create a new brush is to base it on a shape available in your image. To sample a brush, you have to select a portion of the image on a layer. Chapter 5, "Selecting Image Content," will explain in detail how to make selections. You can refer to that chapter if you need help with Step 1 here. The following steps show you how to create your own brush in Photoshop.

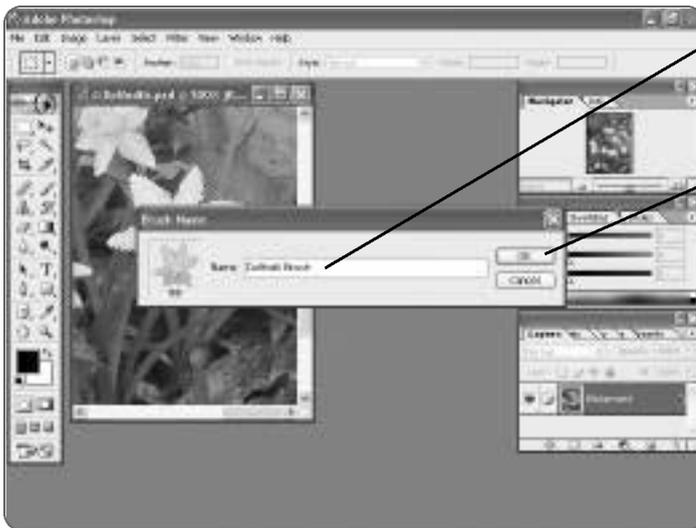


- 1. Select the image content** to save as a new brush shape. The selection marquee will appear in the image.



**2. Click on Edit.** The Edit menu will appear.

**3. Click on Define Brush.** The Brush Name dialog box will open.

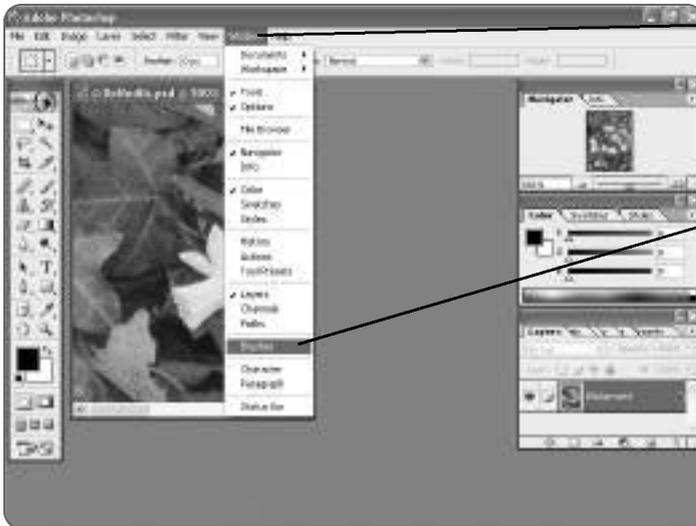


**4. Type a brush name.** The name will appear in the Name text box.

**5. Click on OK.** The brush will be created and will be included in the Brush drop-down list on the options bar choices for painting tools.

## Opening the Brushes Palette

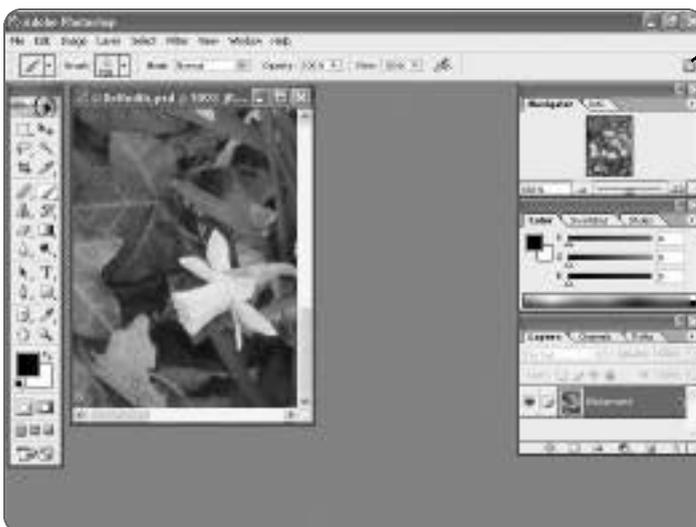
Photoshop 7.0 offers a new Brushes palette that you can use to work with available brushes, including custom brushes that you've created. You can use one of two methods to open (or hide) the Brushes palette.



**1a. Click on Window.** The Window menu will appear.

**OR**

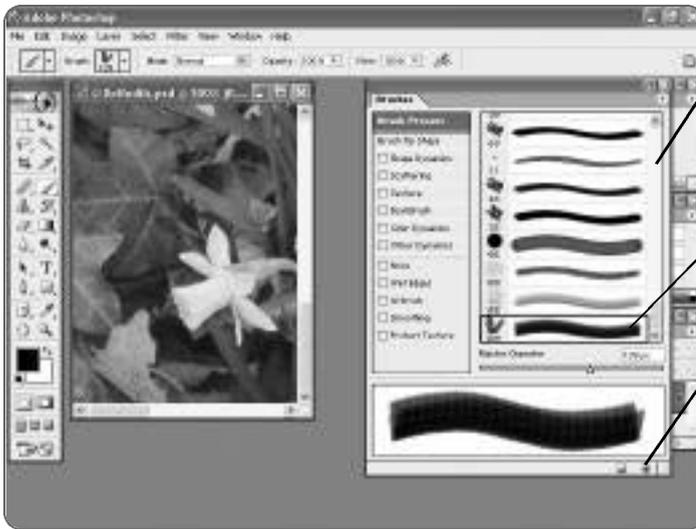
**1b. Click on Brushes.** The Brushes palette will open in its own window (or close).



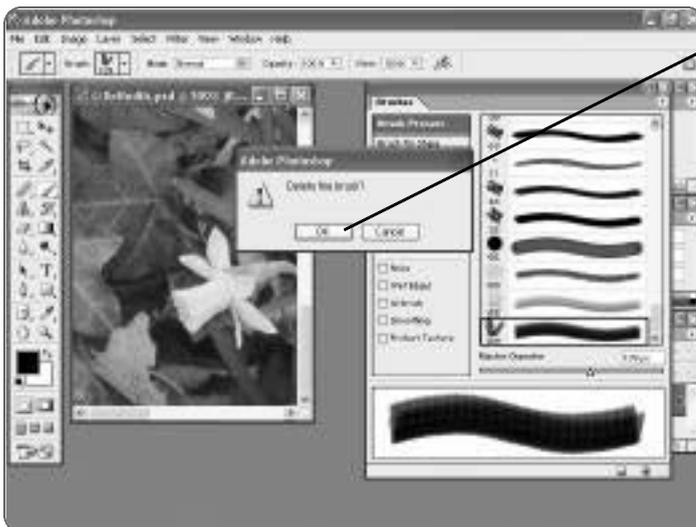
**2. Click on the Toggle the Brushes Palette button** at the right end of the options bar when a painting tool has been selected. The Brushes palette will open in its own window (or close).

## Deleting a Brush

You may create a brush and find that it doesn't offer the effect you had hoped for. In such an instance, you can delete the brush so that it no longer takes up space among the brush choices. Follow these steps to use the Brushes palette to delete a brush.



- 1. Scroll down** to view additional brushes, if needed. You will see the brush to delete among the choices.
- 2. Click on the brush to delete.** It will be selected.
- 3. Click on the Delete Brush button** near the lower-right corner of the Brushes palette. A message will appear to prompt you to confirm the deletion.



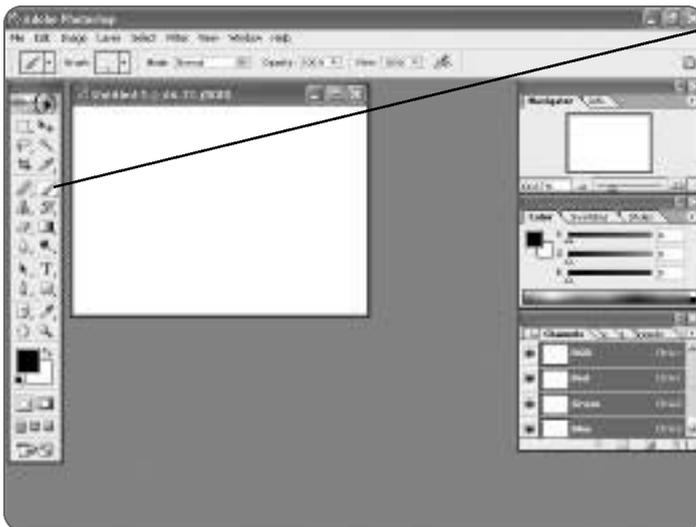
- 4. Click on OK.** The brush will be deleted.

**TIP**

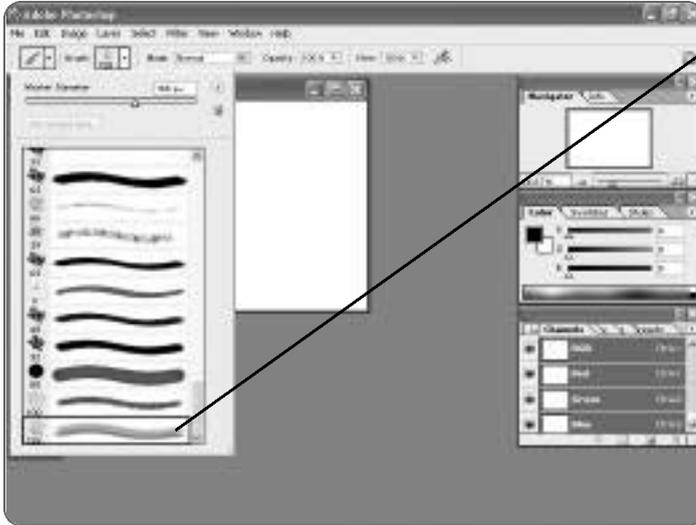
As on other palettes, the Brushes palette features a menu that you can display if you click the button with the right triangle near the upper-right corner of the palette. You can use the choices on the menu that appears to create, rename, and otherwise work with brushes. The menu also offers a variety of additional brush collections that you can select and display in Photoshop.

## Using a Custom Brush

Using a custom brush shape works just like using any other brush shape provided with Photoshop. This final set of steps shows an example custom brush, not to teach you again how to select a brush, but instead to show you how cool a custom brush can be and to get you excited about the possibilities in your own work. The following steps show an example of using a custom brush based on the shape of a daffodil.



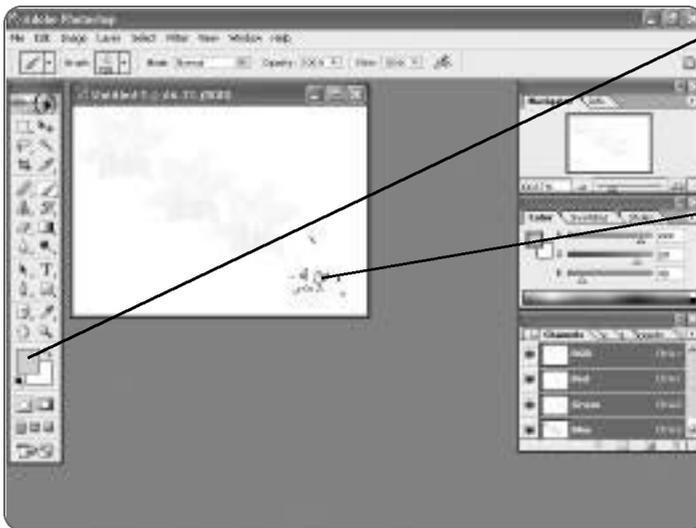
1. Click on the **Paintbrush tool** in the toolbox. It will become the active tool.



**2. Open the **Brush drop-down list** on the options bar, **click** on the **custom brush** to use, then **close the drop-down list**. The custom brush you selected will become the active brush shape.**

### TIP

Custom brushes typically appear at the bottom of the list of brush choices.



**3. Select the **foreground color** using the method of your choice. The color you select will become active for the Paintbrush.**

**4. Click on the **picture** in the work area. Each time you click, a paint stroke in the shape of the brush will appear.**

# 4

## Working with the Image View

As you're working with your image, you may need to zoom in to make minute changes, zoom out to see how your image looks overall, and otherwise move around to ensure you're working with just the image area that you need. Photoshop offers a number of techniques that you can use to change your view of the image. In this chapter, you will master the following skills:

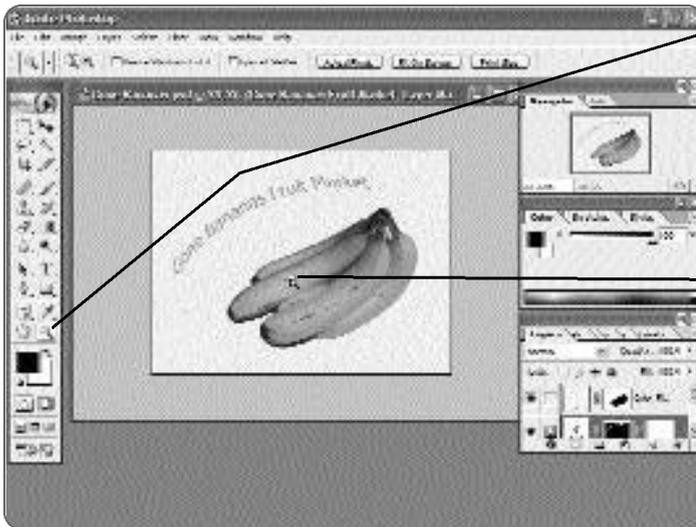
- Zoom in and out on an image
- View the actual pixel size or print size
- Zoom the image to the screen
- Scroll with the scroll bar
- Move around with the Hand tool and Navigator

## Using the Zoom Tool

You may have worked with a zoom tool in another program, clicking on a file to zoom in and then clicking again to zoom back out. Photoshop's Zoom tool offers the same behavior, plus some additional features to help you quickly display an image in the view that works best. Note that zooming merely adjusts the size of the image file onscreen so that you can work more effectively. Zooming does not adjust the dimensions of the file itself, and therefore does not affect the size at which the file prints.

### Zooming In and Out

The most common zoom operations are to zoom in (get a closer view of the image) and to zoom out (get a further, more overall view of the image). The steps here illustrate these common uses for the Zoom tool.



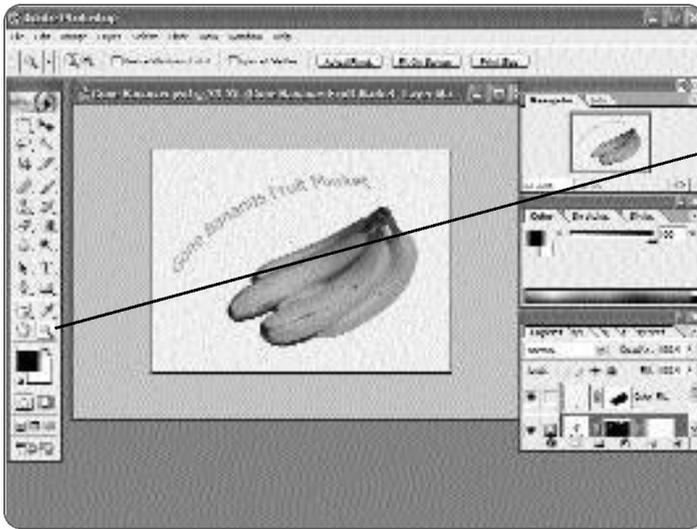
**1. Click** on the **Zoom tool** in the Photoshop toolbox. The mouse pointer will change to a magnifying glass, and the options bar will show the options for the Zoom tool.

**2. Click** on the **image**, near the spot that you want to magnify. Each time you click with the default zoom pointer (a magnifying glass with a plus sign in it), Photoshop will zoom in on the image by one zoom increment.

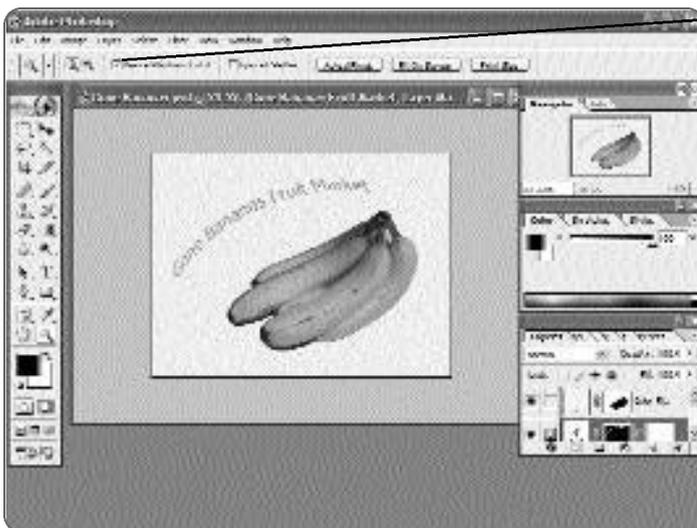


## Zooming to Print and Pixel Size

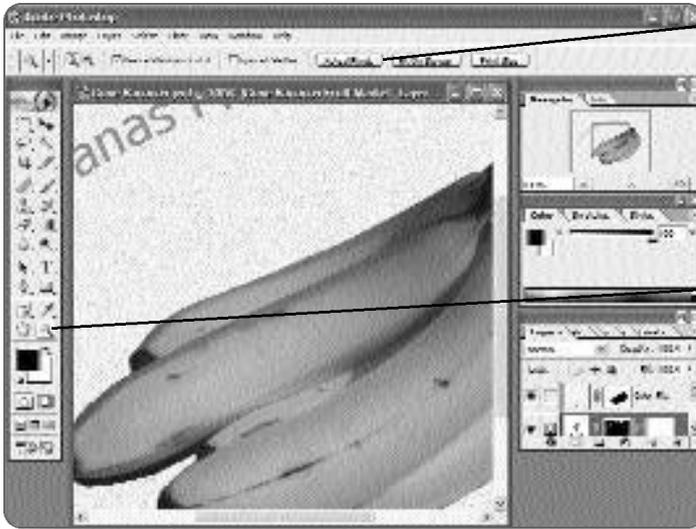
You also can use the Zoom tool to zoom the image to one of two predetermined sizes: its pixel size (100%) or the actual print size (if you've used the Page Setup commands to change the size for the printout). You'll learn about these two zoom types next.



**1. Click on the **Zoom tool** in the Photoshop toolbox. The mouse pointer will change to a magnifying glass, and the options bar will show the options for the Zoom tool.**



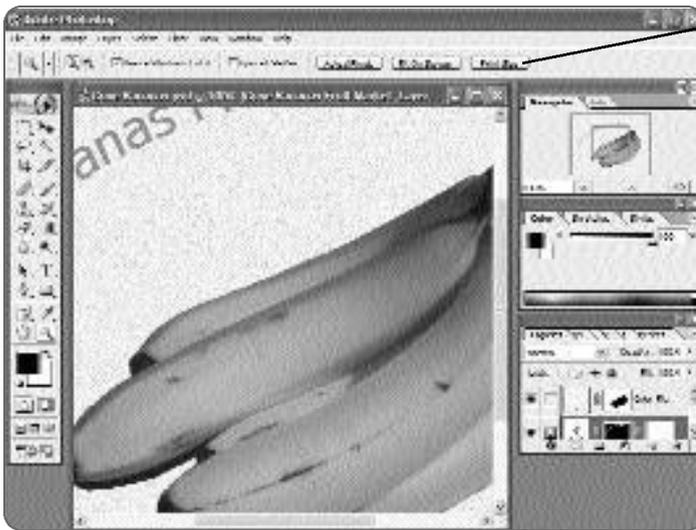
**2. Click on **Resize Windows To Fit** on the options bar. Photoshop will check the check box. When checked, Resize Windows To Fit will change the window size to accommodate the zoomed image. Also leave Ignore Palettes unchecked. (It should be unchecked by default.) Ignore Palettes turns off color palette features that may change the image's appearance as you zoom.**



**3. Click on Actual Pixels** on the options bar. Photoshop will zoom the image to 100% size (the actual pixel size).

### TIP

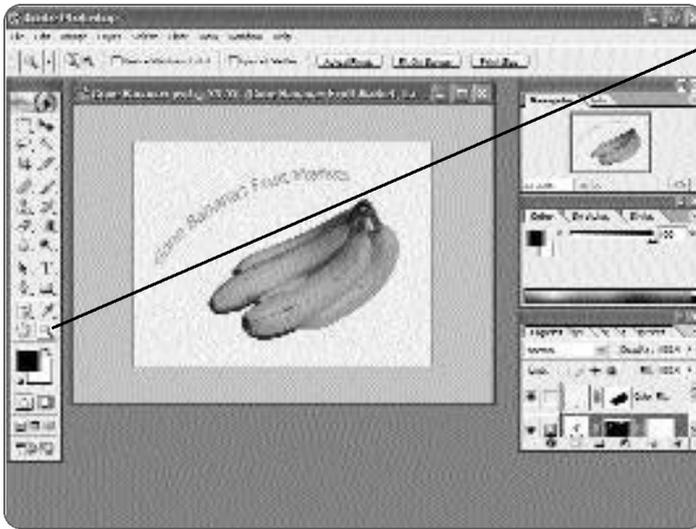
Double-clicking on the Zoom tool in the toolbox also zooms to 100% size.



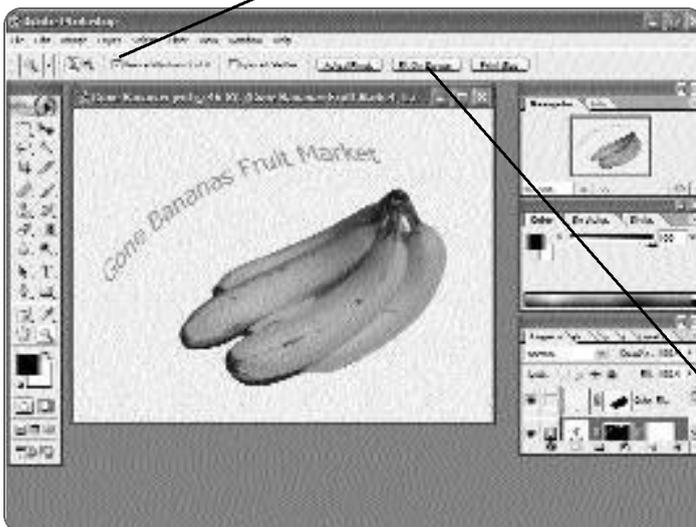
**4. Click on Print Size** on the options bar. Photoshop will zoom the image to the actual size it will be when printed.

## Fitting the Image to the Screen

To take advantage of all the workspace available in Photoshop, you can zoom the image to the screen size using the Zoom tool, as explained here.



**1. Click on the **Zoom tool** in the Photoshop toolbox.** The mouse pointer will change to a magnifying glass, and the options bar will show the options for the Zoom tool.



**2. Click on **Resize Windows To Fit** on the options bar.** Photoshop will check the check box. When checked, **Resize Windows To Fit** will change the window size to accommodate the zoomed image. Also leave **Ignore Palettes** unchecked. (It should be unchecked by default.) **Ignore Palettes** turns off color palette features that may change the image's appearance as you zoom.

**3. Click on **Fit On Screen**.** Photoshop will zoom the image to the largest zoom setting it can have and fit on the screen.

**TIP**

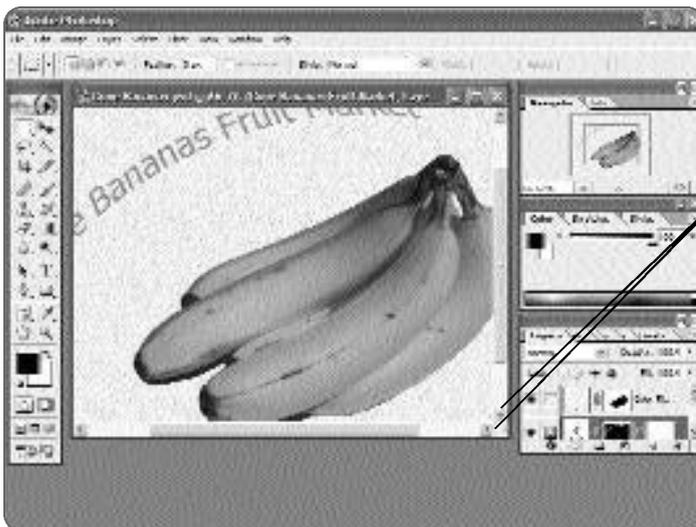
While the Zoom tool is active, you also can right-click on the image to see a shortcut menu with commands for zooming the image.

## Changing the View Zone

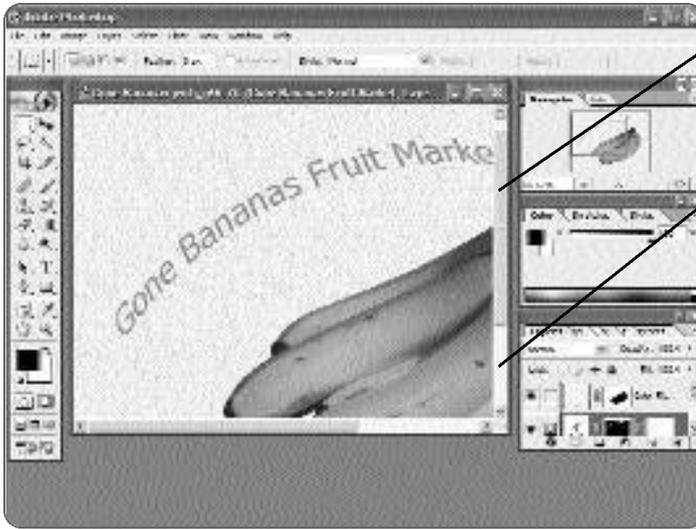
If you did not opt to resize the image window as you zoomed, zooming in on the image may magnify it to such a size that the image can't fully display in the image window. When this happens, you can use a few different methods to choose which area of the image appears in the image window, thus enabling you to view and work with that portion of the image. This section explores those methods: scroll bars, the Hand tool, and the Navigator.

### Using Scroll Bars

Scroll bars appear whenever you've resized the image window so that it can't display all of the image. When this happens, you use the scroll bars as described next to scroll the portion of the image that you'd like to work with into view.



**1. Click** on a **scroll arrow** on either the vertical or horizontal scroll bar. Each time you click, Photoshop will scroll the image by a small increment.



**2. Drag a scroll bar box.**

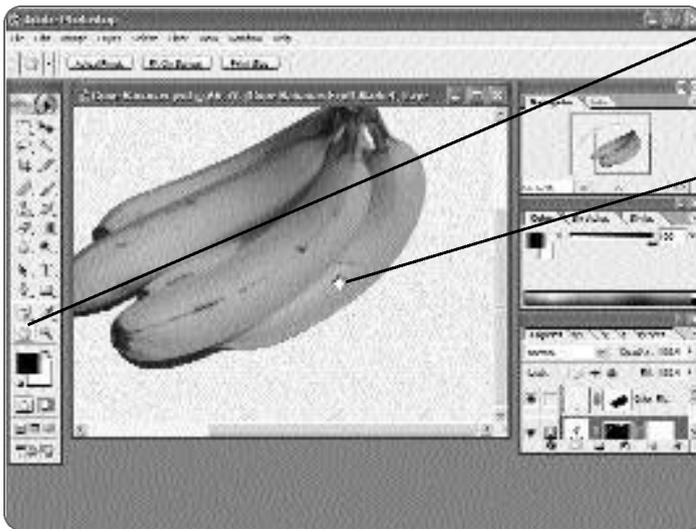
Photoshop will scroll the image much more quickly.

**3. Click on the scroll bar itself**

above or below the scroll box. Depending on the scroll bar and side of the scroll box on which you click, Photoshop scrolls the image as far as possible in the designated direction.

## Using the Hand Tool

You can use the Hand tool to scroll the image in multiple directions at once—much like using both scroll bars simultaneously. The following steps explain how to do so.

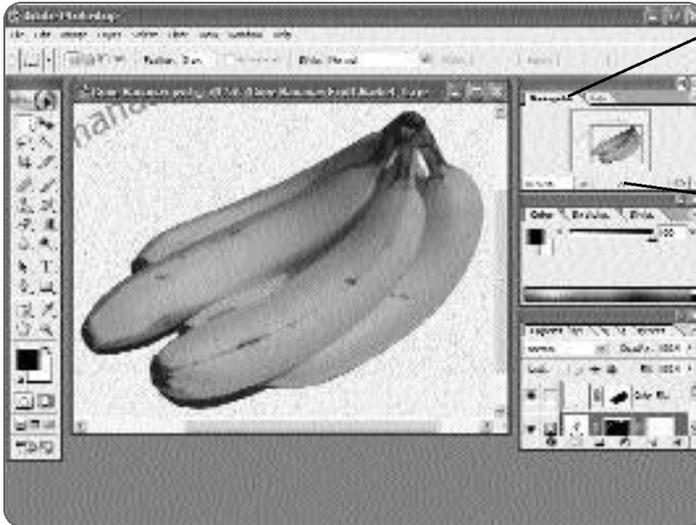


**1. Click on the Hand tool** on the toolbox. The mouse pointer will change to a hand pointer.

**2. Drag the image** with the hand pointer. Photoshop will scroll the image in the same direction that you drag.

## Using the Navigator

You can use the Navigator palette for multiple purposes—to change the image zoom and to scroll the displayed portion of the image. These steps describe both uses for the palette.

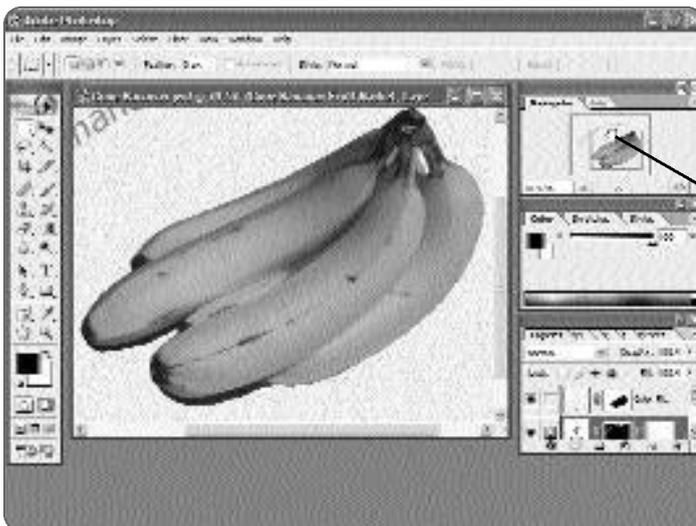


**1. Click on the Navigator tab** in the Navigator palette, if needed. The Navigator tab will become active.

**2. Drag the zoom slider** in the Navigator palette. Photoshop will zoom the image to the specified size.

### NOTE

You also can type a zoom percentage into the text box on the Navigator palette and then press Enter, or click on one of the buttons at either end of the zoom slider in the Navigator palette to change the zoom.



**3. Drag the red box** on the image thumbnail in the Navigator palette with the hand pointer. Photoshop will scroll the image to display the portion of the image bounded by the red box in the thumbnail.

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# 5

## Selecting Image Content

**P**recision image editing requires making precision selections. Before you can delete, move, fill, or replace part of an image, you have to select the portion of the image with which you want to work.

Photoshop offers a number of selection tools that you can use to zero in on an area to edit with precision and control. This chapter teaches you how to:

- Select rectangular or oval shapes
- Make an irregular selection
- Select by color
- Add or remove part of the selection
- Cancel the selection

## Using the Marquee Tool

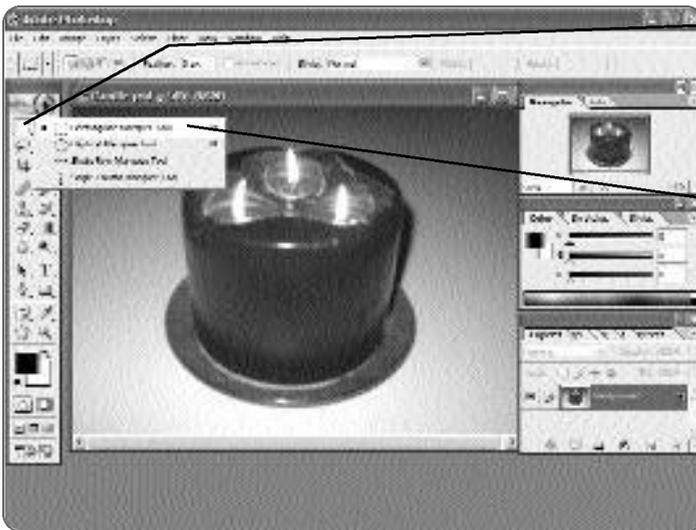
The Marquee tool appears in the upper-left corner of the Photoshop toolbox. Use the Marquee tool to make selections that are regular in shape—rectangles, squares, ovals, circles, or one-pixel borders (also called a row or column selection).

### NOTE

If the area to select appears on a particular layer, you need to select that layer in the Layers palette before using any type of tool to make the selection. See Chapter 8, “Working with Layers” to learn more about selecting layers.

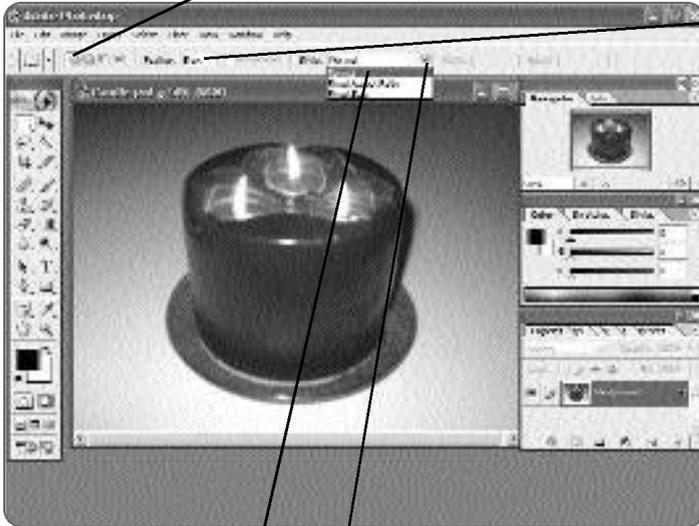
## Selecting a Rectangle

The steps here show you how easy it is to make a selection that’s rectangular in shape.



- 1. Right-click** on the **Marquee tool** in the Photoshop toolbox. The shortcut menu for the Marquee tool will appear.
- 2. Click** on **Rectangular Marquee Tool**. The Rectangular Marquee tool will become active.

**3.** Click on the **New Selection** button on the options bar, if needed.



**4.** Make an entry (in pixels, up to 250) in the **Feather text box** on the options bar. The feathering setting will become active.

### TIP

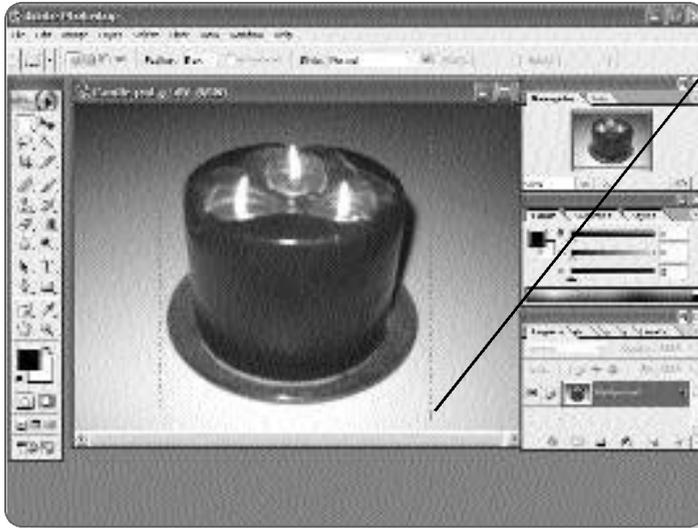
*Feathering* blurs the edges of the selection. The results of feathering become more apparent if you copy and paste the selection.

**5.** Click on the **down arrow** next to the **Style drop-down list**. The list will appear.

**6.** Click on **Normal**. The normal selection method will become active.

### NOTE

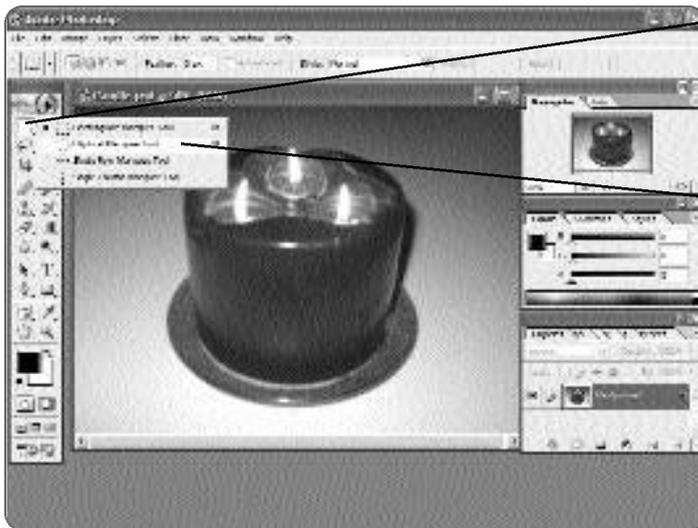
If you choose the Fixed Aspect Ratio or Fixed Size choices from the Style drop-down list, the Width and Height text boxes become active. Make an entry in one of the text boxes (for Fixed Aspect) or both text boxes to specify a selection size, and then click on the image to make the selection.



**7. Drag** on the **image** over the area to select. (Press and hold Shift as you drag to select a perfect square.) The selection marquee will appear on the image.

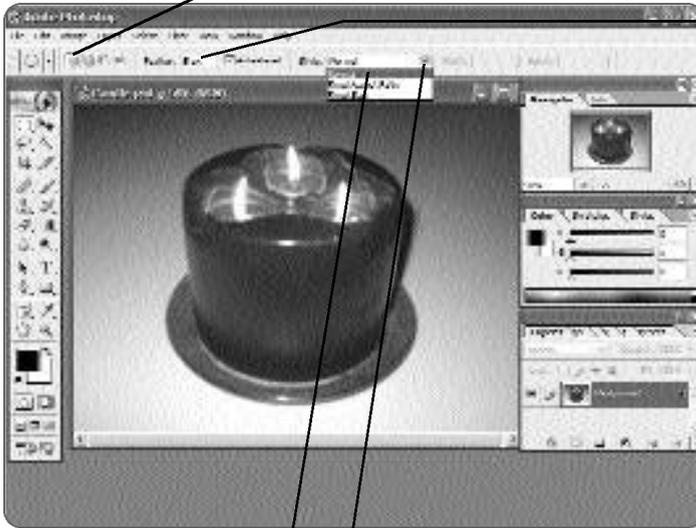
## Selecting an Ellipse

If you instead need to make a round or elliptical selection, you can use the following steps to do so.



- 1. Right-click** on the **Marquee tool** in the Photoshop toolbox. The shortcut menu for the Marquee tool will appear.
- 2. Click** on **Elliptical Marquee Tool**. The Elliptical Marquee tool will become active.

**3.** Click on the **New Selection** button on the options bar, if needed.



**4.** Make an entry (in pixels, up to 250) in the **Feather text box** on the options bar. Leave the Anti-aliased check box checked. The feathering setting will become active.

### TIP

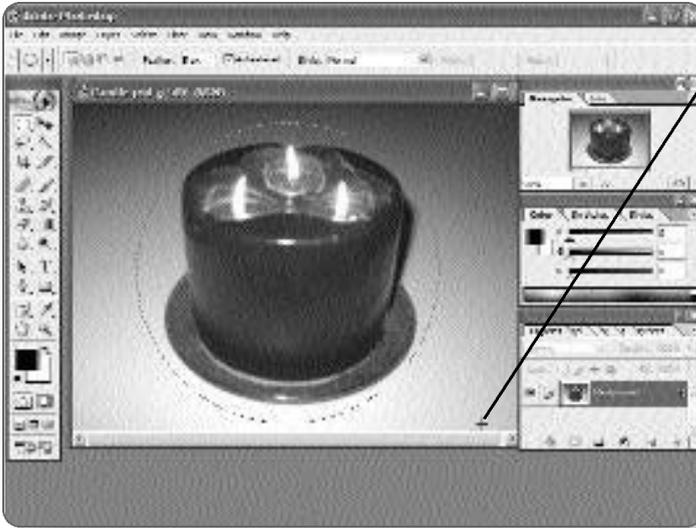
*Anti-aliasing* fixes jaggedness along the edges of a selection, which occurs when the selection marquee has curves.

**5.** Click on the **down arrow** next to the **Style drop-down list**. The drop-down list will appear.

**6.** Click on **Normal**. The normal selection method will become active.

### NOTE

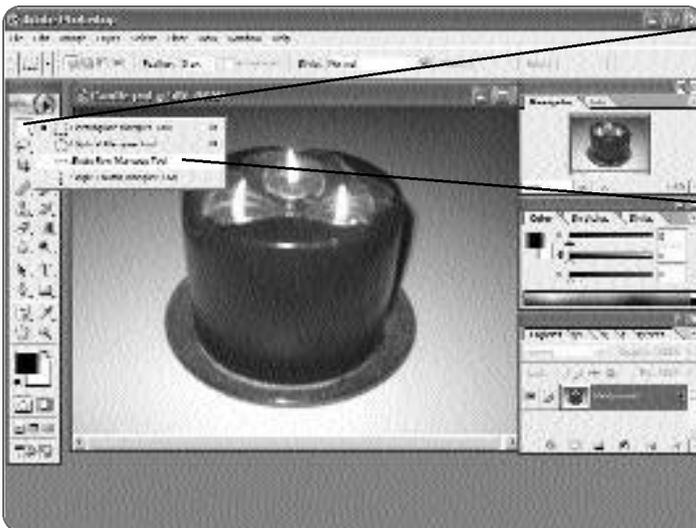
Again, choosing the Fixed Aspect Ratio or Fixed Size choices from the Style drop-down list activates the Width and Height text boxes.



**7. Drag** on the **image** over the area to select. (Press and hold Shift as you drag to select a perfect circle.) The selection marquee will appear on the image.

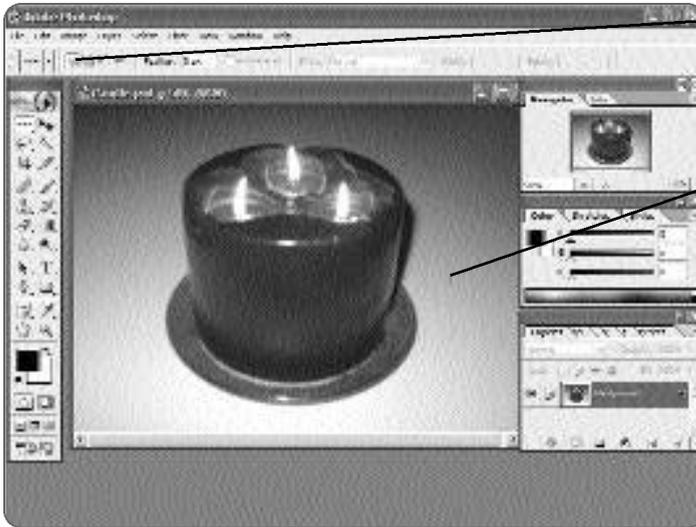
## Selecting a Row or Column

Use the Single Row Marquee tool or the Single Column Marquee tool to select a one-pixel-wide area in the image. You can then cut or copy and paste the selection to use it as a border in another image.



**1. Right-click** on the **Marquee tool** in the Photoshop toolbox. The shortcut menu for the Marquee tool will appear.

**2. Click** on **Single Row Marquee Tool** or **Single Column Marquee Tool**. The specified marquee tool will become active.



**3. Click on the **New Selection** button** on the options bar, if needed.

**4. Click on the **image**** over the area to select as a border. The selection marquee will appear on the image.

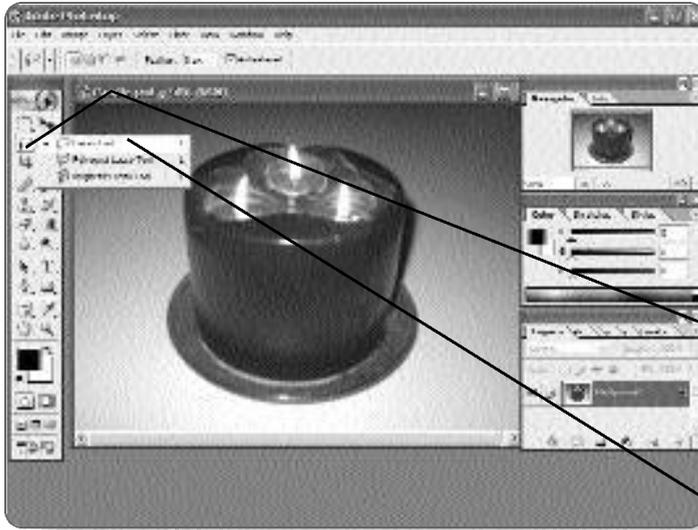
## NOTE

Because Photoshop operates primarily as a paint program, you may find that you can't separate out an area that you'd like to select, no matter which selection technique you use. That's why you retain more editing flexibility in an image if you place the objects for the image on various layers. See Chapter 8, "Working with Layers" to learn how to create and use layers.

## Using the Lasso Tool

Like the Marquee tool, the Lasso tool offers a few different techniques you can employ to make selections in an image. The Lasso tool's variations enable you to make selections that are not typical or symmetrical in shape. You can select an irregular area by dragging (Lasso tool), select a polygon by clicking to place the angles (Polygonal Lasso tool), or get help selecting an irregular area (Magnetic Lasso tool).

## Selecting an Odd Shape

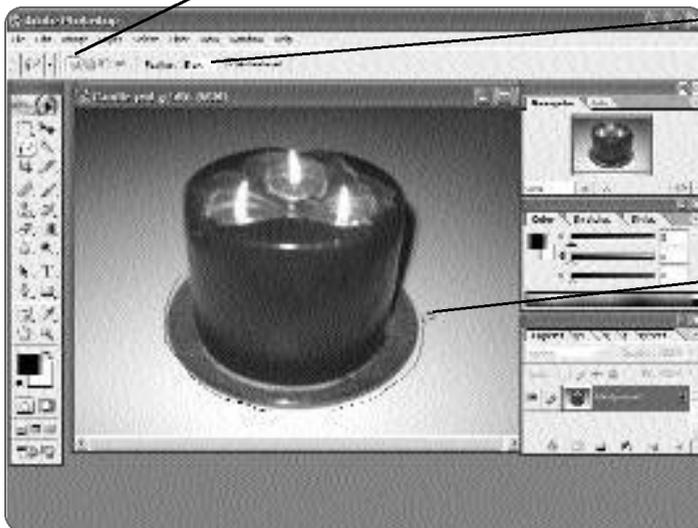


You can use the Lasso tool to drag around selections that are irregular in shape, but don't necessarily have a lot of angle points. (If the shape does have a lot of angles or corners, consider using the Polygonal Lasso tool, described next.)

**1. Right-click** on the **Lasso tool** in the Photoshop toolbox. The shortcut menu for the Lasso tool will appear.

**2. Click** on **Lasso Tool**. The Lasso tool will become active.

**3. Click** on the **New Selection** button on the options bar, if needed.

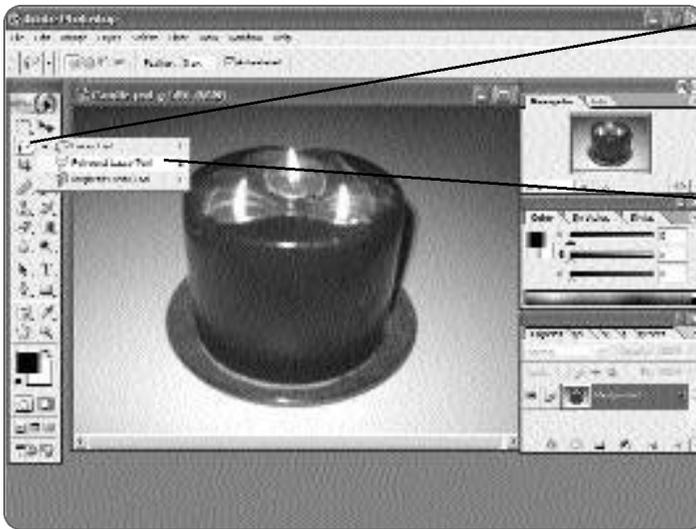


**4. Make an entry** (in pixels, up to 250) in the **Feather text box** on the options bar. Leave the Anti-aliased check box checked. The feathering setting will become active.

**5. Drag around the desired area** to select it; drag all the way back to the starting point or release the mouse button to close the selection. The selection marquee will appear on the image.

## Selecting a Polygon

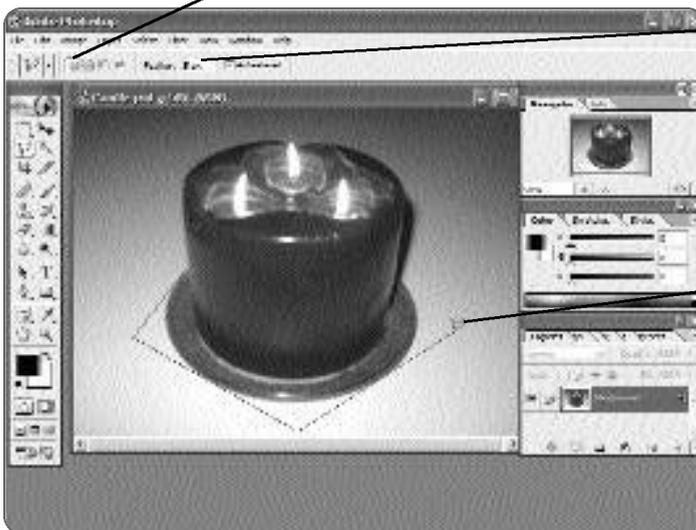
Use the Polygonal Lasso tool to select odd shapes that have corners and angles, as the following steps demonstrate.



**1. Right-click** on the **Lasso tool** in the Photoshop toolbox. The shortcut menu for the Lasso tool will appear.

**2. Click** on **Polygonal Lasso Tool**. The Polygonal Lasso tool will become active.

**3. Click** on the **New Selection** button on the options bar, if needed.



**4. Make an entry** (in pixels, up to 250) in the **Feather text box** on the options bar, and leave the Anti-aliased check box checked. The feathering setting will become active.

**5. Click** around the **desired area** to specify corners for the selection; double-click the last point to close the selection. The selection marquee will appear on the image.

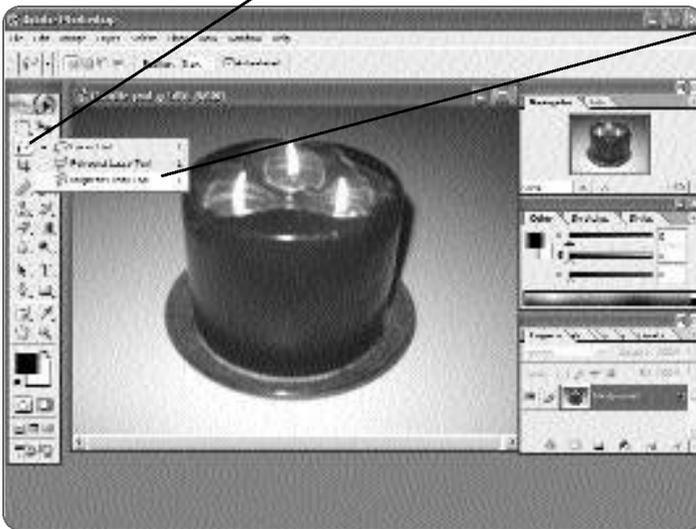
**TIP**

You can press the Alt key while using either the Lasso tool or the Polygonal Lasso tool to switch between freehand drawing and clicking to set corner points. Press Delete while using any Lasso tool to remove the most recently drawn selection segment.

## Using the Magnetic Lasso

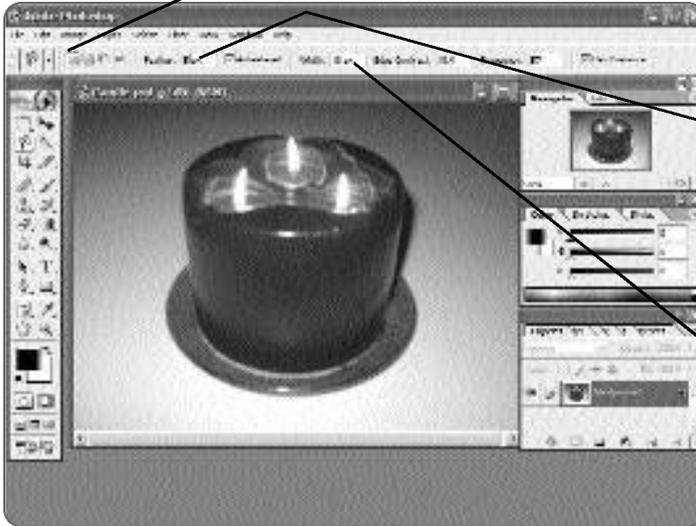
The Magnetic Lasso tool helps you make a selection by snapping to *fastening points* along the edge of a shape in an image.

**1. Right-click** on the **Lasso tool** in the Photoshop toolbox. The shortcut menu for the Lasso tool will appear.



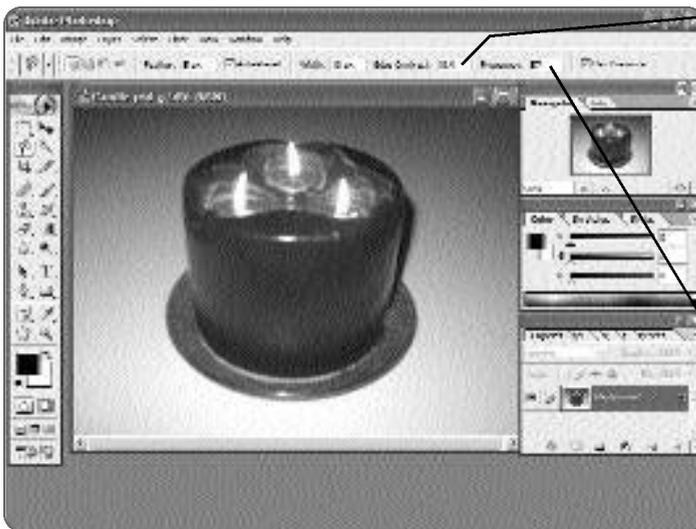
**2. Click** on **Magnetic Lasso Tool**. The Magnetic Lasso tool will become active.

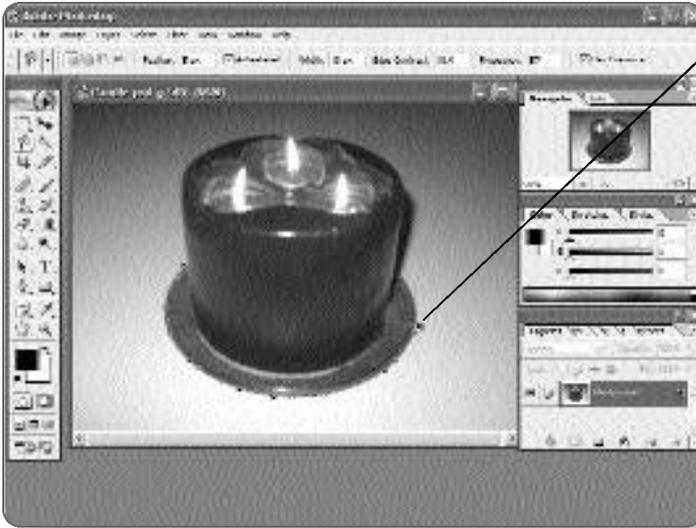
3. Click on the **New Selection** button on the options bar, if needed.



4. Change other settings on the options bar as needed:

- **Make an entry** (in pixels, up to 250) in the **Feather text box** on the options bar, and leave the Anti-aliased check box checked. The feathering setting will become active.
- **Change the Width text box** entry (in pixels, between 1 and 40) to set the search width for the tool. The tool will look for edges within the specified zone beside the points you identify with the mouse.
- **Change the Edge Contrast text box** entry (in percentages between 1 and 100) to identify how much contrast the tool requires. A lower setting will enable the tool to find edges with less contrast, whereas a higher setting will restrict the tool to finding only high-contrast edges.
- **Change the Frequency text box** entry (between 0 and 100) if needed. A higher setting causes the tool to set more fastening points, whereas a lower setting results in fewer fastening points.

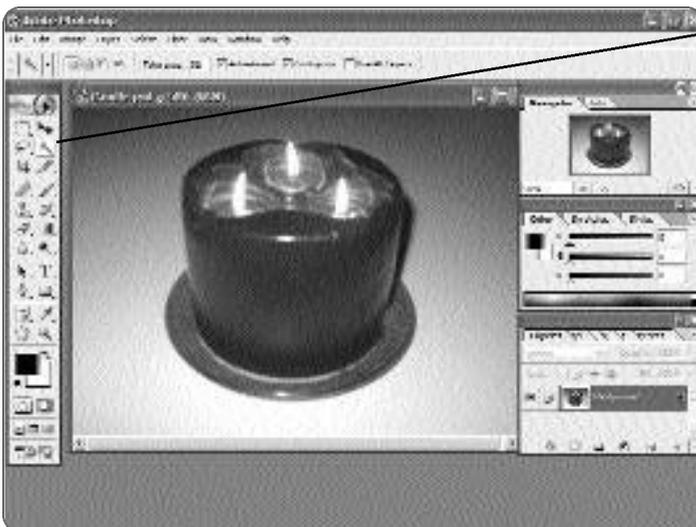




**5. Drag and click** on the **desired area** to specify the selection border. (Click to place a fastening point in a particular location.) The selection marquee will appear on the image.

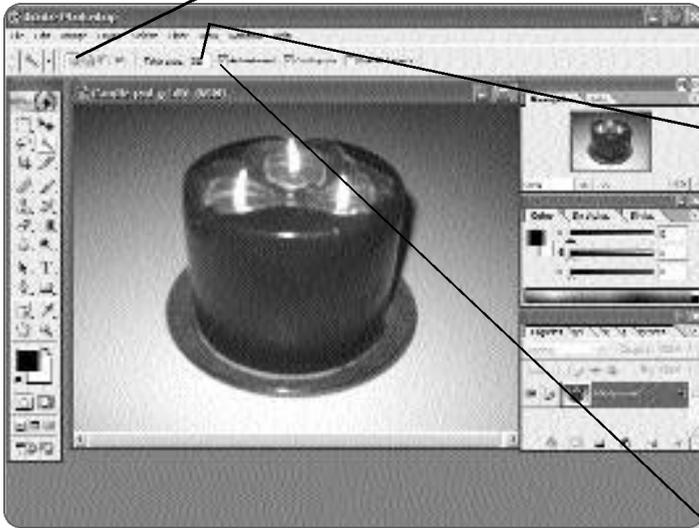
## Selecting Pixels with the Magic Wand

If all the pixels in the area that you want to select are about the same color and adjoin one another in the image, you can use the Magic Wand tool to select the area by clicking.



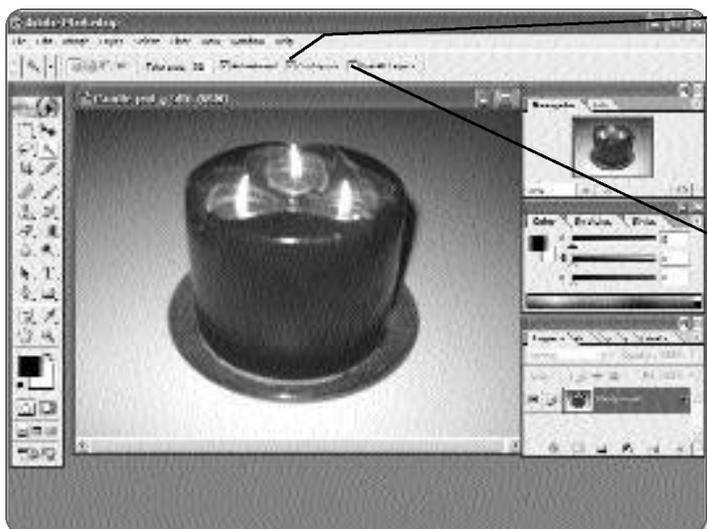
**1. Click** on the **Magic Wand tool** in the Photoshop toolbox. The Magic Wand tool will become active.

2. Click on the **New Selection** button on the options bar, if needed.

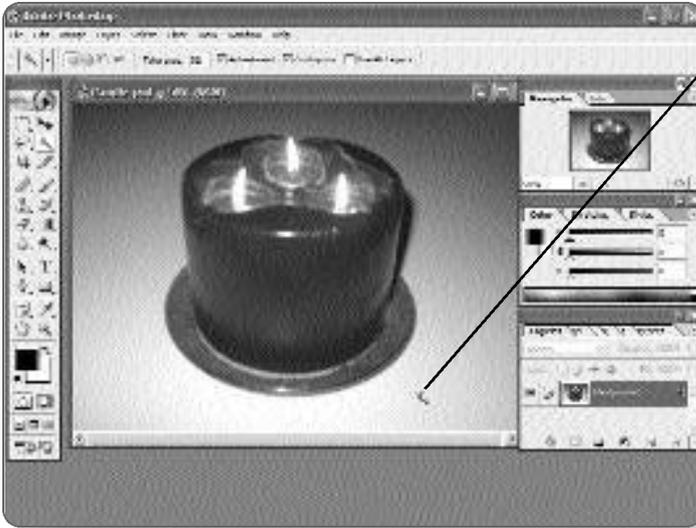


3. Change other settings on the options bar as needed:

- **Change the Tolerance text box** entry (between 0 and 255) to specify how much variation can occur between the colors included in the selection. A low entry will result in a smaller selection zone composed of fewer like colors, whereas a higher entry will result in a larger selection zone.
- **Leave the Anti-aliased check box checked.** The tool will smooth the edges of the selection.



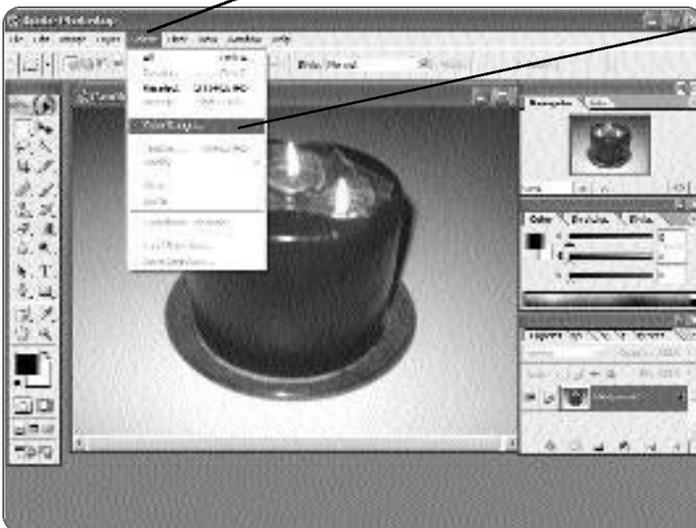
- **Leave the Contiguous check box checked.** The tool will select all adjoining pixels of the same (or similar) color, not just the pixel on which you click.
- **Click on the Use All Layers check box** to check it if desired. The tool will then select the matching colors on all layers in the picture.



**4. Click** on the color to select on the image with the Magic Wand tool. The selection marquee will appear on the image.

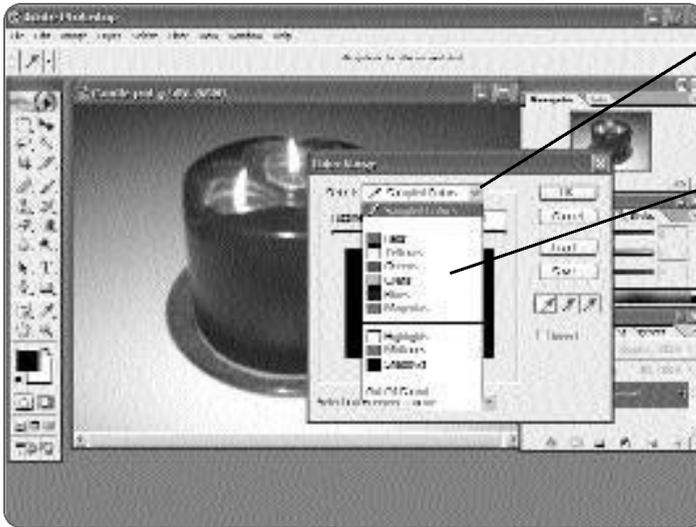
## Selecting by Color Range

Selecting by color works somewhat like the Magic Wand tool, except it enables you to select all the pixels of the specified color in the image—not just adjoining or contiguous pixels.



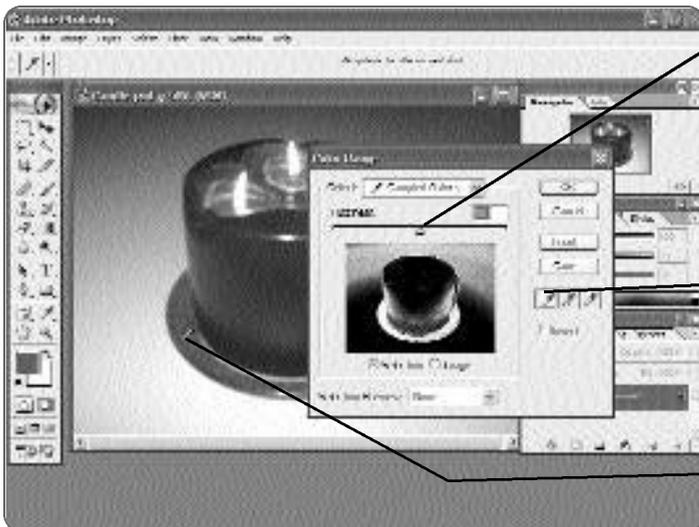
**1. Click** on **Select**. The Select menu will appear.

**2. Click** on **Color Range**. The Color Range dialog box will open.



**3. Click on the down arrow** beside the **Select list**. The Select list will open.

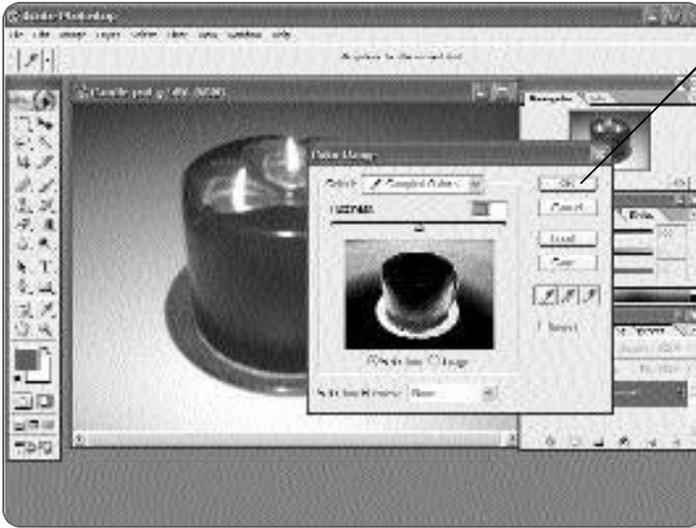
**4. Click on a selection type** in the list. If you choose anything other than Sampled Colors from the list, Photoshop immediately previews the color selection in the dialog box, and you can skip to Step 8. If you choose Sampled Colors, continue with the next step.



**5. Drag the Fuzziness slider** to change its setting, if needed. Increasing this value will cause Photoshop to select colors similar to the color you select for the match.

**6. Click on the Eyedropper Tool button** to select it, if needed. The Eyedropper tool will become active.

**7. Click on the desired color** in the picture. If you choose anything other than Sampled Colors from the Select list, Photoshop immediately previews the color selection in the dialog box.



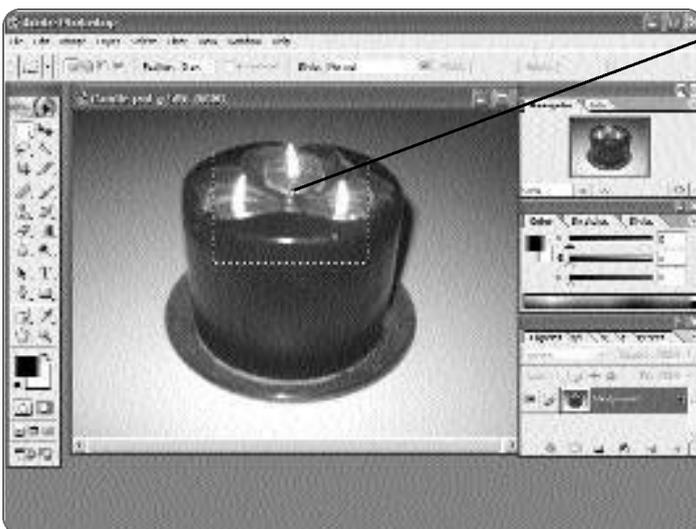
**8. Click on OK.** The dialog box will close and Photoshop will display marquee around the matching selections in the picture.

### NOTE

To add or remove colors from the selection, click on either the Add to Sample or Subtract from Sample button (next to the Eyedropper Tool button), and then click a color on the image.

## Adjusting a Selection

Once you've made a selection, you can change it, extend it, or otherwise work with it. The following steps run through the possibilities for modifying a selection.



**1. Drag from the center of the selection** with the mouse pointer that looks like an arrow plus a box. The selection will move to another location.

### NOTE

Pressing an arrow key moves the selection by one pixel in the specified direction.



**2. Click on the Add To Selection, Subtract from Selection, or Intersect with Selection button on the options bar, if available for the active selection tool. The selection tool will begin to use the specified selection method.**

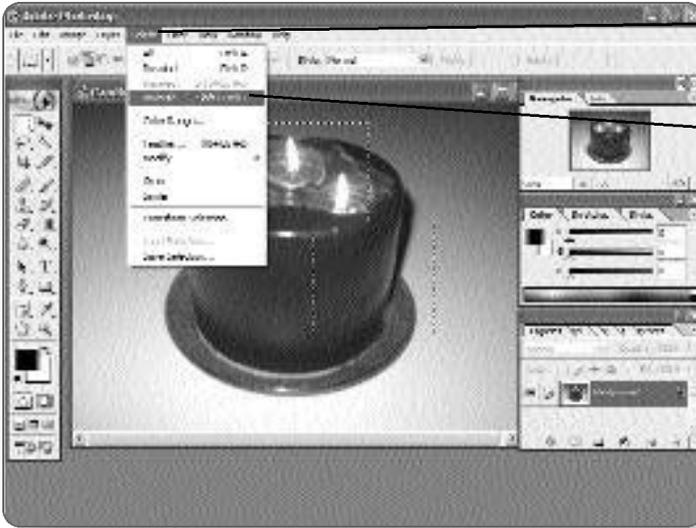
**3. Click or drag on the image as required for the active selection tool. Depending on the selection method selected in Step 2, Photoshop adds to, removes from, or crops out the selection.**

### TIP

You also can press Shift and then use a selection tool to add a selection.

### TIP

To remove the latest selection you've added, don't press Delete! Press Ctrl+Z to undo the selection, instead.



**4. Click on **Select**.** The Select menu will appear.

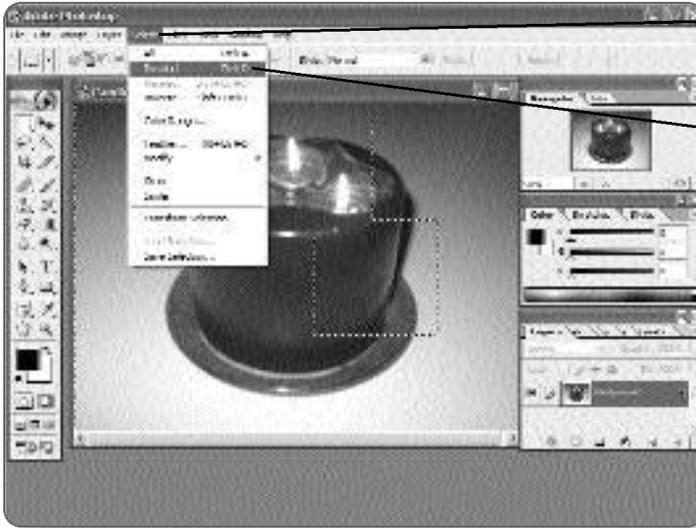
**5. Click on **Inverse**.** Photoshop will select the area that previously was not selected in the image, and deselect the area that was selected.

### NOTE

You also can right-click on a selection and then click on Save Selection to save a selection as a new channel in the image. See “Saving a Selection” and “Loading a Selection” in Chapter 6, as well as Chapter 15, “Understanding Colors and Channels.”

## Removing a Selection

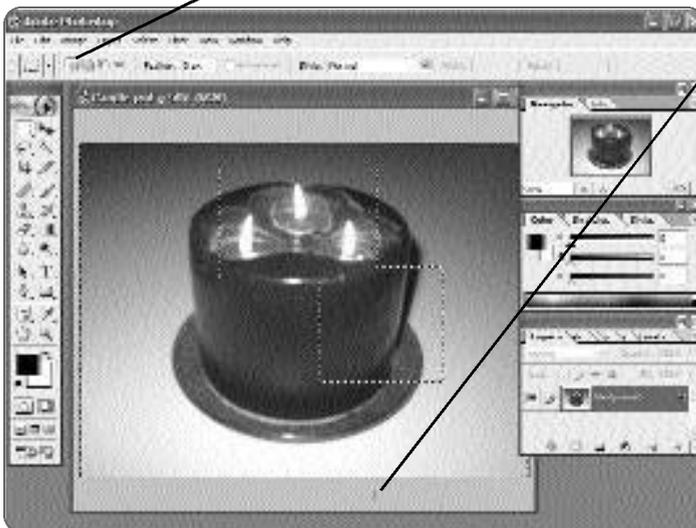
When you need to remove or deselect the selection, you can do so with ease.



**1. Click on **Select**.** The Select menu will appear.

**2. Click on **Deselect**.** Photoshop will remove the selection immediately, no matter what selection tool or method you used to make the selection.

**3. Click on the **New Selection** button** on the options bar. This will ensure that you can remove the selection.



**4. Click on the **gray area** within the image window, if it appears.** Photoshop will remove the selection immediately, if you're using the Rectangular Marquee, Elliptical Marquee, or Lasso tool. (Follow Steps 1 and 2 to remove selections created with the other selection tools; for some tools, like the Polygonal Lasso, clicking in the gray area begins another selection.)



# 6

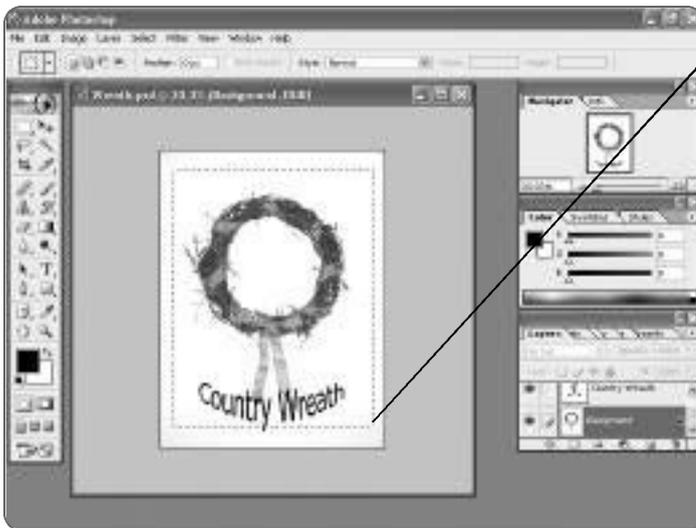
## Changing a Selection

After you've selected part of the image, the fun begins. You can then start manipulating the selection to change the appearance of the image or share information between image files. This chapter introduces you to the basic changes you can make once you've selected part of the information on a layer in the image. (Chapter 8, "Working with Layers," explains how to layer information.) When you finish this chapter, you'll know how to:

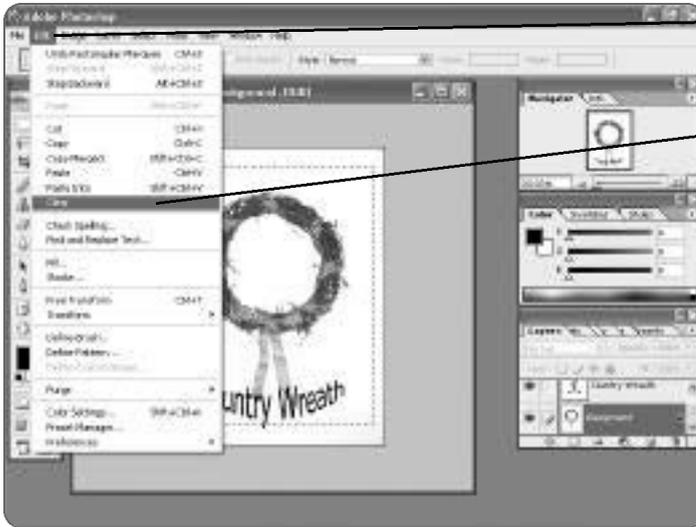
- Delete, move, or copy what you've selected
- Change a selection by transforming or rotating it
- Fine-tune the selection marquee
- Save and reuse a selection
- Undo a change
- Work with the History palette

## Deleting a Selection

In the last chapter, you learned that you can press the Delete key while you're creating a selection using the Lasso tool to remove the most-recently-added segment. Pressing Delete has a different effect once you've finished the selection—it clears the content within the selected area. The steps that follow describe how to clear or delete the content in a selected area.



- 1. Make a selection** in the image using the selection tool of your choice. The selection marquee will appear.



**2. Click on Edit.** The Edit menu will appear.

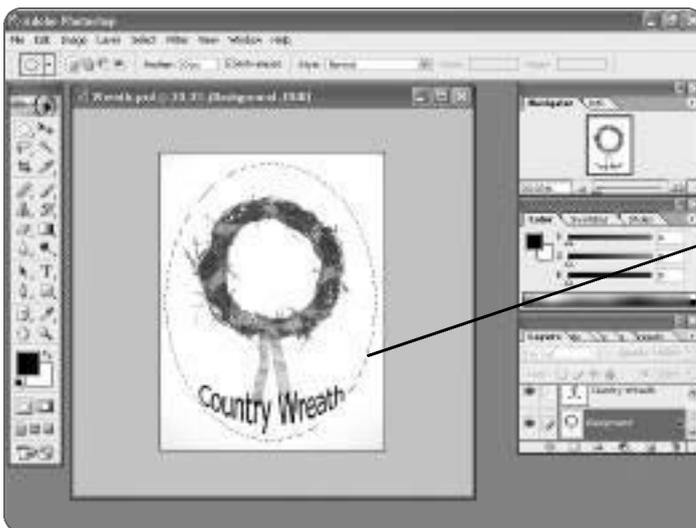
**3. Click on Clear.** The selection will disappear completely from the current layer.

### TIP

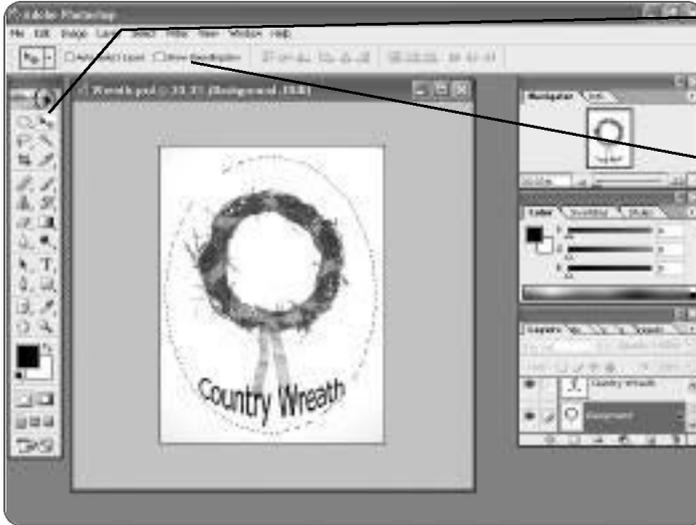
You can press the Delete key in place of Steps 2 and 3.

## Moving a Selection

Moving a selection requires a tool you haven't used yet—the Move tool. Trying to drag while the selection tool you used is active moves the selection marquee only, not the actual image content within that selection. No matter which layer you're working on or what type of content you're dealing with, the Move tool always works in the same way.



**1. Make a selection** in the image using the selection tool of your choice. The selection marquee will appear.

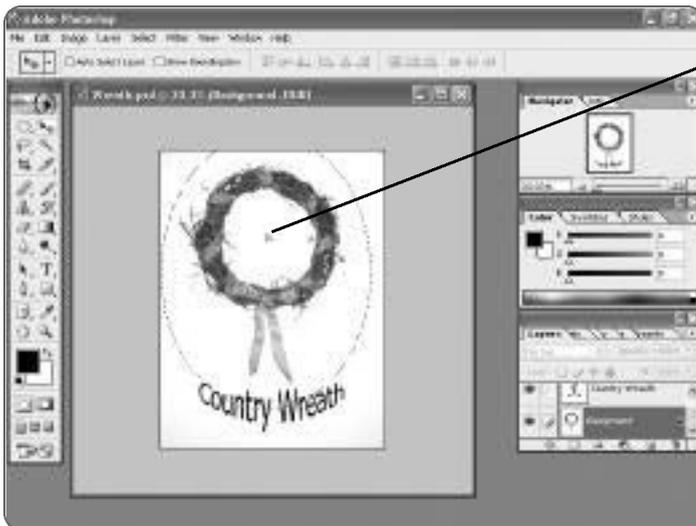


**2. Click on the **Move tool** on the Photoshop toolbox. The Move tool will become active.**

**3. Click on the **desired options** in the options bar to check them as needed. If you check Auto Select Layer, clicking on an area of the image will select its layer. If you check Show Bounding Box, the selection box may change to show handles.**

## NOTE

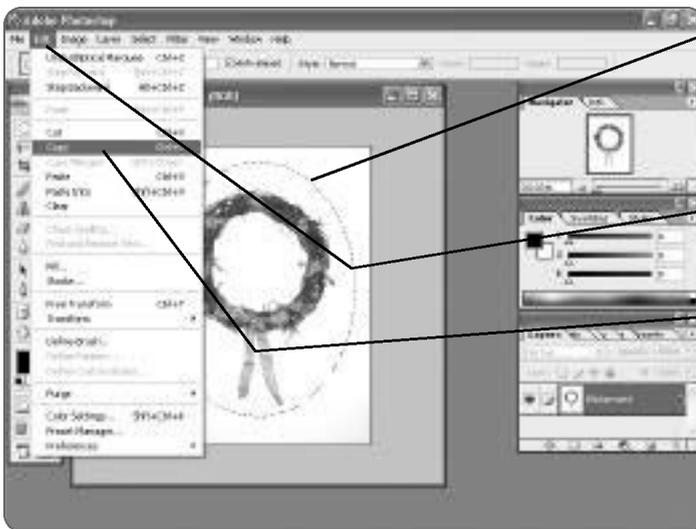
If other buttons become active on the options bar, clicking one of them aligns information within the selection marquee, such as text, relative to the borders of the selection marquee.



**4. Drag the **selection** from within the marquee. The selection will move as you draw and will appear in its final location when you release the mouse button.**

## Copying a Selection

You can copy a selection to re-use it in another location, such as on another layer in the image file or in a completely new file. This comes in handy, because once you've drawn or scanned in image content, you can reuse it as often as you need to with a minimum of effort. This example illustrates how to create a new image file from content that you copy.



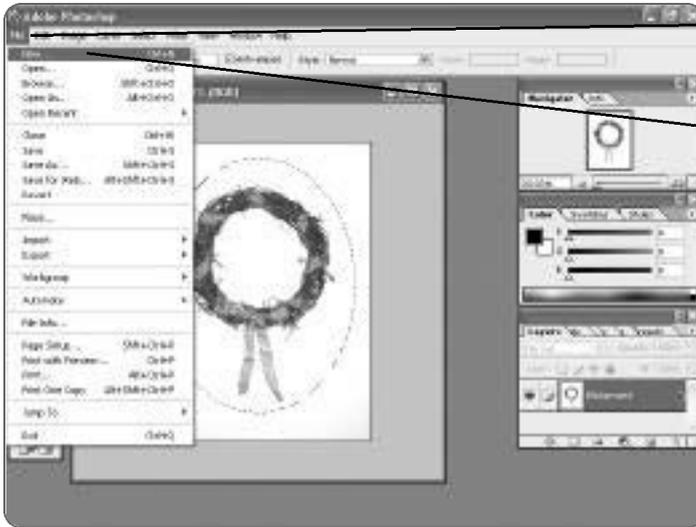
**1. Make a selection** in the image using the selection tool of your choice. The selection marquee will appear.

**2. Click on Edit.** The Edit menu will appear.

**3. Click on Copy.** Photoshop will copy the selection to the Windows Clipboard, a memory holding area.

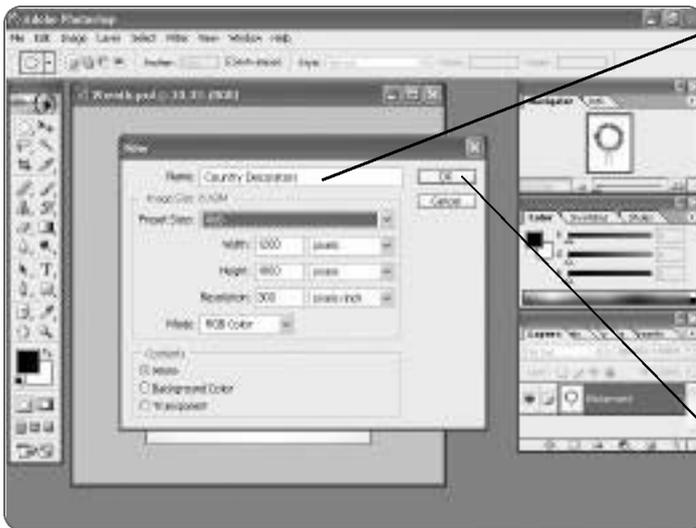
### NOTE

Rather than starting a new image at this point, you could switch to another open image file. If you choose to do that, jump to Step 8.



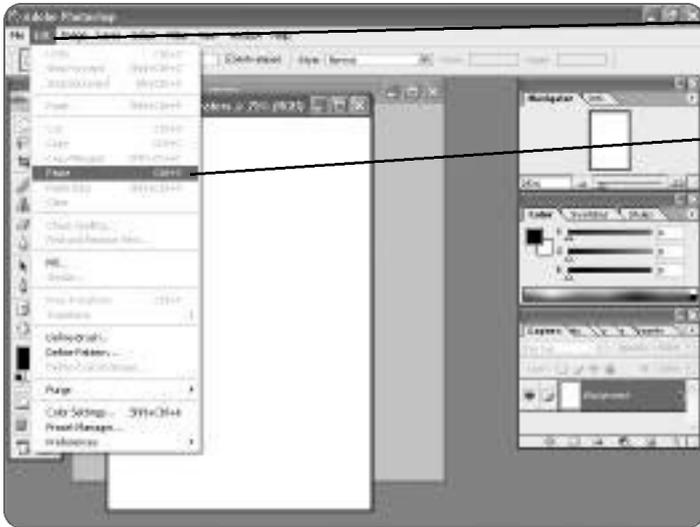
**4. Click on File.** The File menu will appear.

**5. Click on New.** The New dialog box will open.



**6. Change the New dialog box settings** as needed. The changes you make will affect the size of the new image. You may not need to change the Width and Height entries; typically, those will reflect the size of the copied selection. (See "Creating a New File" in Chapter 2 to refresh your memory about the New dialog box settings.)

**7. Click on OK.** The new image file will open.



**8. Click on **Edit**.** The Edit menu will appear.

**9. Click on **Paste**.** Photoshop will paste the copied selection into the new file.

**NOTE**

Don't forget to save the new image file after you've pasted the selection into it.

## Transforming a Selection

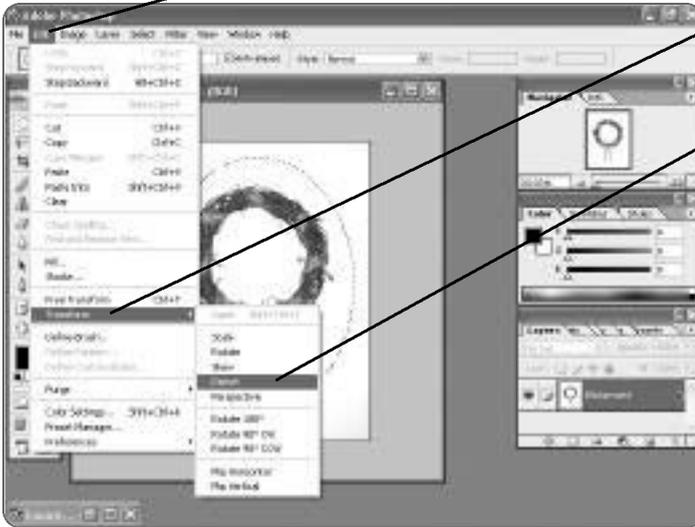
Photoshop offers a number of transformations you can make to affect a selection in an image. Table 6-1 reviews the types of transformations you can make.

**Table 6-1 Selection Transformations**

Transform	Enables you to...
Scale	Change the size of the selection while maintaining its vertical-to-horizontal proportions.
Rotate	Change the angle positioning of the selection, such as rotating it 90 degrees in a clockwise direction.
Skew	Drag one side of the selection to "angle" the selection, such as changing a square selection to a slanted square (rhombus).
Distort	Drag the corner handle bounding the selection to "stretch" the selection in multiple directions at once.
Perspective	Simultaneously resize opposite (parallel) boundaries of the selection to achieve one-point perspective.
Flip	Flip the selection horizontally or vertically.

**1. Make a selection** in the image using the selection tool of your choice. The selection marquee will appear.

**2. Click on Edit.** The Edit menu will appear.

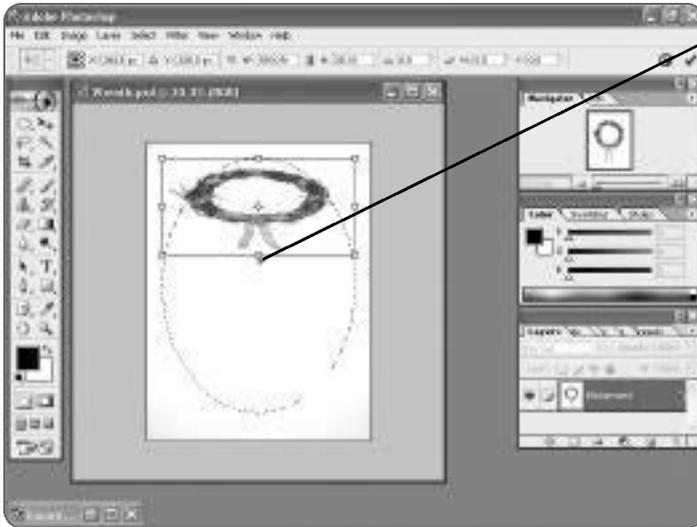


**3. Point to Transform.** The Transform submenu will appear.

**4. Click on the desired transform command.** If you choose Rotate 180°, Rotate 90° CW (clockwise), Rotate 90° CCW (counter-clockwise), Flip Horizontal, or Flip Vertical, the transformation will appear immediately. If you choose one of the other transforms, the options bar will become active and special transform handles will appear around the selection.

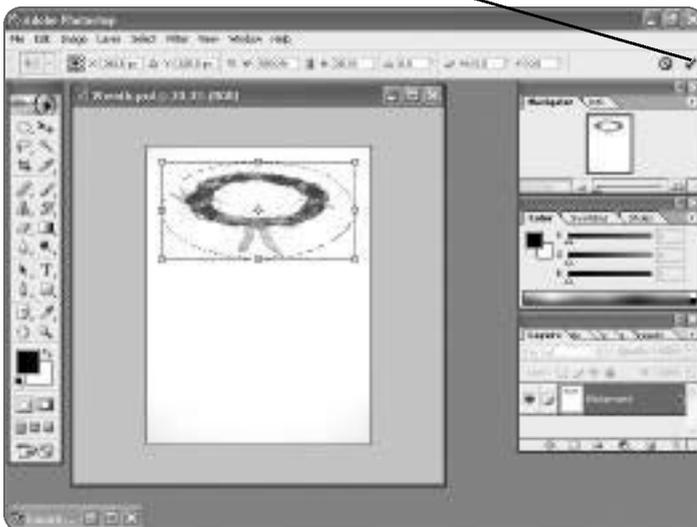
## NOTE

To transform text, you just go to the layer that holds the text; you don't need to select the text itself. The Distort and Perspective transformations aren't available for text.



**5. Drag a handle.** The transformation will occur. Alternately, you can use the text boxes on the options bar to enter precise transformation settings.

**6. Click on the Commit Transform** (check) button at the right end of the options bar. Photoshop finalizes the transform.



### TIP

Whenever you see a Cancel button (a circle with a slash through it) on the options bar, you can click on that button to cancel the application of the current command or tool settings.

### NOTE

You also can choose the Free Transform command on the Edit menu and then drag handles on the selection to transform the selection.

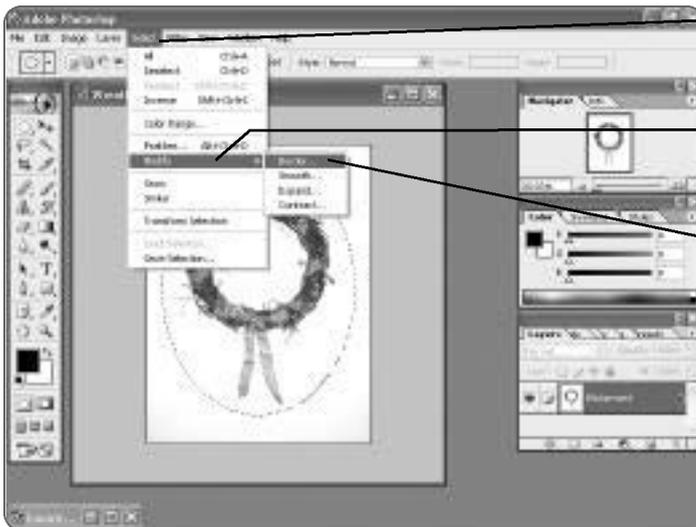
## Modifying Part of the Selection

The Select menu gives you a number of commands for adjusting the selection marquee itself. You can use these features before you use other features for altering a selection to be sure that you're working with the proper selection.

### Changing the Selection Border

You can add another selection around the current selection marquee so that the specified area within the two marquees becomes the selection. You could then remove that selection or fill it in some way to create a visual border around the selection.

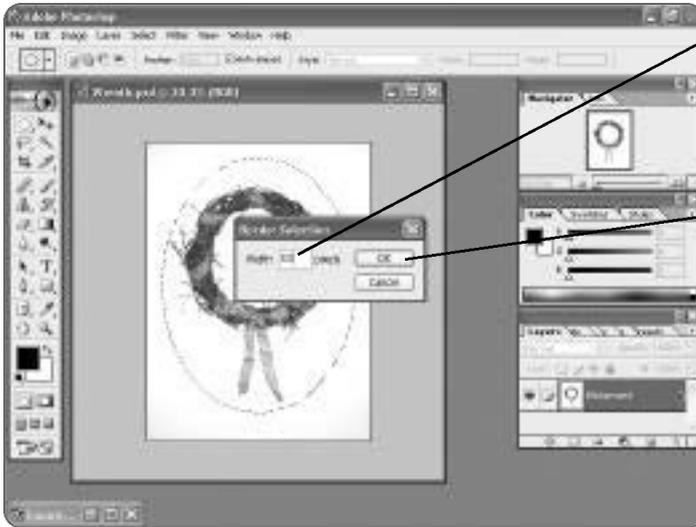
**1. Make a selection** in the image using the selection tool of your choice. The selection marquee will appear.



**2. Click on **Select**.** The Select menu will appear.

**3. Point to **Modify**.** The Modify submenu will appear.

**4. Click on **Border**.** The Border dialog box will open.



**5. Type a new entry** (between 1 and 64 pixels) for the **Width text box**. The entry will appear in the text box.

**6. Click on OK**. The dialog box will close, and the new border selection will appear.

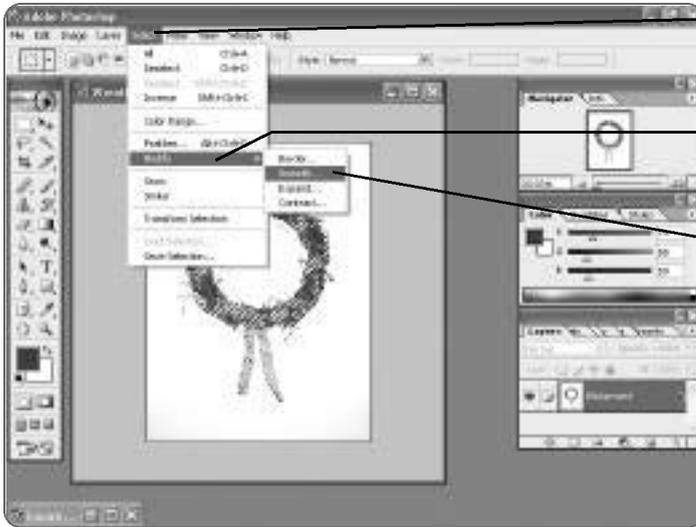
## NOTE

Use the Fill and Stroke commands on the Edit menu to fill in the selected border.

## Smoothing the Selection

If you've selected by choosing a color (as described under "Selecting by Color Range" in Chapter 5), your selection may end up with some stray pixels that are surrounded by a selection marquee. Or, if you've used a lasso tool, the selection might be a bit more jagged in shape than you now wish. To simplify the selection in such instances, you can smooth the selection.

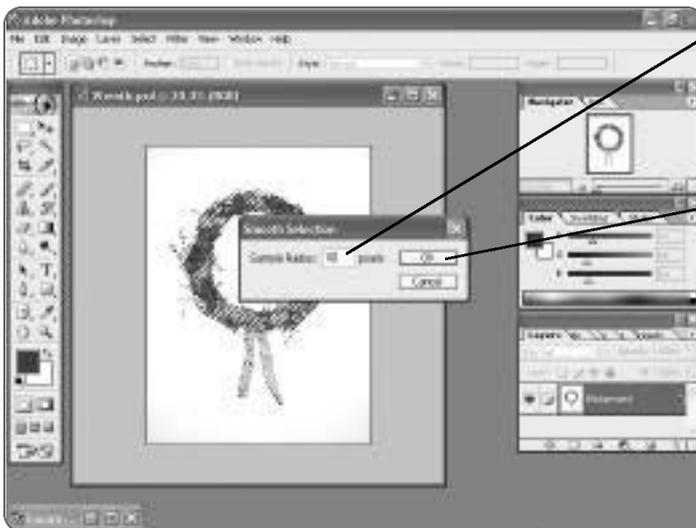
**1. Make a selection** in the image by using a color selection method or by using a lasso tool. The selection marquee or marquees will appear.



**2. Click on Select.** The Select menu will appear.

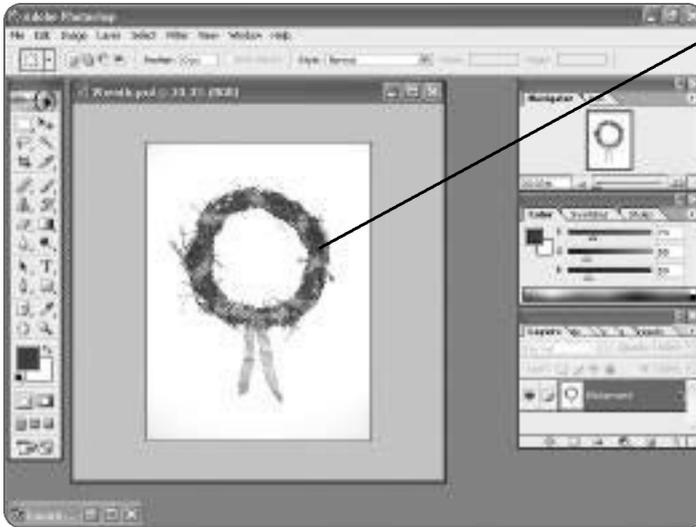
**3. Point to Modify.** The Modify submenu will appear.

**4. Click on Smooth.** The Smooth Selection dialog box will open.



**5. Type a new entry** (between 1 and 16 pixels) for the **Sample Radius** text box. The entry will appear in the text box.

**6. Click on OK.** The dialog box will close, and Photoshop will use the radius setting you entered to add pixels to and eliminate them from the selection.



Photoshop treats each pixel in the selection as the center of a circle, with a radius of the width you specified. Depending on whether most of the pixels in the circle are selected, Photoshop will add pixels to the selection (if most are selected) or remove them from the selection (if most aren't selected).

### NOTE

You also can use the Grow and Similar commands on the Select menu to expand a selection that you've made by color. The Grow command adds pixels adjoining the current selection that have similar colors to the selection, whereas Similar adds pixels of similar colors from the entire image to the selection.

## Expanding or Contracting the Selection

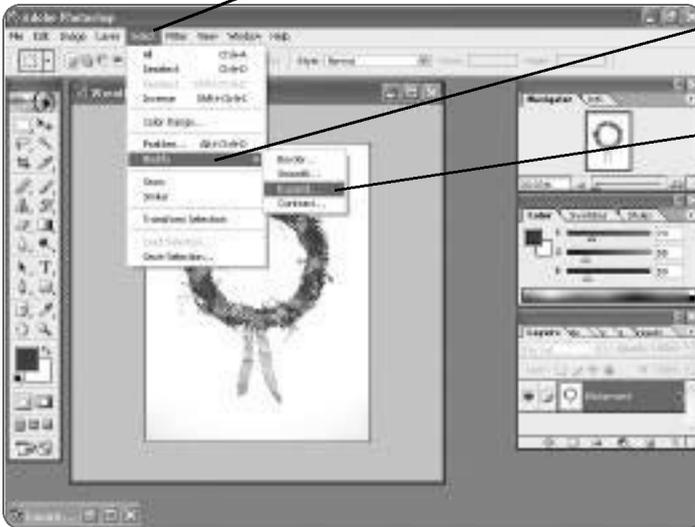
Expanding or contracting the selection really moves the selection marquee rather than affecting the selection itself. Using this method provides more accuracy than dragging or using a color technique like smoothing to increase the size of the selection, because you specify exactly how many pixels to add or remove from the selection, in terms of height and width.

**1. Make a selection** in the image using the selection tool of your choice. The selection marquee will appear.

**2. Click on **Select****. The Select menu will appear.

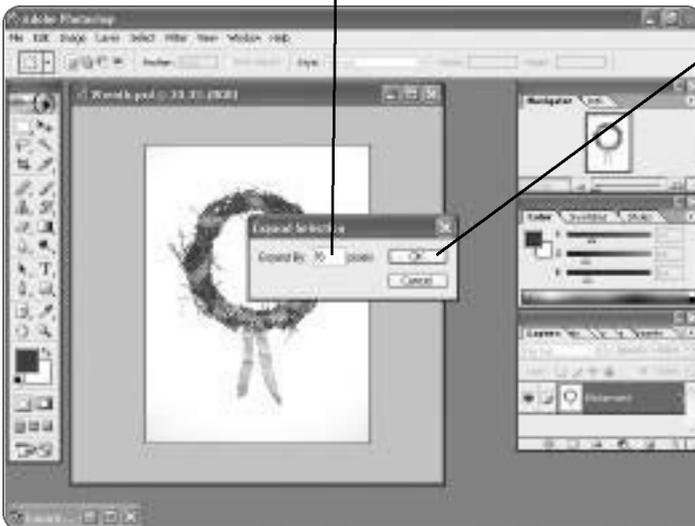
**3. Point to **Modify****. The Modify submenu will appear.

**4. Click on **Expand** or **Contract****. The Expand Selection or Contract Selection dialog box will open.



**5. Type a new entry** (between 1 and 100 pixels) for the **Expand Selection text box**. The entry will appear in the text box.

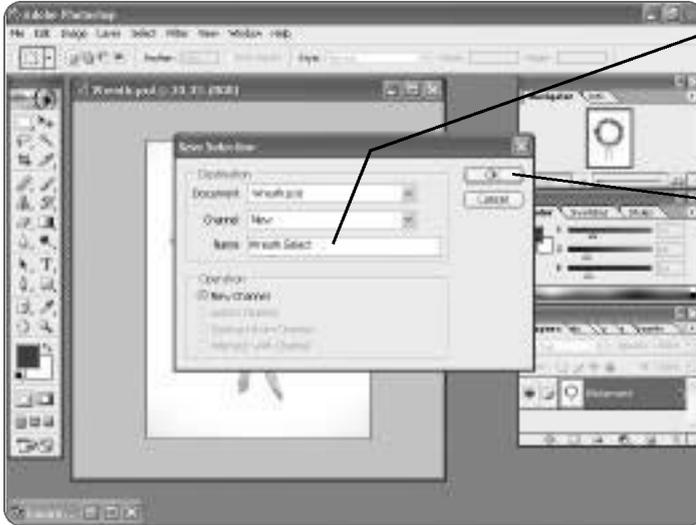
**6. Click on **OK****. The dialog box will close, and the new border selection will appear.



## NOTE

You can use the Feather command on the Select menu to feather or soften the edge of the selection. This affects the selection if you copy or paste it, or apply another effect like a filter.





**4. Click in the Name text box,** then **type a name** for the selection. The name will appear in the text box.

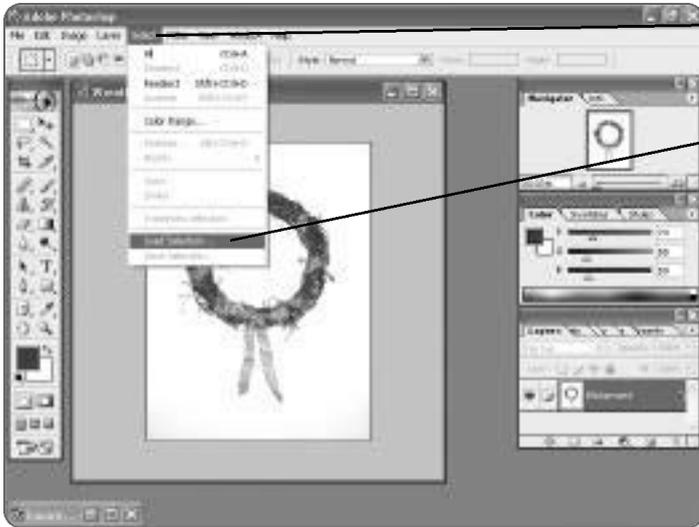
**5. Click on OK.** The Save Selection dialog box will close, and the saved selection will be added to the file.

### NOTE

Be sure to save the file to save the named selection. Also note that saving the selection creates a new channel from the selection. Chapter 15, "Understanding Colors and Channels," explains how to work with channels.

## Loading a Selection

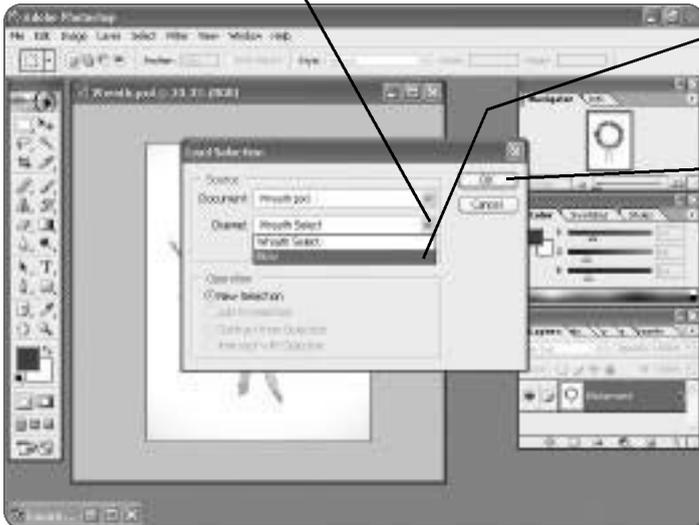
When you need to apply a selection that you've previously saved—that is, to reselect a previous selection—you can load the selection.



**1. Click on Select.** The Select menu will appear.

**2. Click on Load Selection.** The Load Selection dialog box will open.

**3. Click on the down arrow** next to the **Channel box.** The list of saved selections will appear.

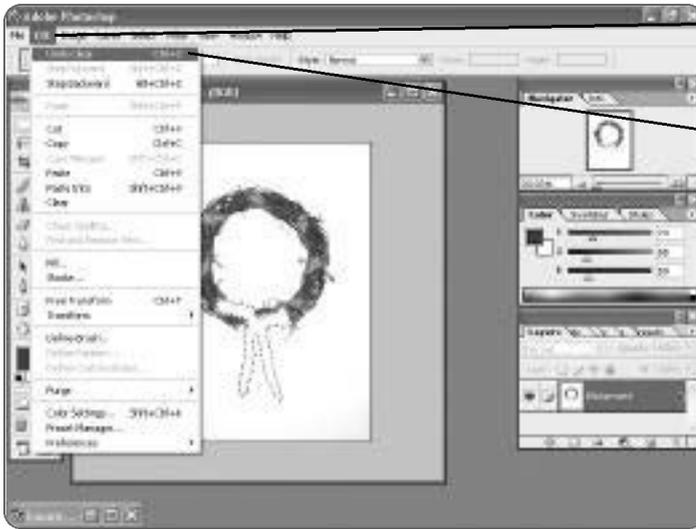


**4. Click on the desired selection.** It will appear as the Channel selection.

**5. Click on OK.** The Load Selection dialog box will close, and the selection marquee will appear in the file.

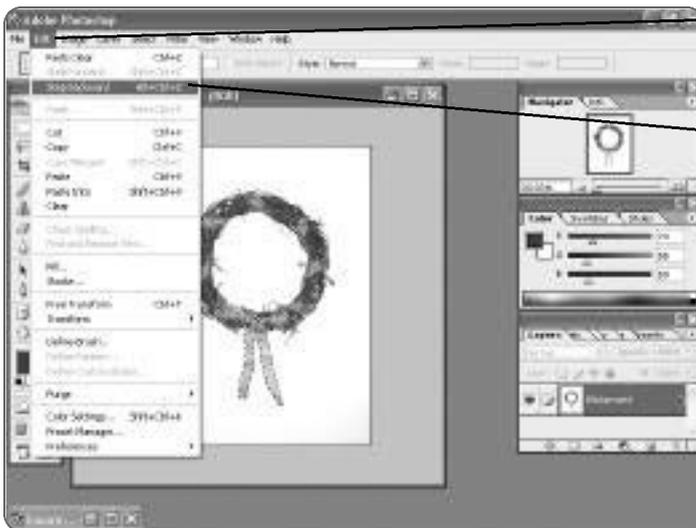
## Undoing a Change

The Edit menu offers a number of commands that you can use to undo prior changes and actions, such as deselecting a selection.



1. Click on **Edit**. The Edit menu will appear.

2. Click on **Undo (Action Name)**. Photoshop will undo your most recent change or action.

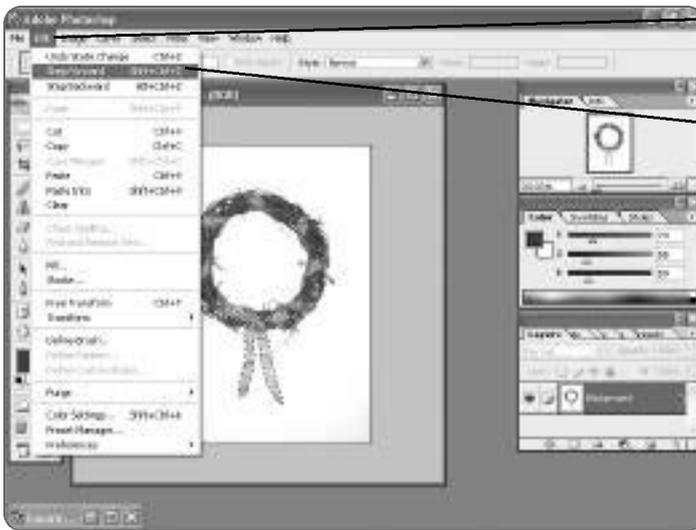


3. Click on **Edit**. The Edit menu will appear.

4. Click on **Step Backward**. Photoshop will undo your next most recent change or action.

**NOTE**

You should only use the Undo command once. After that, use the Step Backward command (described in Steps 3 and 4) as many times as needed to step further backward through your changes. Use the Step Forward command (as in Steps 5 and 6) to step further forward. To redo a single change, click on Redo (*Action Name*) in the Edit menu.

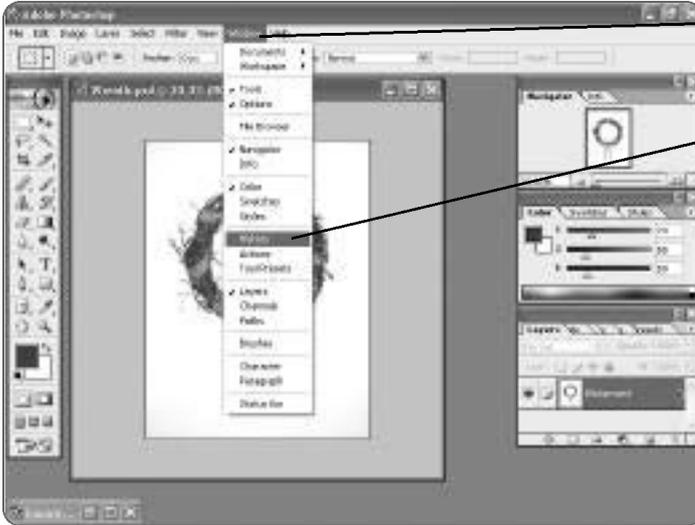


**5. Click on **Edit**.** The Edit menu will appear.

**6. Click on **Step Forward**.** Photoshop will redo the change or action you undid by stepping forward.

## Using the History to Undo Changes

The History palette provides one last method for discarding (undoing) actions and changes to a selection that you've made previously. When you use the History palette, you select a change or action out of the sequence of actions you've performed during the current work session with the image file. When you remove that selected action or change, Photoshop undoes that action or change, plus all the changes below it in the History list.



**1. Click on **Window**.** The Window menu will appear.

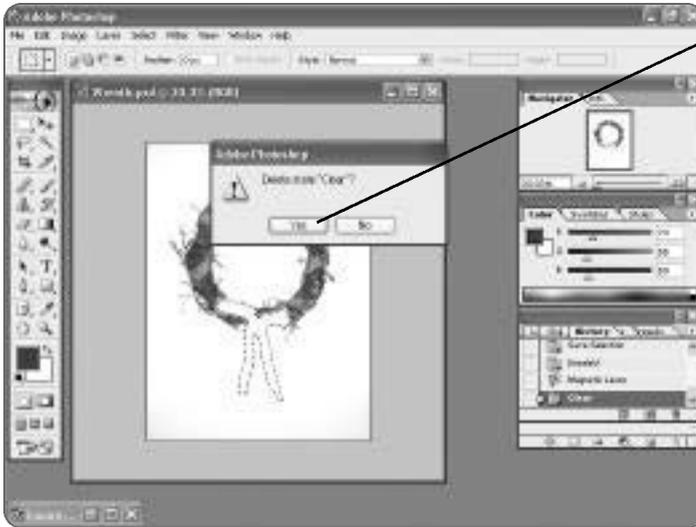
**2. Click on **History**.** The History palette will open.



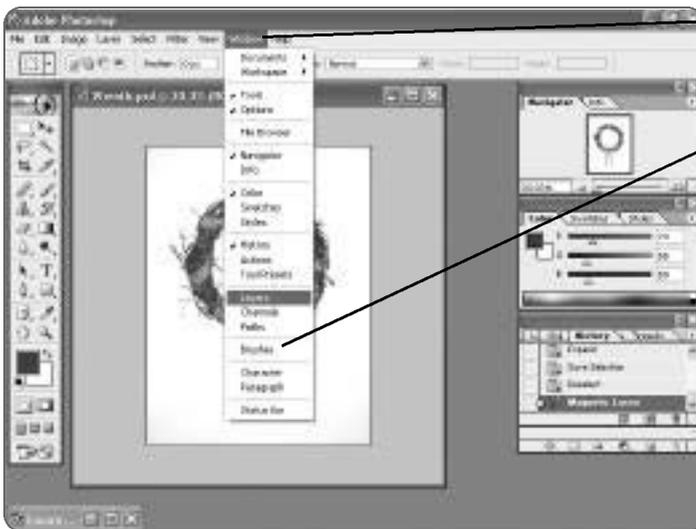
**3. Click on the **down scroll arrow for the scroll bar** in the History palette.** The list of changes and actions in the History list will scroll down.

**4. Right-click on the **change or action** to undo in the list.** The shortcut menu will appear.

**5. Click on **Delete**.** A message box asking you to confirm the History deletion will open.



**6. Click on Yes.** Photoshop will close the dialog box and undo the specified change and changes below it in the History palette.



**7. Click on Window.** The Window menu will appear.

**8. Click on Layers.** The Layers palette choices will reappear in the palette window.

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# 7

## Using Positioning Tools and Presets

Photoshop provides more precision editing tools than perhaps any other graphics program. Now that you know how to select and move image content, you may want to try out tools that you can exploit to align selections perfectly. Before you start making many moves in your image files, review this chapter to learn the following skills:

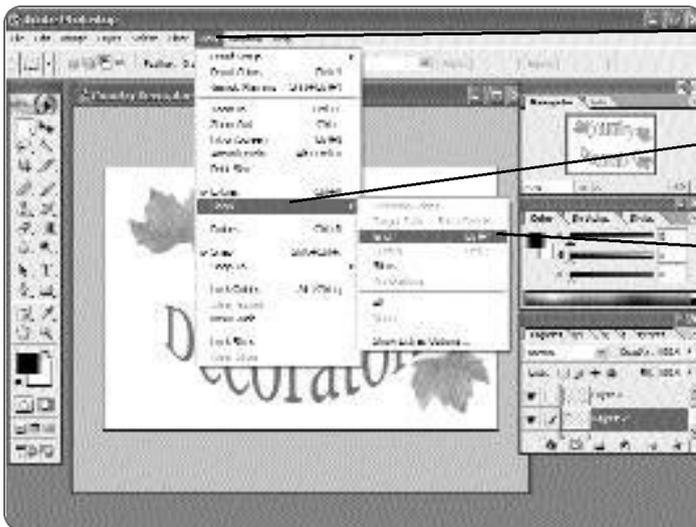
- Displaying a grid you can use for alignment
- Displaying rulers you can use for alignment
- Snapping a selection to a guide or grid
- Adding custom alignment guides and locking them in place
- Building presets to customize tools

## Showing and Hiding the Grid

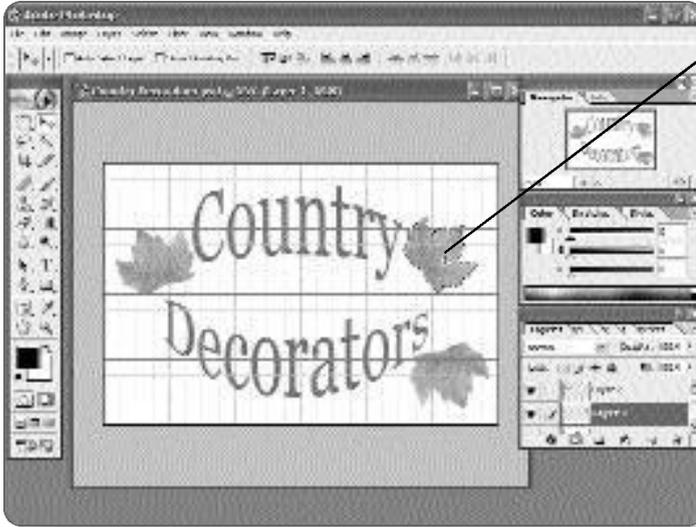
You can display non-printing gridlines in the current image window, and then use those gridlines to help you align selections in the image. You can show and hide the grid as needed, turning it on to position selections, and turning it back off when you want to assess the image's background or overall appearance. See the "Guides, Grid & Slices" section in Appendix B to learn about setting grid preferences.

### NOTE

Remember, you have to be working on the layer that has the image content to select. Chapter 8, "Working with Layers," explains how to navigate to and use layers. In some cases, you can choose the layer and then use the Move tool to move the layer contents without making a selection.



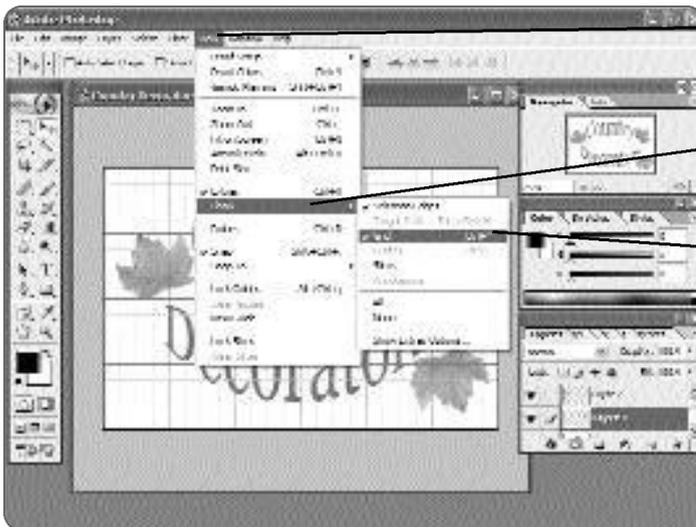
1. Click on **View**. The View menu will appear.
2. Point to **Show**. The Show submenu will appear.
3. Click on **Grid**. The gridlines will appear immediately in the current image file.



**4. Make a selection** (if needed) and **align it** using the **Move tool**. The selection will be better aligned with a gridline.

### NOTE

If the selection “jumps around” and won’t align as you think it should, the Snap To feature might be active. See the section “Using Snap and Snap To” later in this chapter to learn how to use this feature.



**5. Click on View**. The View menu will appear.

**6. Point to Show**. The Show submenu will appear.

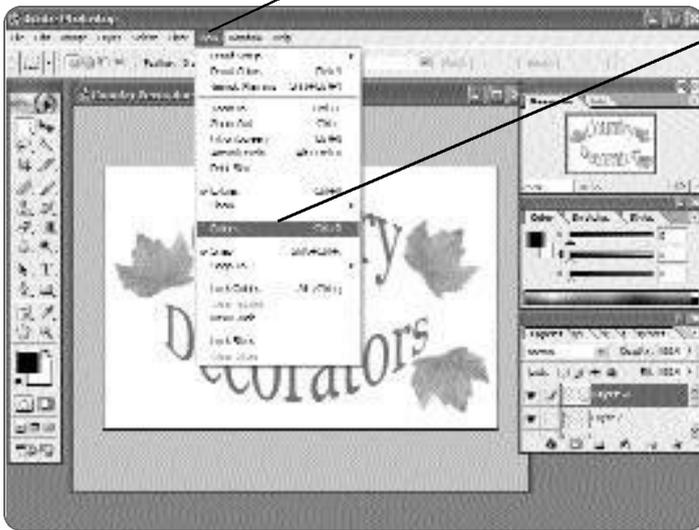
**7. Click on Grid**. The gridlines will disappear immediately from the current image file.

## Showing and Hiding Rulers

The rulers come in handy when you need to position selections (such as a logo inserted on a new layer) at a precise location within the image. Turn on the rulers when you need to position selections based on measurements, and then turn them back off when you no longer need them.

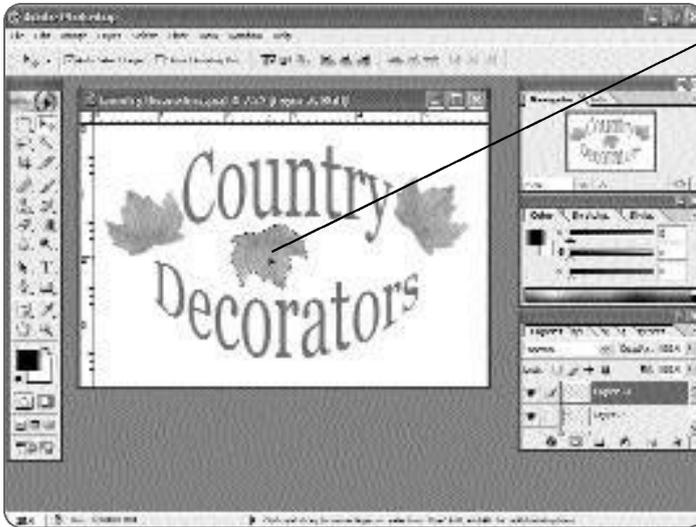
**1. Click on View.** The View menu will appear.

**2. Click on Rulers.** The rulers will appear immediately in the current image window.



### NOTE

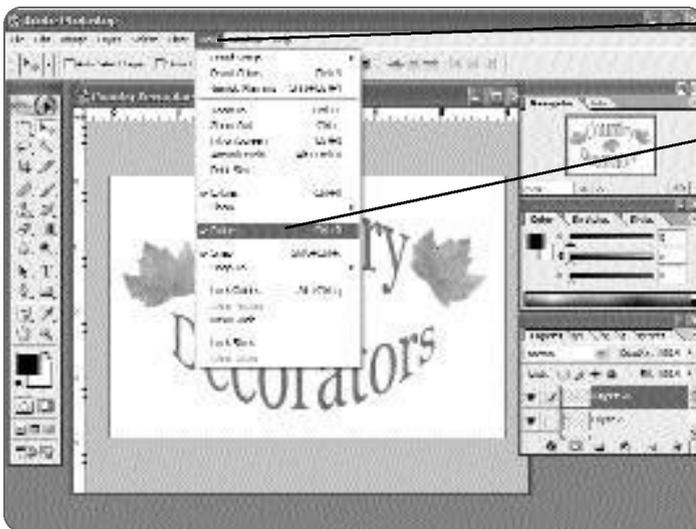
The vertical ruler appears along the left side of the image window, and the horizontal ruler appears across the top of the ruler.



**3. Make a selection** (if needed) and **drag to align it**. Watch the dotted gray lines on the rulers to judge position as you drag. The selection will drop into the specified location when you finish dragging.

### TIP

Make your selection tight to the object, then drag by a corner for very precise positioning.



**4. Click on View.** The View menu will appear.

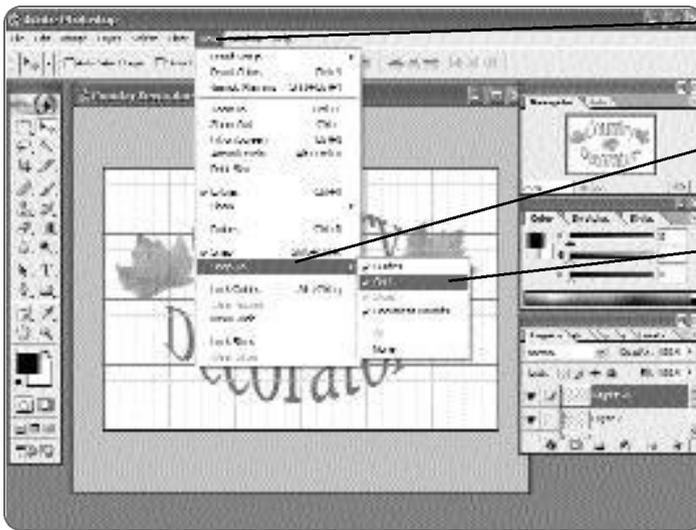
**5. Click on Rulers.** The rulers will disappear from the image window.

## Using Snap and Snap To

The Snap To feature in Photoshop ensures that a selection aligns to the grid or the custom guides that you add as you drag. You can turn snapping to grids or guides off and on individually, or use the Snap command to toggle all snapping on and off. By default, snapping to both the grid and guidelines is turned on in Photoshop.

### NOTE

The grid must be displayed to enable the command for turning on or off snapping to the grid. In contrast, the command for turning on or off snapping to guidelines is available whether or not you've added guidelines into the image file, as described in the next section.



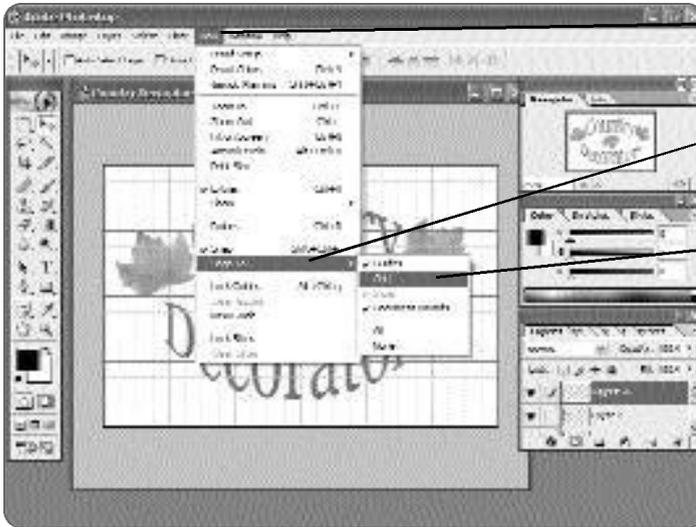
**1. Click on View.** The View menu will appear.

**2. Point to Snap To.** The Snap To submenu will appear.

**3. Click on Guides or Grid.** The check beside the feature you clicked will be removed, and the selected Snap To feature will no longer be active. The next time you move a selection, it will not snap into position.

### NOTE

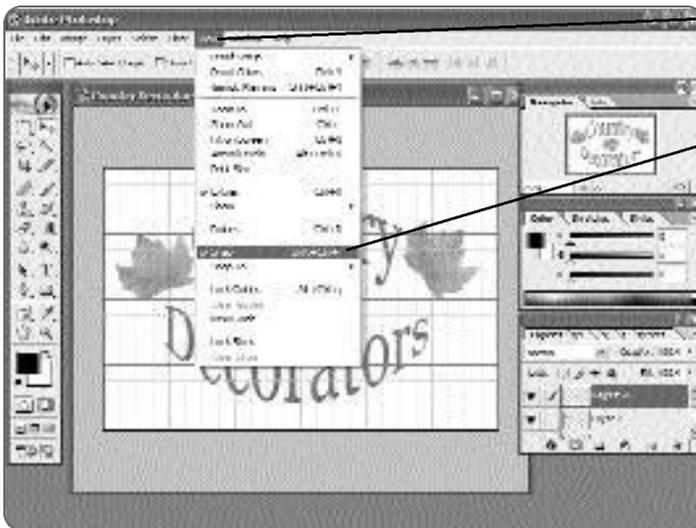
Turning off snapping can help when you need to position selections relative to one another rather than relative to a grid.



**4. Click on View.** The View menu will appear.

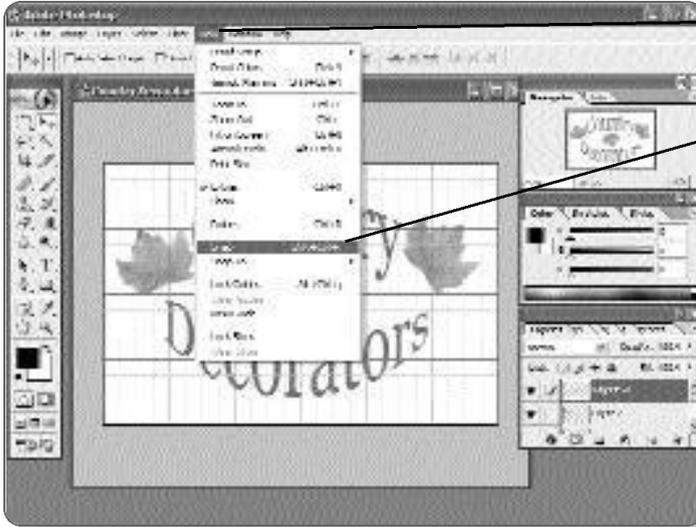
**5. Point to Snap To.** The Snap To submenu will appear.

**6. Click on Guides or Grid.** A check will appear beside the feature you clicked, and the selected Snap To feature will become active again. The next time you move a selection, it will snap into position.



**7. Click on View.** The View menu will appear.

**8. Click on Snap.** The check beside the Snap command will be removed, and all snapping will no longer be active. The next time you move a selection, it will not snap into position.



**9. Click on View.** The View menu will appear.

**10. Click on Snap.** The check beside the Snap command will reappear, and all snapping will become active again. The next time you move a selection, it will snap into position.

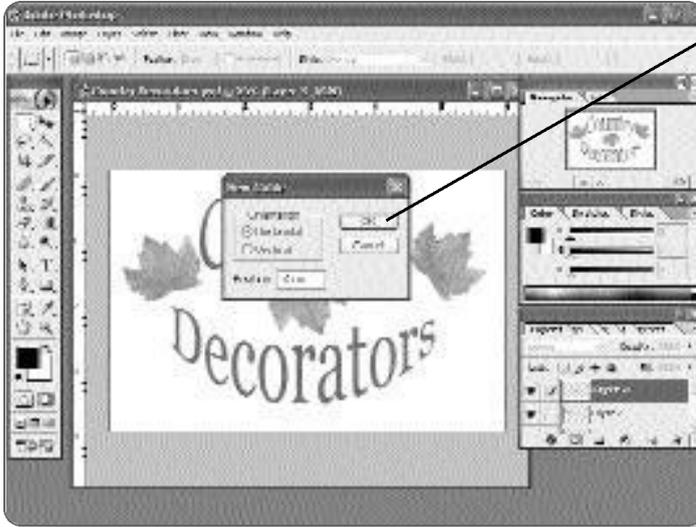
## Adding Guides

Guides, in a sense, serve as custom gridlines. You put a guideline into position so that you can align selections to it. Ideally, you would add a guideline in a location where no gridline occurs or use guidelines rather than the grid. Also, because guidelines appear in blue, you can add a guideline to highlight an important grid location.

### TIP

You don't have to display the rulers to add guidelines, but if you do, you can add a guideline more quickly, as one of the techniques in the steps here demonstrates.





**5. Click on OK.** The guideline will appear at the position you specified.



**6. Drag from a ruler.** Another guideline will appear where you release the mouse button.

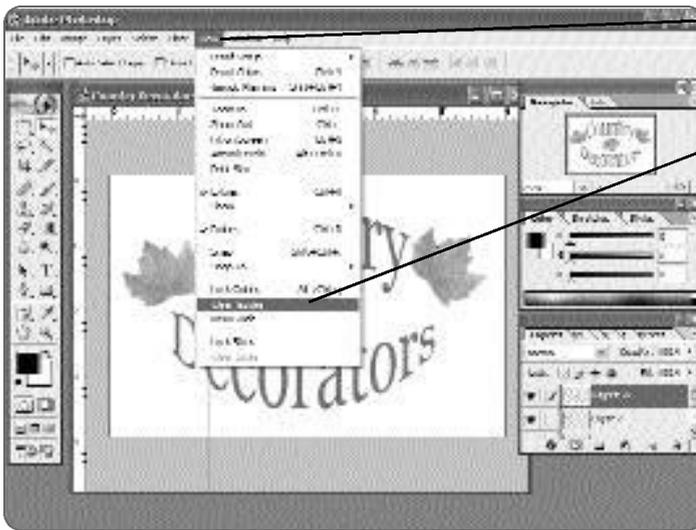
### TIP

Press and hold Shift as you drag to have the guideline snap to successive increments on the applicable ruler.



**7. Click on the Move tool** in the Photoshop toolbox. The Move tool will become active.

**8. Drag a guideline.** The guideline will move to a new location.



**9. Click on View.** The View menu will appear.

**10. Click on Clear Guides.** Photoshop will immediately delete all the guidelines you've added.

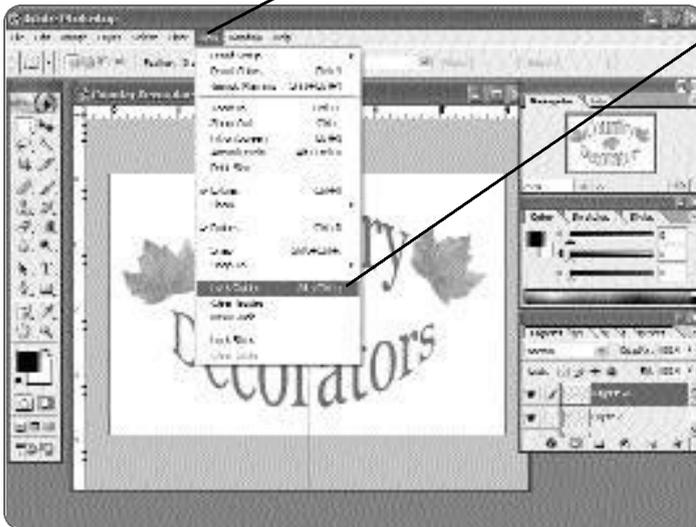
## Locking Guides

You can lock guides to prevent any accidental guideline changes. (For example, you could mistakenly move a guideline rather than the selection, especially when the selection falls very close to the guideline.) When you need to change guidelines, unlock them first.

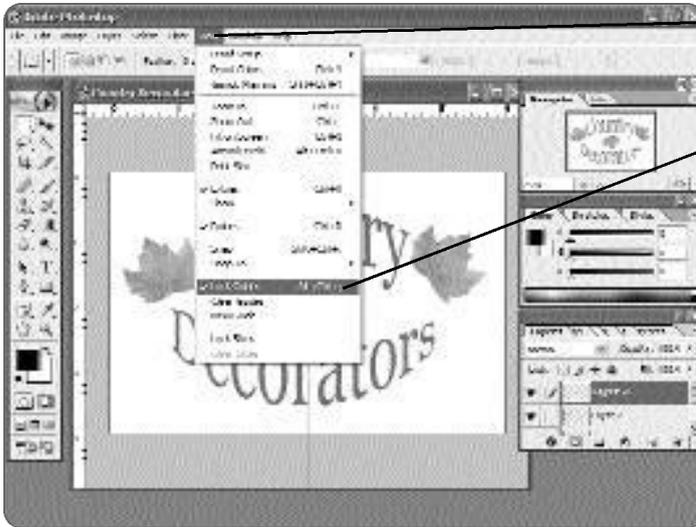
### NOTE

Locking guidelines doesn't prevent you from clearing them. If you unintentionally clear guidelines, immediately undo the change.

**1. Click on View.** The View menu will appear.



**2. Click on Lock Guides.** Photoshop will immediately lock the guides into position. A check mark will appear beside the Lock Guides command on the menu.



**3. Click on View.** The View menu will appear.

**4. Click on Lock Guides.** Photoshop will immediately unlock the guides and remove the check mark beside the Lock Guides command.

## Setting Up Your Tools with the Preset Palette

In the section in Chapter 3 called “Creating or Displaying a Brush,” you learned how to create and use your own custom brush in Photoshop. In addition to creating a custom brush, you can create a *preset*. To make a preset, you select a tool, choose your favorite settings for the tool, and then save the preset. The preset stores your favorite settings for the tool. Later, when you load the preset, the tool and specified settings immediately become active. This section describes how to create and use presets, as well as how to load additional brush, color, or pattern choices for your tools using the Preset Manager.

### Saving a Preset

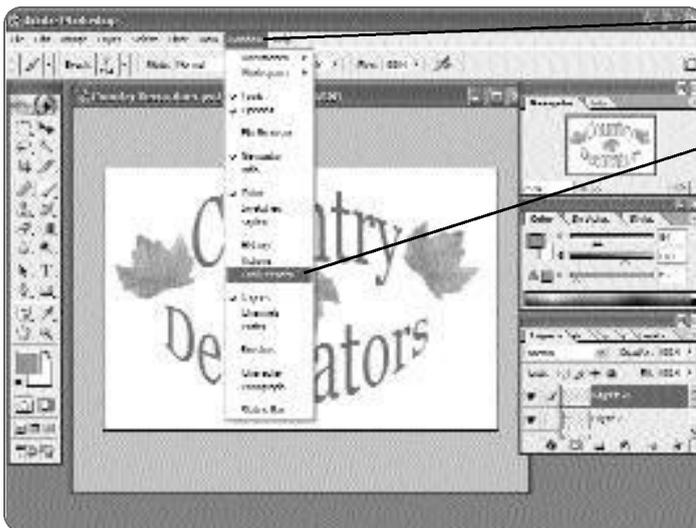
Because Photoshop offers so many tools and settings, you have nearly unlimited possibilities for editing images. Over time, however, you’ll probably develop favorite techniques that involve using a particular tool and particular settings. Rather

than having to remember the desired tool and all the associated settings, you can simply save each favorite combination as a preset using the Tool Presets palette.



**1. Click on the desired tool.** Its options will become active in the options bar.

**2. Choose the desired settings in the options bar, and choose a foreground or background color if needed.** Those settings will become the current settings for the tool.

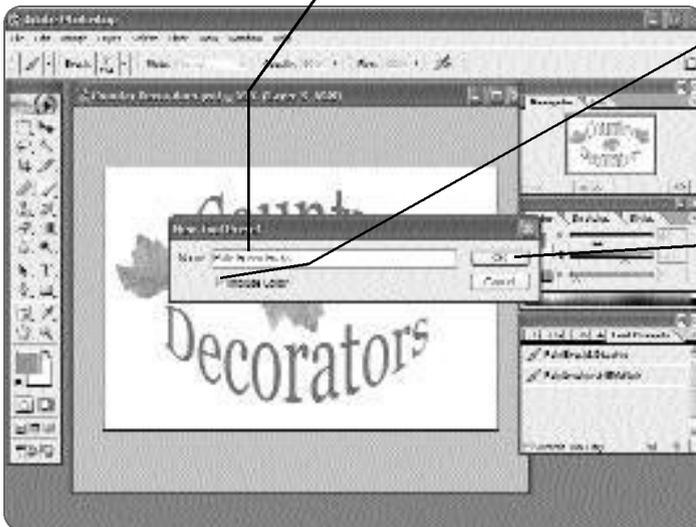


**3. Click on Window.** The Window menu will appear.

**4. Click on Tool Presets.** The Tool Presets palette will open.



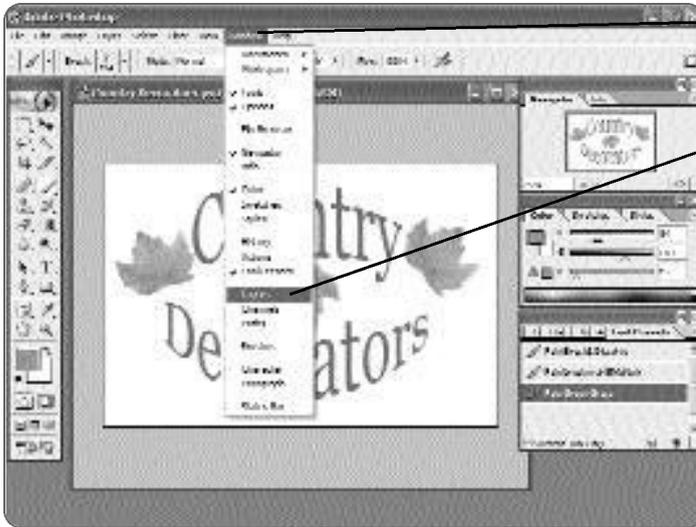
**5. Click on the **Create New Tool Preset** button at the bottom of the palette. The New Tool Preset dialog box will open.**



**6. Type a name** for the preset in the Name text box. The preset name will appear in the dialog box.

**7. Click on the **Include Color check box** as needed. When it's checked, Photoshop will save the current color selections along with the other preset settings.**

**8. Click on **OK**.** The dialog box will close and the new preset will appear in the Tool Presets palette.



**9. Click on Window.** The Window menu will appear.

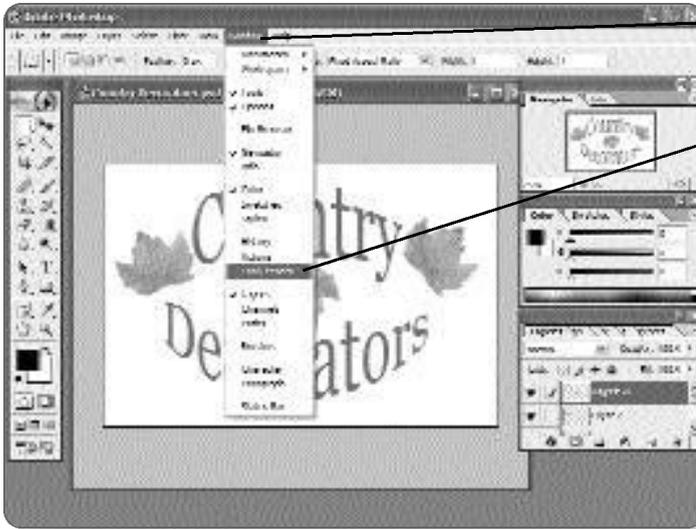
**10. Click on Layers.** The Layers palette will reappear.

## Using a Preset

When you want to use a preset that you've created, open the Tool Presets palette and choose the preset.



**1. Open or create the image** where you want to use the preset. The image window will become active.



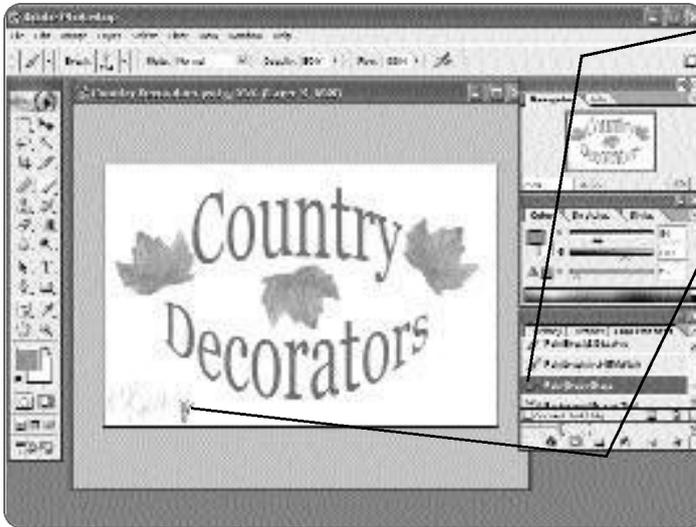
2. Click on **Window**. The Window menu will appear.

3. Click on **Tool Presets**. The Tool Presets palette will open.



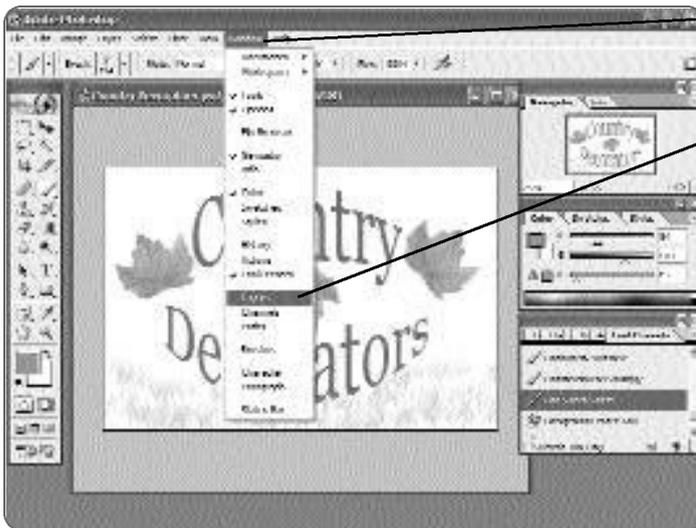
4. Click on the **Current Tool Only** check box at the bottom of the palette. The check box will be cleared, and all the available presets will appear.

5. **Scroll down** the list of presets. The desired preset will appear in the list.



**6. Click on the preset** in the list. The tool and settings stored in the preset will become active.

**7. Use the tool** in the image. The desired changes will appear in the image.



**8. Click on Window.** The Window menu will appear.

**9. Click on Layers.** The Layers palette will reappear.

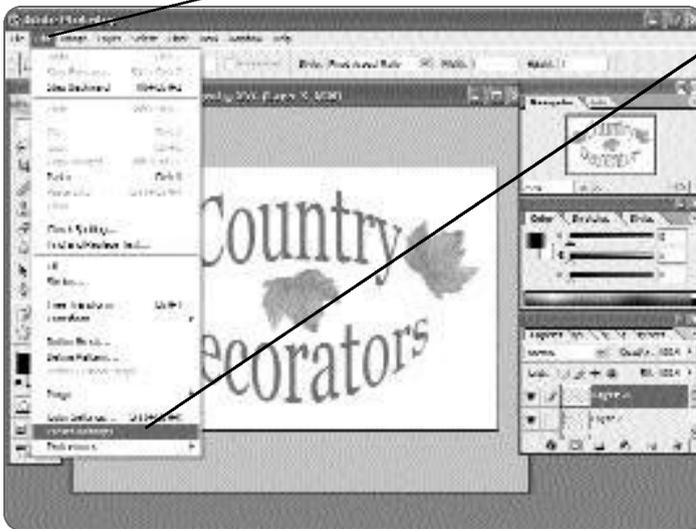
### NOTE

To choose presets, you also can click on the button for the selected preset at the left end of the options bar. A pop-up list of the presets will appear. Double-click on the preset you want to use to select the preset and close the list.

## Loading More Options with the Preset Manager

In addition to the brush shapes and other choices that you initially see on the options bar when you select a particular tool, you can load other brush shapes, patterns, and more to make them available for use in Photoshop. Use the Preset Manager to load additional tool choices.

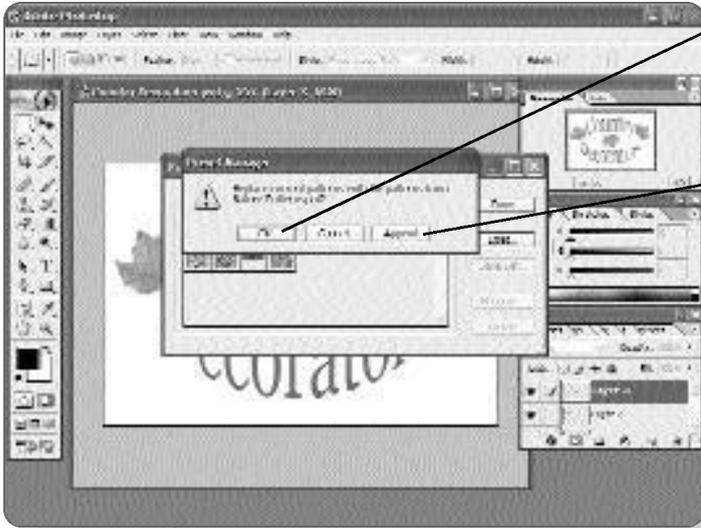
**1. Click on **Edit**.** The Edit menu will appear.



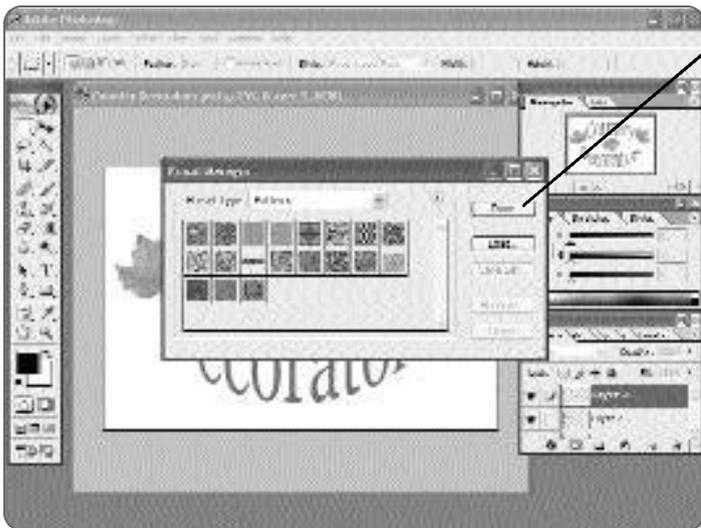
**2. Click on **Preset Manager**.** The Preset Manager dialog box will open.



**7. Click on the appropriate button.** The presets will be replaced or appended as indicated:



- **OK.** Replaces the current presets with the new presets from the library selected in Step 6.
- **Append.** Adds the presets from the library selected in Step 6 to the available choices.



**8. Click on Done.** The newly selected presets will be available for the appropriate tool(s).

## Part 2 Review Questions

1. How do you select a tool? See *“Selecting a Tool”* in Chapter 3.
2. Which are the painting tools, and which are the drawing tools? See *“Working with Painting Tools”* and *“Working with Drawing Tools”* in Chapter 3.
3. What’s a fast way to change the portion of the image that appears in the window? See *“Using the Hand Tool”* and *“Using the Navigator”* in Chapter 4.
4. What can you select with the Marquee tool? See *“Using the Marquee Tool”* in Chapter 5.
5. What different selections does the Lasso tool offer? See *“Using the Lasso Tool”* in Chapter 5.
6. How do you deselect a selection? See *“Removing a Selection”* in Chapter 5.
7. How do you delete selected image content? See *“Deleting a Selection”* in Chapter 6.
8. Can you reuse a selection? See *“Saving a Selection”* and *“Loading a Selection”* in Chapter 6.
9. What if I need to undo a change? See *“Undoing a Change”* and *“Using the History to Undo Changes”* in Chapter 6.
10. Can Photoshop align selections that I move? See *“Using Snap and Snap To”* in Chapter 7.

# PART III

# Using Layers, Masks, and Paths

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# 8

## Working with Layers

The ability to create content on layers has long set Photoshop apart from other paint programs. Creating content on separate layers enables you to retain control of the placement and effects for various individual elements in an image. (If you simply created objects on one layer in Photoshop, they would “blend” together.) By using transparency on the various layers and positioning objects carefully, you can create interesting and complex compositions while keeping open your options for making changes later. In this chapter, you’ll learn how to:

- Use various methods to create a layer
- Select layers
- Create new patterns for use in layers
- Change layer settings
- Arrange layers
- Merge layers to flatten the image

## Creating a Layer

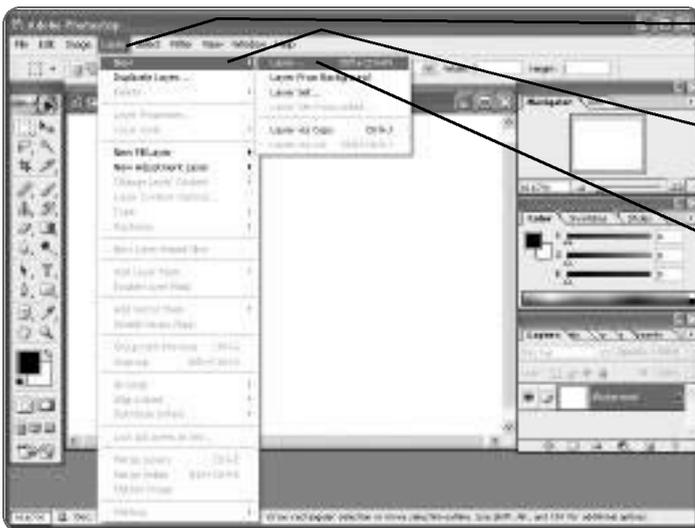
Nearly every image file by default has one special layer called the *background layer*. (If you create a new transparent image, it starts with Layer 1.) An image can have more layers than your computer's memory can probably handle—up to 8,000. Some actions, such as adding text, create a new layer automatically. In other instances, you may need to create a layer manually before adding elements into it. This section explains how to do so.

### NOTE

When you create a new image, it sometimes helps to click on the Transparent option in the New dialog box. This ensures that a white background won't hide other layers you may add.

## Making a New Layer

The simplest way to create a layer is to simply add a new, blank layer.



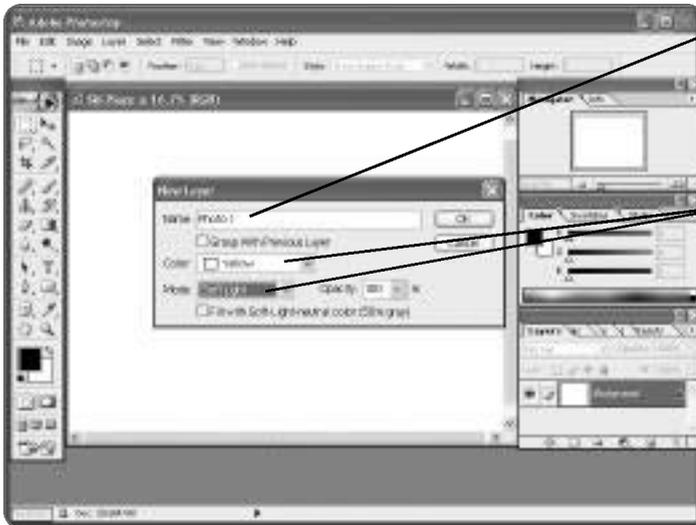
**1. Click on Layer.** The Layer menu will appear.

**2. Point to New.** The New submenu will appear.

**3. Click on Layer.** The New Layer dialog box will open.

**TIP**

A layer set organizes layers, much as a folder organizes files on a hard disk. Click on Layer, point to New, and then click on Layer Set to create a layer set.



**4. Type** a name for the layer into the **Name text box**. The specified name will be used for the layer.

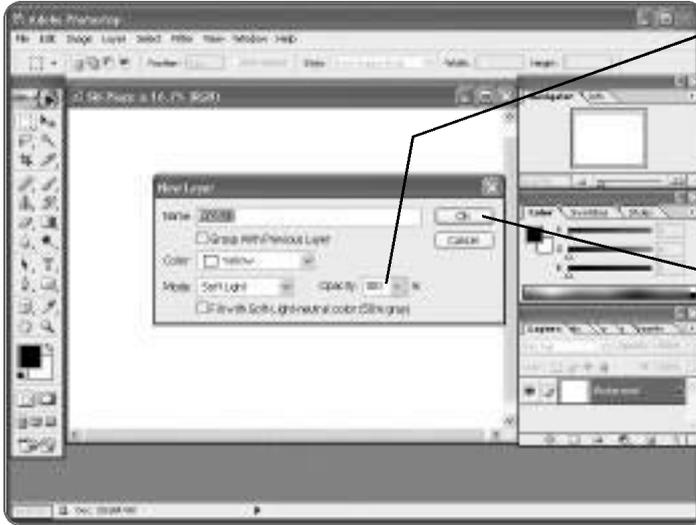
**5. Click** on a **choice** from the **Color** and **Mode** lists, if needed. Making a Color choice will apply a color to the new layer's listing in the Layers palette. Making a Mode choice will apply a *layer blending mode*, which controls how the individual pixels on the layer blend with pixels on other layers.

**TIP**

Depending on the choice you make from the Mode list, you may have to make other layers, such as the Background layer, transparent. To do so, double-click on the layer in the Layers palette, change the Opacity setting to 0, and then click on OK.

**TIP**

Some blending modes enable the Fill with . . . check box. You can click on it to check it and apply the applicable neutral color.

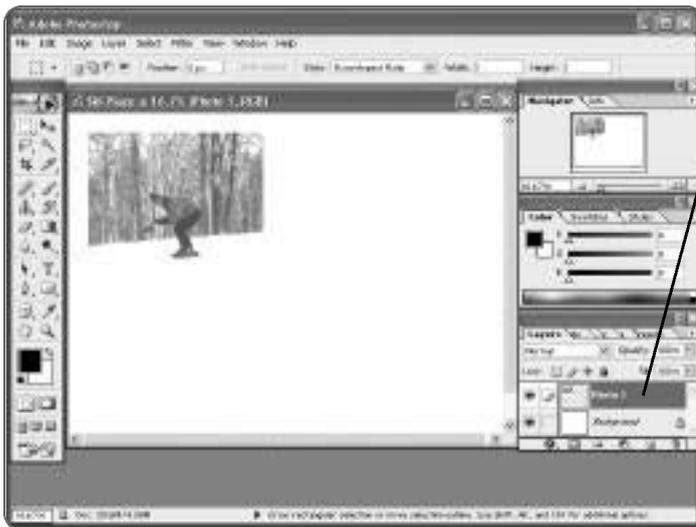


**6.** Type a new entry into the **Opacity text box**, if needed, or click on its arrow, drag the slider, and click on the arrow again. Photoshop will make the layer's contents more transparent.

**7.** Click on **OK**. Photoshop will close the New Layer dialog box and create the new layer, which will appear in the Layers palette.

## Selecting a Layer

Selecting a layer makes it the current or active layer, so that the changes you make next will apply to the layer. You use the Layers palette to select a layer, as shown here.



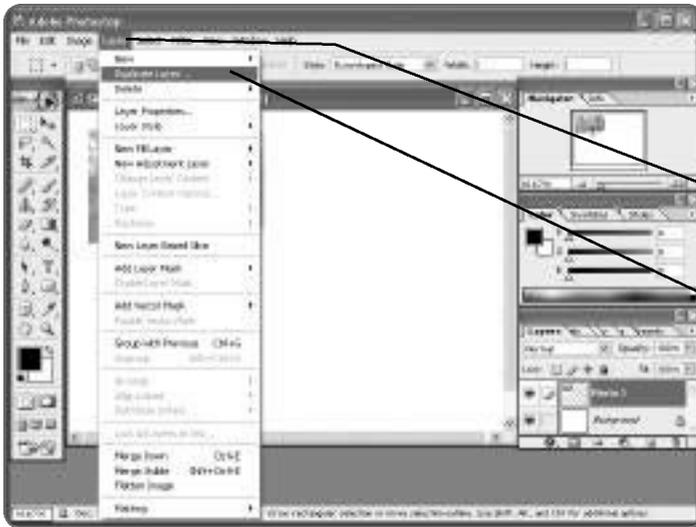
**1.** Click on the **name** of the layer in the **Layers palette**. The layer will appear selected in the Layers palette, making it the active layer.

### NOTE

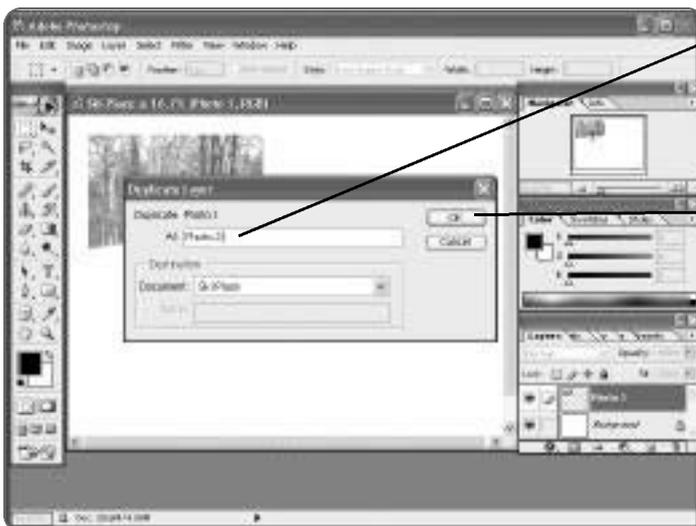
You can hide a layer's contents by clicking on the eye icon to the left of the layer name in the Layers palette. The layer's content disappears immediately. Click on the spot where the eye icon previously appeared to redisplay the layer.

## Duplicating a Layer

When a layer has content that you'd like to reuse, you can duplicate the layer in the image file. Then, you can position the layer content or add different effects independently.



- 1. Select the layer to duplicate.** The layer name appears selected in the Layers palette.
- 2. Click on Layer.** The Layer menu will appear.
- 3. Click on Duplicate Layer.** The Duplicate Layer dialog box will open.



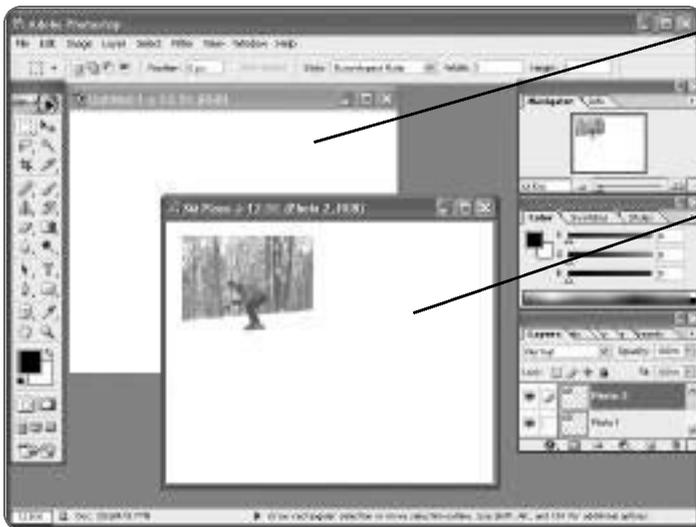
- 4. Type a name** for the layer into the **As text box**. The specified name will be used for the layer.
- 5. Click on OK.** Photoshop will close the Duplicate Layer dialog box and create the new layer, which will appear in the Layers palette.

**NOTE**

You can create a new image file by duplicating a layer. To do so, click on the down arrow beside the Document choice, then click on New. Type a name for the new file in the Name text box, then click on OK.

## Copying a Layer between Images

When a layer has content that you'd like to reuse, you can make a copy of the layer and paste it into another image file.

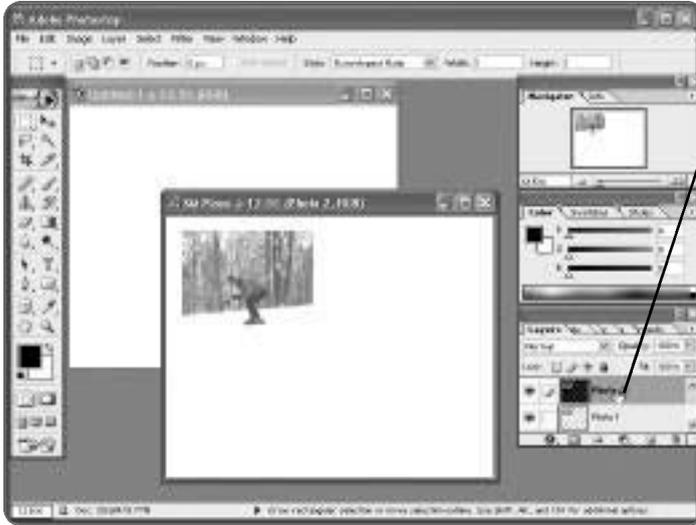


**1. Open or create the image file** to which you want to copy the layer. The image window appears in Photoshop.

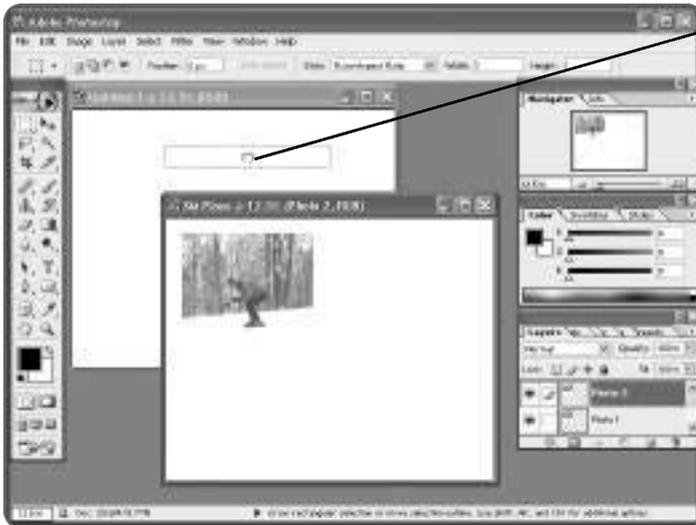
**2. Open the image file** that has the layer to copy. The image window appears in Photoshop.

**NOTE**

Make sure you position the image windows so that you'll be able to drag and drop between them. This means that you need to be able to see at least part of the image window for the image you opened in Step 1.



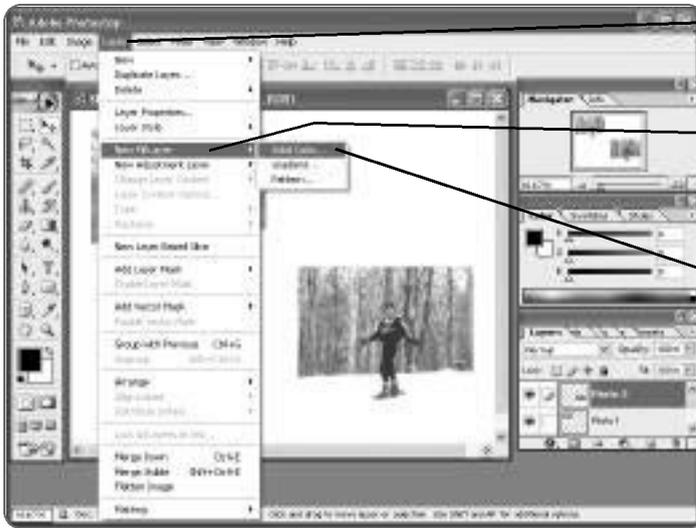
**3. Drag the layer** from the Layers palette. The layer will appear selected and the mouse pointer will change to a clenched hand.



**4. Drop the layer** on the window for the file into which you want to copy the layer. The new layer appears immediately in the destination image.

## Adding a Fill Layer

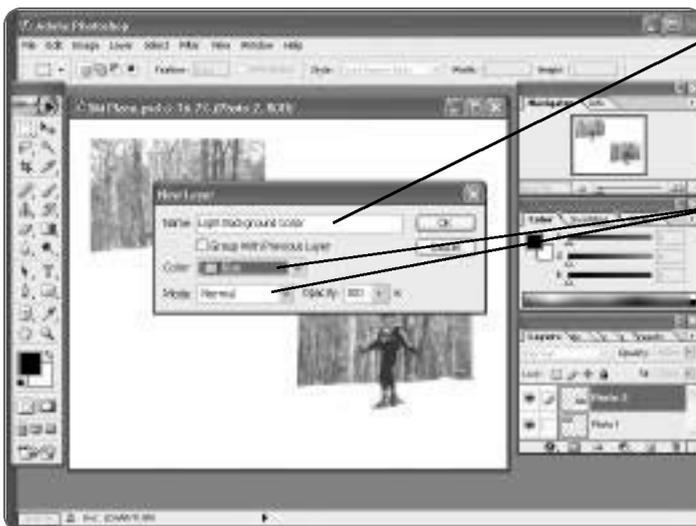
You can add a fill layer to color the entire image background. This technique is preferred over drawing a colored box on a layer, which can leave a white edge around the image.



**1. Click on Layer.** The Layer menu will appear.

**2. Point to New Fill Layer.** The New Fill Layer submenu will appear.

**3. Click on Solid Color.** The New Layer dialog box will open.

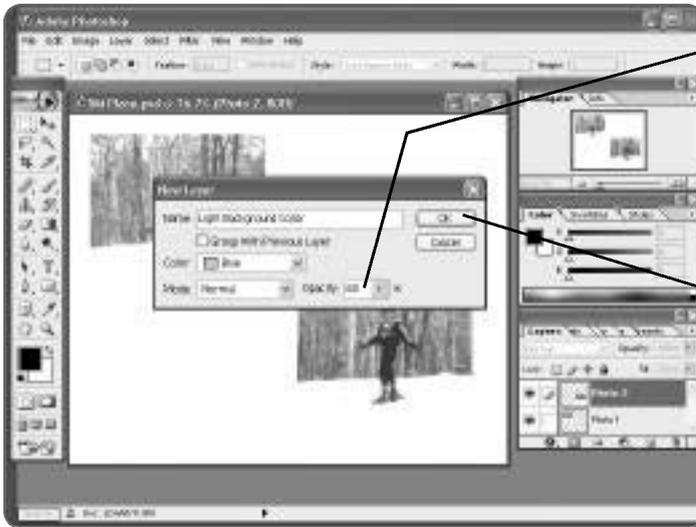


**4. Type a name** for the layer into the **Name text box**. The specified name will be used for the layer.

**5. Make a choice** from the **Color** and **Mode** lists, if needed. Making a Color choice will apply a color to the new layer's listing in the Layers palette. Making a Mode choice will apply a *layer blending mode*, which controls how the individual pixels on the layer blend with pixels on other layers.

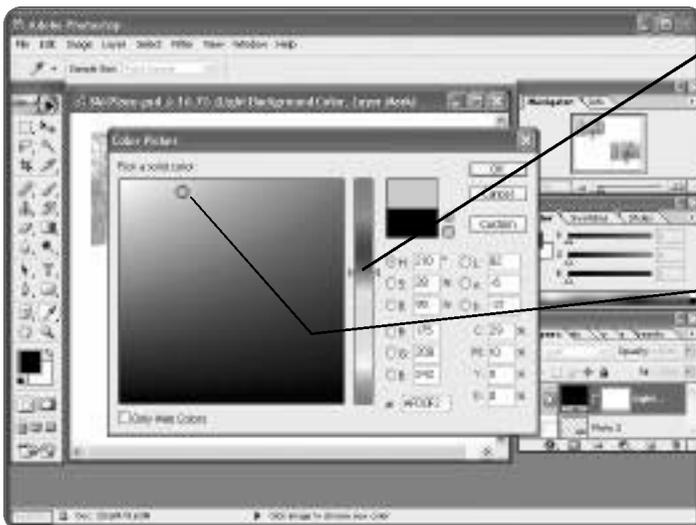
## TIP

Depending on the choice you make from the Mode list, you may have to make other layers, such as the Background layer, transparent. To do so, double-click on the layer in the Layers palette, change the Opacity setting to 0, and then click on OK.



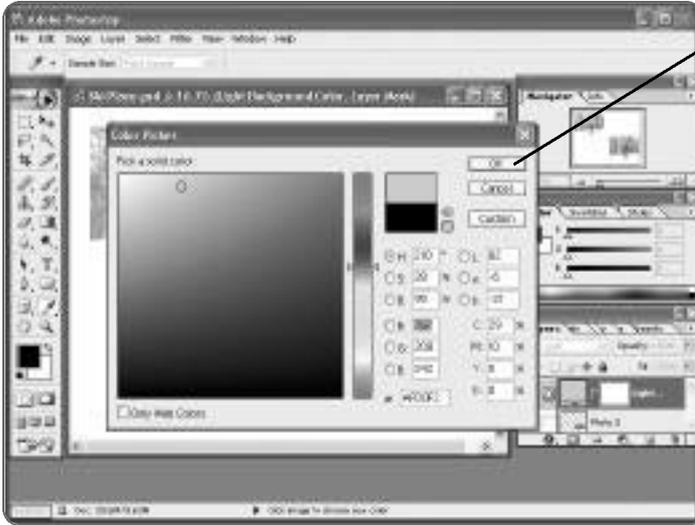
**6. Type a new entry** into the **Opacity text box**, if needed, or click on its arrow, drag the slider, and click on the arrow again. Photoshop will make the layer's contents more transparent.

**7. Click on OK.** Photoshop will close the New Layer dialog box and open the Color Picker dialog box.

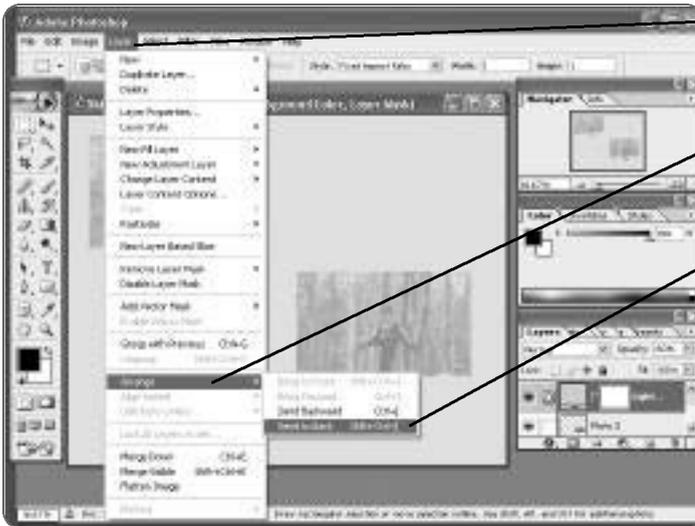


**8. Click on a color** in the **narrow band of colors** near the middle of the dialog box. Photoshop will display a different range of colors in the Pick a solid color box.

**9. Click on a color** in the **Pick a solid color box**. The color you click on will become the active color.



**10. Click on OK.** Photoshop will close the Color Picker dialog box and create the new fill layer. Its name will appear in the Layers palette.



**11. Click on Layer.** The Layer menu will appear.

**12. Point to Arrange.** The Arrange submenu will appear.

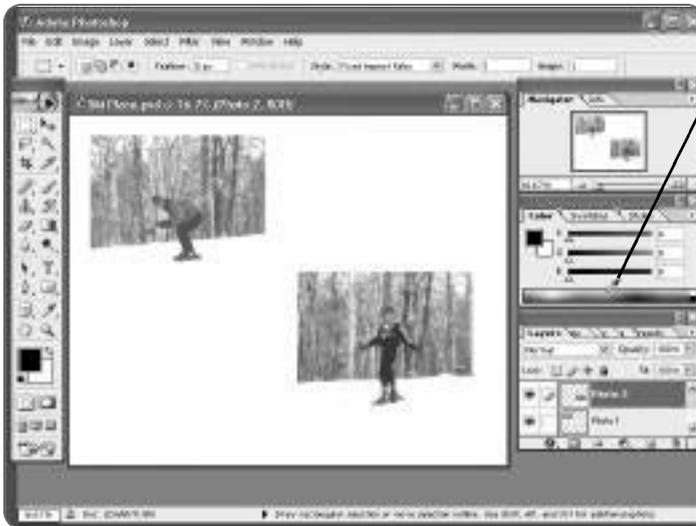
**13. Click on Send to Back.** The new layer will shift to the back of the available layers.

### TIP

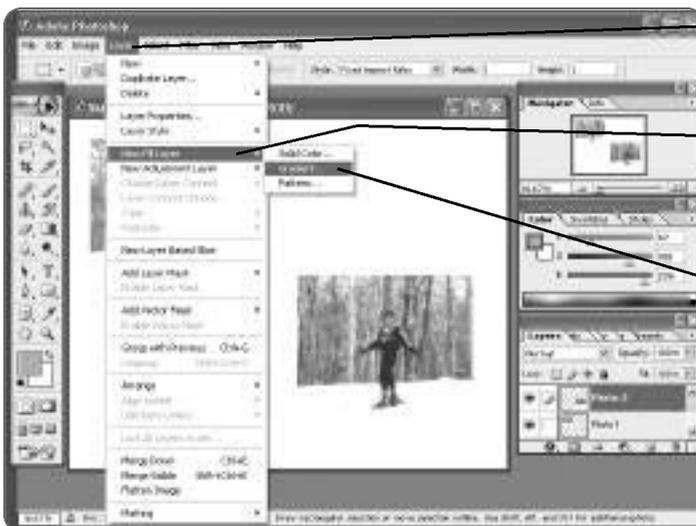
You can change the type of fill for a layer after you create it. To do so, first select the layer. Then click on Layer, point to Change Layer Content, and click on Solid Color, Gradient, or Pattern.

## Adding a Gradient Layer

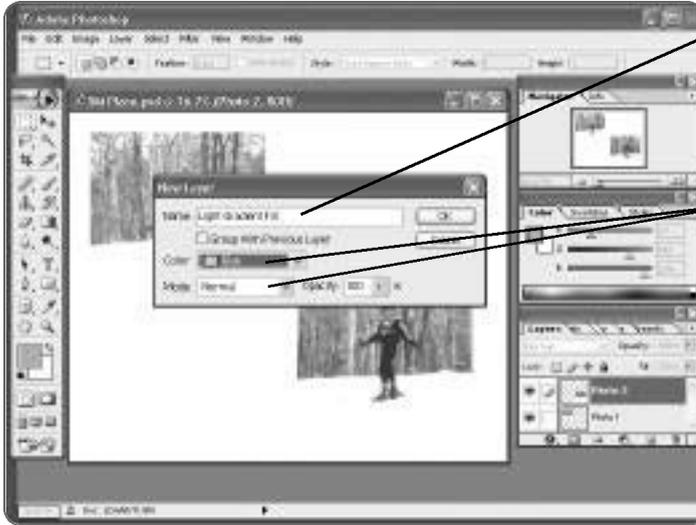
A *gradient* layer blends one or more colors, for another interesting background effect.



1. Click on the **foreground color** for the gradient on the color ramp in the Color palette. The selected color will become the foreground color (first color) for the blend.



2. Click on **Layer**. The Layer menu will appear.
3. Point to **New Fill Layer**. The New Fill Layer submenu will appear.
4. Click on **Gradient**. The New Layer dialog box will open.

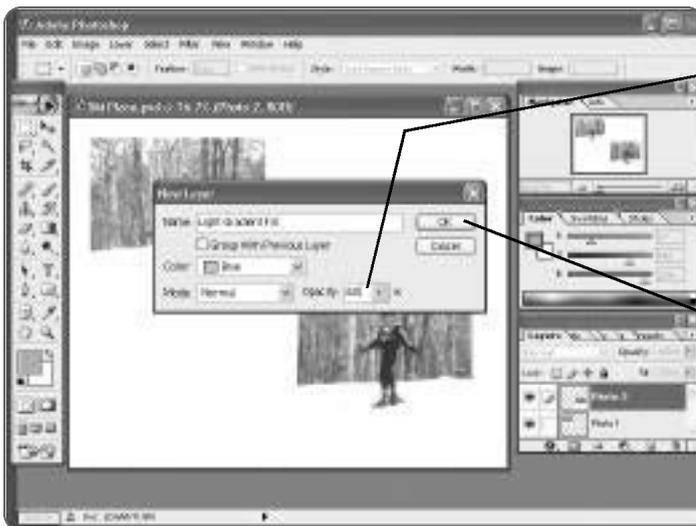


**5. Type a Name** for the layer into the **Name text box**. The specified name will be used for the layer.

**6. Make a choice** from the **Color** and **Mode** lists, if needed. Making a Color choice will apply a color to the new layer's listing in the Layers palette. Making a Mode choice will apply a *layer blending mode*, which controls how the individual pixels on the layer blend with pixels on other layers.

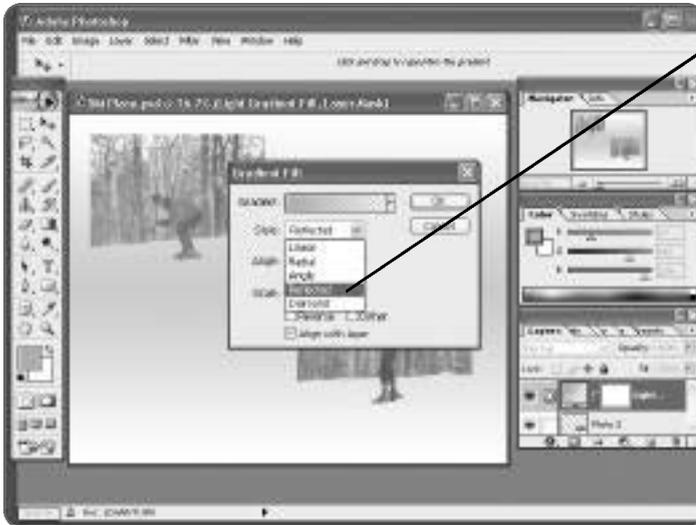
### TIP

Depending on the choice you make from the Mode list, you may have to make other layers, such as the Background layer, transparent. To do so, double-click on the layer in the Layers palette, change the Opacity setting to 0, and then click on OK.



**7. Type a new entry** into the **Opacity text box**, if needed, or click on its arrow, drag the slider, and click on the arrow again. Photoshop will make the layer's contents more transparent.

**8. Click on OK**. Photoshop will close the New Layer dialog box and open the Gradient Fill dialog box.



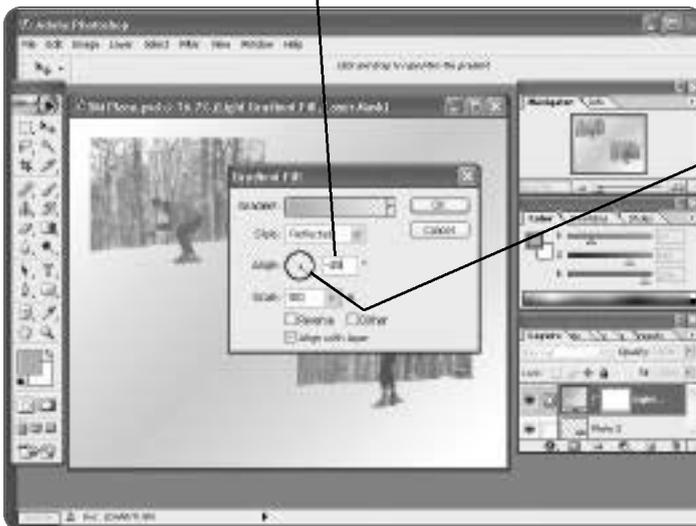
**9.** Click on the **down arrow** beside the **Style box**, then **click** on a **gradient style**. Photoshop will apply the selected style.

## NOTE

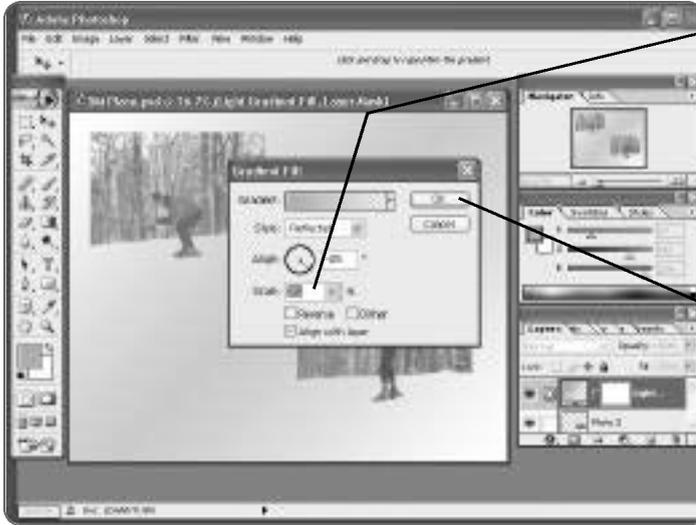
If needed, click on the down arrow beside the Gradient box, and then click on a new gradient to use. Photoshop will apply the selected gradient and its colors. If you click on the Gradient box itself, the Gradient Editor dialog box opens. You can use it to edit the gradient style, or click on the arrow button at the top right of the Presets section of the dialog box and then click on a choice at the bottom of the submenu that appears to see other gradient possibilities.

**10a.** Type a **new entry** into the **Angle text box**, if needed. Photoshop will adjust the gradient to the specified angle.

**OR**



**10b.** Drag the **bar** in the **Angle circle**. Photoshop will adjust the gradient to the specified angle.



**11. Type a new entry** into the **Scale text box**, if needed, or click on its arrow and then drag the slider for the setting. Photoshop will adjust the proportion of dark to light (or various colors) in the gradient.

**12. Click on OK.** Photoshop will close the Gradient Fill dialog box and create the new fill layer. Its name will appear in the Layers palette.

### NOTE

If your gradient layer appears on top of the other layers in the image and covers the objects from those layers, don't panic. See the later section called "Arranging Layer Order" to learn how to fix the problem.

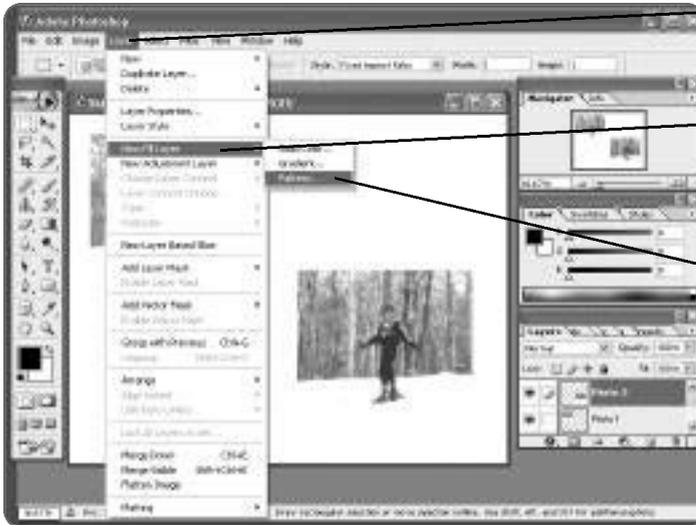
## Adding a Pattern Layer

Adding a pattern layer resembles adding each of the layer types just described. You can use one of the predefined patterns that comes with Photoshop or create your own pattern, as described in the next section.

### NOTE

You can load additional patterns using the Preset Manager, which was described in Chapter 7.

**1. Open or create the image file** into which you want to add a pattern layer. The image appears in its own window.

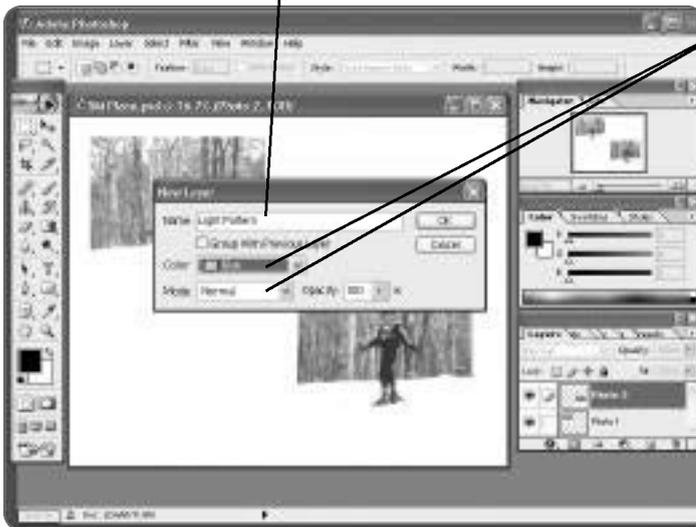


**2. Click on Layer.** The Layer menu will appear.

**3. Point to New Fill Layer.** The New Fill Layer submenu will appear.

**4. Click on Pattern.** The New Layer dialog box will open.

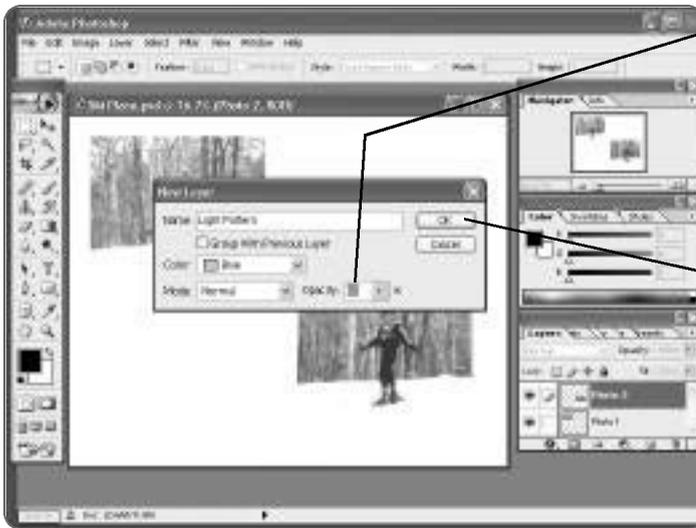
**5. Type a Name** for the layer into the **Name text box**. The specified name will be used for the layer.



**6. Make a choice** from the **Color** and **Mode** lists, if needed. Making a Color choice will apply a color to the new layer's listing in the Layers palette. Making a Mode choice will apply a *layer blending mode*, which controls how the individual pixels on the layer blend with pixels on other layers.

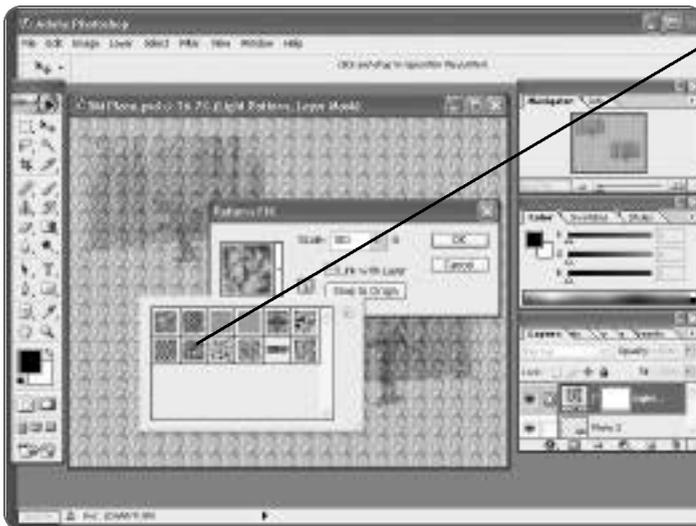
## TIP

Depending on the choice you make from the Mode list, you may have to make other layers, such as the Background layer, transparent. To do so, double-click on the layer in the Layers palette, change the Opacity setting to 0, and then click on OK.

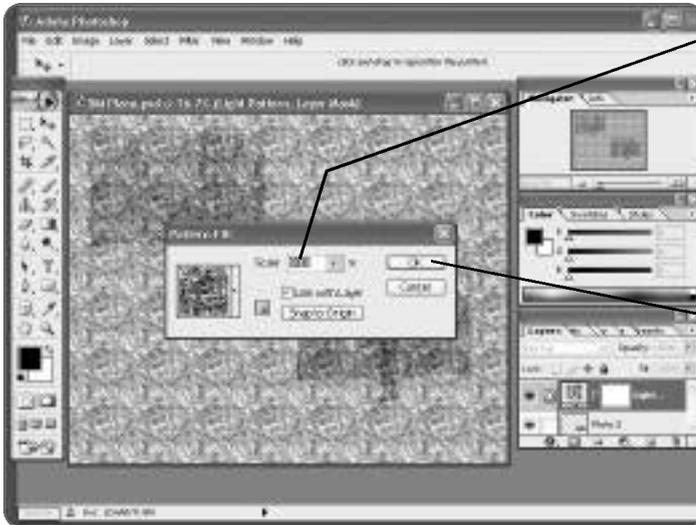


**7.** Type a new entry into the **Opacity text box**, if needed, or click on its arrow, drag the slider, and click on the arrow again. Photoshop will make the layer's contents more transparent.

**8.** Click on **OK**. Photoshop will close the New Layer dialog box and open the Pattern Fill dialog box.

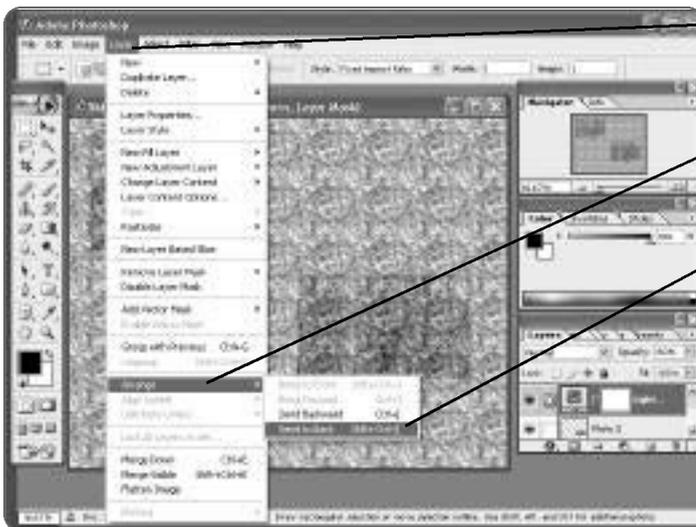


**9.** If needed, click on the **down arrow** beside the **Pattern Picker box**, click on a **pattern** in the palette that appears, and then click on the **down arrow** again. Photoshop will apply the selected pattern.



**10. Type a new entry** into the **Scale text box**, or click on its arrow, drag the slider, and click on the arrow again. Photoshop will adjust the size of the repeated pattern section accordingly.

**11. Click on OK.** Photoshop will close the Pattern Fill dialog box and display the new fill layer. Its name will appear in the Layers palette.



**12. Click on Layer.** The Layer menu will appear.

**13. Point to Arrange.** The Arrange submenu will appear.

**14. Click on Send to Back.** The new layer will shift to the back of the available layers.

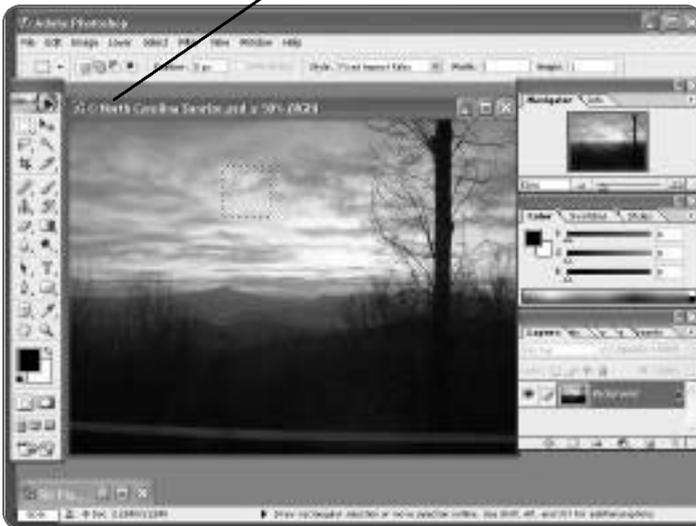
## Creating Patterns

If none of the patterns provided with Photoshop suits your needs, you can create your own using one of two methods: *sampling a pattern* or using the *Pattern Maker plug-in*.

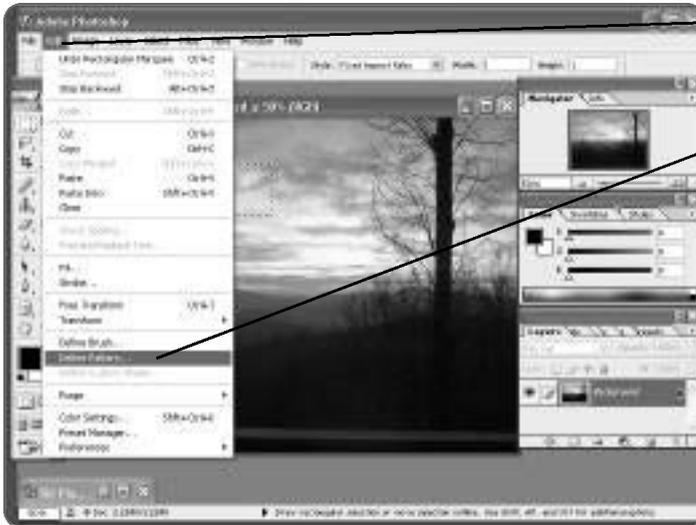
### Sampling a Pattern

You create a pattern “on the fly” and then use it to create a pattern layer. The new pattern immediately becomes part of the library of available patterns.

**1. Open or create the image file** that holds the area to use as the pattern. The image appears in its own window.



**2. Select the area** to use as a pattern using the selection tool of your choice. The selection marquee will appear.

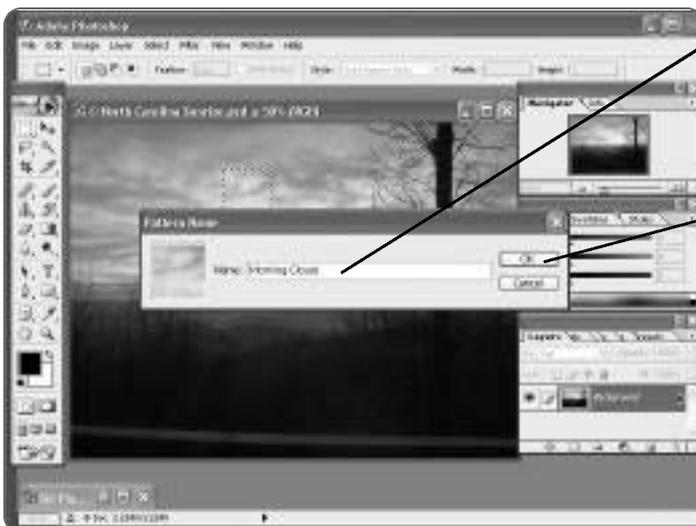


**3. Click on **Edit**.** The Edit menu will appear.

**4. Click on **Define Pattern**.** The Pattern Name dialog box will open.

### NOTE

If the Define Pattern command is disabled, it's probably because the image bit depth is set to 16 Bits/Channel, the typical setting for many scanners. To enable the Define Pattern command, you have to convert the image to 8 Bits/Channel by choosing Image, Mode, 8 Bits/Channel.



**5. Type a name** for the pattern in the **Name text box**. Photoshop will use the name you specify to identify the pattern.

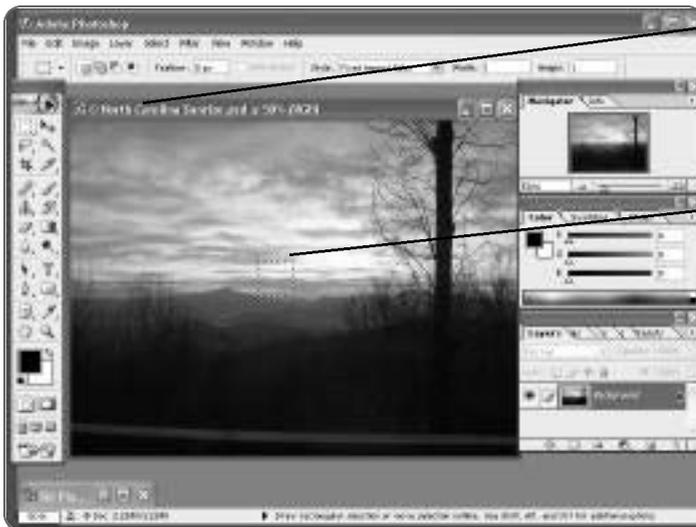
**6. Click on **OK**.** The Pattern Name dialog box will close.

## Organizing Your Patterns in a Custom Library

After you create one or more patterns, you can use the Preset Manager to save a new library with your custom patterns. Choose Edit, Preset Manager. Choose Patterns from the Preset Type drop-down list. Click on one of the patterns you created, and then click on the Save Set button. Enter a File Name for the pattern library in the Save dialog box, and then click on Save. Click on the Load button, click on the name of the new pattern library file, and then click on Load. This loads the new library. You can right-click on any pattern and then click Delete Pattern to remove it from the library; just save the library again to preserve your changes. Click on the Done button to close the Preset Manager dialog box when you finish.

## Using the Pattern Maker Plug-In

The Pattern Maker plug-in enables you to preview a pattern and alter it slightly before you save it as a preset. Follow these steps to create a basic pattern with the Pattern Maker plug-in.



- 1. Open or create the image file** that holds the area to use as the pattern. The image appears in its own window.
- 2. Select the area** to use as a pattern using the selection tool of your choice. The selection marquee will appear.



**3. Click on **Edit**.** The Edit menu will appear.

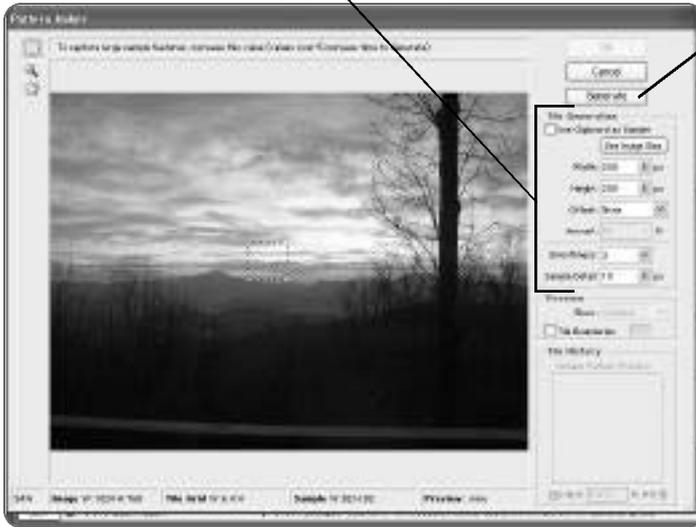
**4. Click on **Copy**.** Photoshop will copy the selection, so that you can use it as the new pattern.



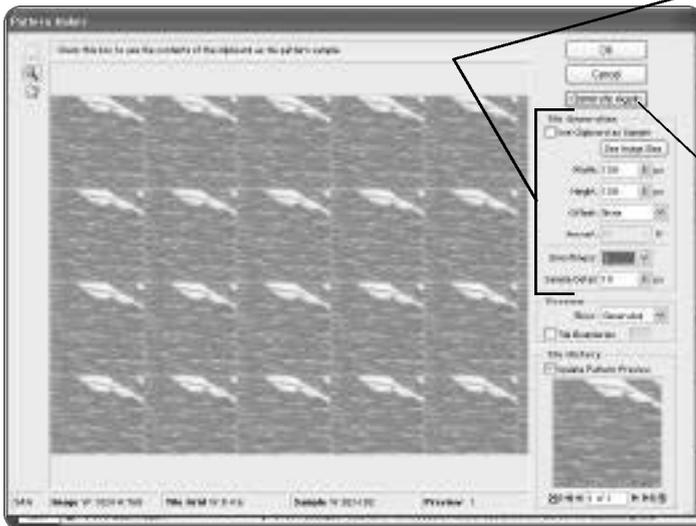
**5. Click on **Filter**.** The Filter menu will appear.

**6. Click on **Pattern Maker**.** The Pattern Maker window will open.

**7. Change settings** such as the tile Width, Height, Smoothness, and Sample Detail as needed. The Pattern Maker will apply those settings when you generate the pattern tile preview.



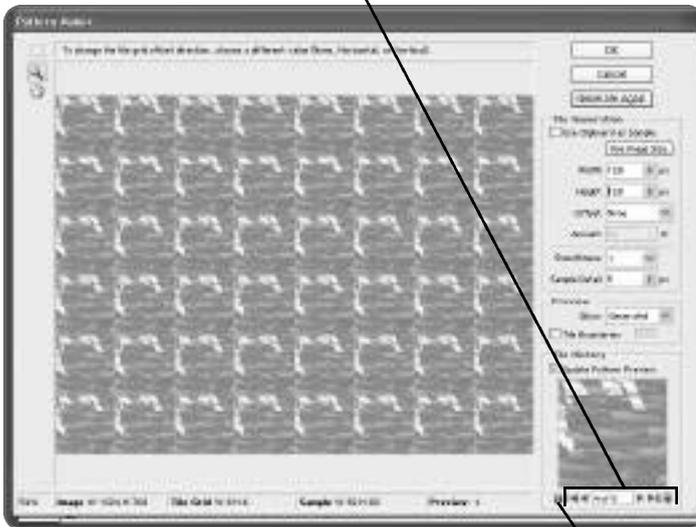
**8. Click on Generate.** The Pattern Maker window will preview the pattern, both as a single tile in the Tile History area and as an applied pattern in the main portion of the dialog box.



**9. Change settings** again as needed. The Pattern Maker will apply those settings when you regenerate the pattern tile preview.

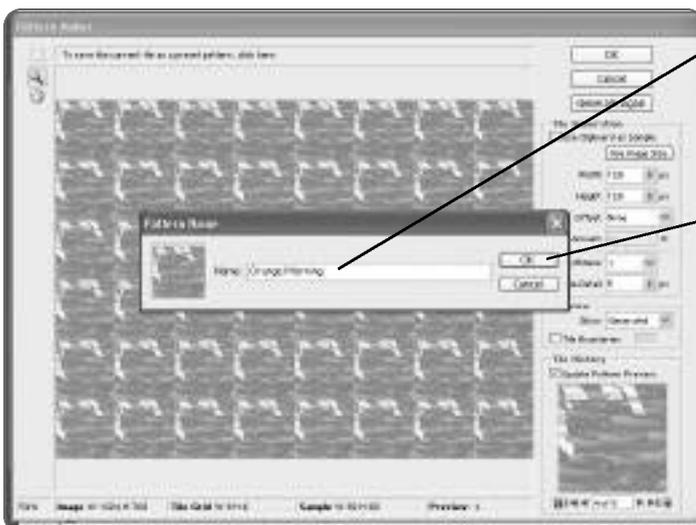
**10. Click on Generate Again.** The Pattern Maker window will preview the pattern, both as a single tile in the Tile History area and as an applied pattern in the main portion of the dialog box.

**11. Click on buttons** in the **Tile History** area as needed. The preview that you want to save as a pattern preset will appear. From left to right, the buttons (which work like similar navigation buttons in other programs) are:



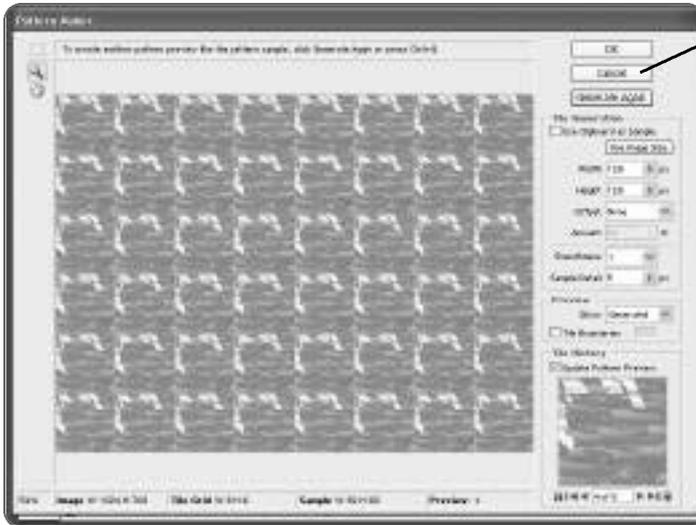
- **First Tile.** Displays the first sample you generated.
- **Previous Tile.** Displays the sample you created immediately before the current sample.
- **Next Tile.** Displays the sample you created immediately after the current sample.
- **Last Tile.** Displays the final sample you created.

**12. Click on the Save Preset Pattern button.** The Pattern Name dialog box will open.



**13. Type a name** for the pattern in the **Name text box.** Photoshop will use the name you specify to identify the pattern.

**14. Click on OK.** The Pattern Name dialog box will close.



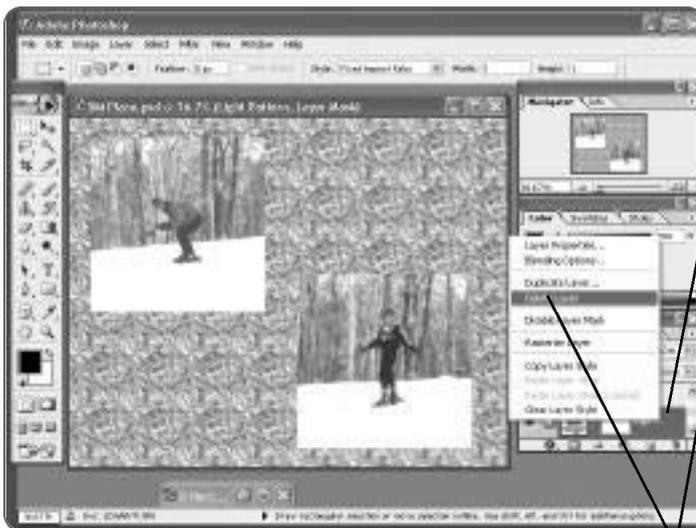
**15. Click on Cancel.** The Pattern Maker window will close.

### NOTE

If you click on OK rather than Cancel in Step 15, Photoshop will replace the contents of the current layer with the tiled new pattern.

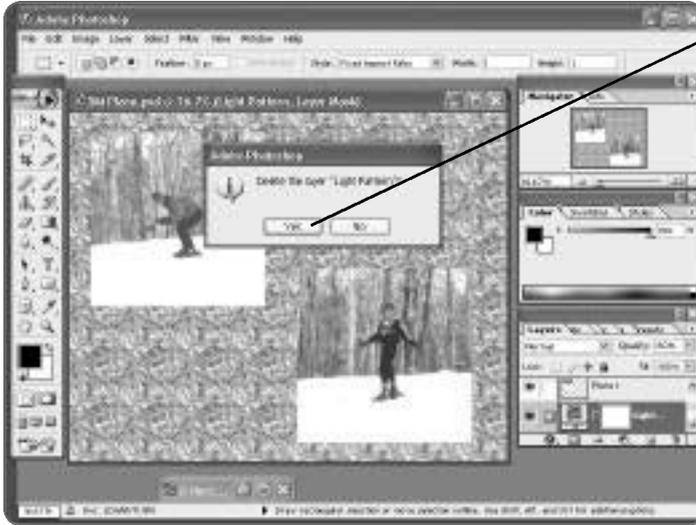
## Deleting a Layer

When you want to remove a layer from an image, it's fastest to use the Layers palette, as detailed here.



**1. Right-click on the layer to delete** in the **Layers palette**. A shortcut menu will appear.

**2. Click on Delete Layer.** A warning message box will open.



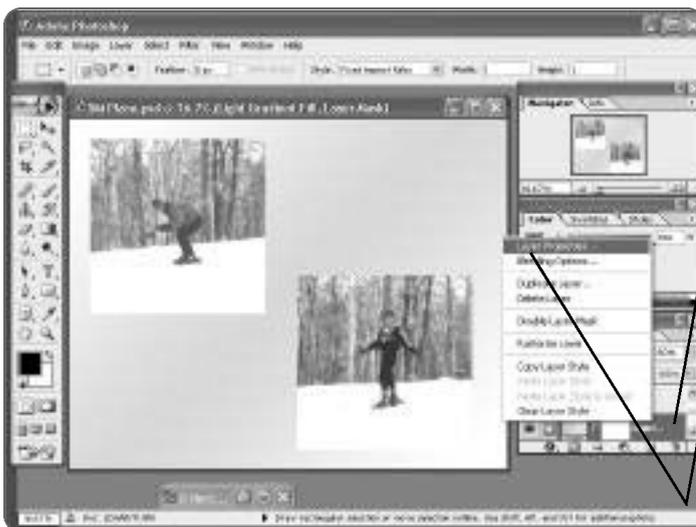
**3. Click on Yes.** Photoshop will complete the deletion.

## NOTE

Be sure to right-click to the right of the layer name in the Layers palette to display the proper shortcut menu. If you select a layer in the Layers palette, you also can use the Delete Layer command on the Layer menu to delete it.

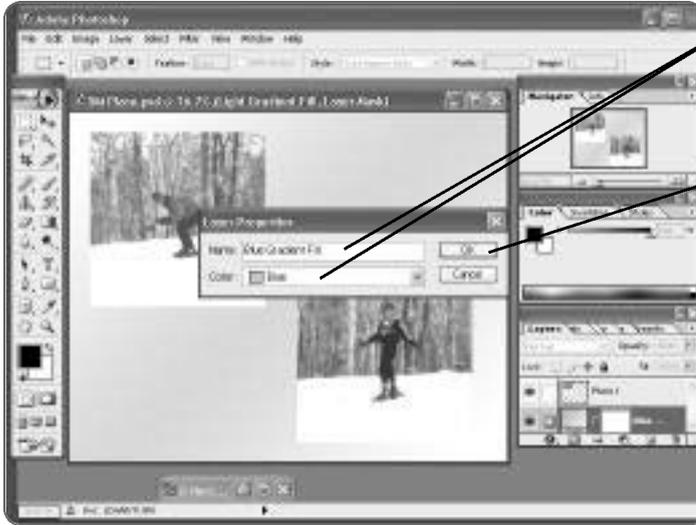
# Setting Layer Properties

The layer properties include the layer's name and the color used to identify the layer in the Layers palette. You can change either of these settings as needed.



**1. Right-click** on the **desired layer** in the **Layers palette**. A shortcut menu will appear.

**2. Click on Layer Properties.** The Layer Properties dialog box will open.

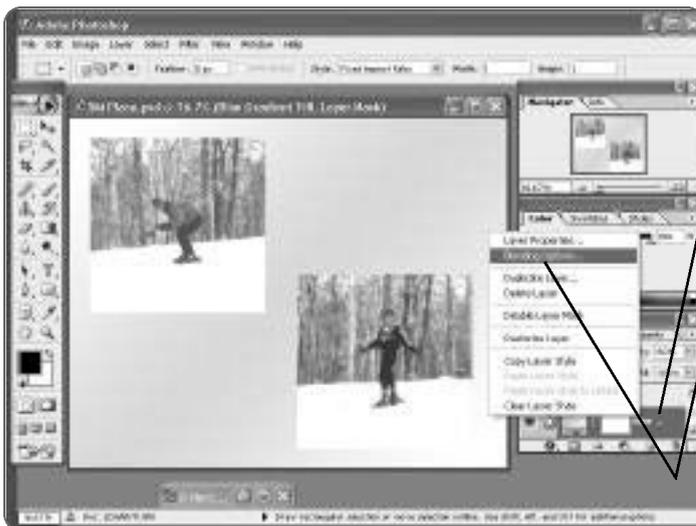


**3. Change Name and Color settings** as needed. Photoshop will display the changes.

**4. Click on OK.** Photoshop will apply the changes.

## Choosing a Layer Style

The layer style consists of some of the settings you made when creating the layer, such as its opacity and blend mode. The style also includes special effects you might want to add to the layer's contents.



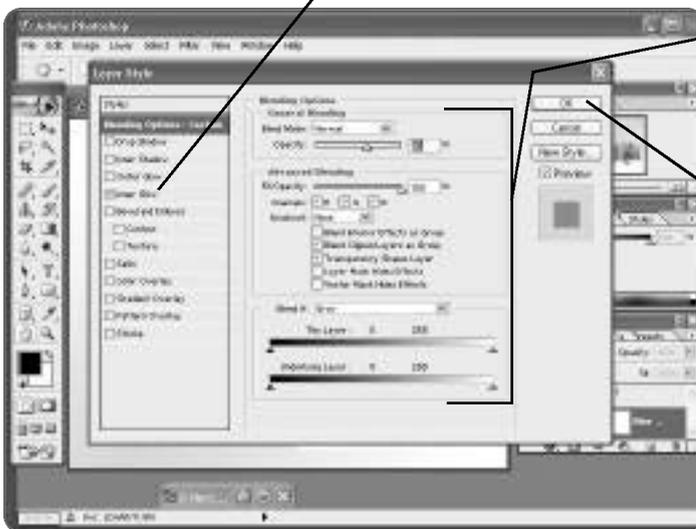
**1. Right-click** on the **desired layer** in the **Layers palette**. A shortcut menu will appear.

**2. Click on Blending Options.** The Layer Style dialog box will open.

**TIP**

You can change the style for any layer, not just fill layers. The style (effect) you choose applies to the layer contents, whether those contents include text, objects you've drawn, or scanned photos.

**3. Click on a style in the Styles list.** Photoshop will check the style (effect) to indicate that it's selected.



**4. Change Blending Options** as needed. The Preview will change to show the impact of your changes.

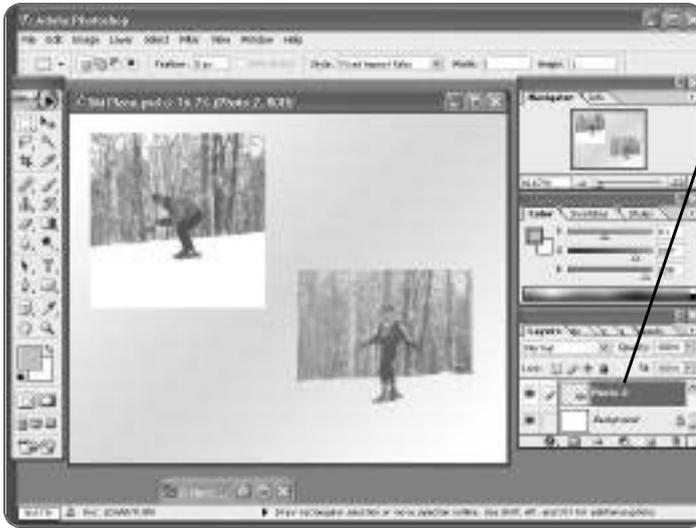
**5. Click on OK.** Photoshop will close the Layer Style dialog box and apply the changes. The Layers palette will show the effects applied to the layer.

**TIP**

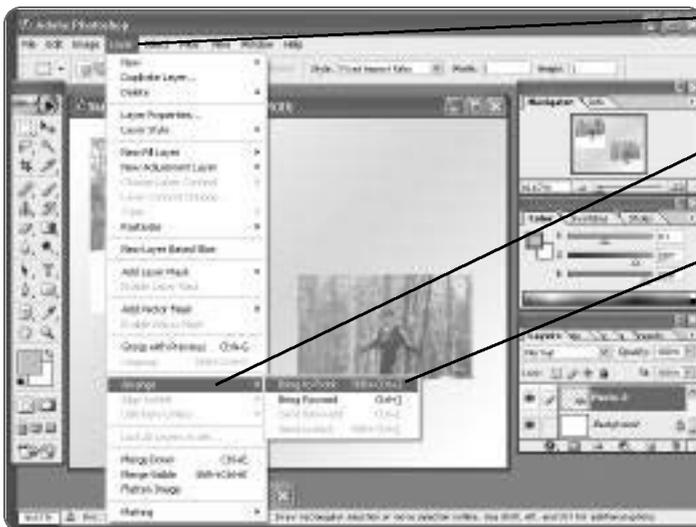
You also can click on a layer, and then click on the Add a Layer Style button in the bottom-left corner of the Layers palette to add a style (effect) without changing other layer settings.

## Arranging Layer Order

You need to arrange layers to control how the various layer contents relate to one another and which portions of one layer might hide areas on another layer.



**1. Click on the layer to move in the Layers palette.** Photoshop will select the layer.



**2. Click on Layer.** The Layer menu will appear.

**3. Point to Arrange.** The Arrange submenu will appear.

**4. Click on an arrangement choice.** For example, you might want to click on Send to Back to send a fill layer all the way to the back of the layers stack. Photoshop will apply the new layer position immediately.

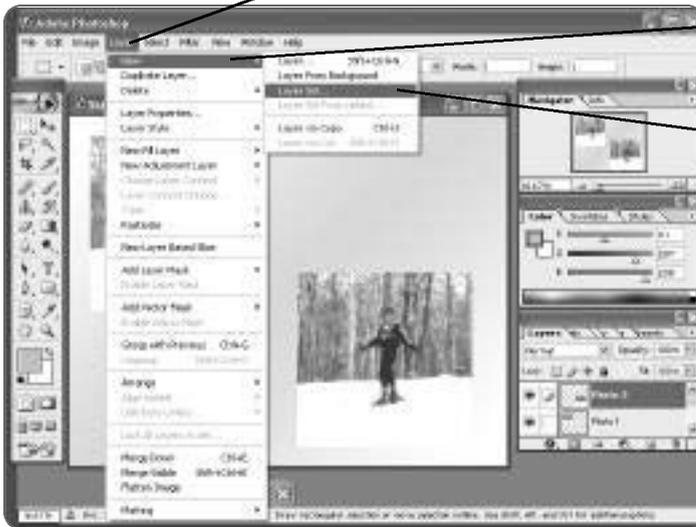
**TIP**

Press and hold Ctrl and then click a layer in the Layers palette to select the layer contents. This places a selection marquee around the layer's contents in the image window.

## Grouping and Ungrouping Layers

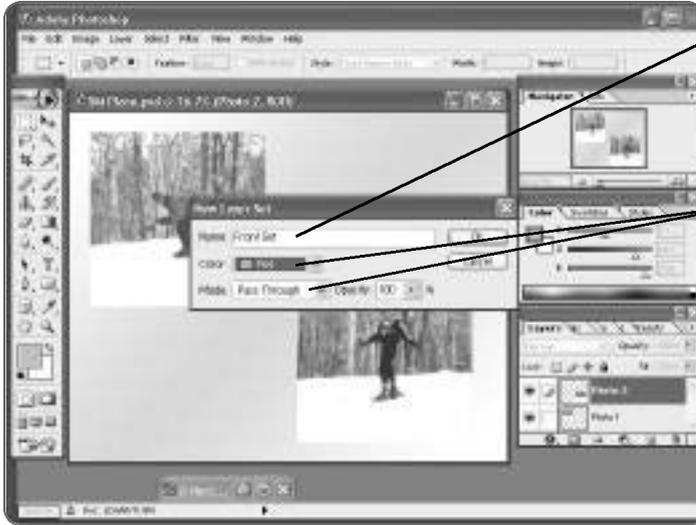
You group layers by creating a *layer set* and then dragging the layers into and out of the set on the Layers palette.

**1. Click on Layer.** The Layer menu will appear.



**2. Point to New.** The New submenu will appear.

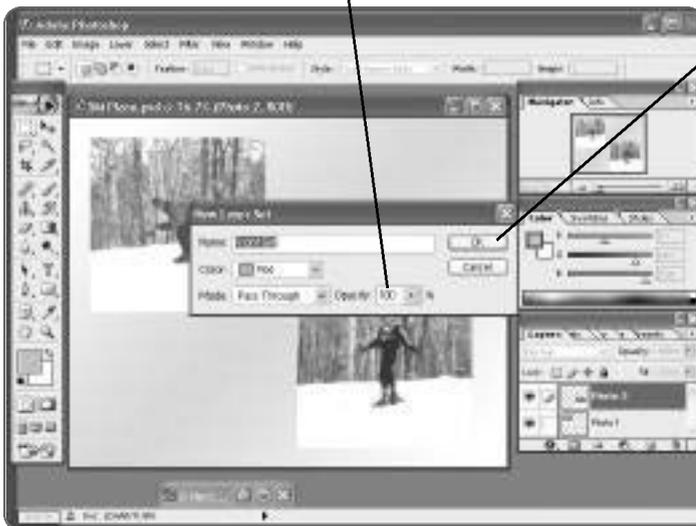
**3. Click on Layer Set.** The Layer Set dialog box will appear.



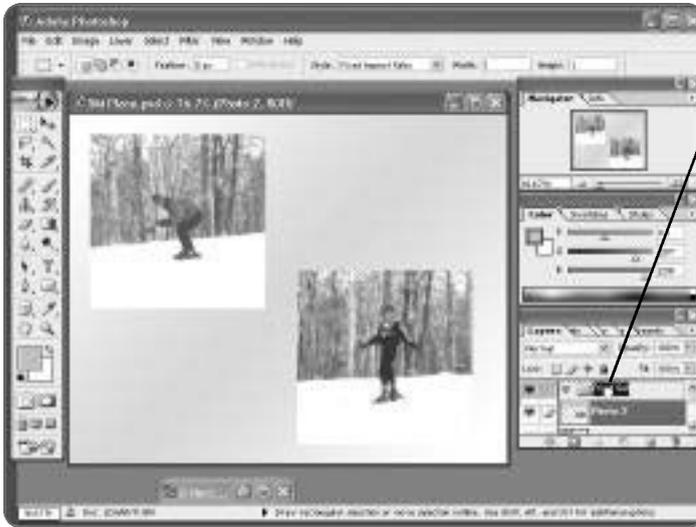
**4. Type a Name** for the set into the **Name text box**. The specified name will be used for the set.

**5. Make a choice** from the **Color** and **Mode** lists, if needed. Making a color choice will apply a color to the new set's listing in the Layers palette. Making a Mode choice will apply a blending mode, which controls how the individual pixels on the layers in the set blend with pixels on other layers in the set.

**6. Type a new entry** into the **Opacity text box**, if needed, or click on its arrow, drag the slider, and then click on the arrow again. Photoshop will make the set's contents more transparent.



**7. Click on OK**. Photoshop will close the New Layer dialog box and create the new layer, which will appear in the Layers palette.



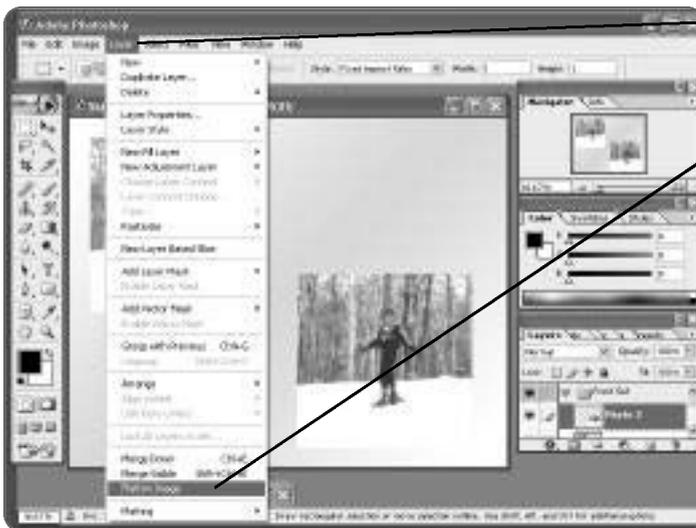
**8. Drag a layer name and drop it onto the set name in the Layers palette.** The layer will be added into the set.

**NOTE**

To remove a layer from the set, drag it back off the set and drop it elsewhere in the list on the Layers palette.

## Flattening the Image

Flattening the image combines all the layer contents on a single layer, which can make the file size more compact. Use this process only if you're finished editing your image, and undo the action immediately if you've done it by mistake.



**1. Click on Layer.** The Layer menu will appear.

**2. Click on Flatten Image.** Photoshop immediately combines the contents of all the layers onto a single layer.

**NOTE**

Click on Edit, then click on Undo Flatten Image (or press Ctrl+Z) to separate the image back into layers. Or, use the History palette to undo the Flatten Image command.

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# 9

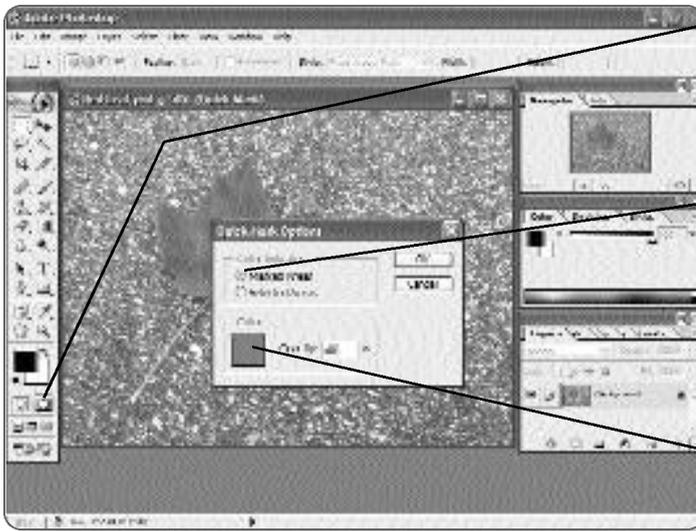
## Adding Variety with Masks

If you've ever taped off an area while you're doing a painting project to protect that area from drips and spatters, you've created a mask. In Photoshop, you apply a mask to designate part of an image for changes, but shield (mask) the unselected areas against those changes. In this way, you can apply different effects and filters in varying portions of the image or layer. Read on to see how to:

- Set options for a quick mask
- Work in Quick Mask mode
- Create and use a layer mask
- Explore mask examples

## Changing Quick Mask Options

Before you change to Quick Mask mode, you can set a few different options that affect how Quick Mask mode behaves.

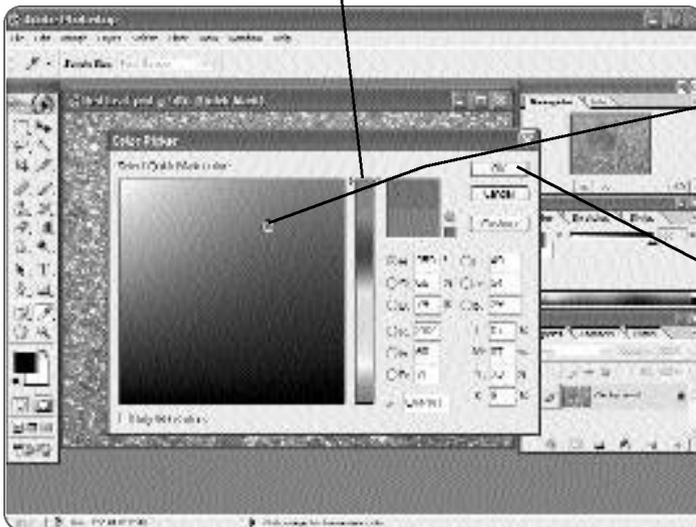


**1. Double-click** on the **Quick Mask mode button** on the toolbox. The Quick Mask Options dialog box will open.

**2. Click** on an **option** in the Color Indicates area. Photoshop will apply the mask color to either the Masked Areas or Selected Areas in the image, depending on your selection.

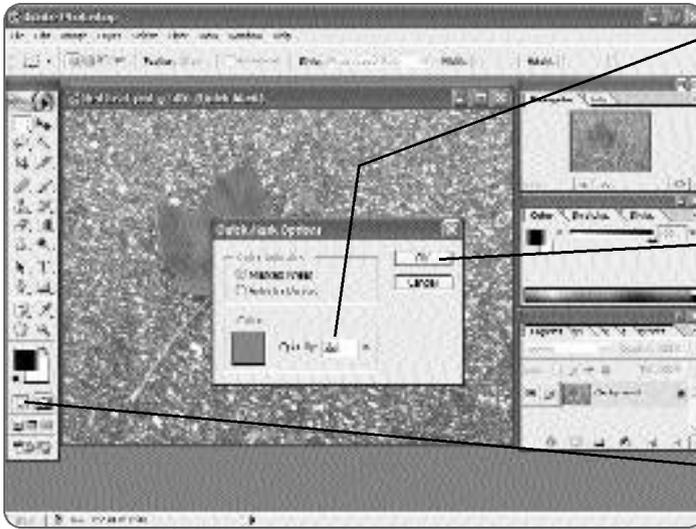
**3. Click** on the **Color box**. The Color Picker dialog box will open.

**4. Click** on a **color** in the narrow band of colors near the middle of the dialog box. Photoshop will display a different range of colors in the Select Quick Mask color box.



**5. Click** on a **color** in the **Select Quick Mask color box**. The color you click on will become the active mask color.

**6. Click** on **OK**. Photoshop will close the Color Picker dialog box and return to the Quick Mask Options dialog box.



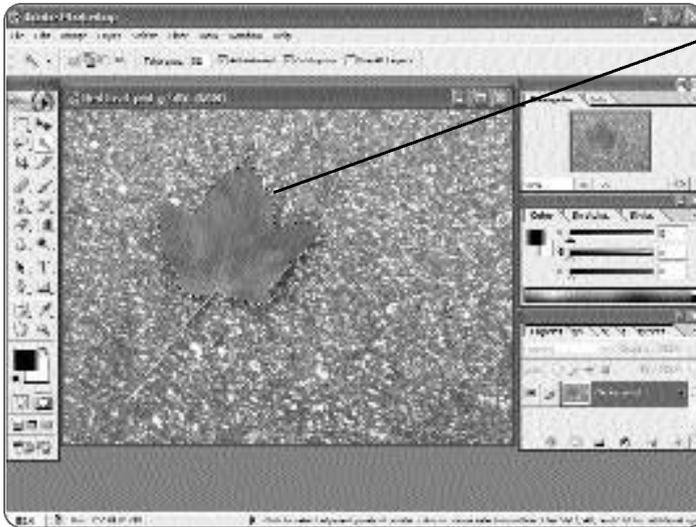
**7. Type a new entry** into the **Opacity text box**, if needed. Photoshop will make the mask color more or less transparent, depending on your entry.

**8. Click on OK.** Photoshop will close the Quick Mask Options dialog box and apply the new settings the next time you use Quick Mask mode.

**9. Click on the Standard mode button** on the toolbox. This turns off Quick Mask mode so that you can make a selection.

## Using Quick Mask to Adjust a Selection

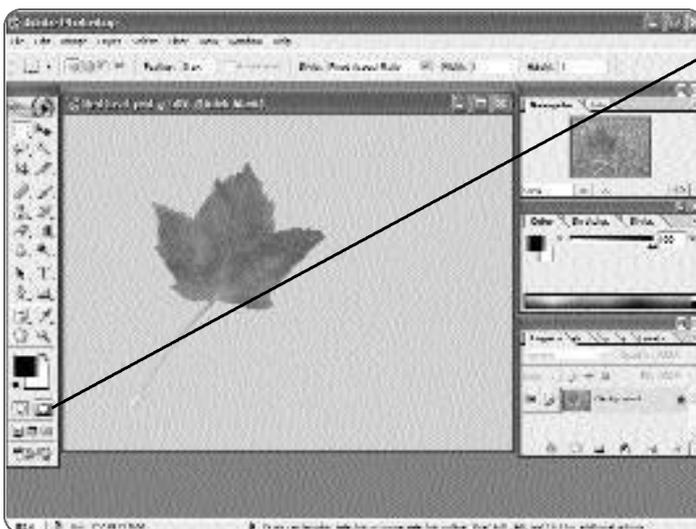
Quick Mask mode enables you to use a selection on the current layer as a temporary mask. Once you've masked the area, you can make the needed changes to the unmasked area, and then turn off Quick Mask mode to remove the mask.



**1. Make a selection** on the current layer using the selection method of your choice. The selection marquee will appear.

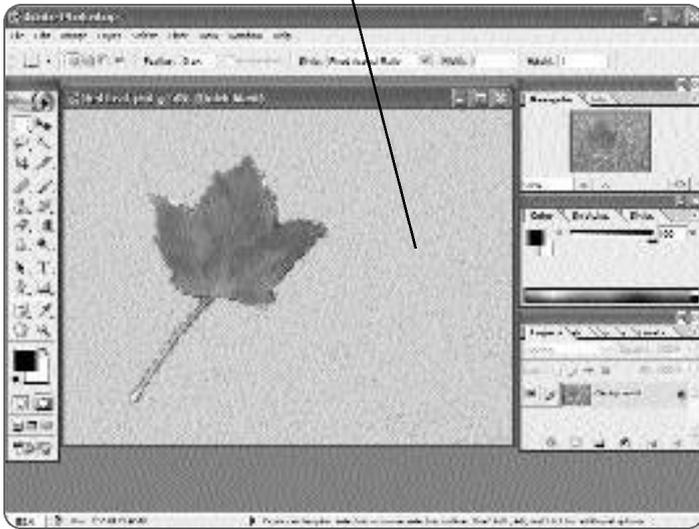
### TIP

See Chapter 5, "Selecting Image Content," to refresh your memory about the various selection methods. One trick is to select the area that you don't want to mask, click on **Select**, and then click on **Inverse** to select the image areas that previously were not selected. (The figure here shows an inverted selection.)



**2. Click on the Quick Mask mode button** on the toolbox. The Quick Mask mode will become active, and the mask color will appear over the masked area.

**3. Make the desired change** to the masked area, using a toolbox tool or filter. The mask boundaries will change accordingly. This example shows a mask with the Torn Edges filter applied.

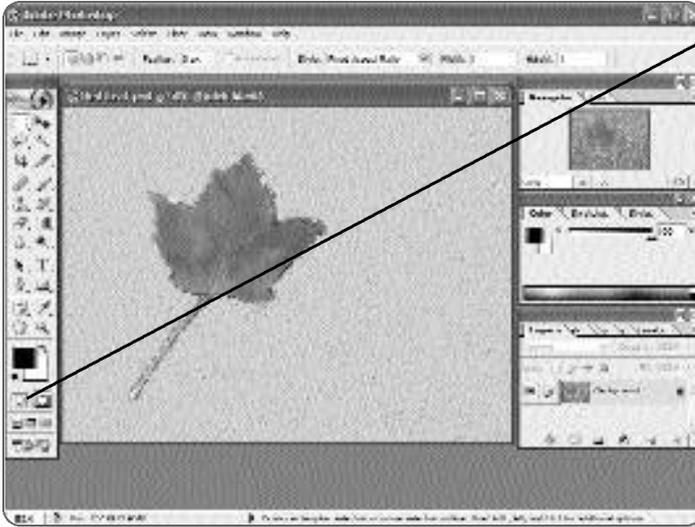


### TIP

Chapter 13, "Using a Filter," explains how to use the Photoshop filters. Applying some filters affects the unmasked area, or the entire layer, depending on the nature of the filter, so you may need to experiment a bit.

### NOTE

Paint or draw on the non-masked area with a color other than white to create a semi-transparent masked area. Use white to exclude an area from the mask, and black to add area to the mask (the hidden area).



**4. Click on the **Standard mode button** on the toolbox.** Photoshop will leave Quick Mask mode and return to the altered selection. You can then apply the needed changes to the selected areas, as described later under “Putting a Mask to Work.”

## Using Layer Masks

You can add a mask to a particular layer in the image so that you can hide part of the layer from display or even apply effects only to the area selected by the mask. By adding layer masks to various layers, you can mix and match effects as needed in the image.

You can’t add a layer mask to the background layer, so you may need to add another layer such as an adjustment layer or duplicate the background layer and delete the original to work with a layer mask on the background layer content itself. In some cases, you also may want to hide the background layer (by clicking on the eye icon beside it) to ensure that you can select only the image content that you want.

### NOTE

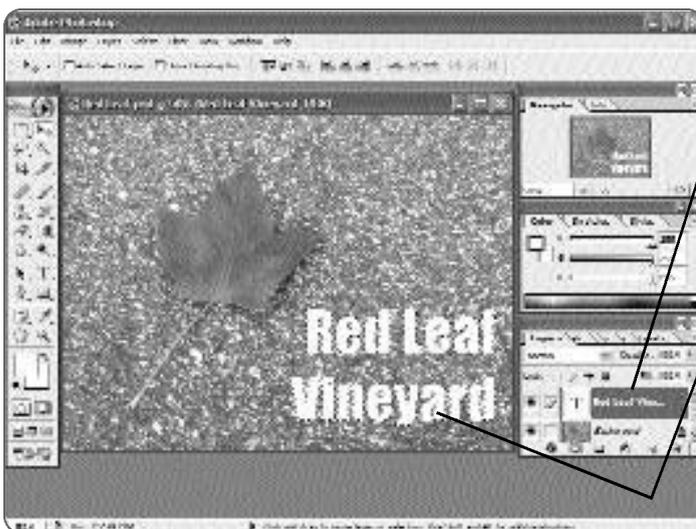
You also can create a special, color-related type of mask that’s called an *alpha channel*. See “Adding an Alpha Channel” in Chapter 16 to learn more.

## Creating a Mask on a Layer

Adding a mask on a layer will have different effects, depending on the layer's contents. For text layers, it enables you to select text and apply filters without *rasterizing* the text layer (that is, converting the layer to pixels rather than a vector layer, where objects are based on larger, resizable shapes). For layers with small photos, fills, and other objects, the layer mask excludes the information not contained within the mask area, so it doesn't display in the image. For adjustment layers like a hue/saturation layer, the mask enables you to adjust the image color only within the areas defined by the mask.

### NOTE

The examples in this chapter illustrate layer masks. You also can create vector masks to mask sharp shapes based on paths in an image. See the next chapter to learn how to add a path and use it to create a vector mask.

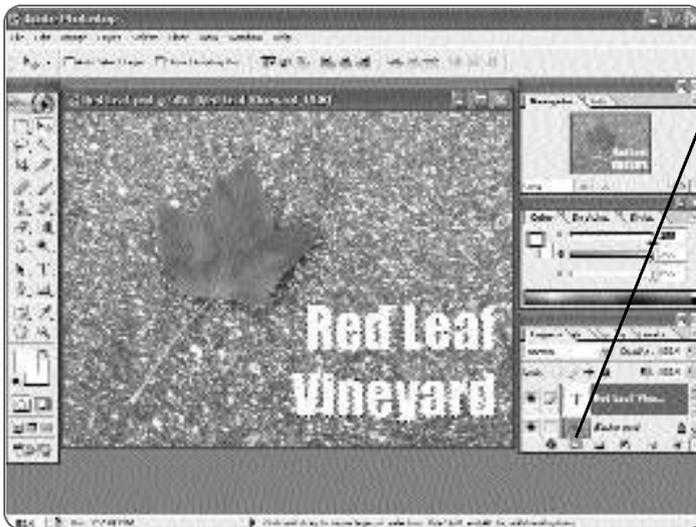


**1. Click on the layer** in the **Layers palette** to which you want to add a mask. The layer will become the current or active layer.

**2. Make a selection** on the **current layer** using the selection method of your choice. The selection marquee will appear.

**NOTE**

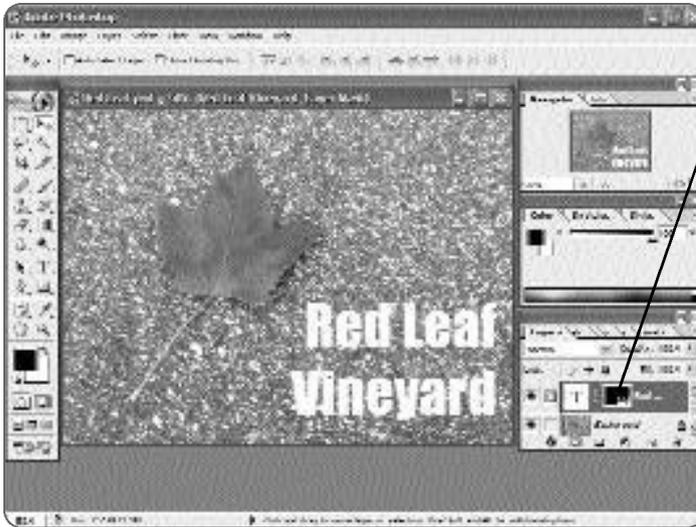
When you add certain types of layers, such as gradient fill layers, they automatically include a mask that includes all the layer content. It's often best to delete this mask by right-clicking on the mask thumbnail in the Layers palette, and then clicking on Discard Layer Mask. See the next section, "Changing or Trashing a Mask," for more information. If you try to add another mask without deleting the first one, Photoshop will add a clipping path instead. Chapter 10 describes what a clipping path is and how to use one.



**3. Click on the Add Layer Mask button** on the bottom of the Layers palette. Photoshop will create the mask immediately.

**TIP**

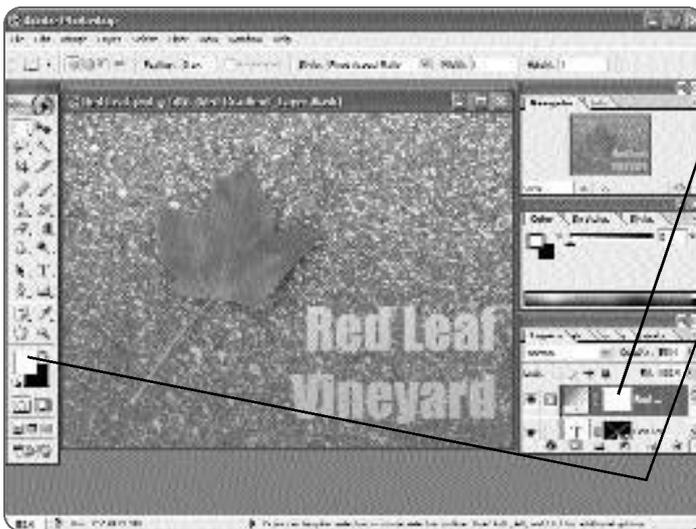
Press and hold the Alt key as you click to invert the selection in the mask.



**4. Review the mask thumbnail** in the **Layers palette**. The black area in the thumbnail will show the zone that the mask hides or excludes.

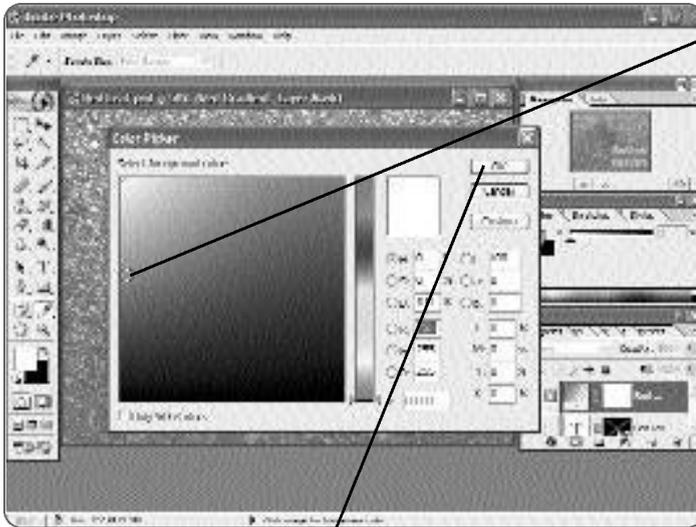
## Changing or Trashing a Mask

The selection on a layer mask isn't permanent once you've made it, so you can adjust the mask at a later time by painting or drawing. You also can delete a mask from a layer altogether.



**1. Click on the mask thumbnail** for the desired layer in the **Layers palette**. The mask (and layer) will become active.

**2. Click on the Set Foreground Color box** on the bottom of the toolbox. The Color Picker dialog box will open.



**3. Click** on the **color** to use for the mask edits (black, white, or gray) in the **Select foreground color** box. The color you select controls the effect of the edits you will make:

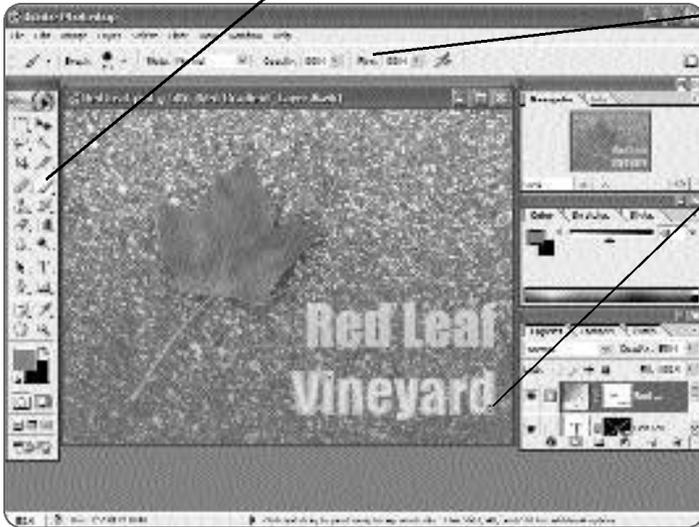
- White will reveal more of the layer, decreasing the amount of masked off area.
- Black will hide more of the layer, increasing the amount of masked off area.
- Gray will create a transparent area on the mask, so the area will be partially visible.

### NOTE

For solid color, gradient, and pattern fill layers, painting with white has no effect, because the entire layer is revealed. Painting with black hides the portion of the fill that you've painted over.

**4. Click** on **OK**. The Color Picker dialog box will close, and the color you selected will become active.

**5. Select the tool** to use in the **toolbox**. The tool will become the active tool.

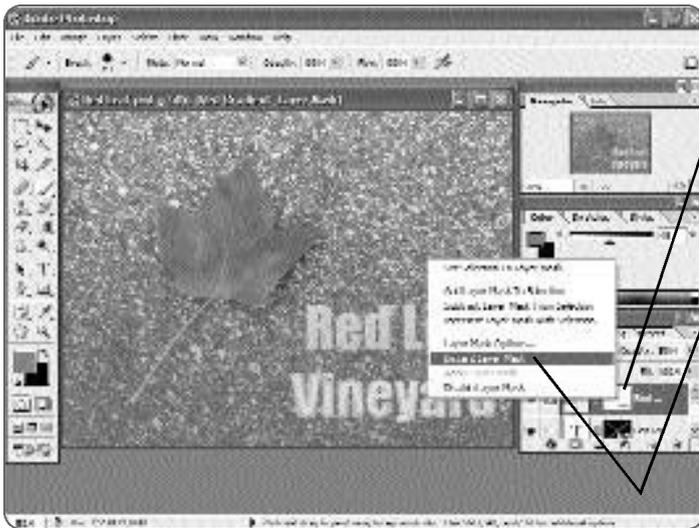


**6. Set tool options** on the **options bar**. The options you specify will become active.

**7. Draw or paint** on the **layer**. The mask will be altered accordingly.

**NOTE**

A fill layer may jump around a bit onscreen as you edit the mask. It should stabilize after you save your changes.



**8. Right-click** on the **thumbnail** for the mask to delete in the **Layers palette**. A shortcut menu will appear.

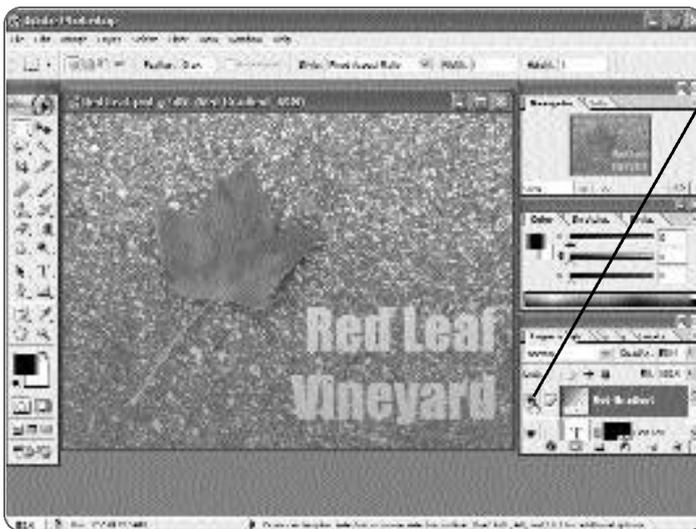
**9. Click on Discard Layer Mask**. Photoshop removes the layer mask immediately.

## Using a Selection from One Layer as a Mask on Another

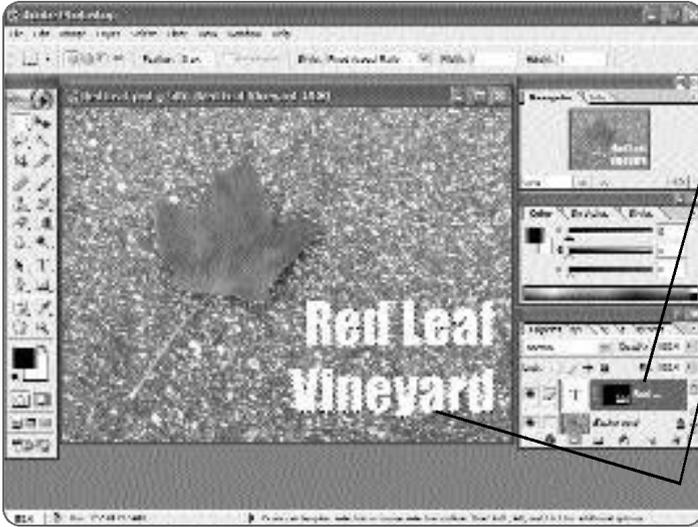
In some instances, the selection that you want to use to define a mask for a layer may appear on another layer instead of on the layer where you want to add the mask. For example, if you have a text layer and a gradient layer, you may want to mask out the gradient layer so that the gradient appears only over the text. The steps below illustrate that case while showing you how to use a selection from one layer to create a mask on another.

### CAUTION

Delete all other masks on the layer to which you want to copy a mask before beginning the steps.

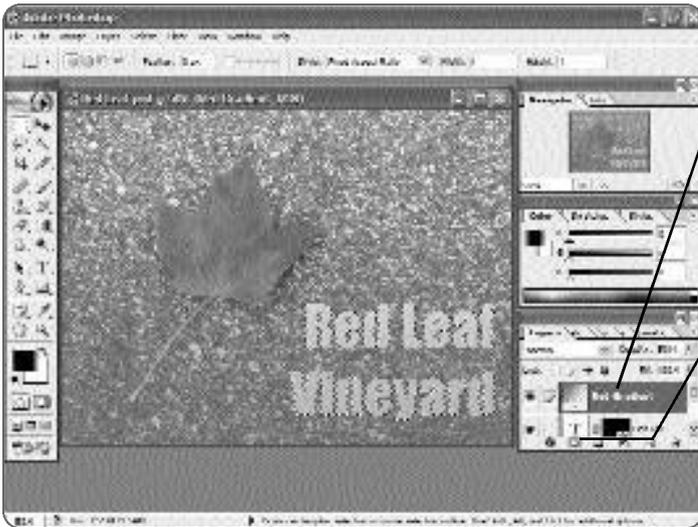


**1. Click on the eye icon** beside any layer to hide in the **Layers palette**. The eye icon will disappear and the layer will become hidden, making it easier for you to select content on another layer.



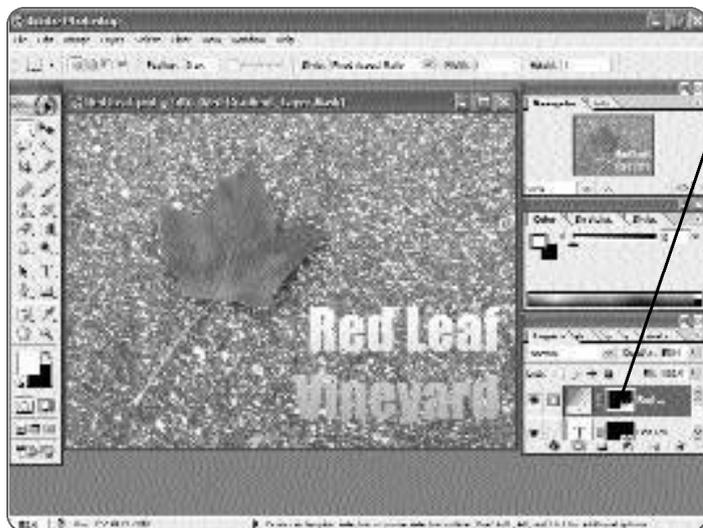
**2. Click** on the **layer** with the content to select in the **Layers palette**. The layer will become the current or active layer.

**3. Make** a **selection** on the **current layer** using the selection method of your choice. The selection marquee will appear.



**4. Click** on the **layer** in the **Layers palette** to which you want to add the mask. The layer will become the current or active layer, and it should become visible if you hid it in Step 1.

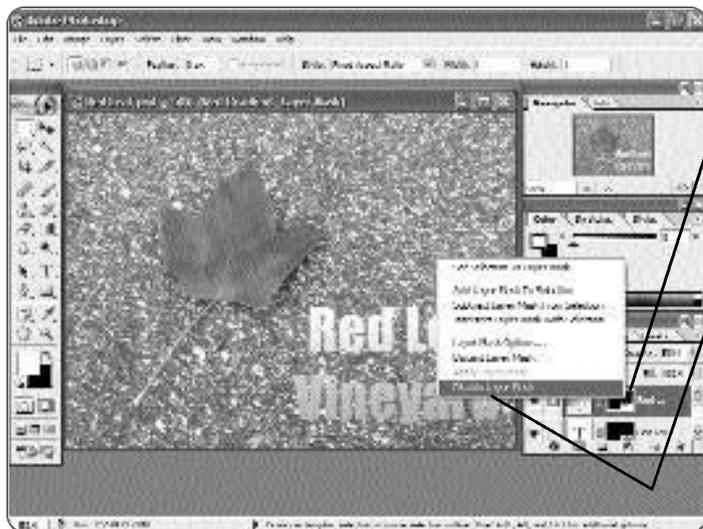
**5. Click** on the **Add Layer Mask button** on the bottom of the **Layers palette**. Photoshop will create the mask immediately.



**6. Review the mask thumbnail in the Layers palette.** The black area in the thumbnail will show the zone that the mask hides or excludes.

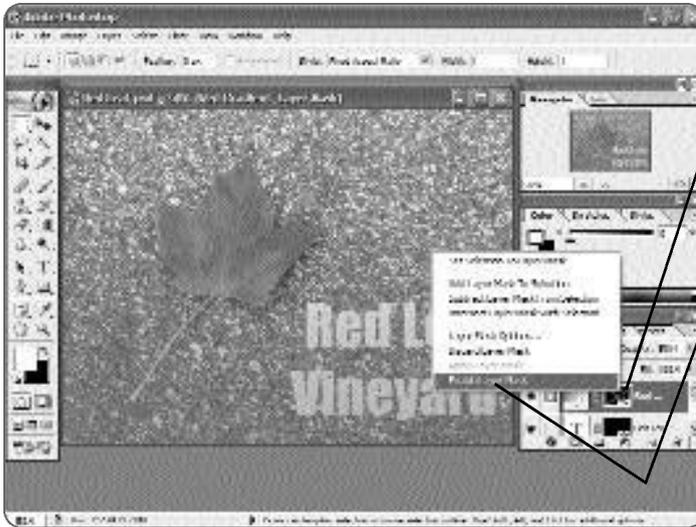
## Reviewing the Mask

You can disable and enable a layer mask as needed, so you can see how your image looks with and without the mask applied. The following steps show you the fastest way to control whether a mask appears.



**1. Right-click on the desired mask thumbnail in the Layers palette.** A shortcut menu will appear.

**2. Click on Disable Layer Mask.** Photoshop will disable the mask display immediately and will place a red X through the mask thumbnail.



**3. Right-click** on the **thumbnail for the mask** to enable in the **Layers palette**. A shortcut menu will appear.

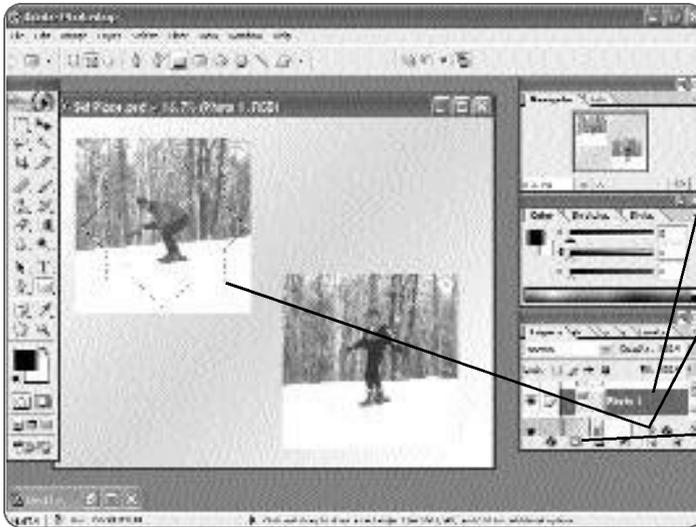
**4. Click on Enable Layer Mask.** Photoshop will reapply the mask immediately, and the image display will be affected accordingly.

## Putting a Mask to Work

As was noted earlier in this chapter, a layer mask may behave a bit differently or enable you to do different things, depending on the nature of the layer where you added the mask. This section reviews two examples of how you can use layer masks to adjust or enhance selected content in an image.

### Cropping a Photo

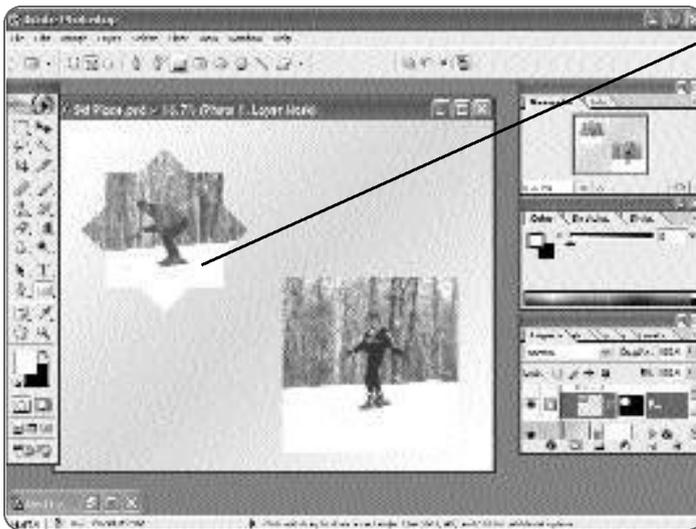
To use this technique, make sure the photo to crop appears on its own layer, not on the background layer.



**1. Click on the layer** in the **Layers palette** to which you want to add the mask. The layer will become the current or active layer.

**2. Make a selection** on the **current layer** using the selection method of your choice. The selection marquee will appear.

**3. Click on the Add Layer Mask button** on the bottom of the **Layers palette**. Photoshop will create the mask immediately.

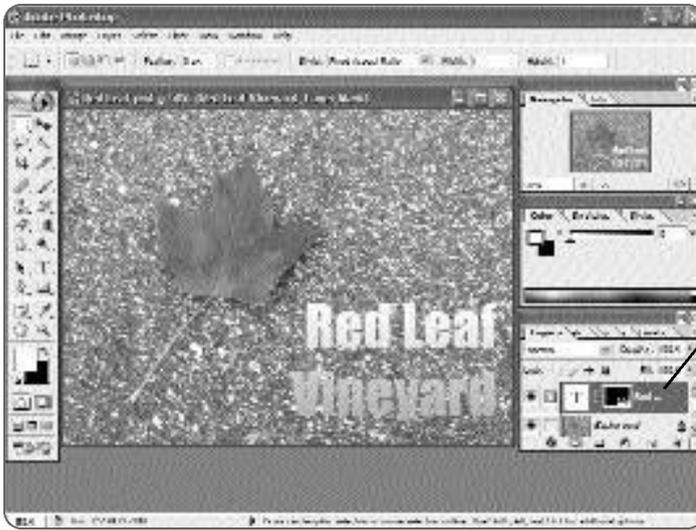


**4. Review the mask results** in the image. Photoshop will mask out the areas not included within the selection from which you created the mask.

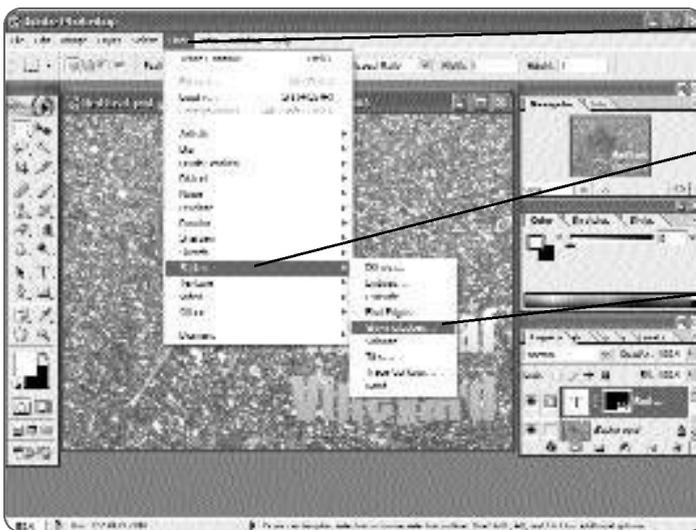
## Adding a Filter

When you apply a filter, it only affects the currently selected area. Because a mask in effect protects an area like a selection, applying a filter to a layer that has a mask on it filters only the

portions of the layer that aren't masked off. This is a particularly vital technique for text layers; with the mask, Photoshop would prompt you to rasterize the text layer, eliminating your ability to edit the text in the future.



**1. Click on the desired layer in the Layers palette.** The layer will become the current or active layer.

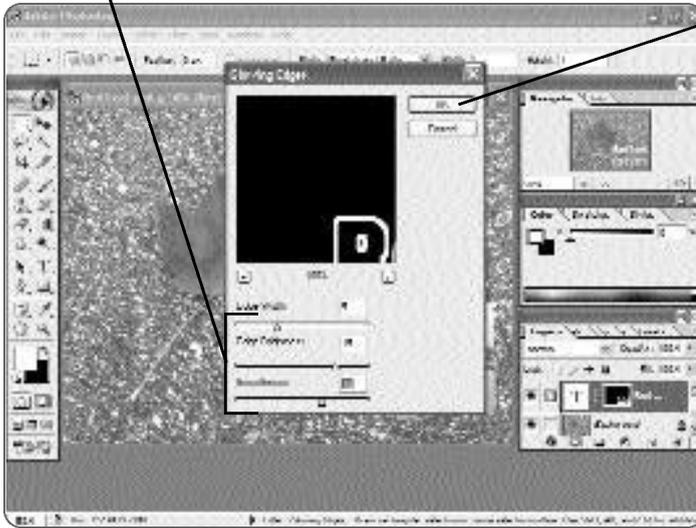


**2. Click on Filter.** The Filter menu will appear.

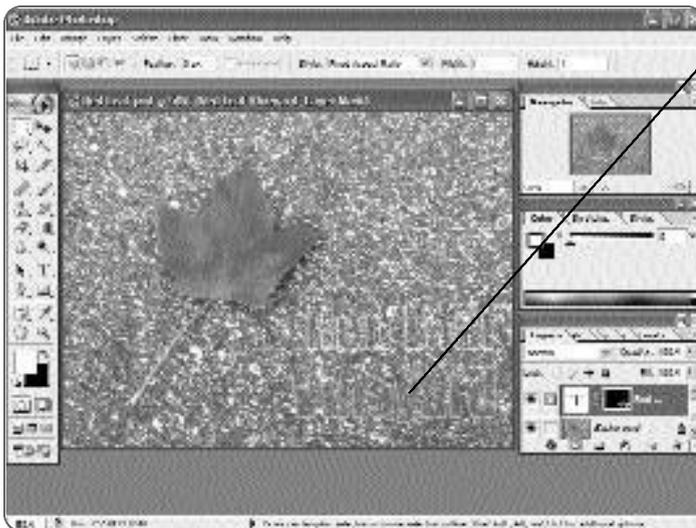
**3. Click on the filter command of your choice.** A submenu with specific filter choices will appear.

**4. Click on a filter in the submenu.** In most cases, a dialog box with options for the filter will appear.

**5. Set filter options** as needed. A preview in the dialog box will show how the filter will look when applied using the settings you specified.



**6. Click on OK.** The filter settings dialog box will close, and the filter will be applied to the layer contents not hidden or protected by the mask.

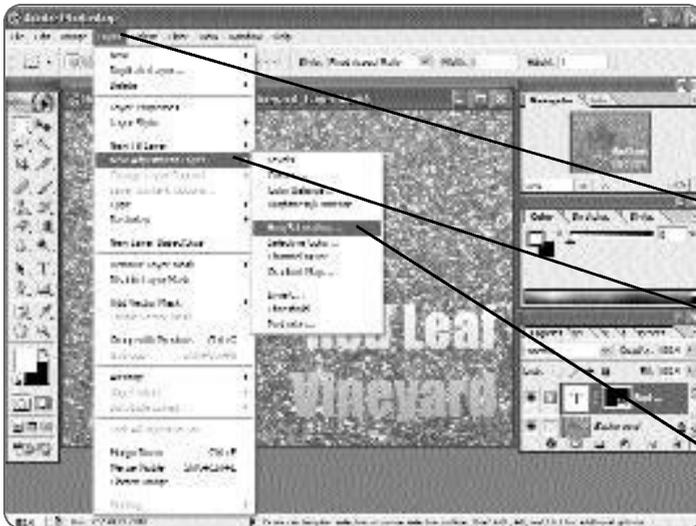


**7. Review the filter results** in the image. Photoshop will display the newly filtered areas.

## Recoloring Part of the Image

This mask technique works with a special color correction layer called an *adjustment layer*. (You'll learn more about working with colors in Chapters 15 through 17.) It enables you to make a color change on part of an image only. This example shows

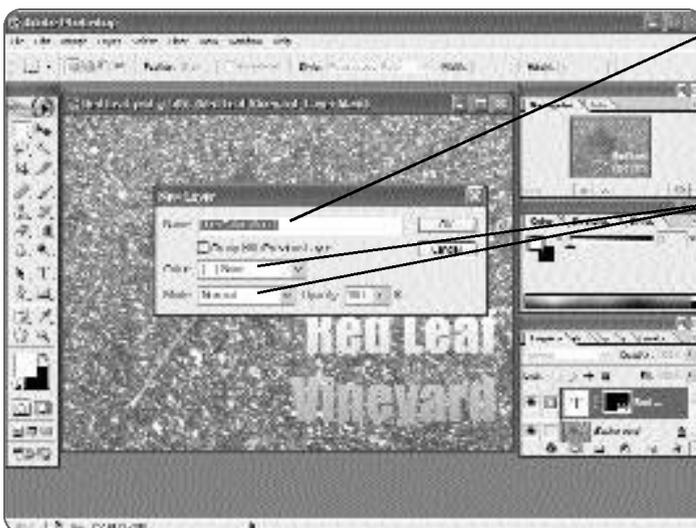
how to make a hue and saturation change, but you can make other changes depending on the nature of the adjustment layer you choose to use.



**1. Click on Layer.** The Layer menu will appear.

**2. Click on New Adjustment Layer.** A submenu with specific layer choices will appear.

**3. Click on Hue/Saturation** in the submenu. The New Layer dialog box will appear.



**4. Type a Name** for the layer into the **Name text box**. The specified name will be used for the layer.

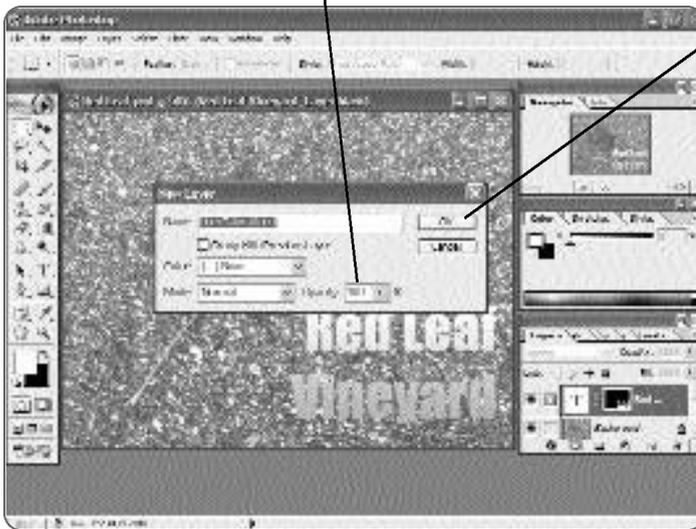
**5. Make a choice** from the **Color** and **Mode lists**, if needed. Making a Color choice will apply a color to the new layer's listing in the Layers palette. Making a Mode choice will apply a *layer blending mode*, which controls how the individual pixels on the layer blend with pixels on other layers.

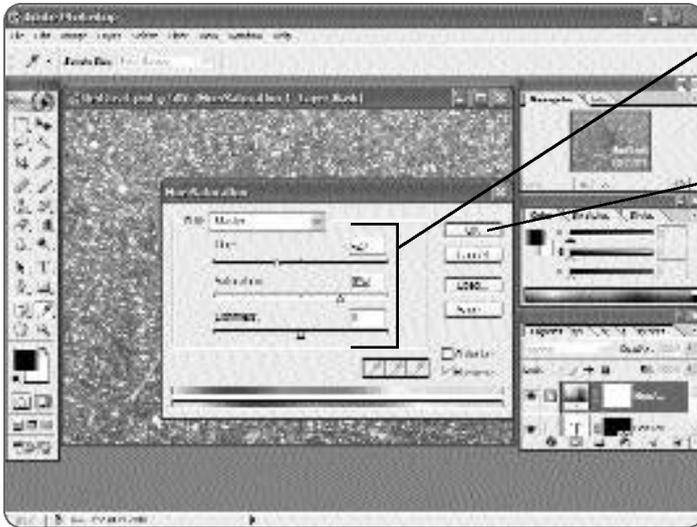
**TIP**

Depending on the choice you make from the Mode list, you may have to make other layers, such as the Background layer, transparent. To do so, double-click on the layer in the Layers palette, change the Opacity setting to 0, and then click on OK.

**6. Type a new entry** into the **Opacity text box**, if needed, or click on its arrow, drag the slider, and click on the arrow again. Photoshop will make the layer's contents more transparent.

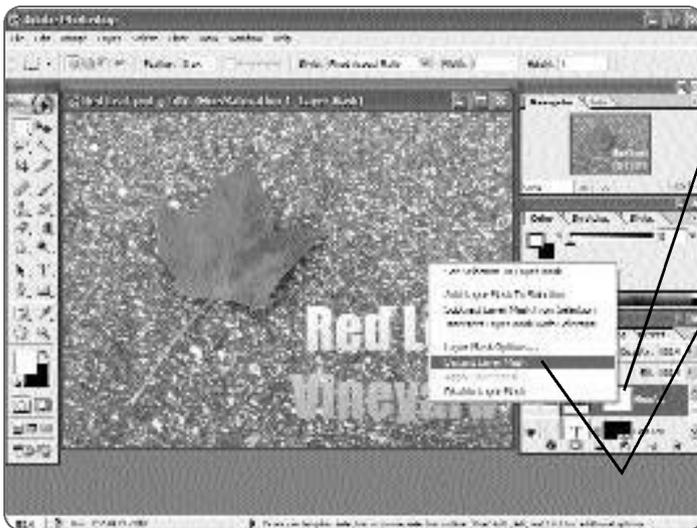
**7. Click on OK.** Photoshop will close the New Layer dialog box and open the Hue/Saturation dialog box.





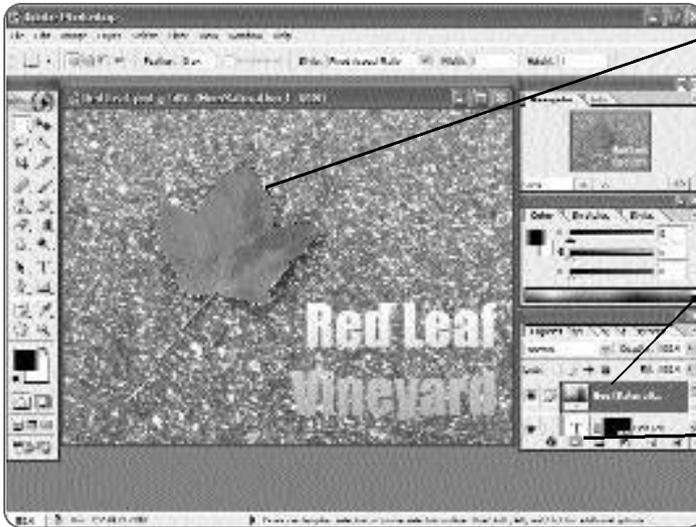
**8. Drag the sliders** as needed. The image will display the corrected color.

**9. Click on OK.** The Hue/Saturation dialog box will close.



**10. Right-click** on the thumbnail for the mask for the new hue/saturation layer in the **Layers palette**. A shortcut menu will appear.

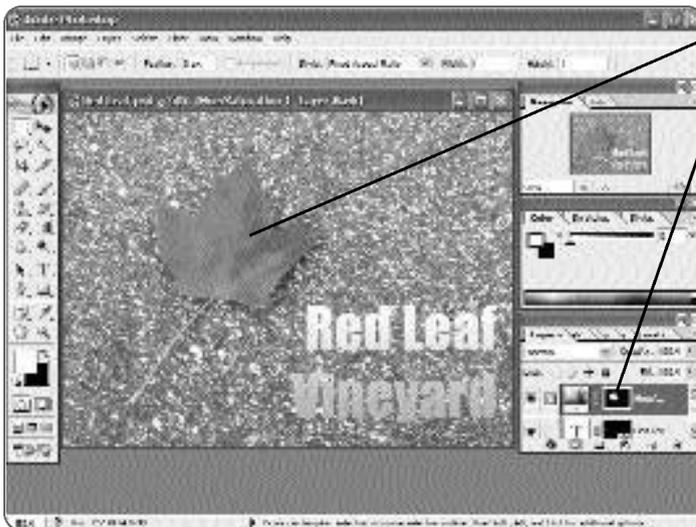
**11. Click on Discard Layer Mask.** Photoshop will remove the layer mask immediately.



**12. Make a selection** on the **layer** of your choice using the selection method of your choice. The selection marquee will appear.

**13. Click** on the **hue/saturation layer** in the **Layers palette**. It will become the current or active layer.

**14. Click** on the **Add Layer Mask** button on the bottom of the **Layers palette**. Photoshop will create the mask immediately.



**15. Review** the **mask results** in the image. Photoshop will apply the color correction to only the area not blocked by the mask.

## NOTE

If you double-click on the layer thumbnail (to the far left) for the hue/saturation layer, the Hue/Saturation dialog box reopens so you can further adjust the color correction in the areas not blocked by the mask.

# 10

## Using Paths

A *path* is essentially a vector-based selection outline in Photoshop. Because paths are vector-based (an outline rather than a selection of pixels), creating paths in an image file rather than saved selections will have less of a tendency to increase the file size. This can be beneficial if the file is a large scan, has dozens of layers, or is simply large because it's complex. You can use a path as a selection at any time, fill the path or color the path outline, or even use a special type of path to clip image content when you plan to reuse a file. This chapter shows you how to:

- Create various types of paths
- View and work with paths
- Fill a path or color the path outline
- Use a path to define a selection
- Use a clipping path to prepare an image for reuse in other files or settings

## Creating Paths

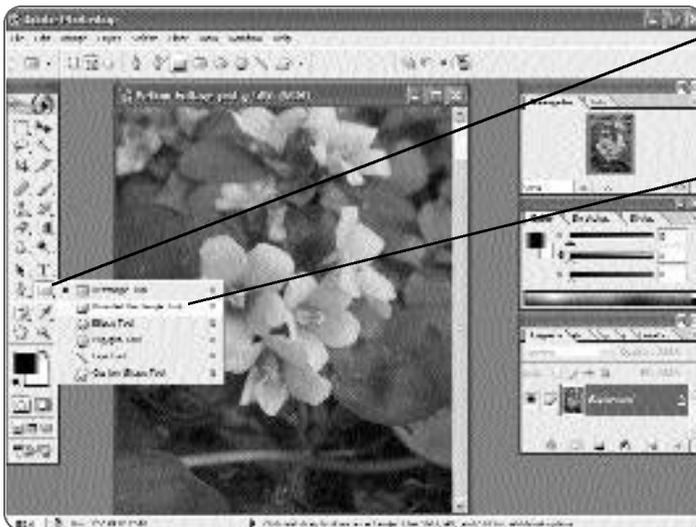
You use the Paths palette to save the paths you create, and use the pen tools and shape tools to actually draw each path. The tool you should use to create the path depends on the desired shape for the path.

### NOTE

Paths do not print unless you fill them with color or color their border.

## Adding a Shape Path

The section titled “Drawing a Rectangle, Oval, or Other Shape” in Chapter 3 explained how to use the Rectangle tool (and the other shape tools you access via the Rectangle tool) to draw shapes on an image. You also can use those tools to create a path for later use, as described here.

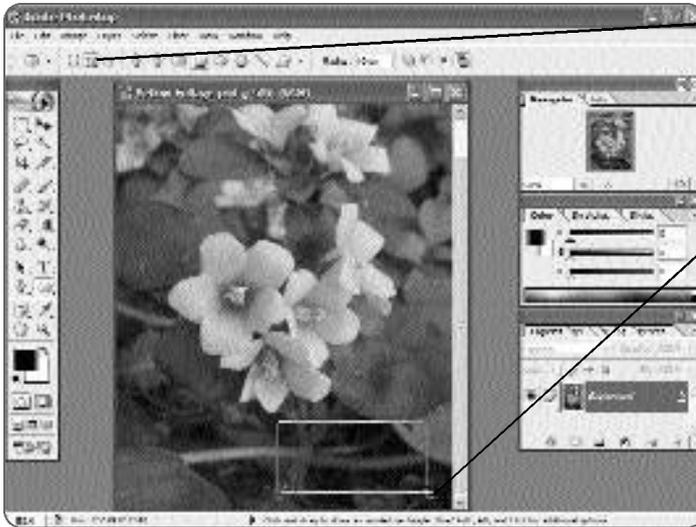


**1. Right-click** on the **Rectangle tool** in the toolbox. Its shortcut menu will appear.

**2. Click** on the **desired shape tool** to use in the submenu. The selected tool will become the active tool.

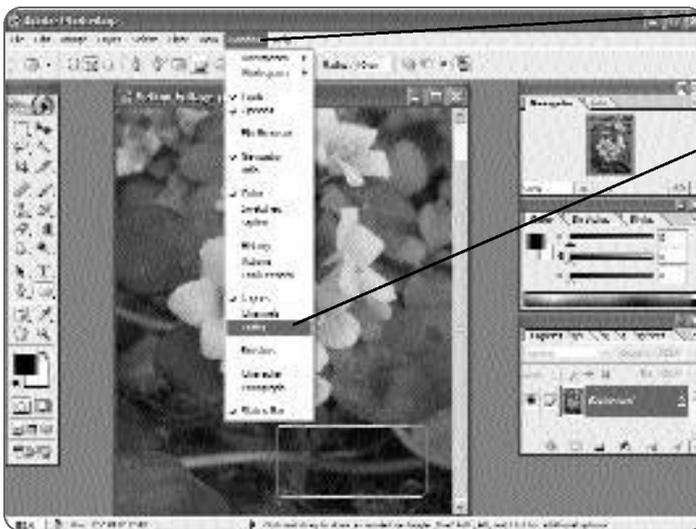
### NOTE

If you choose the Custom Shape tool, be sure to use the Shape drop-down list on the options bar to specify which kind of shape to draw.



**3. Click on the **Paths** button** on the options bar. The selected tool will become active for path selection.

**4. Drag diagonally** on the **picture** in the work area. Keep the mouse button pressed as you drag in any desired direction. When you release the mouse button, the path will appear.



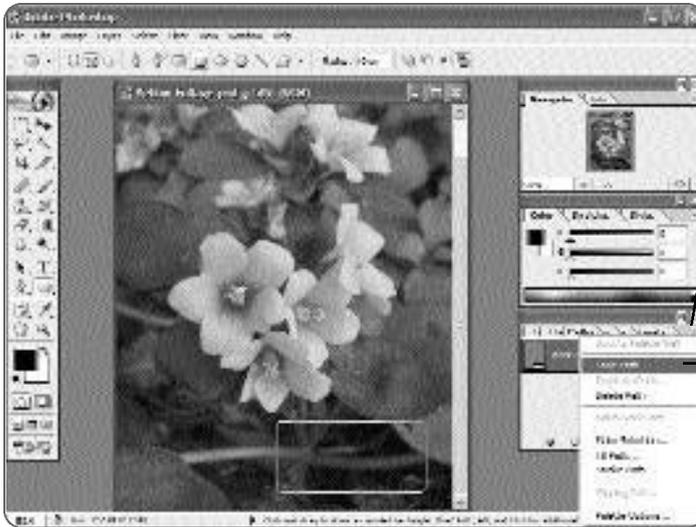
**5. Click on **Window****. The Window menu will appear.

**6. Click on **Paths****. The Paths palette will become the active tab in the Layers palette window. The Paths palette will show that the path you've drawn appears as a temporary path called a Work Path.

### TIP

In place of opening the Window menu and choosing Paths, you can click on the Paths tab in the Layers palette window.

## CHAPTER 10: USING PATHS

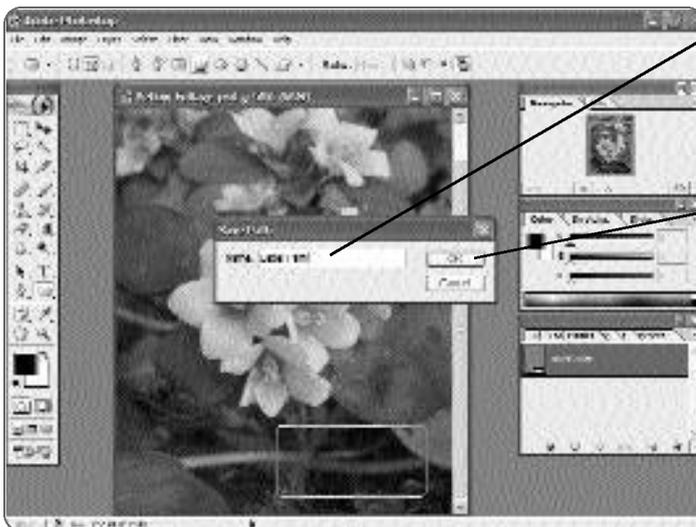


**7. Click on the Paths palette menu button.** The palette menu will appear.

**8. Click on Save Path.** The Save Path dialog box will open.

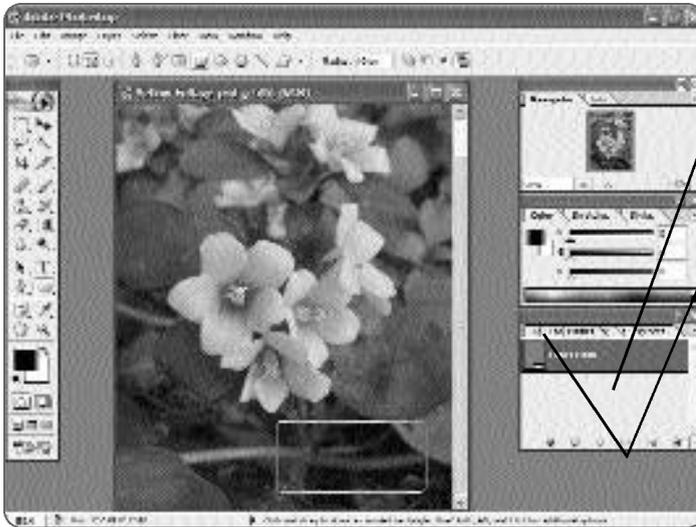
### NOTE

You don't have to save a temporary work path unless you want to reuse it later.



**9. Type a name for the path in the Name text box.** Your new name will replace the temporary name in the text box.

**10. Click on OK.** The Save Path dialog box will close and Photoshop will finish saving the path under the name you specified.



**11. Click** on a **blank area** in the Paths palette. Photoshop will deselect the path.

**12. Click** on the **Layers tab** in the Layers palette window. (Alternately, you can choose Window, Layers.) Photoshop will return to the regular view of layers in the image.

### NOTE

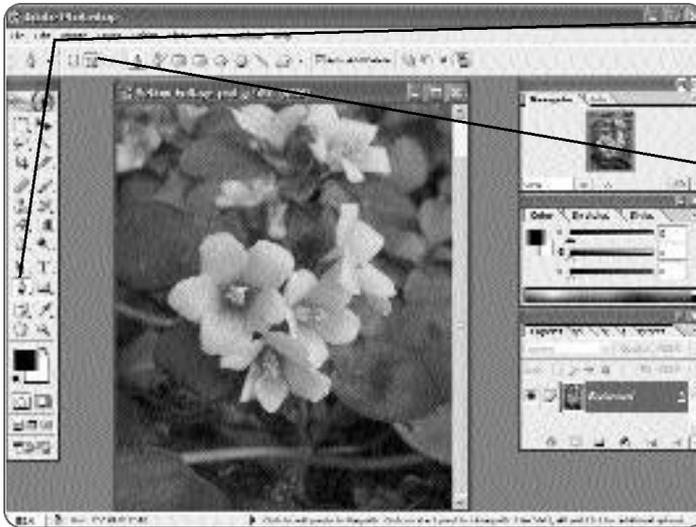
If you skip this last step when using a tool to create a path, the path will remain selected and any further actions you take pertain to that path. For example, if you try to create a path with another tool, it would simply be added into the current path rather than created as a separate work path.

## Making a Pen Path

The Pen tool enables you to create paths with straight lines, curves, and angles. Use this tool when you want to create a path that's irregular in shape or has swooping, controlled curves.

### NOTE

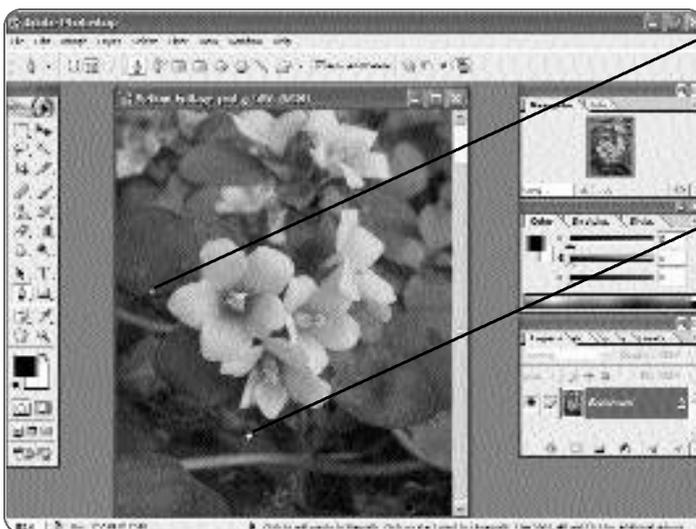
You must be careful in using the mouse with the Pen tool. Different mouse actions have different results. The following steps illustrate the various mouse techniques you need to master when using the Pen tool.



1. Click on the **Pen tool** in the toolbox. Its options will appear in the options bar.
2. Click on the **Paths button** on the options bar. The Pen tool will become active for path selection.

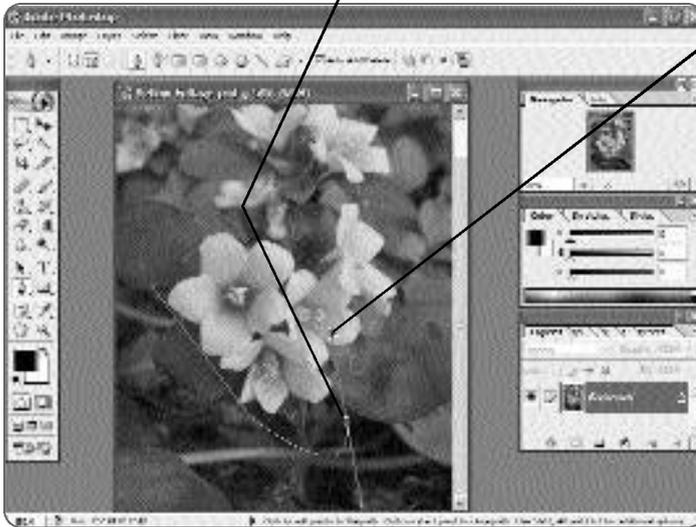
### NOTE

If you click on the Shape Layers button on the options bar for any tool described in this chapter, instead of the Paths button, the tool draws a shape or outline on a new layer in the image rather than simply creating a path.



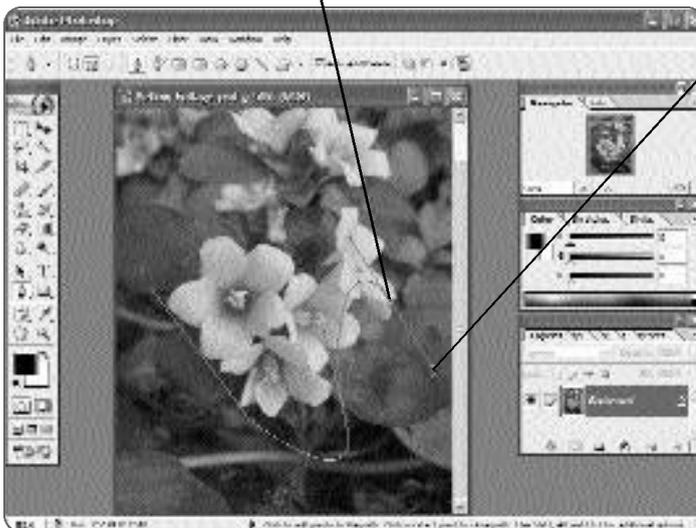
3. Click on the **starting point** for the first segment in the path. An anchor point appears at the location where you clicked.
4. Click on the **location** where you want to end the segment. A straight line segment appears between the anchor points.

- 5. Drag** on the **location** for the end of the next segment. Because you dragged, Photoshop will create a curved segment.



- 6. Drag** the **direction point** at the end of the direction line, then **release the mouse button**. Photoshop will adjust the depth and direction of the curved segment based on where you drag the direction point.

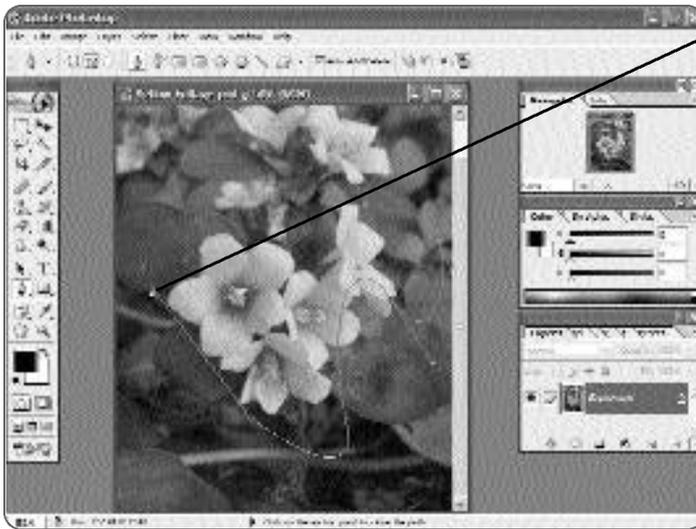
- 7. Drag** in the opposite direction on the **location** for the end of the next segment. Because you dragged in the opposite direction, Photoshop will create a segment that curves in the opposite direction.



- 8. Drag** the **direction point** at the end of the direction line, then **release the mouse button**. Photoshop will adjust the depth and direction of the curved segment based on where you drag the direction point.

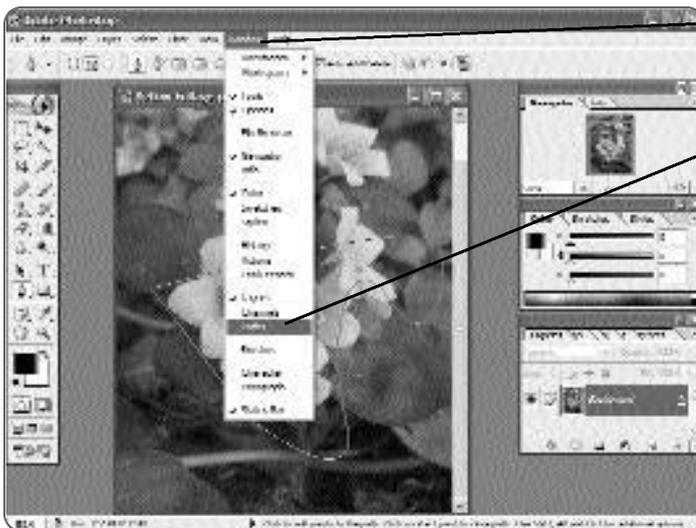
## TIP

To create a corner point between segments, press and hold the Alt key when you set the anchor point for the next segment. Press and hold the Ctrl key to drag an anchor point or corner point.



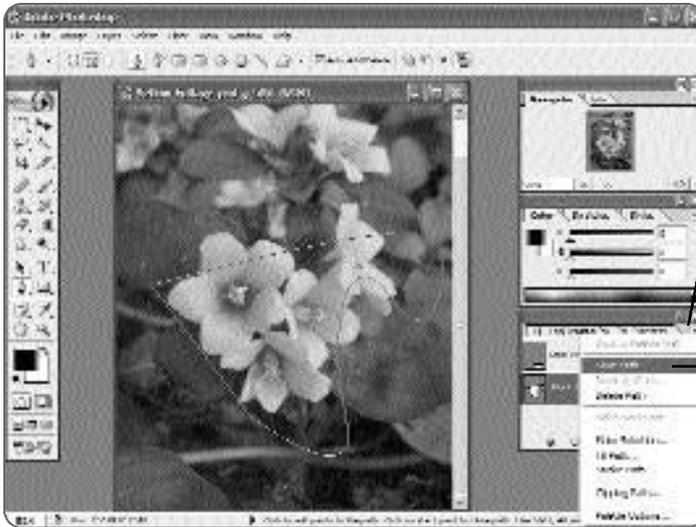
9. After you create all the needed segments, finish drawing the path in one of two ways:

- **Click on the first anchor point** to close the path shape. Note that when the mouse pointer is over the first anchor point, a small circle appears along with the pointer to tell you that clicking would then close the path.
- **Click on the Pen tool** in the toolbox to finish the path without closing the shape.



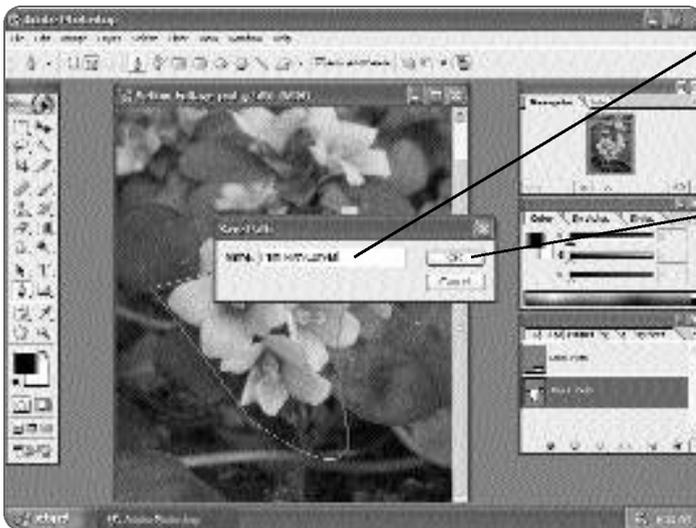
10. **Click on Window.** The Window menu will appear.

11. **Click on Paths.** The Paths palette will become the active tab in the Layers palette window. The Paths palette will show that the path you've drawn appears as a temporary path called a Work Path.



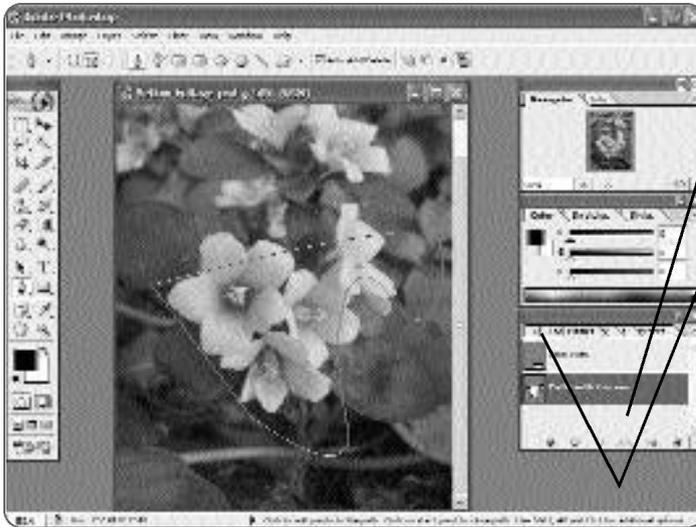
**12. Click on the Paths palette menu button.** The palette menu will appear.

**13. Click on Save Path.** The Save Path dialog box will open.



**14. Type a name for the path in the Name text box.** Your new name will replace the temporary name in the text box.

**15. Click on OK.** The Save Path dialog box will close and Photoshop will finish saving the path under the name you specified.

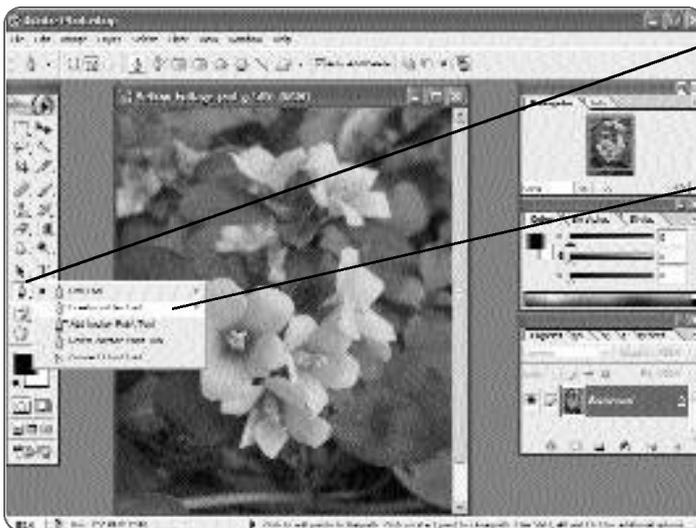


**16.** Click on a **blank area** in the Paths palette. Photoshop will deselect the path.

**17.** Click on the **Layers tab** in the Layers palette window. (Alternately, choose Window, Layers.) Photoshop will return to the regular view of layers in the image.

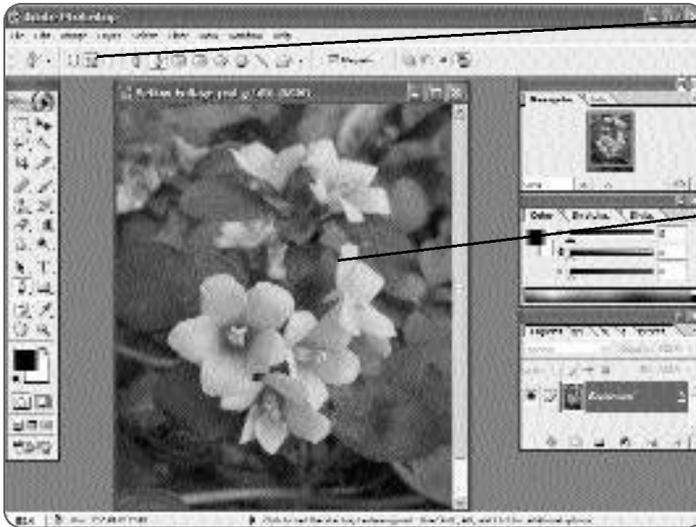
## Making a Freeform Path

The Freeform Pen tool enables you to create a path by dragging on the image. In addition, you can turn on the Magnetic option with the Freeform Pen tool to have the path outline “snap to” a shape in the image. This tool comes in handy when you want to create a path around a particular item or region in an image.



**1.** **Right-click** on the **Pen tool** in the toolbox. Its shortcut menu will appear.

**2.** Click on **Freeform Pen Tool**. The Freeform Pen tool will become the active tool.

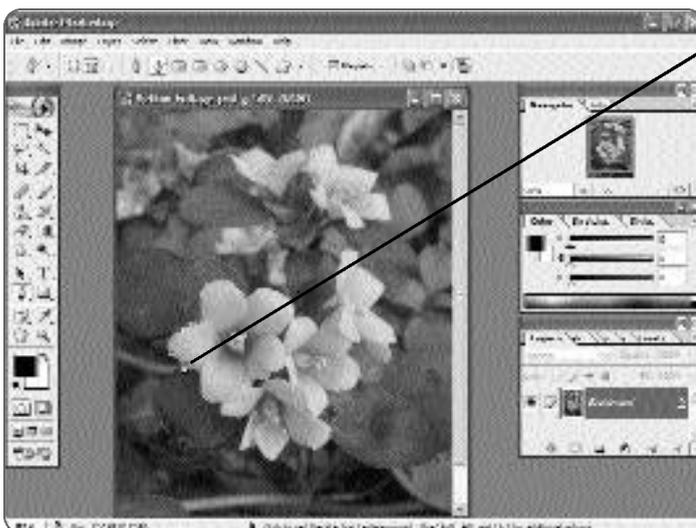


**3. Click on the **Paths** button** on the options bar. The Freeform Pen tool will become active for path selection.

**4. Click on the **Magnetic** check box** to check it, if desired. Checking this option will cause the Freeform Pen tool to function as the Magnetic Pen tool, and your path will snap to the outline for an item in the image.

## NOTE

The Magnetic feature works via color and tone contrast. You can click on the Magnetic check box near the center of the options bar to make the Freeform Pen tool work magnetically.

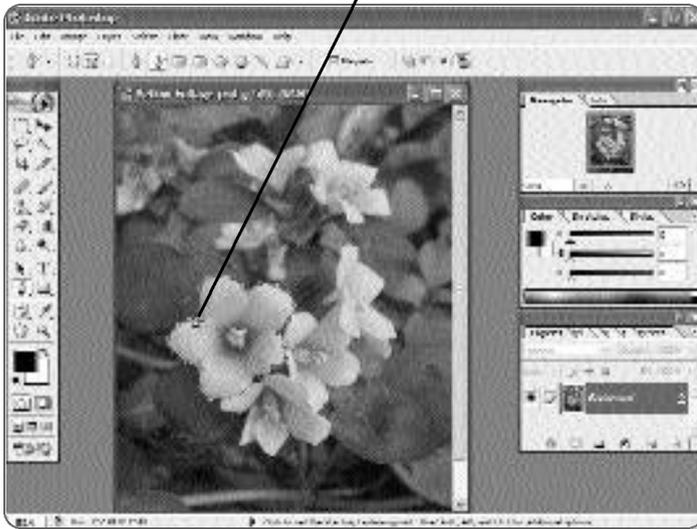


**5. Drag on the **picture** in the work area.** Keep the mouse button pressed as you drag in any desired direction. When you release the mouse button, the path will appear.

**TIP**

If you're using the Magnetic Pen tool, you can click to set specific anchor points and press Delete to remove the most recent anchor point. However, with the Freeform Pen tool, you must keep the mouse button pressed as you drag.

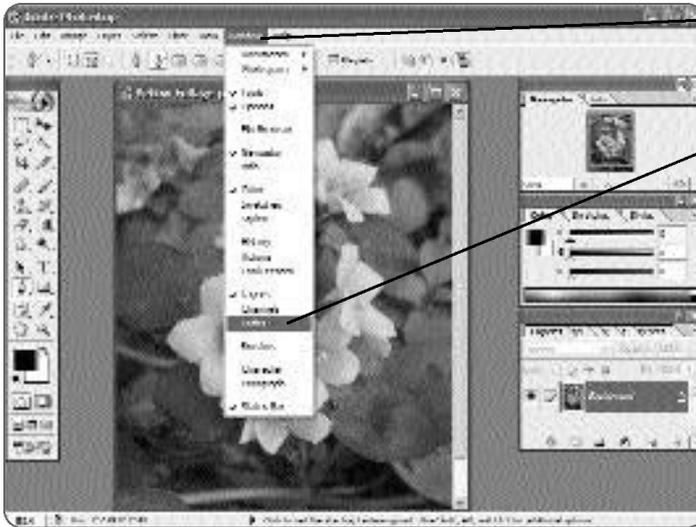
6. Finish drawing the path in one of three ways:



- **Click on the first anchor point** to close the path shape. Note that when the mouse pointer is over the first anchor point, a small circle appears along with the pointer to tell you that clicking would then close the path.
- **Double-click on the next-to-last anchor point** to close the path automatically.
- **Click on the Freeform Pen tool** in the toolbox to finish the path without closing the shape.

**NOTE**

When you're drawing any path, you can press Esc to stop drawing the path.



**7. Click on **Window**.** The Window menu will appear.

**8. Click on **Paths**.** The Paths palette will become the active tab in the Layers palette window. The Paths palette will show that the path you've drawn appears as a temporary path called a Work Path.

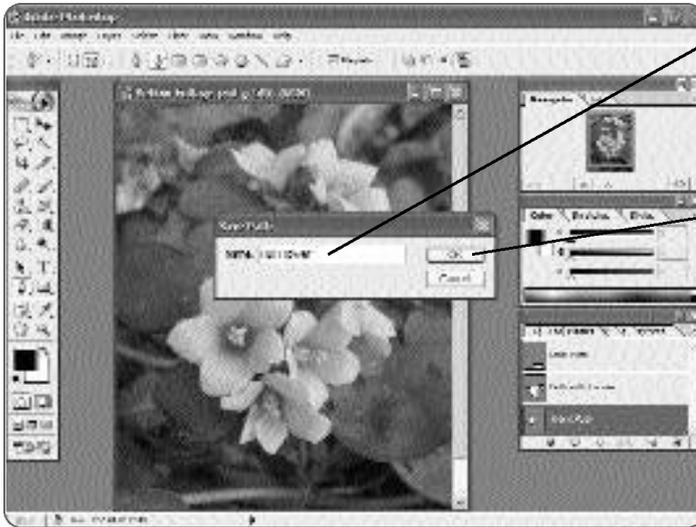
### NOTE

In place of opening the Window menu and choosing Paths, you can click on the Paths tab in the Layers palette window.



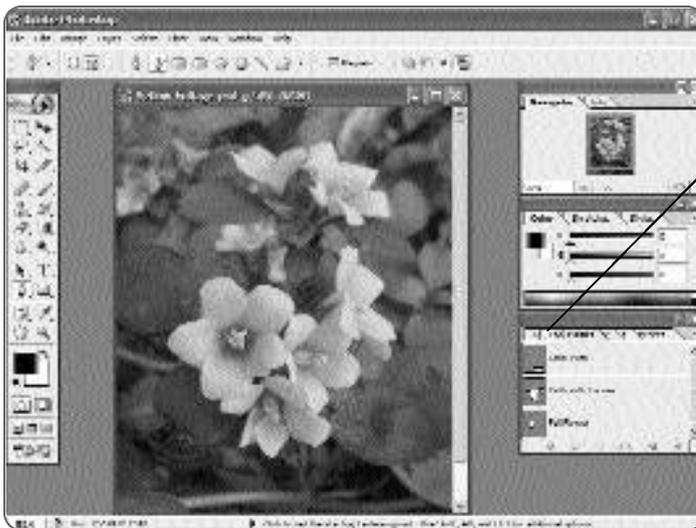
**9. Click on the **Paths palette menu button**.** The palette menu will appear.

**10. Click on **Save Path**.** The Save Path dialog box will open.



**11. Type a name for the path** in the **Name text box**. Your new name will replace the temporary name in the text box.

**12. Click on OK.** The Save Path dialog box will close and Photoshop will finish saving the path under the name you specified.

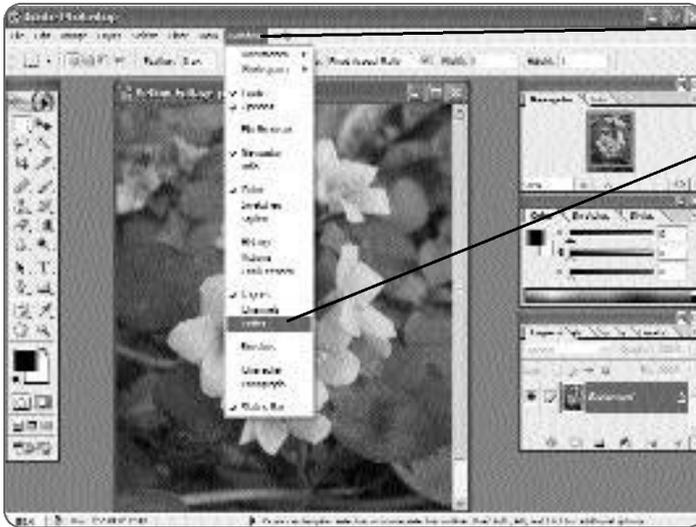


**13. Press Esc.** Photoshop will deselect the path.

**14. Click on the Layers tab** in the Layers palette window. (Alternately, choose Window, Layers.) Photoshop will return to the regular view of layers in the image.

## Viewing and Changing a Path

The Paths palette enables you to view and work with the paths in an image file. When you change a path, you move, add, and delete anchor points.

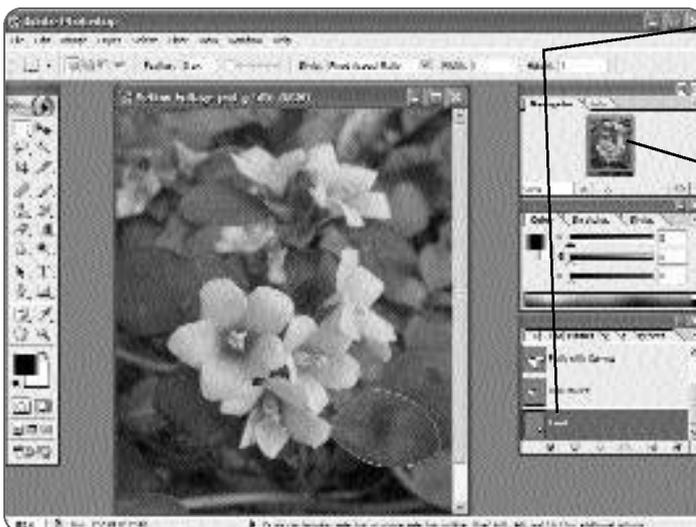


**1. Click on **Window**.** The Window menu will appear.

**2. Click on **Paths**.** The Paths palette will become the active tab in the Layers palette window.

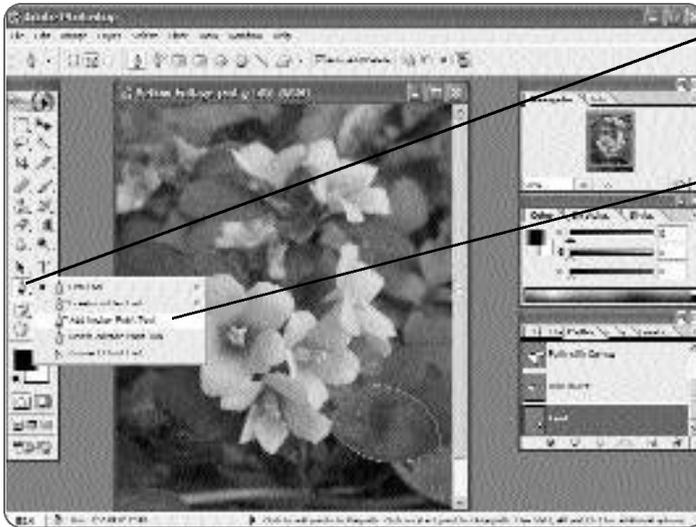
### TIP

In place of opening the Window menu and choosing Paths, you can click on the Paths tab in the Layers palette window.



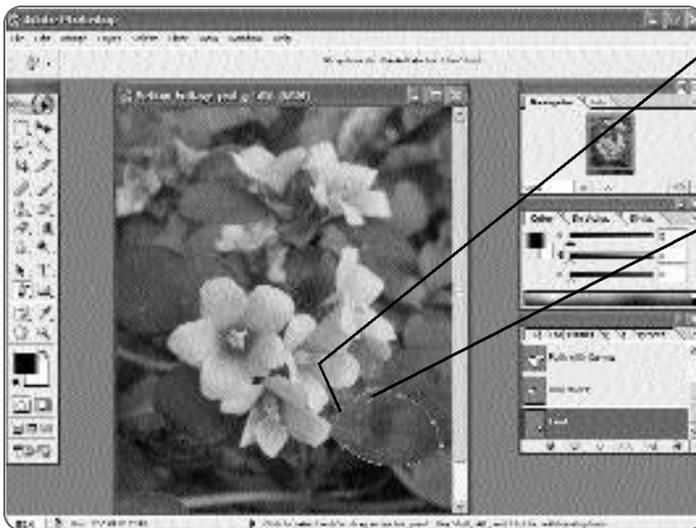
**3. Click on the **desired path** on the **Paths palette tab**.** The path will become the active path.

**4. Use the **Navigator** to pan the path into view, if needed.** The path will become visible in the work area.



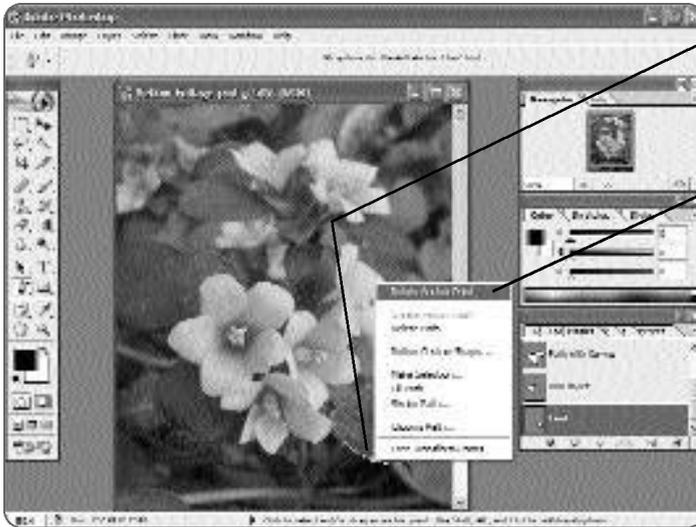
**5. Right-click** on the **Pen tool** in the toolbox. Its shortcut menu will appear.

**6. Click** on **Add Anchor Point Tool**. The Add Anchor Point tool will become the active tool.



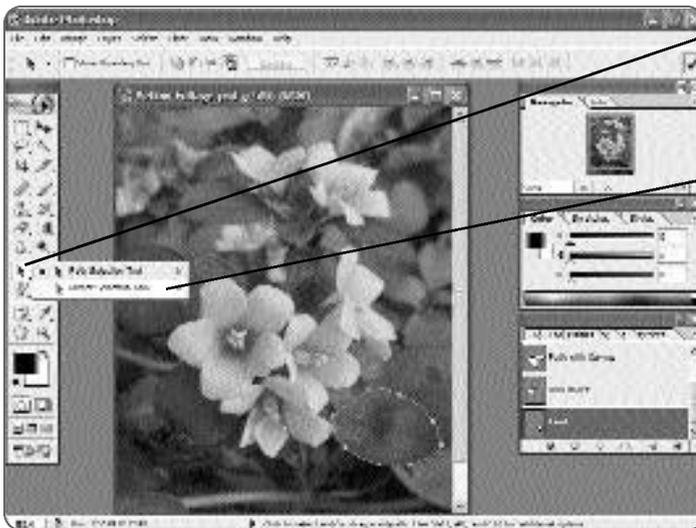
**7. Click** on the **path** at the location where you want to add the new anchor point. The anchor point will appear.

**8. Drag** the **new anchor point (and any others)** to the desired location. The path will reshape accordingly.



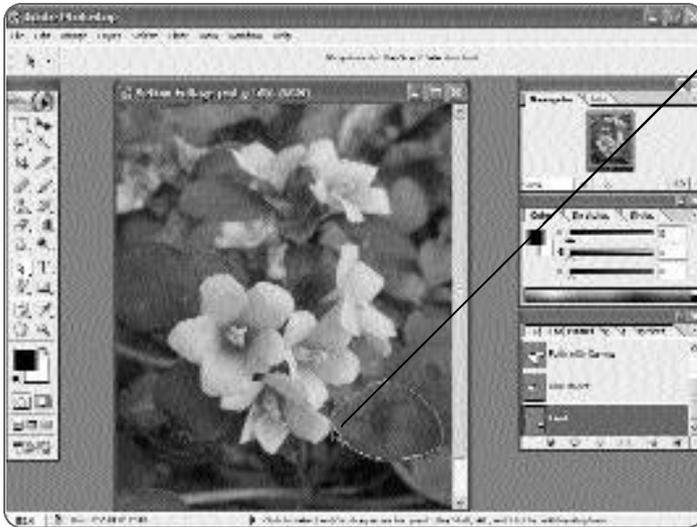
**9. Right-click** on an **anchor point** that you want to delete. A shortcut menu will appear.

**10. Click on Delete Anchor Point.** The path will reshape accordingly.



**11. Right-click** on the **Path Selection tool** in the toolbox. A shortcut menu will appear.

**12. Click on Direct Selection Tool.** The Direct Selection tool will become the active tool.



**13. Drag anchor points** to reposition them as needed. Again, the path will reshape accordingly, but in this case, you didn't have to add new anchor points.

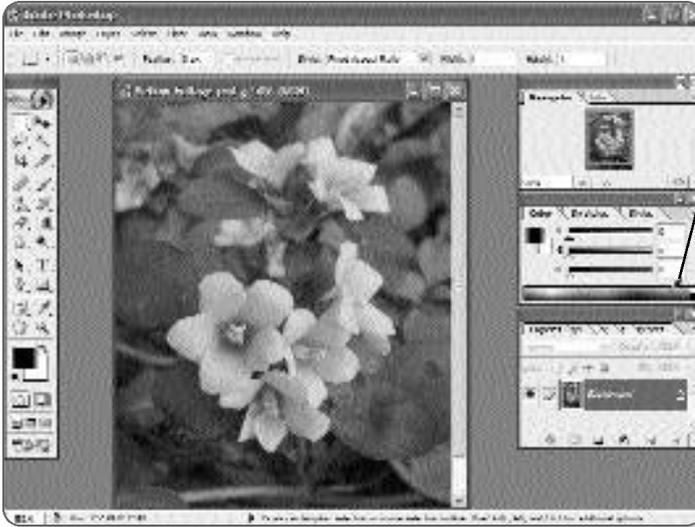
#### NOTE

You can use the Path Selection tool to drag the whole path on the image.

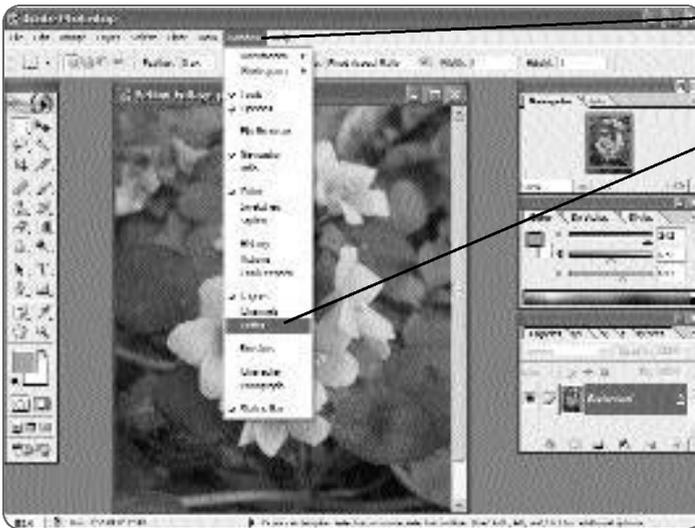
**14. Press Esc.** The path will be deselected, but your changes will remain in the path. From here, you can click on the Layers tab in the Layers palette or choose Window, Layers to resume working with layers.

## Filling or Coloring a Path

You can fill a path with color to add a blotch of color in an image or "stroke" the path outline with color to add a subtle outline of color in the image. Although by default a path doesn't print, it will print after you fill or stroke it with color. These steps explain how to use color with a path.



**1. Click on the desired fill or outline color in the color ramp at the bottom of the Color palette. The color will become the active foreground color.**



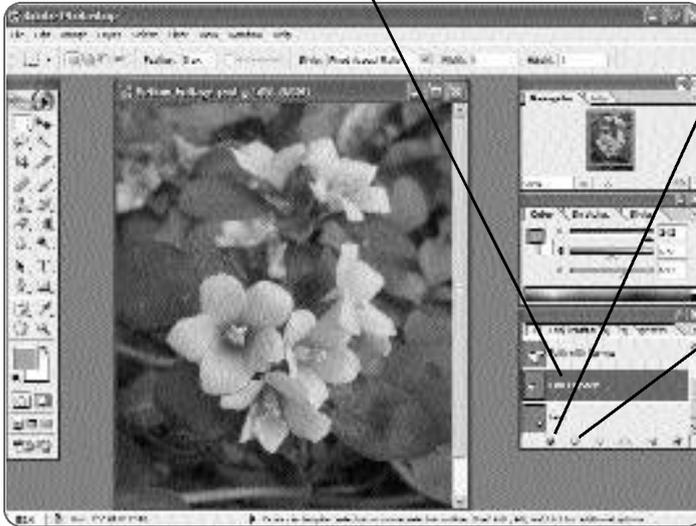
**2. Click on **Window**. The Window menu will appear.**

**3. Click on **Paths**. The Paths palette will become the active tab in the Layers palette window.**

### TIP

In place of opening the Window menu and choosing Paths, you can click on the Paths tab in the Layers palette window.

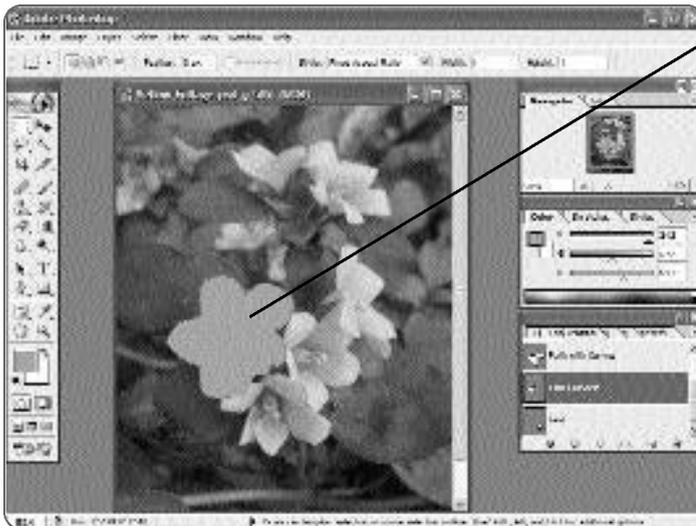
**4. Click on the desired path to color in the Paths palette.**  
The path will become the active path.



**5a. Click on the Fill Path with Foreground Color button at the bottom of the Paths palette.** Photoshop will fill the path with the color you selected in Step 1.

**OR**

**5b. Click on the Stroke Path with Foreground Color button at the bottom of the Paths palette.** Photoshop will apply a very thin outline of the foreground color to the path outline.



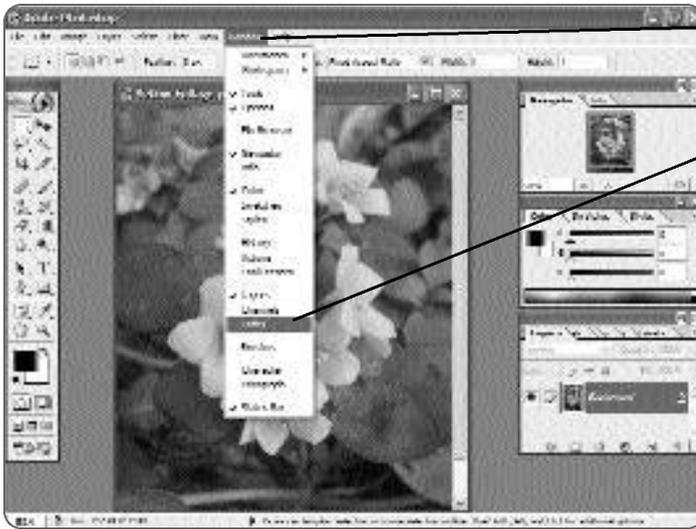
**6. Review the resulting color.** This example shows the path filled with color. If you merely stroked the path with color, the result could be fairly subtle, and may not be visible until you finish working with the Paths palette.

### NOTE

At this point, you can click on the Layers tab in the Layers palette or choose Window, Layers to finish working with paths.

## Using a Path to Make a Selection

As was noted much earlier in the chapter, you can use a path as a selection at any time, making it easy for you to work with the path area later, applying a filter or other effect.

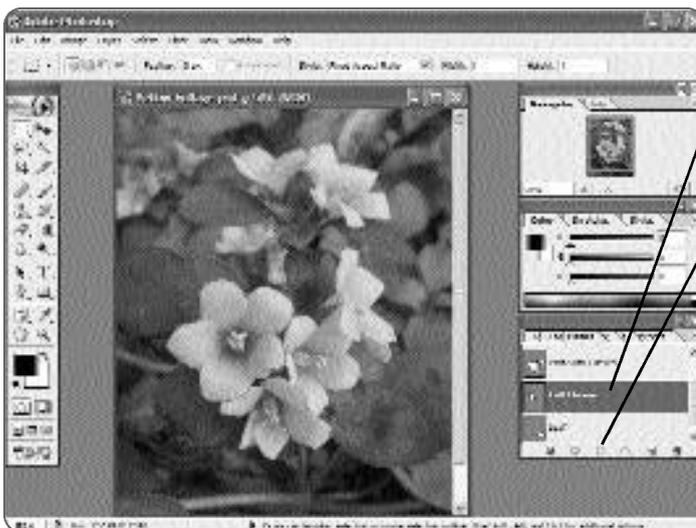


**1. Click on **Window**.** The Window menu will appear.

**2. Click on **Paths**.** The Paths palette will become the active tab in the Layers palette window.

### TIP

In place of opening the Window menu and choosing Paths, you can click on the Paths tab in the Layers palette window.



**3. Click on the **desired path**.** The path will become the active path.

**4. Click on the **Load Path as a Selection** button at the bottom of the Paths palette tab.** A selection marquee will appear around the path. You then can work with the selection just as you would any other selection.

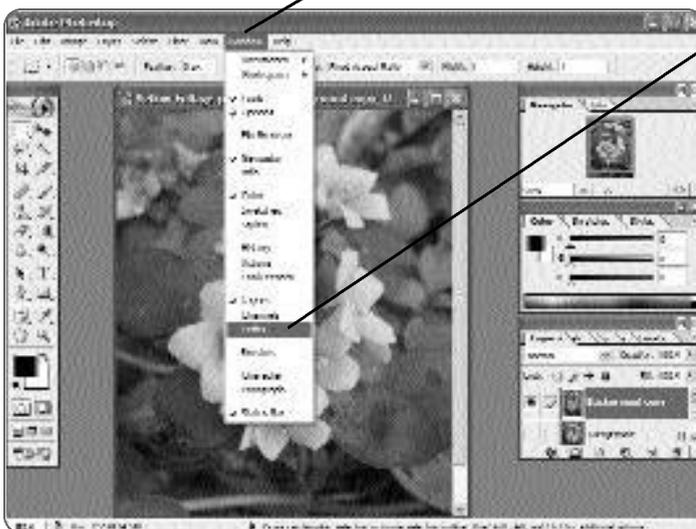
## Using a Path to Create a Vector Mask

A vector mask enables you to define a mask based on an outline (rather than based on image pixels and colors, as for a layer mask). You base a vector mask on a work path that you've previously created. Once you've created the vector mask, you can move or resize it as needed to adjust the masked area—something you can't easily do with a layer mask.

### NOTE

Vector masking does not work on the Background layer. So, right-click on the Background layer and click Duplicate Layer. Enter a name for the new layer in the Duplicate Layer dialog box, and then click on OK. Finally, click the eye icon beside the original Background layer in the Layers palette to hide that layer so that you can see the effects of your vector mask.

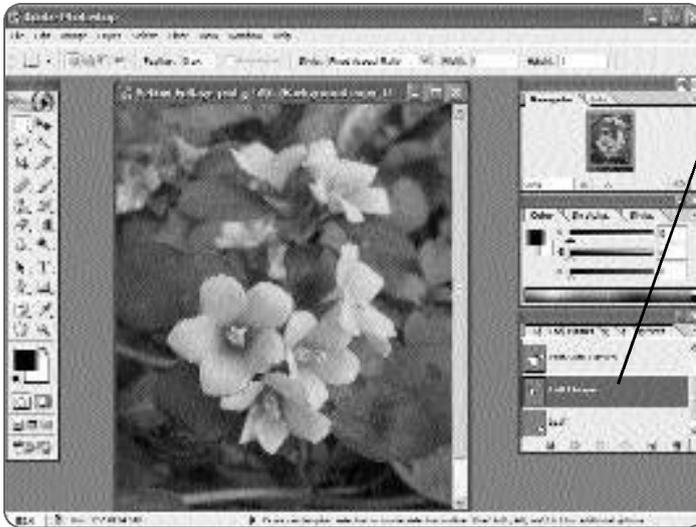
1. Click on **Window**. The Window menu will appear.



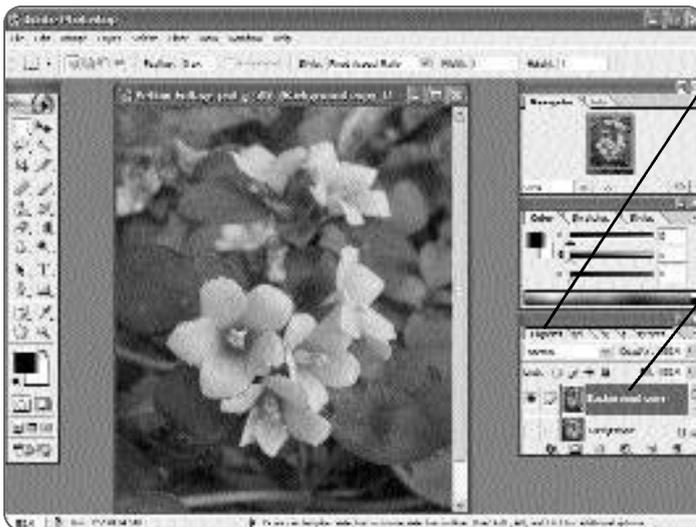
2. Click on **Paths**. The Paths palette will become the active tab in the Layers palette window.

### TIP

In place of opening the Window menu and choosing Paths, you can click on the Paths tab in the Layers palette window.



- 3. Click on the desired path.**  
The path will become the active path.



- 4. Click on the Layers tab** in the Layers palette window. Photoshop will return to the regular view of layers in the image.

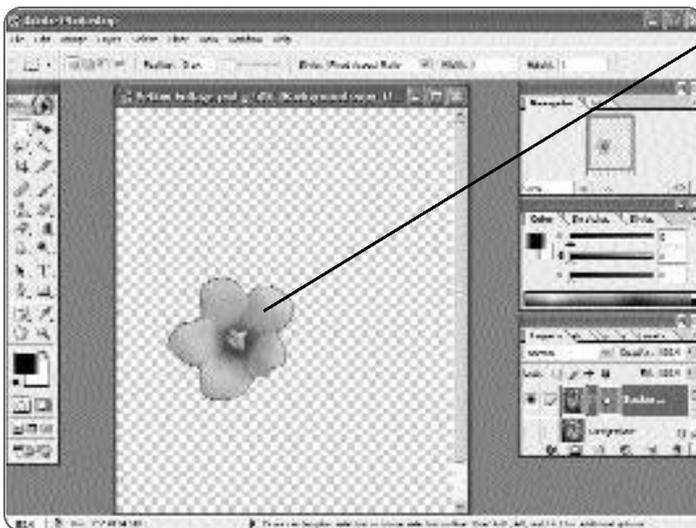
- 5. Click on the layer** with the content to mask. The layer will become the active layer.



**6. Click on Layer.** The Layer menu will appear.

**7. Point to Add Vector Mask.** The Add Vector Mask submenu will appear.

**8. Click on Current Path.** The mask will be created and applied immediately.



**9. Review the resulting mask.** Layer content outside the mask (path) will be hidden.

### NOTE

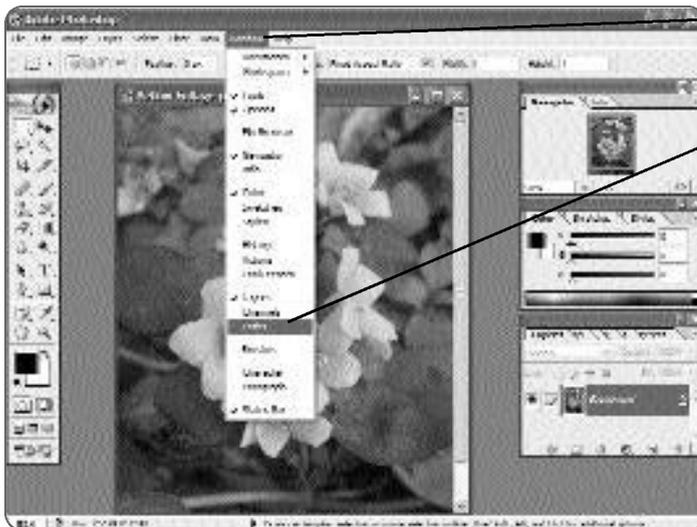
At this point, you could use the Path Selection tool to move the mask around on the layer or adjust the shape of the mask. To turn off the mask, right-click on the mask thumbnail in the Layers palette and then click on Disable Vector Mask. Right-click again and then click on Enable Vector Mask to reapply the mask.

## Using Clipping Paths

A *clipping path* works much like a mask, but should be used instead of a mask if you plan to save a copy of a file and insert that copy into another file or use the copy in a document. The area outside the clipping path will be transparent in the file copy when you insert it into a file or document. Using a clipping path ensures that other content in the location where you use the file copy—especially when you insert it into another Photoshop file or another type of document—will be able to show through areas made transparent by the clipping path.

### Adding a Clipping Path

The fastest way to create a clipping path is to duplicate an existing path in the image and then save it as a clipping path, as the following steps will illustrate.

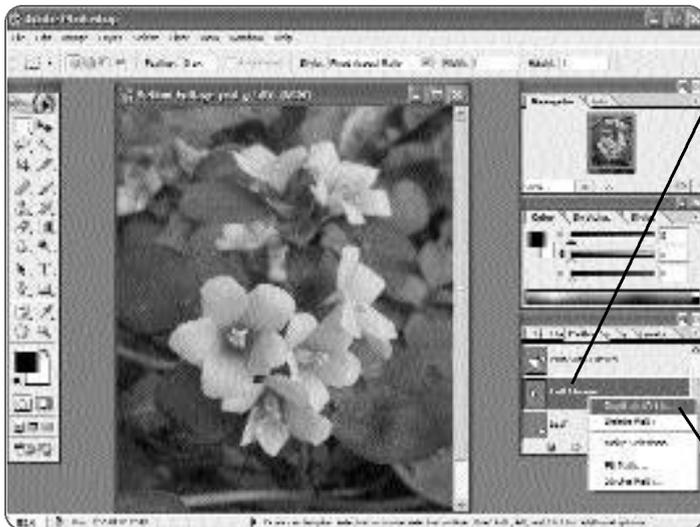


**1. Click on **Window**.** The Window menu will appear.

**2. Click on **Paths**.** The Paths palette will become the active tab in the Layers palette window.

#### TIP

In place of opening the Window menu and choosing Paths, you can click on the Paths tab in the Layers palette window.

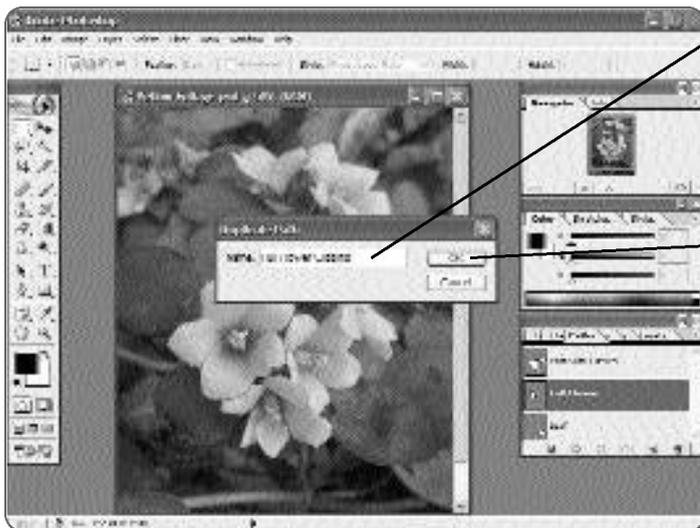


**3. Right-click** on the **path** to duplicate. A shortcut menu will appear.

### TIP

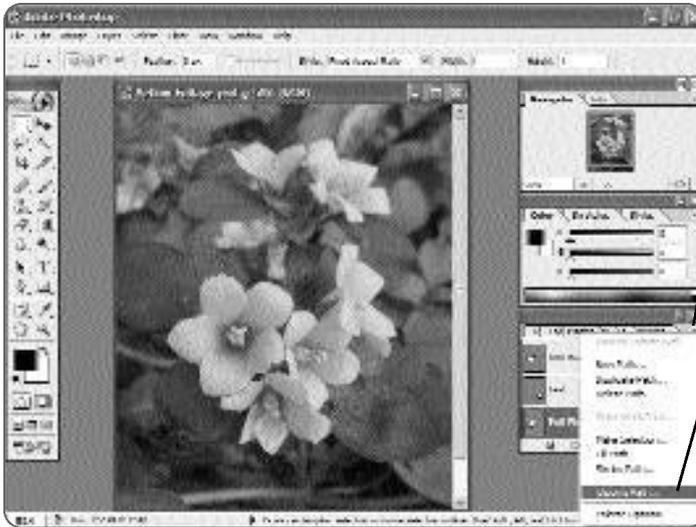
Use the Navigator to scroll the path into view first, if needed, to verify that you're duplicating the correct path.

**4. Click** on **Duplicate Path**. The selection marquee will appear around the path and the Duplicate Path dialog box will appear.



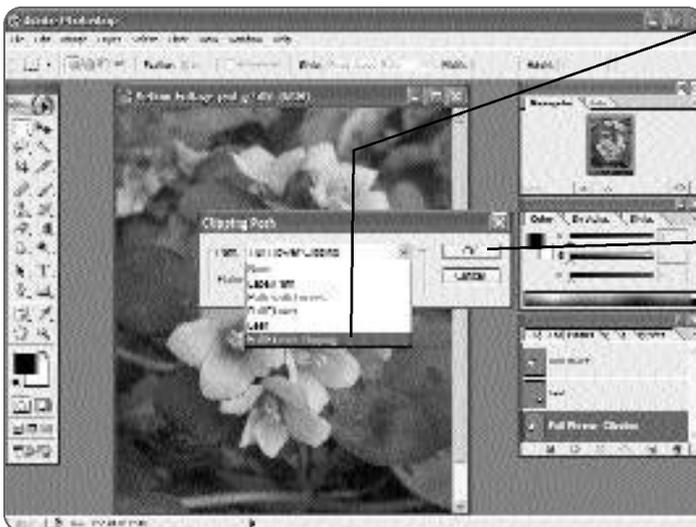
**5. Type** a name for the **clipping path** in the **Name text box**. Your new name will replace the temporary name in the text box.

**6. Click** on **OK**. The dialog box will close and the new path will appear in the Paths palette.



7. With the new path still selected in the Paths palette, **click on the Paths palette menu button**. The palette menu will appear.

8. **Click on Clipping Path**. The Clipping Path dialog box will open.

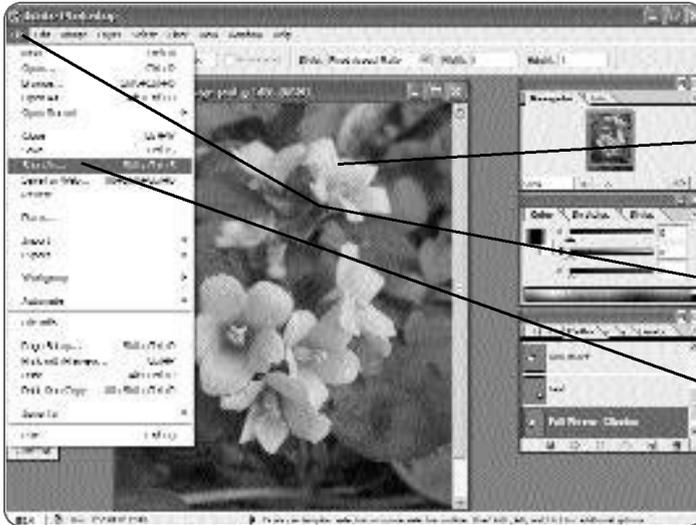


9. **Click on the down arrow** beside the Path drop-down list, and then **click on the name of the path** you just duplicated. The path will be selected.

10. **Click on OK**. Photoshop will save the duplicated path as a clipping path. You can then return to the Layers palette and continue working if you want. You should save the file to save all of your paths in the original file. To learn to use the clipping path content, proceed to the next section.

## Using Clipped Content

Merely creating the clipping path doesn't clip the image. You must save a copy of the image in Photoshop EPS, DCS, or PDF format (or TIFF if you plan to use the image with a non-Postscript printer), then import or place it in another file or document. The steps here show an example of how this process works.

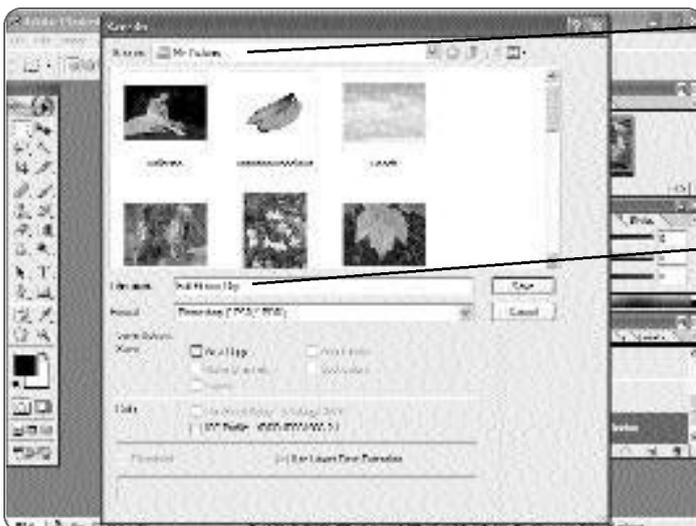


The steps here show an example of how this process works.

**1. Open the file** that holds the clipping path. The file will become the active file.

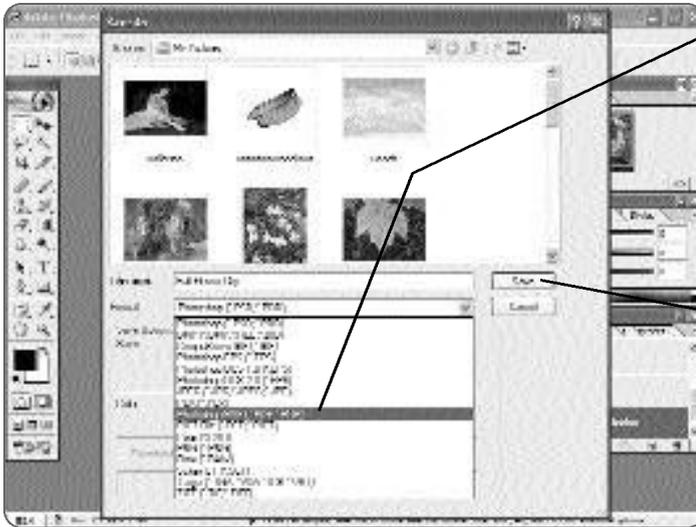
**2. Click on File.** The File menu will appear.

**3. Click on Save As.** The Save As dialog box will open.



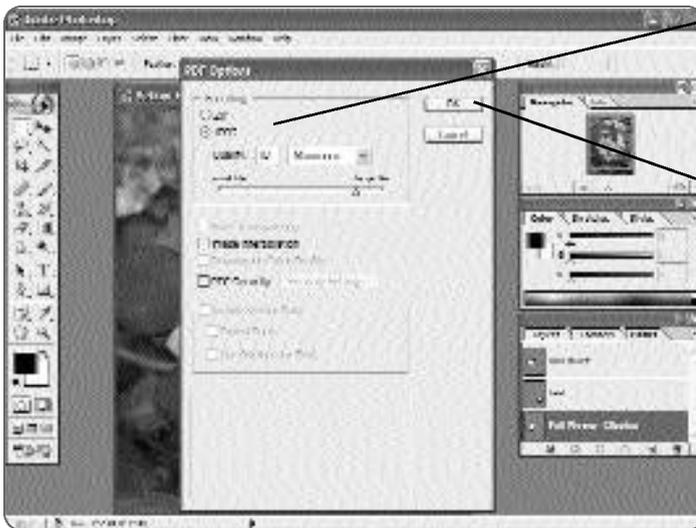
**4. Use the Save in list** to choose another save location, if needed. The clipped file will be saved to the designated location.

**5. Edit the file name** in the **File name text box**, if needed. Photoshop will use the name you specify for the clipped file.



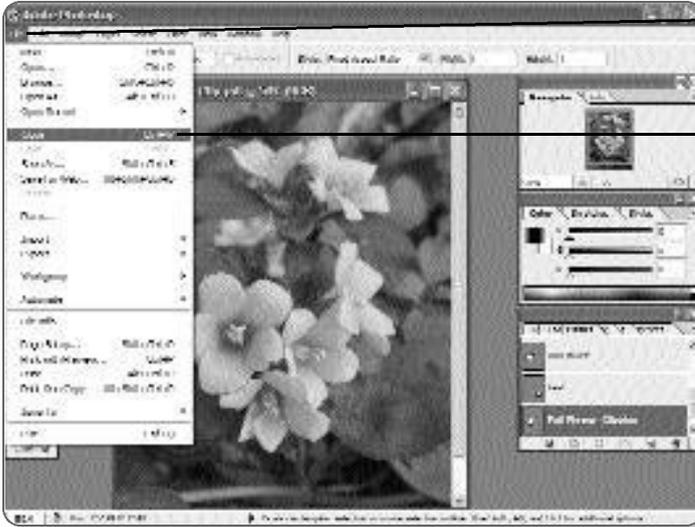
**6. Click on the down arrow** beside the **Format list**, and then click on **Photoshop EPS**, one of the **Photoshop DCS** choices, **Photoshop PDF**, or **TIFF**. The clipped file will be saved with the specified format.

**7. Click on Save.** Photoshop may display an options dialog box, depending on the file format you selected in Step 6.



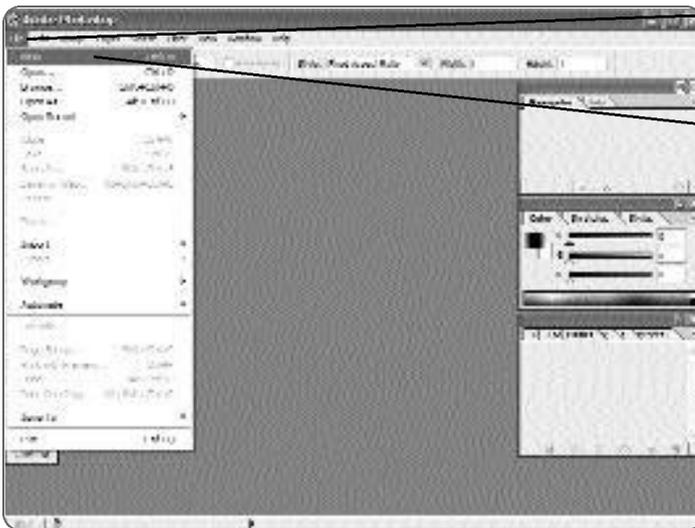
**8. Choose options** as needed in the dialog box. Photoshop will apply your choices when it finishes saving the clipped file.

**9. Click on OK.** Photoshop will save the clipped file and it will stay open, although it will not appear clipped onscreen.



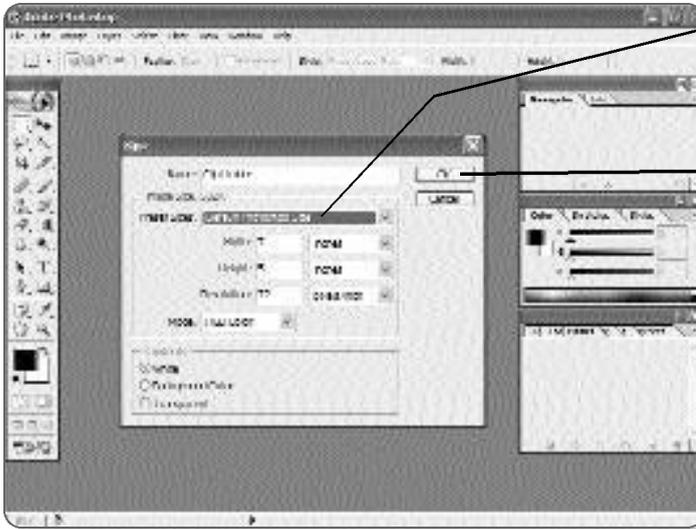
**10. Click on File.** The File menu will appear.

**11. Click on Close.** The clipped file will close.



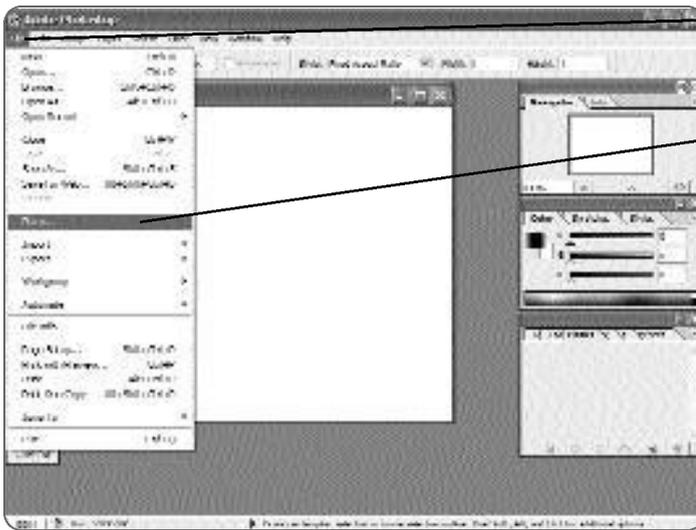
**12. Click on File.** The File menu will appear.

**13. Click on New.** The New dialog box will open.



**14. Specify settings** for the new file. The new file will use the designated settings.

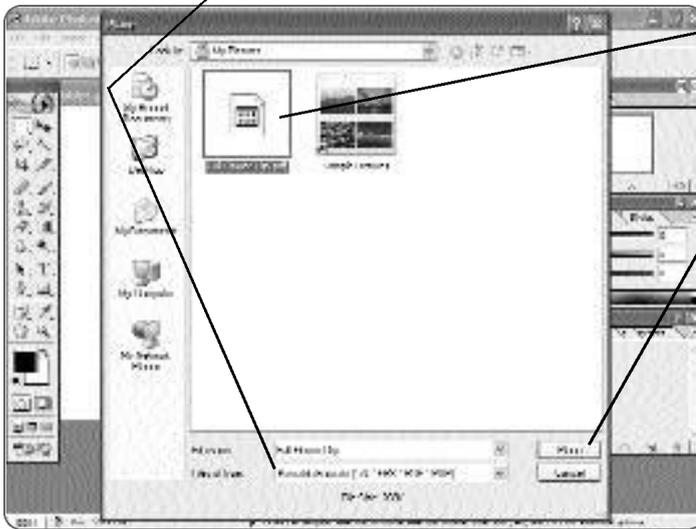
**15. Click on OK.** Photoshop will open the new file.



**16. Click on File.** The File menu will appear.

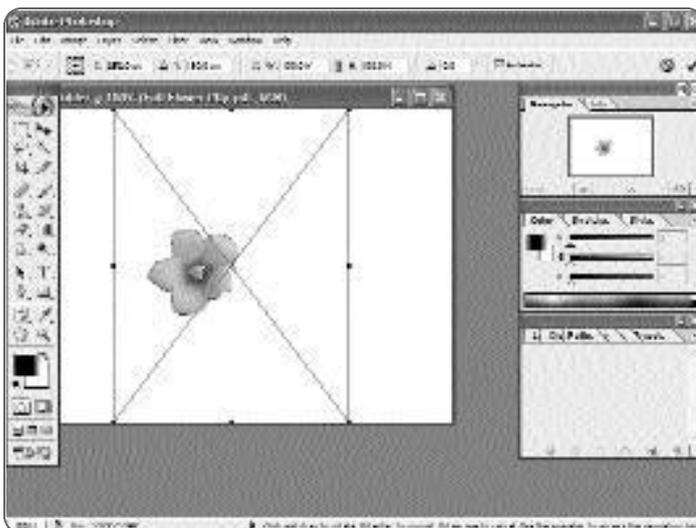
**17. Click on Place.** The Place dialog box will open.

**18. Select the file type** you used for the clipped file from the **Files of type drop-down list**. (Also use the Look in list to navigate to the location holding the clipped file, if needed.) The file will appear in the list of files in the dialog box.



**19. Click on the clipped file** in the list. It will become the selected file.

**20. Click on Place.** Photoshop will insert the clipped file in the new file you created.



**21. Review** the position of the clipped information, and then **click on the check mark button (Commit Place)** at the right end of the options bar to finish placing the clipped file into the new Photoshop file. The inserted clipped file will appear on its own new layer in the image file.

## Part 3 Review Questions

1. How do you add a new layer? See *"Making a New Layer"* in Chapter 8.
2. How do you go to a layer to work with it? See *"Selecting a Layer"* in Chapter 8.
3. What other kinds of layers can you add? See *"Adding a Fill Layer," "Adding a Gradient Layer,"* and *"Adding a Pattern Layer"* in Chapter 8.
4. What do you do if one layer is hiding part of another? See *"Arranging Layer Order"* in Chapter 8.
5. Why do you use a mask? See *"Using Layer Masks"* in Chapter 9.
6. Can you convert a selection to a mask? See *"Using a Selection from One Layer as a Mask on Another"* in Chapter 9.
7. What can you do once you've created a mask? See *"Putting a Mask to Work"* in Chapter 9.
8. How and why do you create a path? See *"Adding a Shape Path," "Making a Pen Path,"* and *"Making a Freeform Path"* in Chapter 10.
9. How do you convert a selection to a path? See *"Using a Path to Make a Selection"* in Chapter 10.
10. How do you create and use a clipping path? See *"Using Clipping Paths"* in Chapter 10.

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# PART IV

# Fine-Tuning Your Image

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<b>Printing Your Image .....</b>	<b>317</b>

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# 11

## Using Other Editing Tools

Photoshop includes a number of editing tools that you can use to touch up specific areas of an image or layer. Many of the techniques resemble traditional techniques used to correct a photo during development. You can adjust the focus of a particular area, enhance the intensity of an area, or use other techniques such as filling an area with color. In this chapter, you learn how to:

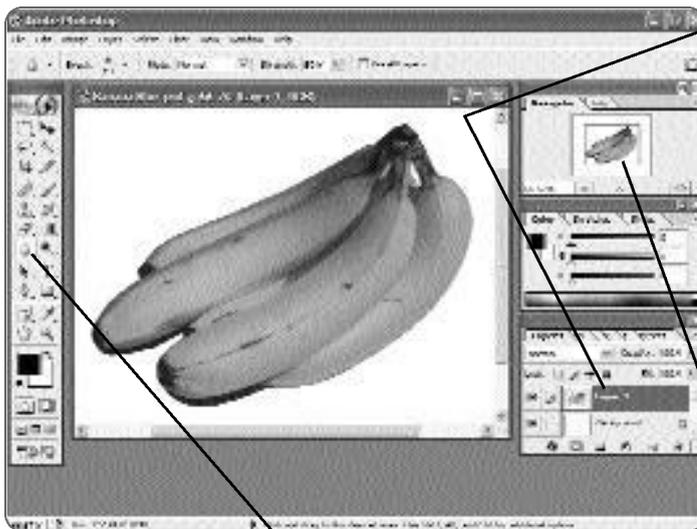
- Add blurring or smudging to an area
- Sharpen an area
- Use the eraser tools to erase to the background color or transparency
- Erase all of a particular color on a layer using the magic eraser
- Add a gradient or fill an area with color
- Dodge, burn, or sponge an area
- Use new tools to fix scratches, spots, and imperfections

## Blurring an Area

It may seem contrary to your needs in most cases, but blurring part of an image can help camouflage an imperfection or achieve an effect. For example, it's common to blur a portrait to achieve a dreamy effect or downplay skin imperfections. Or, you can blur certain parts of an image to call attention to the main subject of the image. The steps here explain how to blur an area in an image, which reduces the sharpness of any edges or reduces detail in the affected area.

### NOTE

Photoshop includes filters that correspond with the capabilities of many of the tools described in this chapter. Use a filter when you want to change the appearance of a selection or a layer. Use a tool when you want to “paint” on a particular area to make a correction.



- 1. Click** on the **layer** in the Layers palette that holds the content you want to blur. The selected layer will become the active layer.

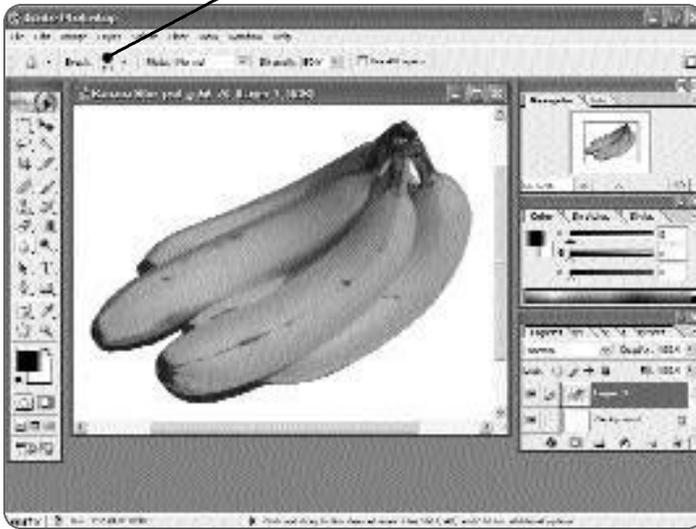
### NOTE

Most of the tools described in this chapter cannot be used on a type layer.

- 2. Use** the **Navigator** to zoom in on and display the desired area. The selected area will become more visible.

- 3. Click** on the **Blur tool** in the toolbox. The Blur tool will become the active tool.

- 4. Choose a Brush style on the options bar.** The selected brush will become active for the Blur tool.



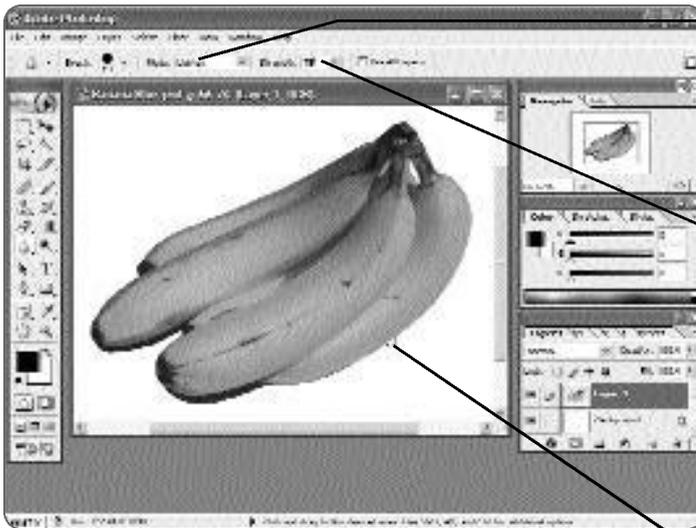
## NOTE

To choose a brush for any tool, click on the down arrow beside the Brush choice in the options bar, click on the brush to use, and then click on the down arrow beside the Brush choice to close the drop-down palette. If you click on the right arrow button in the palette of brushes, you can use the menu that appears to load other brushes.

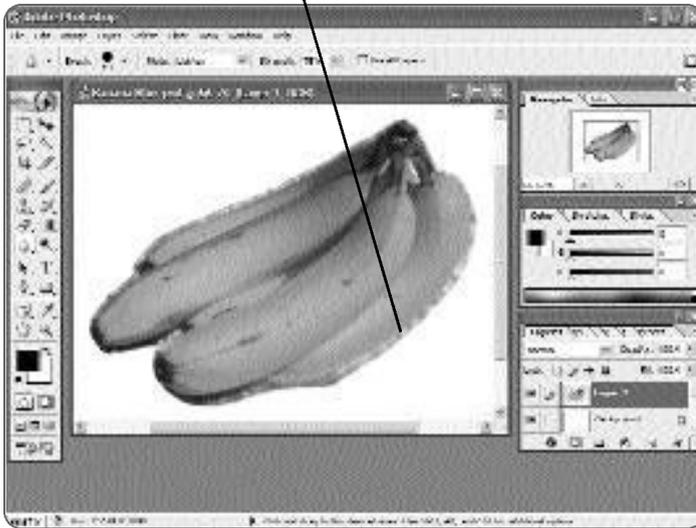
- 5. Make a choice** from the Mode drop-down list on the options bar. The selected mode will become active for the Blur tool.

- 6. Select the Strength text box contents, type a new entry, and press Enter.** (Alternately, click on the right arrow beside the Strength choice, drag the slider, and then click on the right arrow again.) The strength setting will become active for the Blur tool.

- 7. Drag** on the layer to apply the blur. Blurring will begin to appear.



**8. Drag as much as is needed.** Photoshop will continue to add more blurring, but it may take quite a bit of dragging. When you finish, you can continue working with another tool or operation in Photoshop.

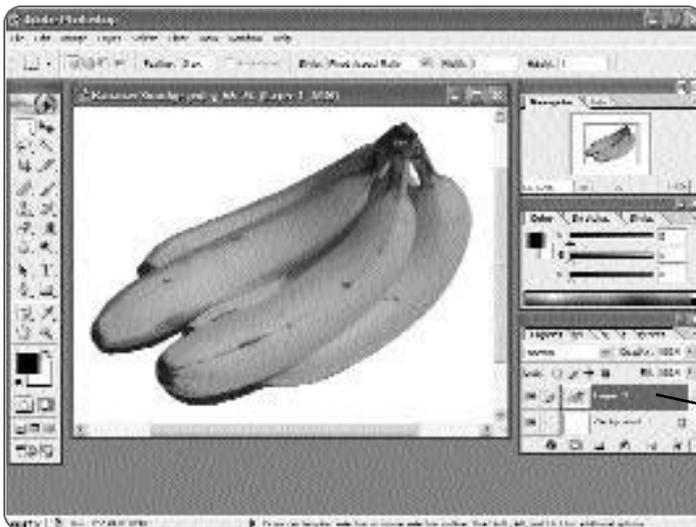


## NOTE

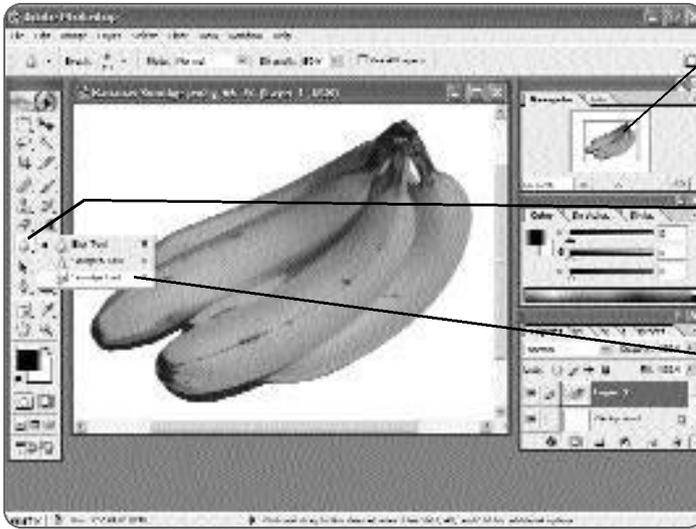
The Blur tool can be quite subtle, but if you compare the outline of the bunch of bananas in the last screen shot with the prior two, you can see the blurring that's been applied around the bananas.

## Smudging an Area

The Smudge tool helps you drag color from one area into another, much as you could with a paintbrush full of wet paint. You can use the smudge tool to add a painted effect in a very specific area of the image. Smudging resembles blurring, but has a much more dramatic effect. Follow the next set of steps to practice smudging.



**1. Click on the layer** in the Layers palette that holds the content you want to smudge. The selected layer will become the active layer.

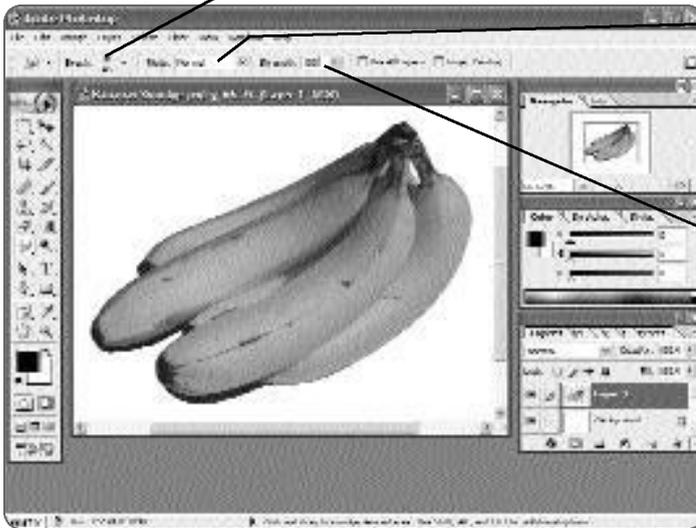


**2. Use the Navigator** to zoom in on and display the area to smudge. The selected area will become more visible.

**3. Right-click** on the **Blur tool** in the toolbox. A submenu will appear.

**4. Click on Smudge Tool.** The Smudge tool will become the active tool.

**5. Choose a Brush style** on the options bar. The selected brush will become active for the Smudge tool.

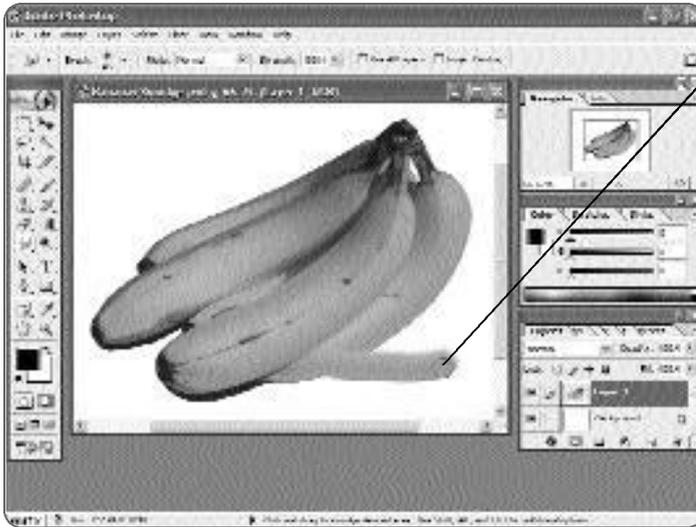


**6. Make** a choice from the **Mode** drop-down list on the options bar. The selected mode will become active for the Smudge tool.

**7. Select the Strength** text box contents, **type a new entry**, and **press Enter**. (Alternately, click on the right arrow beside the Strength choice, drag the slider, and then click on the right arrow again.) The strength setting will become active for the Smudge tool.

**NOTE**

If you click on the Finger Painting check box in the options bar to check it, dragging with the Smudge tool will paint using the currently selected foreground color.



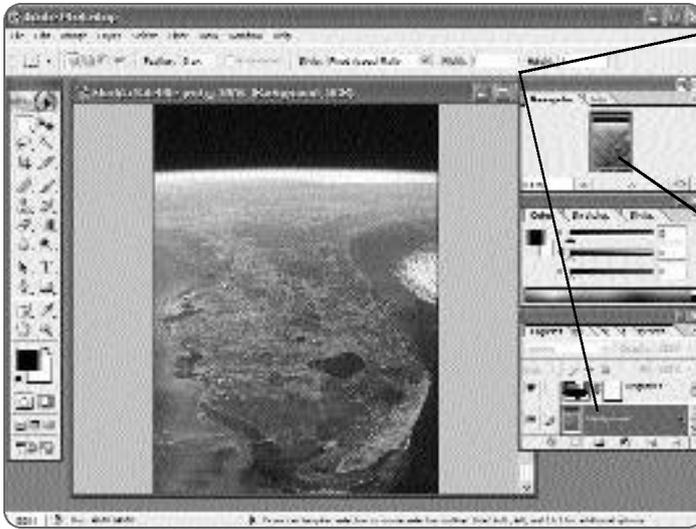
**8. Drag** on the **layer** over two contrasting colors to make the smudge. Smudging will begin to appear. When you finish creating all the needed smudges, you can continue working with another tool or operation in Photoshop.

**NOTE**

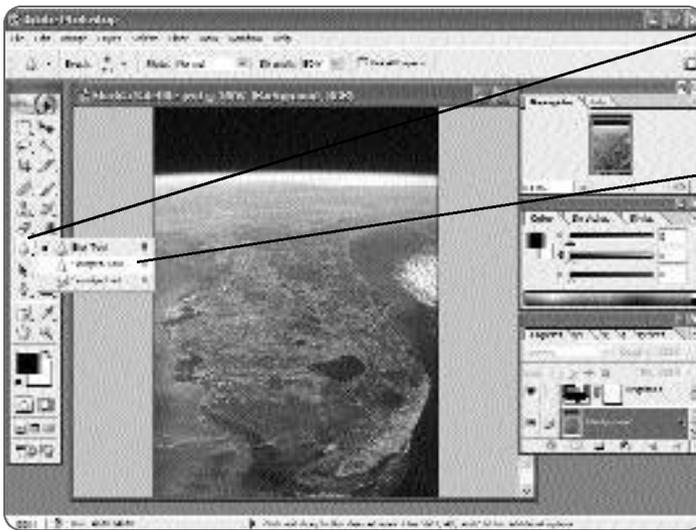
You can make the effects of the Blur, Smudge, or Sharpen tool partially transparent after you use the tool. To do so, click on Edit, and then click on Fade (*Tool Name*). Specify an Opacity setting in the Fade dialog box that appears, and then click on OK.

## Sharpening an Area

The Sharpen tool works in the opposite way as the Blur tool: It tries to improve the focus of edges that are soft so that the image appears clearer. So, for example, you might want to use this tool if one small spot on a layer looks out of focus.

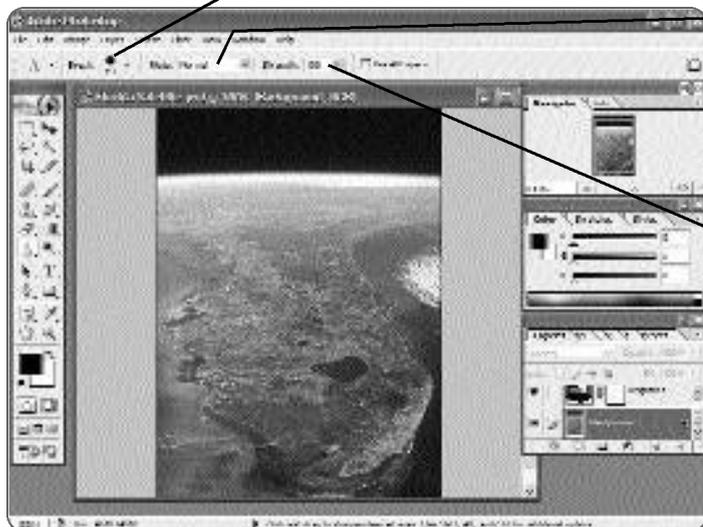


1. Click on the **layer** in the Layers palette that holds the content you want to sharpen. The selected layer will become the active layer.
2. Use the **Navigator** to zoom in on and display the area to sharpen. The selected area will become more visible.



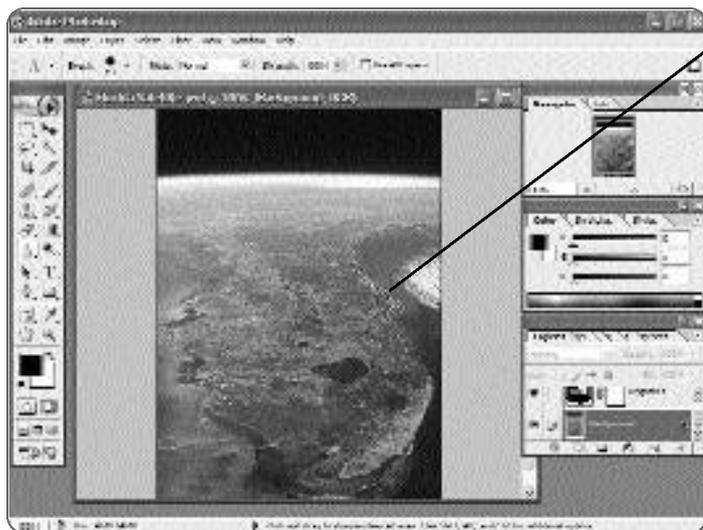
3. **Right-click** on the **Blur tool** in the toolbox. A submenu will appear.
4. Click on **Sharpen Tool**. The Sharpen tool will become the active tool.

**5. Choose a Brush style** on the options bar. The selected brush will become active for the Sharpen tool.



**6. Make** a choice from the **Mode** drop-down list on the options bar. The selected mode will become active for the Sharpen tool.

**7. Select the Strength** text box contents, **type a new entry**, and **press Enter**. (Alternately, click on the right arrow beside the Strength choice, drag the slider, and then click on the right arrow again.) The strength setting will become active for the Sharpen tool.



**8. Click or drag** on the **layer** to apply the sharpening. Sharpening will begin to appear. When you finish adding all the needed sharpening, you can continue working with another tool or operation in Photoshop.

**NOTE**

If you use a large, sharp brush and a higher Strength setting with the Sharpen tool, clicking or dragging can have unwanted effects beyond sharpening—the color of pixels outside the area to be sharpened may be changed dramatically. Even though the impact of sharpening can be subtle, you still want to use the Sharpen tool sparingly to avoid those unwanted changes.

## Erasing Image Content

Photoshop offers three different eraser tools so that you can achieve exactly the erasing effect that you need in any particular situation.

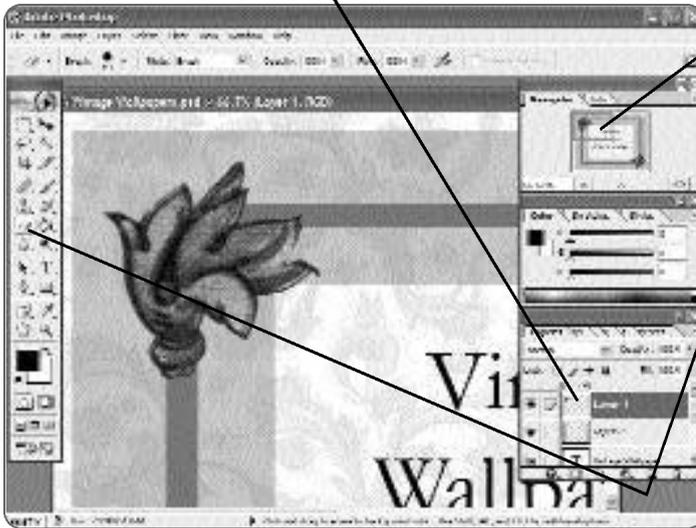
### Using the Eraser

The standard Eraser tool erases color or content on a layer, enabling the background layer in the image to show through to varying degrees, depending on the opacity you specify. If you're working on the background layer itself, using the standard Eraser actually paints or draws the currently selected background color rather than erasing layer content. The following steps show an example of each of these uses for the Eraser.

**CAUTION**

The Eraser tools don't work on shape layers. To work around this issue, create a new layer using the Layer, New, Layer command. Choose the shape layer in the Layers palette, and select and copy its content using the Edit, Copy Merged command. Then choose the new layer you created in the Layers palette and use the Edit, Paste command to paste the content onto it. You can then delete the shape layer and erase as needed on the new layer.

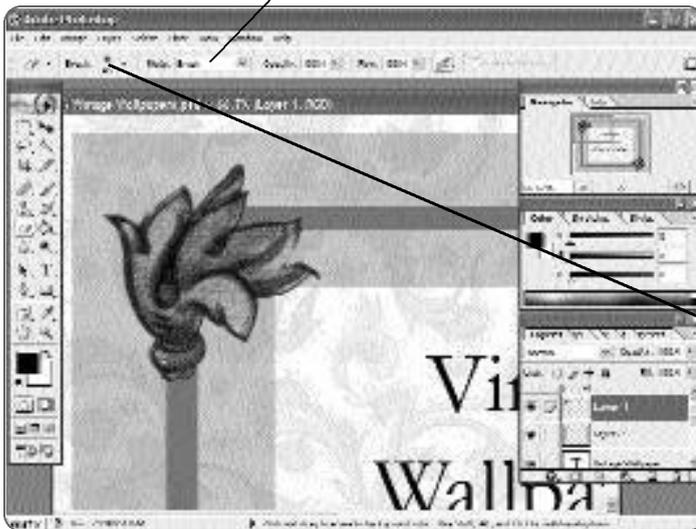
**1. Click** on the **layer** in the Layers palette that holds the content you want to erase. (In this case, click on any regular layer except the background layer.) The selected layer will become the active layer.



**2. Use** the **Navigator** to zoom in on and display the area to erase. The selected area will become more visible.

**3. Click** on the **Eraser tool**. The Eraser tool will become the active tool.

**4. Make** a choice from the **Mode** drop-down list on the options bar. The selected mode will become active for the Eraser tool.

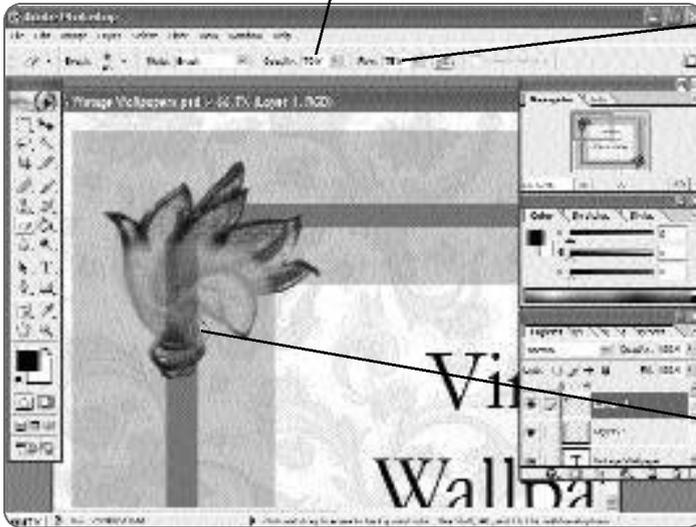


#### NOTE

Because the Mode choice affects the available Brush choices in this case, choose the Mode first. If you choose the Block mode, you cannot choose a brush shape.

**5. Choose** a **Brush** style on the options bar. The selected brush will become active for the Eraser tool. Note that selecting certain brush styles enables airbrush capabilities for the Eraser tool.

**6.** Select the **Opacity** text box contents, **type a new entry**, and **press Enter**. (Alternately, click on the right arrow beside the Opacity choice, drag the slider, and then click on the right arrow again.) The opacity setting will become active for the Eraser tool.



**7.** If available, **select the Flow** text box contents, **type a new entry**, and **press Enter**. (Alternately, click on the right arrow beside the Flow choice, drag the slider, and then click on the right arrow again.) The flow setting will become active for the Eraser tool, controlling how quickly the eraser works.

**8.** **Click** or **drag** on the **desired layer**. Photoshop will erase the current layer's content and reveal the content on the background layer.

### TIP

Checking Erase to History on the options bar makes the Eraser tool restore the area over which you drag to the state (appearance) it had when you last saved the file.

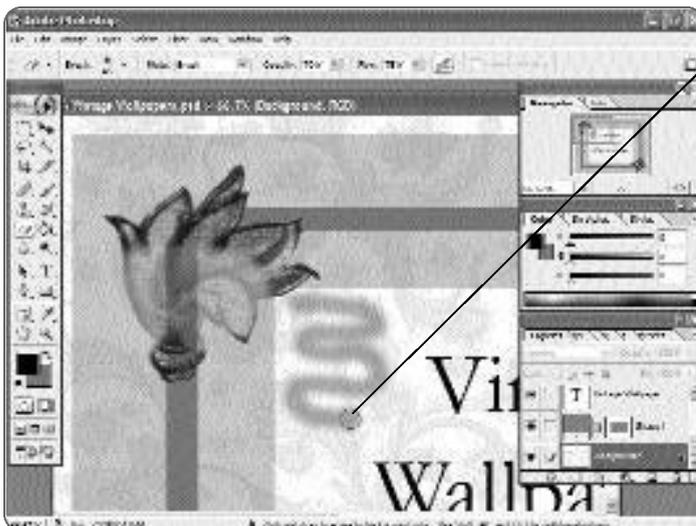


**9. Click on the background layer** in the Layers palette. The background layer will become the active layer.

**10. Press and hold the Alt key**, then **click on the desired background color** in the color ramp at the bottom of the Color palette.

### NOTE

If pressing Alt and clicking selects the foreground color instead, click on the Set Background Color color chip or box near the left side of the Color palette, and then Alt+click on the desired background color.



**11. Drag on the background layer.** The Eraser tool will paint the selected background color on the background layer. When you finish using the Eraser tool, you can continue working with another tool or operation in Photoshop.

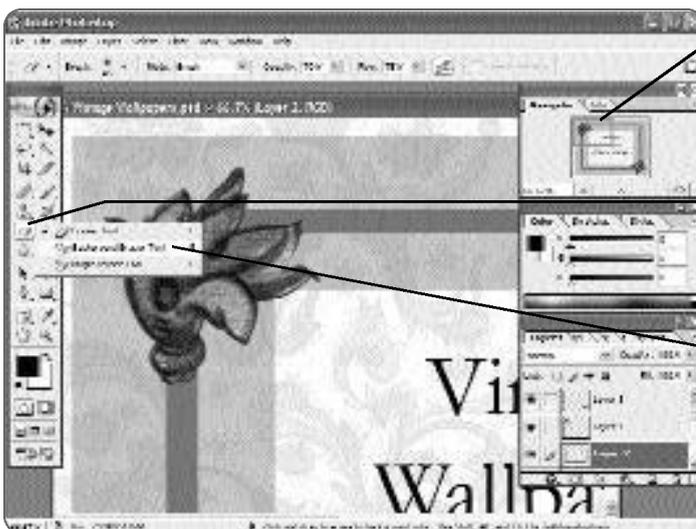
## Using the Background Eraser

The Background Eraser tool erases the content on any layer, including both the foreground and background colors on the layer. Areas you erase with this tool become transparent, so

that content on other layers in the image can show through. If the image has only one layer, or if you're erasing the background layer and there's no content in front of it, then the areas erased with this tool will be transparent if the image file is placed in a document.



**1. Click on the layer** in the Layers palette that holds the content you want to erase. The selected layer will become the active layer.



**2. Use the Navigator** to zoom in on and display the area to erase. The selected area will become more visible.

**3. Right-click on the Eraser tool.** A shortcut menu will appear.

**4. Click on Background Eraser Tool.** The Background Eraser tool will become the active tool.

**5.** Click on the **Brush style** on the options bar. A palette of brush options will appear.



**6.** Make **Diameter**, **Hardness**, **Spacing**, **Angle**, and **Roundness** choices in the palette. The selected choices will affect the shape of the eraser brush as follows:

- **Diameter.** Enables you to specify the size of the brush (the area to be erased).
- **Hardness.** Enables you to specify the size of the brush's hard center, as a percentage of the total diameter.
- **Spacing.** If you want erasure brush strokes to be noncontiguous as you erase, increase this setting to add spacing or skips.
- **Angle.** This setting works with the Roundness value you've specified to tip the brush shape. You can either enter a value in the Angle text box or drag the arrow axis on the brush preview.
- **Roundness.** Enables you to specify whether a brush is round. Decrease this value to less than 100% to decrease roundness.

## NOTE

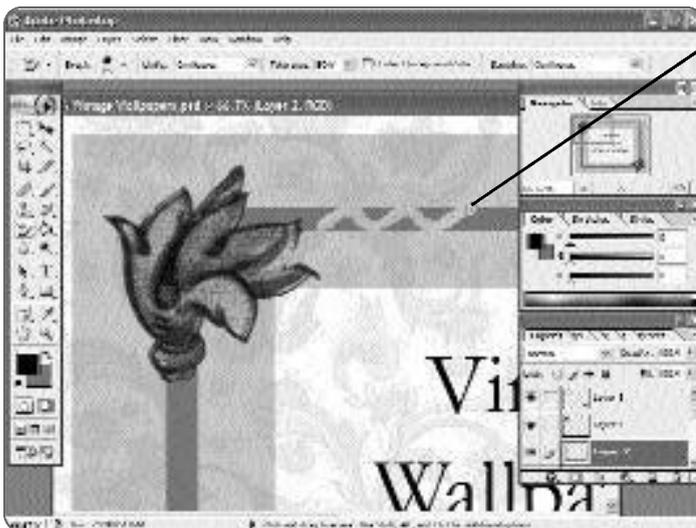
Use the bottom two settings, **Size** and **Tolerance**, to further control the brush when you're using a graphics tablet with Photoshop.

7. Click the **Brush style down arrow**. The palette of brush settings will close.



8. Make **Limits**, **Tolerance**, and **Sampling choices** on the options bar. The selected choices will affect the erasing as follows:

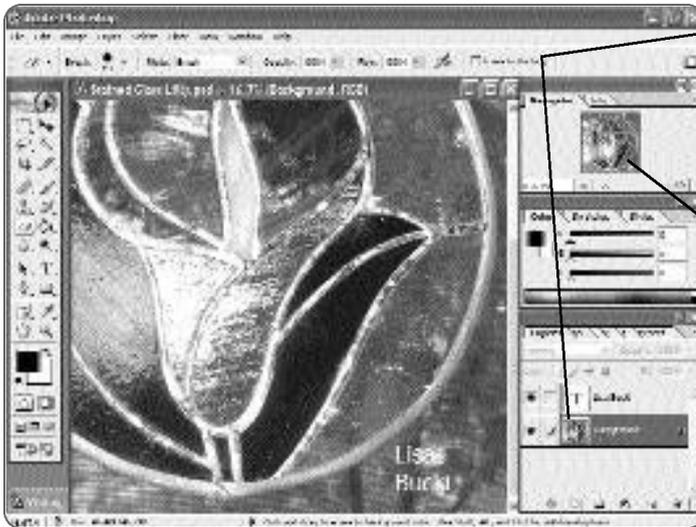
- **Limits.** Controls how far the erasing can spread, based on dragging over similar colors.
- **Tolerance.** Controls whether the eraser will erase only pixels of alike colors (lower settings) or similar colors.
- **Sampling.** Determines whether erasing tests matching colors continuously or by the color initially selected.



9. Click or drag on the **layer** to erase. Photoshop will erase the current layer's content, leaving a transparent area behind.

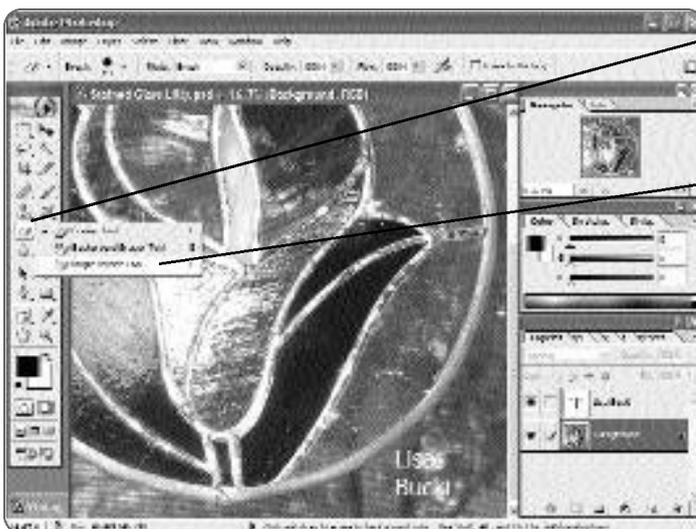
## Using the Magic Eraser

Use the Magic Eraser tool when you want to erase a contiguous area of color on a layer. You can either completely erase the area of color or make the erasure less opaque so that only part of the color area is erased.



**1. Click on the layer** that holds the content to erase in the Layers palette. The selected layer will become the active layer.

**2. Use the Navigator** to zoom in on and display the area to blur. The selected area will become more visible.



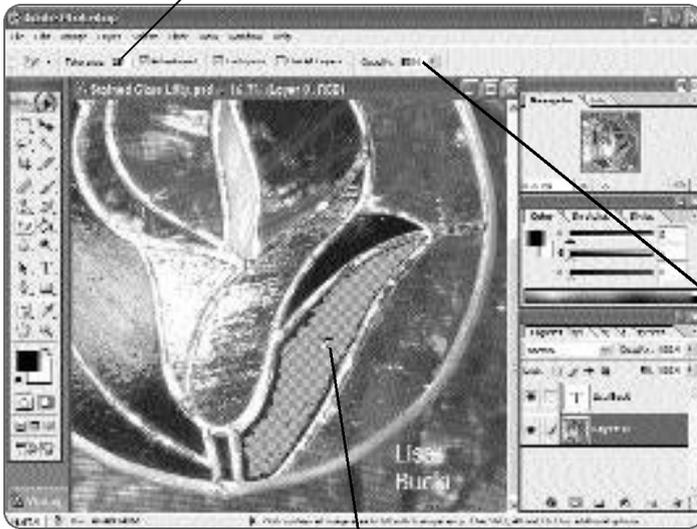
**3. Right-click on the Eraser tool.** A shortcut menu will appear.

**4. Click on Magic Eraser Tool.** The Magic Eraser tool will become the active tool.

**5. Make a Tolerance entry** on the options bar. The specified setting will become active for the Magic Eraser tool. Lower settings will tell the tool to erase only colors that are a closer match; higher settings will enable the tool to erase less similar colors.

### TIP

To make a Tolerance entry, drag over the contents of that text box, type a new entry, and press Enter.



**6. Select the Opacity text box contents, type a new entry, and press Enter.** (Alternately, click on the right arrow beside the Opacity choice, drag the slider, and then click on the right arrow again.) The Opacity setting will become active for the Magic Eraser tool.

**7. Click or drag on the area with the color to erase** on the current layer. Photoshop will erase the selected color and any matching adjacent areas, applying transparency if specified.

### TIP

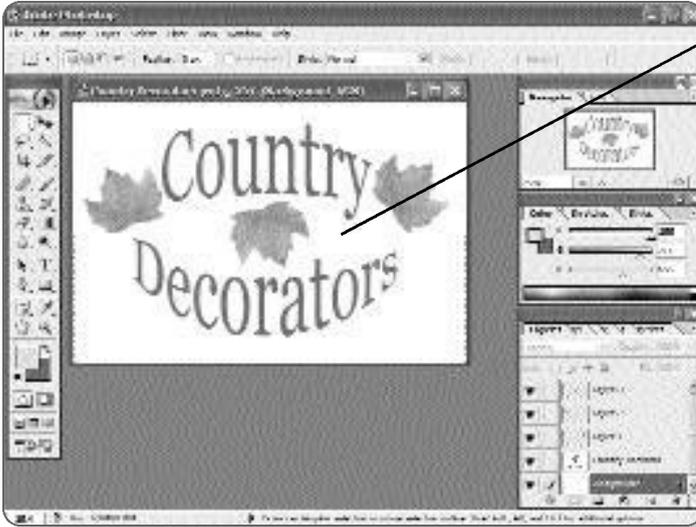
No matter what types of changes you're making, don't forget to save your file from time to time.

## Adding a Gradient

You can add a gradient onto most layers, except for layers that hold text. The gradient blends the colors you specify, so you may have a bit more flexibility when you use this method to add a gradient, as opposed to inserting a gradient fill layer as described in Chapter 8 in the section called “Adding a Gradient Layer.” For example, you can add the gradient within the selection on a layer. These steps describe how to use the Gradient tool.



1. Click on the **foreground color** for the gradient on the **color ramp** in the Color palette. The selected color will become the foreground color (first color) for the blend.
2. Press and hold the **Alt** key, and click on the **background color** for the gradient on the **color ramp** in the Color palette.
3. Click on the **layer** to which you want to add the gradient in the Layers palette. The selected layer will become the active layer.



4. If you want to fill a particular area with a gradient, **select the area** first (either manually or with a path) or use a mask to prevent Photoshop from displaying the gradient in the affected area.

5. Click on the **Gradient tool** in the toolbox. The Gradient tool will become the active tool.



6. Click on a **gradient style** button. (The available choices include Linear Gradient, Radial Gradient, Angle Gradient, Reflected Gradient, and Diamond Gradient.) Photoshop will apply the selected style.

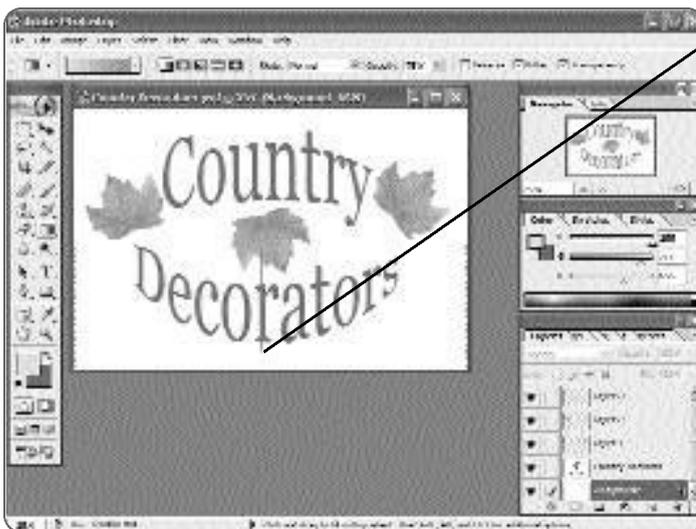
7. Select the **Opacity** text box contents, **type a new entry**, and **press Enter**. (Alternately, click on the right arrow beside the Opacity choice, drag the slider, and then click on the right arrow again.) The Opacity setting will become active for the Gradient tool.

**NOTE**

If needed, click on the down arrow beside the Gradient Picker box, and then click on a new gradient to use. Photoshop will apply the selected gradient and its colors. If you click on the Gradient Picker box itself, the Gradient Editor dialog box opens. You can use it to edit the gradient style, or click on the arrow button at the top right of the Presets section of the dialog box and then click on a choice at the bottom of the submenu that appears to see other gradient possibilities.

**NOTE**

Changing the Mode setting can allow the Gradient tool (and the Paint Bucket tool, described in the next section) to apply a different behavior, such as dissolving the image.



**8. Drag** on the **layer** to set the angle or center point for the gradient (depending on the style you selected in Step 6). Photoshop applies the gradient immediately.



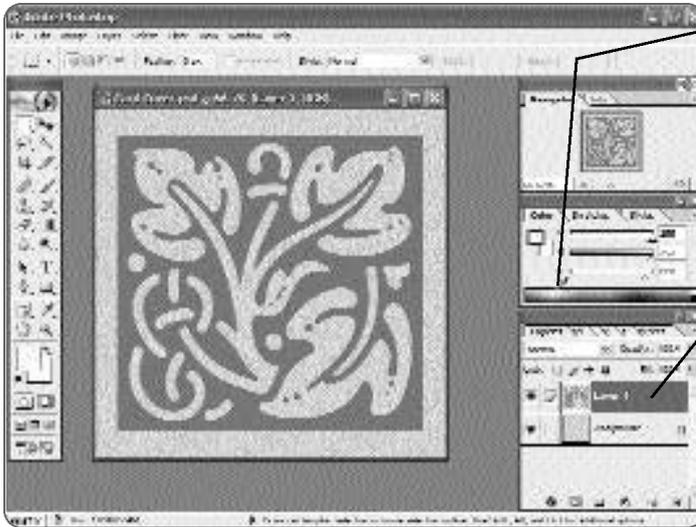
**9. Review the results.** (If you made a selection, you can deselect it first.) As with other types of effects you create, the gradient interacts with other content on the layer, blending with that content if the gradient wasn't 100% opaque. Note that in this instance, because the text and leaf images appear on separate layers and those layers are in the front of the image, the gradient doesn't fill or overlay the content of the other layers. After you finish the gradient, you can work with another tool or operation in Photoshop.

## Filling with the Paint Bucket

Use the Paint Bucket tool to fill a contiguous area of color (or similar colors) with the current foreground color.

### CAUTION

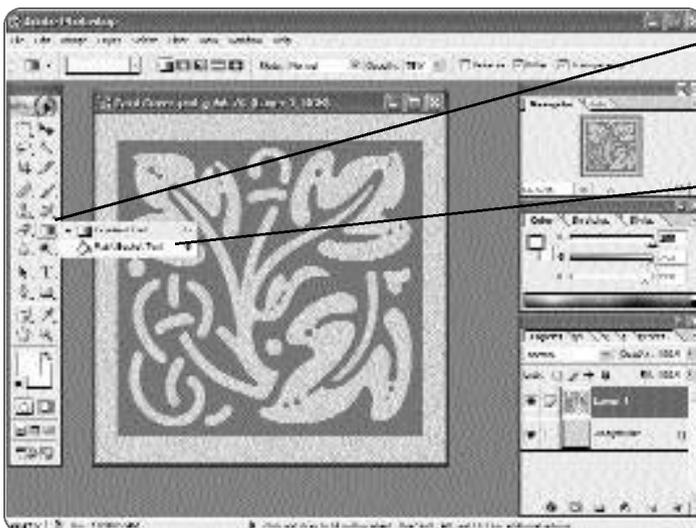
The Paint Bucket tool doesn't work on shape layers. To work around this issue, create a new layer using the Layer, New Layer command. Choose the shape layer in the Layers palette and select and copy its content using the Edit, Copy Merged command. Then choose the new layer you created in the Layers palette and use the Edit, Paste command to paste the content onto it. You can then delete the shape layer and erase as needed on the new layer.



1. Click on the **foreground color** for the fill on the **color ramp** in the Color palette. The selected color will become the fill color for the Paint Bucket tool.
2. Click on the **layer** in the Layers palette that includes the area you want to fill. The selected layer will become the active layer.

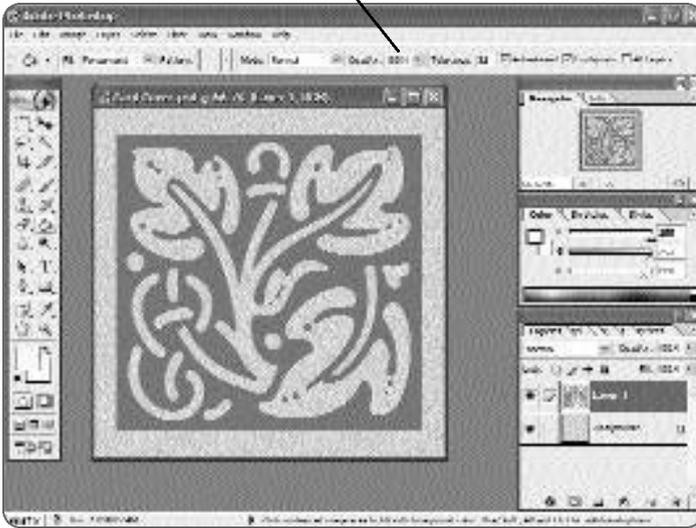
### TIP

If you want to fill a particular area with the selected color, select the area first (either manually or with a path) on the layer, and then click in the selection later to fill it.



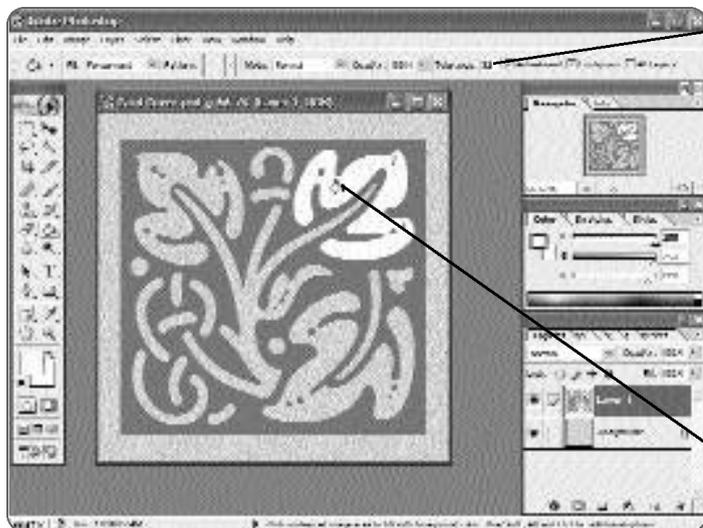
3. **Right-click** on the **Gradient tool** in the toolbox. A shortcut menu will appear.
4. Click on **Paint Bucket Tool**. The Paint Bucket tool will become the active tool.

**5. Select the Opacity text box contents, type a new entry, and press Enter.** (Alternately, click on the right arrow beside the Opacity choice, drag the slider, and then click on the right arrow again.) The Opacity setting will become active for the Paint Bucket.



### TIP

If you want to use the Paint Bucket to fill an area with a pattern, choose Pattern from the Fill drop-down list, and then choose a pattern from the Pattern drop-down list. The steps in the section called "Adding a Pattern Layer" in Chapter 8 explain how to save a pattern choice based on an image selection.



**6. Select the Tolerance** text box contents, **type a new entry**, and **press Enter**. The Tolerance setting will become active for the Paint Bucket tool.

(Remember, *tolerance* refers to how carefully a tool must match the color of the area on the selected layer you click on in order to identify which pixels to fill or erase.)

**7. Click** on the **area** to fill with the foreground color you selected. Photoshop applies the

gradient immediately. Even if the layer includes other areas with the same color, those areas will not be filled if they are not contiguous. After you finish filling, you can work with another tool or operation in Photoshop.

## Using Photo Techniques

One of the past benefits of using a professional photographer was the photographer's (or the photo lab's) ability to manipulate lighting—both when shooting the initial photo and when creating the prints. The Dodge, Burn, and Sponge tools in Photoshop help you mimic a photographer's tricks in correcting lighting in an image. The Healing Brush and Patch tools help you repair an image, such as a scanned image of a photo with spots, scratches, and other blemishes.

### Dodging an Area

Use the Dodge tool to lighten an area that's too dark in your image. In the case of scanned content or a photo downloaded from a digital camera, *dodging* can actually reveal detail that previously wasn't visible in the image. Follow these steps to work with dodging.

**1. Open the image** to correct and **select the desired layer and zoom**, if needed. The image (and layer) will become active or current.



**2. Click on the Dodge tool** in the toolbox. The Dodge tool will become the active tool.

**3. Choose options** on the options bar as needed. The options for the Dodge tool are:

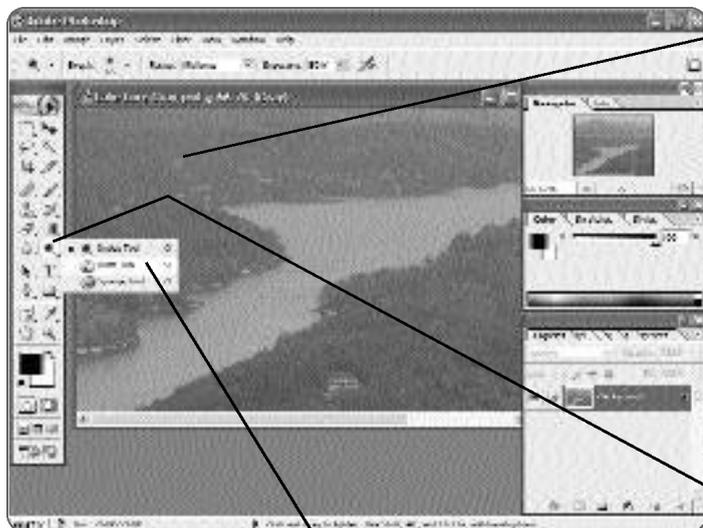
- **Brush.** Designates the brush style for the tool.
- **Range.** Specifies whether the Dodge tool affects shadows, midtones, or highlights in the areas over which you drag.
- **Exposure.** Identifies how much of a change the Dodge tool makes as you drag.

- **Airbrush.** This button enables the airbrush effect for the tool.

**4. Click on or drag over the area(s) to dodge.** Photoshop makes the corrections immediately. After you finish dodging, you can work with another tool or operation in Photoshop.

## Burning an Area

The Burn tool has the opposite impact as the Dodge tool. *Burning* darkens an area in the image, as if more light were directed to that area when the “photo” was being developed. You can use burning to help balance an area that seems weak or too light in an image, or to emphasize a particular area. In the case of a color image, burning can intensify the color in an area and make it stand out from its background a bit more.



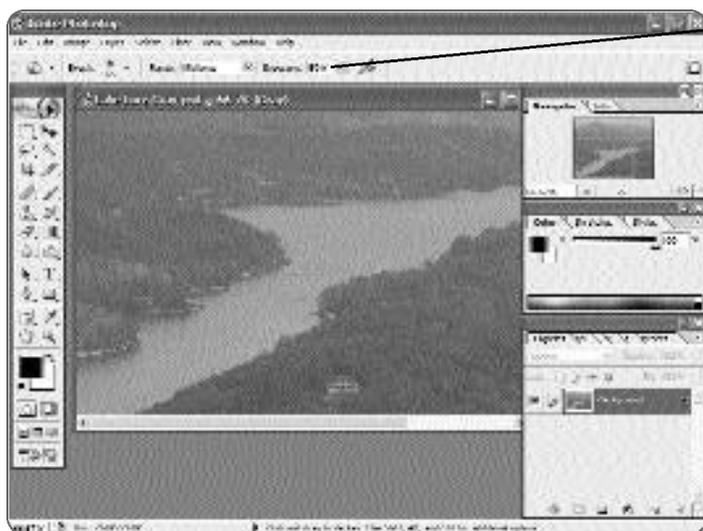
**1. Open the image** to correct and **select the layer to burn**, if needed. The image (and layer) will become active or current.

### TIP

Use the Navigator whenever you need to zoom in on the area to correct with a tool.

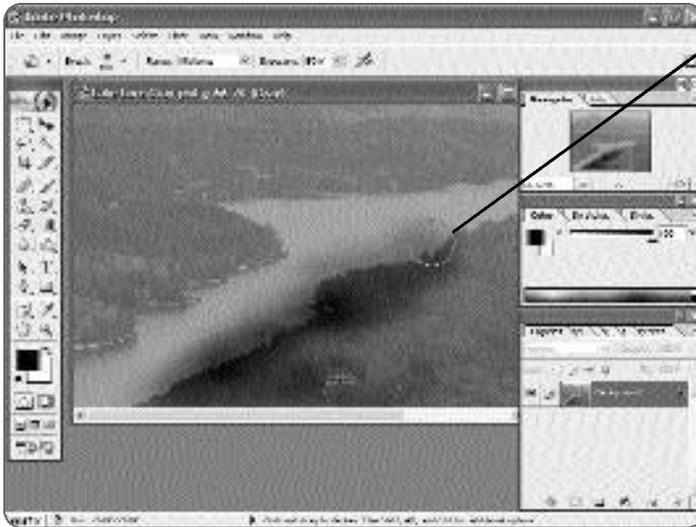
**2. Right-click** on the **Dodge tool** in the toolbox. A shortcut menu will appear.

**3. Click** on **Burn Tool**. The Burn tool will become the active tool.



**4. Choose options** on the options bar as needed. The options for the Burn tool are:

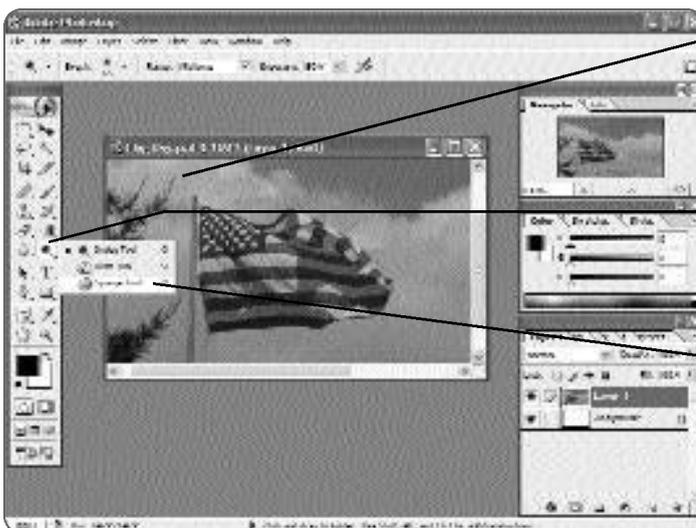
- **Brush.** Designates the brush style for the tool.
- **Range.** Specifies whether the Burn tool affects shadows, midtones, or highlights in the areas over which you drag.
- **Exposure.** Identifies how much of a change the Burn tool makes as you drag.
- **Airbrush.** This button enables the airbrush effect for the tool.



**5. Click on or drag over the area(s) to burn.** Photoshop makes the corrections immediately. After you finish burning, you can work with another tool or operation in Photoshop.

## Sponging an Area

The Sponge tool (*sponging*) changes color saturation in a color image and contrast in a grayscale image. In either case, using the Sponge tool helps make the area you're correcting appear more bright or crisp, to help it stand out from surrounding content in the image.



**1. Open the desired image** and select the layer to correct, if needed. The image (and layer) will become active or current.

**2. Right-click** on the **Dodge tool** in the toolbox. A shortcut menu will appear.

**3. Click on Sponge Tool.** The Sponge tool will become the active tool.



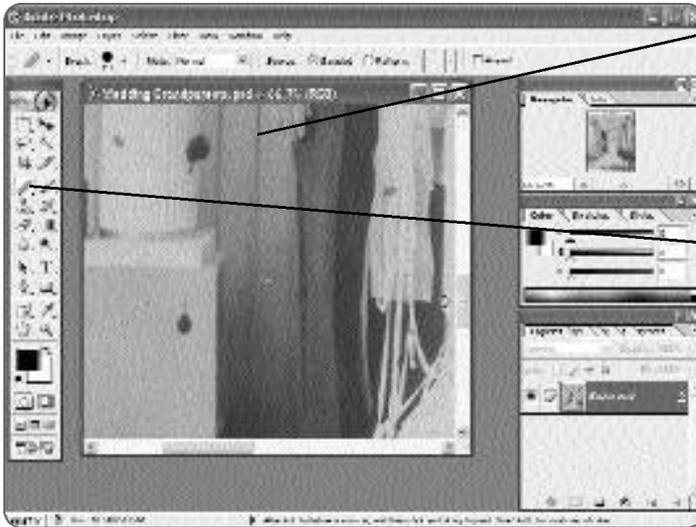
**4. Choose options** on the options bar as needed. The options for the Sponge tool are:

- **Brush.** Designates the brush style for the tool.
- **Mode.** Specifies whether the Sponge tool saturates (adds more color intensity) or desaturates (decreases color intensity) in the area you drag over.
- **Flow.** Identifies how much of a change the Sponge tool makes as you drag.
- **Airbrush.** This button enables the airbrush effect for the tool.

**5. Click on or drag over the area(s) to sponge.** Photoshop makes the corrections immediately. After you finish sponging, you can work with another tool or operation in Photoshop.

## Using the Healing Brush

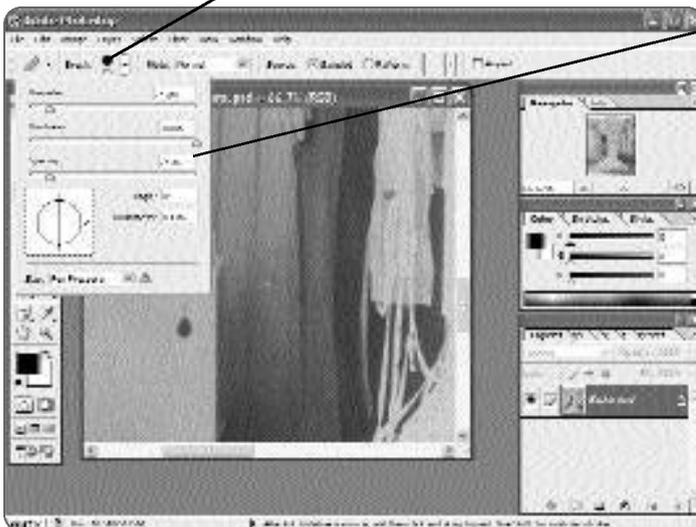
Spots, scratches, pen marks, and more can all mar an image. Fortunately, Photoshop 7 introduces the Healing Brush tool, which you can use to repair imperfections much more easily than was possible in the past. With the Healing Brush tool, you sample an area that resembles the flaw to fix, and then paint over the flaw. Follow these steps to try this outstanding tool.



**1. Open the desired image** and select the layer to correct. The image (and layer) will become active or current. Zoom in, if needed.

**2. Click on the Healing Brush tool.** The Healing Brush tool will become the active tool.

**3. Click on the Brush style** on the options bar. A palette of brush options will appear.



**4. Make Diameter, Hardness, Spacing, Angle, and Roundness** choices in the palette. The selected choices will affect the shape of the Healing Brush tool as follows:

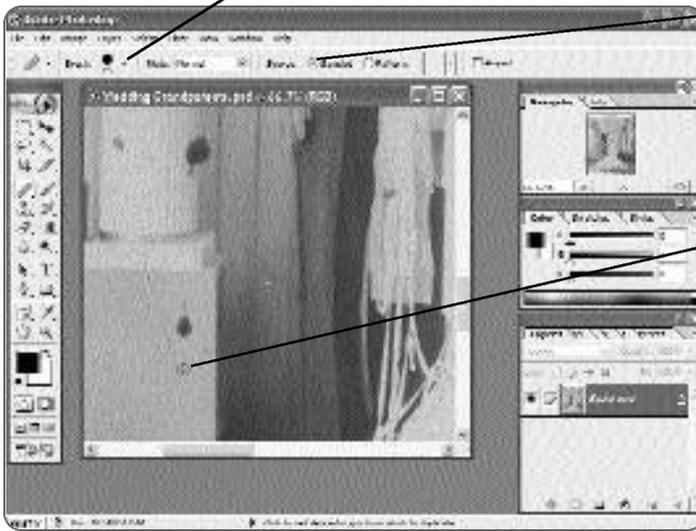
- **Diameter.** Enables you to specify the size of the brush (the area to be “healed”).
- **Hardness.** Enables you to specify the size of the brush’s hard center, as a percentage of the total diameter.
- **Spacing.** If you want erasure brush strokes to be noncontiguous as you heal, increase this setting to add spacing or skips.

- **Angle.** This setting works with the Roundness value you've specified to tip the brush shape. You can either enter a value in the Angle text box or drag the arrow axis on the brush preview.
- **Roundness.** Enables you to specify whether a brush is round. Decrease this value to less than 100% to decrease roundness.

### NOTE

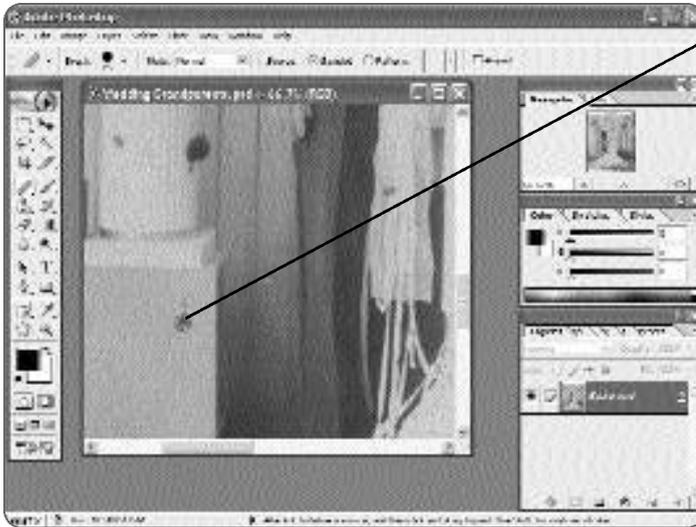
Use the bottom setting, Size, to further control the brush when you're using a graphics tablet with Photoshop.

- 5. Click on the **Brush style down arrow**.** The palette of brush settings will close.

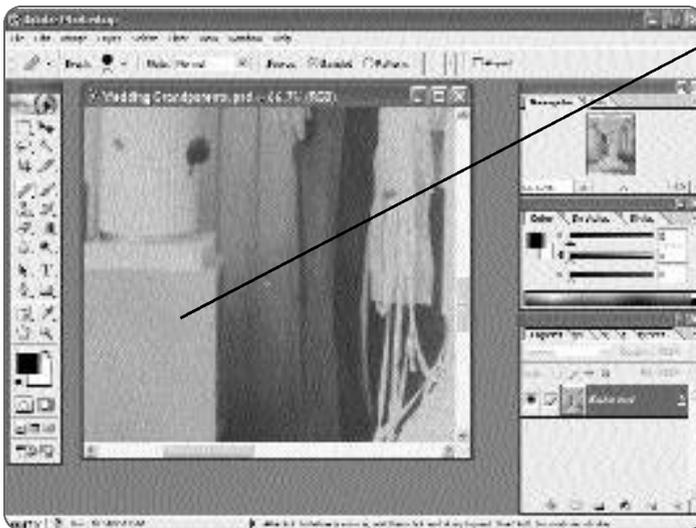


- 6. Click on the **Sampled** option button to select it, if needed.** The Healing Brush tool will use the area you sample in the image to make the needed repair.

- 7. Alt+click on the **area to sample**.** (Of course, you should sample an area that looks like the area to patch.) The target mouse pointer will appear to verify that you are sampling, and the sample will be loaded after you click.



**8. Click again or drag** on the area to repair. Photoshop will cover the flaw using the sampled content.

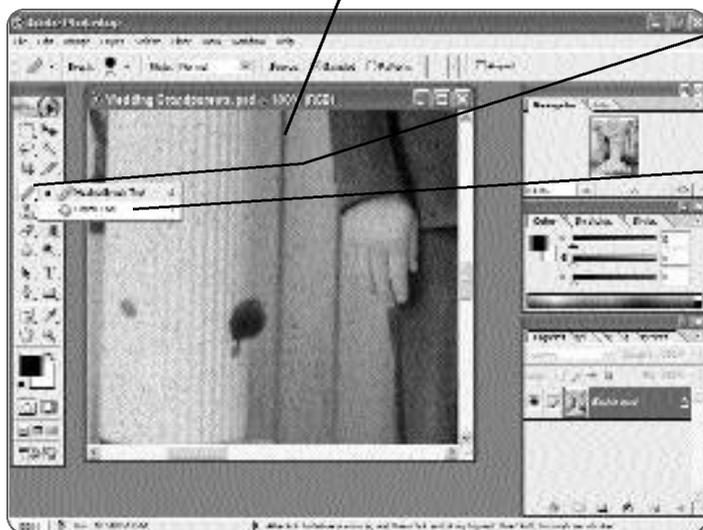


**9. Review the results.** Depending on how close the sample was to the area to be repaired, the repair should be totally or nearly impossible to see.

## Patching a Flaw

Use the new Patch tool to increase the speed with which you can make even more complicated repairs. With this tool, rather than painting over an area with sampled material, you select a patch area from the image and then drag that patch over the area to repair. This tool works particularly well when the area to repair has a pattern, striping, or some other type of texture that the Healing Brush tool cannot capture. Use the following steps to create a patch and use it to repair an image.

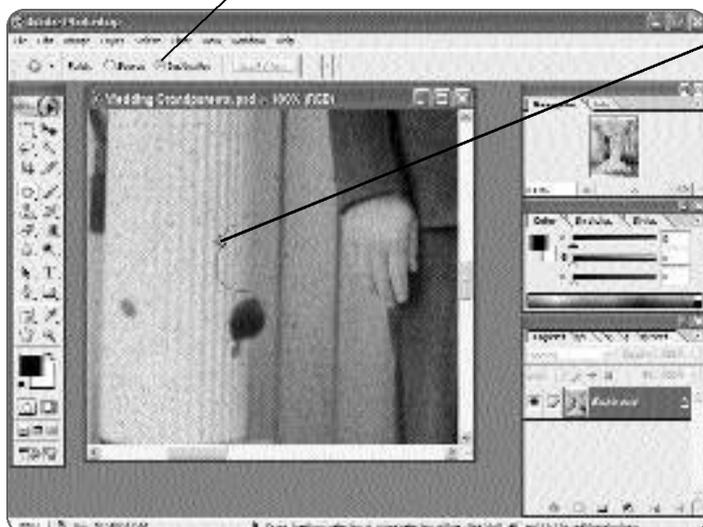
- 1. Open the desired image** and select the layer to correct. The image (and layer) will become active or current. Zoom in, if needed.



- 2. Right-click on the Healing Brush tool** in the toolbox. A shortcut menu will appear.

- 3. Click on Patch Tool.** The Patch tool will become the active tool.

- 4. Click the **Destination** option button on the options bar.** This will set up the Patch tool so that you will first select the sample to use as the patch, and then drag it over the area to be patched.



- 5. Drag on the **image** to select the source area (patch).** The area you drag around will be selected so that you can use it as the patch.

### TIP

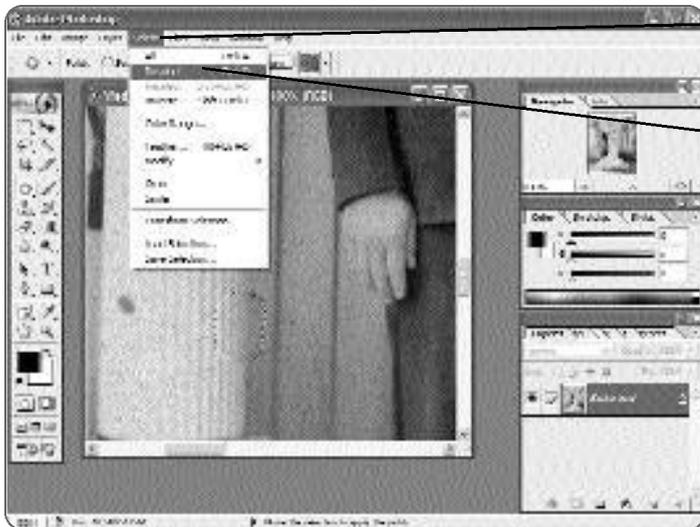
It's important to select a patch source area that's large enough to cover the flaw, but not so large that it will cover nonmatching areas around the flaw.

- 6. Drag the **patch** from the source location over the flaw;** release the mouse button only when you've positioned the patch as needed. The patch will cover the flaw.



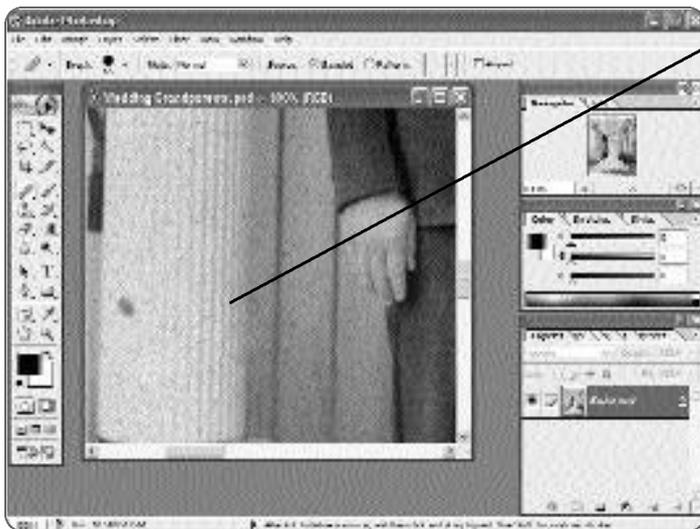
### TIP

As long as the patch remains selected, you can move it and reposition it. You also can rotate the patch (Edit, Transform, Rotate) and make other changes to ensure a precise fit.



**7. Click on **Select**.** The Select menu will appear.

**8. Click on **Deselect**.** The patch selection marquee will disappear.



**9. Review the results.** Depending on how close the patch was to the area to be repaired, the repair will be totally or nearly impossible to see.

# 12

## Working with Image Size and Orientation

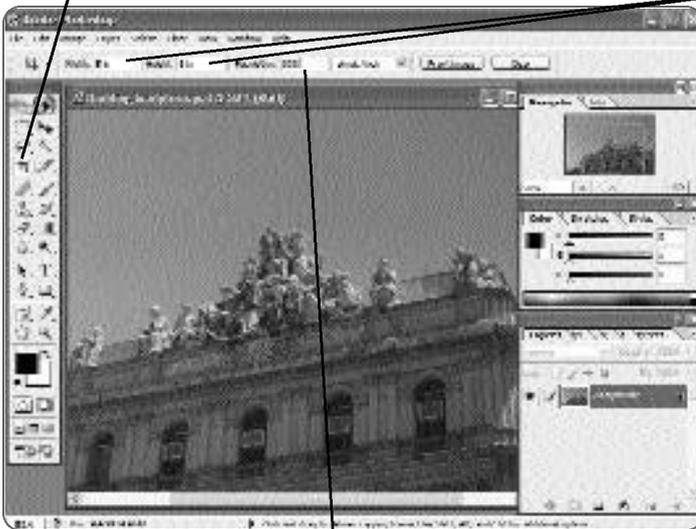
When you create a new image file, you specify its size. When you import an image from a scanner or digital camera, you have less control over the size and orientation of the image. In either case, you can use some tricks to tweak the size and orientation of the image so that it suits your purpose. In this chapter, you'll learn how to:

- Use the Crop tool to crop an image
- Resize the image
- Adjust the image canvas
- Rotate the entire canvas
- Trim the edges of the image

## Cropping the Image

When you crop the image, you select the area of the image that you want to keep, and then have Photoshop hide or remove the unselected portions of the image. You can crop if an image's subject is off-center, if you need to eliminate a distracting element from the image, or if you need to fit the image to a particular height and width.

**1. Click on the **Crop tool** on the toolbox. The Crop tool will become active.**



**2. Make entries in the **Width** and **Height text boxes**, if needed. When you use these text boxes, Photoshop will resize the cropped material to the specified dimensions (in addition to performing the crop).**

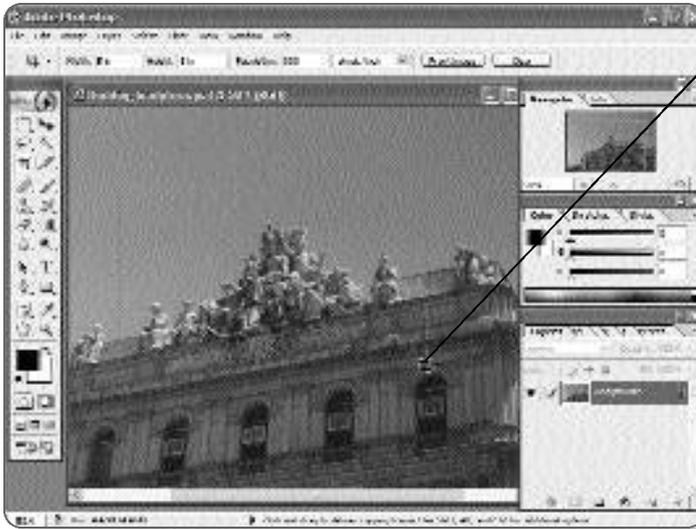
### NOTE

Enter the abbreviation for inches, **in**, in the Width and Height text boxes unless you want to specify the measurement in pixels (px).

### TIP

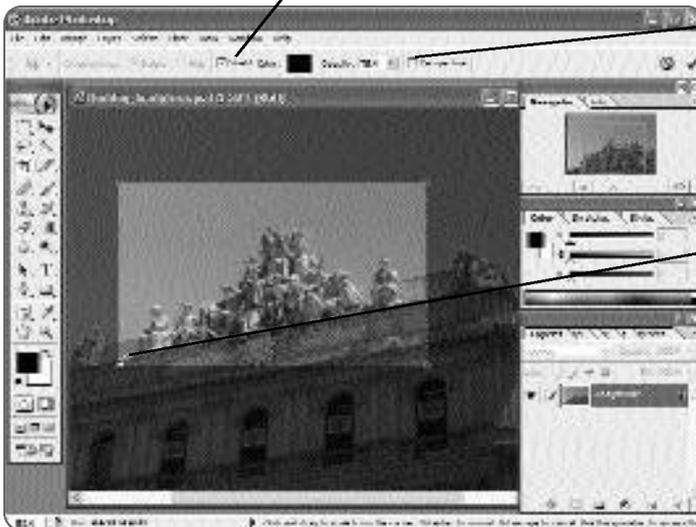
Clicking on **Front Image** loads the current image dimensions into the text boxes.

**3. Make an entry in the **Resolution text box**, if needed. If you make an entry, Photoshop will resample the cropped material to the specified resolution.**



**4. Drag on the image.** This will select the area to keep; the area outside the selection will be shielded or grayed out.

**5. Adjust shielding settings,** if needed. Photoshop will change the temporary shading used to mask the areas to be cropped out of the image.

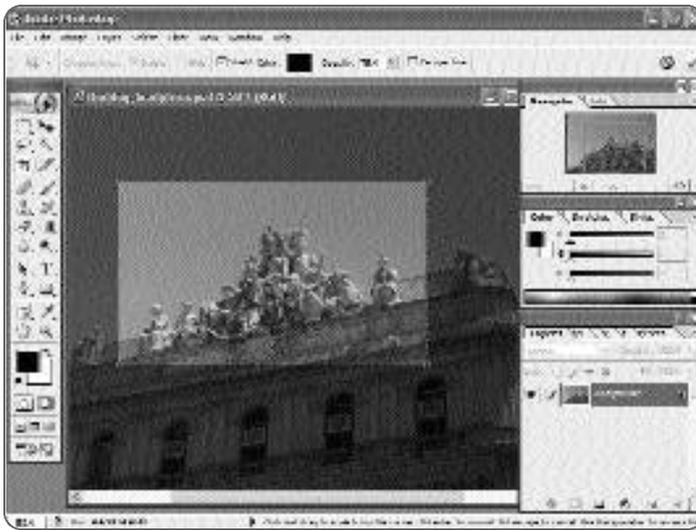


**6. Click on the Perspective check box,** if needed. This will enable perspective cropping, so that you can add perspective while cropping.

**7. Drag the crop selection** to resize or rotate the crop zone. Dragging a corner will resize the crop zone; dragging a side will rotate the crop zone.

**NOTE**

If you click the Crop tool again at this point, a message box appears to ask whether you want to crop the image. You can click on Crop to proceed, Cancel to stop the crop operation, or Don't Crop to remove the cropping selection.



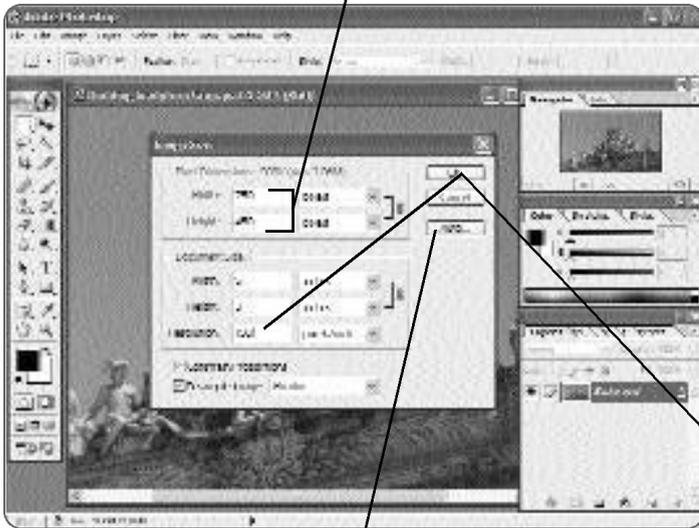
**8.** Click on the **Commit (check)** button on the options bar or **press Enter**. Photoshop will crop the image to the specified zone.

**NOTE**

If you've selected part of the image with a selection tool, you can click on Image and then click on Crop to display the Crop dialog box. Click on an option button to determine whether the cropped out areas should be Hidden or Deleted, and then click on OK to apply the crop.



**3. Enter** a new **Width** or **Height** under either Pixel Dimensions or Document Size. Photoshop will adjust the other three text box entries to keep them proportional.



### TIP

Click on the Constrain Proportions check box to clear the check if you want to resize only one image dimension. Otherwise, changing a Height entry automatically adjusts the Width, and vice versa.

**4. Enter** a new **Resolution**. Photoshop will apply the new resolution setting.

### TIP

Use the Resample Image drop-down list to choose another resampling method for faster (but less accurate) resampling. Or, click on the Resample Image check box to clear it and disable resampling. Doing so constrains the image height, width, and resolution; you can change any one of those settings and Photoshop adjusts the others accordingly.

**5. Click** on **Auto**. The Auto Resolution dialog box will open.

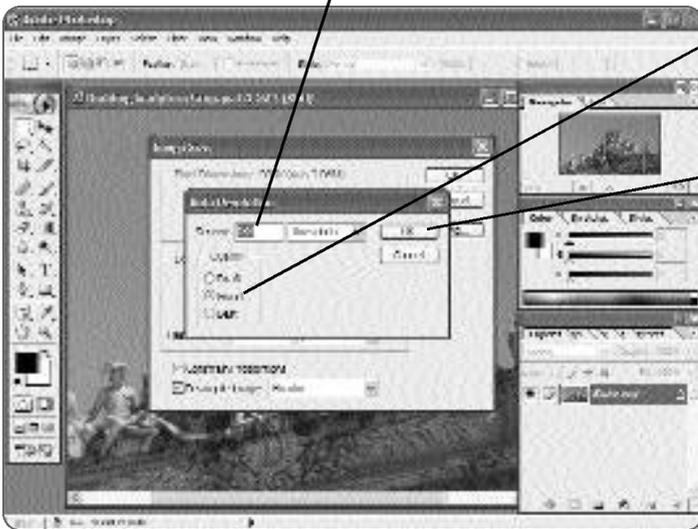
**NOTE**

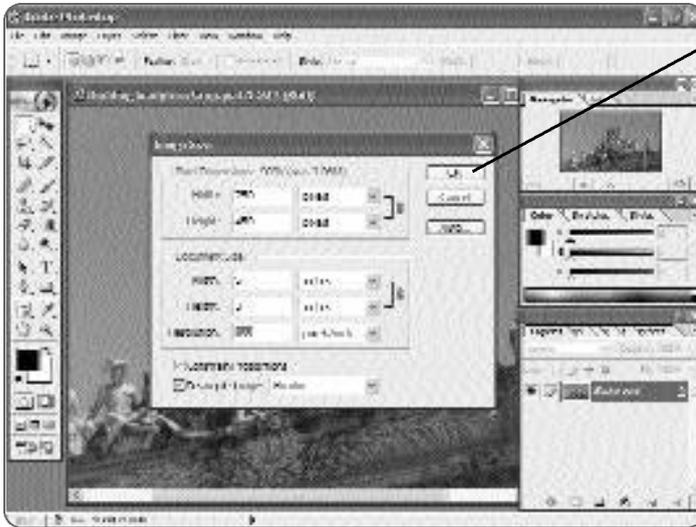
The settings in the Auto Resolution dialog box affect the image if you plan to include it in a document that will be professionally printed. These settings are less important if you'll be using the image online or merely printing it from your own printer.

**6. Make** a new **Screen text box** entry and **choose another measure** from the **Screen drop-down list**, if needed. Photoshop will apply the designated line screen settings when you finish resizing the image.

**7. Click** on a **Quality** option. Photoshop will apply the new quality setting.

**8. Click** on **OK**. The Auto Resolution dialog box will close.

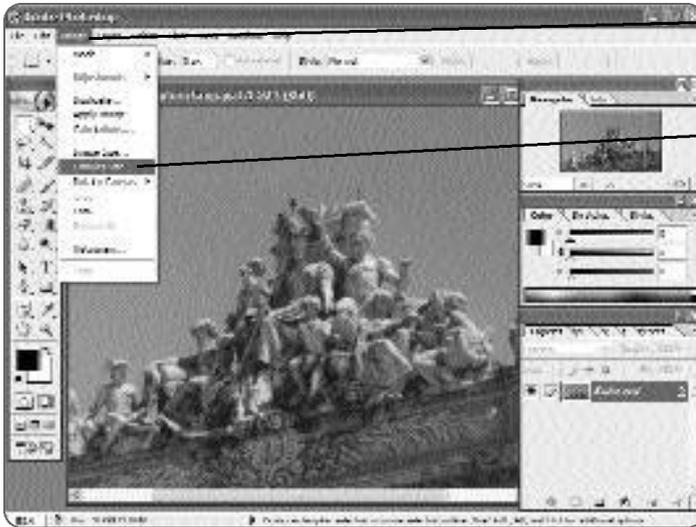




**9. Click on OK.** The Image Size dialog box will close and Photoshop will resize and resample the image as specified.

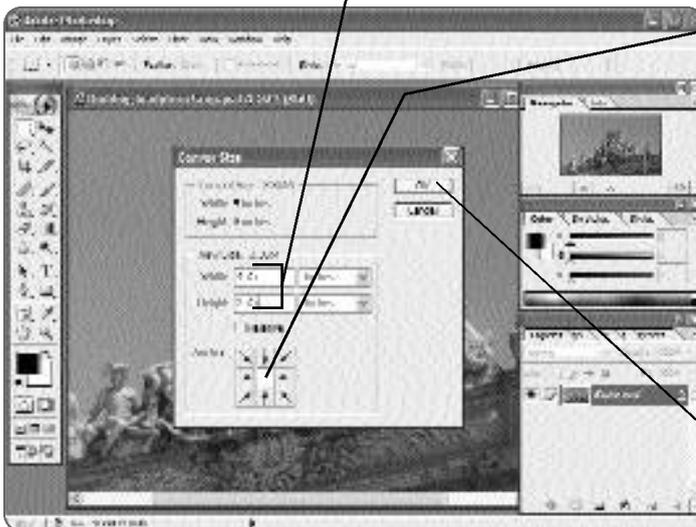
## Changing the Canvas Size

The *canvas size* and image size always use the same dimensions. Thus, changing the canvas size changes the image size, but not in the same way that using the Image Size command does. When you change to a canvas size that's smaller than the current image/canvas size, Photoshop crops out part of the image. When you change to a canvas size that's larger than the current image/canvas size, Photoshop adds white space to the image. (If the image has a filled background, the fill color fills the added space.)

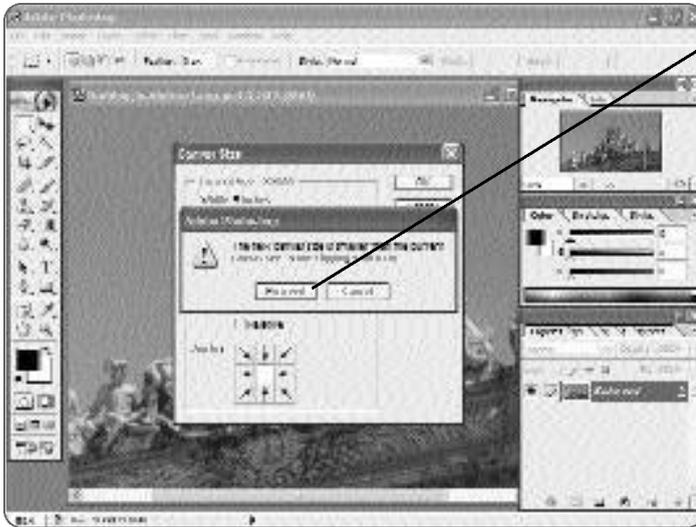


1. Click on **Image**. The Image menu will appear.
2. Click on **Canvas Size**. The Canvas Size dialog box will open.

3. Enter a new **Width** and/or **Height**, and choose another **measurement unit** for each, if needed. Photoshop will display the projected New Size for the image above those measurements.



4. Click another **Anchor** point, if needed. When you're increasing the canvas size, the selected anchor point will control where white space will be added around the image. When you're decreasing the canvas size, the selected anchor point will designate which part of the image to keep and which to crop out.
5. Click on **OK**. Photoshop will apply the new canvas size, unless it needs to display a warning regarding the size change, as shown in Step 6.



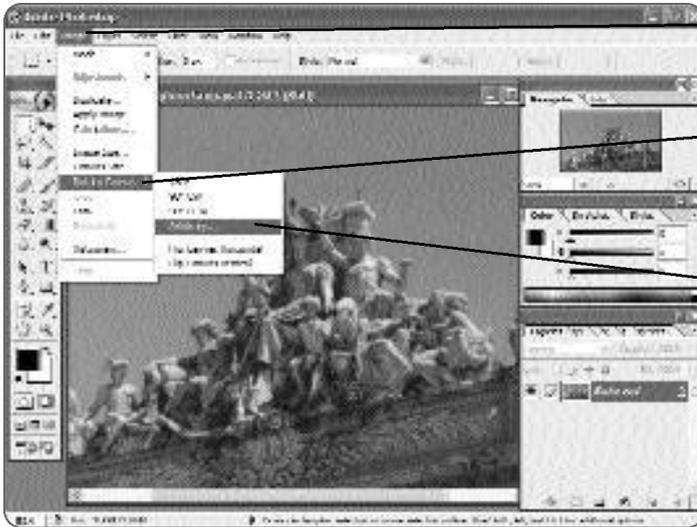
**6. Click on **Proceed**** in the warning dialog box, if it appears. Photoshop will finish resizing the canvas.

## Rotating the Canvas

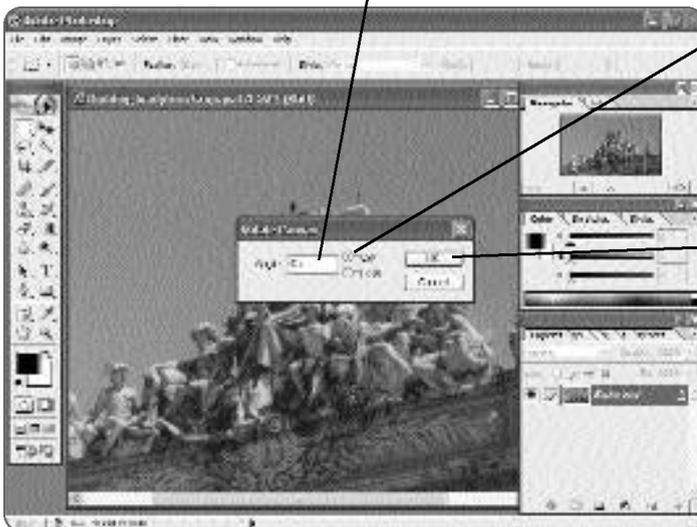
You can rotate the canvas to rotate the entire image—all the content on all the layers. Photoshop provides these rotation options:

- **180°.** Rotates the canvas so that the top of the image becomes the bottom.
- **90° CW.** Rotates the canvas one quarter turn in the clockwise direction.
- **90° CCW.** Rotates the canvas one quarter turn in the counterclockwise direction.
- **Arbitrary.** Displays the Rotate Canvas dialog box so that you can specify a precise rotation amount and direction.
- **Flip Canvas Horizontal.** Flips the image right to left.
- **Flip Canvas Vertical.** Flips the image top to bottom.

Use the following steps when you're ready to rotate the image.



1. **Click on Image.** The Image menu will appear.
2. **Point to Rotate Canvas.** The Rotate Canvas submenu will appear.
3. **Click on a Rotation choice.** If you chose anything but Arbitrary, Photoshop will apply the rotation immediately. Otherwise, the Rotate Canvas dialog box will appear.

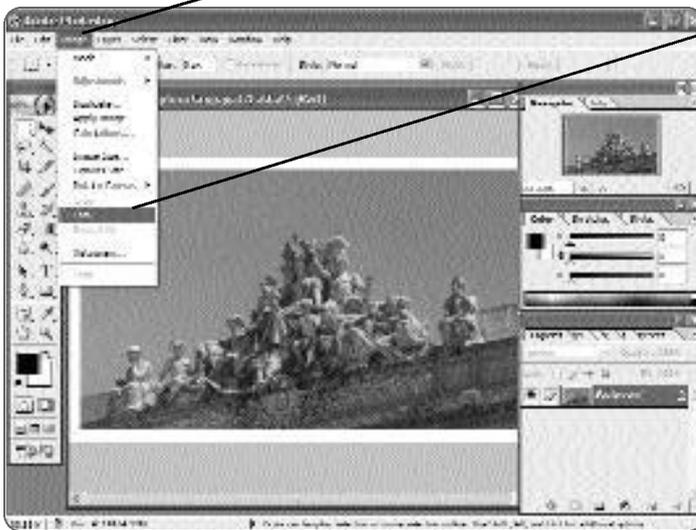


4. **Type an entry** in the Angle text box. Your entry will specify how much rotation Photoshop applies.
5. **Click on the °CW or °CCW option.** Your choice will specify either the clockwise or counterclockwise rotation direction.
6. **Click on OK.** Photoshop will rotate the image as specified by the rotation settings you entered.

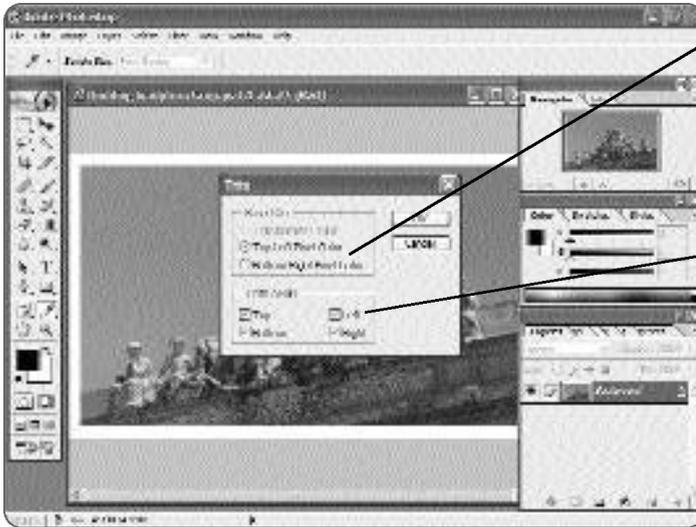
## Trimming the Canvas

You can use the trim feature to crop out unneeded information around the edge of an image, such as a white photo print border; blank canvas space that's no longer needed; or discolored areas around an image from a contact sheet fading or folding. For the trim feature to work, the area to be trimmed must all be the same color.

**1. Click on Image.** The Image menu will appear.

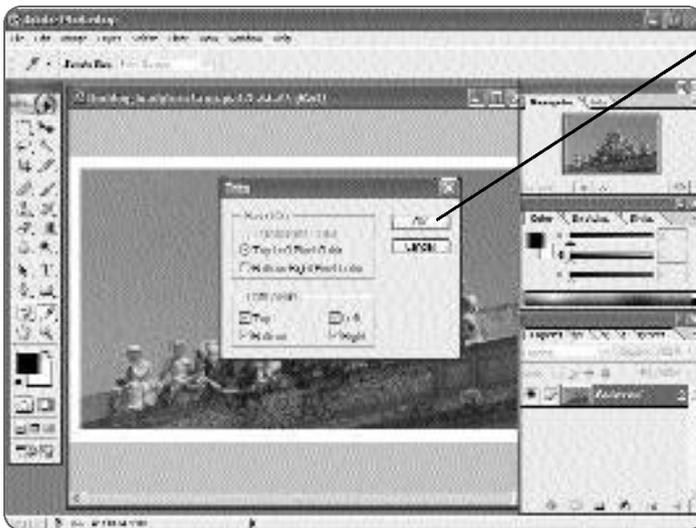


**2. Click on Trim.** The Trim dialog box will open.



**3. Click on a Based On** option button. Photoshop will use the specified setting to identify which pixels to trim from the image.

**4. Click on the Trim Away** check boxes as needed. Clearing a Trim Away check box tells Photoshop not to trim the designated portion of the image.



**5. Click on OK.** Photoshop will perform the image trim.

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# 13

## Using a Filter

You can think of a filter as a special effect. When you apply the filter, Photoshop makes changes to the image or selection that might otherwise take you numerous steps to create or that might not even be possible. A plug-in can correct problems or lend a completely different appearance in the image. This chapter enables you to:

- Understand the available filters
- Apply a filter when you need it
- Adjust the filter
- Use the last filter again

## Previewing the Filters

The default Photoshop installation installs dozens of filters. The Filter menu groups the filters on several submenus. Table 13-1 lists the submenus and gives a description of the types of filters found in each submenu group.

**Table 13-1** *Reviewing Filter Groups*

Group	Includes Filters That
Artistic	Make the image look like it was created with watercolors or pastels, has a film grain, poster edges, and so on.
Blur	Add blurs to simulate movement, such as in a single direction or rotation.
Brush Strokes	Apply a brush stroke effect in one of various available shapes.
Distort	Give the appearance of natural or artificial distortions caused by shape and light, such as a ripple, glass, or swirl effect.
Noise	Apply noise (white speckling) to affect the image appearance, or fix spots and scratches.
Pixelate	Apply one of several dotted effects to the image, such as simulating the Pointillism technique.
Render	Let you change the fill, add a lighting effect, apply 3D, and more.
Sharpen	Improve image sharpness.
Sketch	Apply a drawing effect in one of various available techniques.
Stylize	Make a number of changes, like glowing edges or embossing, that lend a modern effect.
Texture	Convert the image's appearance to make it consistent with the selected texture.
Video	Change the color method used in a video still.
Other	Create a custom filter or work with other custom filters.

### NOTE

*Plug-ins* are generally additional filters that you can install. See Chapter 18, "Working with Plug-Ins," to learn more about installing and using plug-ins.

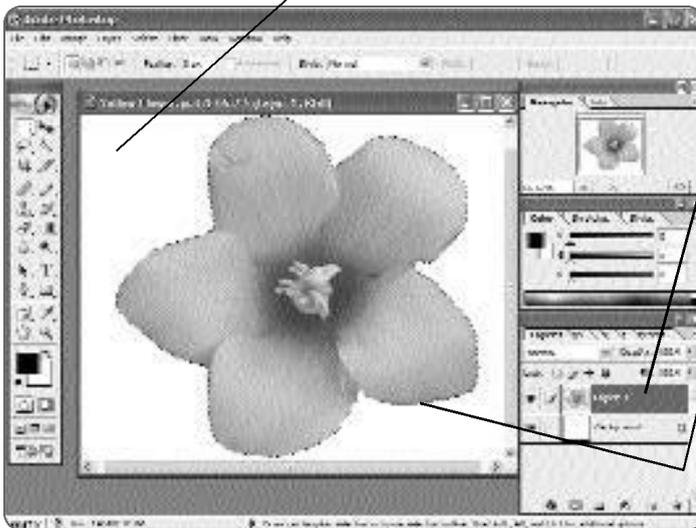
## Applying a Filter

Applying some filters merely requires selecting the appropriate filter command. The vast majority of filters, however, display a dialog box with a preview that enables you to adjust and preview the filter before applying it. Because the filter settings vary to such a degree, the following steps provide an overview of using a filter.

### TIP

After you apply one filter, you can apply another to blend filter effects.

- 1. Open the image** you want to adjust. The image will open in a window in Photoshop.

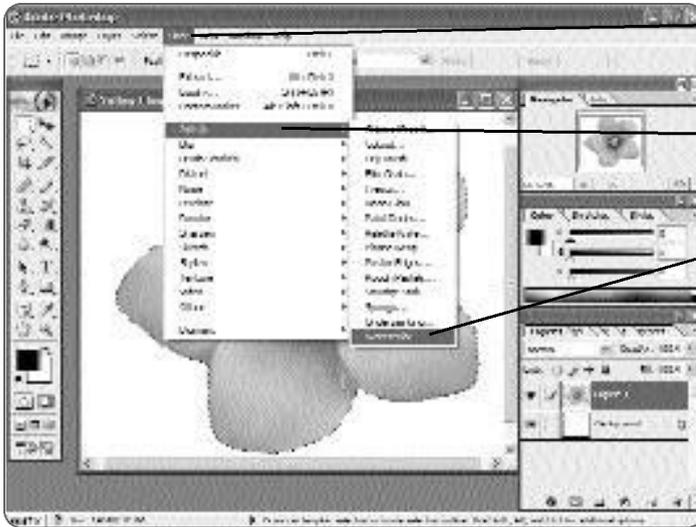


- 2. Display the layer** that holds the image content to filter. The selected layer's content will appear.

- 3. Use a selection tool to select the desired image area**, if needed. A selection marquee will appear.

### NOTE

Photoshop applies the filter effect only to the current layer and current selection (if any).

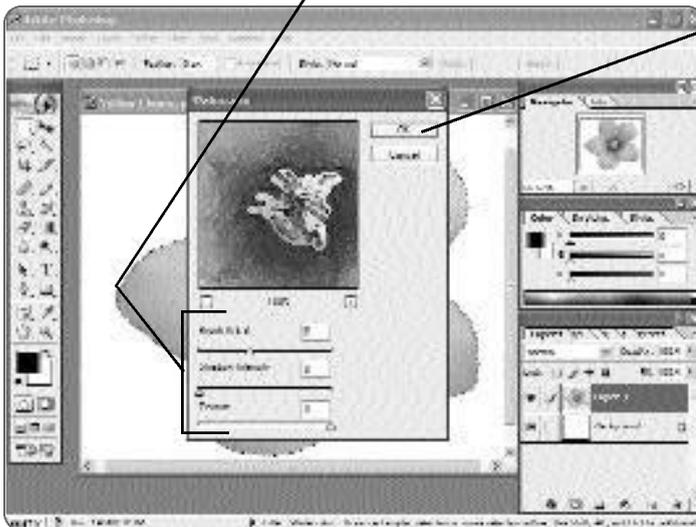


**4. Click on Filter.** The Filter menu will appear.

**5. Point to a filter submenu name.** The submenu will appear.

**6. Click on a filter in the submenu.** Photoshop will either apply the filter immediately, or display the settings dialog box for the filter.

**7. Adjust dialog box settings** as needed. The preview in the dialog box adjusts to show what the filter will do to the image or selection when applied.



**8. Click on OK.** The dialog box will close and Photoshop will apply the filter.

### NOTE

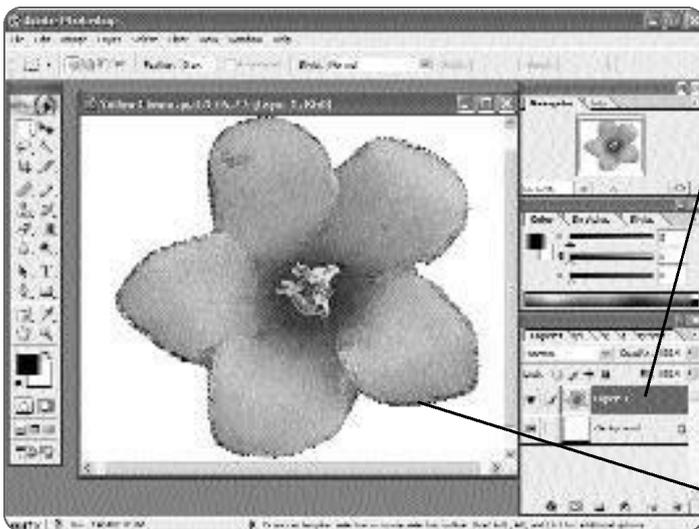
If the image doesn't use RGB color or is a bitmapped, indexed, or 16-bit per channel image, Photoshop won't allow you to apply a filter to it. Consult Chapter 15, "Understanding Colors and Channels," to learn more about image color modes.

## Fading a Filter

Fading a filter enables you to make the filter effect more transparent or adjust the light or color density for the filter effect. Using the Fade capability gives you even greater control over how the filter affects the image.

### NOTE

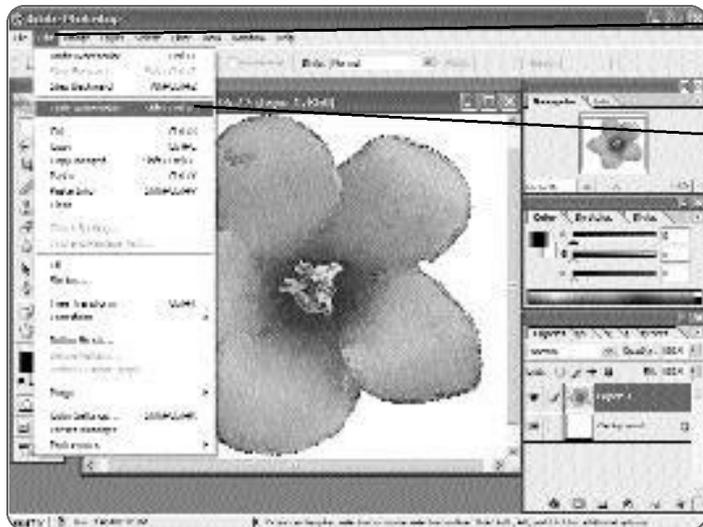
The Fade command may not be available for all filters. It also is not available after you save and close the image; you must use it during the current image editing session. It is, however, available for some of the painting tools in Photoshop, and works for those just as described here.



- 1. Display the layer** that holds the filtered image content. The selected layer's content will appear.
- 2. Select the filtered area**, if needed. A selection marquee will appear.

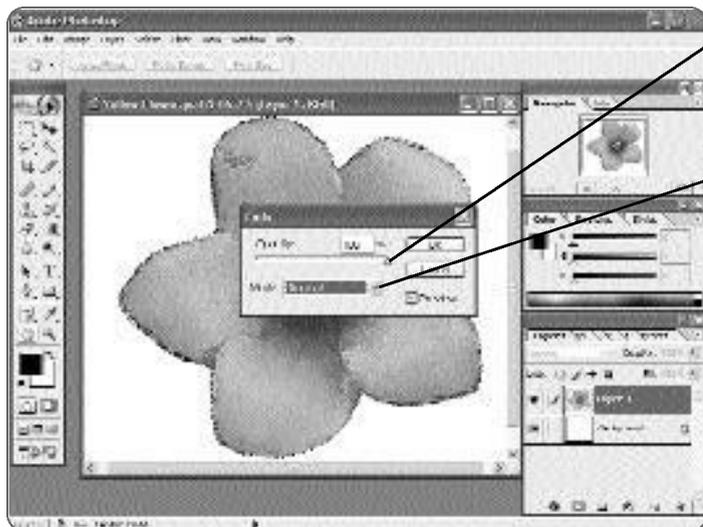
### TIP

Name and save the selection area before applying a filter. (See "Saving a Selection" and "Loading a Selection" in Chapter 6.) Then, you can easily reload the selection to fade or adjust the filter settings.



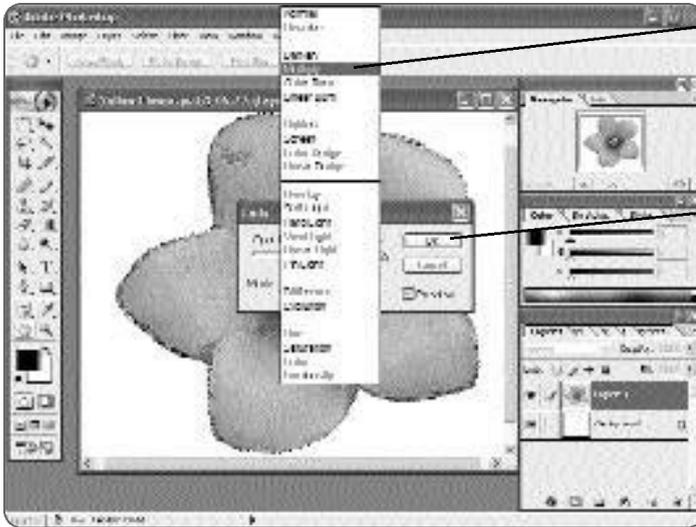
**3. Click on **Edit**.** The Edit menu will appear.

**4. Click on **Fade (Filter Name)**.** The Fade dialog box will open.



**5. Drag the **Opacity slider**.** The Opacity setting will adjust accordingly.

**6. Click on the **down arrow** beside the Mode list.** The Mode list will open.



**7. Click on a mode** in the list.

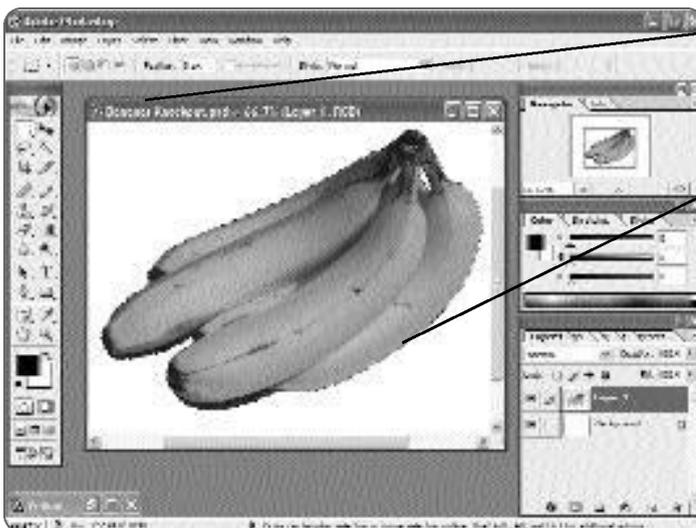
The image or selection will preview the selected Opacity and Mode settings.

**8. Click on OK.** The dialog box

will close and Photoshop will apply the fade.

## Reapplying the Last Filter

You can apply the most recently used filter to another selection or image. Using this shortcut applies the filter using the settings for the filter that you selected when you previously used the filter.

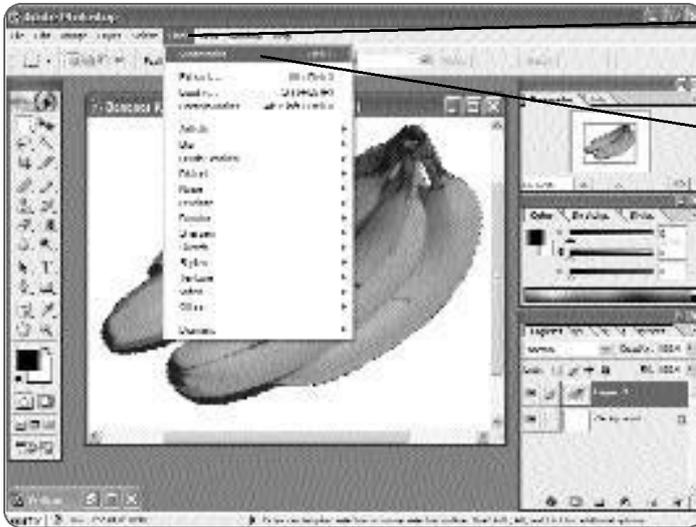


**1. Open the image** to adjust.

The image will open in a window in Photoshop.

**2. Display the layer** that holds the image content to filter and **use a selection tool** to select the desired image area, if needed.

The selected layer's content will appear, and a selection marquee will appear.



**3. Click on **Filter**.** The Filter menu will appear.

**4. Click on the **filter**** at the top of the menu. Photoshop will apply the filter immediately.

### NOTE

If you're applying the filter to an entire layer and the image is large, it can take a few minutes for Photoshop to process the filter application.

### TIP

You can press Ctrl+F (that is, press and hold the Ctrl key, press the F key, and release both keys) to reapply the last filter. Reapplying the same filter enables you to achieve a consistent look among different selections or images.

# 14

## Printing Your Image

In most environments, you'll use a local or network printer to print your image file so you can check your work (or use the image as intended). Photoshop adds a number of printing features that you may not have seen before if your previous computer experience has been limited to word processors and spreadsheets. This chapter helps you explore the printing possibilities in Photoshop and shows you how to:

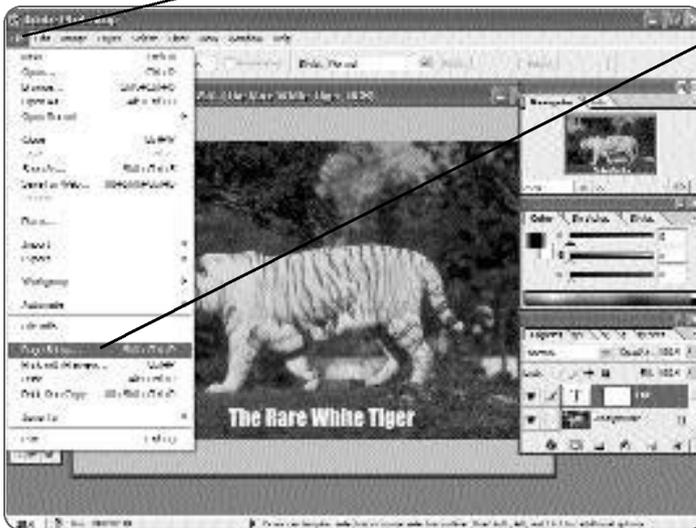
- Choose the printer to use
- Choose a screen setting for traditional printing
- Choose print scaling options
- Use transfer settings to correct certain color problems
- Add a border, bleed, or background for the printout
- Print with other special marks and features
- Send the print job
- Print multiple copies of an image on a page with the Picture Package feature

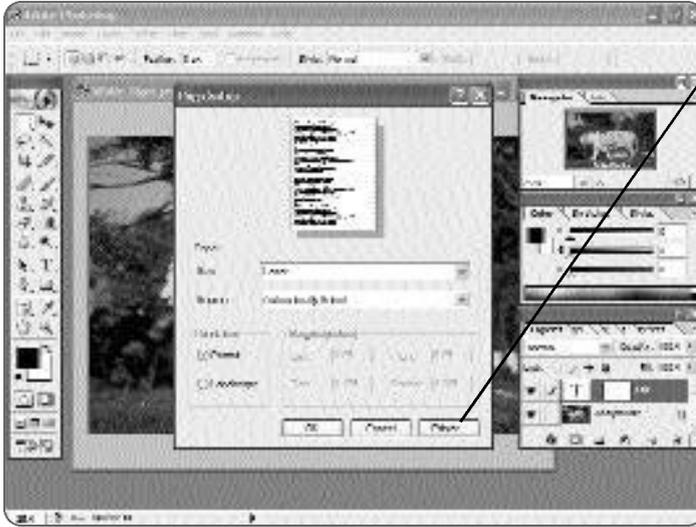
## Choosing a Printer and Page Setup

Stating the obvious, different printers offer different capabilities. You may have a black-and-white laser printer for basic document printouts and image proofing, and a color printer for sales documents and final image printouts. You need to select the printer to use to print the current image from among those installed on your system, as described here. Once you've selected the printer, you can set available page setup options, which will vary depending on the capabilities of the printer. For example, the software with many printers now calculates margins for you, so the margin choices may be disabled in the Page Setup dialog box.

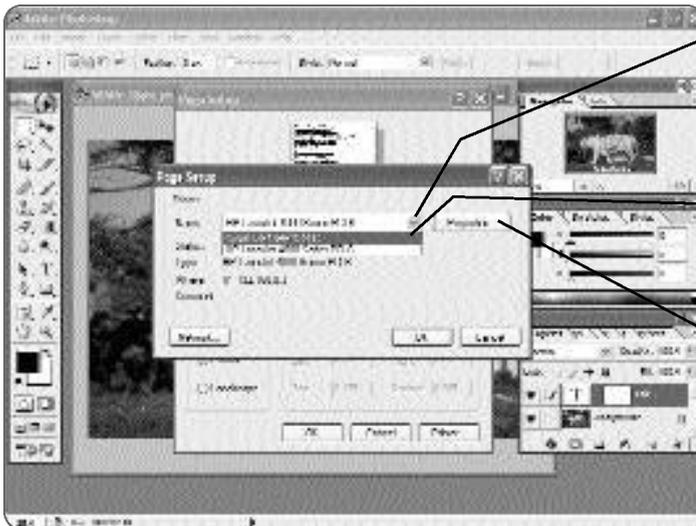
**1. Click on File.** The File menu will appear.

**2. Click on Page Setup.** The Page Setup dialog box will open.





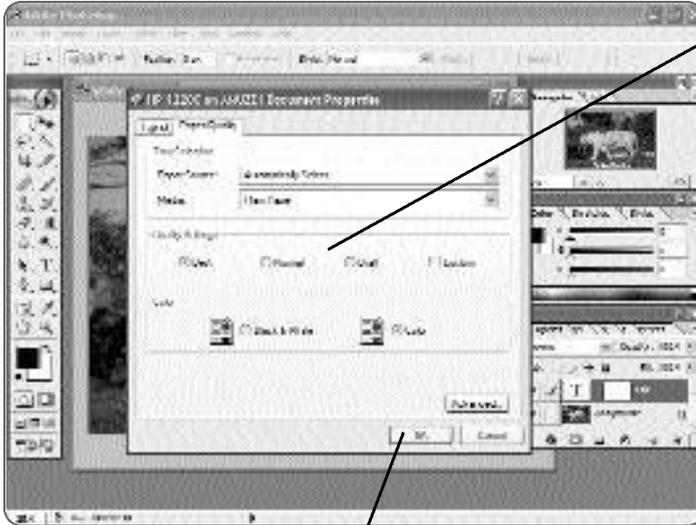
**3. Click on the **Printer** button.** Another Page Setup dialog box will open.



**4. Click on the **down arrow** beside the **Name** drop-down list.** The Name drop-down list will open.

**5. Click on the **desired printer** in the list.** The printer will become the active printer.

**6. Click on **Properties**.** The Properties dialog box for the selected printer will appear.

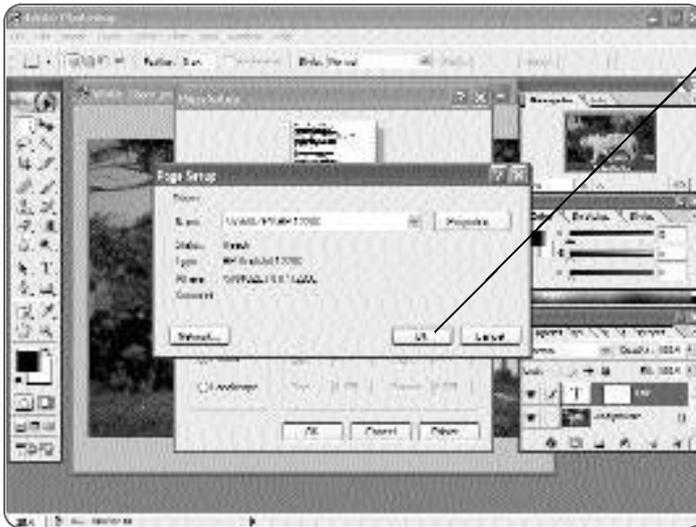


**7. Choose options** for the printer as needed. The choices will become the active choices.

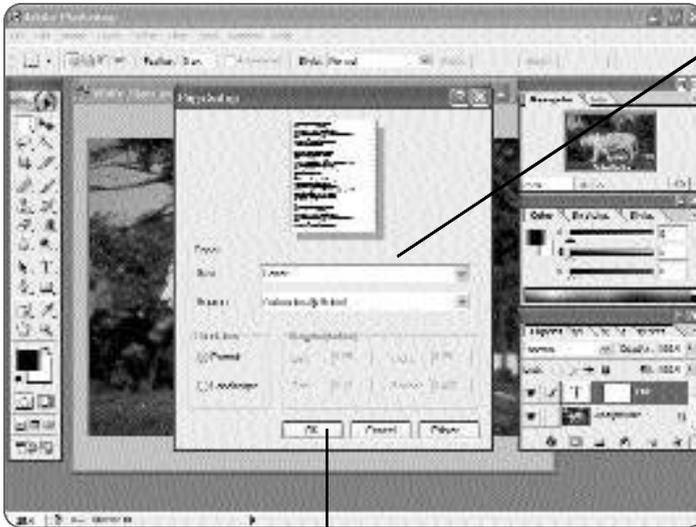
### NOTE

Of course, the available properties will vary depending on the capabilities and driver software for the printer you selected in Step 5, so it's not possible to cover available settings in detail.

**8. Click on OK.** Your printer settings will take effect and the Properties dialog box will close.



**9. Click on OK.** Your printer selection will take effect and the second Page Setup dialog box will close.



**10. Choose other settings** as needed. The available settings include:

- **Paper.** Choose a paper **Size** and **Source** (the tray or feeder holding the desired paper in your printer).
- **Orientation.** Choose **Portrait** (short edges of the paper at the top and bottom) or **Landscape** (short edges of the paper at the left and right) to indicate how the printer will orient the paper.
- **Margins.** For most printers, these settings will be grayed out (disabled) and will be calculated based on other print settings you select in Photoshop. If these settings are available, you can enter a new **Left**, **Right**, **Top**, or **Bottom** margin setting.

**11. Click** on **OK** to finish. The printer settings (and any other Page Setup settings) will take effect.

## NOTE

The available paper sizes vary depending on the selected printer. You also can change the paper size in the Properties dialog box for your printer, which you open by clicking on the Properties button beside the selected printer. Notice that you don't need to change the Source drop-down list choice unless your printer has multiple paper trays or doesn't switch trays automatically.

## Changing the Print Settings

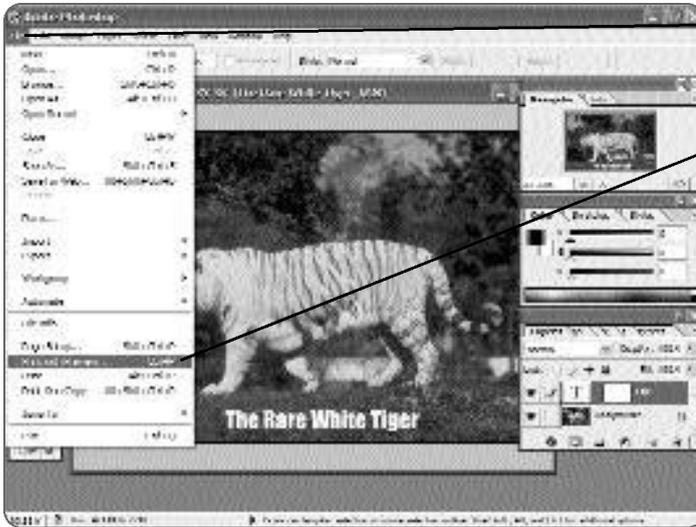
Photoshop offers a variety of other print settings via the Print with Preview command on the File menu. These settings have an impact on how Photoshop prepares an image for printing from your printer for output by a professional print shop (or for inclusion in a document that will be output professionally). In the dialog box where you work with these print settings, a preview image shows the impact of your choices, helping you to better fine-tune the printout. This section shows you how to find the various settings you may need to prepare the current image for printing.

### NOTE

You must save an image to save your print setup choices for it. Use the Save As command on the File menu to save a Photoshop file as an EPS file. The section called “Saving to Another Format” in Chapter 2 explains how to save a Photoshop file in another format.

## Centering and Scaling the Image

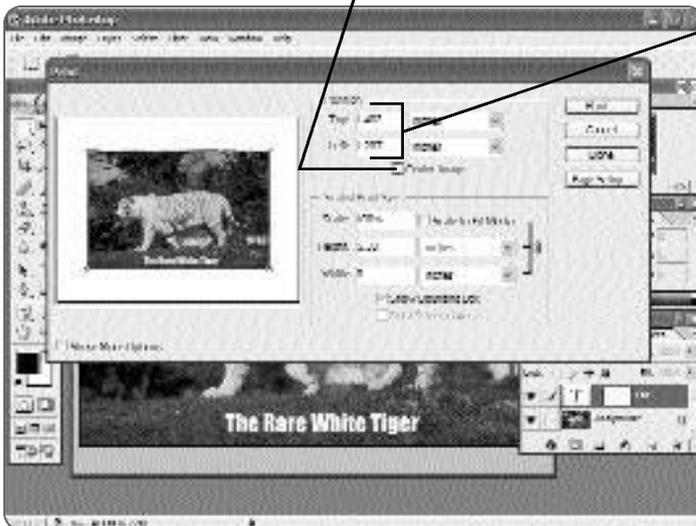
For each printout, you can choose how to position the image on the paper relative to the edges of the paper. You also can scale the image to a larger or smaller size so it better fits the paper. (Note that the scaling is only a temporary printing change and does not affect the size of the saved image.) The next steps review the options for positioning and scaling the image.



1. Click on **File**. The File menu will appear.

2. Click on **Print with Preview**. A large Print dialog box will open. (A different Print dialog box appears when you choose the File, Print command.)

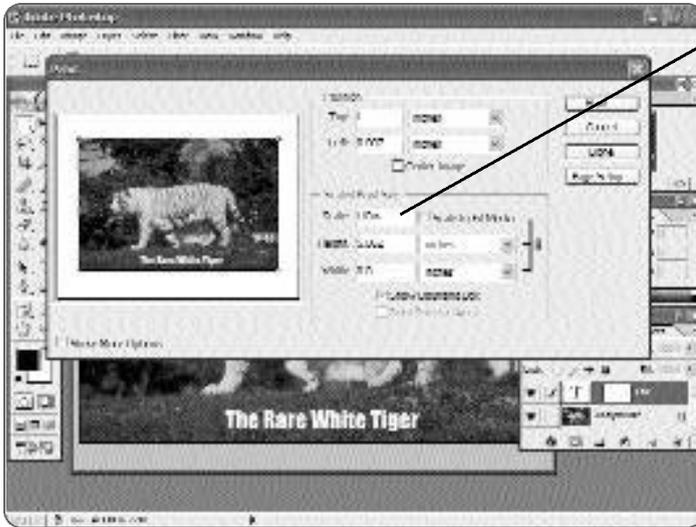
3. Click on the **Center Image** check box to clear it. The Top and Left choices will become active.



4. Specify **Top** and **Left** entries and measurement units. The image will reposition on the paper as specified.

**TIP**

If you change the image position on the paper, it looks best to allow a little more space below the image than above it.



**5. Change** the **Scale** text box entry if you want to increase or decrease the size of the image in the printout. The image will resize accordingly.

### NOTE

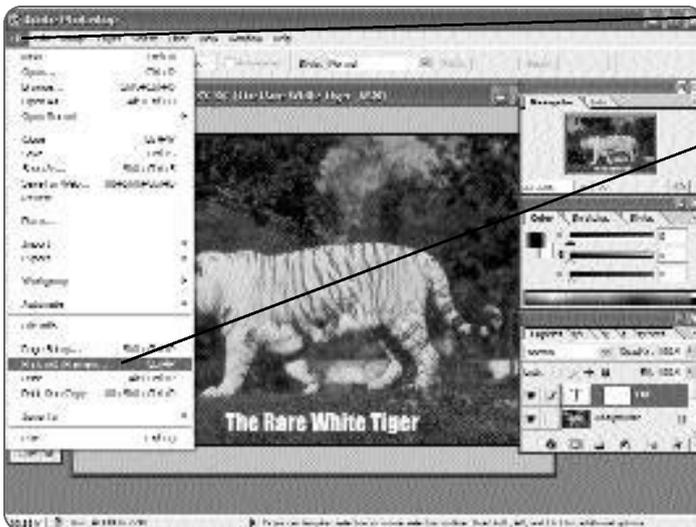
If you scale the image, you may need to readjust the Top and Left position entries when the Center Image check box is unchecked. You also can drag the image in the preview area to adjust its position if the Show Bounding Box check box is checked.



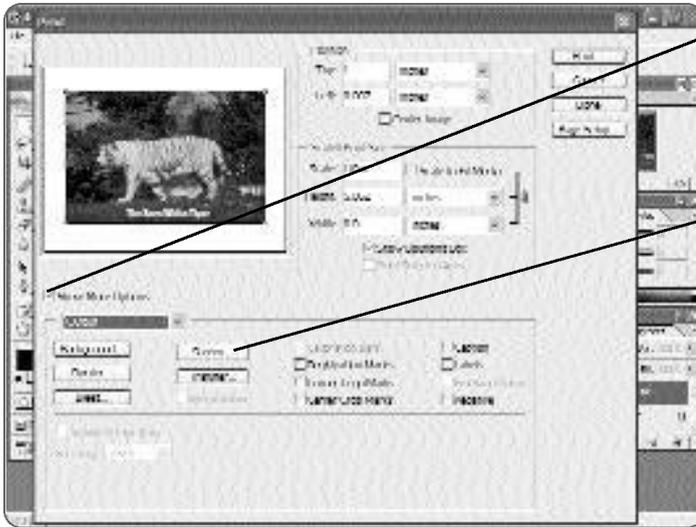
**6. Click** on **Done**. The Print dialog box will close.

## Working with Screens

A *screen* (or *halftone screen*) controls the size, shape, and alignment of the dots of black or colors that print during a printout. For full-color printing, the CMYK (**c**yan, **m**agenta, **y**ellow, and **b**lack) screens each must be set to a particular angle, so that the screens don't overlap but do align properly. When printing to your own printer, you typically will not need to change screen settings, because your printer will handle screening for you according to its individual capabilities. However, if you plan to have the image professionally printed or will be saving the image as an .EPS file for professional printing or printing from a PostScript printer, you may need to adjust the screens as described next. Consult the print shop you'll be using for the correct screen settings.



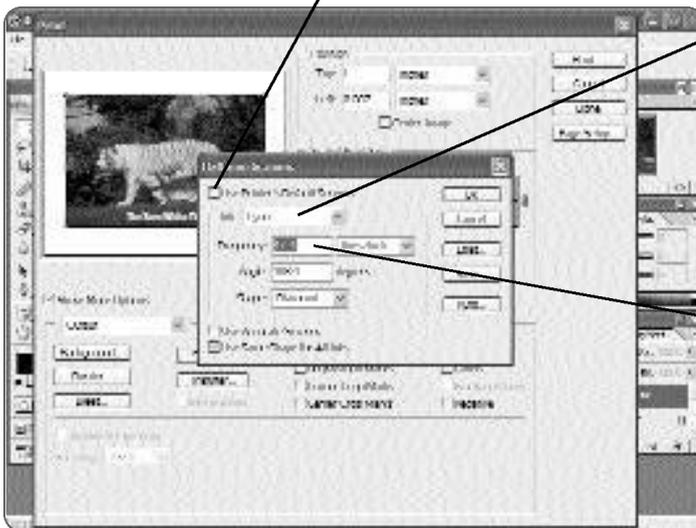
1. Click on **File**. The File menu will appear.
2. Click on **Print with Preview**. The Print dialog box will open.



**3. Click on the **Show More Options** check box to check it.** The Print dialog box will expand and display additional options.

**4. Click on **Screen**.** The Halftone Screens dialog box will open.

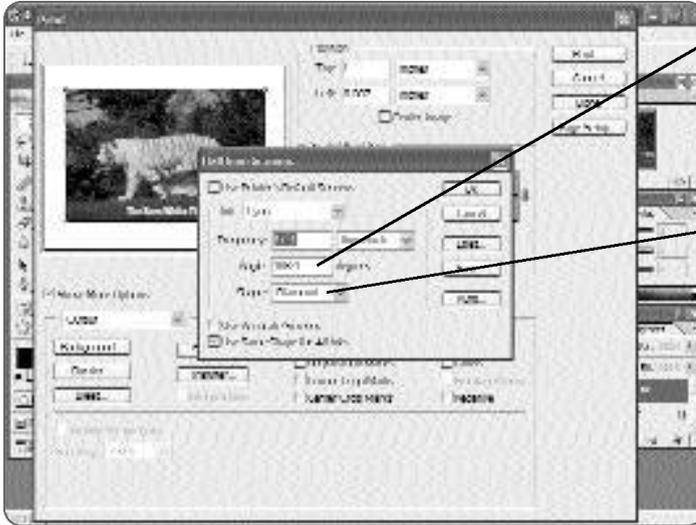
**5. Click on the **Use Printer's Default Screens** check box to clear it.** The other screen settings in the dialog box will become active.



**6. Choose an **ink color** from the Ink drop-down list.** The settings you set next will apply to the selected color.

**7. Choose screen settings for the selected ink as follows:**

- **Frequency.** Your entry in this text box (and your selection from the accompanying measurement drop-down list) will determine how large or fine the screen size (ink dots) are. A higher Frequency setting results in a more fine screen for smoother printing.

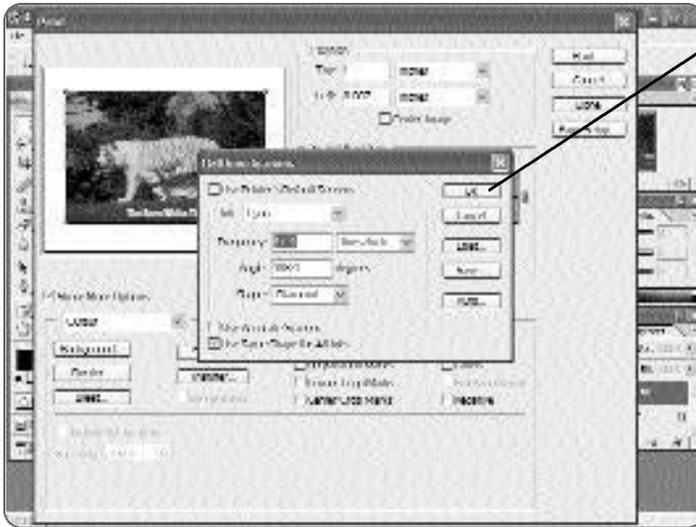


- **Angle.** Your entry in this text box will specify the alignment of the screen for the selected color. Each color screen must use a different angle.
- **Shape.** Your choice from this drop-down list will control the shape of the ink (toner) dots created by the screen.

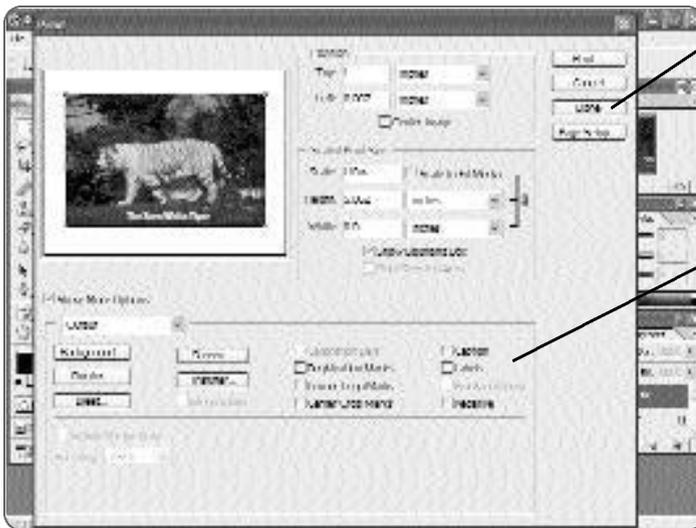
### NOTE

Again, consult your print shop for the correct screen settings. If you use the wrong Angle settings, in particular, your image will have an undesirable patterning called *moiré*, which occurs when the various screens don't align properly. Also note that you can use the Save and Load buttons in the Halftone Screens dialog box to save and load the appropriate settings required by various print vendors. You enter the necessary settings (communicated by your print vendor) and then save them. Then you can use the Load button to load them for any future projects you send to that print vendor.

**8. Repeat Steps 6 and 7** to choose screen settings for other ink colors. The choices you make will become active for the current image.



**9.** Click on **OK**. The Half Tone Screens dialog box will close.



**10a.** Click on **Done** to finish at this time. The print settings will take effect.

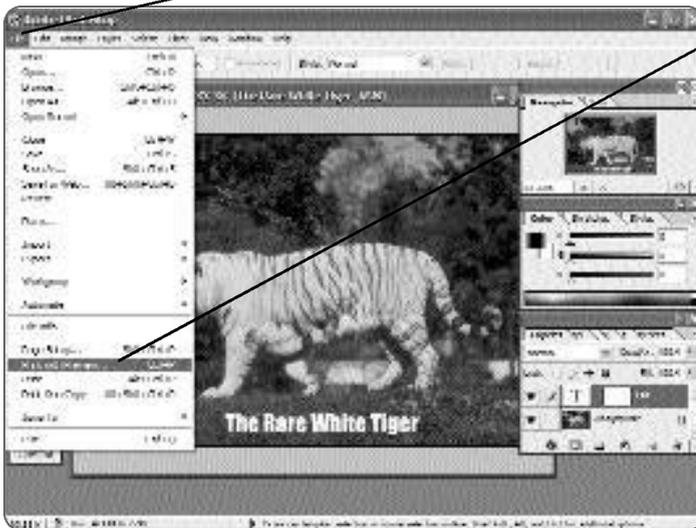
**OR**

**10b.** Choose other settings as described in the rest of this section, and then **click on Done** to finish. The new settings you've selected will take effect.

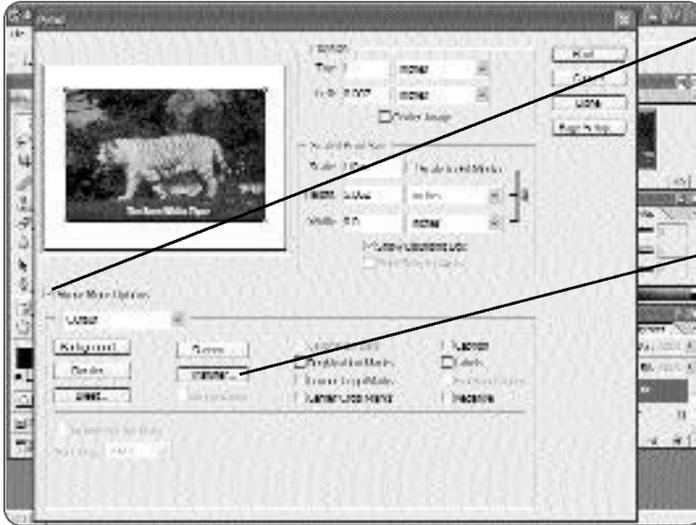
## Adjusting Transfer Settings

The *transfer* settings are for use only when you're printing an image to film for professional full-color printing or saving a Photoshop file to the .EPS format for that purpose, so most users will never need to change these settings. You would change the transfer settings if the ultimate output device has problems with dot gain and dot loss (ink color dots growing or shrinking), meaning that the device isn't calibrated properly. If your print shop asks you to change the transfer settings for an image, the following steps lead you through the choices for doing so.

**1. Click on File.** The File menu will appear.



**2. Click on Print with Preview.**  
The Print dialog box will open.

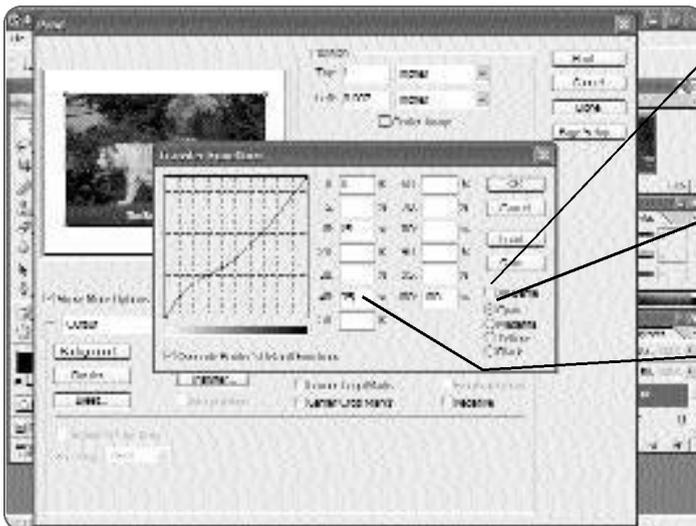


**3. Click on the **Show More Options** check box to check it, if needed. The Print dialog box will expand and display additional options.**

**4. Click on **Transfer**. The Transfer Functions dialog box will open.**

### NOTE

Make sure that the **Override Printer's Default Functions** check box in the **Transfer Functions** dialog box is checked so that your changes will apply.



**5. Click on the **All Same** check box to clear it. The color options buttons below that check box will become active.**

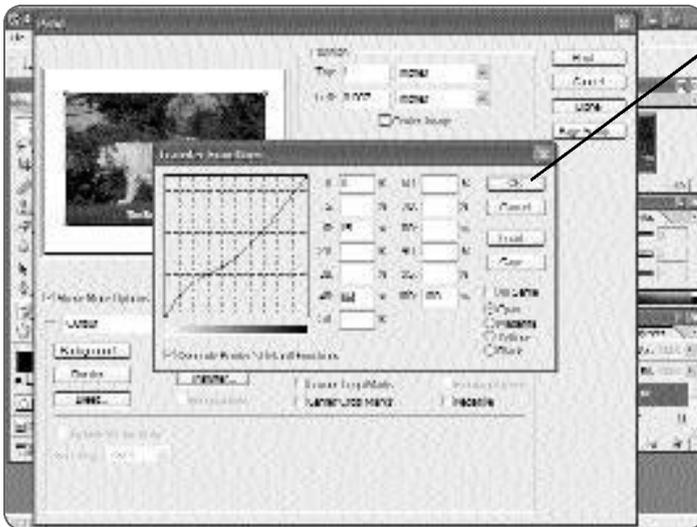
**6. Click on an **ink color** option button. The settings you set next will apply to the selected color.**

**7. Enter transfer settings for the color into the appropriate text box(es). The graph at the left side of the dialog box will change to reflect your changes.**

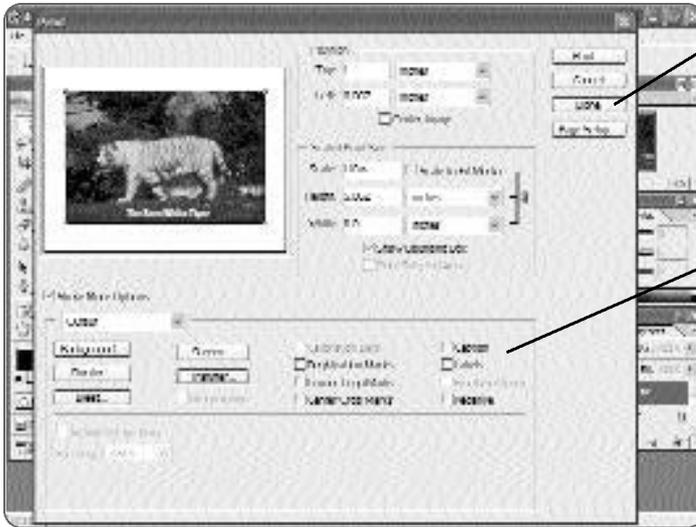
**NOTE**

Your print shop can provide the needed transfer settings, and you can use the Save and Load buttons to reuse those settings in the future.

**8. Repeat Steps 6 and 7** to choose transfer settings for other ink colors. The choices you make will become active for the current image.



**9. Click on OK.** The Transfer Functions dialog box will close.



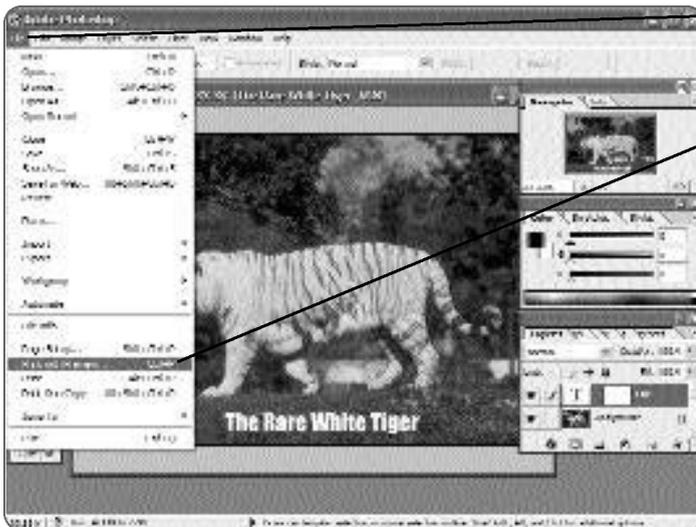
**10a.** Click on **Done** to finish at this time. The printer settings will take effect.

**OR**

**10b.** Choose other settings as described in the rest of this section, and then **click on Done** to finish. The new settings you've selected will take effect.

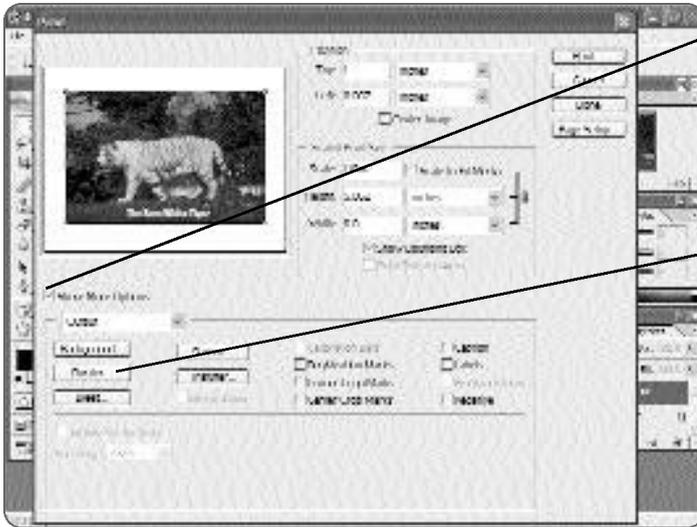
## Adding a Border

If you prefer, you can specify that the image print with a black border around it, for a more finished edge appearance. Use the next set of steps to add the border.



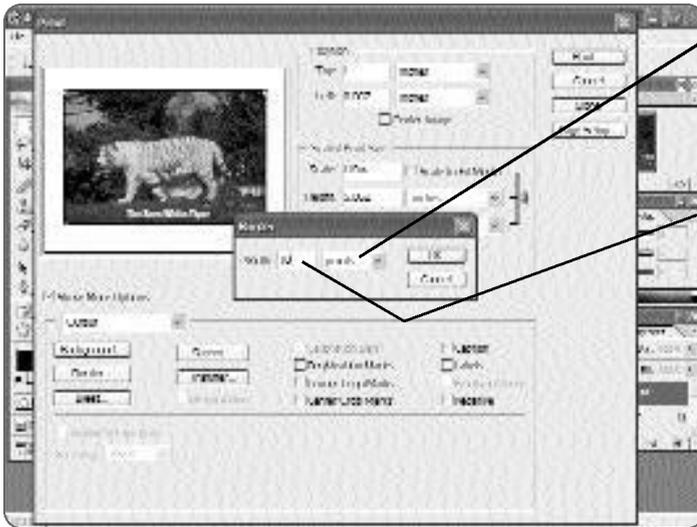
**1.** Click on **File**. The File menu will appear.

**2.** Click on **Print with Preview**. The Print dialog box will open.



**3. Click on the Show More Options** check box to check it, if needed. The Print dialog box will expand and display additional options.

**4. Click on Border.** The Border dialog box will open.



**5. Choose a measurement unit** from the right drop-down list. The type of units you select will become active.

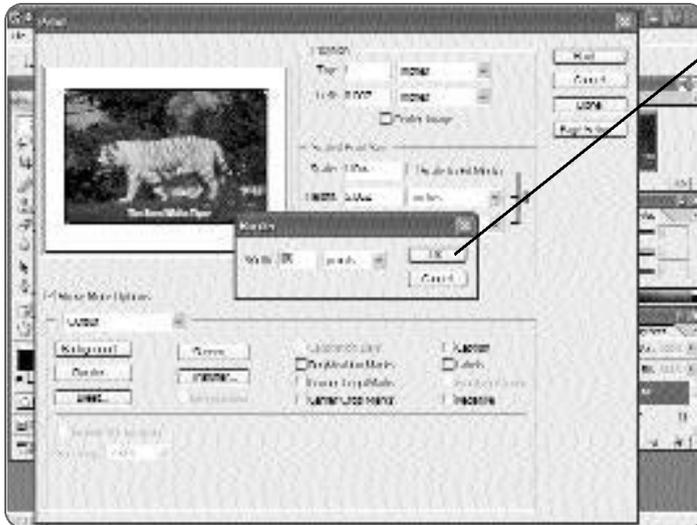
**6. Enter a value** in the Width text box. The value you enter will set the border width.

**NOTE**

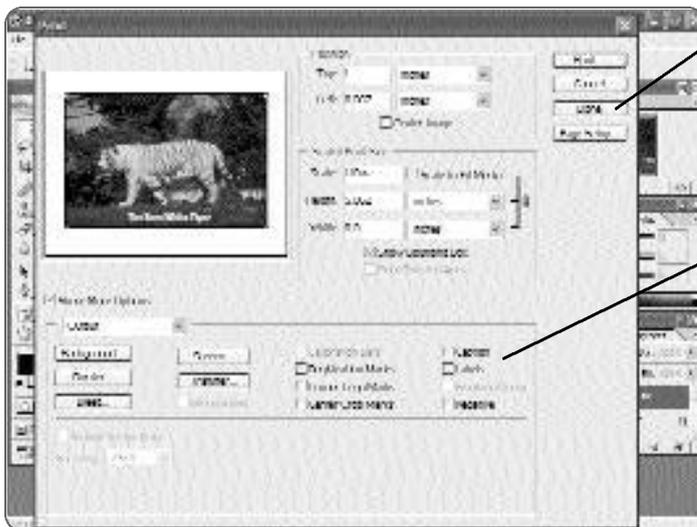
The Width setting can be 0 to 3.5 mm, 0 to 10 points, or 0 to .150 inches.

**TIP**

Don't forget that if a text box already contains an entry, you can double-click on the entry to select it, and then type a replacement entry.



**7.** Click on **OK**. The Border dialog box will close.



**8a.** Click on **Done** to finish at this time. The printer settings will take effect.

**OR**

**8b.** Choose other settings as described in the rest of this section, and then **click on Done** to finish. The new settings you've selected will take effect.

## Specifying a Bleed

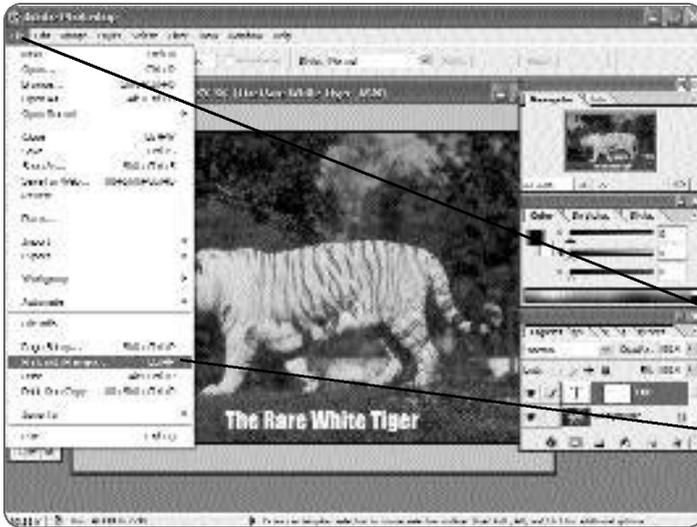
Adding a bleed enables you to set up the image so that a small part of it along each edge prints outside the crop area. (See “Using Other Print Settings” to see how to add crop marks to a printout.) This ensures that when you trim the image to the actual crop size, there won’t be any unwanted white areas.

Specifying a bleed, as described next, resembles specifying a border, as described in the preceding steps.

Specifying a bleed, as described next, resembles specifying a border, as described in the preceding steps.

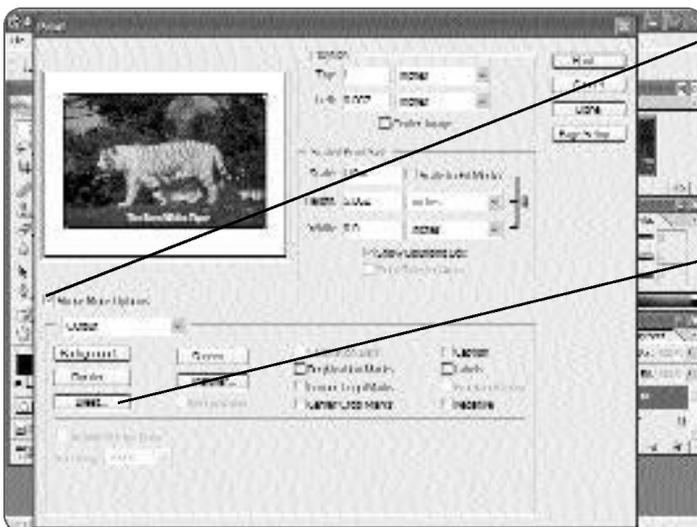
**1. Click on File.** The File menu will appear.

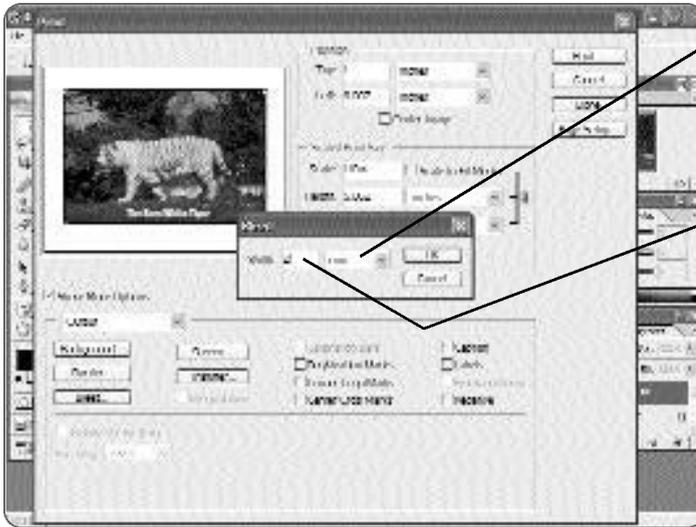
**2. Click on Print with Preview.** The Print dialog box will open.



**3. Click on the Show More Options check box** to check it, if needed. The Print dialog box will expand and display additional options.

**4. Click on Bleed.** The Bleed dialog box will open.



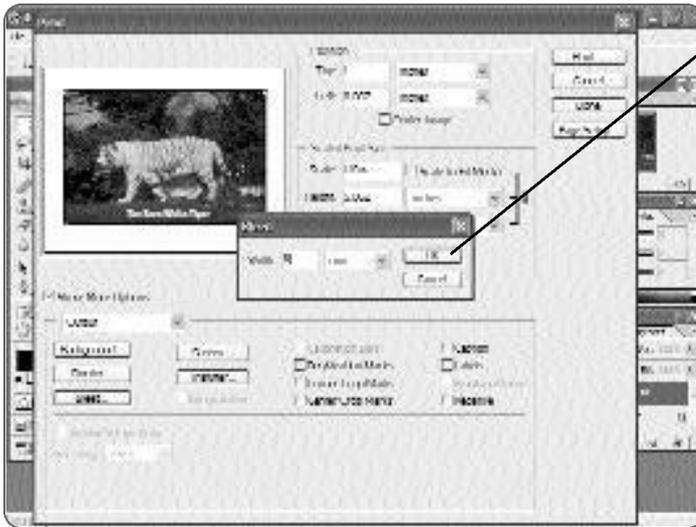


**5. Choose** a measurement unit from the right drop-down list. The type of units you select will become active.

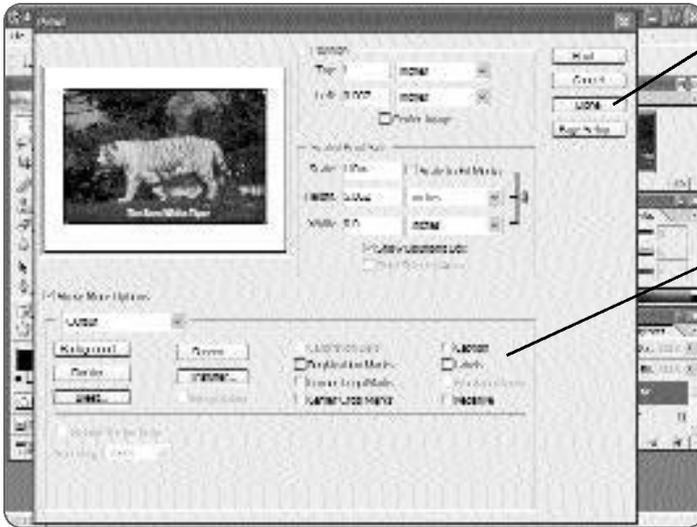
**6. Enter** a value in the Width text box. The value you enter will set the bleed width.

### NOTE

The width setting can be 0 to 3.18 mm, 0 to 9.01 points, or 0 to .125 inches.



**7. Click** on **OK**. The Bleed dialog box will close.



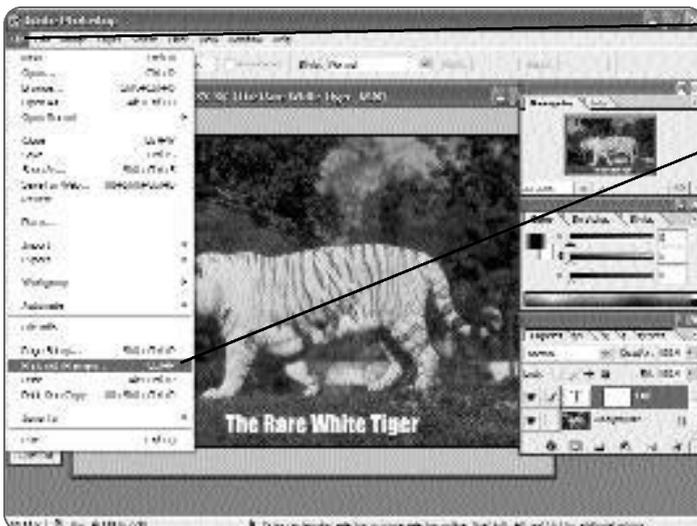
**8a.** Click on **Done** to finish at this time. The printer settings will take effect.

**OR**

**8b.** Choose **other settings** as described in the rest of this section, and then **click on Done** to finish. The new settings you've selected will take effect.

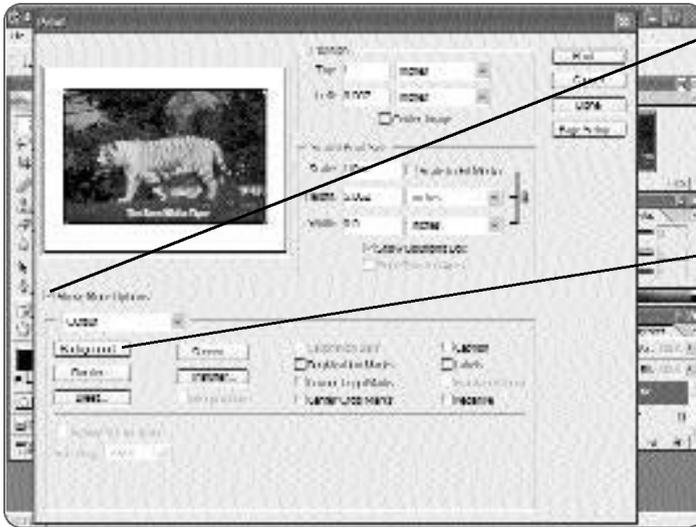
## Choosing a Background Color

If needed, you can print a background color on the areas of the page (paper) that the image itself doesn't fill. This can create a nice "frame" around the image and lend a more finished appearance to the printout. Follow the next set of steps to add a background color to a printout.



**1.** Click on **File**. The File menu will appear.

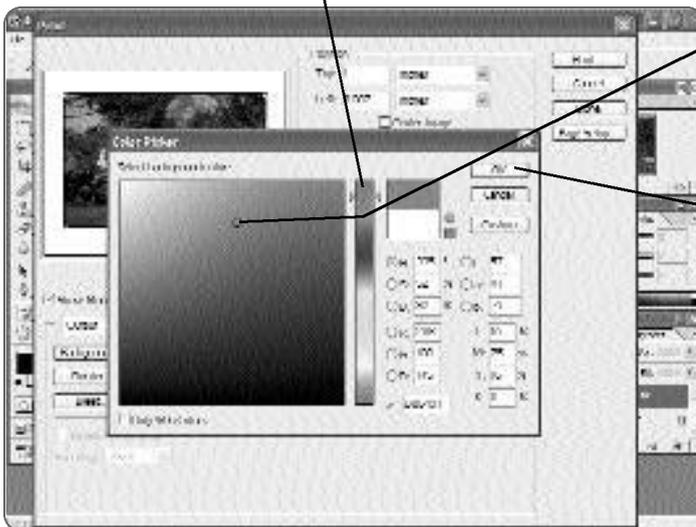
**2.** Click on **Print with Preview**. The Print dialog box will open.



**3. Click on the **Show More Options** check box to check it, if needed. The Print dialog box will expand and display additional options.**

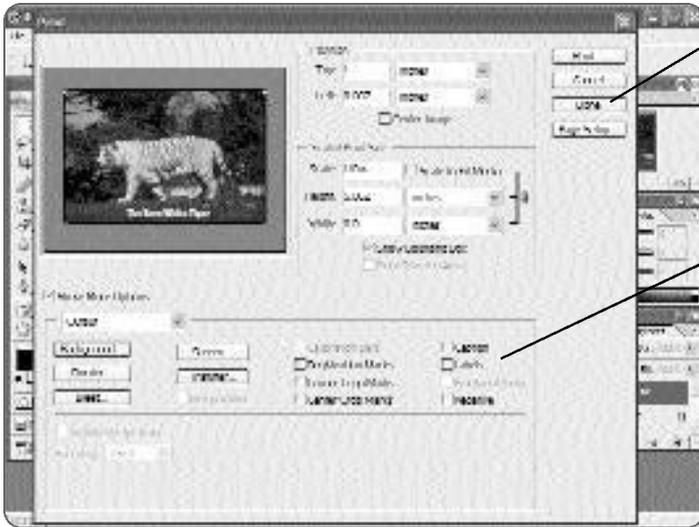
**4. Click on **Background**. The Color Picker dialog box will open.**

**5. Click on a **color** in the narrow band of colors near the middle of the dialog box. Photoshop will display a different range of colors in the Select background color box.**



**6. Click on a **color** in the Select background color box. The color you click on will become the active background color.**

**7. Click on **OK**. The Color Picker dialog box will close.**



**8a.** Click on **Done** to finish at this time. The printer settings will take effect.

**OR**

**8b.** Choose **other settings** as described in the rest of this section, and then **click on Done** to finish. The new settings you've selected will take effect.

## Using Other Print Settings

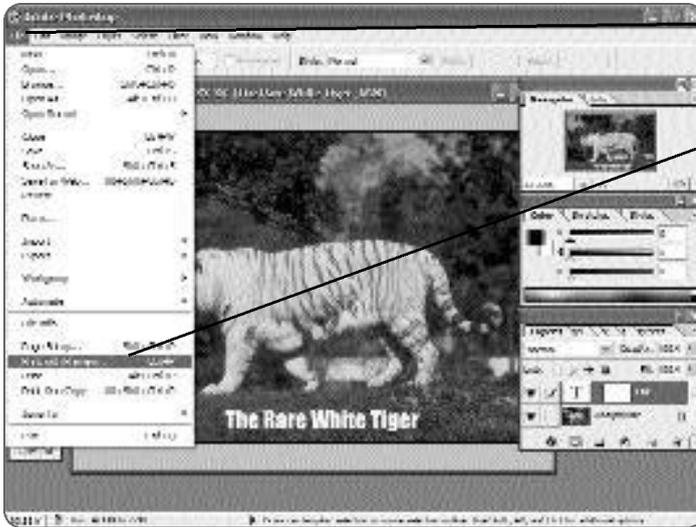
The large Print (with Preview) dialog box includes a number of other settings that you can apply to control the appearance of your printout. You can enable these additional features via check boxes. Table 14-1 details those check box choices, and the steps following the table review how to choose additional print settings.

### NOTE

The printer you've specified, the nature of the image, and the other print settings you've chosen affect which of the choices listed in Table 14-1 are available for any given printout.

**Table 14-1 Additional Page Setup Choices**

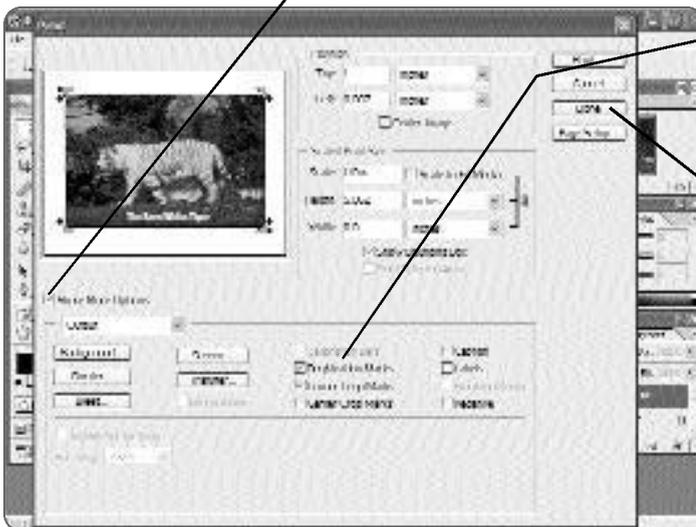
Option	Effect When Checked
Interpolation	If an image has low resolution that may appear jagged when printed, this option attempts to correct the problem by resampling to increase the resolution while printing.
Calibration Bars	Prints one (grayscale) or two (CMYK) color or tint comparison bars if a blank area is available on the page outside the edges of the image. This helps a professional print shop check the image tone or color versus other comparable images or other images used in the same print job.
Registration Marks	Prints marks (again, in the available white space outside the edges of the image) used to align color plates in professional full-color printing.
Corner Crop Marks	Prints crop marks specifying the corner of each image. Any bleed you specified extends beyond the area bounded by the crop marks.
Center Crop Marks	Prints crop marks specifying the center of each edge of the image. Any bleed you specified extends beyond the area bounded by the crop marks.
Caption	If you've entered a caption for the image in the File Information dialog box (as described in the section "Adding File Info" in Chapter 2), the caption prints.
Labels	Adds the image file name to the printout, typically at the center top, in the blank area of the page outside the image.
Emulsion Down	Another setting typically used only when generating film, as by a print shop, this setting adjusts the type so that it's readable when the photosensitive layer of the film or photo paper faces away. Again, consult your print shop to see if this feature is needed.
Negative	Generates a negative image when printing to film. This feature is most likely to be used by a print shop for generating film separations, but you may need to choose it if you're saving the image to EPS format for later use by a print shop. Your print shop can tell you if you need to use this option.
Include Vector Data	When the image includes vector content, checking this option sends the vector information on each layer to a PostScript printer. This results in improved print resolution for the edges of all vector data.
Encoding	Also for use with PostScript printers, the choices on this drop-down list enable the user to specify the format in which Photoshop sends data to the printer. Binary is the default choice. For printers that support it, the JPEG option reduces the amount of data transferred (for faster printing), but also reduces image quality. Choose ASCII for printers that don't support the other two formats; the ASCII format transfers the most data and generally results in the slowest print speed.



1. Click on **File**. The File menu will appear.

2. Click on **Print with Preview**. The Print dialog box will open.

3. Click on the **Show More Options** check box to check it, if needed. The Print dialog box will expand and display additional options.



4. Click on **other options** to check them as needed. The selected features will be applied to the printout.

5. Click on **Done**. The Print dialog box will close.

**NOTE**

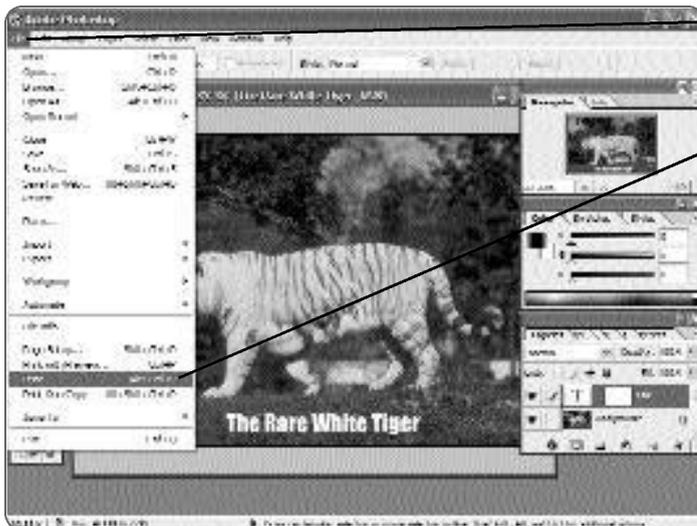
As noted earlier, save the image to preserve your print choices for it.

**NOTE**

In the large Print dialog box, you also can open the drop-down list below the Show More Options check box and choose Color Management (rather than the default choice, Output) to specify color settings for the source space and print space. Then, during printing, Photoshop will adjust the image color to work best with the color management scheme or capabilities for your printer or output device. You need to click on the Proof Setup option under Source Space first if you've set up the image to display with proof colors rather than the default monitor colors onscreen. Chapter 15 will discuss how to proof colors.

## Printing the Image

You should at last be ready for the moment of truth—sending your final image to the printer. Follow these steps to get the job done, so to speak.

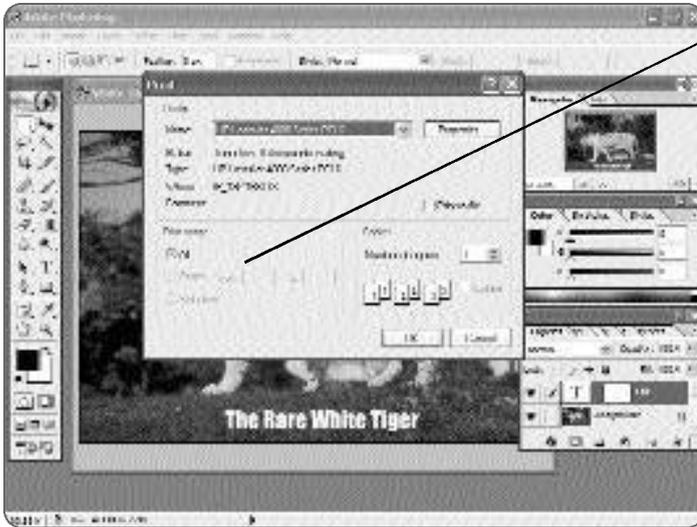


**1. Click on File.** The File menu will appear.

**2. Click on Print.** The (small) Print dialog box will open.

**TIP**

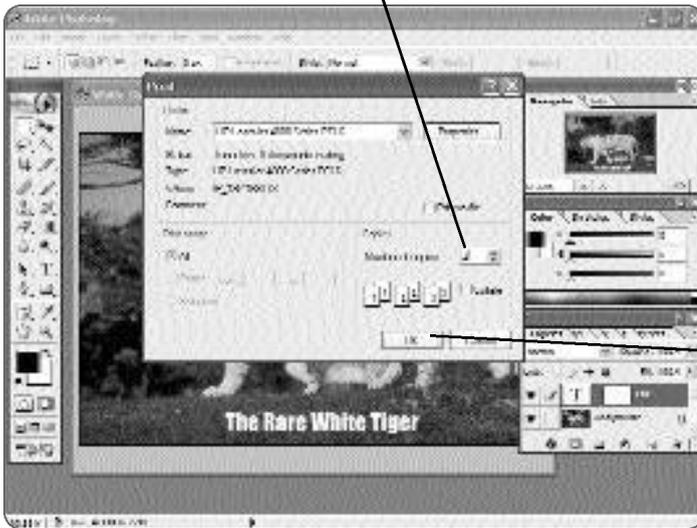
You also can click on the Print button in the large Print dialog box to open the small Print dialog box.



**3. Click on the option** identifying what to print in the Print Range area:

- **All.** Will print the entire current image.
- **Selected.** Will print only the area that's selected in the current image.
- **Pages.** Will print only the pages you identify by making entries in the From and To text boxes.

**4. Change the entry** in the Number of copies text box, if needed. Photoshop will print multiple copies of the image if you change this setting.



**NOTE**

Check Print to file if you want to "print" the file to a special disk file that you can then provide directly to your print shop.

**5. Click on OK.** Photoshop will send the print job to the printer and close the Print dialog box.

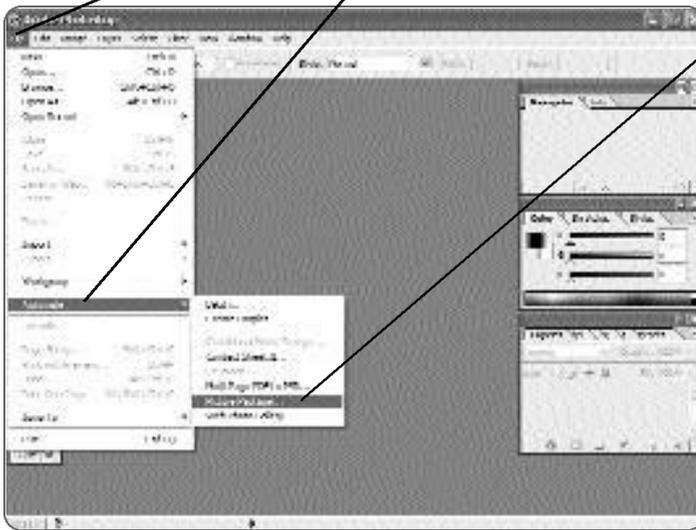
## Printing Multiple Images with Picture Package

Photoshop 7 includes a new feature—the Picture Package feature—that enables you to create a single sheet that prints multiple copies of an image at various sizes. (Each picture package resembles the print sheets you received for school photos as a kid.) With the Picture Package feature, you select the image to package, choose how to lay out the duplicates on the page, and then specify any additional information you'd like to include with each photo duplicate. Use these steps to create a picture package.

**1. Click on File.** The File menu will appear.

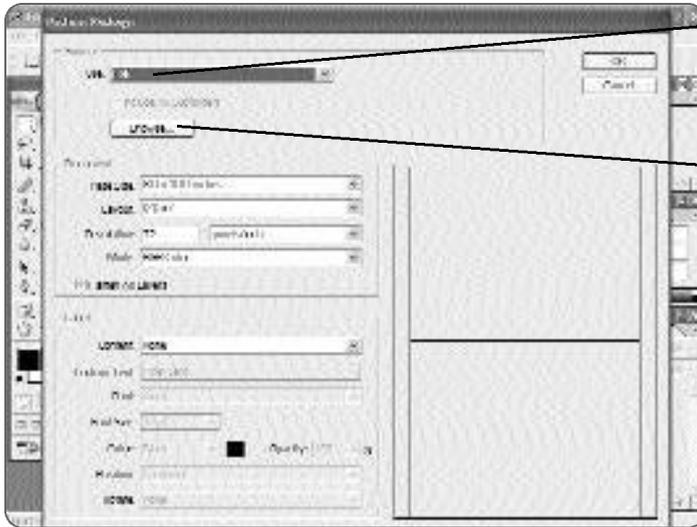
**2. Point to Automate.** The Automate submenu will appear.

**3. Click on Picture Package.** The Picture Package dialog box will open.



### NOTE

You can choose File, Automate, Contact Sheet II to create a contact sheet showing a small thumbnail of each image in a folder that you designate. If the specified folder holds more images than can fit on a single contact sheet, Photoshop automatically creates as many separate contact sheets as are needed. Remember to save each contact sheet in order to reuse it in the future.



**4. Choose File** from the **Use** drop-down list. File will become the active choice.

**5. Click** on the **Browse** button. The Select an Image File dialog box opens.

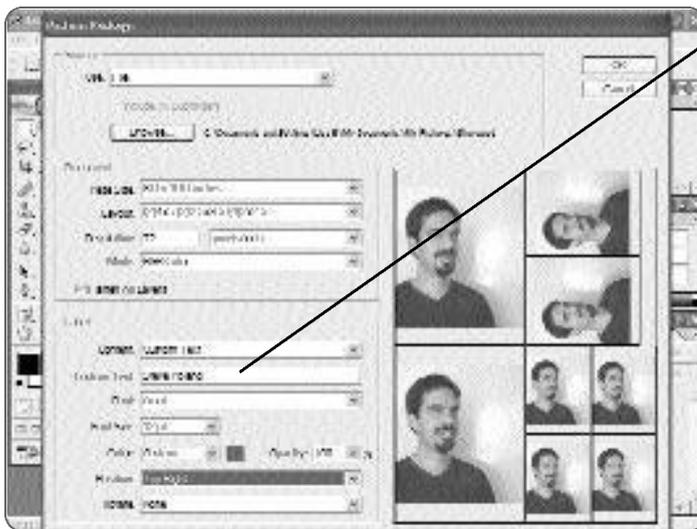


**6. Click** on the **file to use** for the picture package, using the Look In drop-down list to navigate to the proper disk and folder first, if needed. The file will be selected.

**7. Click** on the **Open** button. The selected image appears in the preview area of the Picture Package dialog box.



**8. Choose the Document** settings to use for the picture package. The Page Size, Resolution, and Mode choices work as previously discussed with regard to adjusting the image and printout. The Layout choice determines how many duplicates each page will hold, as well as their size. The preview area of the Picture Package dialog box shows the specified layout.



**9. Specify the Label** settings to use for the picture package. The Font, Font Size, Color, and Opacity settings work just as for adding text to an image. You can choose a Position for the label on each duplicate, as well as choosing whether to Rotate the label text. To control what actually appears as the label, you can either choose Custom Text from the Content drop-down list and then add your own text into the Custom Text text box, or choose one of the other file info options from the Content drop-down list. (The latter approach assumes that you've entered the corresponding category of file information for the file.)

**TIP**

Unfortunately, you can't see the label information until you generate the picture package.

**10. Click on OK.** Photoshop will generate the picture package in its own image window. Make sure you save the picture package document in order to use it in the future.

## Part IV Review Questions

1. How can you correct an area that's too sharp or fuzzy? See *"Blurring an Area," "Smudging an Area," and "Sharpening an Area"* in Chapter 11.
2. How do you fill a selection? See *"Filling with the Paint Bucket"* in Chapter 11.
3. Which toolbox tool enables you to access pro photo correction techniques? See *"Using Photo Techniques"* in Chapter 11.
4. How do you remove unwanted parts of the image? See *"Cropping the Image"* in Chapter 12.
5. How do you resize the image? See *"Changing the Image Size"* in Chapter 12.
6. How do you change the image orientation? See *"Rotating the Canvas"* in Chapter 12.
7. What kinds of filters are available? See *"Previewing the Filters"* in Chapter 13.
8. How do you apply a filter to an image? See *"Applying a Filter"* in Chapter 13.
9. What print choices can you adjust before printing? See *"Choosing a Printer and Page Setup"* and *"Changing the Print Settings"* in Chapter 14.
10. How do you finish a print job? See *"Printing the Image"* in Chapter 14.

# PART V

# Using More Advanced Techniques

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# 15

## Understanding Colors and Channels

When you're preparing images for professional printing, color management becomes an important issue. That's because there are differences between how colors are composed onscreen (out of light) and when printed (out of ink). This chapter helps you explore issues surrounding working with color in Photoshop, including how to:

- Understand the available color modes
- Calibrate your monitor
- View and use color channels
- Convert an image to another type of color
- Prepare the image for professional output
- Proof the image color

## Reviewing the Color Modes

As you learned in Chapter 2, when you create a new image in Photoshop, you can choose the color mode that it should use. When you're creating an image for onscreen use, you can typically stick with the default mode, RGB color. However, you may want to choose another of the color modes for special situations. Alternatively, you can convert an image to a particular color mode later, after you've created or scanned it. Table 15-1 details the available color modes in Photoshop, so you can understand color basics while working with color choices in this chapter.

**Table 15-1** *Image Color Modes*

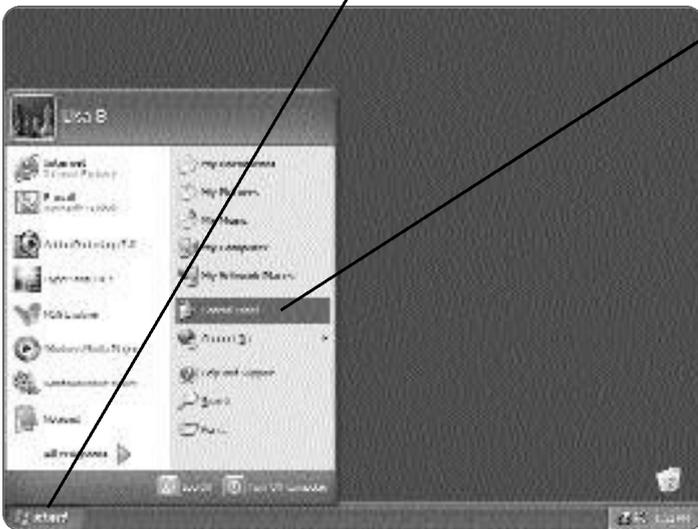
Mode	Description
Bitmap	This mode enables you to create a black-and-white image only. Because it provides for only two tones, you can't convert a full-color image to this mode, because too much image information would need to be discarded.
Grayscale	This mode provides for 256 shades of gray in the image, offering enough variation to facilitate clear detail in the image.
RGB	This mode mimics visual light—composing images of red, green, and blue—and works best for images to be viewed onscreen, such as those ultimately to be saved for use in a presentation.
CMYK (Cyan, Magenta, Yellow, and black)	This mode optimizes images to be printed, because cyan, magenta, yellow, and black are the ink colors used for color printing. This mode tries to compensate for the fact that paper absorbs some of the ink, affecting the appearance of colors.
Lab	This mode uses luminance and brightness settings to help balance the image for all types of devices—printers, monitors, and scanners.
Multichannel	This mode allows you to convert color images for special printing situations. This mode converts the various color channels to channels with 256 colors of gray, with each channel having variations in the distribution of gray tones, according to the original colors.
Indexed Color	This mode converts an image to a more limited palette of 256 colors, using the matching or lookup system that you specify. You may want to convert to indexed color, for example, for images to be used on a Web page or in a presentation, because this mode dramatically decreases the file size while maintaining image appearance. (In fact, this is the preferred setting for Web graphics.)
Duotone	This mode prepares an image for traditional duotone printing, which uses two solid ink colors such as a dark gray and a blue, yielding a nicely tinted image. You also can construct images with three ink colors (tritones) and four ink colors (quadtones).

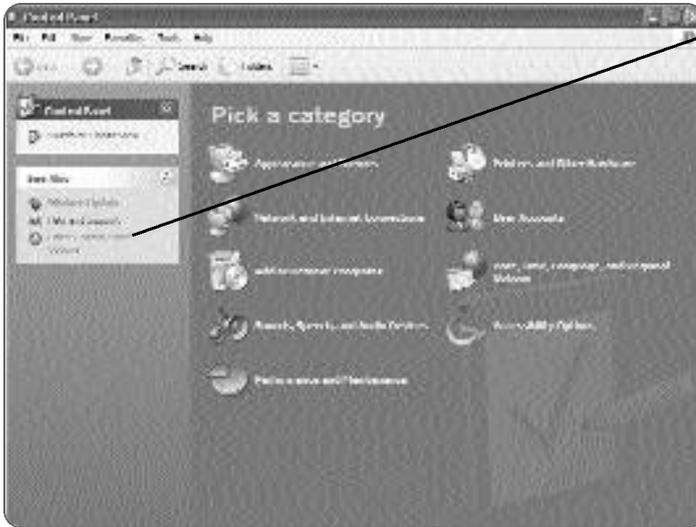
## Adjusting Your Display

When you install Photoshop, by default the Adobe Gamma utility installs as well in the Windows Control Panel. You can use this utility to calibrate the monitor, a process that saves a color profile that you can apply so images will display using exactly the same tones on other systems with similarly calibrated monitors or in other applications using color controls. Follow these steps to create the calibration profile for your monitor, starting from the Windows XP desktop.

**1. Click on Start.** The Start menu will appear.

**2. Click on Control Panel.** The Control Panel window will open.

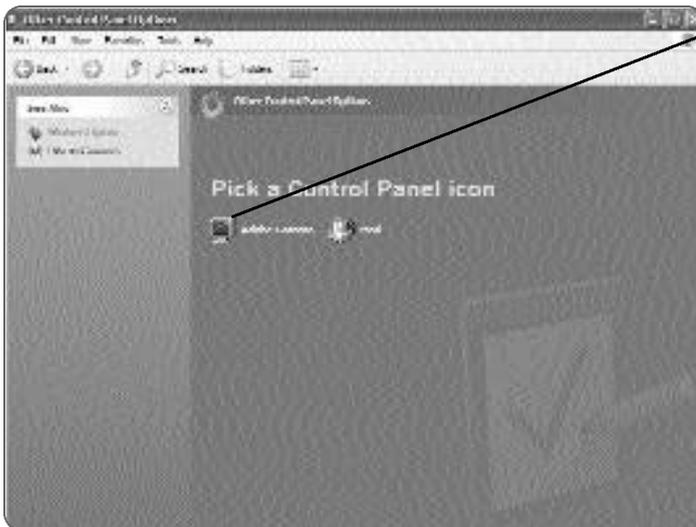




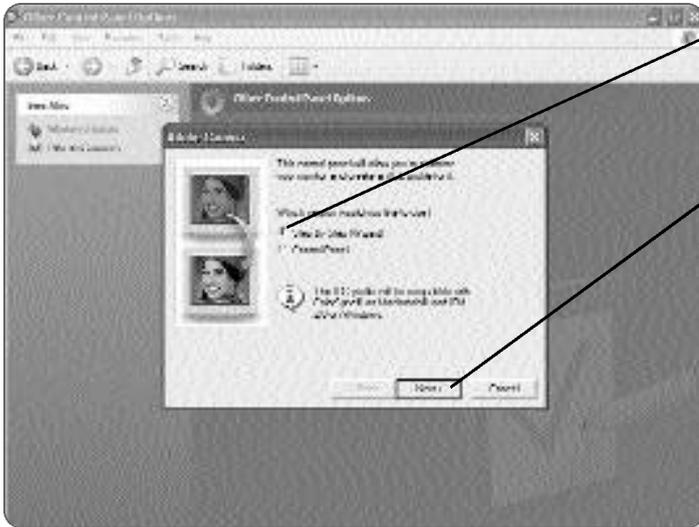
3. Click on **Other Control Panel Options** in the See Also list. The Other Control Panel Options window will open.

#### NOTE

If you're using Windows Millennium Edition, you may need to click on the View All Control Panel Options link at the left side of the Control Panel window. For earlier Windows versions, choose Start, Settings, Control Panel.

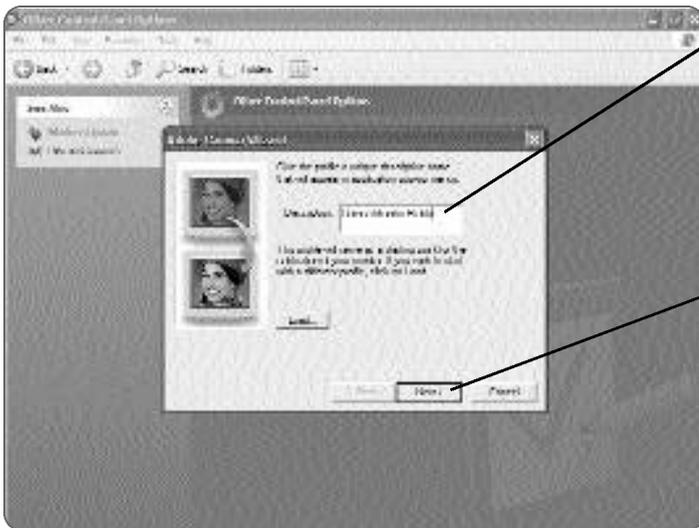


4. Click on the **Adobe Gamma** icon or link. The Adobe Gamma dialog box will open.



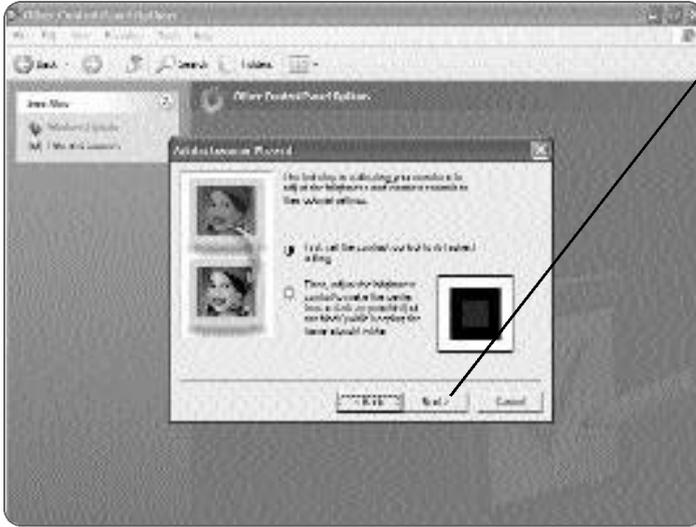
**5. Click on the **Step By Step (Wizard)** option button. The option button will be selected.**

**6. Click on **Next**.** The next wizard dialog box will appear.



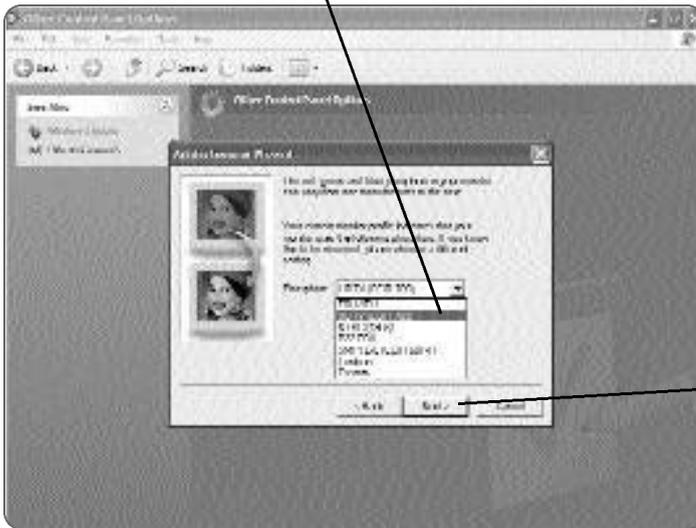
**7. Select the **contents** of the Description text box and **type a new name**, if needed. The name you enter will be applied to the calibration (ICC) profile created for the monitor.**

**8. Click on **Next**.** The next wizard dialog box will appear.



**9. Adjust** the monitor's **brightness** and **contrast controls** as directed, and then click on **Next**. The settings will be read and the next wizard dialog box will appear.

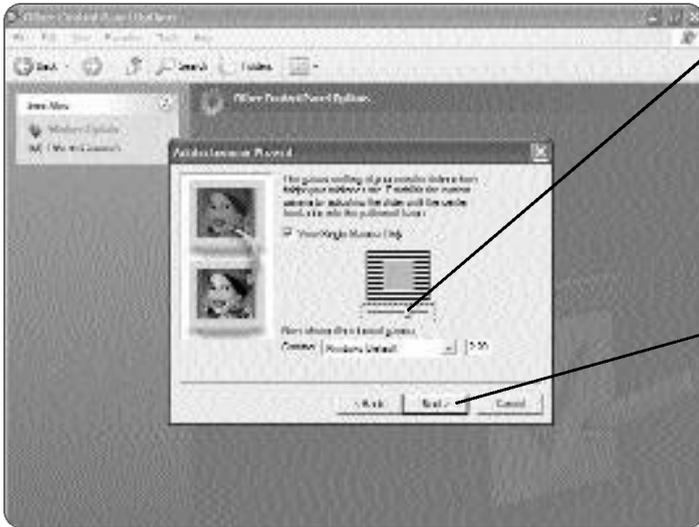
**10. Click** on the **down arrow** beside the **Phosphors** drop-down list, and then **click** on **another choice** in the list, if needed. The selected phosphors setting will be used for the calibration.



**11. Click** on **Next**. The next wizard dialog box will appear.

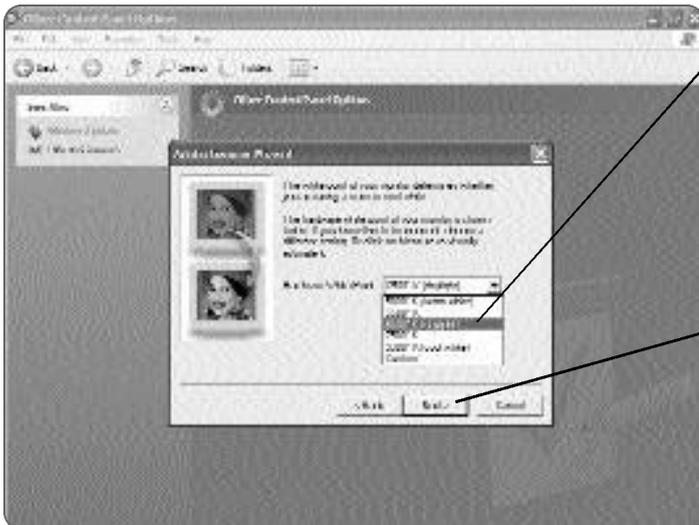
## NOTE

Make a change in Step 10 only if the documentation for your monitor indicates that it uses phosphors other than those suggested by the wizard.



**12. Drag the slider** until the center box becomes about the same tone as the light parts of the patterned frame, as instructed. The selected gamma setting will be used for the calibration.

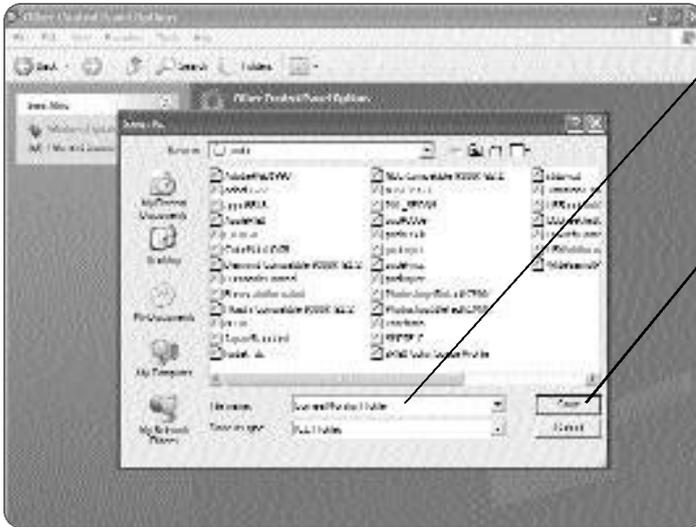
**13. Click on Next.** The next wizard dialog box will appear.



**14. Click on the down arrow** beside the Hardware White Point drop-down list, and then **click on another choice** in the list, if needed. The selected hardware white point setting will be used for the calibration.

**15. Click on Next.** The next wizard dialog box will appear.





**19. Type a name** for the calibration file in the File name text box. The name you type will appear.

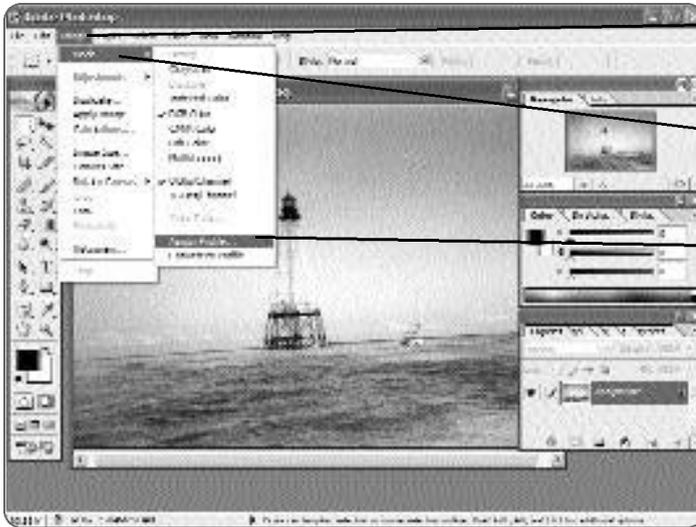
**20. Click on Save.** Adobe Gamma calibrates the monitor according to the settings you specified and saves the calibration settings for future use.

### NOTE

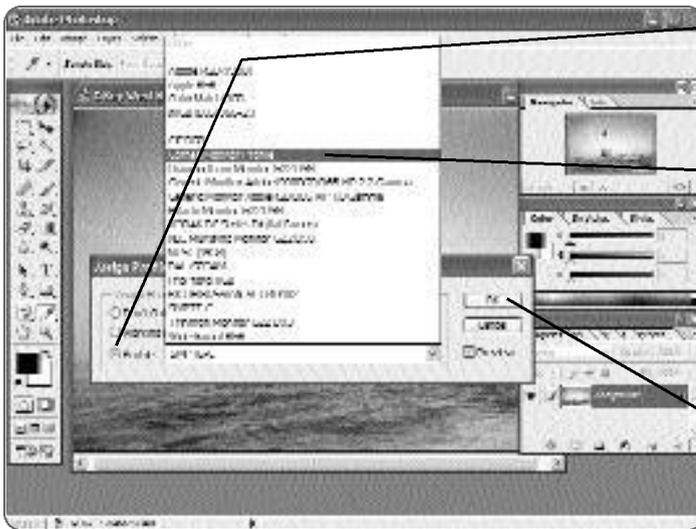
At this point, you can click on the window Close button to close the Other Control Panel Options window.

## Applying a Color Profile

After you've used the calibration process to save a color profile, you can apply that color profile (or one of the profiles available by default within Photoshop) to the current image file, as described here, so that Photoshop will display the image using the correct calibration settings. This ensures that any color changes you make will appear correctly on other calibrated displays and devices.



1. Click on **Image**. The Image menu will appear.
2. Point to **Mode**. The Mode submenu will appear.
3. Click on **Assign Profile**. The Assign Profile dialog box will open.



4. Click on the **Profile** option button. The Profile option becomes active.
5. Click on the **down arrow** beside the Profile option, and then **click on another choice** in the list, if needed. The selected profile's settings will be used to display the image.
6. Click on **OK**. The selected profile will be applied to the image.

## NOTE

As when you make any other changes using Photoshop, don't forget to save your color changes.

## Using Color Channels

When an image uses one of the color modes that has color (for example, not bitmap or grayscale mode), Photoshop displays each color to be displayed or printed as a separate channel. You can work with the image information for a particular channel to edit only that color in the image. This section shows you how to display a channel and gives an example of working with channel content.

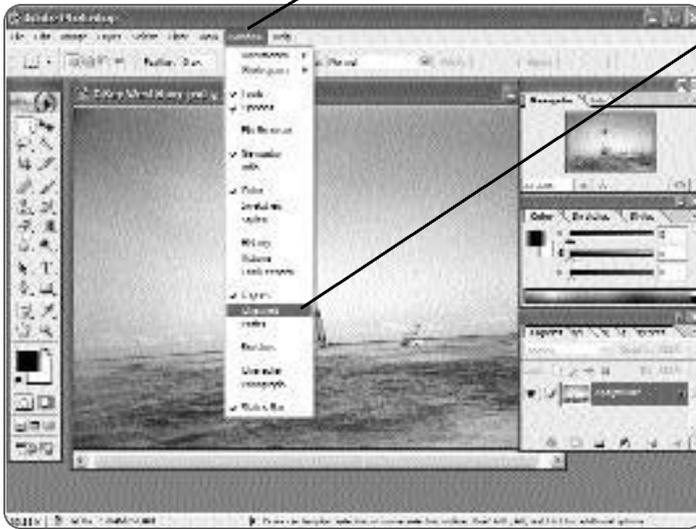
### NOTE

Bitmap, grayscale, duotone, and indexed images have a single channel. You can add more channels, called *alpha channels*, to any type of image but bitmaps. (See “Adding an Alpha Channel” in the next chapter to learn how to add an alpha channel.) The alpha channels you add can hold masks or add separate colors to be printed in the image.

## Changing to a Channel

You use the Channels palette to work with the various color channels in a Photoshop image. Follow these steps when you want to display a particular channel only.

1. Click on **Window**. The Window menu will appear.



2. Click on **Channels**. The Channels palette will become the active palette.

### TIP

You also can click the Channels tab, if it's visible in the Layers palette. The Layers palette window holds five tabs, making it tough to see the tab to click. You can either resize the palette window to make the tabs accessible, or use the Window menu as noted in the steps in this book.

3. Click on the **desired channel**. The channel will become the current or active channel, and its content will appear in the image window.



### TIP

To hide a channel, click on the eye icon to the left of the channel name. To redisplay the change, click on the empty box to redisplay the eye icon.

## Working on a Channel

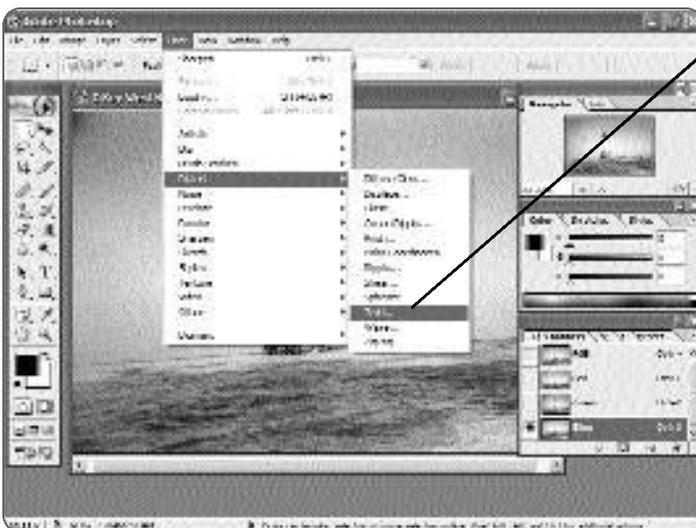
You can edit the content on a single color channel just as you can edit the content of a single layer. You can make a selection on the channel, use editing tools such as the Airbrush, delete selected channel content, apply a filter, and so on. The following steps show just one example of the editing possibilities.

The following steps show just one example of the editing possibilities.

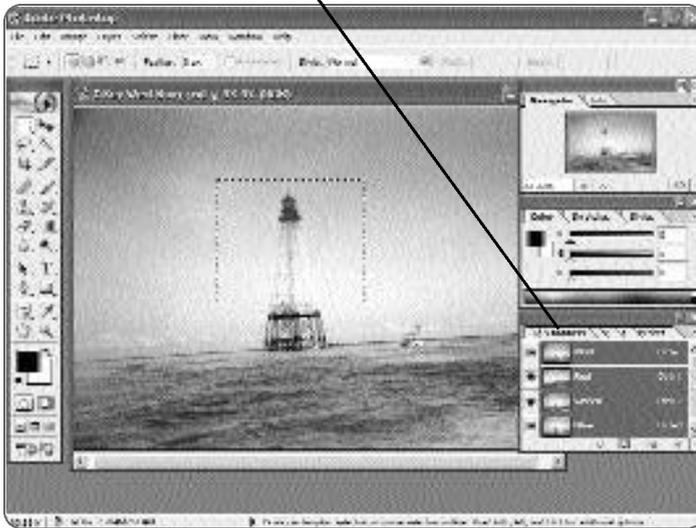
**1. Make a selection** on the current channel using the tool of your choice, if needed. The selection will become active.



**2. Make changes** to the channel content using the tool or filter of your choice. This example shows a filter being selected. The changes will appear on the channel immediately.



**3. Click** on the **composite channel**. The composite channel will become the current or active channel, and all the image color content will reappear in the image window. From this point, you can continue working with other Photoshop tools.



## NOTE

If you experiment with color channel changes, you'll find they can be very subtle. Although the average person might not catch all your channel changes, being able to control and manipulate colors is essential if you plan to use your images for professional-level output.

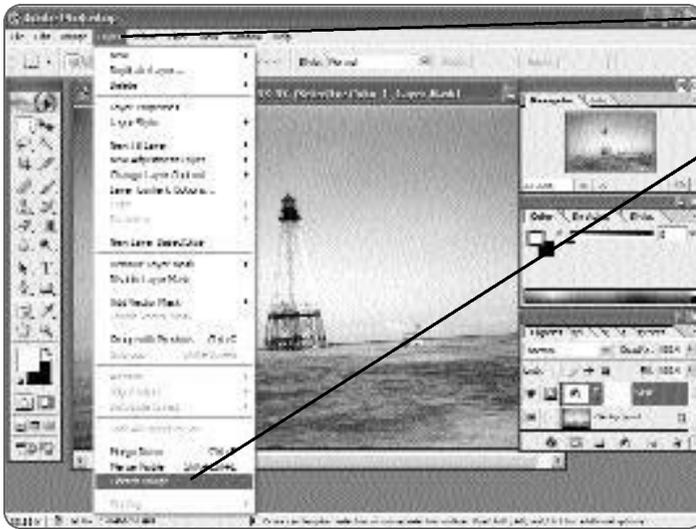
## Converting Images

Images you create don't have to remain in the original color mode. Photoshop makes it easy to convert to another color mode when needed. This section walks you through a few of the more common color mode conversion scenarios.

### Choosing CMYK Color

Adobe recommends that you perform most color corrections (and other edits) to an image before you convert the image to CMYK color for professional printing. (Adobe also recommends that you save a copy of the image file before converting to CMYK, so that you can work with the original colors in the image, if needed, at a later time.) You convert to CMYK when the image is ready to facilitate a print shop creating *color separations*—a separate piece of film for each ink color, used

for creating a plate to print each color ink. Typically, you'll convert to CMYK color from RGB color, as in the following steps.



**1. Click on Layer.** The Layer menu will appear.

**2. Click on Flatten Image.** Photoshop will merge all the separate layers onto a single layer, so that you can convert the image to CMYK color. (This is another reason why you should complete your edits in RGB color before converting to CMYK.)



**3. Click on Image.** The Image menu will appear.

**4. Point to Mode.** The Mode submenu will appear.

**5. Click on CMYK Color.** Photoshop will convert the image to CMYK color immediately; if you display the Colors palette, you will see the new channels.

**NOTE**

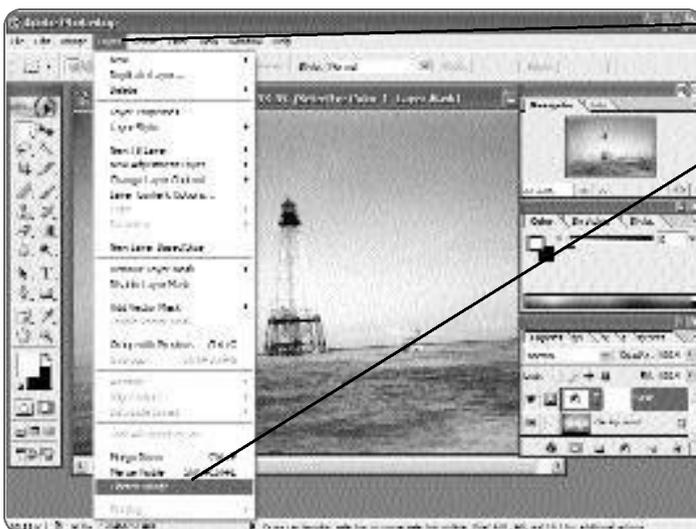
You use the Mode submenu of the Image menu to convert between all color modes.

## Working with Bit Depth

In Photoshop, the bit depth refers to the amount of color information each pixel can hold per color channel. (Grayscale images also have a bit depth, given their tonal variations.) So, an image set to 16 bits per channel (the default for many scanners) would have an overall color depth of 48 bits (16 x 3) for an RGB image. The higher the bit depth, the greater the possible variation of colors in the image, and the more detail the image can appear to have. On the other hand, an image set to 8 bits per channel provides a much smaller file size, which may work best for certain publications and applications. The following steps show you how to convert from 8 bits per channel to 16 bits per channel, and back again.

### NOTE

In some cases, when you add layers and masks to a scanned image, Photoshop automatically converts the image from 16 bits to 8 bits, so you have to manually adjust the bit depth later.



**1. Click on Layer.** The Layer menu will appear.

**2. Click on Flatten Image.** Photoshop will merge all the separate layers onto a single layer, so that you can convert an image from 8 bits per channel to 16 bits per channel.

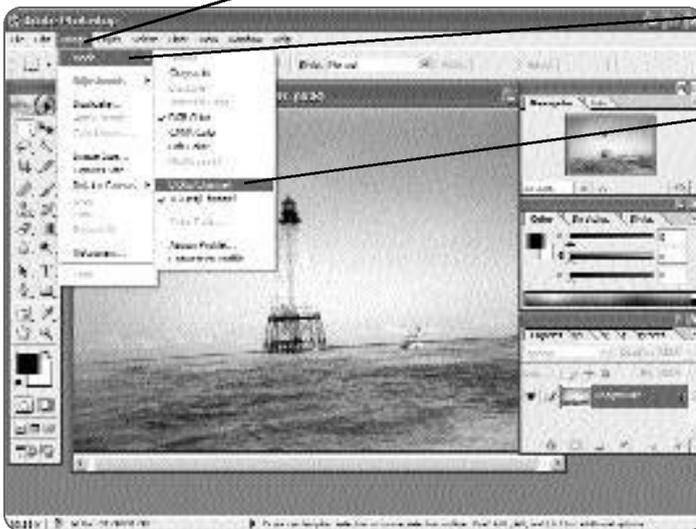


**3. Click on Image.** The Image menu will appear.

**4. Point to Mode.** The Mode submenu will appear.

**5. Click on 16 Bits/Channel.** Photoshop will convert the image to 16 bits of color information per channel immediately.

**6. Click on Image.** The Image menu will appear.



**7. Point to Mode.** The Mode submenu will appear.

**8. Click on 8 Bits/Channel.** Photoshop will convert the image to 8 bits of color information per channel immediately.

### NOTE

Some tools and features, such as the Text tool, don't work in an image set to 16 bits of color. If you try to use an unavailable tool or feature while the image is set to 16 bits, Photoshop will display a message telling you to convert the image to 8 bits per channel.

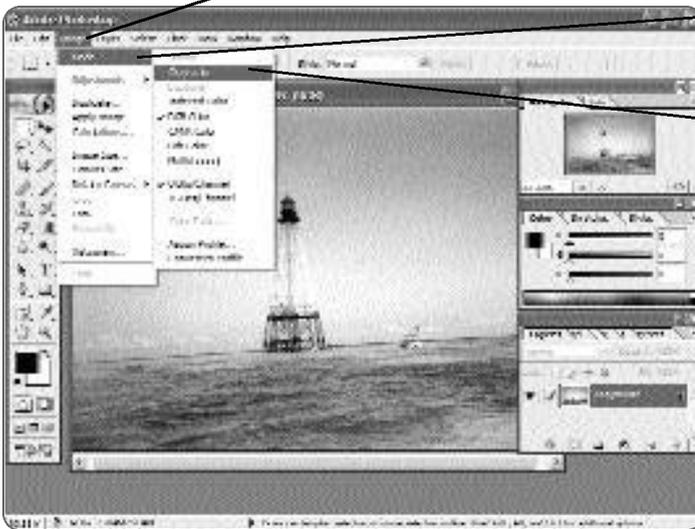
## Converting to Grayscale

Another common scenario involves converting a color image to grayscale. Most of us take color photos with either our traditional or digital cameras. When you want to use one of those images in a black-and-white publication, convert the image to grayscale mode using Photoshop, as described here.

**1. Click on Image.** The Image menu will appear.

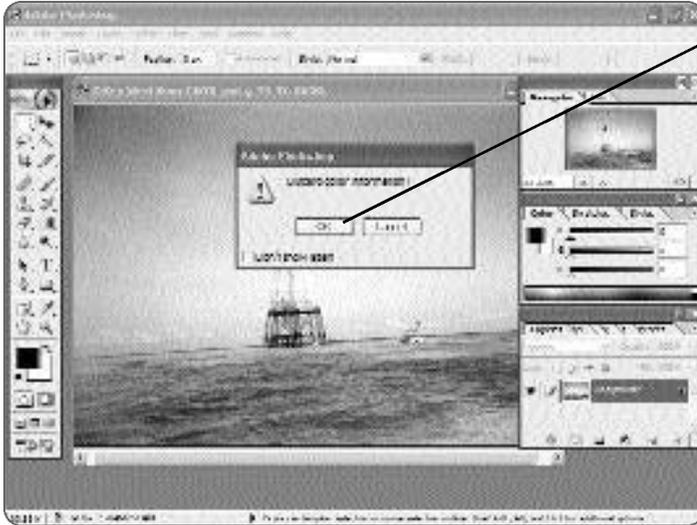
**2. Point to Mode.** The Mode submenu will appear.

**3. Click on Grayscale.** A dialog box will appear to ask whether you want to complete the conversion by discarding color information.



### NOTE

It's not necessary to flatten the image before converting to grayscale. However, if you do not flatten the image first and the image contains a color adjustment layer, the wording of the dialog box that appears after Step 3 will be slightly different, asking if you want to discard the adjustment layer information.



**4. Click on OK.** Photoshop will complete the grayscale conversion.

### NOTE

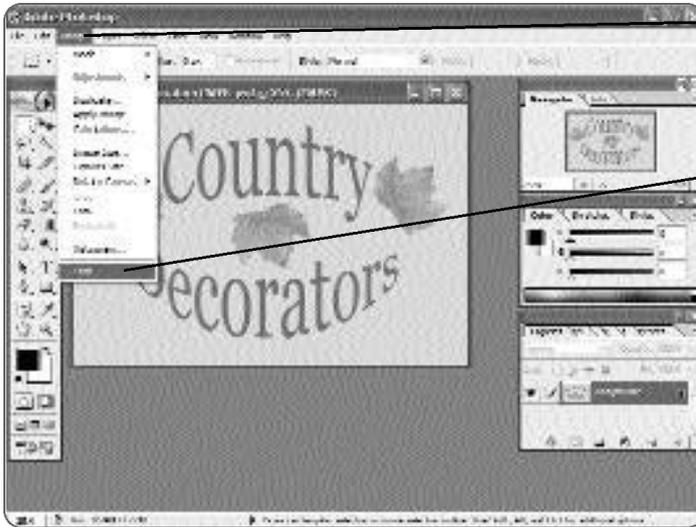
Obviously, if you convert from grayscale back to one of the color modes, Photoshop won't be able to re-create the original color information. For that reason, it's a good idea to save a copy of your image file before converting to grayscale, so that you can continue working with the color version of the image whenever you need it.

## Prepping for Color Separations

You need to use trapping only if your image will be output via traditional printing methods from CMYK color. Because the process literally lays down the ink colors in separate passes (on many printing presses), slight shifting in the paper or the printing plates can result in white gaps where the ink colors don't abut as needed. To avoid this problem, you can use trapping to cause colors to overlap slightly so that there is no gap during printing.

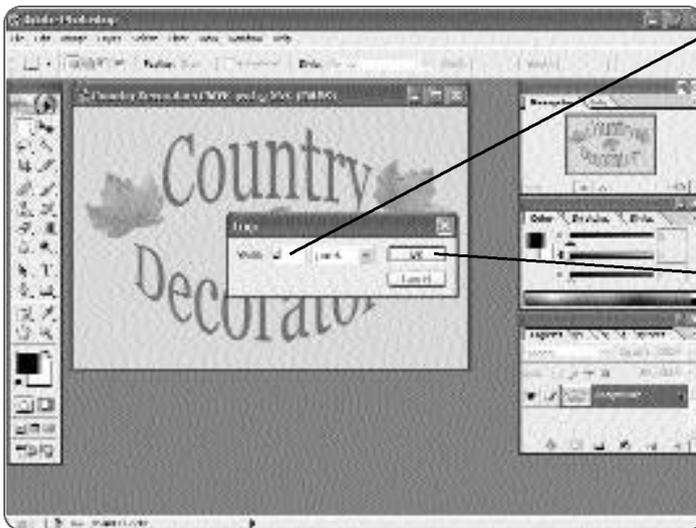
### NOTE

Most images only need trapping when they use large blocks or areas of solid color. Trapping an image with more variation, like a scanned photo, can actually cause problems with the color separations and ultimate print job. To see whether you need to use trapping in an image and to get some guidance about what trapping settings to use, consult your print shop.



1. After converting the image to CMYK color, **click on Image**. The Image menu will appear.

2. **Click on Trap**. The Trap dialog box will appear.



3. **Type** a new **Width** entry, and change the measurement unit in the accompanying drop-down list, if needed. The settings will determine how much the colors overlap by when printed.

4. **Click on OK**. Photoshop will finish adding the specified trapping.

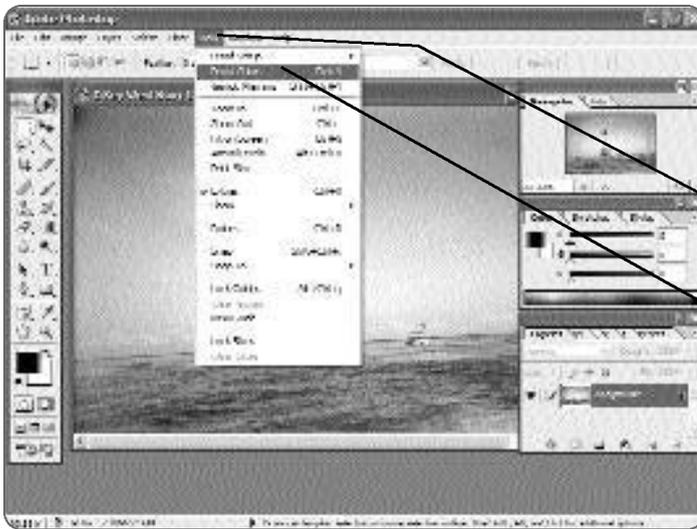
# Proofing Colors

Photoshop provides you the means to proof the appearance of the various color plates (Cyan, Magenta, Yellow, and black) after you've converted an image to CMYK color. You might want to do this, for example, to look for small specks of color

that you may want to clean up by erasing them from the applicable channel. The following steps explain how to get started proofing a color plate.

**1. Click on View.** The View menu will appear.

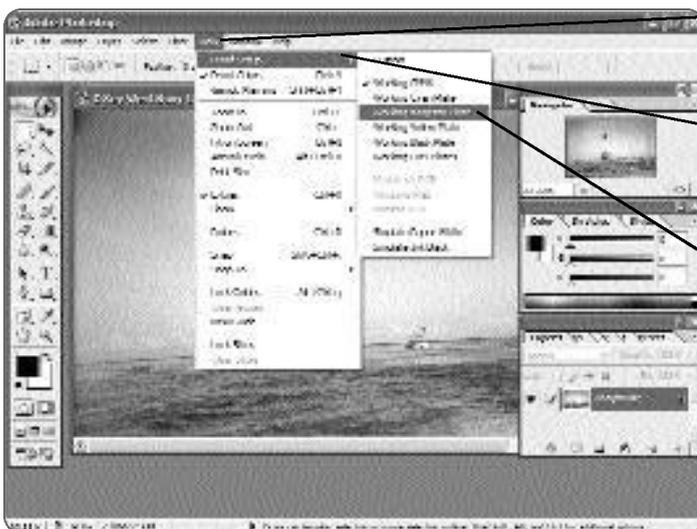
**2. Click on Proof Colors** (to check it). The color proofing feature will become active.



**3. Click on View.** The View menu will appear.

**4. Point to Proof Setup.** The Proof Setup submenu will appear.

**5. Click on one of the Working (Color) Plate choices.**



## NOTE

You can repeat Steps 3 through 5 to proof other plates.



# 16

## Correcting Image Color

In addition to working with the color information on individual channels, you can use some commands to adjust and correct the overall color in an image. By using a few straightforward commands, you can make color corrections that once required quite a bit of time in the photo lab. This chapter introduces you to basic color correction techniques in Photoshop, including how to:

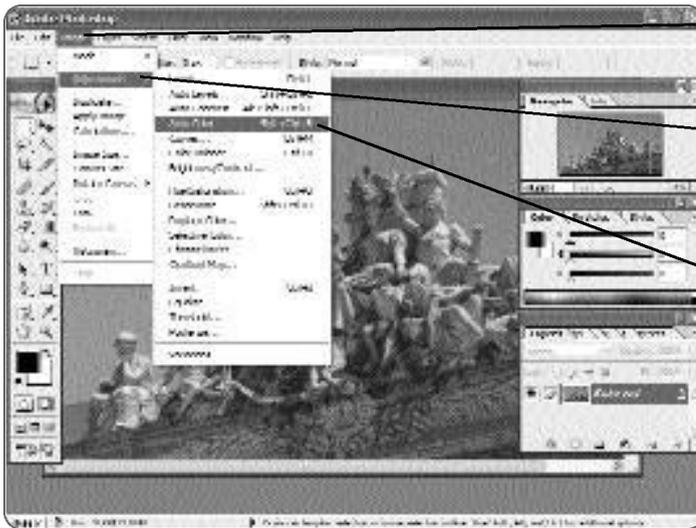
- Make quick color corrections
- Adjust image tones
- Rebalance the image color
- Change image brightness and contrast
- Use a special color effect
- Create an alpha channel

## Using the Auto Color Command

If you want to improve the appearance of your image without working in depth with color settings, you can use the Auto Color command. This command searches the image content and improves the contrast and colors. The following steps show how to use the Auto Color command to adjust an image's color and contrast with ease.

### NOTE

The changes the Auto Color command makes are based on the settings in the Auto Color Corrections Options dialog box. You can access this dialog box by choosing Image, Adjustments, Curves. Then click on the Options button in the Curves dialog box.

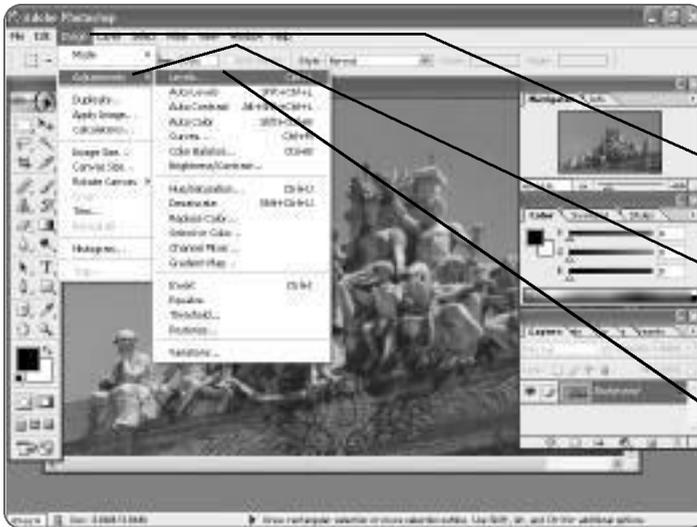


- 1. Click on Image.** The Image menu will appear.
- 2. Point to Adjustments.** The Adjustments submenu will appear.
- 3. Click on Auto Color.** The image color and contrast will be adjusted.

## Changing the Tonal Quality

The *tonal quality* settings in Photoshop enable you to manipulate the image appearance by adjusting highlights or shadows. This can make the image appear a bit lighter or darker if you adjust all the colors in the image, or can make

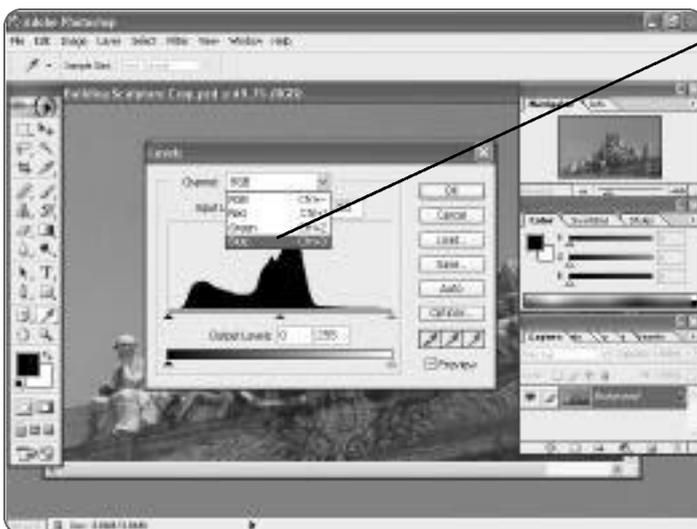
more subtle changes if you adjust one channel only. Follow these steps to work with the image tone.



**1. Click on Image.** The Image menu will appear.

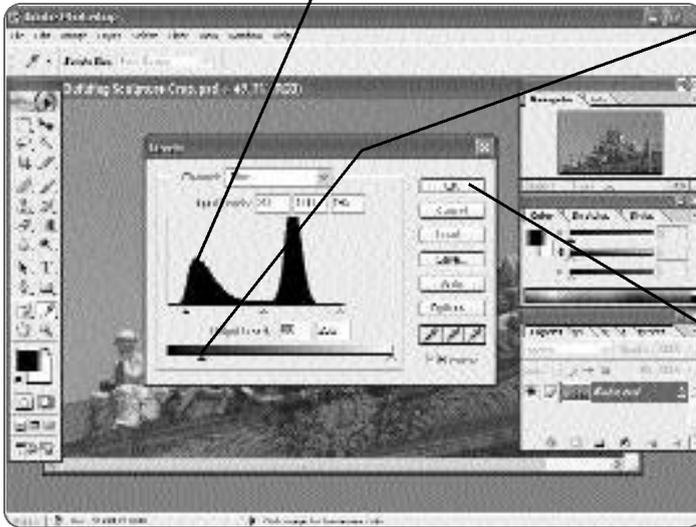
**2. Point to Adjustments.** The Adjustments submenu will appear.

**3. Click on Levels.** The Levels dialog box will open.



**4. Click on the down arrow** beside the Channel drop-down list, then **click on the desired channel** in the list. The desired channel will be selected for tonal adjustments.

**5. Drag the Input Levels sliders** as needed to adjust the tone. The left slider affects shadows, the middle slider affects midtones, and the right slider affects highlights. The image window will preview the changes.



**6. Drag the Output Levels sliders** as needed to further adjust the tone for the selected channel. The left slider adjusts shadows and the right slider adjusts highlights. The image window will preview the changes.

**7. Click on OK.** Photoshop will close the Levels dialog box and apply the tonal changes.

## Correcting the Color Balance

The *color balance* in an image refers to the overall proportion of various colors in the image. For example, if a photo looks too yellow to you, you can make a color balance adjustment as described next to correct that problem. Color balance changes make a general correction to the image color.

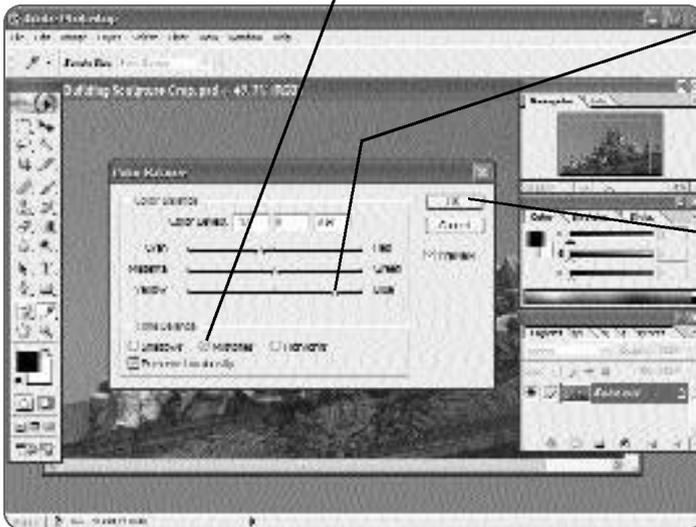


**1. Click on Image.** The Image menu will appear.

**2. Point to Adjustments.** The Adjustments submenu will appear.

**3. Click on Color Balance.** The Color Balance dialog box will open.

**4. Click on the option button** for the tonal range to correct in the Tone Balance area, if needed. The color balance changes you make will be applied to the specified tonal range.



**5. Drag the Color Balance sliders** as needed to change the amount of color in an image. The image window will preview the changes.

**6. Click on OK.** Photoshop will close the Color Balance dialog box and apply the color changes.

**NOTE**

You also can make various color corrections and apply various color special effects by adding an *adjustment layer* to the image. The adjustment layer enables you to display the color correction or effect when needed, or hide it when not needed. Use the New Adjustment Layer submenu of the Layer menu to add an adjustment layer.

## Correcting Brightness and Contrast

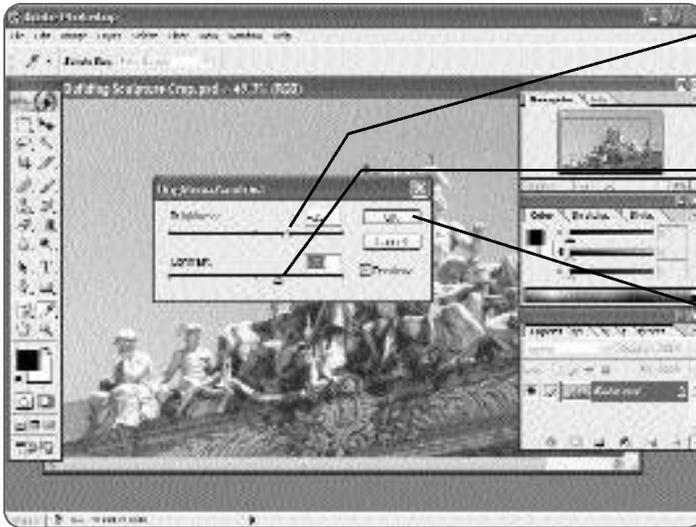
*Brightness* generally refers to the amount of light (overall lightness) in the image, and *contrast* refers to the difference between the lightest points and the darkest points in the image. Adding brightness to an image can soften its appearance, whereas increasing contrast can make an image appear a bit more well-defined. You adjust both brightness and contrast in the same dialog box, as shown next.



**1. Click on Image.** The Image menu will appear.

**2. Point to Adjustments.** The Adjustments submenu will appear.

**3. Click on Brightness/Contrast.** The Brightness/Contrast dialog box will open.



**4. Drag the Brightness slider.**  
The image window will preview the changes.

**5. Drag the Contrast slider.**  
The image window will preview the changes.

**6. Click on OK.** Photoshop will close the Brightness/Contrast dialog box and apply the changes.

## Applying a Special Color Effect

Some of the commands on the Adjustments submenu of the Image menu—specifically the Invert, Equalize, Threshold, and Posterize choices—apply special color effects. Each of these commands works a bit differently and applies a slightly different effect, so the following steps provide an example of using one of them—the Posterize choice.

The posterizing effect reduces the number of colors used in the image, so that the image becomes composed of larger color areas, much like paint-by-number pictures or the way posters used to be designed.

### NOTE

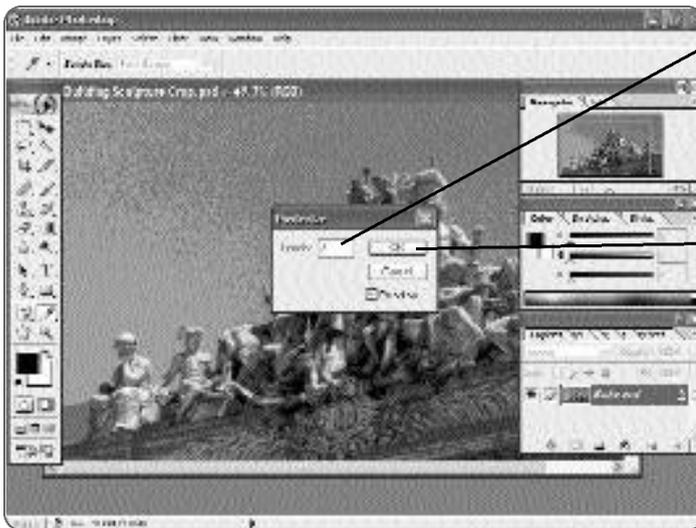
The Invert Image command reverses the colors in an image, creating a negative effect. Equalize finds the lightest and darkest pixels in the image and sets them to white and black, respectively, then distributes the brightness values for the remaining pixels between the two extremes. Finally, the Threshold command converts any image to a high contrast black-and-white image.



**1. Click on Image.** The Image menu will appear.

**2. Point to Adjustments.** The Adjustments submenu will appear.

**3. Click on Posterize.** The Posterize dialog box will open.



**4. Type a new Levels** text box entry, if needed. The image window will preview the specified degree of posterization.

**5. Click on OK.** Photoshop will close the Posterize dialog box and apply the special effect.

# Adding an Alpha Channel

As noted in the last chapter, an alpha channel is an extra channel you use to store a selection in an image. Then, you can easily reload the selection from the channel, or even convert

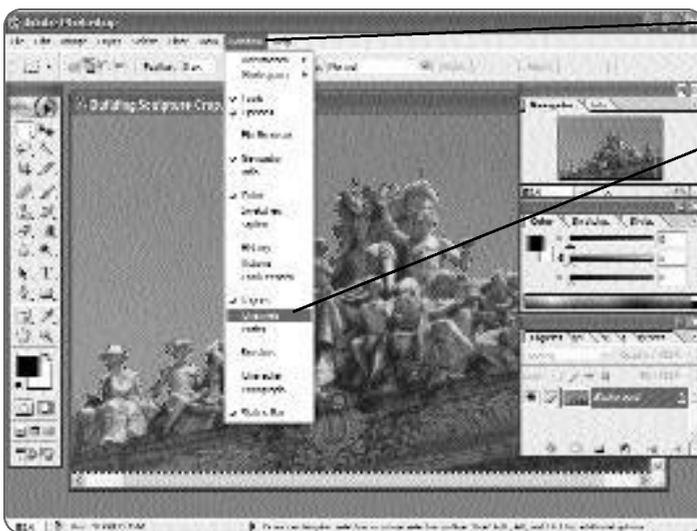
the channel to a spot color treatment as described in the section called “Adding Spot Color” in the next chapter. The steps that follow explain the easiest way to save a spot channel—by saving a selection as a spot channel.

**1. Make a selection** on a layer using the selection tool of your choice. The selection will appear in the image.



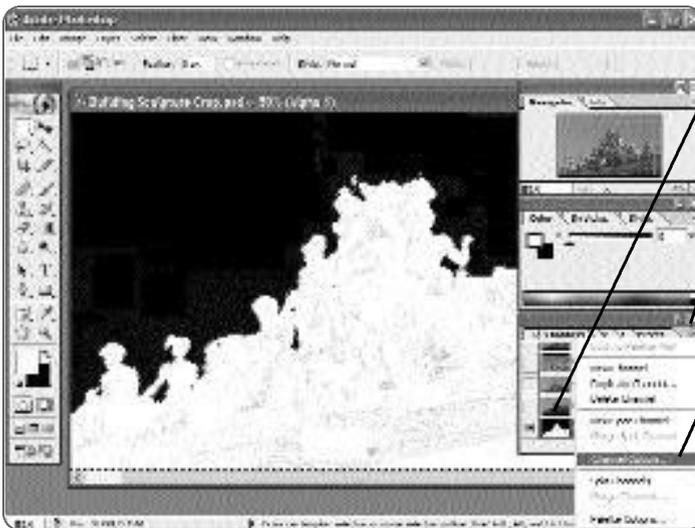
**2. Click on Window.** The Window menu will appear.

**3. Click on Channels.** The Channels palette will become active.





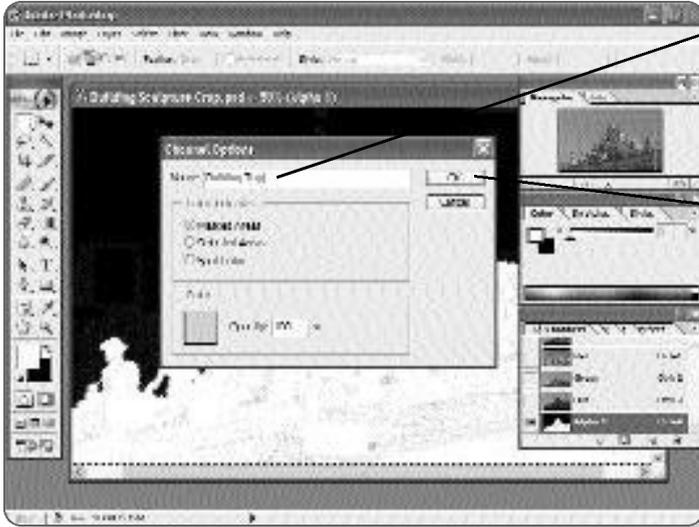
**4. Click on the **Save Selection as Channel** button at the bottom of the Channels palette. The new channel will appear immediately in the Channels palette.**



**5. Click on the **new channel** in the palette. The new channel will be selected.**

**6. Click on the **Channels palette menu button**. The palette menu appears.**

**7. Click on **Channel Options**. The Channel Options dialog box will open.**



**8. Type a name for the channel** in the Name text box. Your new name will replace the temporary name in the text box.

**9. Click on OK.** The Channel Options dialog box will close and Photoshop will save the channel under the name you specified.

### NOTE

To load the selection from a channel, click on the channel in the Channels palette, and then click on the Load Channel as Selection button at the bottom of the Channels palette.

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# 17

## Having Fun with Color

You've seen old photos where photographers hand-painted tints onto black and white images, or warmer brown and ivory images called *sepia* prints. You can achieve similar effects in Photoshop, as well as create your own special treatments such as duotones for printing. This chapter reveals these three tricks, showing you how to:

- Add spot color to an image
- Create a duotone image
- Convert a color image to sepia tones

## Adding Spot Color

Typically, you would add spot color to enhance or colorize an area on a grayscale image, but you can really add spot color to any image that allows multiple channels. You can use an alpha channel to create the spot color, as described in the following

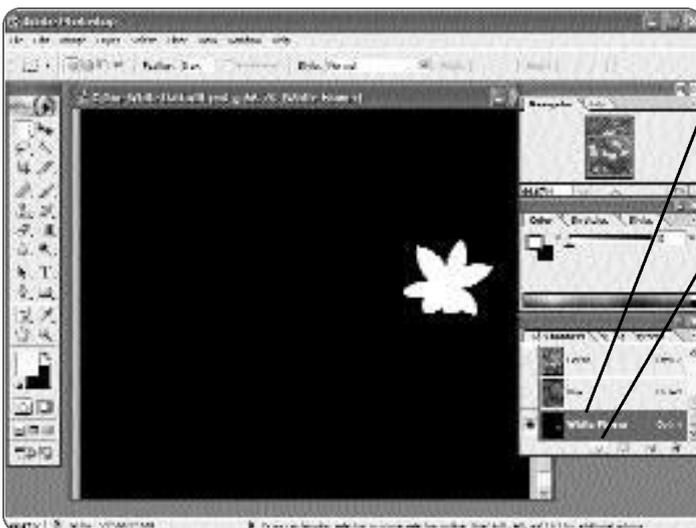
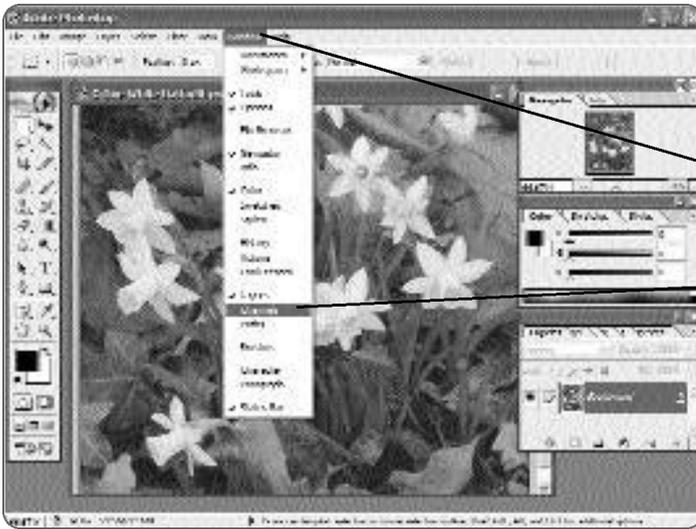
example, or you can make another selection and then start with Step 4 to finish adding the spot color.

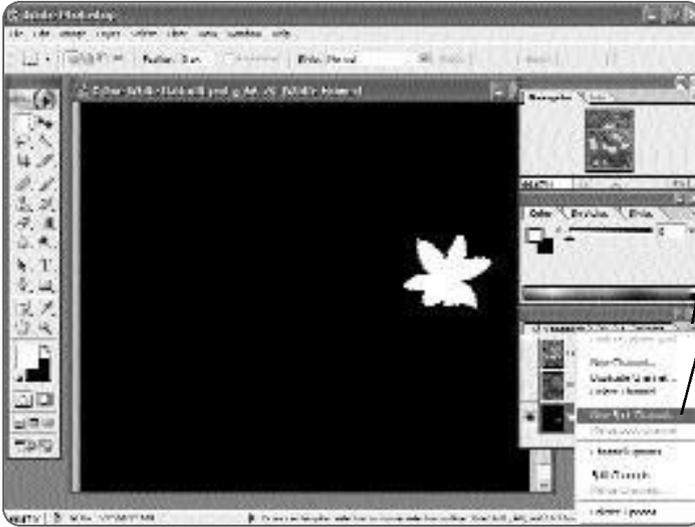
**1. Click on **Window**.** The Window menu will appear.

**2. Click on **Channels**.** The Channels palette will become active.

**3. Click on the **alpha channel**** that you want to use to apply the spot color in the palette. The channel will be selected.

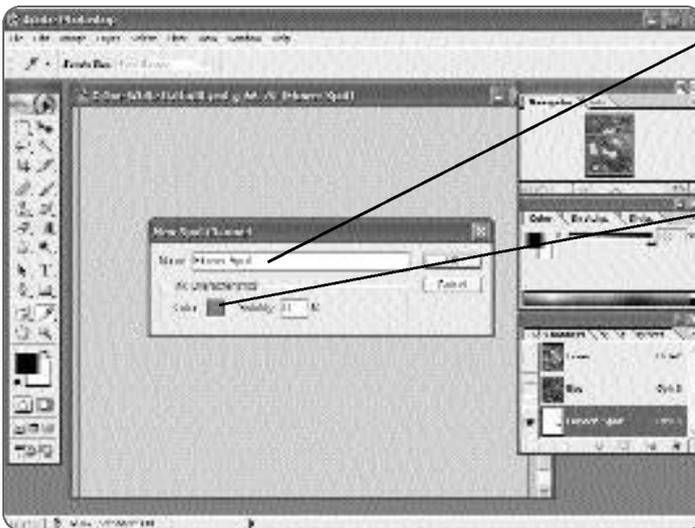
**4. Click on the **Load Channel as Selection**** button at the bottom of the palette. The selection appears immediately in the channel.





5. Click on the **Channels palette menu** button. The palette menu will appear.

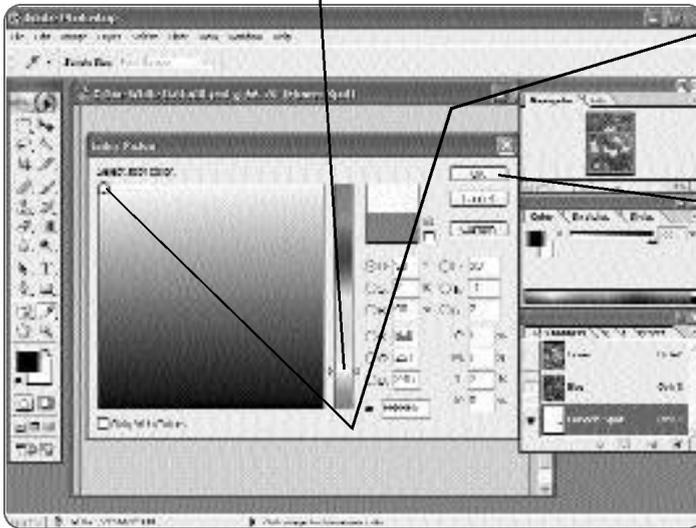
6. Click on **New Spot Channel**. The New Spot Channel dialog box will open.



7. **Type a name** for the spot channel in the Name text box. Your new name will replace the temporary name in the text box.

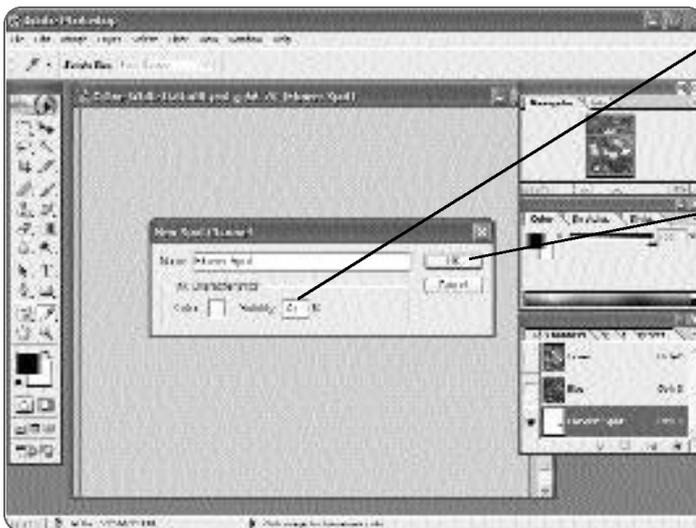
8. Click on the **Color box**. The Color Picker dialog box will open.

**9. Click** on a **color** in the narrow band of colors near the middle of the dialog box. Photoshop will display a different range of colors in the Select spot color box.



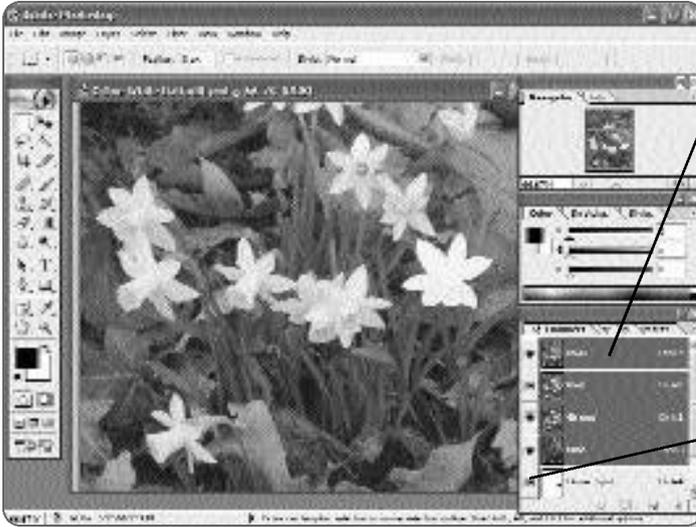
**10. Click** on a **color** in the Select spot color box. The color you click on will become the active spot color.

**11. Click** on **OK**. The Color Picker dialog box will close.



**12. Make** a **new entry** in the Solidity text box, if needed. An entry greater than 0 will make the spot color more opaque.

**13. Click** on **OK**. The New Spot Channel dialog box will close, finishing the spot color channel.

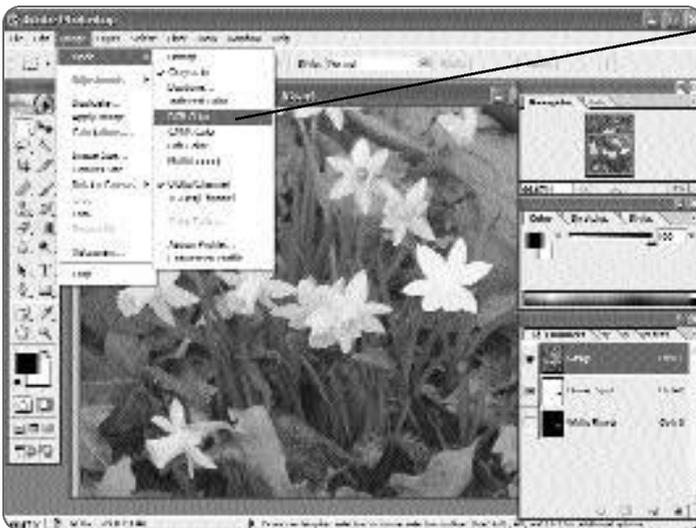


**14. Click on the **composite channel** in the Channels palette. The image will reappear in the image window.**

**NOTE**

The name of the composite channel in a grayscale image is "Gray."

**15. Click on the **eye icon box** beside the spot channel so that the icon appears in it. The spot color will appear in the image.**



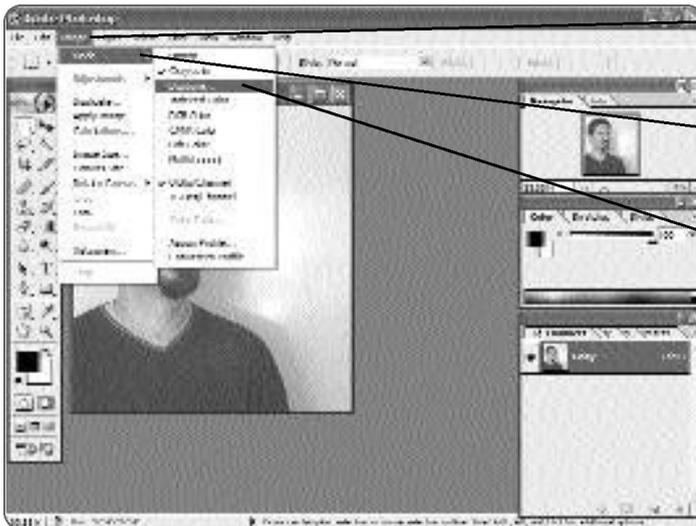
**16. If you were working in a grayscale image, **convert** the **image** to RGB or CMYK color. After you make the conversion, the image will print with the spot color. (If you skip the conversion, the image will still print in grayscale.)**

## Creating a Duotone Image

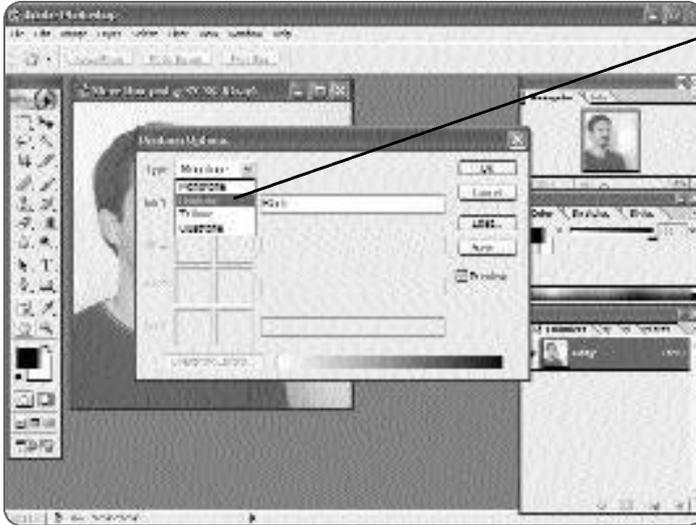
As noted in an earlier chapter, a duotone image typically is a grayscale image to which you add a second printed color to tint the image overall. (You can add two tint colors to create a tritone image, and three tint colors to create a quadtone image.) The steps here illustrate an example of converting a grayscale image to a duotone for a nicely tinted printout.

### NOTE

Remember, some tools and conversions aren't available for images using 16 bits of color information per channel, so convert to 8 bits per channel. To convert to a duotone, the image must be set to 8 bits per channel. Refer to "Working with Bit Depth" in Chapter 15 to see how to make this change.



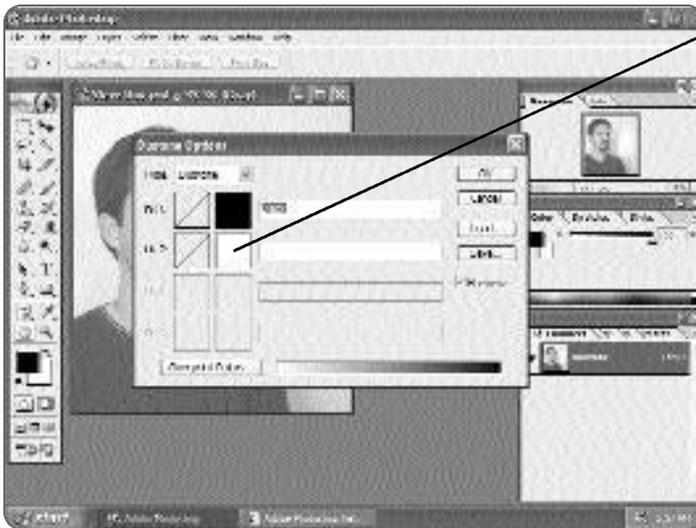
- 1. Click on Image.** The Image menu will appear.
- 2. Point to Mode.** The Mode submenu will appear.
- 3. Click on Duotone.** The Duotone Options dialog box will appear.



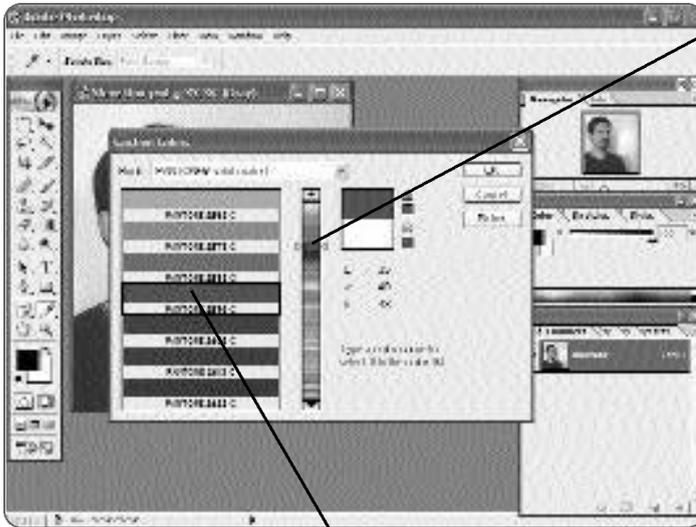
**4. Click on the down arrow** beside the Type drop-down list, and then **click on Duotone** in the list. The second ink color will become active for the image.

### NOTE

Of course, you would click on Tritone or Quadtone to add more than one tint color to the image.



**5. Click on the white Ink 2 box.** The Custom Colors dialog box will open.

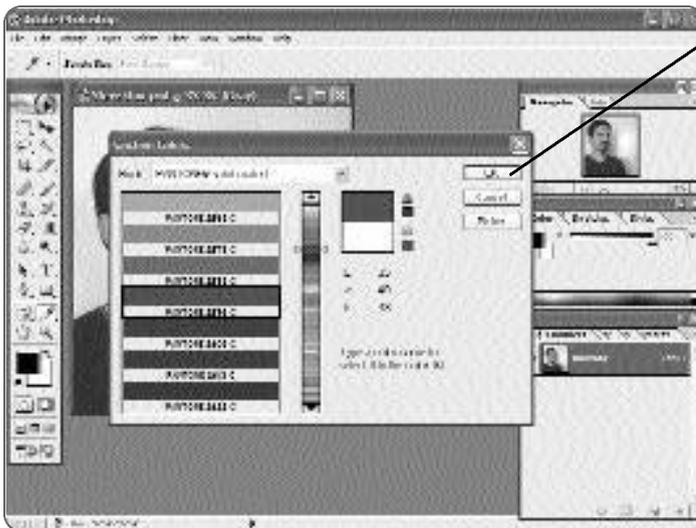


**6. Click on a color** in the narrow band of colors near the middle of the dialog box. Photoshop will display a different selection of colors in the list at the left side of the dialog box.

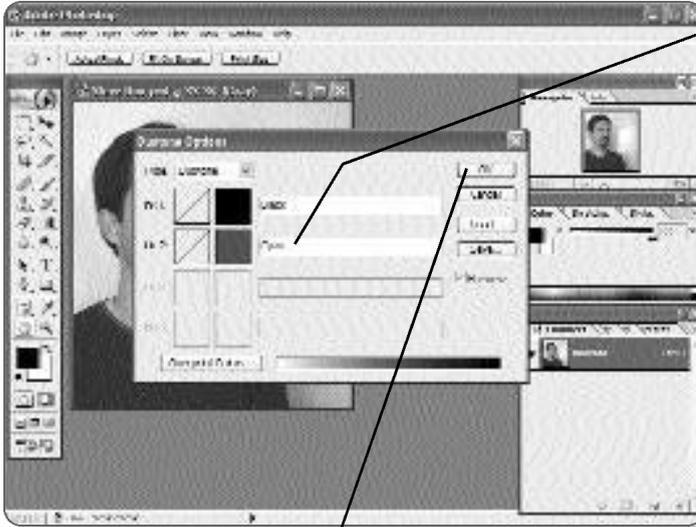
### NOTE

You actually can choose colors from a number of different color sets. To view colors in another set, make another choice from the Book drop-down list.

**7. Click on a color** in the list at the left side of the dialog box. The color you click on will become the active tint color, and the image window will preview the selected tint.



**8. Click on OK.** The Custom Colors dialog box will close.

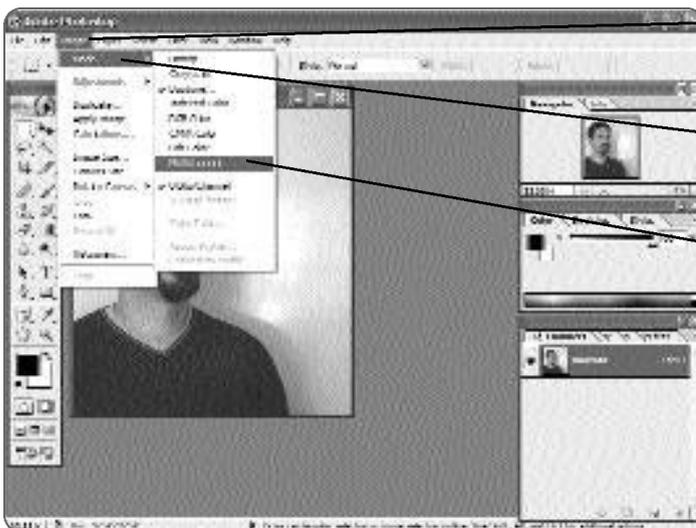


**9. Type a color plate name** in the Ink 2 text box. (Enter Cyan, Magenta, or Yellow.) The name will tell Photoshop to use a separate color plate for the tint ink color.

### TIP

If the duotone will be included in a document to be printed by a professional printer, it's best to write down the *Pantone Color* name (or leave it entered in the Ink 2 text box) so you can tell the printer the exact tint ink color.

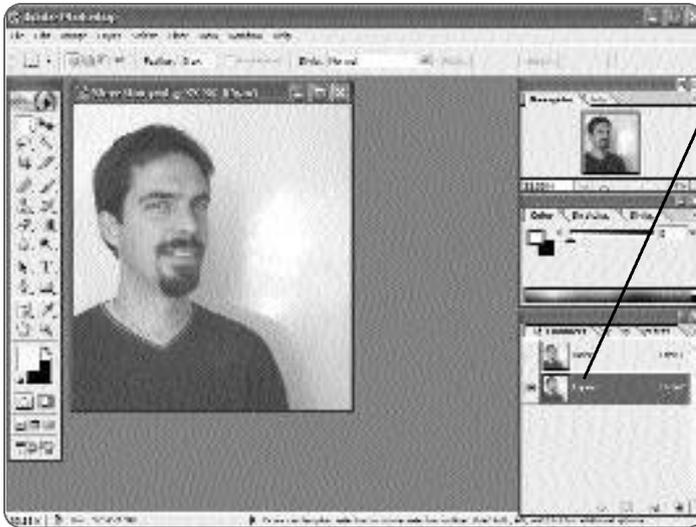
**10. Click on OK.** The Duotone Options dialog box will close, finishing the duotone creation.



**11. Click on Image.** The Image menu will appear.

**12. Point to Mode.** The Mode submenu will appear.

**13. Click on Multichannel.** Photoshop separates the single duotone color channels into multiple channels, so you can preview individual colors.



**14. Click on the color channel** to preview in the Channels palette. Photoshop will display the ink areas to be printed with that color in the image window.



**15. Click on Edit.** The Edit menu will appear.

**16. Click on Undo Multichannel.** Photoshop removes the multichannel mode and redisplay the single duotone color channel.

## Making a Sepia Image

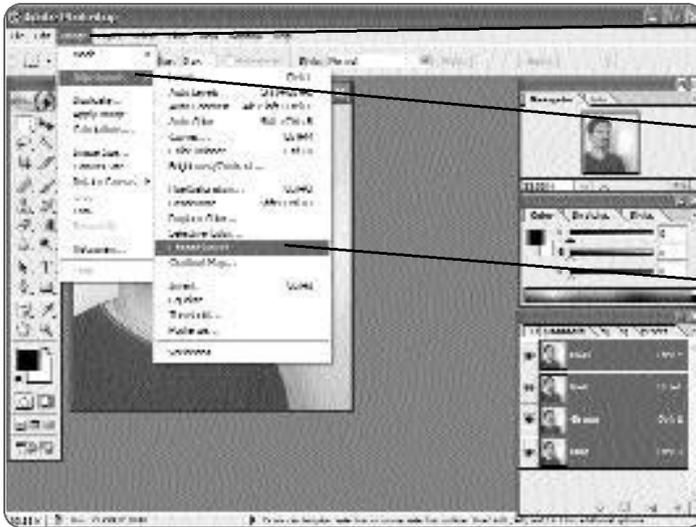
You'll typically work in the opposite direction when you create a sepia image, working from a color image to one that appears more like a creamy brown grayscale. (But you can make a "sepia" image with any mix of color that you prefer.) Use the following steps to make your favorite color image appear as a traditional (and trendy) sepia image.

### TIP

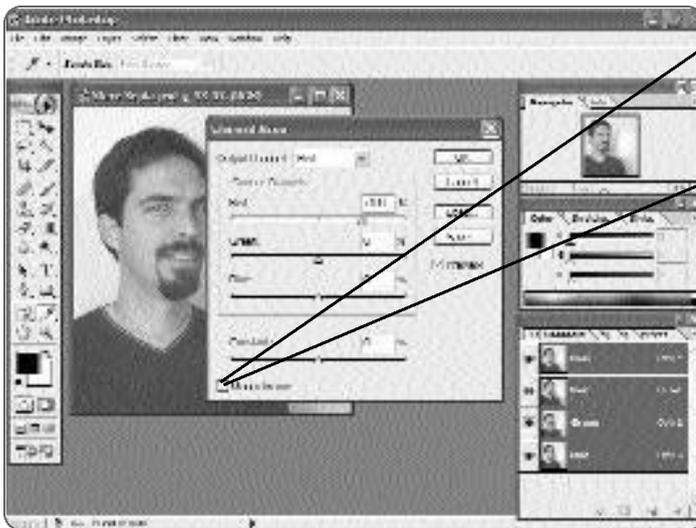
You can convert a grayscale image to RGB color and then use the techniques described here to make it a sepia image.

### NOTE

Photoshop includes an action you can use to create a sepia tone on a layer (choose File, Automate, Batch, and then choose Sepia Toning from the Action drop-down list, and use the other Batch dialog box settings to finish applying the automation). There are also actions for applying other color effects, and you can download actions for applying sepia tone and other effects from the Internet. See Chapter 19 to learn more about actions, and Appendix D for sources for downloadable goodies, including actions.



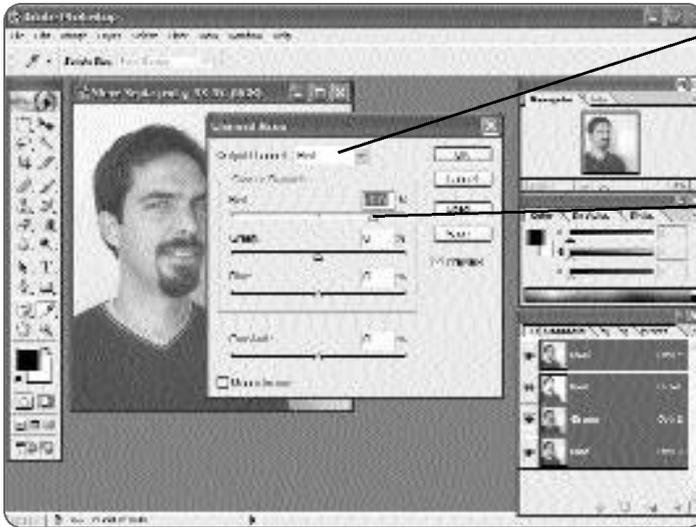
1. Click on **Image**. The Image menu will appear.
2. Point to **Adjustments**. The Adjustments submenu will appear.
3. Click on **Channel Mixer**. The Channel Mixer dialog box will appear.



4. Click on the **Monochrome** check box. Photoshop checks the check box.
5. Click on the **Monochrome** check box. Photoshop unchecks the check box.

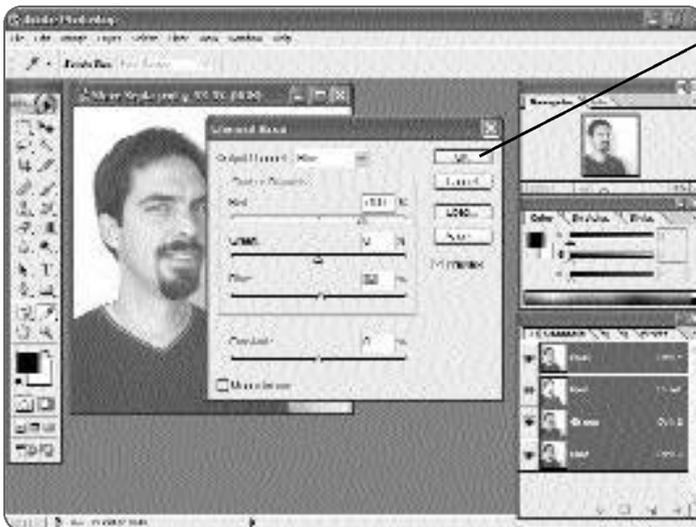
## NOTE

You have to check and uncheck the Monochrome check box to be able to blend channels separately.



6. Choose a **channel** from the Output Channel drop-down list. The selected color channel will be ready for adjustment.

7. Drag the **Source Channels** slider for the selected color. The image window will preview the color change in the image.



8. After you adjust the mix for each channel, **click on OK**. The Channel Mixer dialog box will close, so that you can review the final tint.

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# 18

## Working with Plug-Ins

Simply stated, a *plug-in* is a mini-program that extends the capabilities of Photoshop (or its companion program ImageReady). Each plug-in functions in one of three ways: as a filter, as an additional import or export choice, or as a file format choice in the Save As or Open dialog box. This chapter shows you how to take advantage of plug-ins, including how to:

- Install a plug-in you've purchased or downloaded
- Use a plug-in that performs a special action
- Use a filter plug-in

## Installing Plug-Ins

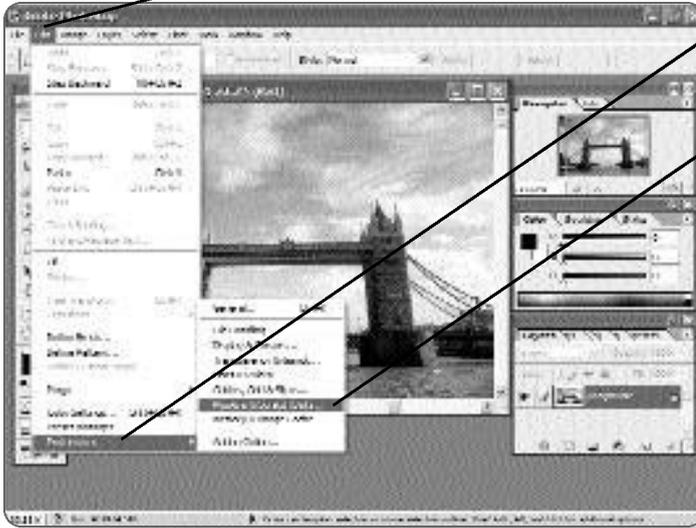
By default, the plug-ins that come with Photoshop install to various subfolders of the C:\Program Files\Adobe\Photoshop 7.0\Plug-Ins\ folder. You can purchase additional plug-ins or download a variety of freeware and shareware plug-ins from a number of sources online. (See Appendix D, which lists some Web sites where you can begin your search for available plug-ins.)

If you download a particular type of plug-in, you typically can just move or copy the plug-in file (after decompressing it, unzipping it, or renaming it, if indicated per the instructions accompanying the plug-in) to the folder that holds similar plug-in files, assuming the plug-in doesn't include its own installer program. In other cases, you may want to store your third-party plug-ins in a separate folder to distinguish them from the plug-ins provided with Photoshop. If you choose this route, you need to specify the alternate plug-in location, as described next.

### NOTE

If a plug-in was written for Photoshop only, copy it to the appropriate subfolder of C:\Program Files\Adobe\Photoshop 7.0\Plug-Ins\Adobe Photoshop Only\. If a plug-in was written for ImageReady only, copy it to the appropriate subfolder of C:\Program Files\Adobe\Photoshop 7.0\Plug-Ins\Adobe ImageReady Only\.

1. Click on **Edit**. The Edit menu will appear.



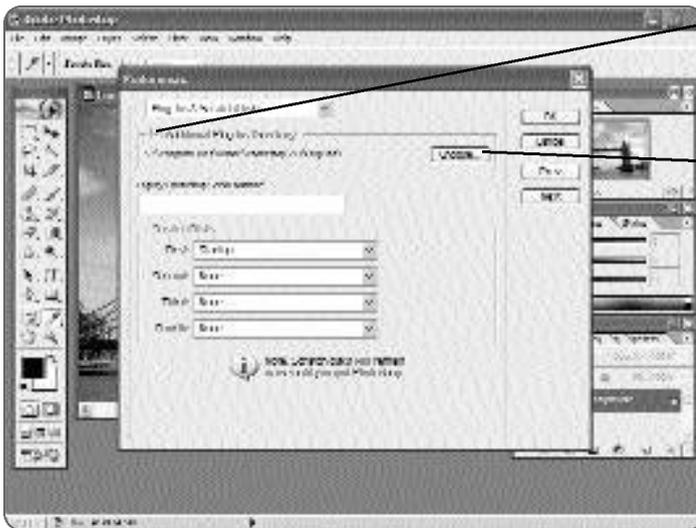
2. Point to **Preferences**. The Preferences submenu will open.

3. Click on **Plug-Ins & Scratch Disks**. The Preferences dialog box will appear, with its Plug-Ins & Scratch Disks settings displayed.

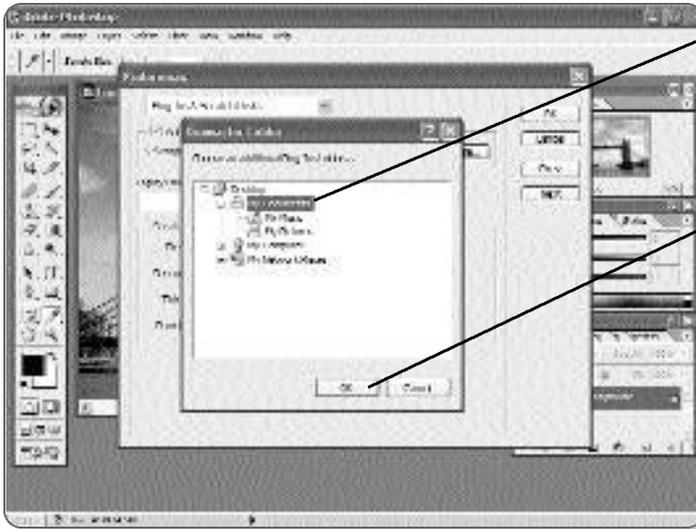
**NOTE**

In ImageReady, you would choose Edit, Preferences, Plug-Ins to start specifying another plug-ins folder.

4. Click on the **Additional Plug-Ins Directory** check box. The check box will be checked.



5. Click on **Choose**. The Browse for Folder dialog box will open.

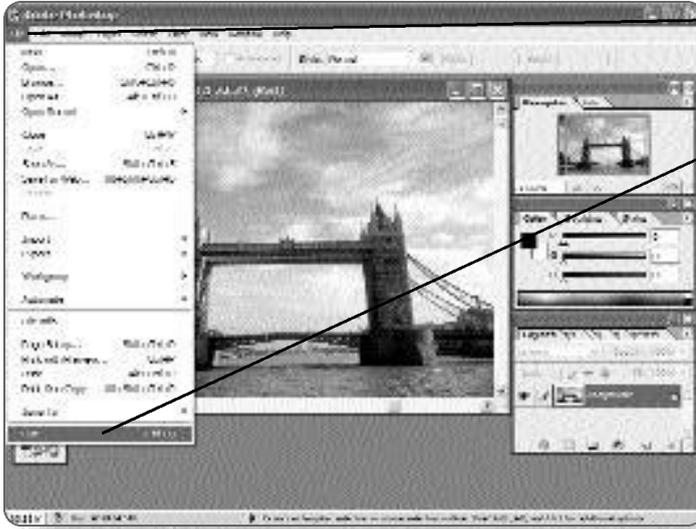


**6.** Select the **folder** that holds the plug-ins in the folder tree. The specified folder will become active as a plug-in folder.

**7.** Click on **OK**. The Browse for Folder dialog box will close.



**8.** Click on **OK**. The Preferences dialog box will close.



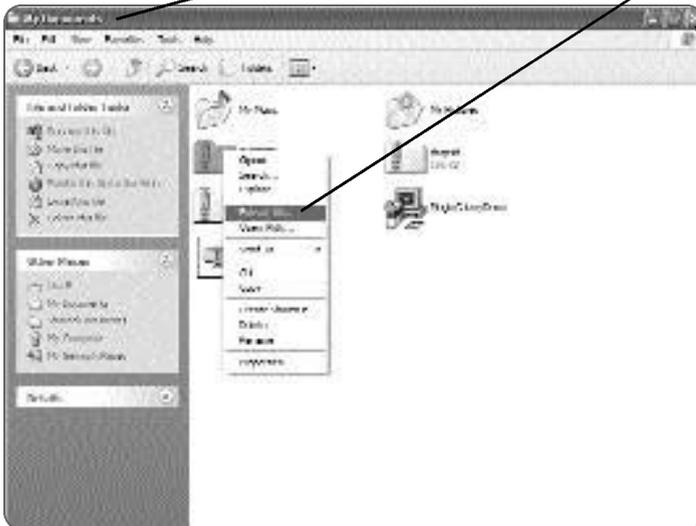
**9. Click on File.** The File menu will open.

**10. Click on Exit.** Photoshop will close.

**NOTE**

When you close Photoshop, save changes to any open file, if prompted. You must exit and restart Photoshop (or ImageReady) for the new plug-ins folder to take effect.

**11. Open** the newly specified plug-ins folder on the desktop.



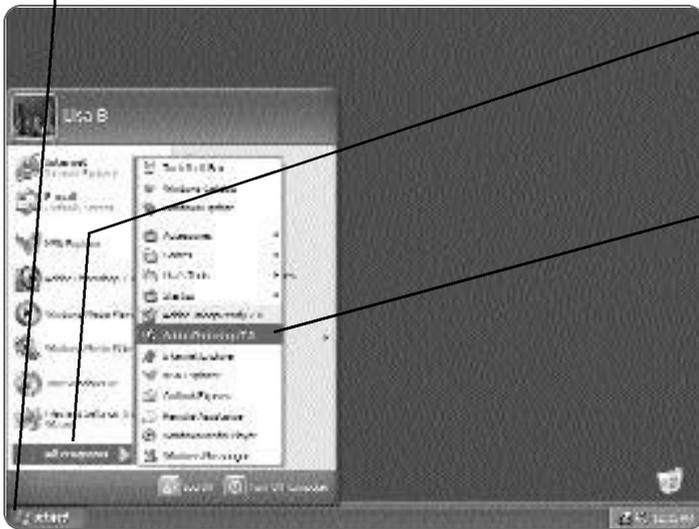
**12. Decompress or rename** the plug-in file, or run its installer as required. The appropriate plug-in files will decompress or be installed in the appropriate folder location.

**13. Close** the folder on the desktop.

**NOTE**

In some cases, you may have to move the plug-ins to C:\Program Files\Adobe\Photoshop 7.0\Plug-Ins\ rather than running them from the alternate folder. Be sure to read any Readme file that comes with a plug-in to verify how to install it, particularly if the plug-in creates one or more folders when you unzip or decompress it.

**14. Click on Start.** The Start menu will appear.



**15. Point to All Programs** (or Programs in Windows versions prior to XP). The Programs submenu will appear.

**16. Click on Adobe Photoshop 7.0.** The Photoshop program will load, with the added plug-ins newly active. You can now open files as needed and use the plug-ins.

**NOTE**

In some cases, you will need to copy additional files to the folder that holds the Photoshop program or to the C:\Windows\System\ folder. Consult the Readme file that comes with the plug-in to verify how to install it.

## Applying a Plug-In to a File

As noted at the very beginning of the chapter, plug-ins generally work in limited ways, enabling you to open or save files in different formats, or to apply custom filters to an image. This section shows an example of using a filter that falls into each category.

### Applying by Opening or Saving

If a filter enables you to use Photoshop to work with files of different formats, the filter typically adds the format into the Files of Type list of the Open dialog box or the Format list of the Save As dialog box. The following steps show one example—using a filter that enables you to save files in the Windows icon format (.ICO). Before you begin the steps, be sure you open the file to which you want to apply the plug-in.

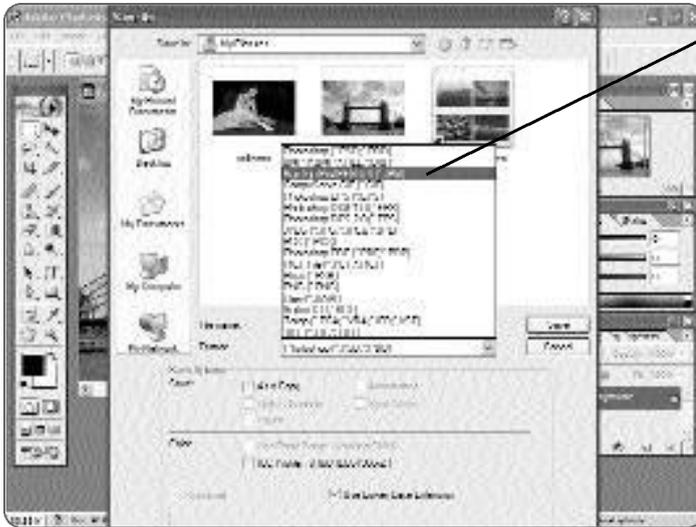
#### NOTE

In other cases, plug-ins that work with file formats appear on the Import or Export submenus of the File menu.

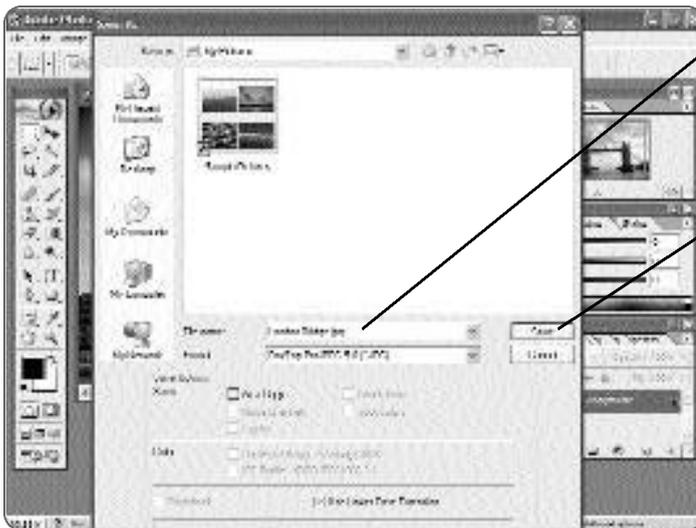


**1. Click on File.** The File menu will appear.

**2. Click on Save As.** The Save As dialog box will appear.

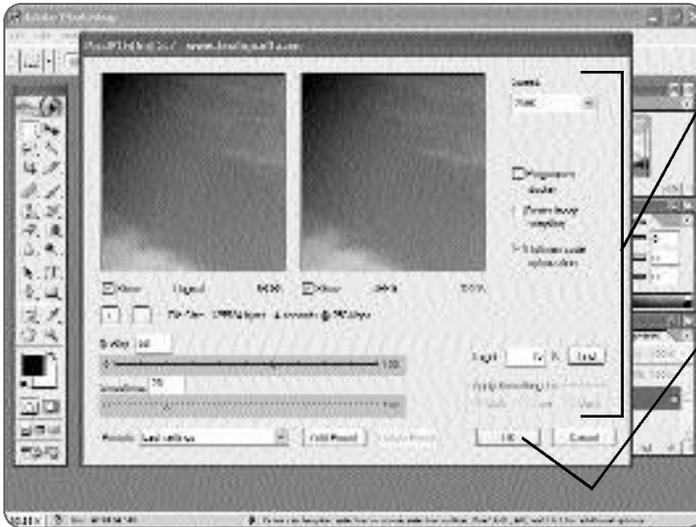


**3. Click on the down arrow** beside the **Format drop-down list**, then **click on the file format** provided by the plug-in (in this case, **BoxTop ProJPEG 5.0**). The selected format will be used for the save operation.



**4. Change the File name** and **Save in location**, if needed. The newly saved file will use the name and location you specify.

**5. Click on Save.** The Save As dialog box will close and one of two things will happen. Either the file will be saved immediately in the new format, or a dialog box for the plug-in will appear to prompt you to specify additional settings for the saved file.



**6. Adjust settings** as needed.

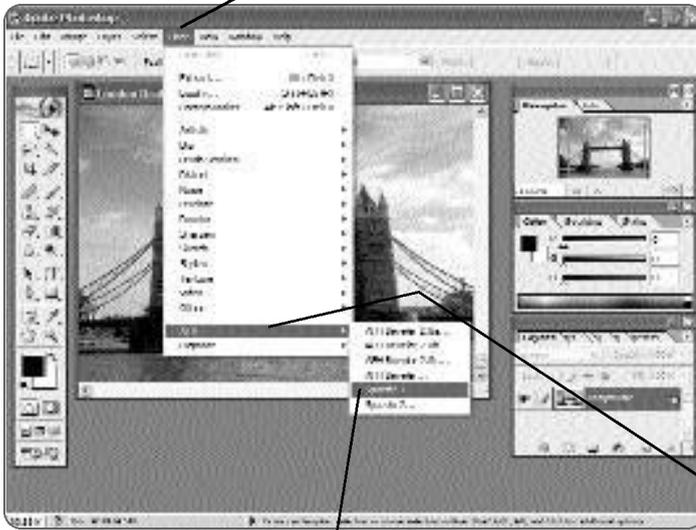
In many cases, an image preview or output settings will change to show the impact of the new settings on the image file that will be created.

**7. Click on OK or Save.** The dialog box will close and the image will be saved. You can then close and use the image.

## Applying a Filter Plug-In

In most cases, installing a plug-in installs a new filter or group of filters. Photoshop typically adds the new filter choices or groups (submenus) to the bottom of the Filter menu, making added filters as easy to access as default filters. Like the default filters, some plug-in filters will display a dialog box prompting you to choose additional settings, whereas others will take effect immediately. The following steps show an example freeware plug-in filter.

1. With the file to filter open, **click on Filter**. The Filter menu will appear.

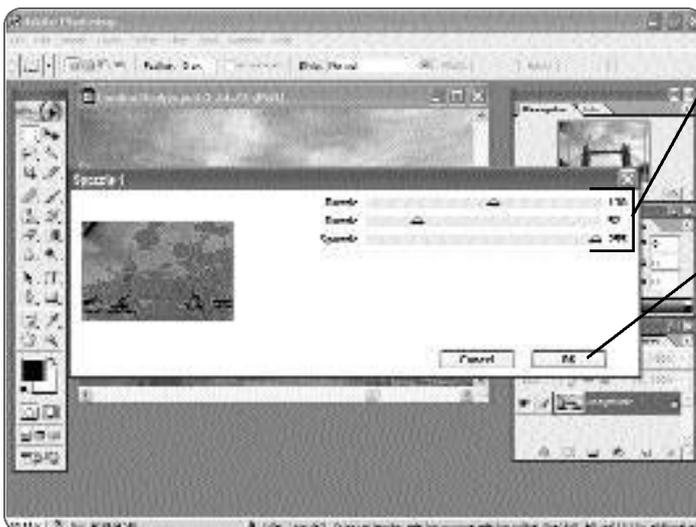


## NOTE

As with other commands and effects in Photoshop, many filters require that an image be using a particular color mode. For example, the image shown here had to be converted to RGB color at 8 bits per channel before the plug-in filter could be used.

2. **Point to the name** for the filter group, if needed. The group submenu will appear.

3. **Click on a filter**. The filter will appear, or the filter dialog box will appear.



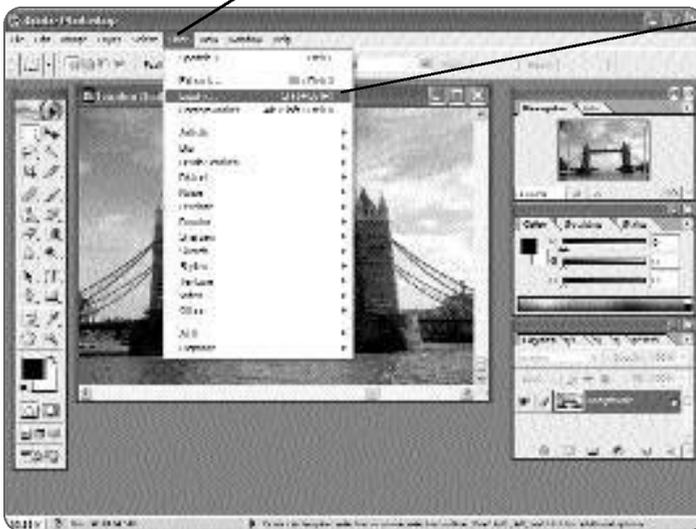
4. **Adjust filter settings** as needed. Either a preview area in the filter dialog box or the image window itself will preview the filter changes.

5. **Click on OK**. Photoshop will apply the filter settings to the image.

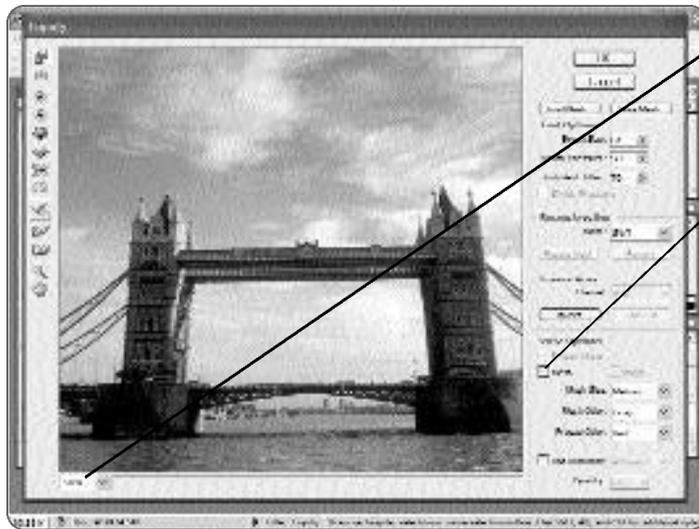
## Using the Liquify Plug-In

In Photoshop 7.0, Adobe has made significant enhancements to the Liquify plug-in. Because this plug-in now offers so many features, it appears as a stand-alone command (rather than as part of a submenu) on the Filter menu. The Liquify plug-in now offers a variety of settings for distorting and manipulating an image. The Turbulence tool represents one new enhancement to this filter, enabling you to place distortion along with a "jitter" effect. You can view a mesh that illustrates the distortion, as well. The following steps illustrate some of the basics for working with this important plug-in.

**1.** With the file to filter open, **click** on **Filter**. The Filter menu will appear.



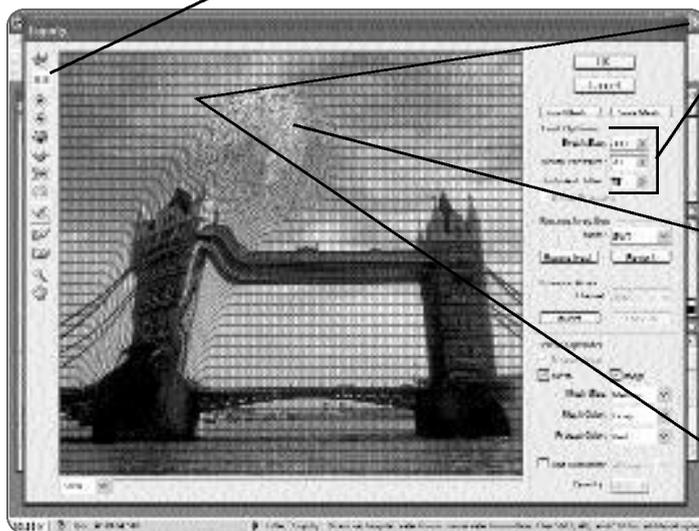
**2.** **Click** on **Liquify**. The Liquify dialog box will appear.



**3. Adjust the zoom setting** for the image, if needed. The image will appear at the new zoom.

**4. Click on the Mesh check box.** The mesh will appear on the image so that you can view the distortion more easily.

**5. Click on the desired tool.** The tool will be selected. In this example, the Turbulence tool is selected.



**6. Adjust Tool Options** as needed. The mouse pointer will change in size or appearance accordingly when you move the pointer over the image.

**7. Drag on the image** at the desired location(s). The image will be distorted according to the selected tool, its settings, and the amount of dragging.

**8. Click on OK.** The Liquify dialog box will close, and the image will appear with its new distortion in Photoshop.

**NOTE**

You can click on the Save Mesh button in the Liquify dialog box to save the distortion settings you've created. Later, you can use the Load Mesh button in the Liquify dialog box to open the mesh and apply it to another image.

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# 19

## Working with Actions

If you've made it this far along in the book, you can see that the possible combinations of Photoshop features and filters you can use are endless, not to mention the sheer number of specific settings you use with each feature or filter. In Photoshop, you can create *actions* and *droplets* to store a series of commands and settings that you choose. This chapter shows you how to save yourself some work in Photoshop, including how to:

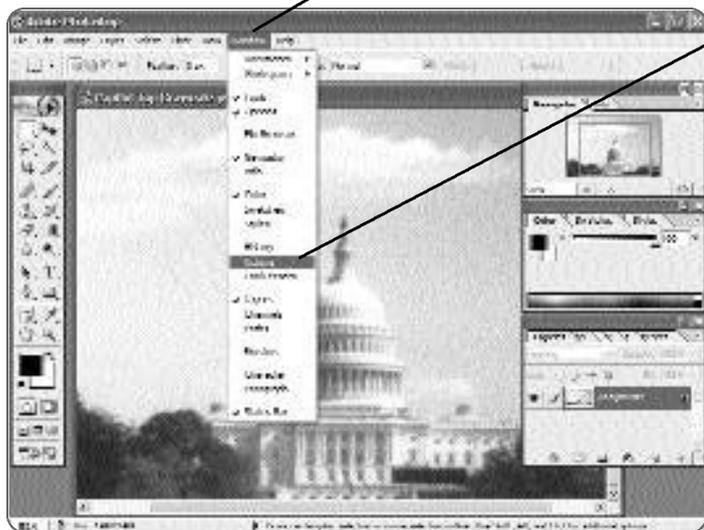
- Record an action
- Play an action
- Make a droplet from an action
- Use a droplet

## Creating an Action

If you've ever created a macro in an application, then you'll have an easy time creating an action. Like a macro, an action is a series of steps and settings that you save so that you can repeat them quickly later. Saving and using the action eliminates the necessity to remember the filter settings you prefer, for example, or the color adjustment choices to use. Actions come in handy when you need to prepare multiple images using the same settings—for example, if you're converting a series of grayscale images to duotones using a particular Pantone color for inclusion in the same publications. The steps that follow show you how to use the Actions palette to record a new action.

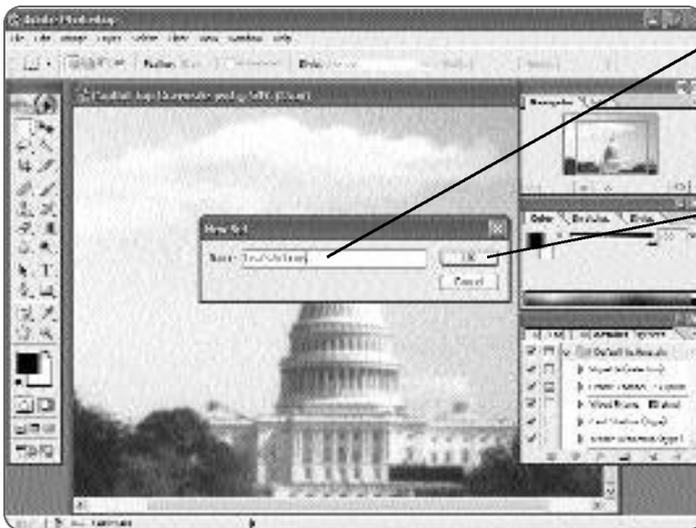
**1. Click on **Window**.** The Window menu will appear.

**2. Click on **Actions**.** The Actions palette will become active.





**3. Click on the **Create New Set** button at the bottom of the palette. The New Set dialog box will appear.**

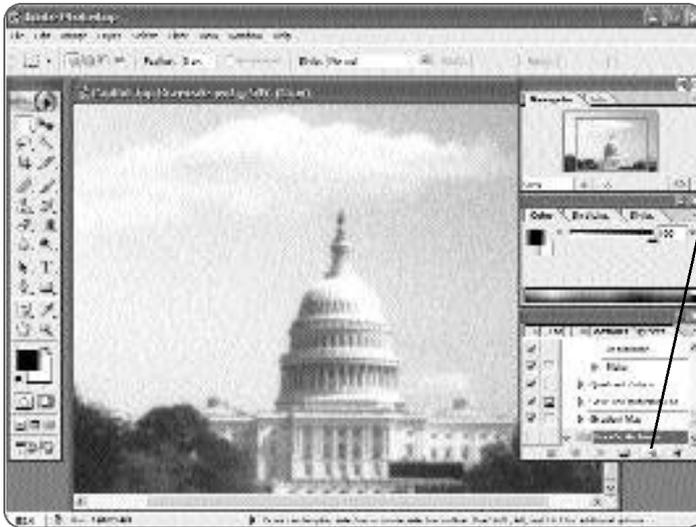


**4. Type a name** for the new set. The name you type will replace the placeholder entry in the Name text box.

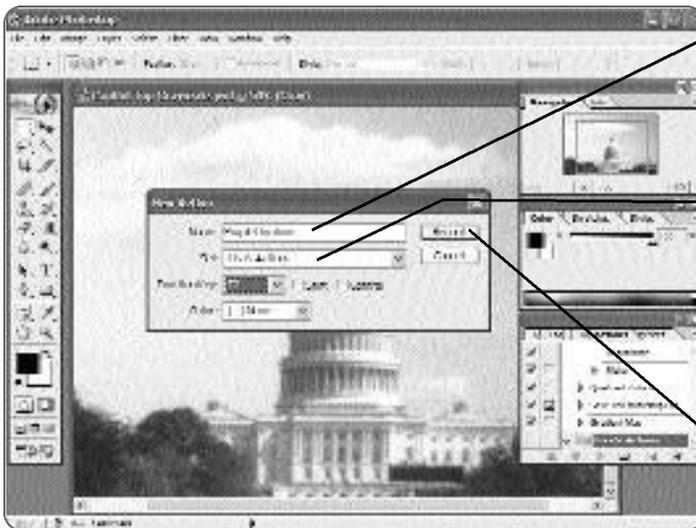
**5. Click on **OK**.** The new set will appear in the Actions palette and will be selected by default.

### NOTE

To add a new action to an existing set, click on the set name in the Actions palette and then follow the rest of the steps here.



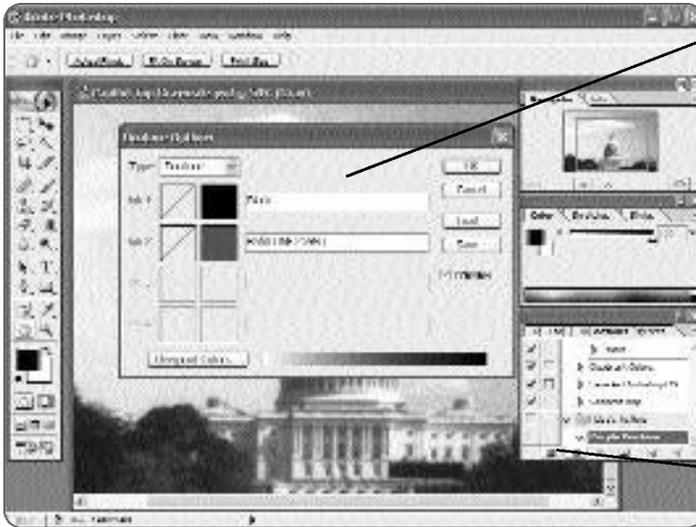
**6. Click on the **Create New Action** button at the bottom of the palette. The New Action dialog box will appear.**



**7. Type a name** for the new action. The name you type will replace the placeholder entry in the Name text box.

**8. Specify other settings** in the dialog box, such as adding a Function Key (shortcut key combination) to play back the action. The remaining settings will be added for the function.

**9. Click on **Record**.** Recording will start.



**10. Perform the steps to record.** The steps will be added to the named action.

### NOTE

If a particular feature can't be recorded, either it will be unavailable or you'll see a warning message.

**11. Click on the Stop Playing/Recording button** at the bottom of the Actions palette. Photoshop will stop recording your steps, finishing the action.

### NOTE

As with plug-ins, you can download a number of free action (.ATN) files from various Web sites, such as those listed in Appendix D. Decompress or unzip the action file, if needed, and then copy it to the C:\Program Files\Adobe\Photoshop 7.0\Presets\Photoshop Actions folder. Click on the Actions palette menu button, and then click on Load Actions. The Load dialog box will appear. Select the newly copied action, and then click on Load. To save a set of actions you've created in an .ATN file (necessary only to back up your actions or share them with others), select the set in the Actions palette, click on the Actions palette menu button, and then click on Save Actions. Use the Save dialog box that appears to finish the save.

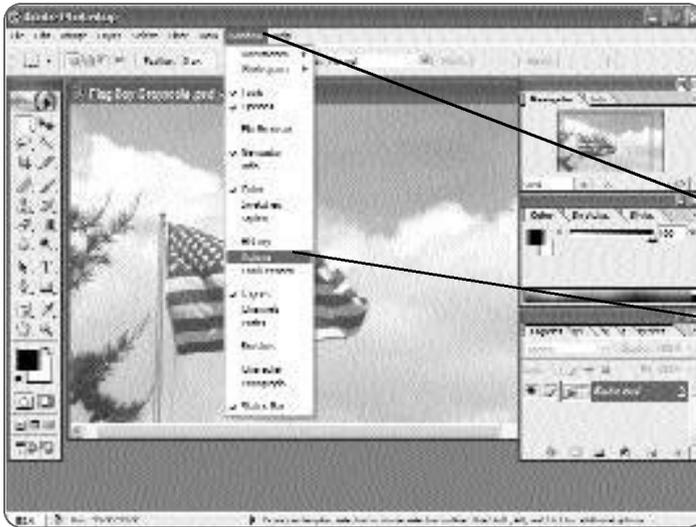
## Using an Action

Much as you use a recording process to create an action, you use a playback process to run the action. Before you run the action, open the file to which you want to apply the action, and perform any preliminary steps to prepare for the action, such as making a selection or converting to the proper color mode. Then use the steps that follow.

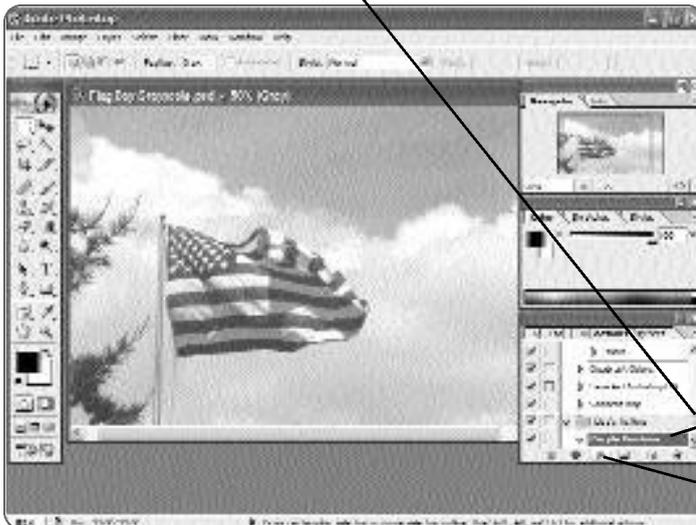
perform any preliminary steps to prepare for the action, such as making a selection or converting to the proper color mode. Then use the steps that follow.

**1. Click on **Window**.** The Window menu will appear.

**2. Click on **Actions**.** The Actions palette will become active.



**3. Scroll to display the set that holds the action to perform in the palette.** The actions will appear in the palette.



### NOTE

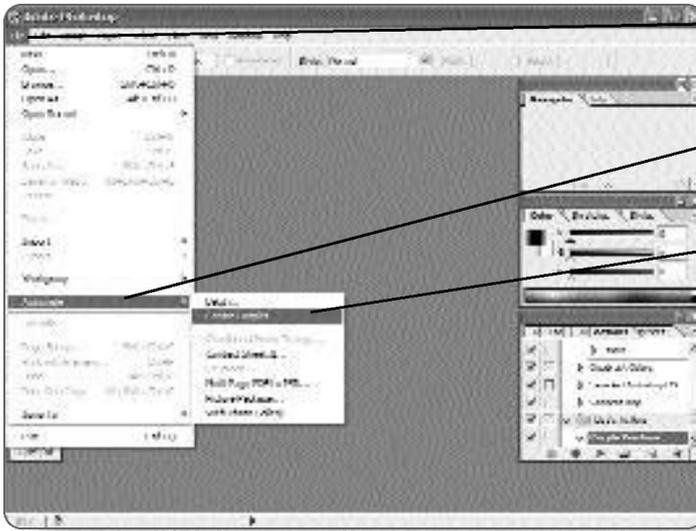
Click on the right arrow to the left of the set name if you don't see its actions.

**4. Click on the **action** to perform.** The action will be selected.

**5. Click on the **Play Selection** button at the bottom of the palette.** The action plays immediately.

## Making a Droplet

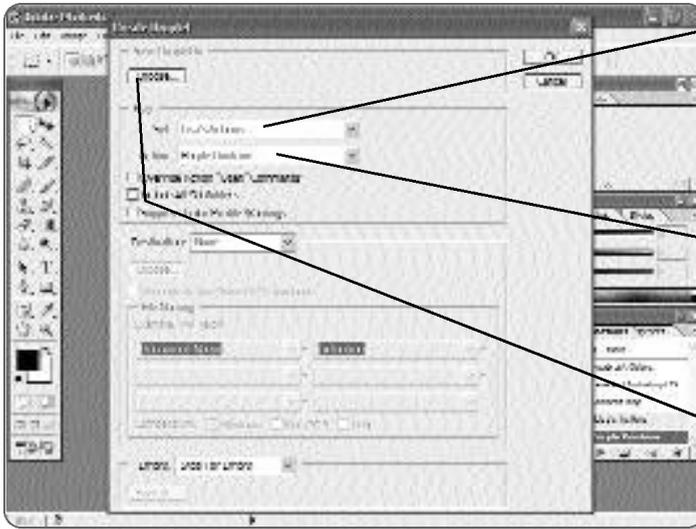
You can save an action as a droplet, a mini-program you can use to process image files even when Photoshop isn't running. Use the following steps to create a droplet using default droplet settings.



1. Click on **File**. The File menu will open.
2. Point to **Automate**. The Automate submenu will appear.
3. Click on **Create Droplet**. The Create Droplet dialog box will open.

### NOTE

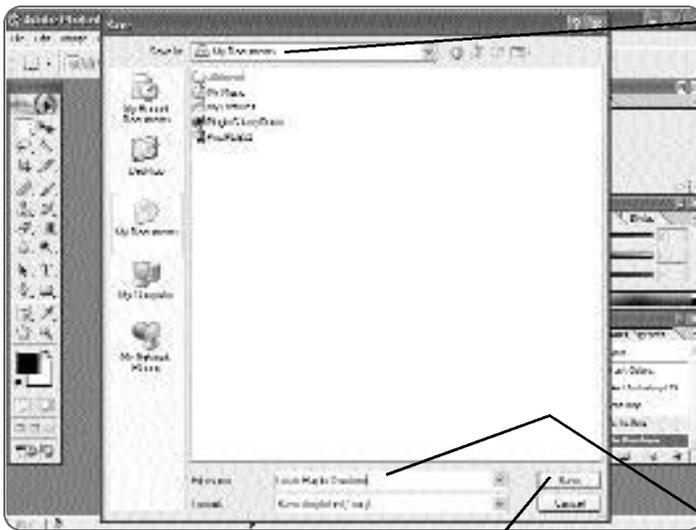
The Automate submenu also includes a number of pre-set automations—mini-programs you can use to process a batch of images. For example, you can use the Contact Sheet automation to create a contact sheet image file from all the images stored in a particular folder.



**4. Choose** the **set** that holds the action to convert from the Set drop-down list. The set's actions will become available in the Action drop-down list.

**5. Choose** the **action** to save as a droplet from the Action drop-down list. The selected action appears.

**6. Click** on **Choose**. The Save dialog box will open.



**7. Navigate** to the **folder** where you want to save the droplet. It will become the active folder.

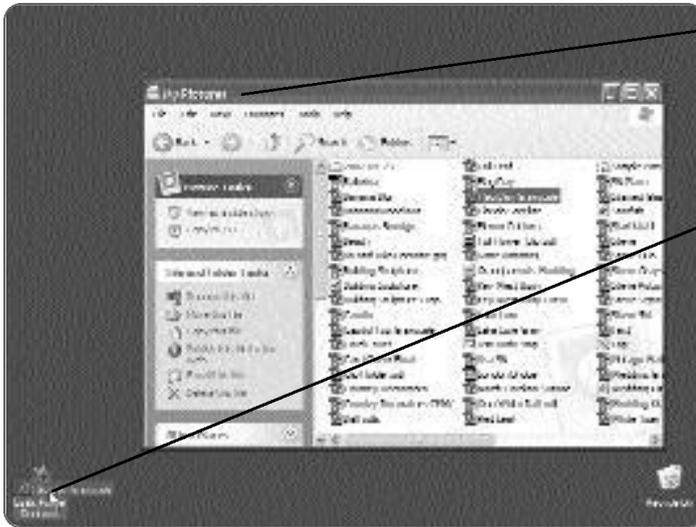
### NOTE

By default, the Save dialog box displays the My Documents folder, but you can save a droplet in any location you prefer.

**8. Type** a **name** for the new droplet file. The name you type will replace the placeholder entry in the File name text box.

**9. Click** on **Save**. The Save dialog box will close and the name you specified will appear in the Create Droplet dialog box.





**1. Open the folder** that holds the file to process with the automation. The folder will appear in Windows.

**2. Drag the file to process** from its folder and drop it onto the icon for the droplet file (on the desktop or in another folder). The droplet's actions will be performed on the file. You can repeat the process for as many files as need to be processed.

### NOTE

Of course, the file(s) to be processed must use the correct color mode and other settings, or the droplet will stop and display an error message.

## Part V Review Questions

1. How do I choose what type of image colors to use? See *“Reviewing the Color Modes”* in Chapter 15.
2. What’s a color channel, and how do I select one? See *“Using Color Channels”* in Chapter 15.
3. What are the most common color mode conversions? See *“Converting Images”* in Chapter 15.
4. What do I do if my image is too dark? See *“Correcting Brightness and Contrast”* in Chapter 16.
5. Can you add color to spot in an image? See *“Adding Spot Color”* in Chapter 17.
6. What’s a duotone, and how do you create one? See *“Creating a Duotone Image”* in Chapter 17.
7. How do you add plug-ins to Photoshop? See *“Installing Plug-Ins”* in Chapter 18.
8. What methods do you use to employ a plug-in? See *“Applying a Plug-In to a File”* in Chapter 18.
9. How do you create an action? See *“Creating an Action”* in Chapter 19.
10. How do you use an action? See *“Using an Action”* in Chapter 19.

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# PART VI

# Prepping Images for the Web

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# 20

## Creating Web Images

**B**ecause Photoshop provides some of the best tools for creating and editing images in general, it's not surprising that it offers superior options for preparing images for use in Web pages. This chapter walks you through the basic skills for preparing images for the Web, including how to:

- Understand the Web graphic formats
- Understand what will happen if you choose Save As
- Create an optimized JPEG image
- Create an optimized GIF image
- Create a WBMP image
- Generate a Web photo gallery

## Reviewing Web Graphic Formats

The HTML Web page format spurred the growth of the Internet not only because it could present information in an attractive graphic format, but also because its files were relatively compact in size for reasonable download times. In the spirit of preserving those download times, a few different new formats for graphics files also emerged. Through special compression technology, these file formats preserve color and detail while dramatically reducing file size—sometimes eliminating megabytes in file size. Table 20-1 lists the most common Web graphic file formats and their features.

**Table 20-1 Web Graphic File Formats**

<b>Format</b>	<b>Description</b>
Compuserve GIF (.GIF)	This mode requires conversion to Indexed Color mode (which limits the image to 256 colors) and enables you to preserve transparency so that the Web page background shows through.
JPEG (.JPE, .JPG, or .JPEG)	This mode does not preserve transparency, but it does enable you to specify the amount of compression to use so you can control file size and quality.
PNG (.PNG)	Portable Network Graphics (PNG) mode enables you to preserve transparency and choose specific methods for reducing colors and handling dithering in the image. This format isn't used often.
WBMP	This 1-bit color format optimizes images for wireless devices. Converting an image to this format converts it to simplified black-and-white.

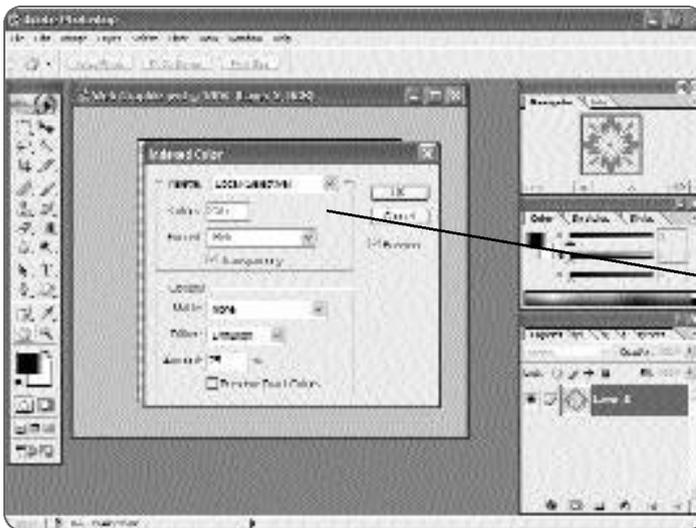
**TIP**

Remember, when you create a new image with the File, New command, you click on the Transparent option button to set up an image with a transparent background. If you scan an image or download it from a digital camera, you cannot specify a transparent background, so it's best to copy a selection from such an image, create a new image with a transparent background, and then paste the copied selection into it.

## Using Save As

You can use the Save As command on the File menu to save an image in the common Web graphic formats. (See the section titled "Saving to Another Format" in Chapter 2 for an overview

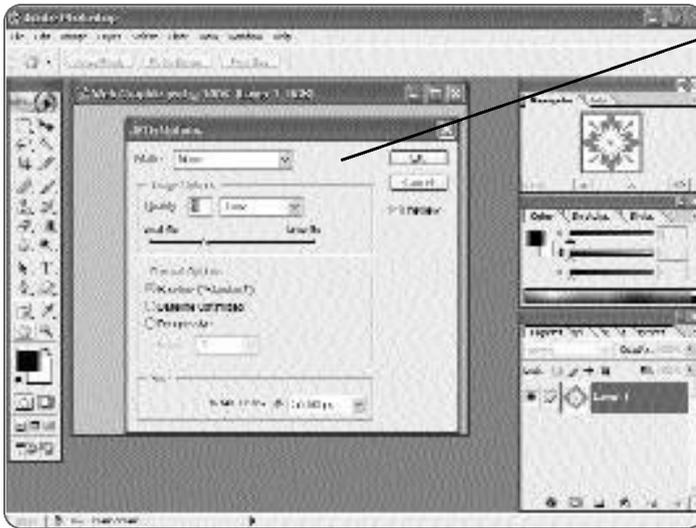
of how to use the Save As command.) When you use the Save As command and choose one of the Web file formats, you'll be prompted to make various changes depending on the selected format:



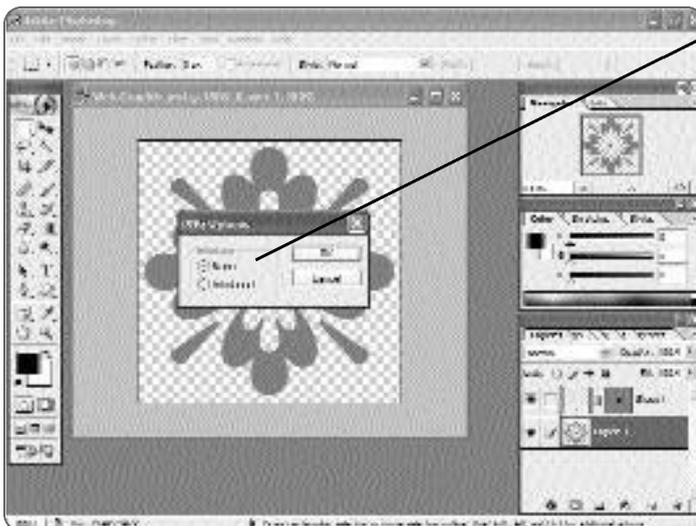
- **GIF.** The Indexed Color dialog box appears to specify color palette, transparency, and matte settings, and then the GIF Options dialog box appears to prompt you whether to choose an interlaced GIF format.

**NOTE**

When you have Photoshop create an interlaced file, part of the image can “pre-load” on the Web page. This means that the user will see the image at low resolution until the full file downloads.



- **JPEG.** The JPEG Options dialog box appears so you can specify image quality and matte options. Transparent areas will be filled with white when you finish the save.



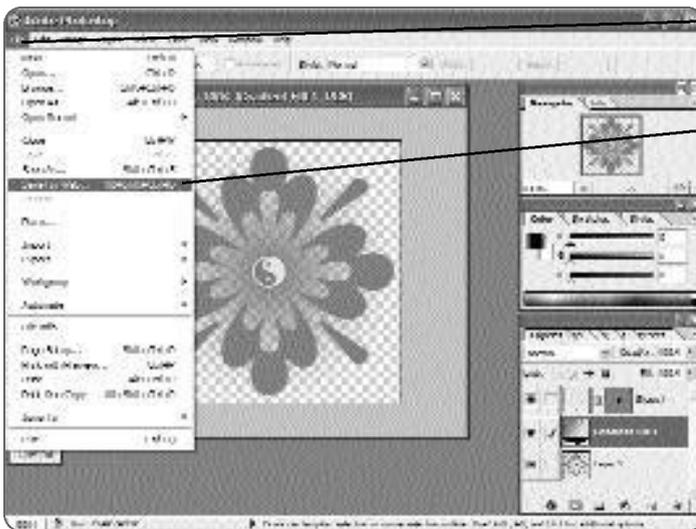
- **PNG.** The PNG Options dialog box appears, so you can choose whether to add interlacing.

## Save an Optimized Image File

To see all the settings for Web graphic file formats in a single dialog box, use the Save for Web command on the File menu. This command enables you to select a Web file format, specify settings for the format, and then proceed with the save. The rest of this section shows you how to use the Save for Web command to optimize and save a file in the three most common Web graphic formats—JPEG, GIF, and WBMP.

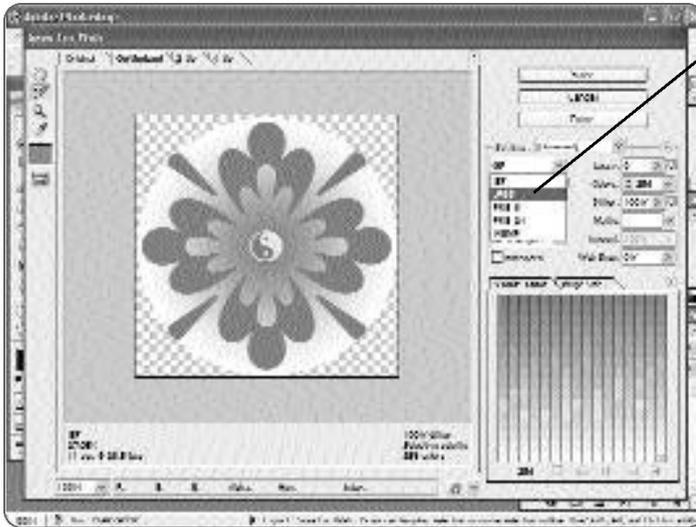
### Saving a JPEG

These steps show you how to use the Save for Web command to save a JPEG file, so that you can choose the optimum compression for your image.



**1. Click on File.** The File menu will appear.

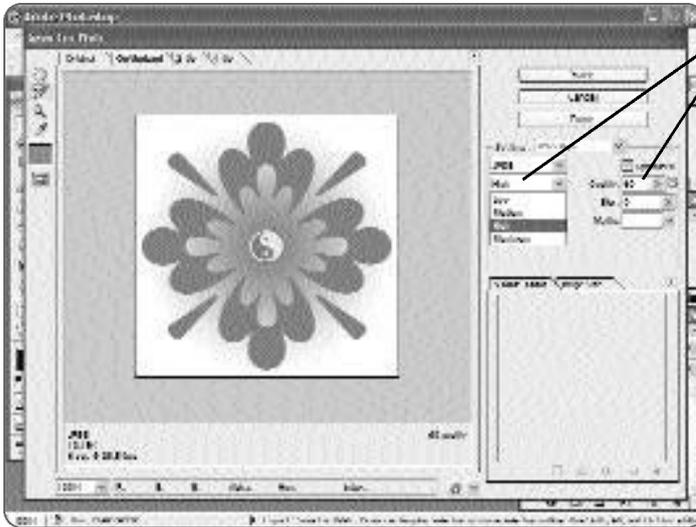
**2. Click on Save for Web.** The Save For Web dialog box will open, with its Optimized tab selected.



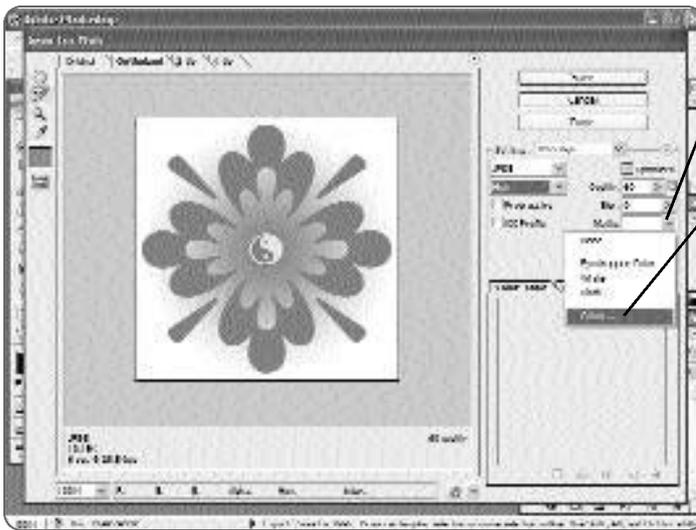
**3. Click on the down arrow** beside the drop-down list in the upper-left corner of the Settings box, and then **click on JPEG**. The JPEG choices will appear in the Settings box.

## NOTE

You can use the drop-down list right beside the Settings label at the top of the Settings box to choose a pre-saved set of optimization settings, such as JPEG High or GIF 32 Dithered. Click on the Optimize Menu button (the menu button with the right arrow on it just to the right of the top drop-down list), and then click on Save Settings. You can then use the Save Optimization Settings dialog box that appears to save your choices on the Optimized tab of the Save For Web dialog box under one name, so you can later choose that name (and thus your saved settings) from the drop-down list beside the Settings label.



**4. Choose an image quality** setting, either by choosing a general setting from the drop-down list at the left or by using the Quality choice at the right. The statistics in the lower-left corner of the preview area will change to show the file size that will result from the designated quality setting.



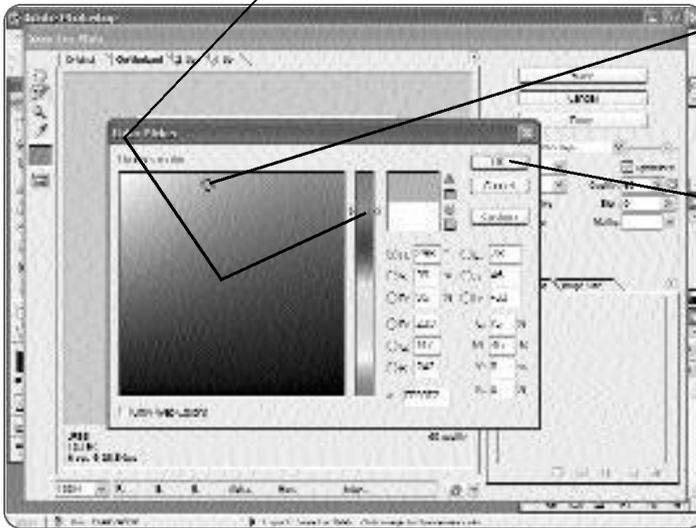
**5. Click on the down arrow** beside the Matte drop-down list. A menu will appear.

**6. Click on Other.** The Color Picker dialog box will appear so that you can use it to specify a matte for the image.

### NOTE

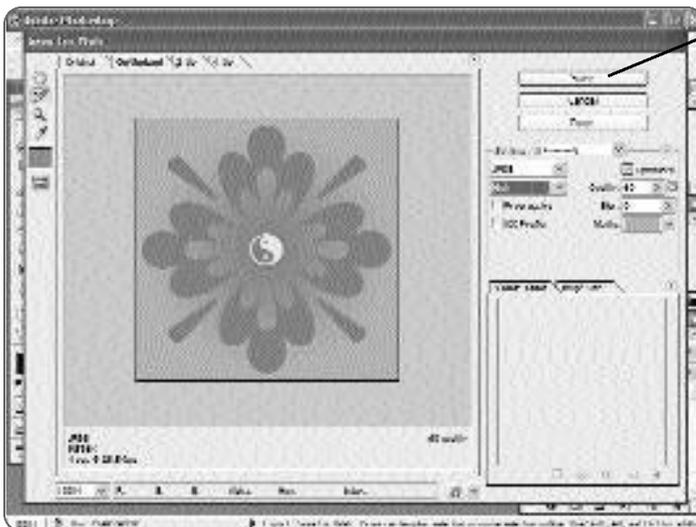
A matte color in a GIF or PNG Web graphic helps the edges of transparent areas blend with the Web page background; in a JPEG image it fills areas that were originally transparent with the specified color for blending.

**7. Click** on a **color** in the narrow band of colors near the middle of the dialog box. Photoshop will display a different range of colors in the Choose a color box.



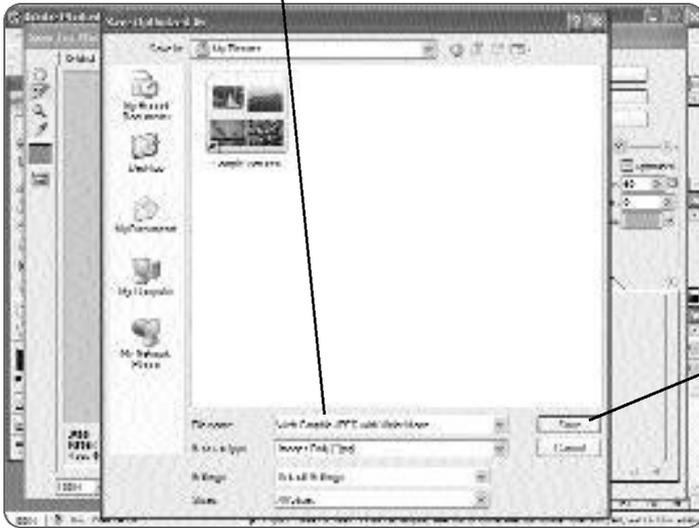
**8. Click** on a **color** in the Choose a color box. The color you click on will become the active matte color.

**9. Click** on **OK**. The Color Picker dialog box will close.



**10. Click** on **Save**. The Save Optimized As dialog box will appear.

**11. Edit the File Name** text box entry as needed. The name you specify will be applied to the Web graphic file.



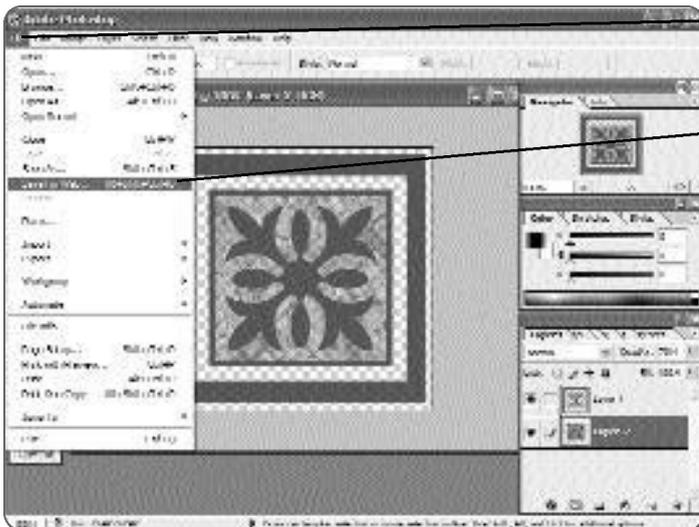
**NOTE**

You can use the Save In drop-down list to choose another disk and folder location for the saved file, if needed.

**12. Click on Save.** The Save Optimized As and Save For Web dialog boxes will close. Only the original image will be open in Photoshop. You can find the new, optimized Web graphic file in the folder where you saved it.

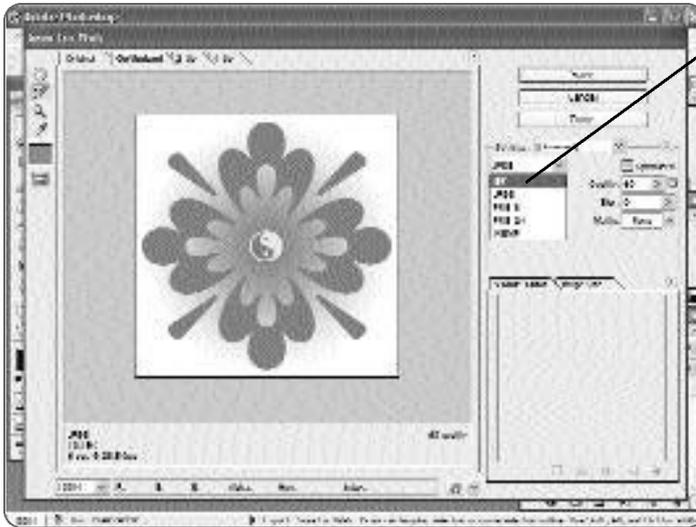
## Saving a GIF

Saving an optimized GIF file follows much the same process as saving an optimized JPEG file. Get started with the process now.



**1. Click on File.** The File menu will appear.

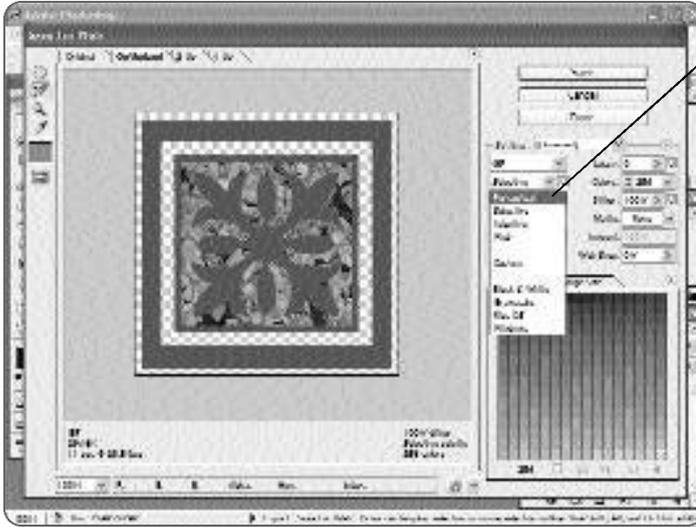
**2. Click on Save for Web.** The Save For Web dialog box will open, with its Optimized tab selected.

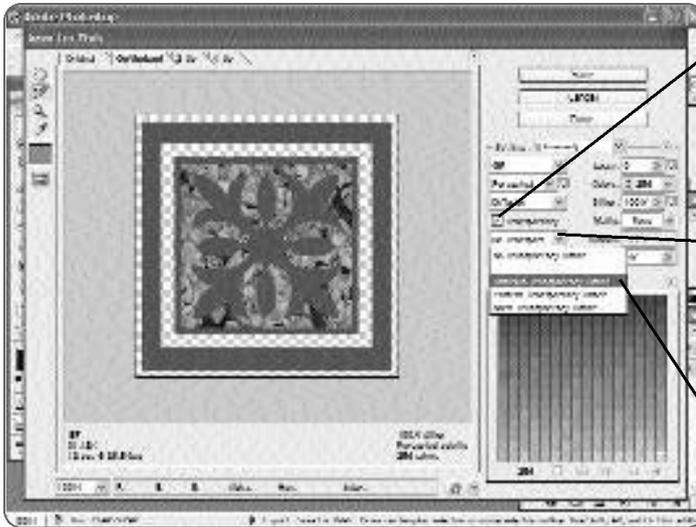


**3. Click on the down arrow** beside the drop-down list in the upper-left corner of the Settings box, and then **click on GIF**. The GIF choices will appear in the Settings box.

## NOTE

You can use the drop-down list right beside the Settings label at the top of the Settings box to choose a pre-saved set of optimization settings, such as JPEG High or GIF 32 Dithered. Click on the Optimize Menu button (the menu button with the right arrow on it just to the right of the top drop-down list), and then click on Save Settings. You can then use the Save Optimization Settings dialog box that appears to save your choices on the Optimized tab of the Save For Web dialog box under one name, so you can later choose that name (and thus your saved settings) from the drop-down list beside the Settings label.





**6. Leave the Transparency** check box checked. This ensures that the transparent areas in the image will remain transparent in the final GIF file.

**7. Click on the down arrow** beside the drop-down list below the Transparency check box. A menu of transparency dithering algorithms will appear.

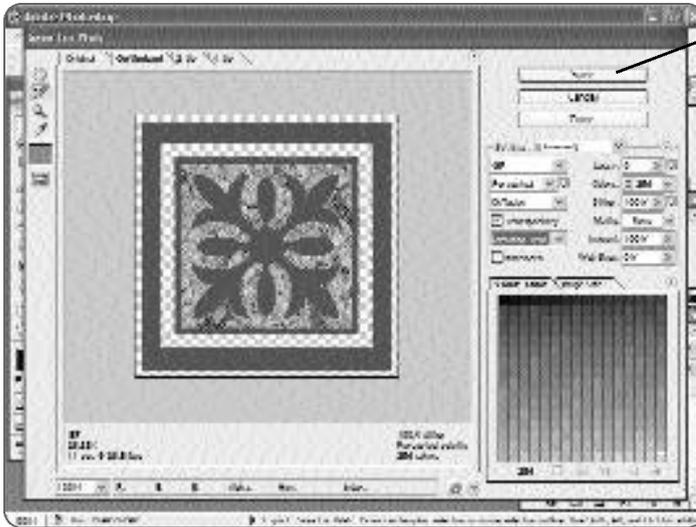
**8. Click on the desired algorithm.** The preview will show the impact of the selected algorithm.

### NOTE

Specifying the transparency dither algorithm will be necessary for images with semi-transparent areas, such as gradients or bleeds.

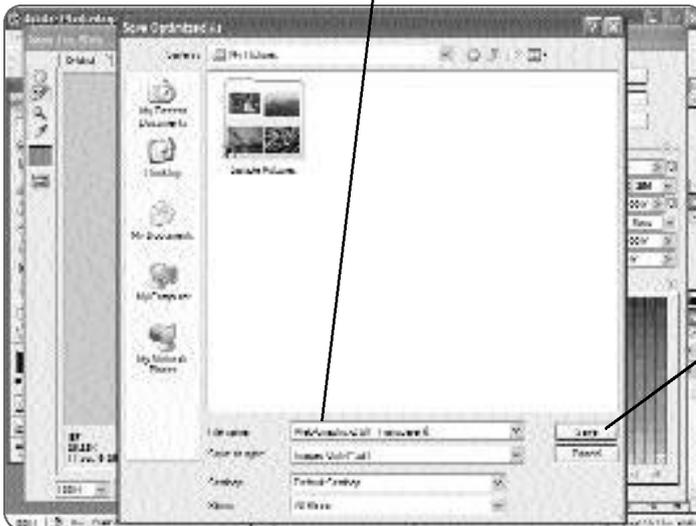
### NOTE

You also can add a matte for the GIF, but it won't be as obvious in the preview. That's because the matte for a GIF image serves more as a blending zone between the image content and the Web page background.



**9. Click on Save.** The Save Optimized As dialog box will appear.

**10. Edit the File name** text box entry as needed. The name you specify will be applied to the Web graphic file.



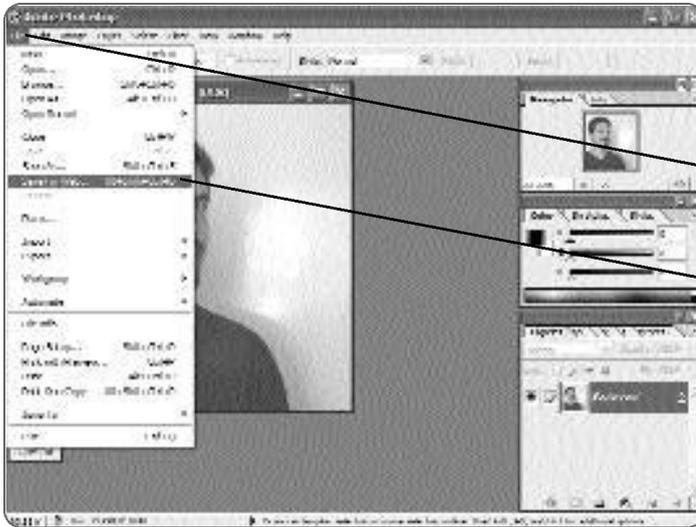
**11. Click on Save.** The Save Optimized As and Save For Web dialog boxes will close. Only the original image will be open in Photoshop. You can find the new, optimized Web graphic file in the folder where you saved it.

**NOTE**  
 You can use the Save In drop-down list to choose another disk and folder location for the saved file, if needed.

## Saving a WBMP

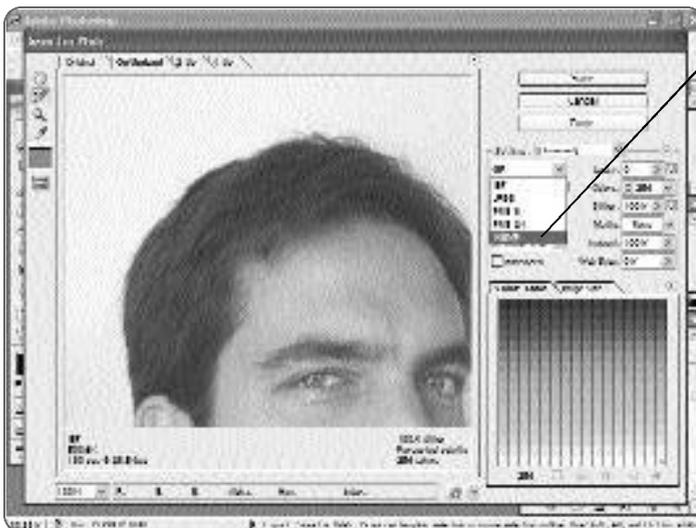
As noted earlier in this chapter, a WBMP file is a black-and-white file created specifically for wireless (and handheld) devices. When you convert an image to WBMP, you may lose

some of the detail, but the tradeoff is necessary. Follow these steps to save a file as a WBMP file.

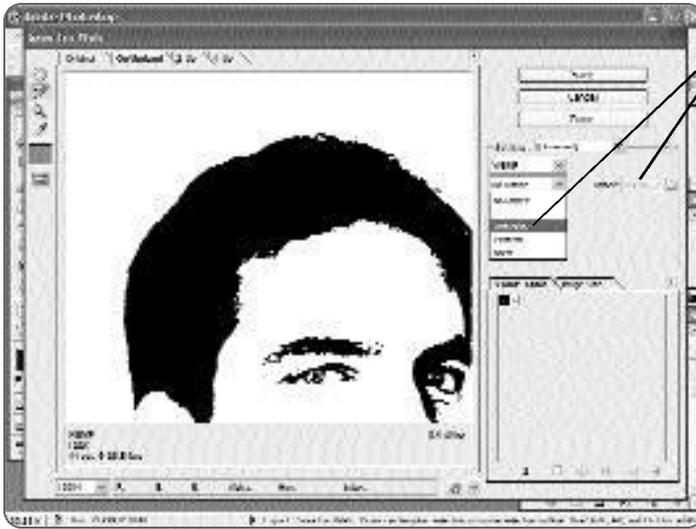


**1. Click on File.** The File menu will appear.

**2. Click on Save for Web.** The Save For Web dialog box will open, with its Optimized tab selected.



**3. Click on the down arrow** beside the drop-down list in the upper-left corner of the Settings box, and then **click on WBMP.** The WBMP choices will appear in the Settings box.



**4. Choose image dithering settings**, both by choosing a dithering method setting from the drop-down list at the left and by choosing the amount of dithering using the Dither choice at the right. The statistic in the lower-right corner of the preview area will change to show the specified dithering method.



**5. Click on Save.** The Save Optimized As dialog box will appear.



**6. Edit** the **File name** text box entry as needed. The name you specify will be applied to the Web graphic file.

### NOTE

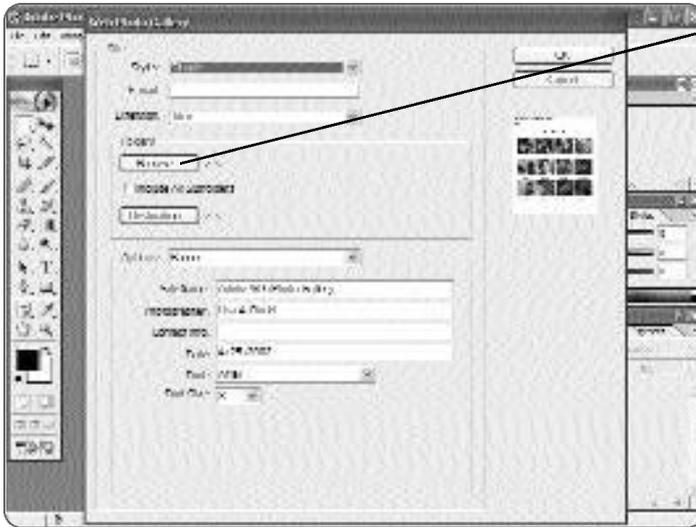
You can use the Save In drop-down list to choose another disk and folder location for the saved file, if needed.

**7. Click** on **Save**. The Save Optimized As and Save For Web dialog boxes will close. Only the original image will be open in Photoshop. You can find the new, optimized Web graphic file in the folder where you saved it.

## Setting Up a Web Photo Gallery

The new Web Photo Gallery feature enables you to create a Web page linking to a collection of images. The original images all should be stored in the same folder and can be in any file format that Photoshop recognizes. The Web Photo Gallery feature creates a Web page named `index.htm` and stores that Web page in the folder location you specify. The Web Photo Gallery feature then creates a subfolder named `\images\`, which holds large copies of the original image files (converted to JPEG format, if needed), as well as other images (such as navigation buttons) needed for the Web photo gallery. Each image will be displayed on a separate page when the viewer selects the image from the initial gallery page.

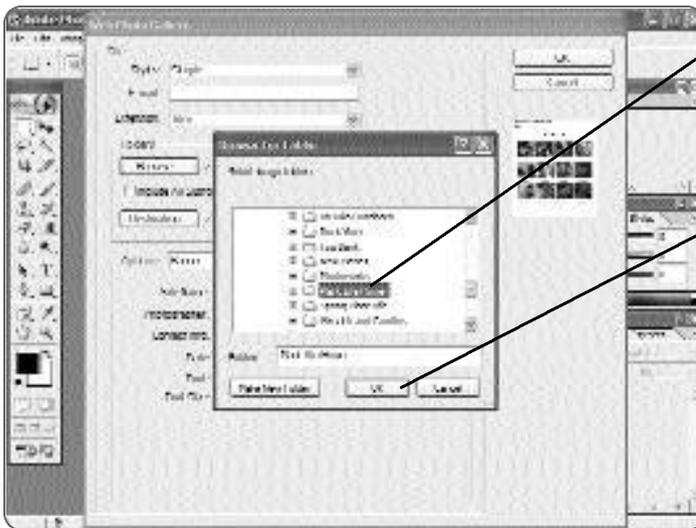




**5. Click on Browse.** The Browse For Folder dialog box will open.

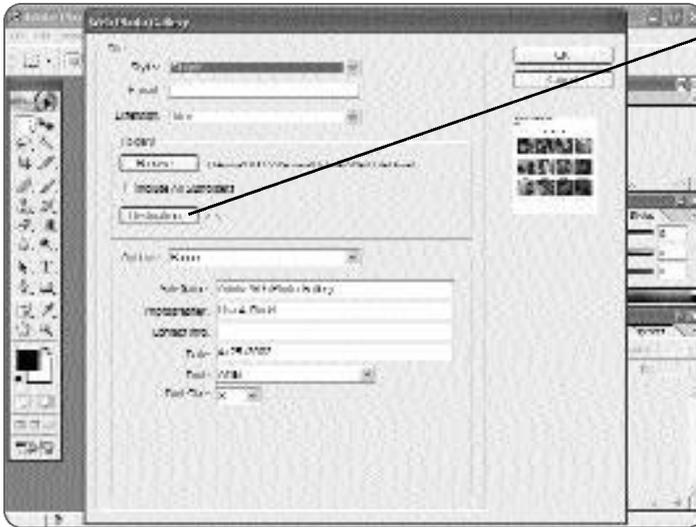
### NOTE

Depending on the current choice for the Options drop-down list in the Web Photo Gallery dialog box, the settings at the bottom of the dialog box will differ.

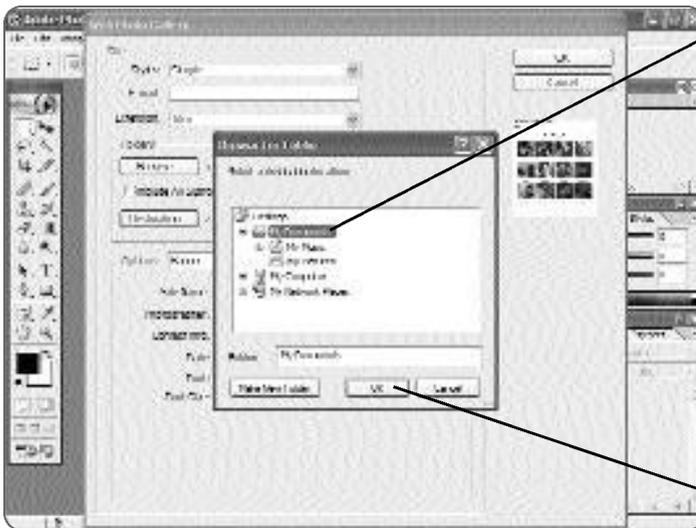


**6. Select the folder** that holds the images to include in the photo gallery. The folder will become selected.

**7. Click on OK.** The folder will be displayed as the source folder.



**8. Click on Destination.** The Browse For Folder dialog box will open.

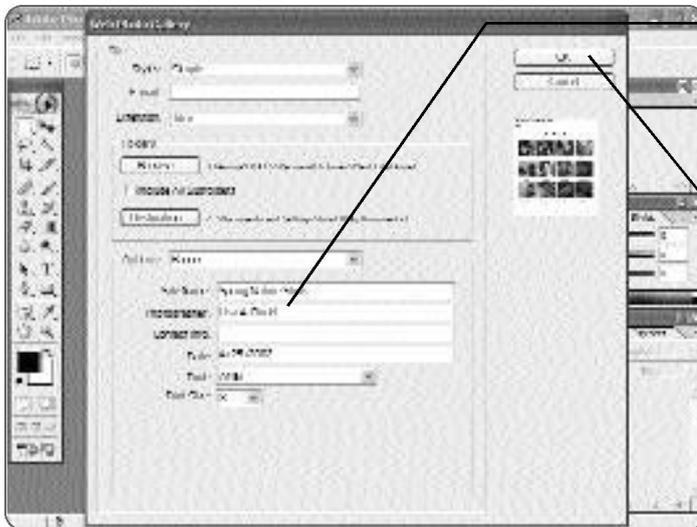


**9. Select the folder** where you would like to store the photo gallery Web page and its subfolders of source files. The folder will become selected.

**NOTE**

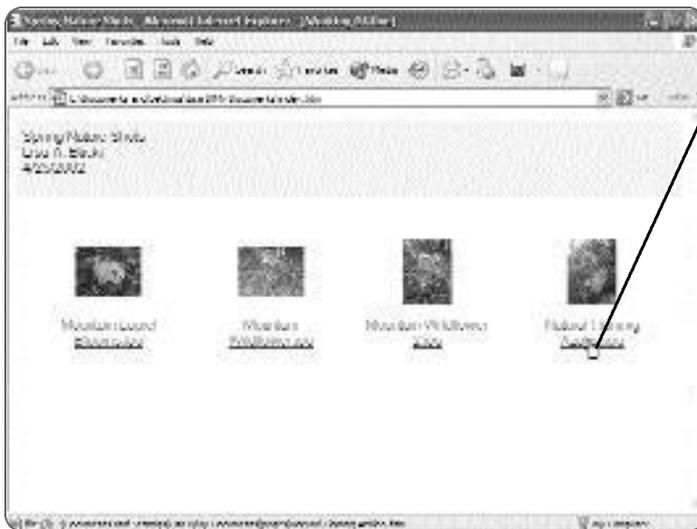
The destination folder must be different from the source folder.

**10. Click on OK.** The folder will be displayed as the destination folder.



**11. Enter other information** about the site as needed. The information will be included on the initial Web Photo Gallery page.

**12. Click on OK.** Photoshop will generate the Web Photo Gallery, launch your Web browser, and display the initial page. The page will show thumbnail images.



**13. Click on an image link or thumbnail.** The Web Photo Gallery page for that image will open. From this point, you can continue browsing images in the gallery or close your Web browser.

### NOTE

If you move or copy the Web Photo Gallery to another location, you must move all the elements—the index.htm file, the \images\ folder, the \pages\ folder, and the \thumbnails\ folder.

# 21

## Adding Hotspots

**W**eb browsing hinges on the ability to navigate by following links. You can use the Slice tool to identify areas for linking in an image, and then save that image as a Web (HTML) file so that an image with the links can be incorporated into an overall Web site. This chapter introduces you to the basics for the slice feature, including how to:

- Add a slice and set its options
- Work with existing slices
- Save the sliced image in HTML format

## Adding Slices or “Hotspots”

The Slice tool on the Photoshop toolbox adds *slices* into an image file. By then specifying the slice options, you create a link to a particular Web address called a *URL (Uniform Resource Locator)*. After you save the image as an HTML file (as described in the final section of this chapter, “Saving the Sliced File in HTML”), users can click on the area defined by the slice to follow the link. That’s why such linked areas are called “hotspots.” The steps that follow explain how to add a slice and set it up as a hotspot, after you’ve performed all the needed edits in Photoshop.

**1. Click** on the **Slice tool** in the toolbox. The Slice tool will become active.



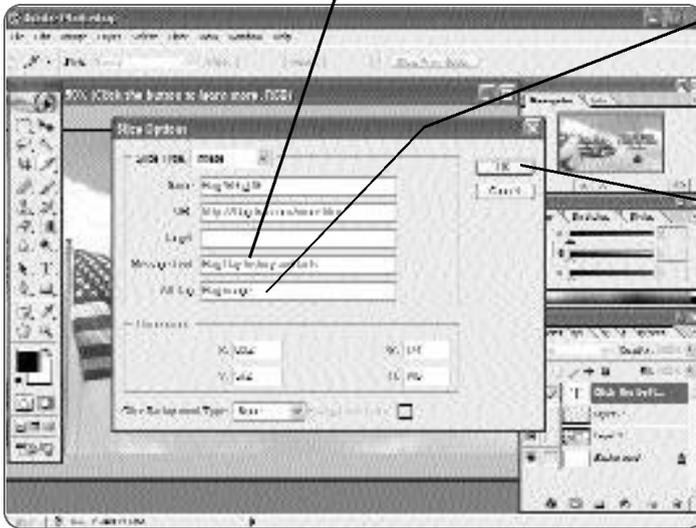
**2. Drag** on the **image** to define the slice. (You don’t really need to select a layer first.) When you release the mouse button, the new slice will appear.

### NOTE

In addition to the slice you drew, called a *user slice*, Photoshop divides the rest of the image into slices called *auto slices*. Typically, Photoshop adds draws vertical slice lines continuing from one or both corners of the slice you drew, depending on its location. It also may draw horizontal slice lines from the top or bottom of the slice.



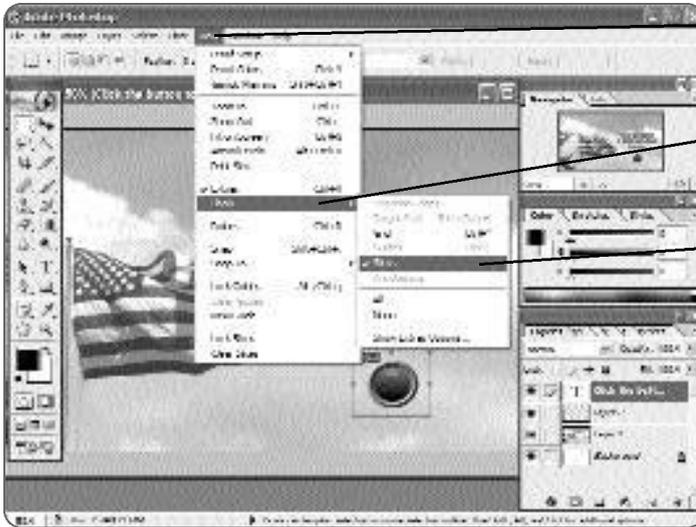
- **Message Text.** Enter more descriptive information about the linked Web page. The description will appear in the Web browser status bar when the user hovers the mouse pointer over the hotspot.



- **Alt Tag.** Enter a description to appear in place of the image content if the page is displayed in a nongraphical Web browser.
- 6. Click on OK.** The Slice Options dialog box will close and the specified settings will be applied to the slice.

## Viewing and Hiding Slices

If it so happens that you do need to make further edits to the sliced image before you save it as an HTML file, you can hide the slice lines so they won't distract you. Then, redisplay the slices later, as needed.

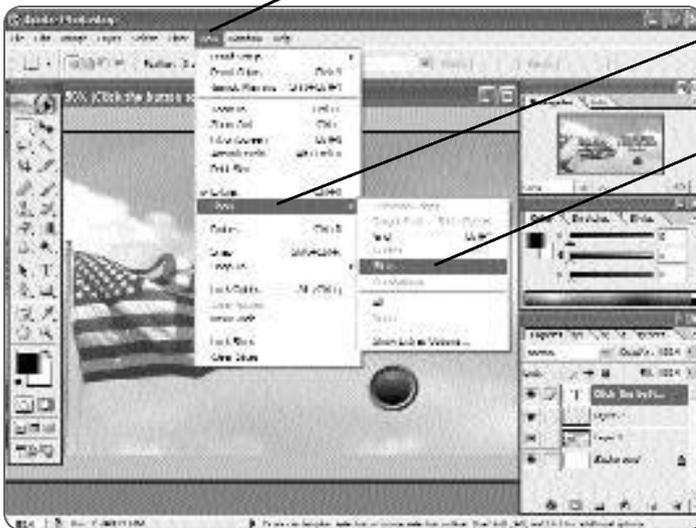


**1. Click on View.** The View menu will appear.

**2. Point to Show.** The Show submenu will appear.

**3. Click on Slices.** Photoshop will uncheck the Slices command and hide the slices in the image file.

**4. Click on View.** The View menu will appear.



**5. Point to Show.** The Show submenu will appear.

**6. Click on Slices.** Photoshop will check the Slices command and redisplay the slices in the image file.

## NOTE

If you need to resize a slice, right-click on the Slice tool, and then click on Slice Select Tool in the shortcut menu that appears. Then drag the corner of the slice area to resize it.

## Saving the Sliced File in HTML

When you need to save the sliced file in HTML format, use the Save for Web command on the File menu, as demonstrated here.

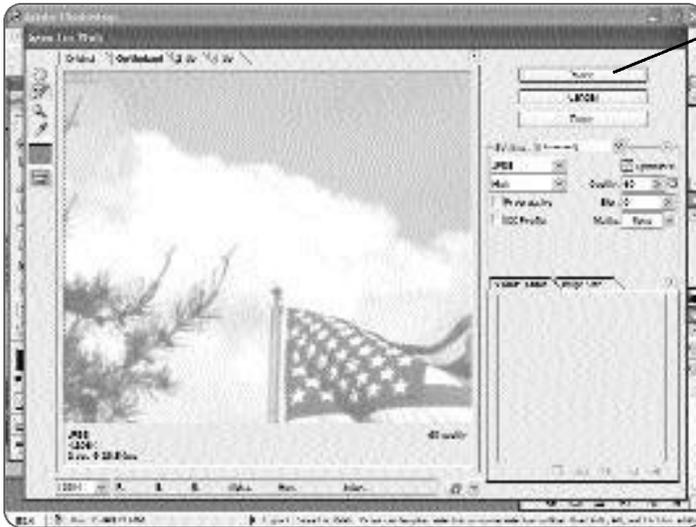
**1. Click on File.** The File menu will appear.



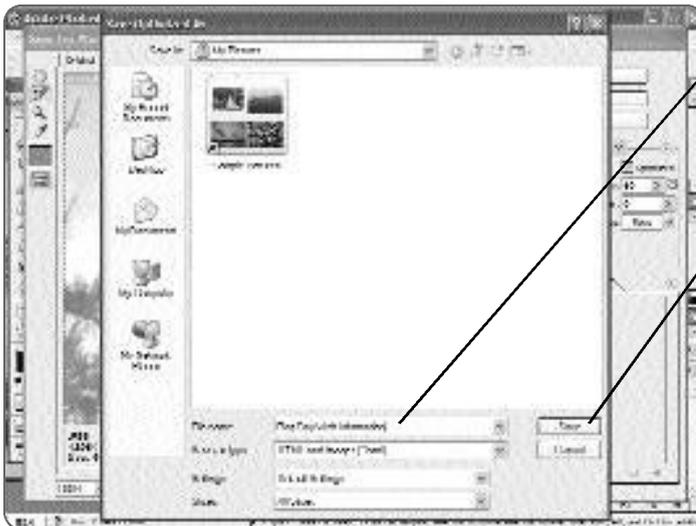
**2. Click on Save for Web.** The Save For Web dialog box will open, with its Optimized tab selected.

### TIP

If you previously used the Save for Web command to save a JPEG or GIF image and specified a matte, you're going to want to be sure to remove that matte color. Click on the Optimize menu button (the round button with the arrow on it) in the Save For Web dialog box, and then click Edit Output Settings in the menu. Open the drop-down list that has HTML selected in it by default, and then click on Background. Open the Color drop-down list, click on None, and then click on OK to return to the Save For Web dialog box.



**3. Click on Save.** The Save Optimized As dialog box will appear.



**4. Edit the File name** text box entry as needed. The name you specify will be applied to the HTML file.

**5. Click on Save.** The Save Optimized As and Save For Web dialog boxes will close. Only the original image will be open in Photoshop. You can find the new HTML file in the folder where you saved it.

**TIP**

Use the File, Open command in your Web browser to open and preview the new HTML file. (Note that you can use Save As to resave the file to use the shorter .htm extension, instead.) You can even click on the hotspot to test the link. When you copy or move the Web page, be sure to copy or move the accompanying \images\ folder created by the HTML saving process. That folder holds the actual sliced image content.

## Part VI Review Questions

1. What Web graphics formats can Photoshop create? See *“Reviewing Web Graphic Formats”* in Chapter 20.
2. How do I save an image in a Web graphic format? See *“Saving an Optimized Image File”* in Chapter 20.
3. How do I save an image with transparency so the Web page background shows through? See *“Saving a GIF”* in Chapter 20.
4. What do I do if I want to save an image for a monochrome Palm Pilot or other handheld device? See *“Saving a WBMP”* in Chapter 20.
5. How can I more quickly publish a collection of images to the Web? See *“Setting Up a Web Photo Gallery”* in Chapter 20.
6. What’s a hotspot and how do I create one? See *“Adding Slices or ‘Hotspots’”* in Chapter 21.
7. How do I make sure a description of the link appears in the Web browser status bar? See *“Adding Slices or ‘Hotspots’”* in Chapter 21.
8. The slices are in the way. Can I hide them? See *“Viewing and Hiding Slices”* in Chapter 21.
9. What do I do to get the file with hotspots ready for the Web after I’ve added the slices? See *“Saving the Sliced File in HTML”* in Chapter 21.

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# PART VII

# Appendixes

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# A

## Using Digital Watermark Protection

Among the many controversies regarding the Internet, protection of original material (intellectual property in legal lingo) concerns a wide variety of users—from individual graphic artists to huge record companies. To protect your work, you have to have a way to identify the digital matter you create.

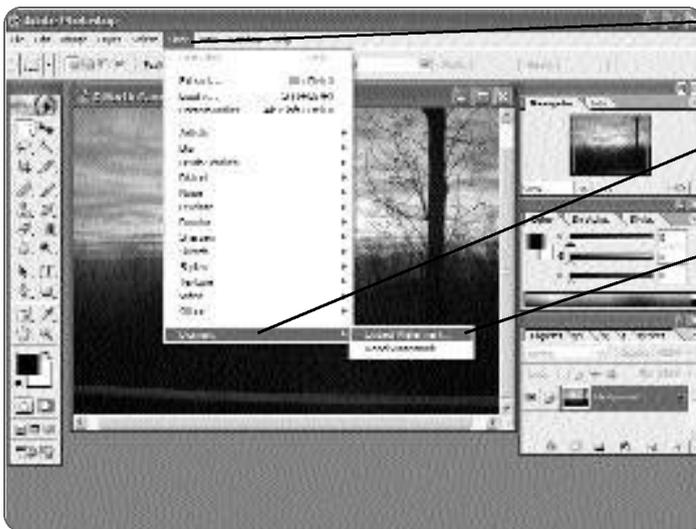
Photoshop works with the digital rights management company Digimarc to enable you to embed a digital watermark in your Photoshop images and read the digital watermark information in other images. Then, others who want to use your images can find your contact information via Digimarc to license the images from you.

## Registering with Digimarc

To be able to add a digital watermark, you must register online with Digimarc. You can watermark up to 99 images for free. Beyond that, Digimarc charges a subscription fee based on the number of images you plan to watermark per year. The following steps detail how to register with Digimarc to obtain the PIN and Digimarc ID you need to watermark your images.

### NOTE

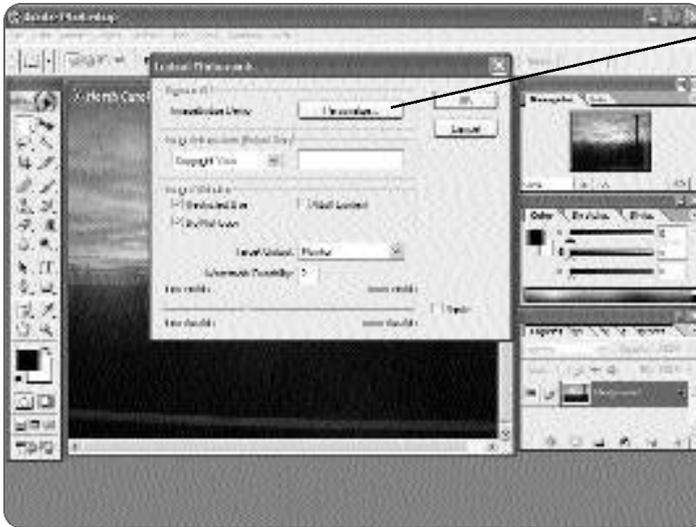
You must have an image file open, as well as a layer that's not locked, before you start the following steps. Ideally, open an image to which you want to add a digital watermark.



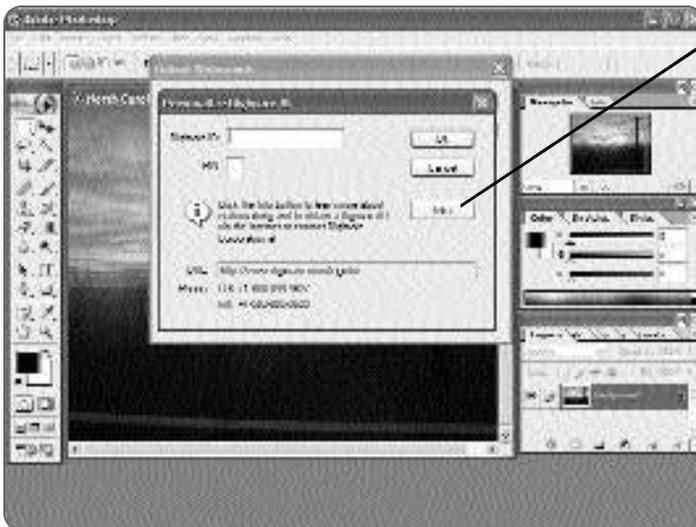
**1. Click on Filter.** The Filter menu will appear.

**2. Point to Digimarc.** The submenu will appear.

**3. Click on Embed Watermark.** The Embed Watermark dialog box will open.



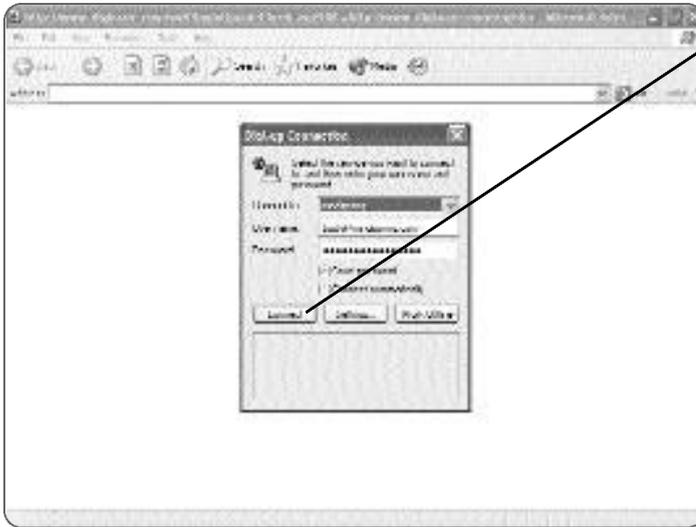
**4. Click on Personalize.** The Personalize Digimarc ID dialog box will open.



**5. Click on Info.** Your Web browser will open and the Dial-up Connection dialog box will open to prompt you to connect to the Internet if you don't have an Internet connection that's always on. If your connection is always on, you can skip to Step 7.

### NOTE

The first time you connect under Windows XP, the Network Connections dialog box may appear first. If it does, choose your connection in the list, and then click on Connect. Click on Dial in the next dialog box that appears.



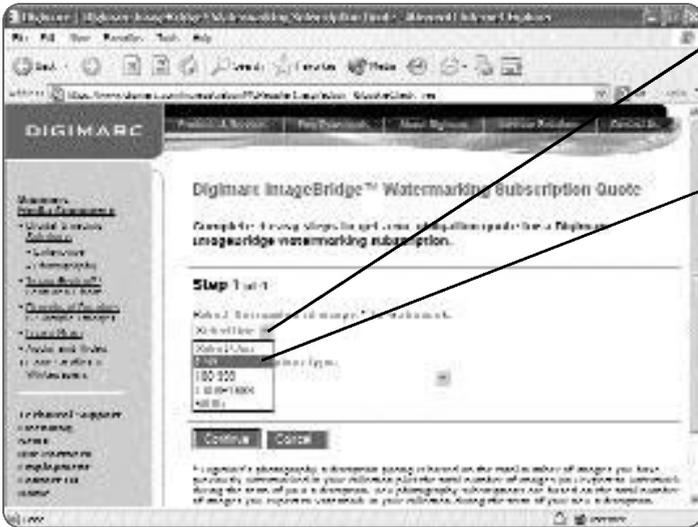
6. Click on **Connect**. Your system will dial its Internet connection and then will display the initial Digimarc registration page with pricing information.



7. Click on the **Sign Up Today** link. The Digimarc ImageBridge™ Watermarking Subscription Quote Step 1 of 4 page will appear.

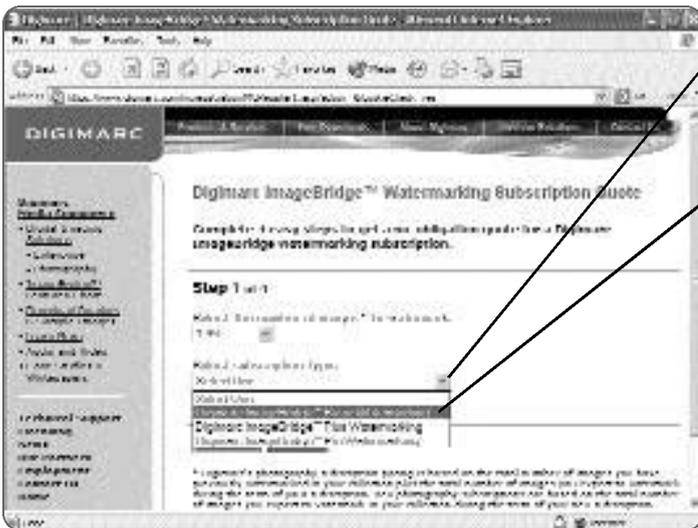
**NOTE**

If a Security Alert message box appears, click on OK to continue.



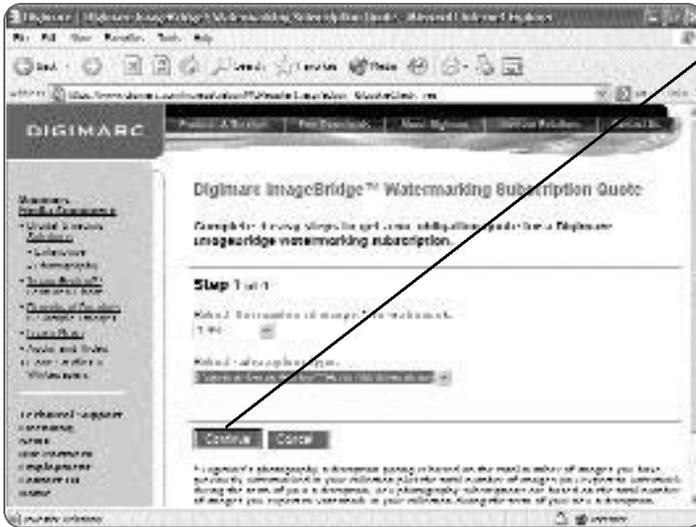
8. Click on the **down arrow** for the **top drop-down list**. The drop-down list will open.

9. Click on **1-99**. That choice will appear in the drop-down list.

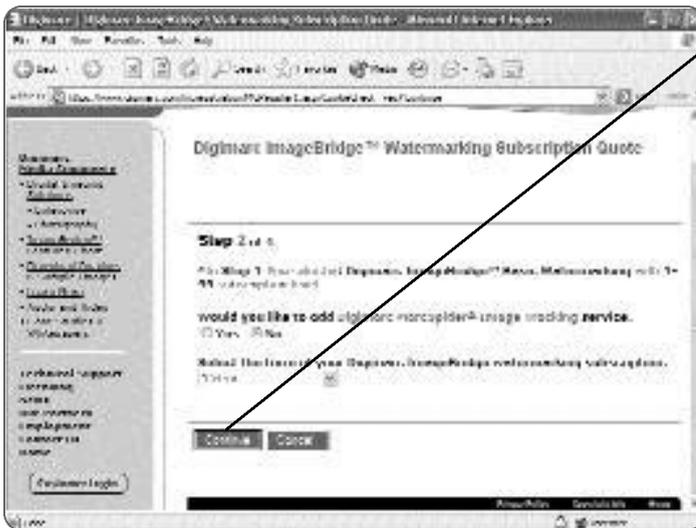


10. Click on the **down arrow** for the **bottom drop-down list**. The drop-down list will open.

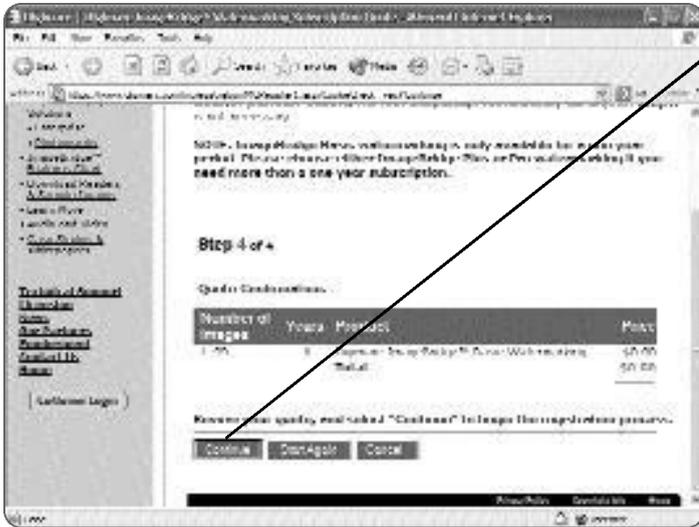
11. Click on **Digimarc ImageBridge™ Basic Watermarking**. That choice will appear in the drop-down list.



**12. Click on Continue.** The Digimarc ImageBridge™ Watermarking Subscription Quote Step 2 of 4 page will appear.



**13. Click on Continue** because there's no need to change the choices on this page. The Digimarc ImageBridge™ Watermarking Subscription Quote Step 4 of 4 page will appear.

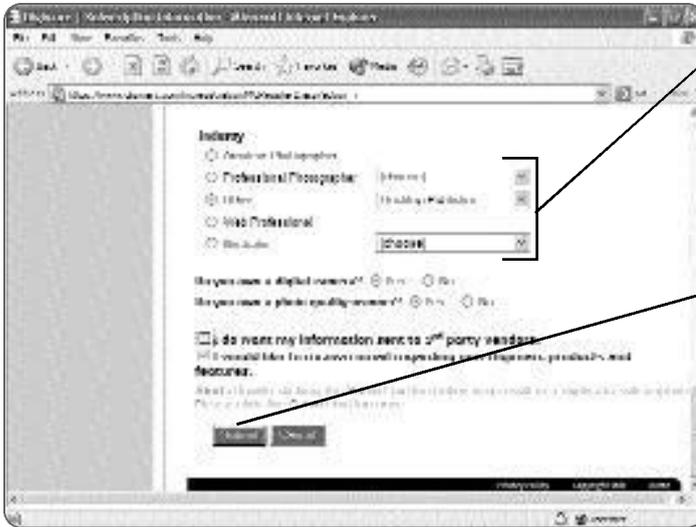


14. Click on **Continue**. The Digimarc ImageBridge™ Watermarking Subscription Terms & Conditions page will appear.



15. Use the **scroll bars** to scroll both the page and the license agreement information on the page. The information will scroll so that you will be able to review the agreement.

16. Click on the **Accept** button. The next Digimarc ID Signup page, where you enter information, will appear.



**17.** Scroll down if needed, then **make choices** and **fill in fields** as needed to complete the registration. The Web page will scroll and display the registration information you entered.

**18.** Click on the **Submit** button, and click on **Yes** if you see a Security Alert message box. After Digimarc processes your request, the Web page indicating that your ID has been assigned appears.

**19.** Click on the **Print** button on the toolbar. Your Web browser will send your Digimarc PIN and ID information to the printer.

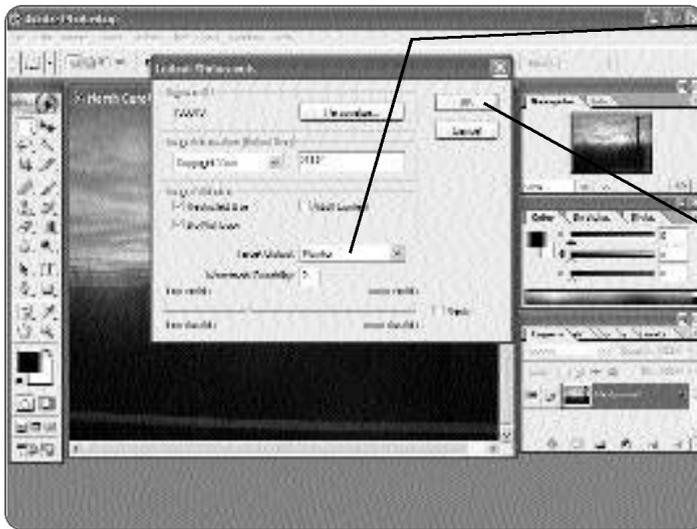


**20.** Click on the **Close (X)** button, and click on **Disconnect Now** in the Auto Disconnect dialog box when it appears (if applicable). Your system will disconnect from the Internet and return to Photoshop.

## NOTE

If your system doesn't prompt you to disconnect, right-click on the connection button in the system tray area at the right end of the Windows taskbar, and then click on Disconnect.





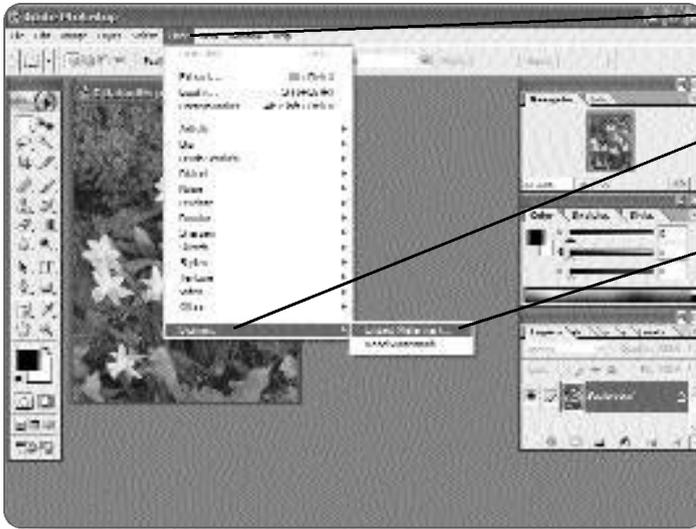
**23. Enter or change** any additional **watermark settings** as needed. The settings will appear in the Embed Watermark dialog box.

**24. Click on OK.** The Embed Watermark dialog box will close and the digital watermark will be applied to the current image.

## Embedding a Digital Watermark

Embedding a digital watermark adds your Digimarc ID to it and also identifies the image as copyrighted. Digital watermarking doesn't work well on images created primarily with solid colors; in addition, the image must be adequate in size (generally 100 x 100 pixels for images to be used digitally and 750 x 750 pixels for images to be printed) to hold the watermark information. Also note that you should embed the watermark before you convert the image to a file format that will compress the image information, such as the JPEG or GIF format. Follow the process detailed next when you need to add a watermark.

1. **Open the image** to which you want to add a watermark. The image appears in Photoshop.



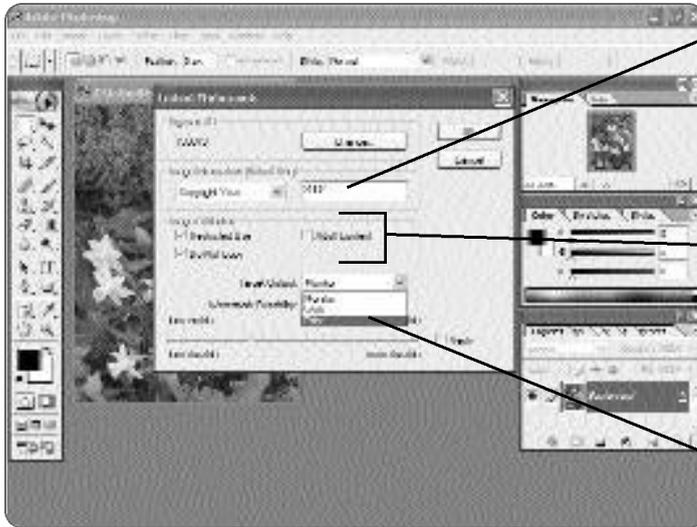
2. **Click on Filter.** The Filter menu will appear.

3. **Point to Digimarc.** The submenu will appear.

4. **Click on Embed Watermark.** The Embed Watermark dialog box will open.

## NOTE

For some images, you may see a prompt to flatten the image (combine its layers) or rasterize a shape or text layer (convert the layer's content to a bitmap or raster format rather than a shape or vector format). In such cases, you can click on OK to proceed with flattening/rasterizing and adding the watermark. However, if you haven't finished editing the image, you may instead want to click on Cancel. You can then finish the edits, make a copy of the image file (so you have a version of the file that you can edit later), and embed the watermark in the original. In other cases, you may see a message to change the DPI of an image before adding the watermark. Again, you can do so if you wish or simply continue with the watermarking process.



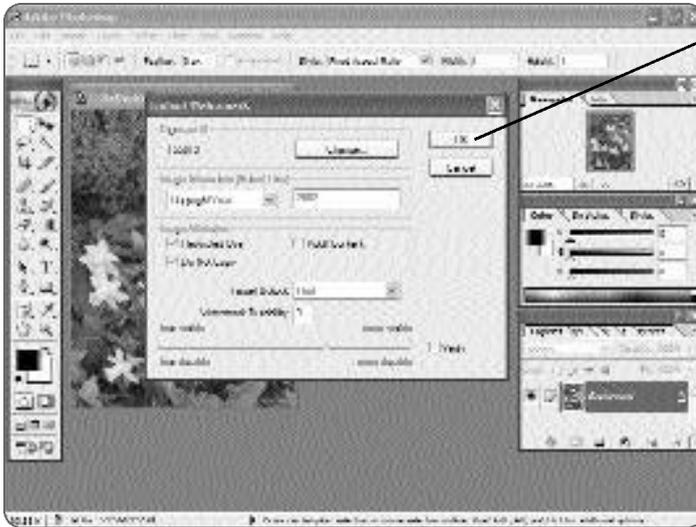
**5. Type the year** in the **Copyright Year** text box. Photoshop will mark the image as copyrighted in the specified year.

**6. Click on check boxes** in the **Image Attributes** area. This will identify the image as appropriate for particular types of uses.

**7. Click on the down arrow** for the **Target Output list**, and then click on an output type in the list. Photoshop will adjust the Watermark Durability setting to reflect the selected type of output. (You can further change those settings, if needed.)

## NOTE

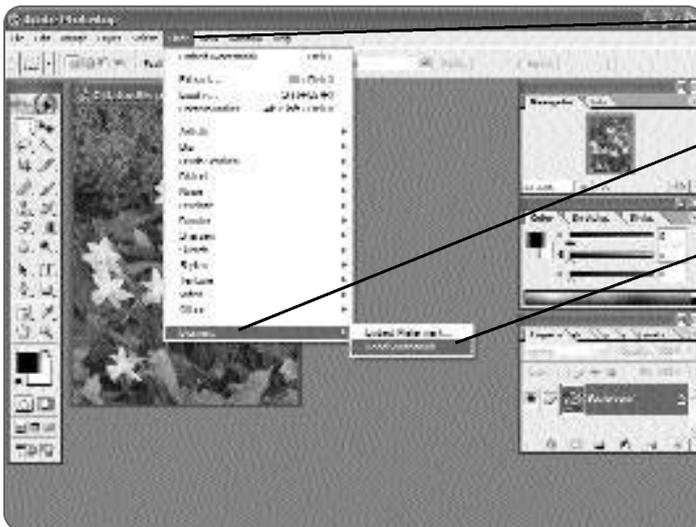
If your image is set with 200 dpi or more and you choose Web from the Target Output drop-down list, the DPI Inconsistency dialog box appears to remind you to convert (resample) the image to less than 200 dpi. Click on OK to close the reminder dialog box. You will also see the DPI Inconsistency dialog box if the image is set to less than 300 dpi and you choose Print from the Target Output drop-down list; in this instance, it recommends that you resample the image to 300 dpi or more. Also note that once you add the watermark using one type of target output, you can't repeat the process for another type of output. So, choose the proper Target Output type the first time.



**8. Click on OK.** Photoshop will apply the watermark and mark the image as copyrighted. The copyright symbol will appear beside the file name in the file window title bar.

## Viewing a Digital Watermark

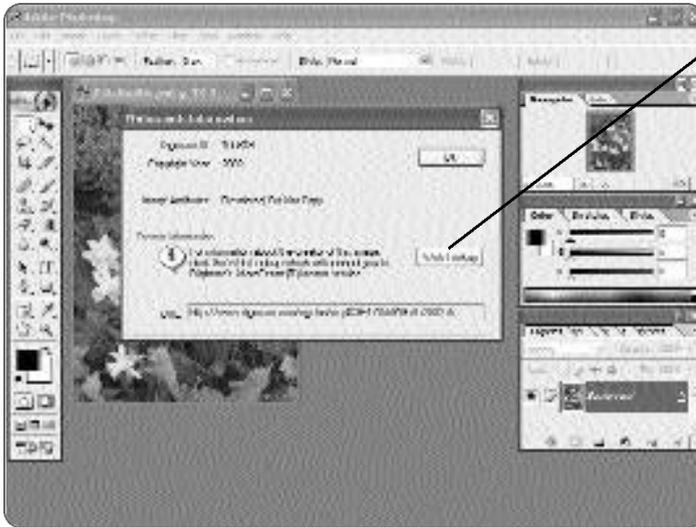
When you open an image that you think has a digital watermark in Photoshop, you can check for the watermark and look up the identity of the image's creator.



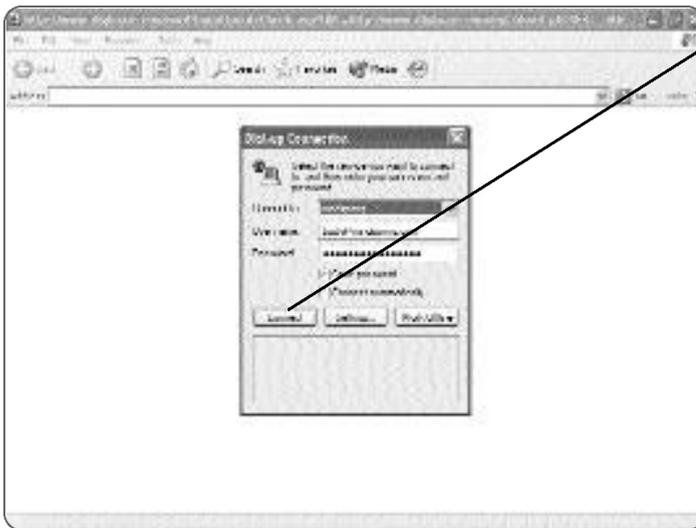
**1. Click on Filter.** The Filter menu will appear.

**2. Point to Digimarc.** The submenu will appear.

**3. Click on Read Watermark.** The Watermark Information dialog box will open. It will identify the creator ID (Digimarc ID) for the person or organization that created the image, the copyright year, and the usage restrictions that were placed on the image.



**4. Click on Web Lookup.** Your Web browser will open and the Dial-up Connection dialog box will appear to prompt you to connect to the Internet, if you don't have an Internet connection that's always on. If your connection is always on, you can skip to Step 6.

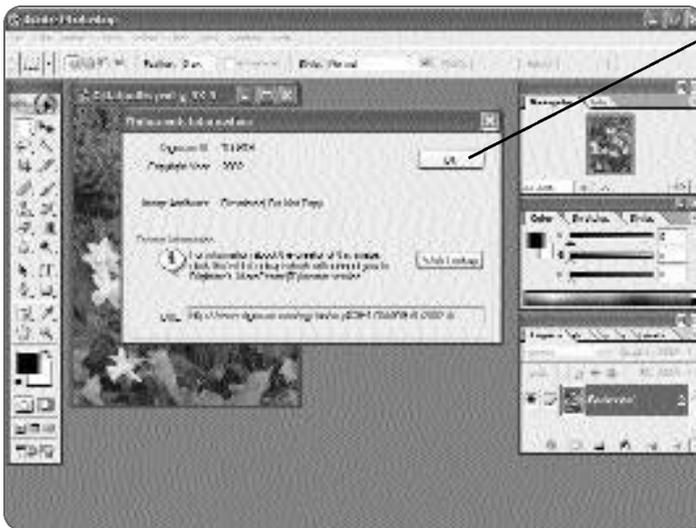


**5. Click on Connect.** Your system will dial its Internet connection. The Web browser will then display the Digimarc information for the image's creator.

6. Click on the **Print** button on the toolbar. Your Web browser will send the image creator's name and ID information to the printer.



7. Click on the **Close (X)** button, and click on **Disconnect Now** in the Auto Disconnect dialog box (if needed). Your system will disconnect from the Internet and return to Photoshop.



8. Click on **OK**. The Watermark Information dialog box will close.

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# B

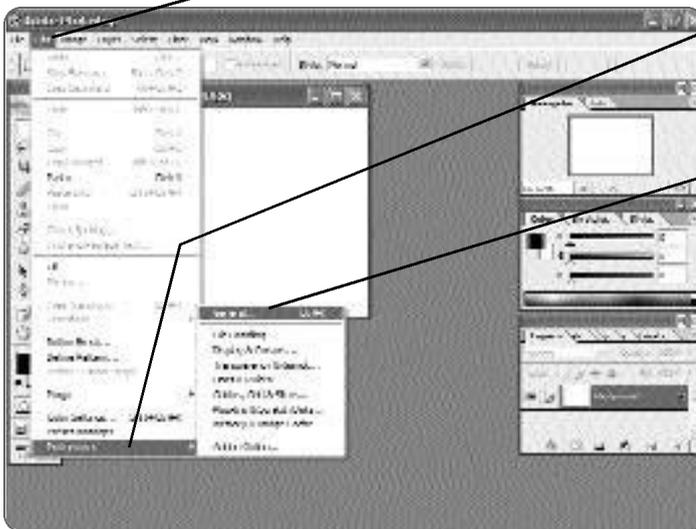
## Photoshop Preferences and Settings

Photoshop offers a wide variety of preferences that you can use to adjust how it looks and operates. Use this appendix as a reference to help you find a setting when you need it.

## Using Basic Preferences

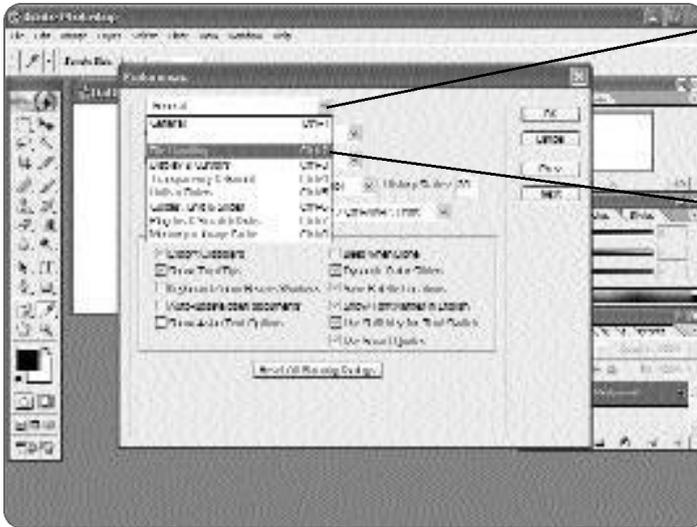
No matter which preference you need, you can use one of a few methods to find the dialog box that holds it. After you learn here how to find a set of choices in the Preferences dialog box, each subsection that follows reviews key preferences in each set of choices.

**1. Click on **Edit**.** The Edit menu will appear.



**2. Point to **Preferences**.** The Preferences submenu will appear.

**3. Click on **General**** or one of the seven choices in the next group on the submenu. The Preferences dialog box will open.



**4. Click on the down arrow** beside the list box at the top of the dialog box. The list of various preference sets will appear.

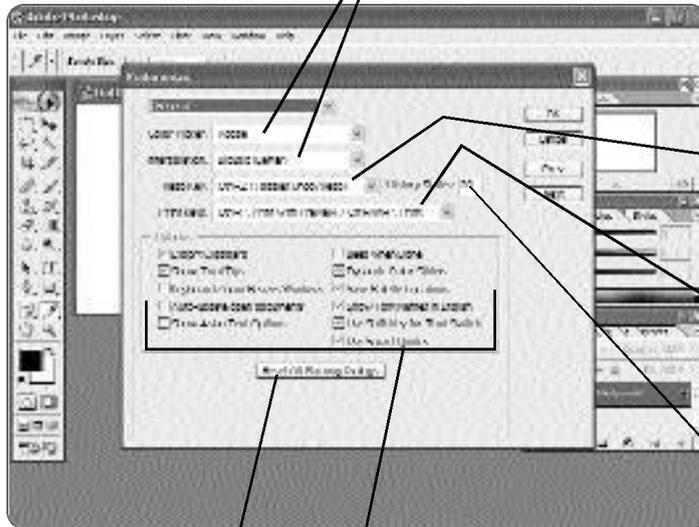
**5. Click on a set** in the list. The Preferences dialog box will display the selected settings.

**6. Click on Prev or Next.** The Preferences dialog box will display the previous or next set of choices.

**NOTE**

Assuming Tool Tips are enabled in Photoshop, you can hover the mouse pointer over a Preferences dialog box option to see what that option does.

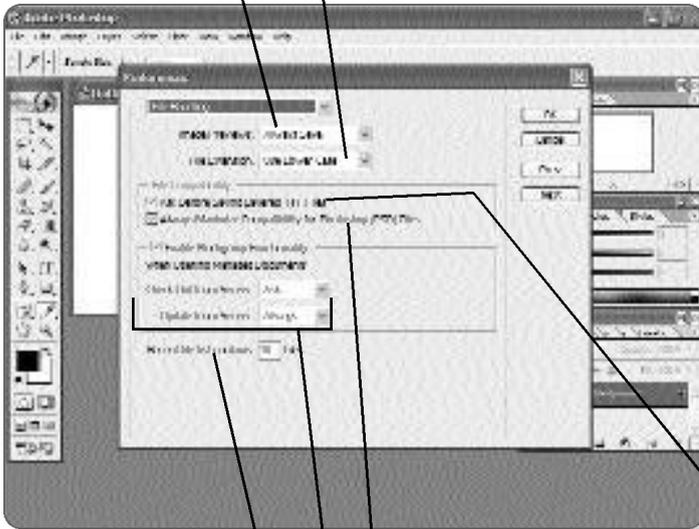
## General



- **Color Picker and Interpolation.** Control which Color Picker appears when you display the Color Picker to choose image colors, and choose which Interpolation method Photoshop uses if you resample the image.
- **Redo Key.** Controls which keyboard combination you must press to redo an action you just undid.
- **Print Keys.** Controls which key combinations you must press to preview and print an image or print it directly.
- **History States.** Controls how many history states appear in the History palette.
- **Options.** Choose to enable various operations, such as whether Photoshop shows Tool Tips, includes Asian Text Options, beeps after an operation, or displays font names in English.
- **Reset All Warning Dialogs.** Resets warning dialog boxes so that they will appear in the future if you've previously disabled them.

## File Handling

- **Image Previews.** Controls whether Photoshop saves small-image thumbnail files for previews, or prompts you to do so.
- **File Extension.** Specifies whether Photoshop uses uppercase or lowercase characters for the file name extension when saving.



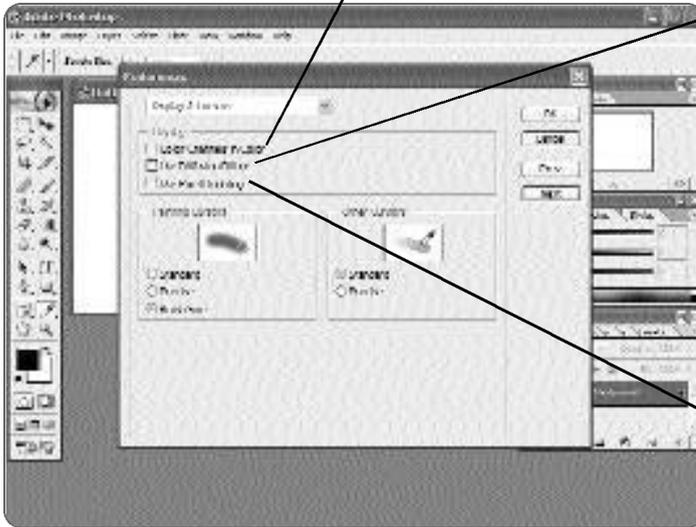
### NOTE

The capitalization for the file name extension can be important if an image is for a Web page. For example, some Web sites only work if the file name extension for Web pages and graphics appears in all uppercase characters, such as .HTM or .GIF.

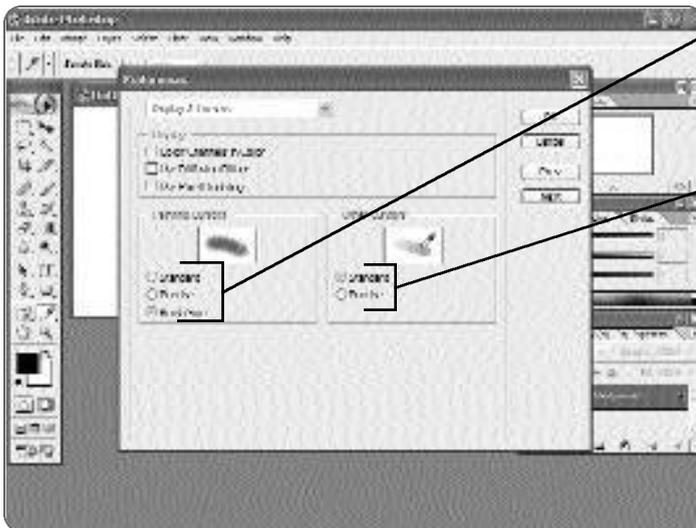
- **Ask Before Saving Layered TIFF Files.** For a previously flat TIFF file into which you've added layers, displays the TIFF Options dialog box when you save.
- **Always Maximize Compatibility for Photoshop (PSD) Files.** When checked, saves composite image information, better ensuring compatibility with earlier and future Photoshop versions.
- **Enable Workgroup Functionality.** Enables the commands on the Workgroup submenu of the File menu so that you can automate the workflow for all users of your Photoshop files on a network server. The accompanying options control how Photoshop handles images that a user checks out and opens from the server.
- **Recent file list contains.** Controls how many files the File, Open Recent submenu lists.

## Display & Cursors

- **Color Channels in Color.** When checked, the Channels palette shows each channel in color rather than grayscale.



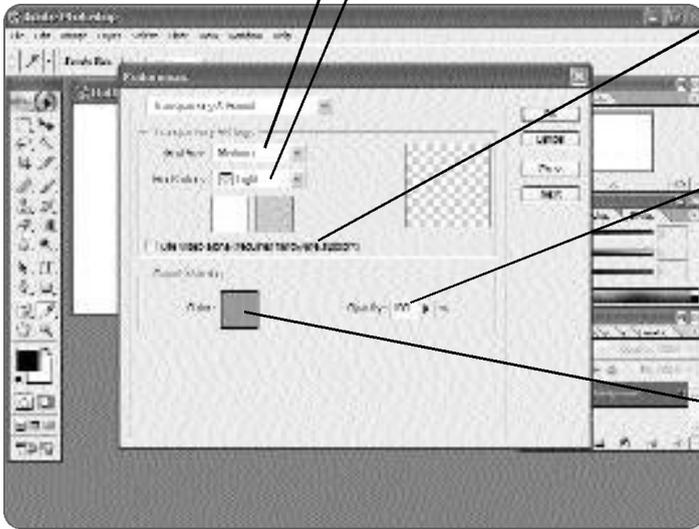
- **Use Diffusion Dither.** When checked, Photoshop uses diffusion dithering rather than pattern dithering to eliminate the “patchy” effect that can appear when the monitor displays fewer colors (such as 256 colors, or 8-bit color) than the image file contains (such as 16.7 million colors in a 24-bit image).
- **Use Pixel Doubling.** When checked, reduces onscreen image resolution for faster previewing after some operations.



- **Painting Cursors.** Controls how the mouse pointer looks and behaves when a painting tool is active.
- **Other Cursors.** Controls how the mouse pointer looks and behaves when a tool other than a painting tool is active.

## Transparency & Gamut

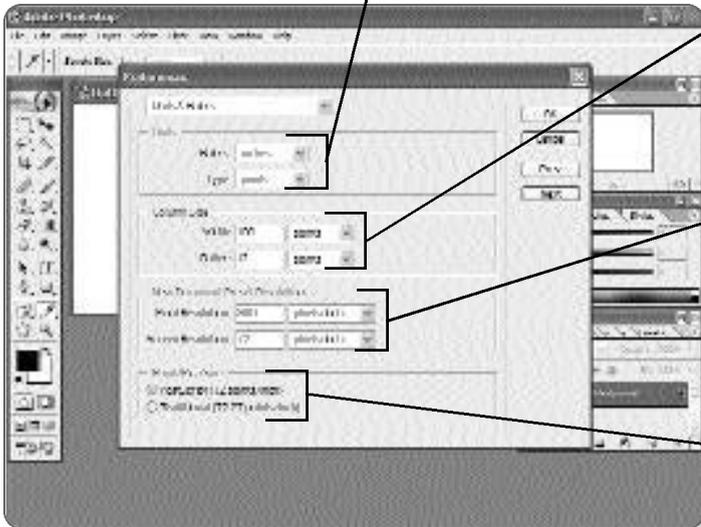
- **Grid Size.** Controls the size of the grid used to depict transparency in the Layers palette.
- **Grid Colors.** Controls the colors for the grid used to depict transparency in the Layers palette.



- **Use video alpha.** When checked, tells Photoshop to use video hardware support for previewing transparency.
- **Opacity.** Controls the opacity of the warning color (specified with the Color setting) overlaying areas of color that fall outside the color gamut for the system or printer.
- **Color.** Chooses the warning color to display for image areas that use a color outside the color gamut for the system or printer.

## Units & Rulers

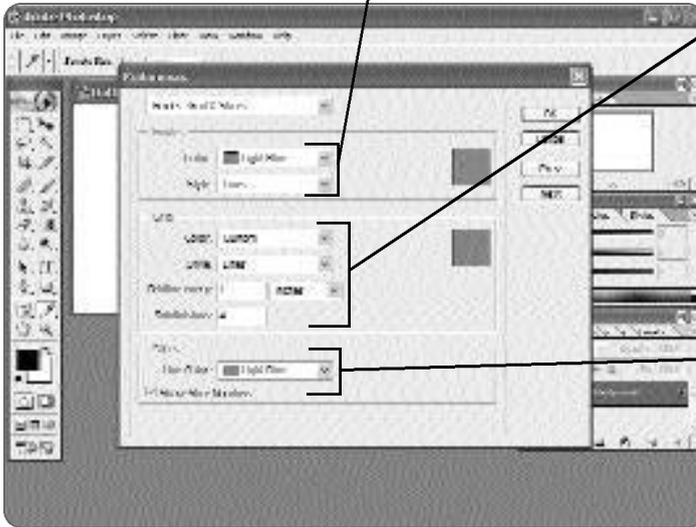
- **Units.** Enables you to choose the default measurement units used for Rulers and Type sizes.



- **Column Size.** Enables you to choose default column Width and Gutter size used when cropping and sizing images for documents.
- **New Document Preset Resolutions.** Enable you to set the default print and screen resolutions used by new Photoshop files that you create.
- **Point/Pica Size.** Controls the true sizing used for points and picas in Photoshop files.

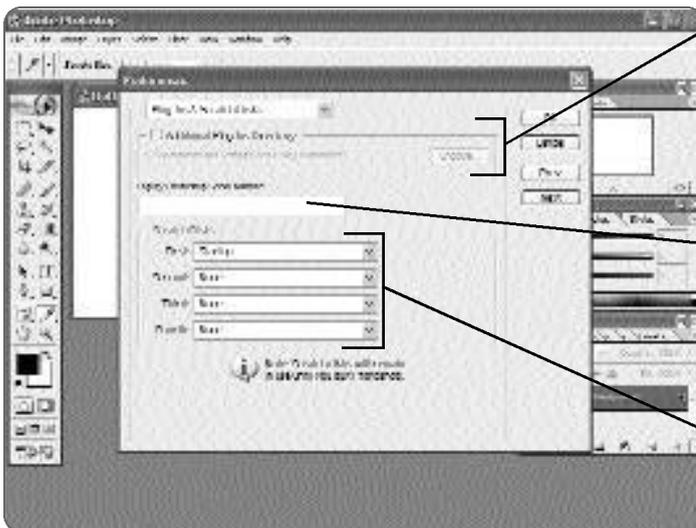
## Guides, Grid & Slices

- **Guides.** Enables you to choose the Color and Style that guides use when you display them.



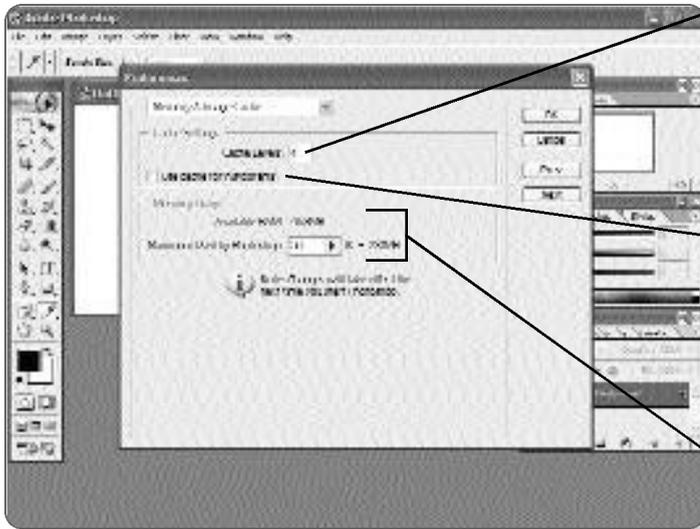
- **Grid.** Enables you to choose the Color and Style for gridlines when you display them, as well as the width between major gridlines (Gridline every) and the number of minor grid sections (Subdivisions) between each pair of major gridlines.
- **Slices.** When an image contains slices, enables you to control the line color defining each slice and whether slice numbers appear.

## Plug-Ins & Scratch Disks

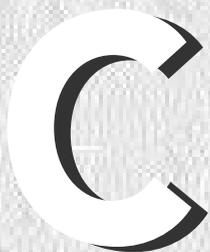


- **Additional Plug-Ins Directory.** Check this option, and then click Choose to identify another folder holding plug-ins on your system's hard disk.
- **Legacy Photoshop Serial Number.** If a plug-in requires it, you can enter the Photoshop serial number in the old style here.
- **Scratch Disks.** Enables you to specify additional hard disks as temporary storage (memory overflow) for in-progress work in Photoshop.

## Memory & Image Cache



- **Cache Levels.** Controls how many levels of image detail Photoshop stores in a memory cache. Increase the number for faster screen redraw and histogram generation.
- **Use cache for histograms.** When checked, uses the cached image information, rather than rechecking the image, for histogram information.
- **Maximum Used by Photoshop.** Controls how much system memory Photoshop can use during a work session.



# Mac Command Equivalents

Photoshop 7.0 for the Macintosh offers features identical to those in the Windows version. To use Photoshop on the Mac (in OS X), you need to be comfortable with only a few command, mouse, and keystroke techniques that differ on the Mac side of things. Table C-1 lists the Windows command or technique and the Mac equivalent for various functions in Photoshop.

**Table C-1 Mac Command Equivalents**

<b>Function</b>	<b>Windows</b>	<b>Mac</b>
Preferences	Edit, Preferences	Photoshop, Preferences
Color Settings	Edit, Color Settings	Photoshop, Color Settings
Exiting	File, Exit	Photoshop, Quit Photoshop
Display tool shortcut menu	Right-click on tool	Control+click on tool
Display other shortcut menus	Right-click	Control+click
Select background color (Color palette)	Alt+click on color ramp	Option+click on color ramp
Move a selection	Ctrl+drag	Command+drag
Undo	Ctrl+Z	Command+Z
Zoom out (Zoom tool)	Alt+click	Shift+Option+click

**NOTE**

Of course, the Mac has no Start menu as in Windows. To open Photoshop, navigate to the folder that holds the Photoshop program icon (it's typically a subfolder of the Applications folder in Mac OS X), and double-click the icon to start Photoshop. Also, you use the Calibrate utility in Mac OS X to calibrate the monitor color settings, rather than a Control Panel choice.

# D

## Online Resources

Photoshop inspires more online interaction, publishing, and software product development than many other programs due to the wealth of features and options that Photoshop offers. In addition to consulting the resources listed in Table D-1, you can search for “Photoshop” using your favorite Web search engine to yield dozens of links to sites offering tips, help, and downloads.

**Table D-1 Online Photoshop Resources**

<b>Category</b>	<b>Resource</b>	<b>Description</b>
Online Forums	<a href="http://www.adobe.com/support/forums/main.html">www.adobe.com/support/forums/main.html</a>	Go to this page to find links to the Photoshop Mac and Windows forums operated by Adobe. You can log in as a guest, or register to be able to post messages.
Online Tutorials	<a href="http://www.adobe.com/products/tips/photoshop.html">www.adobe.com/products/tips/photoshop.html</a>	Adobe's official tutorial site, with tips from leading experts.
Web Site	<a href="http://www.photoshouser.com">www.photoshouser.com</a>	The site for the National Association of Photoshop Professionals, providing publication reviews and training resources.
Web Site	<a href="http://www.planetphotoshop.com">www.planetphotoshop.com</a>	Offers online tutorials, links to software downloads, links to other Photoshop sites, and information about resources such as seminars and books.
Web Site, Plug-ins	<a href="http://www.thepluginsite.com">www.thepluginsite.com</a>	Offers filters, plug-ins, and graphics that you can download or purchase, as well as other resources.
Web Site, Plug-ins	<a href="http://www.desktoppublishing.com/photoshop.html">www.desktoppublishing.com/photoshop.html</a>	Known as the Photoshop Paradise site, provides tips and tricks, resources, and links to actions, filters, and plug-ins.
Web Site	<a href="http://www.elementkjournals.com/ips/">www.elementkjournals.com/ips/</a>	The Inside Photoshop online magazine. View a sample issue. Subscribe to access the greatest variety of articles.

# Glossary

**Action.** The equivalent of a macro in many other programs. You record a series of steps or commands you take in Photoshop, so that you can later play back the steps simply by running the action from the Actions palette or by pressing the shortcut key combination you assigned to the action when you created it.

**Adjustment layer.** Add this special type of layer when you need to display a color correction or effect, or hide it when not needed.

**Alpha channel.** A channel you add beyond the default color channels in the image. You can use the alpha channel to store a selection or mask for the image.

**Anchor point.** When you create a curved path, each anchor point represents the transition between curved segments.

**Animated GIF.** A moving Web graphic file that you create by converting layers to frames in ImageReady (or another program capable of generating animation), specifying animation settings, and then saving the file as a .GIF file.

**Anti-aliasing.** A correction that sharpens the jagged edges of a selection, preserving as much detail as possible.

**Auto Slice.** (See Slice.)

**Background erase.** When you use the background eraser tool, Photoshop makes the pixels you drag over transparent on the current layer or all layers.

**Background layer.** When you create a new image, the first layer is a background layer that you can make white, transparent, or fill with a background color that you specify. The exception occurs when you import an image from a scanner or digital camera; in that case, the image itself becomes the background layer.

**Bleed.** When you create a bleed for printing, you specify that the image content should extend slightly beyond the crop boundaries of the image, so there won't be any unwanted unprinted edges once the output is trimmed to its final size.

**Blur.** Adding some fuzziness or decreasing the focus in selected areas of an image to

soften the image appearance or camouflage a defect.

**Border.** A small line you specify to be printed around the edge of an image.

**Brightness.** A setting that controls the overall lightness of an area.

**Burn.** The equivalent of a traditional photo development technique, in which you increase the “apparent exposure” of an area in the image to increase the contrast and darken the specified area.

**Canvas size.** The size of the white page that holds your image content in the image window.

**Channel.** Photoshop divides the colors in a color (or grayscale) image into separate channels that you manage via the Channels palette. The default color mode, RGB color, uses four channels—one each for the red, green, and blue channels, plus a composite channel that shows the individual channels combined. Channels enable you to make color corrections for just the selected channel, without altering the other channels.

**Check box.** In a dialog box or on a toolbar, you click on a check box to toggle a feature on and off. The feature is on or selected when the check box is checked, and off or deselected when it isn't.

**Clipping path.** A path you use to designate part of an image so that only that portion appears when you save the file as an .EPS, .DCS, .PDF, or .TIFF file for inclusion in another document. The areas outside the

clipping path will be transparent after the save, so that you can better lay out the document text in relation to the image.

**Color balance.** The overall proportion of various colors in the image.

**Color mode.** Identifies what type of color model is being used for the image. For example, grayscale images use only shades of gray, with one grayscale color channel by default. CMYK (Cyan, Magenta, Yellow, Black) color has been optimized for full, four-color printing. RGB color optimizes images for onscreen display; monitors combine red, green, and blue pixels to form colors. Lab color uses luminance and brightness settings to optimize color for various devices. Multichannel mode adapts the image for special printing situations, converting image tones to 256 gray shades. Indexed color converts an image to 256 colors for use on Web pages. Duotone mode converts an image for traditional duotone printing, which uses only two ink colors—typically black and a lighter tone—to yield a nicely tinted image. Finally, Bitmap mode can be used to create black-and-white images.

**Color separations.** After an image has been converted to CMYK color, it can be used to generate color separations for professional printing. Each separation represents a film sheet that will ultimately be used to create a printing plate, with each plate representing a single ink color to be printed. Full-color printing uses a minimum of four color plates—Cyan, Magenta, Yellow, and black.

**Command button.** In a dialog box or on a toolbar, you click on a command button to choose the command the button represents. When an ellipsis (...) follows the button name, clicking on the button displays a dialog box where you can specify further options.

**Context menu (shortcut menu).** A specialized menu that appears when you right-click on a screen element or a toolbox tool. The menu offers commands pertaining to the current tool, image, or selection.

**Contrast.** A color setting that determines the overall variation between the light points and dark points in the image. In some cases, increasing contrast can help the image appear to have a bit more detail.

**Direction line.** When creating curved line segments, you use the direction points on direction lines emerging from the curved segment to specify the direction and depth of the curves.

**Direction point.** A point at the end of the direction line that you drag to specify the direction (drag horizontal to the curve segment) and depth (drag perpendicular to the curve segment) of the curve.

**Dithering.** When an image uses more colors than your monitor can display, Photoshop uses dithering to compensate for the color discrepancies.

**Dodge.** The equivalent of a traditional photo development technique, in which you decrease the “apparent exposure” of an

area in the image to decrease the contrast and lighten the specified area.

**Draw program.** A program that creates vector objects—objects created from outlines so that you can later edit them—which often have a more compact file size and can be resized with limited quality loss.

**Drop-down list box.** In a dialog box or on a toolbar, a list you open by clicking on an arrow. The list presents available choices when opened, and you can click on the desired choices once the list is opened.

**Droplet.** An action you save as an independent program, so that it can be used outside of Photoshop.

**Erase.** Removing the foreground pixels on a layer to reveal the background color or transparency.

**Feathering.** A correction that blurs the edges of a selection by adding a shift zone of a pixel width that you specify. Feathering can cause the edges of the selection to lose detail.

**File Browser.** A new feature in Photoshop that enables you to find files by browsing through thumbnail previews.

**Gamut.** The range of colors that your system can actually display. You can set up Photoshop to display a warning if an image includes colors outside the gamut.

**Grid.** Spacer lines you can display to help align objects in an image.

**Halftone Screens.** (See Screens.)

**Healing Brush tool.** A new tool that helps you to remove scratches and spots from scanned photographs.

**Histogram.** A graph you can display to see how much of an image's content (roughly how many pixels) fall within various color intensity levels in the image.

**Hotspot.** (See Slice.)

**Image resolution.** (See Resolution.)

**Image size.** The dimensions of the image file, in inches, centimeters, points, picas, or pixels.

**Interlaced.** When you save a file and make it interlaced (an option available when you're saving an image into common Web graphic file formats), part of the image can "pre-load" on the Web page. This means that the user will see the image at low resolution until the full file downloads.

**Interpolation.** The method that Photoshop uses to determine how to add content (when changing to a higher resolution) or remove content (when changing to a lower resolution) when you resample the image to resize it or change its resolution.

**Layer.** In Photoshop, you can store different types of content on different logical "sheets" or layers in the image, so that later you can manipulate the content of each layer separately. For example, text that you add to an image with the Text tool always appears on a new layer.

**Layer mask.** A mask you create based on a selection on a layer. Layer masks typically define fuzzier areas than vector masks.

**Magic eraser.** Use this tool to remove or change contiguous pixels of one color (or non-contiguous pixels in that color) on a layer.

**Mask.** A special type of select you use to hide part of a layer, so that you can manipulate only the visible portions of the layer.

**Option button.** In a dialog box or on a toolbar, a round button that you click on to choose or enable the option it represents. Option buttons typically appear in a group, with the members of the group being mutually exclusive. That is, when you click on one option in the group, all other options in the group will be deselected.

**Options bar.** When you select a toolbox tool, the options bar below the Photoshop menu bar presents choices you can use to adjust how the tool will operate.

**Paint program.** A program that enables you to create an image by recoloring pixels using various tools. Paint programs typically create bitmap images, which are larger in file size and harder to edit than vector images. Resizing bitmap images to a larger size often makes them look jagged and unattractive.

**Palette.** A special collection of tools or settings. Photoshop organizes its palettes on tabs in special palette windows that appear at the right side of the Photoshop window by default.

**Pantone or Pantone Matching System (PMS).** This color-matching system has become the standard in professional printing, design, and image processing. A

PMS number identifies each unique ink color. So, for example, when you use a particular spot color (and identify it by its PMS number) in images or documents that are printed at a different time, the spot color should be identical in the print jobs.

**Pattern Maker.** A new plug-in that enables a user to create, adjust, and preview a new pattern based on a selection from an image file.

**Picture Package.** A new feature that enables you to print multiple images on a single page, so that you can quickly develop “proof sheets” for a collection of images.

**Pixels.** A variation of the phrase “picture element,” each pixel is a single dot of color in the image. Higher resolution images have smaller pixels, and therefore look more detailed and smooth, and less grainy.

**Plug-ins.** Special add-in programs that you can install to extend Photoshop’s functionality. Most plug-ins add new filters into Photoshop, but some offer more file format and import/export options. You can purchase numerous plug-in collections, and even download freeware and shareware plug-ins from any of dozens of Web sites.

**Posterizing.** A special effect that reduces the number of colors used in the image, so that the image becomes composed of larger color areas, much like the way posters used to be designed and printed or like paint-by-number pictures.

**ppi (pixels per inch).** (See Resolution.)

**Preset.** A collection of settings for a particular tool, or a special brush shape or pattern for a particular tool. Presets are saved in library files.

**Preset Manager.** A feature that enables you to load and unload preset libraries, as well as to create new libraries.

**Raster images.** Also called bitmap images, these are images composed of individual colored pixels. Paint programs typically create raster images.

**Rasterize.** Converting vector (resizeable line) objects in an image to raster (bitmap) content. In Photoshop, you sometimes must rasterize text layers (which are vector) before you can perform certain commands or add certain effects to the text layer.

**Resample.** Resizing an image and/or changing its resolution.

**Resolution.** The quantity of pixels (image dots) that print per unit of measure in the image, usually expressed as pixels per inch (ppi). The higher the image resolution value, the finer the quality of the image. For example, an image that has 300 ppi has much more color detail than an image at 72 ppi, because at the higher resolution the pixels are smaller (more pixels packed in per inch, for example). This necessitates smaller pixels of color, and therefore a finer appearance.

**Rollover.** A special effect you create for a Web image that causes part of the image to change when the user performs a certain mouse action. For example, you

might set up a glow to appear behind part of the image when the user moves the mouse pointer over that area of the image.

**Sampling.** A method of creating a new brush or pattern based on a selected portion of an image.

**Screens.** Used for professional printing, the screen settings specify how the image color should be broken up into printed dots.

**Sepia.** A variation of grayscale, where an image typically appears in ivory and brown tones rather than black-and-white.

**Slice.** An area you identify on an image for conversion to a hotspot—a clickable Web hyperlink.

**Slider.** In a dialog box or on a toolbar, a small thumb or bar you drag with the mouse to change the setting for an item.

**Smudge.** A tool you use to drag one color into another on a layer.

**Spinner buttons.** Click on one of these small up and down arrow buttons beside a text box to increase (up spinner button) or decrease (down spinner button) the value held in the text box.

**Spot color.** A small area of color you specify to overprint other colors on an image. You set up a spot color as a separate channel. For professionally printed documents, the spot color will be applied by a completely separate printing plate.

**Text box.** In a dialog box or on a toolbar, a box into which you type an entry. Text

boxes that hold numeric settings often also include spinner buttons, which you can click to increase or decrease the text box entry.

**Tolerance.** For several tools, the tolerance setting indicates how precise Photoshop must be in matching a specified color. A higher tolerance setting means the tool typically will match more colors.

**Tonal quality.** The amount of highlights and shadows in an image, which can impact its overall appearance of brightness.

**Toolbox.** The small window or strip at the left side of Photoshop that presents its key drawing, painting, selection, and other tools.

**Trapping.** Specifying that blocks of (usually) solid color should overprint each other during professional printing, to compensate for possible slight shifts in the printing plates. Your print shop can tell you whether you need to add trapping for your images.

**Tweening.** A technique by which a program like ImageReady can improve an animation. When an application uses tweening, it extrapolates to create additional animation frames between two selected frames, so that the animation will appear more smooth and natural.

**URL (Uniform Resource Locator).** The unique address that identifies a Web site or page on the Internet. For example, one of Adobe's Web pages can be found at [www.adobe.com/products/tips/photoshop.html](http://www.adobe.com/products/tips/photoshop.html).

**User slice.** (See Slice.)

**Vector images.** Images composed of editable line objects, so the objects themselves can be edited individually and the image can be resized to a great degree without quality loss.

**Vector mask.** A mask that hides or displays a clear shape on a layer based on a path.

**WBMP.** A graphic file format optimized for small devices such as wireless devices.

**Work area.** The area that holds the image window and other tools in Photoshop.

**Work path.** A temporary path you create with a pen or shape tool that you can save as a path to reuse later.

**Workspace.** A saved arrangement of the toolbox and palettes onscreen in Photoshop.

**XMP (Extensible Metadata Platform).** A file standard for appending descriptive metadata to a file. Photoshop enables you to save an .XMP file and append it to the File Info for any file.

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