The Photoshop 6 Wow! Book, the benchmark by which all other Photoshop books are judged, delivers creative, timesaving tips and techniques for Web graphics, illustration, photo correction and compositing, painting, and special effects. Packed with stunning new examples of Photoshop artistry, Photoshop 6 Wow! presents real-world, full-color artwork in clear, step-by-step instructions that you can use immediately for your own projects. This new edition shows you how to get the most from Photoshop 6’s redesigned interface, new Shape tools and other vector-based features, improved typesetting, ImageReady’s automated rollover states, and one of the hottest new features — Layer Styles, for instant, elaborate special effects.

The accompanying Wow! CD-ROM is invaluable and could be a best-selling product by itself. It’s loaded with “before and after” tutorial files from the techniques in the book, with layers, adjustments and Styles intact. There are dozens of preset Wow! Layer Styles (like all the “marbles” on this flyer) and improved Actions designed to automate Photoshop creativity and productivity. Also on the CD-ROM are libraries of new Wow! Patterns, Custom Shapes, Gradients, Brushes, and bevel Contours, ready to apply to your own work, as well as an Instructor’s Guide pdf for educators.

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The Photoshop 6 Wow! Book by Linnea Dayton and Jack Davis
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ADOBE PHOTOSHOP, ESPECIALLY IN COMBINATION with Adobe ImageReady, is one of the most powerful visual communication tools ever to appear on the desktop. Together the two programs allow the new generation of information architects to forge ahead in creating on-screen imagery for the Web and other interactive digital delivery systems. Photoshop has also expanded the visual vocabulary of designers, illustrators, and fine artists. And Photoshop makes it much easier for photographers to do the resizing, cropping, and basic color correction of production work, both for print and for the Web. Beyond that, it provides a laboratory for synthesizing textures, patterns, and special effects that can be applied to photos, graphics, video, or film. It can even automate many of these tasks, everything from routine production operations to graphics special effects.

WHAT’S NEW IN PHOTOSHOP 6 & IMAGEREADY 3?
In terms of work processes, the step up to version 6 of Photoshop has the potential to be the biggest improvement since layers were added in Photoshop 3. Photoshop 6 brings numerous improvements that long-time Photoshop users will appreciate, both for creating images and for making production work more efficient. If you’re new to Photoshop, you can consider yourself lucky to be starting out with a version that’s more versatile and potentially easier to use than ever.

Beyond Pixels
Many of the best new features in Photoshop 6 are either vector-based or procedural, which means they’re stored as instructions that define their effects, rather than as pixels, the tiny squares of color that make up a typical photo or painting. Vector-based shapes and procedural effects can be changed without degrading the image, and they take less file space than pixel arrays. Here are some of the new “non-pixel-based” features:

• **Shapes** are **drawing and masking tools** — rectangle, ellipse, polygon, and star — and you can also define or import your own **Custom Shapes**. Because Shape outlines are vector-based — that is, stored as geometric descriptions rather than pixels — you can redraw, stretch, rotate, and otherwise edit them repeatedly, without degrading the edges; as you edit, Photoshop simply changes the geometry in the description and redraws the Shape, so you don’t get the softening and blurring that can happen when pixel-based elements are transformed. When you send your file to a Postscript printer, the Shapes will be printed with the sharpest edge the printing device is capable of.

Shapes can be filled with colors, gradients, or patterns, and can also be used to mask photographs. Chapter 2, “Basic Photoshop Techniques,” and Chapter 7, “Painting & Drawing,” provide the basics of using Shapes, and you’ll find examples of good uses for Shapes throughout the book.
Photoshop 6 shows big improvements in layer effects, now grouped as **Layer Styles**. These are sets of instructions for adding shadows, glows, texture, beveling and other treatments like those shown at the left. First of all, version 6 has **more kinds of effects** than versions 5 and 5.5, such as the new Color, Gradient, and Pattern Overlays used for color fills. Strokes, Textures, and the Satin effect are also new. You can set the numeric options higher for layer effects than before, so you can use these effects on **higher-resolution** images. Equally as important, combinations of layer effects treatments can be saved as preset Layer Styles, so you can apply them to other layers, even to other files. Since Layer Styles are procedural — saved as a set of instructions rather than as pixels — a Style, including all its component effects, can be quickly **scaled** to fit elements of different sizes and shapes, so it's easy to reproduce the same bevel or glow effect on both large and small elements.

Layer Styles are introduced in Chapter 2 (see “Anatomy of a Layer Style”), are also used heavily in Chapter 9, “Special Effects for Type & Graphics,” and are an important ingredient in many other techniques presented in the book.

Photoshop's **typesetting** has also improved. Version 6 gives you easier and more comprehensive character-by-character control of color, more options for setting character width and height, and extensive paragraph composition tools brought over from Adobe InDesign. Text wraps automatically at the end of a line, and there are several alignment and spacing options. The new **Warp Text** command lets you reshape blocks of type to fit within preset “envelopes.”

The basics of using type are covered in Chapter 2, “Basic Photoshop Techniques”; exporting type to page-layout programs is covered in “Silhouetting Images & Type” in Chapter 8; in Chapter 9, “Special Effects for Graphics & Type,” you’ll find numerous examples of coloring, patterning, and dimensioning type; and you’ll find other examples of using type throughout the book.

**New Fill layers** let you assign a color, gradient, or pattern in a procedural way — that is, as a set of instructions rather than an array of colored pixels — so it’s easy to change your fill choice later. Like the adjustment layers familiar from earlier versions, Fill layers can include both pixel-based and new Shape-based masks to control where the color is applied.

**Changes to the User Interface**

The new version of this powerful program is easier to understand and operate. In Photoshop 6 you won’t need as many “secret handshakes,” in the form of helper keys, to get your work done. You’ll find more context-sensitive menus than before. Opened by right-clicking (or Control-clicking on a one-button Mac mouse), these
context-sensitive menus appear right where you need them, and they make it clear what your options are.

Listed here are some of the other interface improvements. In Chapter 1, “Getting the Most out of Photoshop 6,” you’ll find tips for setting up your workspace to take advantage of these and other changes:

- One of the most obvious elements of Photoshop 6’s new interface is the **Options bar**, with its context-sensitive buttons and input fields, both of which change depending on what tool you’re working with. For instance, when you choose a selection tool, four little iconic buttons make it easy to either make a new selection, or add to a current selection, or subtract from it, or select the intersection. These buttons eliminate the need to remember a list of helper keys to use with the tool.

- Overall, the new interface makes **more economical use of screen space**, too, with the slimmed-down Options bar and the ability to dock palettes in its palette well. You can now arrange it so that once you’ve assembled all the palettes you need, there’s still plenty of room left for the image you want to work on!

- The **Preset Manager**, available in the Edit menu, lets you load libraries of preset Gradients, Styles, Patterns, Contours, and Custom Shapes, as well as the familiar Brushes and color Swatches. Many of the presets stored in the Preset Manager can be reached via pop-out palettes in the Options bar. This palette changes to offer the library that’s appropriate for the tool you’re currently using.

- Creating and managing layers, layer masks, and layer effects has gotten easier. Out-in-the-open buttons at the bottom of the **new Layers palette** let you add layer effects or adjustment layers from a pop-out list. You can also color-code and lock layers, and group them into sets that can be manipulated together. Also, individual layer effects appear in the Layers palette for easy access if you want to change them. (You’ll find a thorough description of the improved Layers palette and how to use it in Chapter 2, “Basic Photoshop Techniques.”)

Other Additions and Improvements

A new “widget” in Photoshop 6 is the **Liquify** command. The filterlike Liquify dialog box lets you push pixels around to your heart’s content, warping, twisting, and otherwise distorting an image. As you work, you can protect parts of the image from change. And if you go too far with your changes, you can partially or fully restore the image to its original state. Because of its similarity to Photoshop’s filters, Liquify is covered mainly in Chapter 6, “Using Filters & Liquify.”

Just as important as the brand-new features and the new look for the interface are **improvements to previously existing**
functions — additions and changes that make familiar features work better in this new version:

- **Opening, saving, and printing** have become easier. And Photoshop 6 can open and save **more file formats** than earlier versions, saving layers and paths in TIFF and other formats. (The “File Formats” section of Chapter 1 tells about these additions.)
- New tools for adding written and spoken **notations** let you pass messages along with your image files.
- **Color management** is also improved, to make it easier to get consistent color throughout all parts of your workflow. (See Chapter 3, “Color & Calibration,” for tips on color management.)
- You can do more with **16-bit files**. Now you can use several of Photoshop’s filters without having to reduce the color gamut.
- The **Crop tool** has a **Perspective option**, for straightening out perspective distortion in photographs.
- The **Extract** command has been improved, with **Smart Highlighting** making it easier to separate sharp-edged images from their background. There are two new tools for refining the edges of an extraction, so it’s easier to make an extracted subject look right at home in a new background image, as shown at the left. (The improvements to the Extract command are covered in Chapter 2.)
- Photoshop 6 makes it easier than ever to automate production tasks. Improvements to **Actions** let you record more tools, include Actions within other Actions, and set up a Batch Action to serially name and number files as they are saved. You can also turn an Action into a **droplet**, a little program with its own icon, that lets you apply an Action to a file or group of files simply by dragging and dropping them onto the droplet icon.

Other automation improvements include more layout templates and better control of type for **Contact Sheet II, Web Photo Gallery, and Picture Package**. (Photoshop’s automated functions are covered in Chapter 1.)

- Many of the functions that affect edges — such as Contract, Expand, Smooth, Border, and Defringe, as well as several of the filters, have **larger maximum settings**. So, like layer effects, they now work well with higher-resolution images.
- **Slicing** functions and optimization features that before were found only in ImageReady are now also available in Photoshop, as described in Chapter 10, “The Web & Motion Graphics.”

**Improvements to ImageReady**

ImageReady 3, Photoshop’s Web-optimization and animation side-kick, supports all the new features of Photoshop 6, including the new layer effects and the improvements to type. It’s now easier to
KEYBOARD SHORTCUTS
In this book the keyboard short-cuts are given with the Windows modifier key first, followed by a slash and then the Mac modifier key. So, for instance, “Ctrl/⌘-R” means “hold down the Windows Ctrl key (called the ‘Control’ key) or the Mac ⌘ key (called the ‘Command’ key) as you press the ‘R’ key.”

INTRODUCTION
move back and forth between Photoshop and ImageReady, and to go from either program directly to the Adobe GoLive website-creation program. Version 3 of ImageReady provides weighted optimization using alpha channels to control which parts of an image are considered most important for color preservation when file size is reduced by limiting the number of colors. Version 3 also adds new tools for creating image maps and for animating warped type, and shows improvements in virtually all of its core functions: file compression, HTML code generation, slicing controls, rollover creation (several preset rollover styles are provided), and preview in a browser. (ImageReady is covered primarily in Chapter 10, “The Web & Motion Graphics.”)

HOW TO USE THIS BOOK
The aim of The Photoshop 6 Wow! Book is to provide the kind of inspirational examples and practical “nuts-and-bolts” info that will help you maximize the program’s performance and your own creativity and productivity with it.

You’ll find six kinds of information in this book: (1) basic information about how Photoshop’s tools and functions work, (2) short tips for making your work quicker and easier, (3) step-by-step techniques for particular kinds of projects, (4) Galleries of work done by experienced Photoshop artists, (5) illustrated lists or “cata-
logs,” and (6) the Wow! CD-ROM.

You’ll find the Basics sections at the beginning of each of the ten chapters of this book. Most of the chapter introductions are short, with most of the “meat” of the chapter in the techniques sections that follow. The exceptions are Chapters 1 and 2, which cover the fundamentals of using Photoshop 6.

Whether or not you start by reading Chapters 1 and 2, at some point you’re going to come up against the need for some “Photoshop fundamentals.” When you do, here’s where to look:

• To maximize your efficiency, the “Working Smart” section of Chapter 1 tells how to stock your system with RAM and disk storage space, how to construct your files to give yourself as many options for change as possible, and how to recover from mistakes.

• To learn how to scan a photo or artwork so you get enough information to make a good print, read “Setting Up a Scan” starting on page 32.

• To get the color you expect when you print, read “Getting Consistent Color” on page 70.

• For a quick tutorial on how Layer Styles work to produce special effects, see “Anatomy of a Layer Style” on page 62, and then try out the techniques in Chapter 9, “Special Effects for Type & Graphics.”
To find out how to make a clean selection of part of an image without spending all day at it, read “Making Selections” and “Modifying Selections” in Chapter 2.

To learn how to choose component images and make them work together in a seamless montage, read “Extracting an Image” starting on page 52.

For a quick tutorial on using layer masks to combine several elements, see “Using Layer Masks in Photo Compositing” in Chapter 2.

To set up assembly-line production and reliable repeatability, read “Automating with Actions,” starting on page 27 in Chapter 1.

To decide which web-preparation tasks to do in Photoshop and which in ImageReady, see Chapter 10, “The Web & Motion Graphics.”

To collect the kind of hands-on information that can make you instantly more efficient, flip through the book and scan the Tips. You can easily identify them by the gray title bar on top. The tips are nuggets of information related to the main text. But each one also stands on its own, and you can pick up a lot of useful information quickly by flipping through the book and reading them. You can identify tips about keyboard shortcuts by the yellow background behind them.

Each Technique, presented in 1 to 6 pages, is designed to give you enough step-by-step information so you can carry it out in Photoshop. Our goal was to provide enough written and pictorial instructions so you wouldn’t have to hunt through the Adobe Photoshop User Guide or continuously consult Photoshop’s online Help to follow the steps. But to spare you a lot of repetition, we’ve assumed you know the basic Windows or Mac interface — how to open and save files, for instance. Some of the techniques are simple and introductory; others are more advanced and challenging. If something isn’t clear to you, you may find it helpful to go back to review Chapters 1 and 2, as well as the introductory pages for the chapter you’re working in.

Where possible, “Before” and “After” versions of the files used in the techniques have been provided on the Wow CD-ROM in the pocket at the back of the book. You can use these files to follow the steps and check your results, before trying the techniques on other images.

The techniques sections are more like recipes than like TV dinners — you follow the directions to combine the ingredients. When you want the equivalent of a microwavable meal, turn to the automated Wow Styles or Wow Actions on the CD-ROM. After you’ve enjoyed a no-fuss-no-muss Style or Action, you can dissect
the resulting file along with the Style or Action itself, to learn about that particular technique and about making Styles or Actions.

As you work with Photoshop 6, you’ll notice that there seem to be at least a dozen ways to do everything — you can choose from a menu, use a keyboard shortcut, or click in the customizable Actions palette; you can cut and paste, or drag and drop; you can combine images using layer masks or blend modes or both; you can apply color adjustments or special effects directly, or add adjustment layers or a Layer Style to do it. Because of the variety of possibilities, you’ll find varied approaches used in the techniques sections, so you’ll get a broad exposure to the different ways Photoshop can work. But, in general, the methods that are presented are the most efficient and effective — approaches that will save you time, produce top-quality results, and leave you with the most flexibility to make the inevitable last-minute changes.

4 The images in the Galleries are for inspiration. Their captions also include a lot of useful information about how the artwork was produced. Many of the methods mentioned in the Galleries are described more fully elsewhere in the book. Check the index if you need help finding a particular technique.

5 Throughout the book are illustrated “catalogs” of options for image treatments, such as “Filtered Frames” in Chapter 6, “Art History Treatments” in Chapter 7, and “Wow Layer Styles” in Chapter 9.

6 Don’t miss the Wow CD-ROM with its “Before” and “After” files; the Wow Styles, Gradients, Patterns, Shapes, and Contours; and the Wow Actions, as well as demo programs.

In response to requests from readers of earlier editions, the “Study Guide” pages in Acrobat PDF form on the Wow CD-ROM include suggestions for using The Photoshop 6 Wow! Book and CD-ROM either for teaching classes in computerized imagery and design with Photoshop 6, or for self-paced exploration and mastery of the program.

Experiment! The aim of this book is to get you started using the tools if you’re new at it, and to give you some new insight and ideas if you’re an old hand. As you read the book and try out the tips, techniques, Styles and Actions, we hope you’ll use them as a jumping off place for your own fearless experimentation.
Extracting an Image

Overview Use the Extract command to select the subject from the background; to improve the edge of the extracted subject, make a layer mask from the extracted subject’s transparency mask and then modify the mask; import the new background; use adjustment layers, with masks if needed, to modify the color of the ambient and directional lighting to make the two layers match.

When you want to combine a subject from one photo with a background from another, one of the main tasks is making a clean selection of the subject from its original background. If you’re working with a portrait, that usually means solving “the hair problem”: How do you make a selection that separates the hair from the background with a result that looks natural instead of too smooth or too spiky? There’s no simple one-size-fits-all solution to this problem. The approach that works best depends on whether the hair color contrasts strongly with the background, and whether the wisps of hair are in sharp focus or soft, among other things. But Photoshop 6’s Extract command has three improvements over past versions that can make it easier to select a subject: (1) the Smart Highlighting function makes the Edge Highlighter tool automatically follow the edge; (2) the Cleanup tool can subtract from or add to an extracted image; and (3) the Edge Touchup tool sharpens and smooths soft or rough edges of an extraction. (For more about using the Extract command, see “Extraction Pointers” (opposite) and “Extracting” on page 33.

Even when the hair problem is solved and the selection is made, there are other important factors that will help to make the subject at home in its new environment so the composite will be convincing:
- The ambient lighting, most evident in the color and density of the shadows, has to look the same for both the subject and the background.
• The directional lighting also has to be consistent.
• The depth of focus has to look realistic. If the subject is entirely sharp and in focus, the background can be either in focus or blurred. But if the subject shows a short depth of field, with some parts in sharp focus and others soft, the background will need to be soft.
• The film grain or “noise” in the component images has to match (Simulating or adjusting film grain is covered in “Blurring the Background, but Keeping the Grain” on pages 191–194).

1 Analyzing the photos. Select the two photos you want to combine, and crop if necessary. In choosing the subject and background, look for images whose lighting doesn’t “fight” uncontrollably. The sunset sky we chose for our ad image had ambient lighting that was opposite in color from the lighting in our portrait — a warm golden brown instead of a cool green. But we knew we would be able to fix this difference by adjusting the color of the green-tinted highlights in the portrait (in step 5). The direction of the lighting in the background photo was straight into the camera, so there was nothing to conflict with the basic directional lighting in the portrait, which came from behind the woman and from her left (notice the highlights on the shoulders). So we were confident that the two images could be made into a convincing composite.

2 Starting the extraction. The Extract command (Image, Extract) is often Photoshop’s best tool for solving the hair problem and other selection bugaboos. But using this command is a “destructive” process — it permanently removes pixels. So before you Extract, duplicate your image layer for safekeeping by dragging its name in the Layers palette to the Create New Layer button at the bottom of the palette. (Alternatively, you could make a Snapshot in the History palette as described on page 30, but History doesn’t persist beyond the current working session, so the extra layer is safer.) Click the eye icon of the bottom image layer to turn off its visibility so you’ll be able to see the result of your extraction.

Next open the Extract dialog box (the shortcut is Ctrl-Alt-X in Windows, ⌘-Option-X on the Mac). Choose a color from the pop-out Highlight menu. We changed the default Green to Red, since the background of the photo was green.

With the Edge Highlighter tool chosen, set the Brush Size: A large brush works well for soft or fuzzy edges. We chose a

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**EXTRACTION POINTERS**

Here are some general rules of procedure for highlighting the edge when you use the Extract command (Image, Extract) to isolate a subject from a background:

1. Some edges may be “fuzzy” because they are partly out of focus or partially transparent, or because they include highlights or shadows that have picked up color from the background. Typical edges of this kind include wisps of hair against a background, or tree leaves or blades of grass against the sky. To highlight fuzzy edges, use the Edge Highlighter tool with a broad brush (a large Brush Size setting).

2. Where the edge you want to select is distinct and high-contrast, turn on the Smart Highlighting option for the Edge Highlighter.

3. After you’ve surrounded the subject with highlight, filled the highlight with the Fill tool, and turned on Preview, use the Cleanup tool in spots where you want to take away from the extracted image and make it more transparent. Use the Cleanup tool with the Alt/Option key held down where you want to restore the image so it’s more opaque.

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**NAVIGATING THE PREVIEW**

To temporarily turn on navigation tools without dropping the Edge Highlighter, use these keyboard shortcuts:

- Hold down the spacebar for the Hand tool, to scroll around the image.
- Hold down Ctrl/⌘-spacebar for the Zoom tool and click to magnify the image.
- Hold down Ctrl-Alt-spacebar (Windows) or ⌘-Option-spacebar (Mac) and click to zoom out.
relatively large Brush Size (40) to select the hair. Although on first inspection the contrast between the green background and the black hair looks strong, the depth of field for this photo is very short, so some of the hair is out-of-focus and soft; also, the green background has created green highlights in the hair. A large brush would allow us to drag along the edge quickly, catching all the fine curls of hair in one sweep. Drag the Edge Highlighter to draw a highlight that overlaps both the subject and the background at its edge 2b. This highlight defines the band where the Extract function will look for the edge when it selects the subject. In the extraction process, anything within the highlight band can be made transparent. In our image the broad strokes would help with selecting the fine detail, and would allow the hair to be selected as partially transparent, without the color cast from the background. When the extracted image was put against the new background, this semi-transparency of the hair would allow the new background to add its own color cast.

A smaller brush is better for a hard edge, or if there are two edges close together. In our image, we could use a small brush to make a sharp selection of the left side of the neck. But instead of resetting the Brush Size, we clicked the Smart Highlighting checkbox 2c. With Smart Highlighting turned on, the cursor changes 2d and Edge Highlighter becomes “magnetic,” automatically clinging to the edge as you drag the tool and automatically narrowing the brush whenever possible.

In our portrait there were really two high-contrast edges on the woman’s profile — the green-against-white edge between the background and the white-against-brown edge between highlight and normal skin tone. We zoomed in as described in the “Navigating the Preview” tip on page 53 for a close-up, in order to

**REPAIRS ON-THE-FLY**

If you make a mistake with the Edge Highlighter and have to make a repair:

- You can quickly add by dragging the tool back over an area you missed.
- Or to remove some of the edge material you’ve applied, hold down the Alt/Option key to temporarily turn the Edge Highlighter into the Eraser.

**CHANGING BRUSH SIZE**

The control keys for resizing the brush tip for the Edge Highlighter, Cleanup, and Edge Touchup tools in the Extract dialog box are the same as for Photoshop’s painting tools: You can use the bracket keys to increase or decrease brush size as you work by pressing “[“ to shrink the brush, or “]” to enlarge it.

**THE DUMB/SMART TOGGLE**

Unfortunately, “Smart Highlighting” is really only smart about sharp, high-contrast edges. So as you drag from an area with a high-contrast edge to an area of low contrast, you’ll need to turn off Smart Highlighting and operate the Edge Highlighter “by hand.” Holding down the Ctrl/⌘ key automatically switches out of Smart Highlighting if you have it turned on, or switches into it if you have it turned off. Then release the key to toggle back again.
follow the edge. We had to switch back to “manual” operation of the Edge Highlighter (by holding down the Ctrl/⌘ key) to follow the highlight on the shoulders in order to “tell” the Edge Highlighter that we wanted to keep, not cut away, the hot white edges. Left to its own devices, Smart Highlighting would have followed the higher-contrast edge between the white highlight and the darker skin.

The highlighting is complete when the subject is entirely enclosed within the highlight, except that you don’t have to drag along the outside edges of the image. For instance, in this photo the highlight extended from the point where the shoulder intersects the bottom edge of the photo on the left, up and around the profile to the right, and over to where the other shoulder reaches the right edge of the photo.

3 Completing the extraction. Before you can preview the selection you’ve made with the Edge Highlighter, you need to add a fill. Select the Extract box’s Fill tool and click inside your highlight to fill the enclosed area and make the Preview button available. In the Extraction section of the dialog box, you can set the Smooth value to 100 to make an extraction with as little “debris” at the edge as possible; you’ll be able to smooth it more later with the Edge Touchup tool if needed, as described below. Click the Preview button to make the background disappear.

In the Preview section at the bottom of the dialog box, you can change the Display setting to a color that contrasts with the original background of the photo. This will give you the best indication of how good your extraction is. If you don’t find a workable color in the Display menu, choose Other and pick a color; we picked a red to contrast with the original green. By switching back and forth between Show Extracted and Show Original in the Preview section, you can compare the extracted edge with the original.

To make repairs, in the Extracted view use the Cleanup tool (“C” is the keyboard shortcut) on the edge to erase excess material. What’s really exciting is that you can also use the Cleanup tool with the Alt/Option key held down, to bring back material that was lost in the extraction. Besides using the bracket tools to change brush size, you can change the pressure (or opacity) of the tool as you work by pressing the number keys (“1” through “9” for 10% to 90%, and “0” for 100%). Use a low opacity setting for a softened edge. In general, using a fairly low opacity and “scrubbing” with the tool gives good results. The Edge Touchup tool can be used to smooth the edge. It automatically removes or consolidates edge pixel debris.

As you touch up the edge and get ready to leave the Extract dialog box, keep in mind that it’s better to have too much image material than not enough, because you can further trim the edge after extraction (as described in step 4), but it can be a lot harder to add back. When you’ve examined and fine-tuned the entire edge as well as you can, click OK to finalize the extraction and close the Extract dialog box.
4 Combining the subject with the new background. Use the Move tool to drag and drop the new background image into the portrait file; then drag the imported layer’s name in the Layers palette to a position under the extracted layer 4a. Use the Move tool to reposition the image if you like. Or scale it by pressing Ctrl/\-T (for Edit, Free Transform) and dragging a corner handle. You can also blur the image (Filter, Blur, Gaussian Blur) to soften the focus if needed, as we did here.

Now that the new background is in place, you may want to further refine the edge of your extracted subject. A flexible, nondestructive way to do that is to make a layer mask that exactly fits the subject and then modify the edge of the mask. First make a selection by loading the transparency mask that’s inherent in the subject layer (Ctrl/\-click on the layer’s thumbnail in the Layers palette) 4b. Then add the layer mask (click the Add Layer Mask icon at the bottom of the palette) 4c. Because of the semi-transparency at the edge of the transparency mask, the layer mask that you’ve made from it will automatically be a bit smaller than the transparency mask, so the layer mask will trim the edge slightly. This change by itself may smooth the edge or get rid of unwanted background color 4d.

If you need to refine the edge further, you can now paint black on the layer mask to hide more of the extracted image (try the Airbrush with a low Pressure setting). Or use the Blur tool on areas of the edge that you want to soften; we did this for the sweater on the shoulders. Or use Filter, Blur, Gaussian Blur to soften the entire edge 4e, or just a selected part of it. If you don’t like what your painting or blurring did, paint on the mask with white to restore parts of the original extraction edge.

5 Adjusting the ambient lighting. Now you can make changes to the color and intensity of the lighting to make the subject look more at home in the background. To add the warm sunset glow to the ambient lighting of the portrait, we created an adjustment layer that we could use like a photographic gel. Because we knew what blend mode and Opacity we wanted to try, we held down the Alt/Option key as we clicked the Create New Adjustment Layer button (the black-and-white circle) at the bottom of the Layers palette and chose Hue/Saturation Layer from the pop-up menu. (Alt/Option-clicking brings up the New Layer dialog box.) We chose Soft Light for the mode (so we could add a tint without overwhelming the existing color) and set the Opacity at 75% as a first try. We also clicked the Group With Previous Layer box to form a clipping group so the color adjustment would affect only the subject, not the background image 5a (“Organizing Layers” on page 38 tells more about grouping layers). Clicking OK opened the Hue/Saturation dialog box, where we clicked the Colorize checkbox (so the adjustment layer would act like a sheet of clear, colored plastic over the image) and made sure Preview was selected (so we could see the change in the
image as we experimented with the sliders). We shifted the Hue to warm up the ambient light. We also reduced the Lightness since the strong backlighting would naturally put the subject more in shadow 5b. (Although in reality the entire face would be shaded, for our ad we limited the adjustment to the shadow tones, leaving the midtones and highlights bright enough to print well 5c, 5d).

This was accomplished by using the Advanced Blending option in the Layer Style dialog box (“Combining Interior Effects” on page 63 tells more about using the powerful Advanced Blending options).

6 Modifying the directional light. Next we used another adjustment layer, with a mask, to expand, soften, and color the highlight areas, so warm yellow light would spill over the edges of the face and shoulders. First we made a soft selection of the highlighted edges, as follows: We again loaded the subject layer’s transparency mask as a selection (by Ctrl/−clicking its thumbnail in the Layers palette. We shrunk this selection inward (Select, Modify, Contract, using a setting of 10 for our 1000-pixel-wide image). We softened the selection (Select, Feather, using the same 10-pixel setting as we had for the Contract command), and then inverted it (Select, Inverse, or Ctrl/−Shift-I), to select just the outer edge of the subject 6a. We again Alt/Option-clicked the Create New Adjustment Layer icon and made another Hue/Saturation layer, again choosing Group With Previous Layer to add to the clipping group. We reduced the Opacity, but this time we used Overlay mode to exaggerate the contrast of the colors. We turned on the Colorize option, adjusted the Hue (to a setting of 40), and boosted the Saturation to 100. Our selection automatically became a mask for the new adjustment layer 6b, which changed the color only at the edge of the face and shoulders, where the soft edge of the white part of the mask allowed the adjustment to affect the subject (see the final image on page 52).
Anatomy of a Layer Style

The Layer Style dialog box offers almost limitless combinations of settings within the 10 layer effects listed at the left side of the box. The names of the effects tell you the obvious ways you can use them, but the names don’t come close to describing their potential for image manipulation and blending.

These two pages explain how the Wow-Plastic-Clear Blue Layer Style (used in “Clear Plastic” on page 70) was built and how its component effects work. To explore the individual settings for the effects, open the Plastic P-After.psd file on the Wow CD-ROM, then open the Layers palette and double-click the “f” symbol next to the “P” layer’s name to open the Layer Style dialog box. Click on the names of the individual effects listed at the left side of the box to see the settings for each effect.

For more about creating and using Styles, see “Layer Style Basics” on page 60.

For the Wow-Plastic-Clear Blue Layer Style we used 7 of the 10 effects that are possible in Photoshop 6. The effects were applied in the order shown on the next three pages.
The Inner Shadow effect, a blurred offset copy that's inside the edge, was used here to help round the edges of the “P.” We made a soft transition for a gentle rounding (the Size setting controls how soft, or diffuse, a blurred effect will be). So that it would darken the color already established by the Color Overlay, we left the Inner Shadow in its default Multiply mode. We made sure the Use Global Light box was checked so the Angle would be the Angle we had set in step 3).

Skipping the Outer Glow until step 9, we next added an Inner Glow. To enhance the rounding of the edge, we changed the mode to Multiply and used approximately the same blue as for the Inner Glow. The Inner Glow darkens the shading already established inside the “P” by the Inner Shadow. But unlike the Inner Shadow, the Inner Glow is not an offset effect, so it also darkens the edge areas that were not shaded by the Inner Shadow — for example, the lower edges of the “P.”

Next we used the Bevel And Emboss effect, not for bevelling but to add reflective highlights on the surface of the “P.” Working in the Inner Bevel section of the dialog box, we used the default white Highlight. But we effectively turned off the Shadow by setting its Opacity at 0. Changing the Altitude setting to 67° was very important, because it pulled the highlight off the top edge and onto the front surface of the plastic “P.”

CONTROLLING TRANSPARENCY
To reduce the opacity of a layer that you’ve treated with a Color Overlay layer effect, use the Fill Opacity control in the Advanced Blending area of the Layer Style dialog box, rather than the Opacity control for that layer in the Layers palette. That way you can make the interior of the elements on the layer more transparent without reducing the intensity of the of the other effects in the Layer Style.

COMBINING INTERIOR EFFECTS
For a Layer Style that depends on the interaction of Color Overlay, Satin, and Inner Glow, be sure to check the Blend Interior Effects As Group option in the Advanced Blending section of the Layer Style dialog box. This will determine how the combined effects respond to adjustment layers, clipping groups, and other externally applied changes.
SMART SCALING

Whenever you apply a preset Layer Style, be sure that the first thing you do is to scale it to fit. This is necessary because if the Style was designed for a different-size element than the one you’re applying it to, it will look entirely different until you resize it.

In Photoshop 6 there’s no need to tackle the nearly impossible task of resetting the values for each individual effect, checking the resulting interactions of the effects at each step. Instead, simply choose Layer, Layer Style, Scale Effects (or right-click the Effects line in the Layers palette to bring up a context-sensitive menu where you can choose Scale Effects; Control-click the Effects line if you’re using a Mac without a two-button mouse). Now watch the changes in your image as you adjust the Scale slider.

The Scale Effects command doesn’t affect Pattern Overlay or the Texture component of Bevel And Emboss (since Texture is based on pattern); Gradient Overlay and, of course, Color Overlay are also independent of Scale.

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We clicked the Contour checkbox under Bevel And Emboss in the list of effects. We clicked the Contour thumbnail, and customized the curve as shown above. We also changed the Range to 90%. These changes narrowed the highlight, pulling it up and off the top edge even more, so it looked even more like a reflection on the front surface of the “P.”

The Satin effect was applied in light blue in Overlay mode, creating an offset, manipulated copy of the “P.” The Distance setting scaled the copy, reducing it vertically because of the 90° Angle setting; the Size setting made the effect subtler by blurring the copy. We clicked the little triangle to the right of the Contour thumbnail and chose a Contour (called “Ring”) “that provides light-dark-light variation, making it look as if light is bouncing around inside the thick plastic shape.

Finally, the Outer Glow effect in light blue was applied in its default Screen mode. The result was to lighten and color the Drop Shadow close to the edge of the “P.” This makes it look as if light is being focused through the plastic, lightening the shadow beneath.

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The Wow-Plastic-Clear Blue Style looks very different (top left) until it’s rescaled to fit the buttons (top right).
Framing with Masks

Overview
Inside your image make a rectangular selection of the area that you want to frame; make a layer mask from the selection; blur the mask; experiment with black and white backgrounds behind the image; for variations apply filters to the layer mask.

It's easy to create custom edge treatments for photos by making a layer mask to define the area you want to frame, then blurring the black-and-white mask to create soft edges that blend into the page. As shown above, you can also create a well-defined, “dark-haloed” edge for the image within the soft vignetting.

1 Creating the layer mask. Open an image 1a and open the Layers palette (Window, Show Layers). If your image consists of a single Background layer, you’ll need to turn it into a layer with the capacity for transparency so that it can have a layer mask: Double-click the Background label in the Layers palette; in the New Layer dialog box, rename the layer if you’d like and click OK.

To add a layer mask, first choose the Rectangular Marquee tool (the keyboard shortcut is “M”) and dragging to select the part of the image you want to frame; make sure your selection is far enough inside your image so that any soft vignetting will not hit the edge of the file. Then turn the selection into a layer mask by clicking the Add A Mask button at the bottom of the Layers palette 1b. (Before you modify the mask in the next step, store the frame shape for safekeeping: Open the Channels palette [Window, Show Channels] and drag the Layer Mask name to the Create New Channel button at the bottom of the palette.)

2 Softening the edges. Adding a white-filled layer below the image layer will give you a better look at the frame edges as you develop them: Alt/Option click the Create A New Layer button at the
CHAPTER 4: RETOUCHING & ENHANCING PHOTOS

IMAGE SWAPPING

Once you have a framing file set up, it’s easy to experiment with the same frame and another image of similar size: Start by targeting the image-and-mask layer and then drag-and-drop your new image into the file. Then press Ctrl/G to make a clipping group of the new image layer and the masked layer below.

IMAGE SWAPPING

Once you have a framing file set up, it’s easy to experiment with the same frame and another image of similar size: Start by targeting the image-and-mask layer and then drag-and-drop your new image into the file. Then press Ctrl/G to make a clipping group of the new image layer and the masked layer below.

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Filtered Frames

Each of the examples shown on these two pages was made by running a filter on a layer mask in a 560-pixel-wide file built in the same way as the one in the “Framing with Masks” technique on pages 84–85. The layer mask was Gaussian-blurred with a Radius of 20 pixels; the black backing layer was blurred with a Radius of 2 pixels. Some filters, such as the Texturizer, create their texture even in the white areas of the mask, which affects the image as well as the edges.

Artistic: Rough Pastels (Stroke Length, 10; Stroke Detail, 10; Texture, Canvas; Scaling, 100%; Relief: 20; Light Dir., Top Left)

Distort: Twirl (Angle, 400°)

Distort: Twirl (Angle, 999°)

Adding a Layer Style

If you add a Layer Style to the image-and-mask layer, the effects in the Style will be built using the edge of the layer mask.

Pixelate: Color Halftone (Max. Radius, 5; all Screen Angles, 45)

Brush Strokes: Sprayed Strokes (Stroke Length, 12; Spray Radius, 20; Stroke Dir: Right Diagonal)
CHAPTER 6: USING FILTERS AND LIQUIFY

Distort: Ocean Ripple (Ripple Size, 1; Ripple Magnitude, 12)

Brush Strokes: Spatter (Spray Radius, 15; Smoothness, 5)

Sketch: Halftone Pattern (Pattern Type, Line; Size, 1; Contrast, 25)

Sketch: Water Paper (Fiber Length, 50; Brightness, 50; Contrast, 75)

Texture: Grain (Grain Type, Horizontal; Intensity, 65; Contrast, 75)

Texture: Texturizer (Texture, Canvas; Scaling, 125%; Relief, 10%; Light Dir., Top)
Silhouetting Images and Type

Overview Make a clipping path for the subject you want to silhouette; save a copy of the file using the clipping path; set or import type and add a Layer Style; add a color-filled layer below the type; convert the type to a Shape layer; make a permanent path from the Shape layer; make the path into a clipping path.

With version 6’s new type controls and its special effects that can be applied through Layer Styles, it’s easy to create illustrative display type right in Photoshop. Version 6 also lets you export the display type for use in a page layout program, with perfectly smooth, razor-sharp edges based on the vector outlines of the type. Since it’s also possible to eliminate the background when exporting images, you can now export a “backgroundless” photo and type to go with it, so it makes sense to use Photoshop to arrange the basic composition of silhouetted photo and type, and then export the photo and type separately — each with its own clipping path. That way, you’ll be able to further tweak the composition in your page layout — for instance, putting the type behind the image or in front of it, or arranging both on a custom background. There are a few tricks you can use to make the “clipping” work perfectly, including conversion of the type to a Shape layer and conversion of the Shape to a clipping path.

1 Selecting the subject of the photo. Open the photo whose subject you want to silhouette. Since your aim is to create a clipping path, the best way to select the subject may be with the Pen, which draws paths. (The Magnetic Pen can be helpful in automating the selection task; you can choose it by clicking the Freeform Pen tool in the Pen pop-out in the Toolbox and then choosing Magnetic in the Options bar.) Though other kinds of selections can be converted to paths, the fit will not be as good as with a path created and fine-tuned with one or more of the Pen tools.

After we made our initial outline with the Pen 1a, we refined the fit by moving points, curve segments, or direction line handles with the Direct Selection tool (the hollow arrowhead in the Toolbox; press Shift-A to reach it) 1b. We also added more points where we needed them; the Pen automatically becomes the Add Anchor Point tool when you move its cursor onto a curve segment, where you can then click to add a point. (For more about operating the Pen tools, see “Drawing” on page 210.)
2 **Making a clipping path for the subject.** When you've finished drawing and editing the path, name it and make it permanent: Double-click on the Work Path name in the Paths palette to open the Save Path dialog box, type a descriptive name, and click OK 2a. In the Paths palette, choose Clipping Path from the pop-out menu 2b. Select your new path from the Path list. You can leave the Flatness setting blank so that the imagesetter will set it appropriately for the output resolution. When you click OK, the name of this path will be outlined in the Paths palette, indicating that it's the clipping path to be used for export 2c. Finally, choose File, Save As, Save: As A Copy and save the file as a TIFF, a format that's commonly used by page layout programs and that supports a clipping path 2d.

3 **Setting the type.** Choose the Type tool and click the Palettes button in the Options bar to open the Character palette. There you can control the color, size, tracking, kerning, leading, stretch, and baseline shift. We typed our title in three lines, using the Return key to start each new line. We condensed the type by setting the character width to 60%. To “bounce” the individual characters, we selected each one and adjusted the baseline shift (the setting in the lower left corner of the Character palette) 3a, 3b.

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**IMPORTING TYPE FROM ILLUSTRATOR**

You can use Adobe Illustrator's extensive facilities for setting and manipulating type, and then import your type as a Shape layer in Photoshop 6: Set and customize the type in Illustrator, select it, and choose Edit, Copy. Then in Photoshop, choose Edit, Paste, Paste As: Shape Layer. Though the import won't be editable as type, it will retain its vector-based curves as it's imported as a Shape layer.

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4 **Adding a Layer Style to the type.** To add special effects to the type:

- Click the Add A Layer Style button (the “f”) at the bottom of the Layers palette and choose an effect from the pop-out menu. Then work within the Layer Style dialog box to customize that effect and set up others as well.
- Or click on one of the thumbnails in the Styles palette to apply a Layer Style (a preset mix of effects). We used “Wow-Bevel-1” from the Wow! Layer Styles on the CD-ROM that comes with this book 4a.

Whether you build your own Layer Style or use a preset, keep in mind that any effect that extends beyond the actual type edges will
be eliminated when you “clip” the type to export it (in step 7). So, for instance, drop shadows, outer glows, and outer bevels will be removed. Once your Layer Style has been applied, you can turn off visibility for the photo layer (by clicking in the Eye column) to view the type alone 4b.

(We added the Layer Style to the type before converting the type to a Shape layer. But it isn’t crucial that you do it in this order. Instead, you can convert the type to a Shape layer first and then add the Layer Style.)

**5 Adding a color layer to protect the edges.** Before you turn your display type into a path that can be used for export, it’s a good idea to create a color-filled layer directly below the display type layer. Filling this layer with the same color as the body of the type will ensure that any semi-transparent pixels at the edges of the letters will pick up a matching color, rather than a potentially contrasting color from the photo. (The same technique will work if you’re creating your type without a photo underneath.) To do this, activate the layer that’s currently below the type layer by clicking its name in the Layers palette. Then click the Create New Layer button at the bottom of the palette. Choose the Eyedropper tool, and in the Options bar choose “5 by 5 Average” from the pop-out Sample Size menu 5a; this will “average” any color variations in the area you sample. Then click in the body of the type, and press Alt/Option-Delete to fill the new layer with the chosen color 5b.

**6 Converting the type to a Shape layer.** You may want to further modify the characters in the display type, making changes that aren’t possible with live type (as described next, in step 7). To do this, first convert the type layer to a Shape layer (choose Layer, Type, Convert To Shape) 6a. Notice that the appearance of the layer’s thumbnail changes in the Layers palette. Also, as long as the Shape layer is the active layer, the display type outlines now appear as an entry in the Paths palette, with the name in italics and the term “clipping path” as part of the name 6b. (Note: The Paths palette can be confusing because it uses the term “clipping path” in two different ways — to refer to the outline information in a Shape layer, and to refer to the path used to eliminate the background when you export an image for use in another program. For an explanation, see “Understanding the Paths Palette” on page 211.)

**7 Modifying the shape outlines.** Before making a clipping path from the Shape layer, you can use the Path Component Selection tool (the solid arrow in the Toolbox) to modify the letter shapes: Click on an individual letter to select its outline, and then make changes. For instance, to slightly rotate individual letters such as the first “e” in “Wheel,” we clicked on the letter and then chose Edit, Free Transform Path (Ctrl/⌘-T) and dragged outside the upper
right corner handle in a counterclockwise direction 7. Pressing the Enter key completed the transformation. (Note: It’s important to make any transformations now, before the Shape information is turned into a permanent path in step 8. If you try to make the changes to the permanent path instead of the Shape information, the clipping path that you generate in step 8 won’t match the transformed letters.)

8 Making a clipping path for the display type. Once the transformation is complete, you’ll need to save the Shape information as a permanent path, or you won’t be able to use it as a clipping path for export. To turn the Shape information into a permanent path, double-click the italicized path name for your Shape layer in the Paths palette, and use the Save Path dialog box as you did in step 2. We called our new path “Type Path” 8a.

Next make a clipping path for export by choosing Clipping Path from the Paths palette’s pop-out menu 8b. As in step 2, save the file as a TIFF, choosing a different name for the new file.

9 Arranging the elements in a page layout. Open your page layout program (we used Adobe PageMaker) and import the two copies of the file that you saved in steps 2 and 8. Now you can arrange the two imports to match your Photoshop composition, and then freely experiment with changes to the layout by moving one or both elements or changing their “stacking order” to move one in front of the other 9.