

Four-Color Movie Ad

Tantamount Studios, one of the largest film production companies in Hollywood, is developing a new movie called "Forefathers." You have been hired to develop advertisements that will be used to announce the movie in several different trade magazines.

This project incorporates the following skills:

- Creating a background image that can accommodate multiple trim sizes in a single file
- Incorporating vector graphics as rasterized layers and Smart Objects
- Compositing multiple photographs and scans, using various techniques to silhouette the focal object in each image
- Scaling and aligning different objects in relation to the page and to each other
- Managing individual layout elements using layers and layer groups
- Working with multi-layer and flattened files
- Saving multiple versions of a file to meet different output requirements



Project Meeting

client comments

Here's a basic synopsis of the movie:

Most American history books teach us that our "forefathers" were esteemed, venerable men who crafted the United States out of lofty and respected ideals. But there's an old saying that history is written by the victors... In other words, who were these men really, and exactly how honorable were they? The movie is about the events during and after the American Revolution — not the war itself, but the personal aspects that drove these individuals to do what they did. It's not a war movie, and it's not a political movie. It's more a study of the human condition... How greed and power can corrupt even the most idealistic of men.

This movie is going to be one of our summer blockbusters, and we're throwing a lot of resources behind it. We'll be putting the same ad in multiple magazines, and they all have slightly different page sizes. We've forwarded the advertising specs for two of them to your art director, since those are the only ones we have right now.

art director comments

The client loved the initial concept sketch I submitted last week, so we're ready to start building the files. I've had the photographer prepare the images we need, and the client has provided the studio and rating logo files. They also sent me the two magazines' specs:

Magazine 1

- Files should be submitted as native layout files or layered TIFF; CMYK only
- Bleed size: 8.75 × 11.25"
- Trim size: 8.5 × 11"
- Live area: 8 × 10.5"

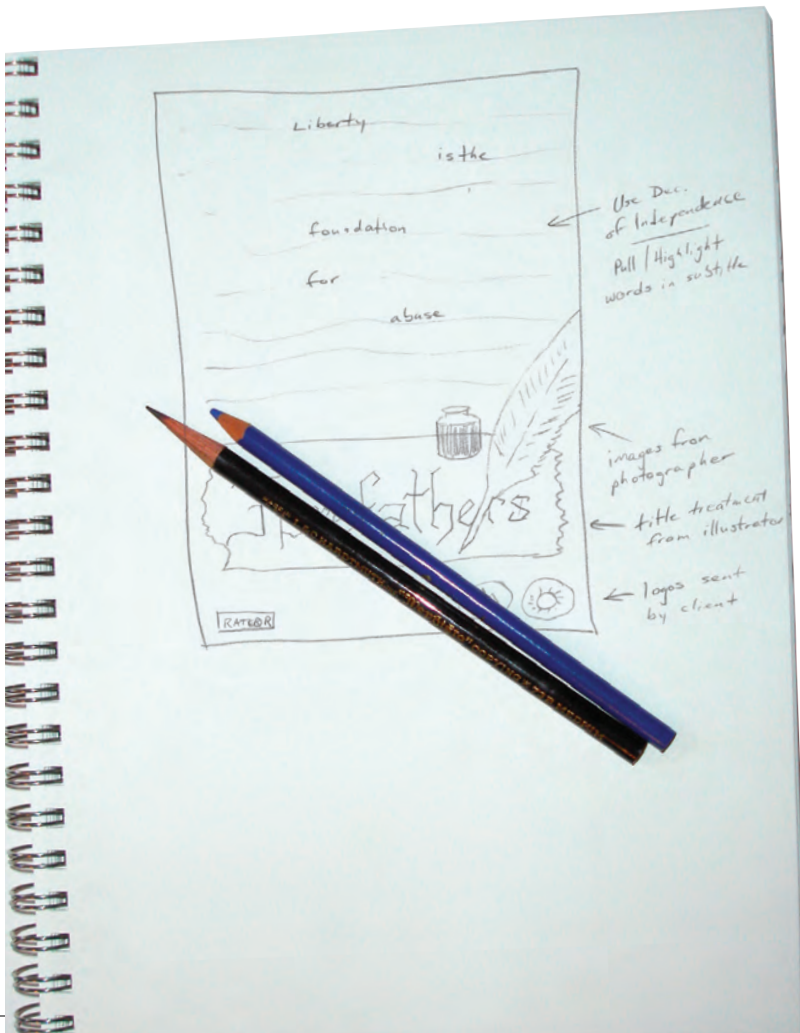
Magazine 2

- Files should be submitted as native layout files or flattened TIFF; CMYK only
- Bleed size: 8.25 × 10.25"
- Trim size: 8 × 10"
- Live area: 7.5 × 9.5"

project objectives

To complete this project, you will:

- Create a single file that can contain multiple page sizes
- Composite multiple images into a single background file
- Incorporate both raster and vector elements into the same design
- Use selection techniques to isolate images from their backgrounds
- Transform and arrange individual layers to create a cohesive design
- Create layer groups and nested groups to easily manage files
- Save two different types of TIFF files for different ad requirements



Stage 1 Setting Up the Workspace

There are two primary types of artwork: vector graphics and raster images. (Line art, sometimes categorized as a third type of image, is actually a type of raster image.) Photoshop is what some people call a “paint” program — it is primarily used to create and manipulate pixel-based or raster images.

Vector graphics are composed of mathematical descriptions of a series of lines and geometric shapes. These files are commonly created in illustration (“drawing”) applications like Adobe Illustrator or in page-layout applications like Adobe InDesign. Vector graphics are **resolution independent**; they can be freely scaled and are automatically output at the resolution of the output device.

Raster images are made up of a grid of individual pixels (rasters or bits) in rows and columns (called a **bitmap**). Raster files are **resolution dependent** — their resolution is determined when you scan, photograph, or create the file.

Why is this information important? The ad you’re building in this project will be placed in print magazines, so you have to build the new file with the appropriate settings for commercial printing.

Raster image quality depends directly on the resolution; when you create files in Photoshop, you need to understand the resolution requirements from the very beginning of the process:

- **Pixels per inch (ppi)** is the number of pixels in one horizontal or vertical inch of a digital raster file.
- **Lines per inch (lpi)** is the number of halftone dots produced in a horizontal or vertical linear inch by a high-resolution imagesetter in order to simulate the appearance of continuous-tone color.
- **Dots per inch (dpi)** or **spots per inch (spi)** is the number of dots produced by an output device in a single line of output. Dots per inch is sometimes used interchangeably with pixels per inch.

When reproducing a photograph on a printing press, the image must be converted into a set of different-size dots that fool the eye into believing it sees continuous tones. The result of this conversion process is a halftone image; the dots used to simulate continuous tone are called **halftone dots**. Light tones in a photograph are represented as small halftone dots; dark tones become large halftone dots. Prior to image-editing software, photos were converted to halftones with a large graphic-arts camera and screens. The picture was photographed through the screen to create halftone dots. Different screens produced different numbers of dots in an inch, hence the term “dots per inch.”

Understanding Line Art

Line art is a raster image made up entirely of 100% solid areas. The pixels in a line-art image have only two options: they can be all black or all white. Examples of line art are UPC bar codes or pen drawings.

The rule for line-art reproduction is to scan the image at the same resolution as the output device. Think about it like this: a 600 dpi (dots per inch) printer can create a maximum of 600 × 600 (360,000) dots in one square inch. With line art we want to give the printer the most information available, which in this case would be 600 pixels per inch. If the art is created and printed at only 300 ppi, then the printer would have to skip to every other possible space to put a dot. The result is known as “stair-stepping” or “bitmapping.”

Most laser printers today image at 600 to 1200 dpi, but film on an imagesetter is typically produced at a much higher resolution, possibly 2400 dpi or more. Fortunately, the human eye is not sensitive enough to discern bitmapping beyond 1200 dpi, so you can be fairly safe capturing line art at 1200 ppi.



A bitmap or line-art image has only two colors — black and white.

Screen Ruling

The screens used with old graphic-arts cameras had a finite number of available dots in a horizontal or vertical inch. That number was the **screen ruling**, or lines per inch of the halftone. A screen ruling of 133 lpi means that in a square inch there are 133×133 (17,689) possible locations for a halftone dot. If the screen ruling is decreased, there are fewer total halftone dots, producing a grainier image; if the screen ruling is increased, there are more halftone dots, producing a clearer image.

Line screen is a finite number based on a combination of the intended output device and paper. You can't randomly select a line screen. Ask your printer what line screen will be used before you begin creating your images. If you can't find out ahead of time, or you're unsure, follow these general guidelines:

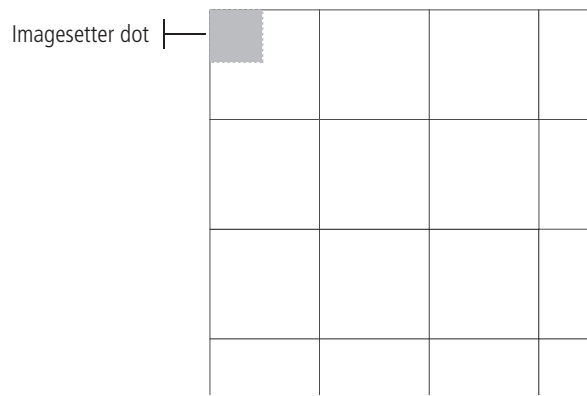
- Newspaper or newsprint: 85–100 lpi
- Magazine or general commercial printing: 133–150 lpi
- Premium-quality-paper jobs (such as art books or annual reports): 150–175 lpi; some specialty jobs might use 200 lpi or more

Image Resolution

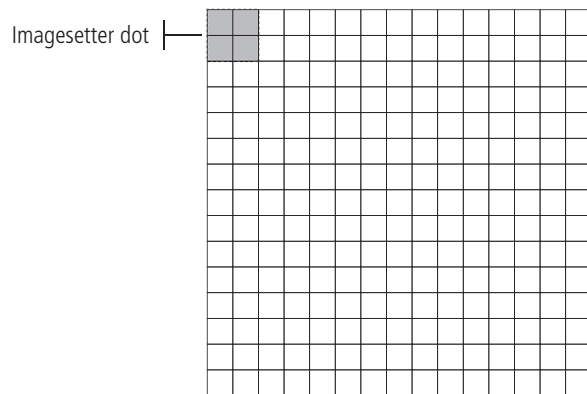
When a printer creates halftone dots, it calculates the average value of a group of pixels and generates a spot of appropriate size. An image's resolution controls the quantity of pixel data the printer can read. Regardless of their source — camera, scanner, or files you create in Photoshop — images need to have sufficient resolution for the output device to generate enough halftone dots to create the appearance of continuous tone.

Ideally, the printer has four pixels for each halftone dot created. The relationship between pixels and halftone dots defines the rule of resolution for all raster-based images — the resolution of an image should be two times the screen ruling (lpi) that will be used for printing.

All of this can be confusing. If you're preparing a document to be printed commercially, remember this general rule: Most raster images (except line art) should have about twice the pixel resolution as the line screen that will be output.



72 ppi



300 ppi

Each white square symbolizes a pixel in a digital image. The gray area shows the pixel information used to generate a halftone dot or spot. If an image only has 72 pixels per inch, the output device has to generate four halftone dots per pixel, resulting in poor printed quality.



The same raster image is reproduced here at 300 ppi (left) and 72 ppi (right). Notice the obvious degradation in quality when the resolution is set to 72 ppi.

CREATE THE NEW FILE

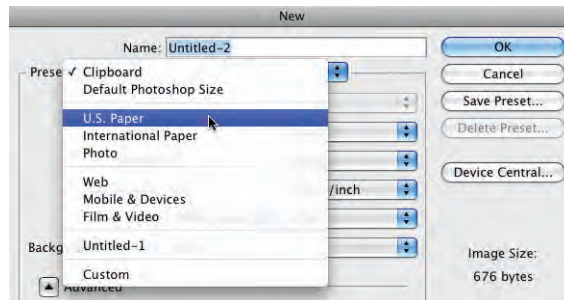
1. On your desktop, copy the Liberty Ad folder from the WIP folder on your Resource CD to the WIP folder where you're saving your work.

Save all files for this project in your WIP>Liberty Ad folder.

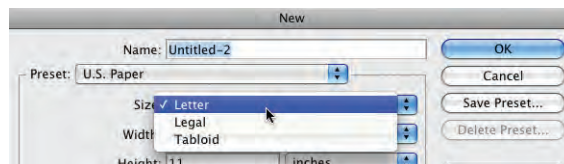
2. In Photoshop, choose File>New.

If Clipboard is showing in the Preset menu, the new file settings will match the current contents of the system clipboard (whatever you last copied in any application).

You can create new files based on a number of included presets, including standard paper sizes (U.S. Paper, International Paper, and Photo) and standard sizes for different devices (Web, Mobile & Devices, and Film & Video).



If you choose one of these presets, the Size menu shows secondary options for the selected preset (such as Letter, Legal, or Tabloid for U.S. Paper). Choosing any of these presets automatically changes the values in the other fields of the dialog box.



3. Highlight the Name field and type **Movie Ad**.

When you save the file, the file name defaults to the name you define when you create the file (in this case, "Movie Ad"). The name you assign here also appears in the Window menu and on the document tab at the top of the document window.

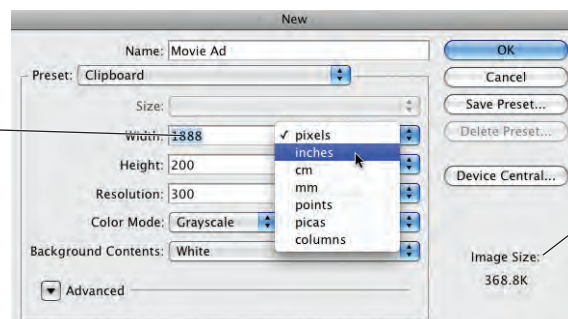
4. Press Tab to highlight the next field (Width) of the dialog box.

Similar to most applications, you can press Tab to move through the fields of a dialog box. Pressing Shift-Tab moves to the previous field in the dialog box.

5. Click the menu to the right of the Width field and choose inches.

When you change one unit of measurement (width), the other (height) changes too.

Don't worry about the default values. You're going to define exactly what you need in the following steps.



The Image Size area shows the base file size of the file you're defining. This number changes dynamically whenever you change an option in this dialog box.

Note:

The New File dialog box defaults to the Clipboard preset (if you have anything copied) or to the last-used settings.

Note:

Choosing U.S. Paper in the Preset menu automatically converts the Width and Height measurement units to inches. Choosing International in the Preset menu changes the default measurement units to millimeters.

Note:

You can change the default unit of measurement in the Preferences>Units & Rulers dialog box.

6. With the Width field highlighted, type 8.75 in the field and press Tab.

As soon as you change any field, the Preset menu switches to “Custom” — you are defining a “custom” file size.

7. Change the highlighted Height field to 11.25 and press Tab.

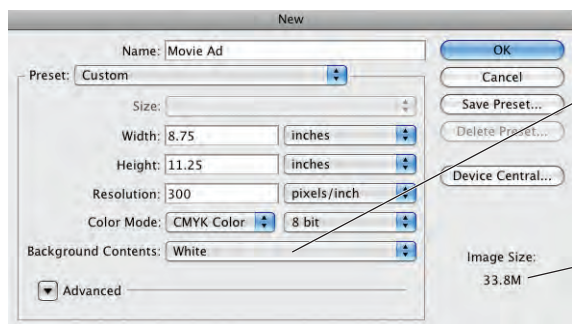
8. Change the Resolution field to 300; make sure the menu shows pixels/inch.

Pixels/cm is primarily used in countries that use the metric system of measurement (just about anywhere other than the U.S.). But if you inadvertently set the field to 300 pixels/cm, you’ll create a file that is 762 pixels/inch — far more than you need for most applications.

9. Click the Color Mode menu and choose CMYK.

10. Choose White in the Background Contents menu.

You can set the default background of any new file to White, the current Background Color, or Transparent. You can change this setting at any time after the file has been created.



Use this menu to determine the default background color of the file (if any).

When you changed color modes, the Image Size changed to reflect the impact on the file’s size.

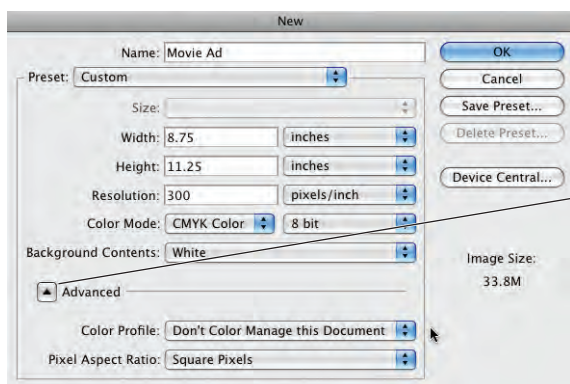
Note:

Although designers trained in traditional (non-digital) methods are sometimes comfortable talking about picas or ciccros, most people use inches as the standard unit of measurement in the U.S.

Note:

Although many magazines are printed at 133 lpi, some are printed at 150 lpi. By setting the resolution to 300, your file will work for any magazine that prints at 133 or 150 lpi.

11. If the Advanced options are collapsed (the arrow button is pointing down), click the arrow button to show the Advanced options.



Click this button to show or hide the Advanced options.

12. Click the Color Profile menu and choose Don't Color Manage this Document from the top of the menu.

Color management is basically a process for controlling color shift from one color space to another. You’ll learn about color management in Project 3; for now, we’re going to (mostly) ignore it.

13. Leave the Pixel Aspect Ratio menu set to Square Pixels.

The options in this menu are primarily used for editing video. Since this is a print project, you don’t want to alter the pixel ratio.

14. Click OK to create the new file.

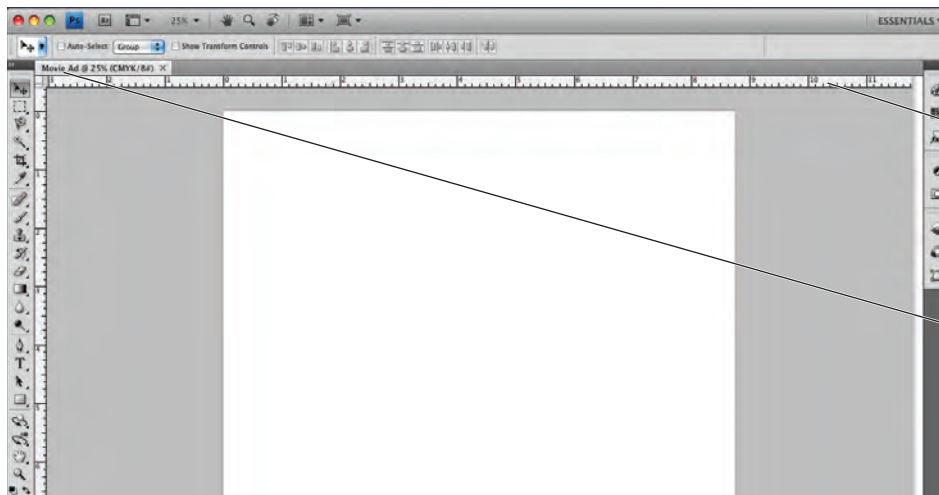
15. If you don't see rulers on the top and left edges, choose View>Rulers to toggle rulers on.

As we explained in the Interface chapter, the panels you see depend on what was done the last time you (or someone else) used the Photoshop application. Because workspace arrangement is such a personal preference, we tell you what panels you need to use but we don't tell you where to put them.

In our screen shots we typically float panels over the relevant area of the document; this allows us to focus on the most important part of the file at any time. As you complete the projects in this book, feel free to dock the panels, grouped or ungrouped, iconized or expanded, however you prefer.

Note:

Remember: Panels can always be accessed in the Window menu.



Rulers display the selected unit values.

As we mentioned earlier, the document tab shows the file name you already defined. This makes it much easier to work with multiple files, rather than a long list of Untitled1, Untitled2, etc.

16. Choose File>Save As.

Understanding Color Modes

PHOTOSHOP FOUNDATIONS

The **color mode** (or color space) defines the structure of the colors in your file.

Bitmap color reproduces all pixels in the image as either black or white; there are no shades of gray.

Grayscale color reproduces all tones in the file as shades of gray. This type of image has only one channel (you learn about color channels later in this book).

RGB creates color by combining different intensities of red, green, and blue light (collectively referred to as the "additive primaries"). Computer monitors and television sets display color in RGB, which has a **gamut** or range of more than 16.7 million different colors. An RGB file has three color channels, one for each of the additive primaries.

CMYK ("process") color is based on the absorption and reflection of light. Four process inks — cyan, magenta, yellow, and black (collectively referred to as the "subtractive primaries") — are used in varying combinations and percentages to produce the range of printable colors in most commercial printing. A CMYK file has four color channels, one for each of the four subtractive primaries.

Theoretically, a mixture of equal parts of cyan, magenta, and yellow would produce black. Pigments, however, are not pure, so the result of mixing these colors is a muddy brown (called **hue error**). To obtain vibrant colors (and so elements such as type can be printed cleanly), black ink is added to the three primaries. Black is represented by the letter "K" for "key color."

LAB color is device independent; the colors it describes don't depend upon the characteristics of a particular printer, monitor, or scanner. In theory, LAB bridges the gap between the various color models and devices; it is used as the background when converting images from one color space to another.

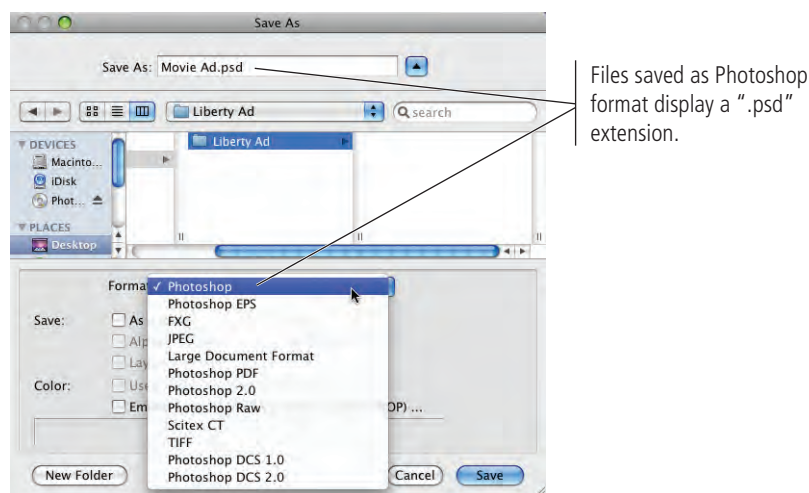
The problem with using RGB for print jobs is that the RGB colors eventually need to be converted to CMYK separations for a commercial printing press. Photoshop includes sophisticated tools that allow you to control this conversion, which you'll learn about in Project 5. Since you're creating this file for print, it's a better idea to create it in the color mode that will ultimately be used — CMYK — so you won't have to convert and correct colors later.

17. Navigate to your **WIP>Liberty Ad** folder as the location for saving this file.

Because you named the file when you created it (in the New dialog box), the Save As field is automatically set to the file name you already assigned. The extension is automatically added on both Macintosh and Windows computers.

18. Choose Photoshop in the Format menu.

You can save a Photoshop file in a number of different formats, all of which have specific capabilities, limitations, and purposes. While you are still working on a file, it's best to keep it as a native Photoshop (PSD) file. You'll use some of the other available formats as you complete the projects in this book.



Note:

Also called “native”, the PSD format is the most flexible format to use while building files in Photoshop.

19. Leave any remaining options unchecked and click Save.

Since this is a very basic file with only a white background, most of these options are not available.

20. Continue to the next exercise.

Since this is the first time you're seeing this series of dialog boxes (New and Save As), we explained a fairly large number of options. In the following projects, the basic file set-up instructions will be considerably shorter. Whenever you create a new file, refer to this section if you need help.

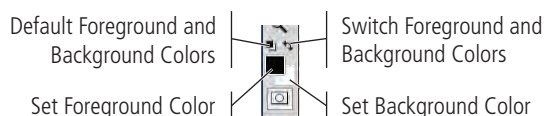
DEFINE THE BACKGROUND

Now that the file has been created, the next step is to add a custom background color. When you defined the file, you had three options — transparent, white, or background color. You could have defined the background color before opening the New dialog box, but it is more common to create the file first, and then set the background.

1. With **Movie Ad.psd** open, choose **View>Fit On Screen**.

2. Click the **Default Foreground and Background Colors** button near the bottom of the **Tools** panel.

By clicking this button, you can always return to the basic black/white options.



Note:

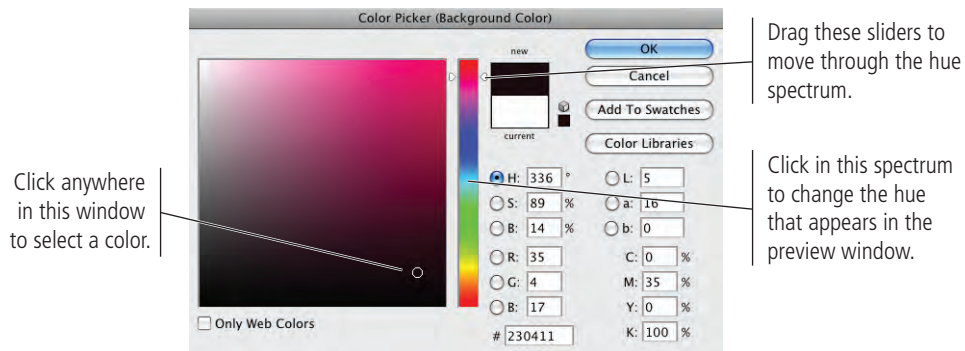
The foreground and background color swatches default to the last-used values.

3. Click the Set Background Color button to open the Color Picker.

You can use the same process to define the foreground color, except you click the foreground swatch in the Tools panel instead of the background swatch.

4. In the lower-right corner of the dialog box, change the C (Cyan) field to 0, the M (Magenta) field to 35, the Y (Yellow) field to 0, and the K (Black) field to 100, and then click OK.

Since you're working on a file in CMYK mode, you should define colors as percentages of CMYK.



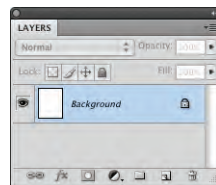
Note:

*This type of color — 100% black and some percent of another color — is called **rich black** or **superblack**. It might seem like 100% black is black, but when the inks are printed, adding another ink to solid black enhances the richness of the solid black. Adding magenta typically creates a warmer black, while adding cyan typically creates a cooler black.*

5. Look at the Layers panel.

Every file you create has at least one layer. If you use the Transparent option in the New dialog box, the default layer is called “Layer 1”. If you define the file with a white or other color background, the default layer is named “Background”.

This Background layer cannot be moved, as indicated by the Lock icon. It can, however, be painted.



Note:

When the default layer is “Layer 1” instead of “Background,” it is unlocked; you can move it within the image window or within the Layers panel.

6. With nothing selected in the file, choose Edit>Fill.

7. Choose Background Color in the Use menu and click OK.



The file has only one layer, so that layer is selected by default. Because no area of the file is currently selected, the Fill process fills the entire selected layer. (Depending on the accuracy of your monitor, you'll see the “rich” magenta color underneath the black — hence the name “rich black”).

8. Save the file and continue to the next exercise.

PLACE PAGE GUIDES

The final step in preparing the workspace is defining the live area of the page. If you were creating an ad for a single magazine, this task would be relatively simple. Since the file you're building needs to fit several page sizes, you have to complete a few additional steps.

According to your client, the larger magazine trim size is 8.5 × 11 and the smaller magazine size is 8 × 10. (**Trim size** is the actual size of a page once it has been cut out of the press sheet.)

The outside dimensions of your file need to be big enough to fill the larger size. You might have noticed that you created the file 0.25" larger than the larger file size. That's because the file has to incorporate **bleeds** that will print right up to the edge of the paper; to create this effect, you have to extend the page elements and background beyond the page trim size (called **bleed allowance**). Most applications require at least 1/8" bleed allowance on any bleed edge.

All of the important elements of the design need to fit inside the smaller page size, so you need to mark those edges as well.

1. With **Movie Ad.psd** open, click the horizontal page ruler and drag a guide to the 1/8" (0.125") mark.

Because the file has a very dark background, it's difficult to see the guide you're dragging. If you watch the vertical ruler, you can see a marker indicating the position of the cursor. When you see it at the 1/8" mark, release the mouse button.



Watch the ruler to see the location of the guide you're dragging.

The gray line indicates the location of the guide you're dragging.

Click and drag from the horizontal ruler to add a horizontal guide.

2. Drag another horizontal guide to the 11.125" mark.

3. Click the vertical ruler and drag a guide to the 0.125" mark.

Watch the marker on the horizontal ruler to judge the guide's position.



Drag from the vertical ruler to add a vertical guide.

Watch the ruler to see the location of the guide you're dragging.

4. Drag a second vertical guide to the 8.625" mark.

At this point you should have four guides – two vertical and two horizontal, each 1/8" from the file edges.

5. Drag vertical guides 0.375" from the left and right edges.

Note:

You should familiarize yourself with the most common fraction-to-decimal equivalents:

$$1/8 = 0.125$$

$$1/4 = 0.25$$

$$3/8 = 0.375$$

$$1/2 = 0.5$$

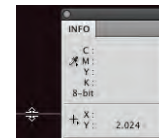
$$5/8 = 0.625$$

$$3/4 = 0.75$$

$$7/8 = 0.875$$

Note:

It might be helpful to look at the Info panel while you drag guides to specific locations.



Note:

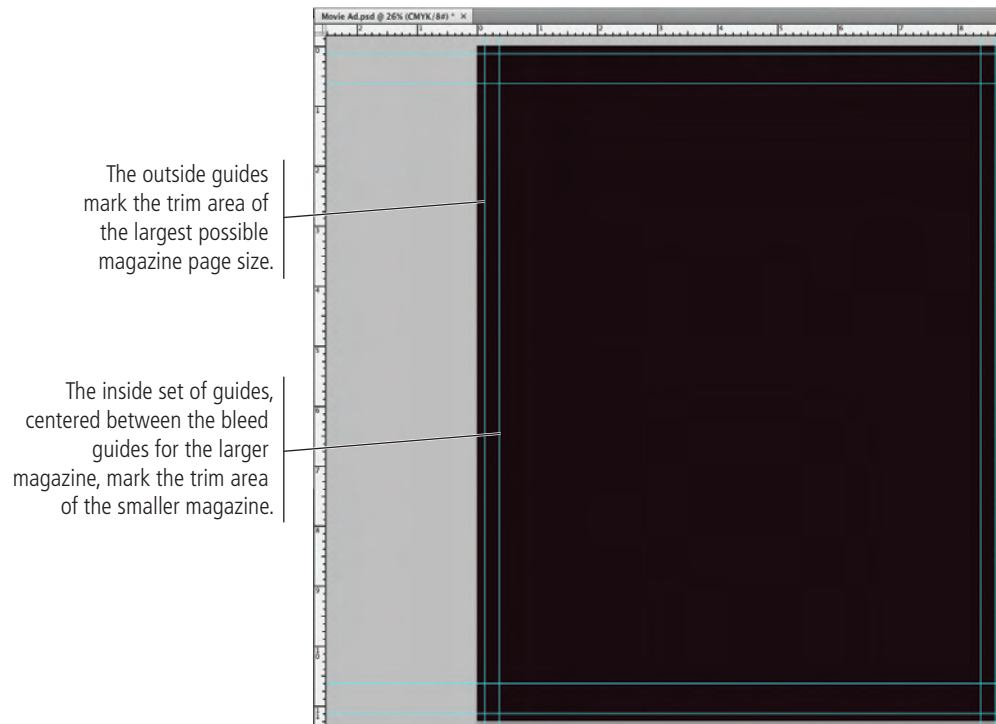
When you drag guides onto the page, zooming in can help you place guides at precise measurements.

6. Drag horizontal guides 0.625" from the top and bottom edges.

These guides mark the trim area of the smaller magazine size (8 × 10"). The smaller magazine needs to be exactly centered inside the larger magazine area. This is how we determined where to put these guides:

$11.25 - 10 = 1.25 / 2 = 0.625$, so each horizontal guide is 0.625" from the edge

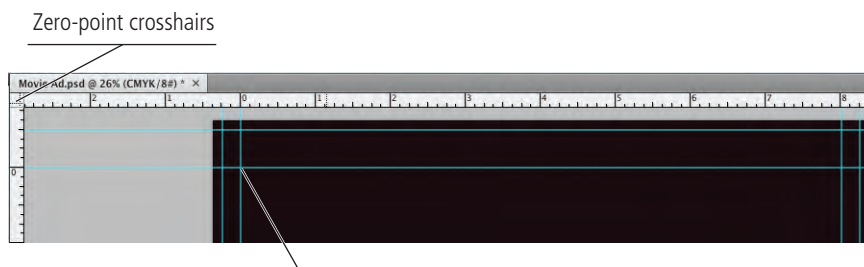
$8.75 - 8 = 0.75 / 2 = 0.375$, so each vertical guide is 0.375" from the edge.



The final step is to mark the live area of the smaller page size, or the area where important pieces should fit. Because there is inherent variation in the mechanical printing and trimming process, most magazines define a live area. All important design elements (especially text) should stay within this live area.

7. In the top-left corner of the document window, click the zero-point crosshair and drag to the top-left corner of the smaller page size.

You can reposition the zero point to the top-left corner by double-clicking the zero-point crosshairs.



Drag here to change the 0/0 point of the rulers. This new zero point is the reference point for any measurements you make in this file.

Note:

Use the Move tool to reposition placed guides. Remove individual guides by dragging them back onto the ruler.

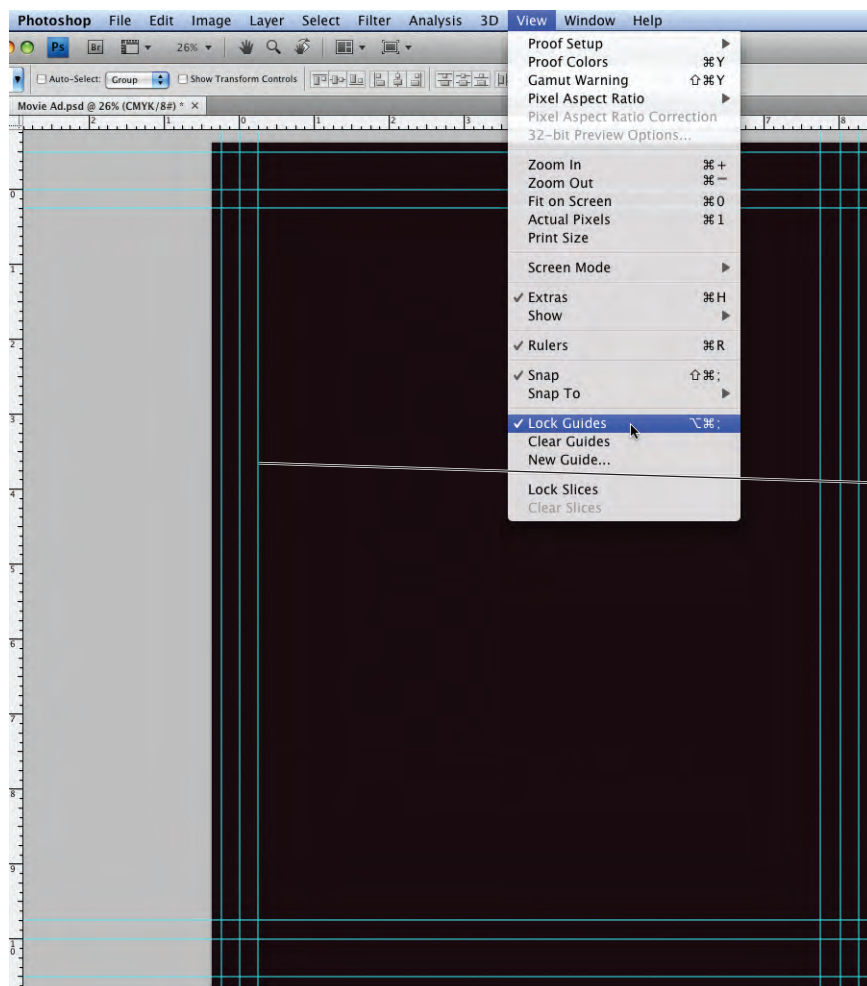
If you try to reposition a guide and can't, choose View > Lock Guides. If this option is checked, guides are locked; you can't move them until you toggle this option off.

8. Drag guides 0.25" inside each trim guide for the smaller page size.

These guides mark the live area of the smaller magazine. All important elements of the ad design must fit inside this space.

9. Click the View menu and make sure a checkmark appears to the left of Lock Guides. If no checkmark is there, choose Lock Guides to toggle on that option.

After you carefully position specific guides, it's a good idea to lock them so you don't accidentally move or delete them later. If you need to move a guide at any point, simply choose View>Lock Guides to toggle off the option.



The inside guides mark the live area within the smaller magazine size.

Note:

Press Option/Alt and click a guide to change it from vertical to horizontal (or vice versa). The guide rotates around the point where you click, which can be useful if you need to find a corner based on the position of an existing guide.

Note:

If you choose View>New Guide, you can place a new guide in a specific position (horizontally or vertically) using a simple dialog box.

10. Save the file and continue to the next stage of the project.

Stage 2 Compositing Images and Artwork

Many of the projects you complete in Photoshop — including this one — involve compositing two or more images into the same file. Technically speaking, **compositing** is the process of combining any two or more objects (images, text, illustrations, etc.) into an overall design. When we talk about compositing in Photoshop, we're typically referring to the process of combining multiple images into a single cohesive image. Image compositing might be as simple as placing two images into different areas of a background file, and then adding blurred edges; or it could be as complex as placing a person into a group photo, carefully clipping out the individual's background, and adjusting the shadows to match the lighting in the group.

The movie ad you're building in this project requires compositing three individual images — one that has been scanned and two digital photographs. You'll also incorporate title treatment and logo files that were created in Adobe Illustrator by other members of your creative team. The various elements that make up the ad are fairly representative of the type of work you can (and probably will) create in Photoshop as your career progresses.

NAVIGATE FILES WITH ADOBE BRIDGE

When you created the background file for this project, you created a raster image that contains pixels (Photoshop files are almost always pixel-based). Digital photographs and scans are also pixel-based, which is why you use Photoshop to edit and manipulate those types of files.

Compositing multiple images in Photoshop is a fairly simple process — or at least, it starts out that way. But there are a number of technical and aesthetic issues you must resolve whenever you combine multiple images into a single design.

1. In Photoshop, make sure **Movie Ad.psd** is open.
2. Click the **Launch Bridge** button in the Application/Menu bar.



3. If you don't see a navigation window in Bridge, choose **File>New Window**.

Adobe Bridge is a stand-alone application that ships and installs along with Photoshop. This asset-management tool enables you to navigate, browse, manage, and access files anywhere on your system. If you have the entire Adobe Creative Suite, Bridge can also help streamline the workflow as you flip from one application to another to complete a project.

4. In Bridge, navigate to the **RF_Photoshop>Liberty Ad** folder on your Resource CD.

Bridge is primarily a file manager, so you can think of it as a media browser. If some panels aren't visible, you can access them in the Bridge Window menu.

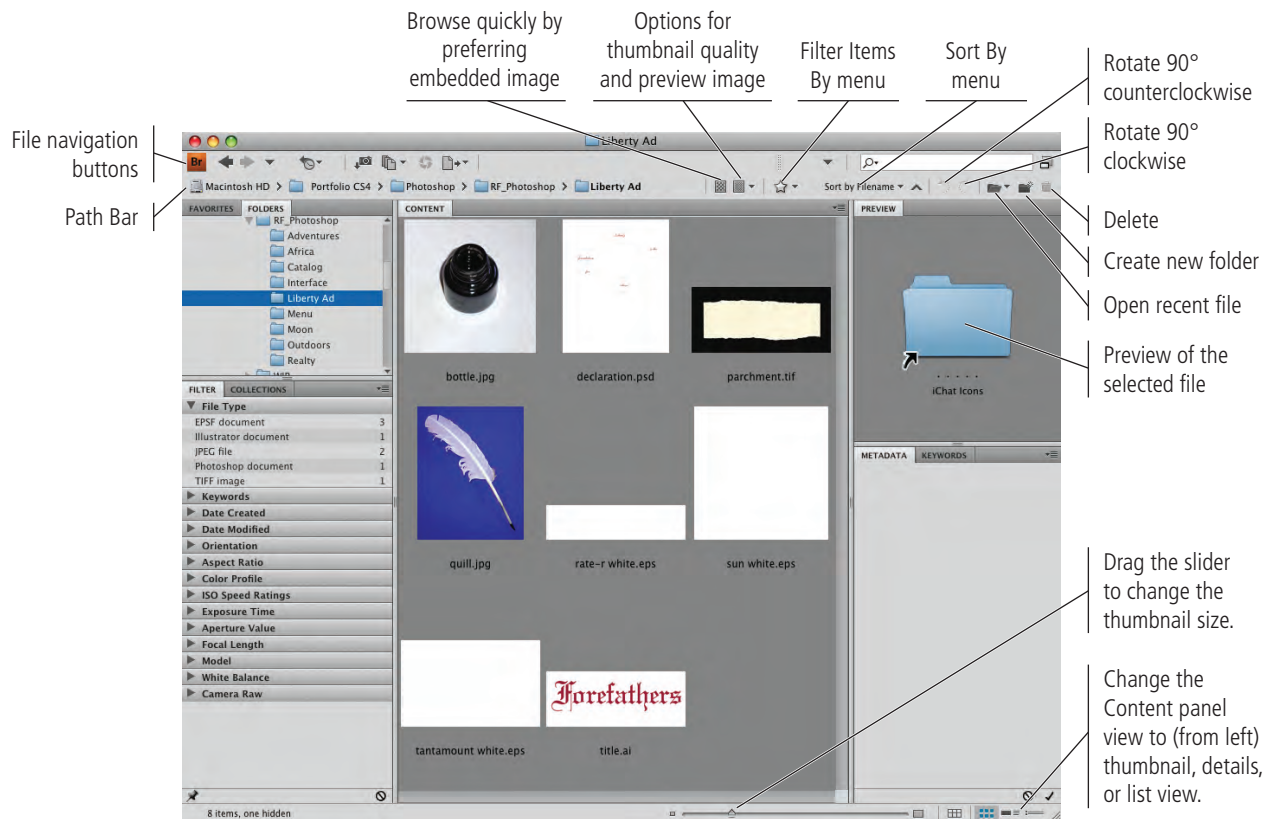
The following image shows all the available Bridge panels. If one isn't showing in your application, you can open it in the Bridge Window menu.

- The Folders panel on the left is used to navigate anywhere on your hard drive or networked devices (if you're connected to a network).
- The Favorites panel provides quick access to saved "Favorite" folders. A number of these folders are defined by the Bridge Preferences (accessed in the Bridge menu on Macintosh or the Edit menu on Windows). You can also drag any folder into the Favorites panel to add it to the list.

Note:

Adobe Bridge is a complete stand-alone application. However, this is a book about Photoshop, not Bridge. We're simply introducing you to the Bridge interface and showing you how to use Bridge to navigate and access files. We encourage you to read the Bridge documentation (accessed in the Help menu when you are in the Bridge application).

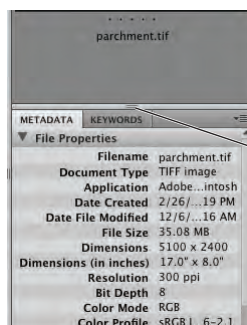
- The Filter panel finds and sorts files based on specific, user-defined criteria.
- The Collections panel accesses specific, user-defined groups of files. Collections can be created based on virtually any criteria.
- The Content panel shows thumbnails of images in the selected folder. You can use the slider at the bottom to change the thumbnail size.
- The Preview panel shows a larger thumbnail of the selected file. You can click the preview image to view a specific area of the image at 100% magnification.
- The Metadata and Keywords panels allow you to add or review existing file information. Metadata and keywords are two of the most important aspects of true file management, allowing more logical and intuitive searches and easier tracking, to name only a few benefits.



5. Click the **parchment.tif** thumbnail in the Content panel.

6. In the Metadata panel, use the arrow buttons to collapse all but the **File Properties**.

Depending on the size of your monitor, you might need to drag the bar separating the Preview and Metadata panels to show both panels at once.



If necessary, click here and drag up so you can see all the File Properties information at once.

7. Review the file information.

The most important information in File Properties is the resolution and color mode. This image is a scan of an actual piece of torn parchment; it was scanned at 300 dpi (appropriate for print) in RGB color mode (most scans are RGB).

8. Double-click the `parchment.tif` thumbnail to open that file in Photoshop.

In this case, Bridge is an alternative to the File>Open method for opening files in Photoshop. The Bridge method can be useful because it provides more information than Photoshop's Open dialog box.

9. Navigate back to Bridge.

If you can't see the Bridge window behind Photoshop, use the Dock (Macintosh) or the Task bar (Windows) to re-activate the Bridge application.

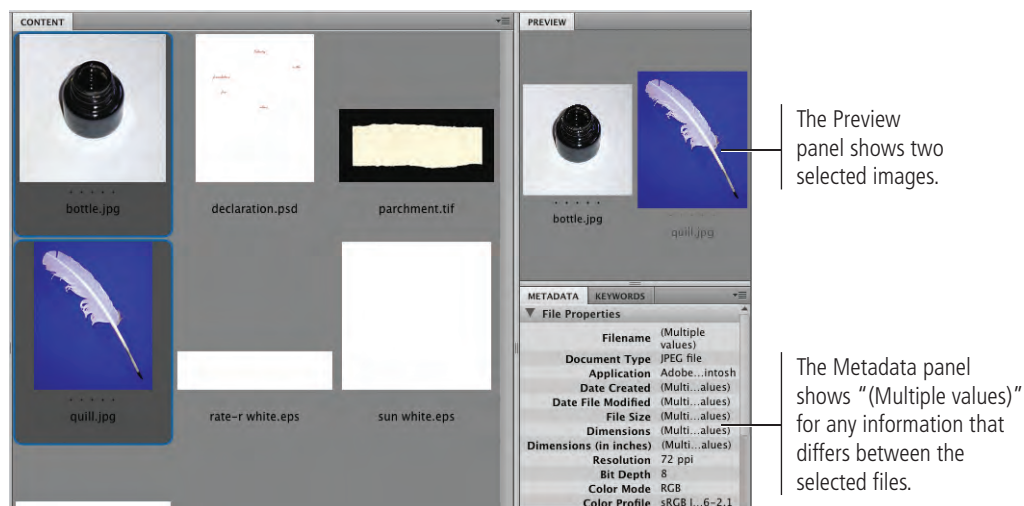
10. Click the `bottle.jpg` thumbnail to select it.

11. Press Command/Control and click the `quill.jpg` thumbnail to select it, too.

You can open multiple images by simply selecting what you want and double-clicking. If you press Shift, you select multiple contiguous (adjacent) files. Pressing Command/Control allows you to select multiple non-contiguous files.

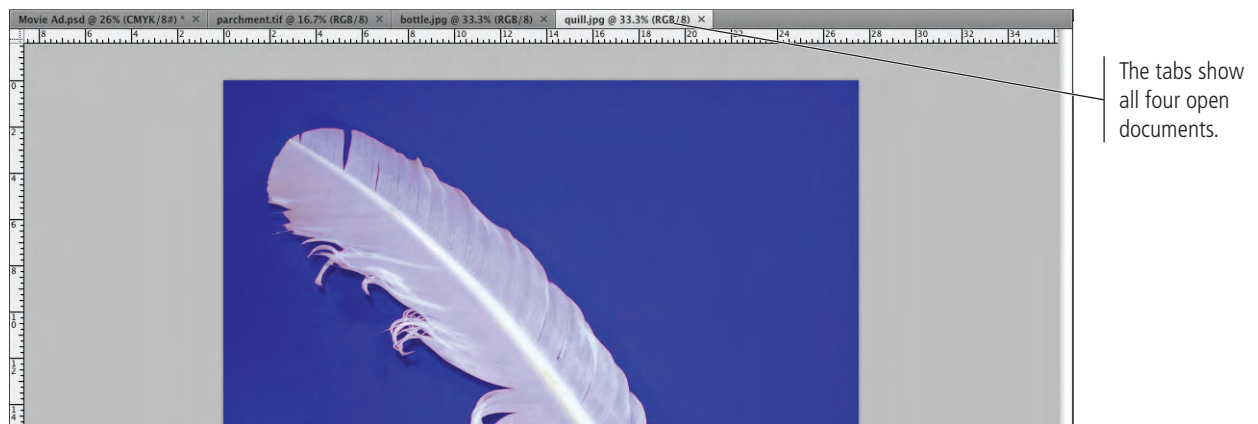
Note:

When the parchment image opens in Photoshop, the Bridge application remains open in the background.



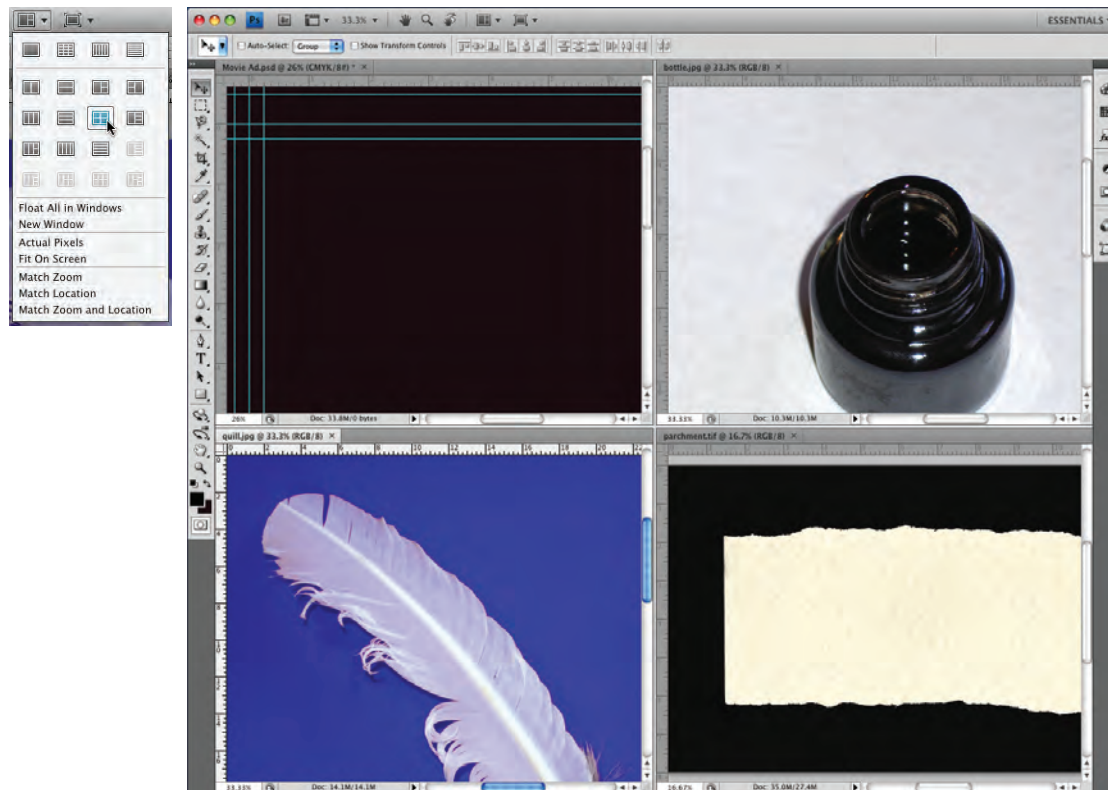
12. Double-click either of the selected files to open both in Photoshop.

You should now have four images open in Photoshop — the background file you created earlier, the parchment scan, and the bottle and quill photographs.



13. In the Application/Menu bar, open the Arrange Documents panel and choose the 4 Up document arrangement.

As you saw in the Interface chapter, these options are useful for arranging and viewing multiple open files within your workspace.



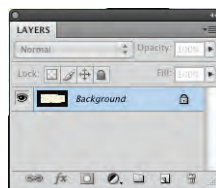
14. Continue to the next exercise.

 **COMPOSITE MULTIPLE IMAGES**

Now that the four files are open, you have to get the images into your background file. This is a fairly simple process of selecting what you want to import, and then copying it into the background.

- 1. With all four images (the Movie Ad file you created and the three supplied photos) open and tiled in Photoshop, click the parchment window to activate that file.**

Like the file you created, this file has only one layer — Background. Every scan and digital photograph has this characteristic.

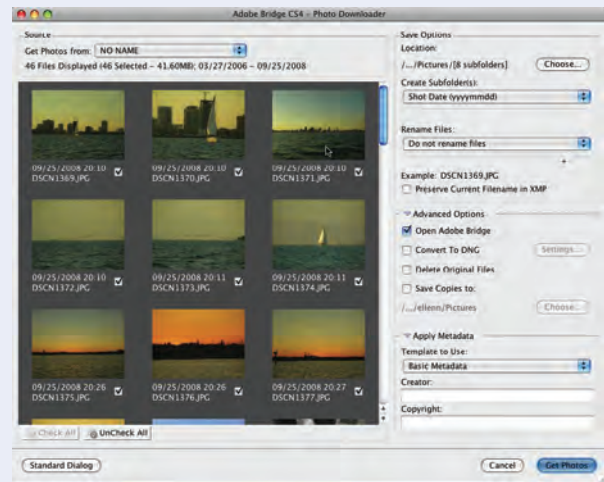


- 2. With nothing selected, choose the Move tool at the top of the Tools panel.**

Adobe Bridge: Four Useful Tools for Graphics Professionals

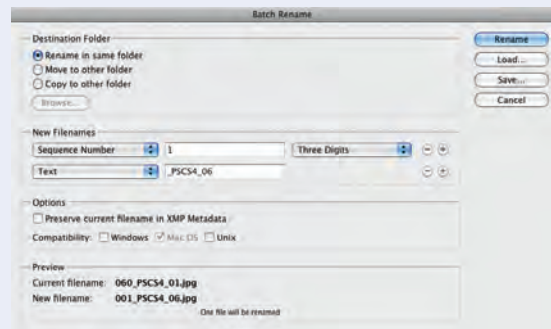
Capturing Images from a Camera

The Get Photos from Camera button in Bridge (⌘G) opens the Photo Downloader dialog box, where you can pull images from your digital camera, name them logically (according to your instructions), and store them somewhere on your hard drive or network.



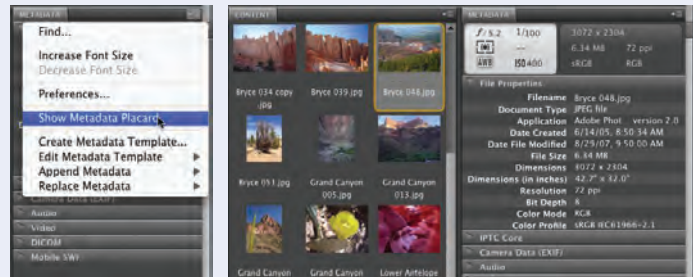
Batch Renaming

If you choose Tools > Batch Rename in Bridge, you can change the names of multiple files in a single action. For example, we frequently use this command to add the appropriate codes to screen captures ("_PSCS4_06" for images in Project 6 of our Photoshop CS4 book). Rather than manually type this into every file name, we use the Batch Rename function to add the information for us. You have full control over what's used for the new file names, including dates, locations, custom text, and more.



Accessing the Metadata Placard

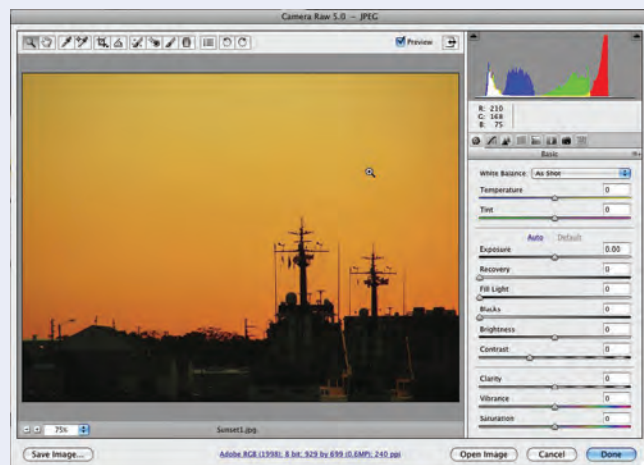
Bridge's **Metadata Placard** shows technical photographic data, including virtual film speed, shutter settings, and a host of other information relative to images brought in from higher-end digital cameras. You can toggle it on or off in the Metadata panel Options menu.



Managing Camera RAW-Formatted Files

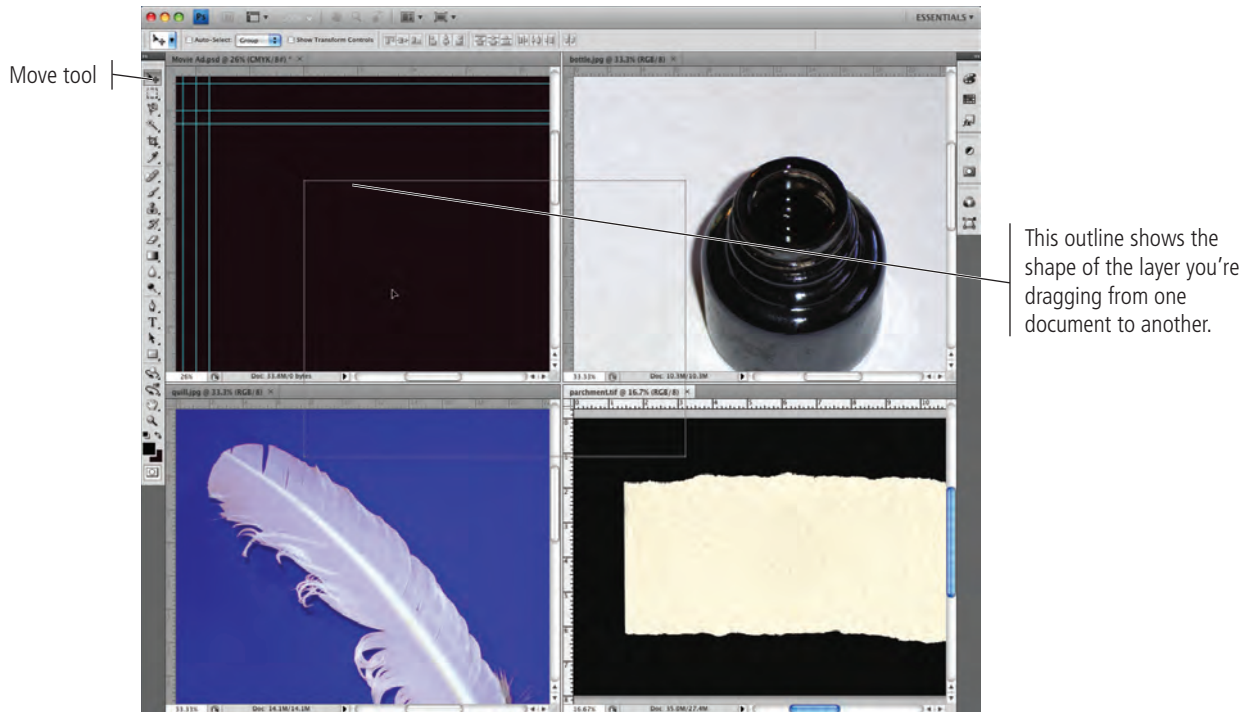
Most professional photographers rely on cameras that are a combination of digital and traditional SLR (single-lens reflex) technology. The file format of these high-end cameras contains far more data than Photoshop was originally designed to handle. To resolve this problem, manufacturers developed the RAW format, which stores more data — particularly in color ranges, hue, lighting, density, and other specifications.

Both Bridge and Photoshop CS4 include the necessary tools to open and work with RAW images, making fine and detailed adjustments without losing any of the extra information stored in the RAW format. Click the Open in Camera Raw button in Bridge (⌘R) to access these options.



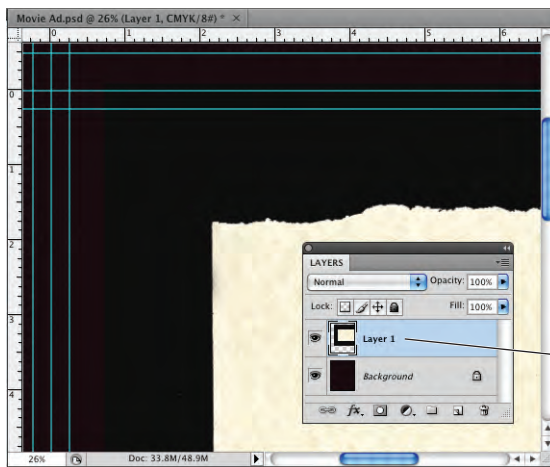
3. Click in the parchment file window and drag to the Movie Ad.psd file window.

Since you didn't select anything specific in the parchment file, you can drag the entire image layer into another file.



If you remember from the previous exercise, the parchment image was 300 dpi in RGB color mode. Photoshop cannot maintain multiple color modes in a single file. The RGB parchment image is automatically converted to the CMYK color mode you're using in the background file. (If you were using color management, you would see a warning about this conversion. Later in this book, you will learn how to control the process; for now, you should just know that the conversion occurred.)

The Movie Ad.psd file now has two layers: Background (the one you created) and Layer 1 (the parchment image you just copied). When you copy or drag a layer from one file into another, it is automatically placed on a new layer with the default name "Layer n", where "n" is a sequential number.



Note:

You might notice that the parchment image doesn't fit into the background. You'll fix this problem later.

4. Click the bottle.jpg window to activate that file. If you can't see the entire bottle, zoom out until you can.

5. Choose the Rectangular Marquee tool in the Tools panel.

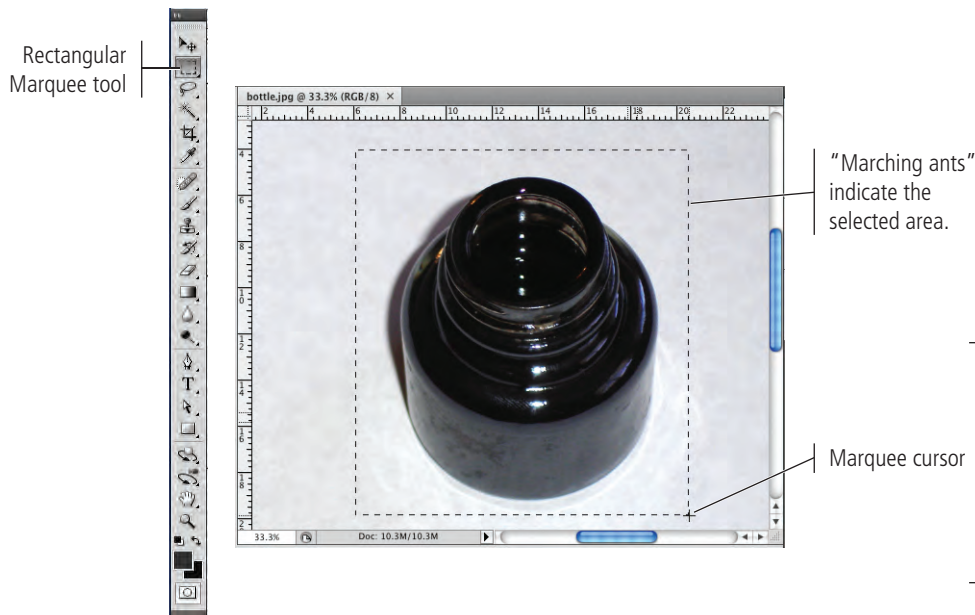
In addition to dragging entire files into other files, you can also composite specific areas of a file using one of the selection tools.

6. Using the Rectangular Marquee tool, click in the bottle.jpg window and drag around the entire shape of the bottle.

By default, dragging with the selection tool creates a new selection. You can use the buttons on the left end of the Control panel to add to the current selection, subtract from the current selection, or intersect with the current selection.

Note:

Use the marquee tools to create simple-shape selections such as rectangular, elliptical, single row of pixels, or a single column of pixels.



Note:

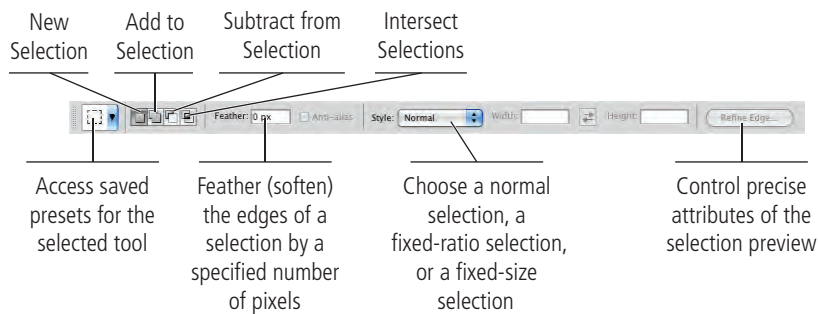
Marching ants is an industry term for the animated edge of an active selection marquee.

Note:

Press Shift while dragging a new marquee to constrain the selection to a square (using the Rectangular Marquee tool) or circle (using the Elliptical Marquee tool).

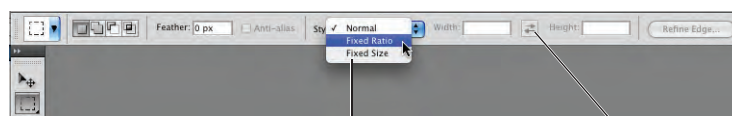
7. Click the Subtract From Selection button on the Control panel.

When one of the marquee tools is selected, the Control panel gives you better control over what you are selecting.



Note:

Press Option/Alt while using a selection tool to subtract from the current selection.

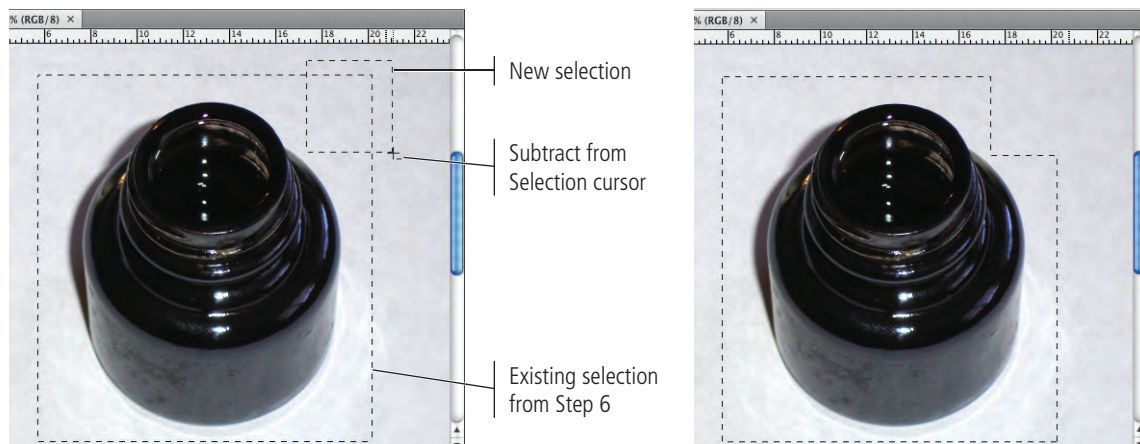


When Fixed Ratio or Fixed Size is selected, enter the size of the selection in the Width and Height fields.

Click this button to reverse the Width and Height fields.

8. Drag a new marquee that overlaps the upper corner of the first selection, but doesn't include any part of the bottle.

When you release the mouse button, the selection is the area of the first marquee, minus the area of the second marquee. (This isn't particularly necessary in this case, but you should know how to add to and subtract from selections.)



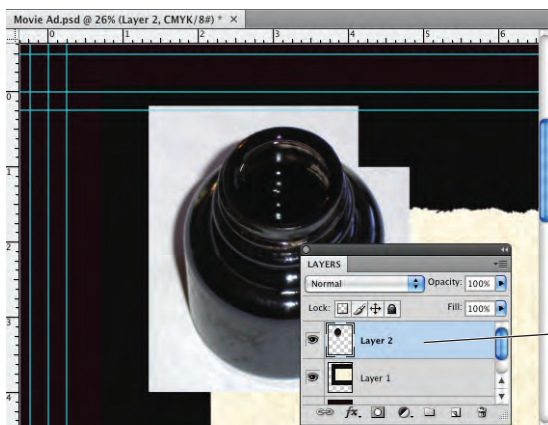
9. Choose Edit>Copy.

10. Click the Movie Ad.psd file window to activate that file and choose Edit>Paste.

The standard Cut and Paste options are available in Photoshop, just as they are in most applications. Whatever you have selected will be copied to the Clipboard, and whatever is in the Clipboard will be pasted.

Note:

You can also press Shift to add to the current selection or press Option/Alt to subtract from the current selection.



As with the dragged parchment, the pasted image is on its own new layer.

11. Click the quill.jpg window to activate that file, and zoom out so you can see the entire image.

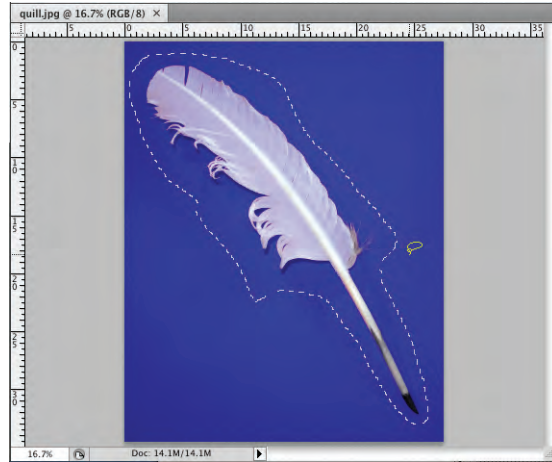
12. Select the Lasso tool in the Tools panel.

The lasso tools allow you to make irregular selections — in other words, selections that aren't just rectangular or elliptical.



13. Drag a shape around the entire quill.

When you release the mouse button, the end point automatically connects to the beginning point of the selection.



The Lasso Tools

PHOTOSHOP FOUNDATIONS

The basic **Lasso tool** works like a pencil, following the path where you drag the mouse.

The **Polygonal Lasso tool** creates selections with straight lines, anchoring a line each time you click the mouse. To close a selection area, you must click the first point in the selection.

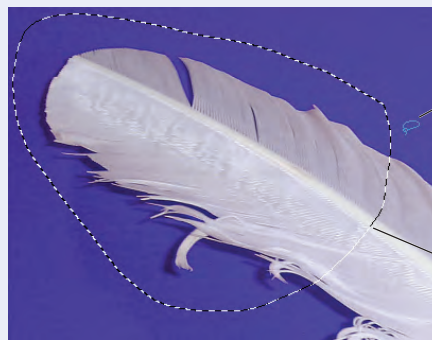
The **Magnetic Lasso tool** snaps to edges of high contrast in the image.

With the Magnetic Lasso tool, you can use the Control panel (Window>Options) to control the way Photoshop detects the edges of an image.

Width is the distance away from the edge the cursor can be and still detect the edge; if you set this value higher, you can move the cursor farther from the edge (such as 20 pixels away).

Contrast is how different the foreground can be from the background and still be detected; if there is a very sharp distinction between the foreground and background (as in the case of the white quill against the blue background, you can set this value higher). **Frequency** is the number of points that will be created to make the selection; setting this number higher creates finer selections, while setting it lower creates smoother edges.

It isn't uncommon for a mouse to unexpectedly jump when you don't want it to — which can be particularly troublesome if you're drawing a selection with the Polygonal or Magnetic Lasso tools. If you aren't happy with your Polygonal or Magnetic Lasso selection, press Esc to clear the selection and then try again.



Lasso tool cursor

Drag any shape to make a selection.



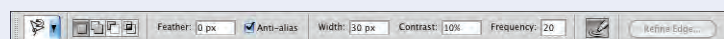
Polygonal Lasso tool cursor

Click each spot to anchor the selection line.



Magnetic Lasso tool cursor

Drag near the edges of the object and the selection snaps to the edges.

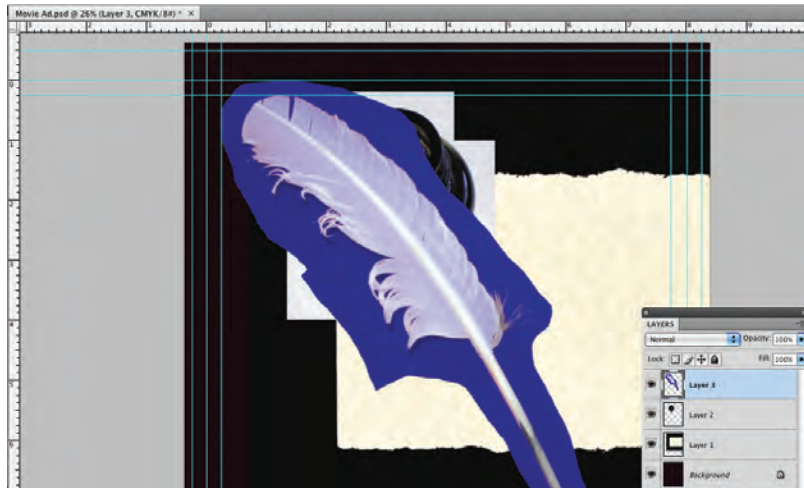


14. Copy the selection and paste it into the Movie Ad.psd file window, just as you did for the bottle selection.

15. Close the parchment, bottle, and quill files.

16. Choose View>Fit On Screen to fit the image into the document window.

You now have a file with four layers, but the composited images are simply stacked one on top of another. You'll fix this problem as you complete the rest of the project.



Note:

After closing the other open files, notice that the Movie Ad document window expands to fill the available space.

17. Choose File>Save.

Because this is the first time you've saved the file after adding new layers, you should see the Photoshop Format Options dialog box, with the Maximize Compatibility check box already activated. It's a good idea to leave this check box selected so your files will be compatible with other CS4 applications and other versions of Photoshop.



Note:

If you don't see this dialog box, check the File Handling pane of the Preferences dialog box. You can set the Maximize PSD and PSB File Compatibility menu to Always, Never, or Ask.

18. Make sure the Maximize Capability check box is selected and click OK. Continue to the next exercise.

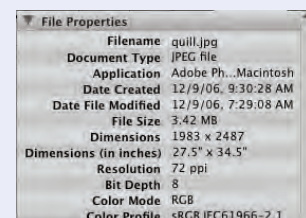
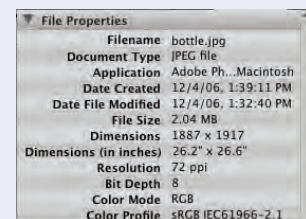
Resizing Raster and Vector Images (Effective Resolution)

PHOTOSHOP FOUNDATIONS

You might have noticed (either in Bridge or from the rulers) that the bottle and quill images were physically very large — both over 26 inches wide — but they are only 72 dpi. When you copied these images into the Movie Ad file, however, they were nowhere near 26 inches wide. This is because, like color mode, copied images adopt the resolution of the file you paste them into. On the surface this seems simple; but you should understand what is actually happening behind the scenes so you don't accidentally lose image quality.

In the file's metadata, you can see that the file dimensions of bottle.jpg are 1887 x 1917 at 72 dpi. The dimensions shown here are measured in pixels; in other words, the bottle image has 1887 pixels in a horizontal row. If you divide 1887 pixels by 72 pixels/inch, you end up with the size in inches: the image is approximately 26.21 inches wide.

When the image is copied into a 300 dpi file, the bottle has the same 1887 pixels across. But when those 1887 pixels are divided by 300 dpi, the pasted image is about 6.3 inches wide. This is why the bottle you pasted into the Movie Ad file was so much smaller than it appeared in its own file window — the same number of pixels takes up a much smaller space when more pixels fit into an inch.



RASTERIZE A VECTOR FILE

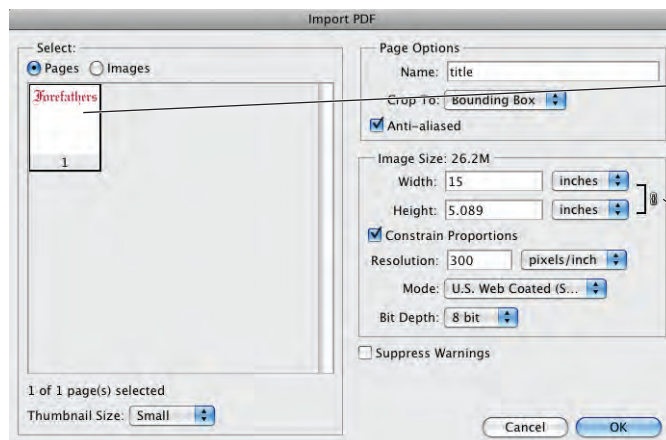
As you already know, vector graphics are based on a series of mathematical descriptions that tell the computer processor where to draw lines. Logos and title treatments — such as the ones you use in this project — are commonly created as vector graphics. Although Photoshop is typically a “paint” (pixel-based) application, you can also open and work with vector graphics created in illustration programs like Adobe Illustrator.

1. With **Movie Ad.psd** open, choose **File>Open** and navigate to the **RF_Photoshop>Liberty Ad** folder.
2. Select **title.ai** in the list of files.

This is an Adobe Illustrator file of the movie title text treatment. The Format menu defaults to Photoshop PDF because Illustrator uses PDF as its underlying file structure.

3. Click **Open**.

When you open a vector file (Illustrator, EPS, or PDF) in Photoshop, it is rasterized (converted to a raster graphic). The Import PDF dialog box allows you to determine exactly what and how to rasterize the file. The default values in this box are defined by the contents of the file you’re opening.



If you’re opening a multi-page PDF or an Illustrator file with more than one Artboard, this window shows thumbnail previews of each “page” in the file.

When this chain icon appears, the width and height are constrained.

Note:

If you double-clicked this file in Adobe Bridge, it would default to open in Adobe Illustrator — its native application, or the application in which it was created. You could, however, Control/right-click the thumbnail in Bridge and choose Open With>Adobe Photoshop CS4 from the contextual menu.

The Crop To options determine the size of the file you import. Depending on the type of file you’re importing and how it was created, some of these values might be the same as others:

- **Bounding Box** is the outermost edges of the artwork in the file.
- **Media Box** is the size of the paper as defined in the file.
- **Crop Box** is the size of the page including printer’s marks.
- **Bleed Box** is the trim size plus any defined bleed allowance.
- **Trim Box** is the trim size as defined in the file.
- **Art Box** is the area of the page as defined in the file.

The Image Size fields default to the settings of the bounding box you select. You can change the size, resolution, color mode, and bit depth by entering new values.

4. Highlight the **Width** field and type **8**.

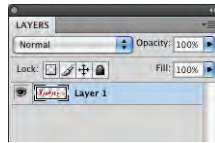
You know the page size of the smaller ad you’re building is 8” wide, so you can import this file at a size small enough to fit into that space.

Because the Constrain Proportions option is checked by default, the height changes proportionally to match the new width.

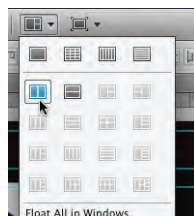
5. Make sure the Resolution field is set to **300** pixels/inch, and then choose **CMYK Color** from the Mode menu.

6. Click **OK**.

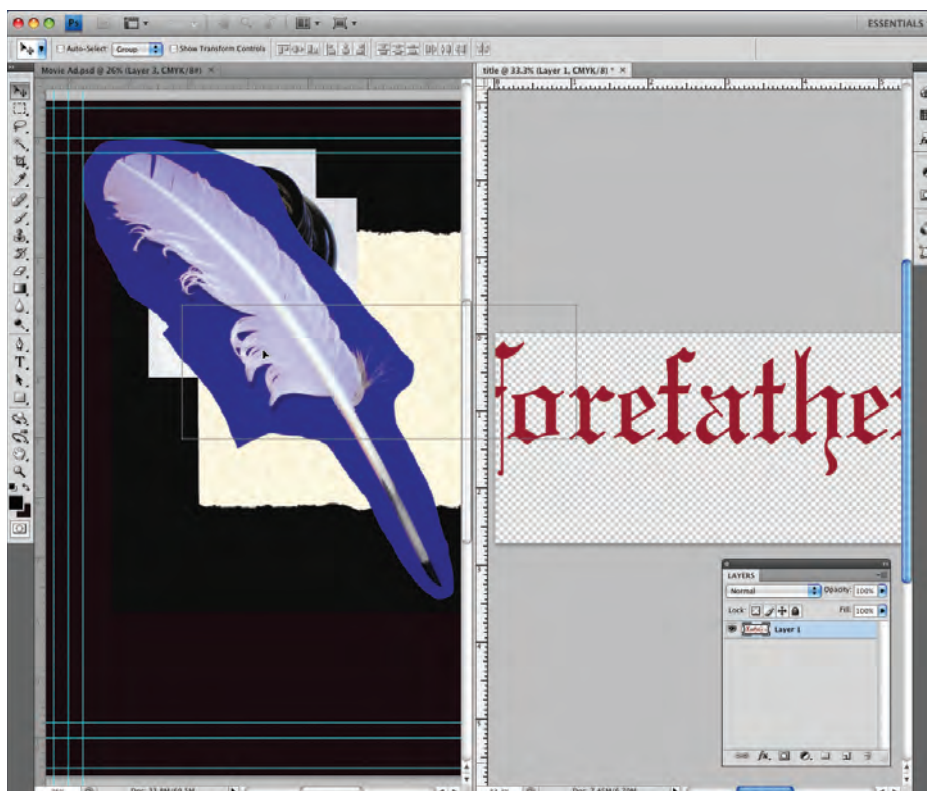
The title treatment file opens in Photoshop. The checked area behind the text indicates that the background is transparent. If you look at the Layers panel, you'll see that Layer 1 isn't locked; because it's transparent, it is not considered a background layer.



7. Using the **Arrange Documents** panel in the **Application/Menu** bar, display the open documents using the **2 Up (side-by-side)** arrangement.



8. Using the **Move** tool, click in the title window and drag the layer into the main file (the one with the other composited images).



9. Close **title.ai** without saving.

Because the title text file has a transparent background, the other layers are visible behind the text in the background file.

10. Save **Movie Ad.psd** and continue to the next exercise.

PLACE VECTOR GRAPHICS

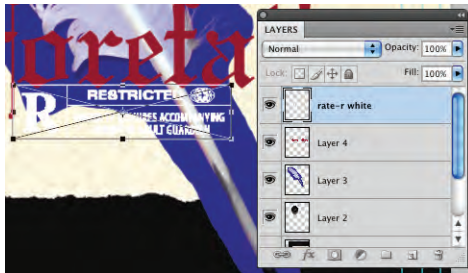
Vector graphics offer several advantages over raster images, including sharper edges and free scaling without deteriorating image quality. To take advantage of these benefits, you might want to maintain vector files as vector objects instead of rasterizing them. Photoshop CS4 gives you the option to do exactly that — maintaining vector information and raster information in the same file.

1. With **Movie Ad.psd** open, choose **File>Place**.

The Place dialog box is virtually the same as the Open dialog box. You can use this function any time you want to place one entire file directly into another without dragging or copying and pasting (as you did in the previous exercises).

2. Navigate to and select **rate-r white.eps** and click **Place**.

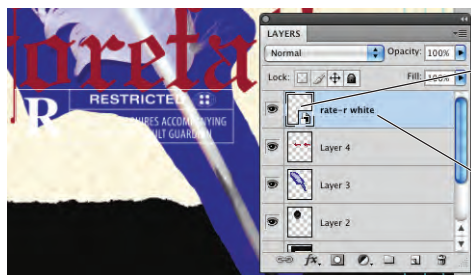
In the background file, the placed file appears with bounding box handles and crossed diagonal lines. The placement isn't final until you press Return/Enter; if you press the Escape key, the file will not be placed.



3. Press **Return/Enter** to commit (finalize) the placement.

After you finalize the placement, the bounding box handles and crossed diagonal lines disappear. In the Layers panel, the placed file has its own layer (just as the copied layers do). This layer, however, is automatically named, based on the name of the placed file.

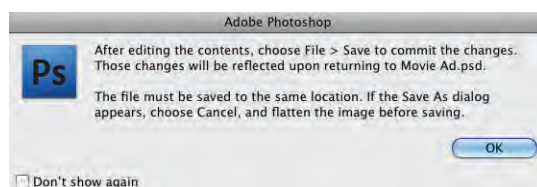
The layer's thumbnail indicates that this layer is a **Smart Object** — it is linked to the file that you placed. Because you are essentially placing a link to the vector file, it isn't rasterized into the Photoshop file; the vector information is maintained.



Smart Object thumbnail

When you place a file (rather than copy and paste) into another Photoshop file, the placed file name is used as the layer name.

Double-clicking the thumbnail would open the placed file in its native application — in this case, it would open the EPS file in Adobe Illustrator. If you edit the native file and save your changes (with the same file name in the same location), those changes would automatically update and reflect in the Photoshop file.

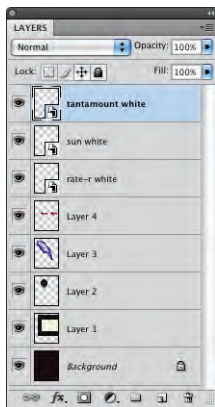


Note:

You can place either raster or vector files as Smart Objects. If you place a raster file as a Smart Object, double-clicking the thumbnail opens the placed raster file in another Photoshop window.

4. Repeat Steps 2–3 to place the two remaining logo files (**sun white.eps** and **tantamount white.eps**) as Smart Objects into the movie ad.

When you place Smart Objects, they are automatically placed into the center of the file. So right now, you have a fairly incomprehensible mess of four raster images and three vector objects all piled on top of one another. You'll start to make sense of these files in the next stage.



5. Save the file and continue to the next stage of the project.

Note:

If you have the entire Adobe Creative Suite, Smart Objects provide extremely tight integration between Adobe Photoshop and Adobe Illustrator. You can take advantage of the sophisticated vector-editing features in Adobe Illustrator, and then place those files into Photoshop without losing the ability to edit the vector information.

Stage 3 Creating Silhouettes

At this stage of the project, you have a single file that contains all of the necessary graphic elements, but you still have a few issues to resolve: the images are stacked on top of one another, some images don't fit into the page area, and some images have border edges that don't fit into the overall design (the blue background around the quill, for example). In this stage, you start fixing these problems.

Virtually any Photoshop project involves making some kind of selection. Making selections is so important, in fact, that there are no fewer than nine tools dedicated specifically to making selections, as well as a whole Select menu and a few other options for making and refining selections.

In an earlier lesson you learned how to use the marquee and lasso tools to draw selections. In the next series of exercises, you use several other selection methods to isolate the graphics from their backgrounds (called **silhouetting**).

TRANSFORM A LAYER

Before you start silhouetting the different elements of the ad, it's a good idea to make them fit into the page area. Photoshop makes scaling, rotating, and other transformations fairly easy to implement.

1. With **Movie Ad.psd** open, look at the Layers panel.
2. Click the eye icons to hide all but Layer 1.

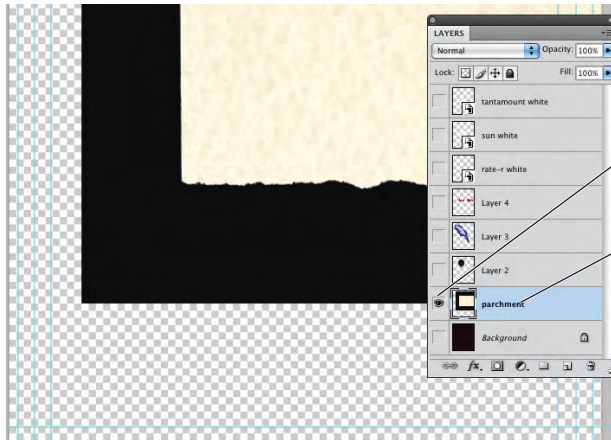
Toggle layer visibility is an easy way to see only what you want to see at any given stage in a project.

Note:

To show or hide a series of contiguous layers, click the visibility icon (or empty space) for the first layer you want to affect, hold down the mouse button, and drag down to the last layer you want to show or hide.

3. Double-click the Layer 1 layer name and type **parchment**.

You can rename any layer by simply double-clicking the name and typing. It's always a good idea to name your layers because it makes managing the file much easier — especially when you work with files that include dozens of layers. Even with only four unnamed layers in this file, it would be tedious to have to toggle each layer on to find the one you want.



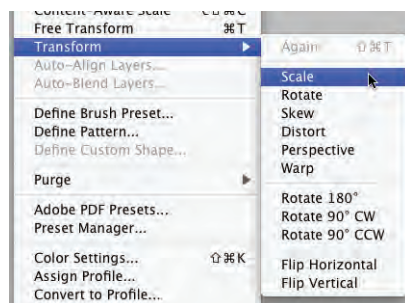
Click here to toggle a layer on (visible) or off (hidden).

Double-click a layer's name to change it.

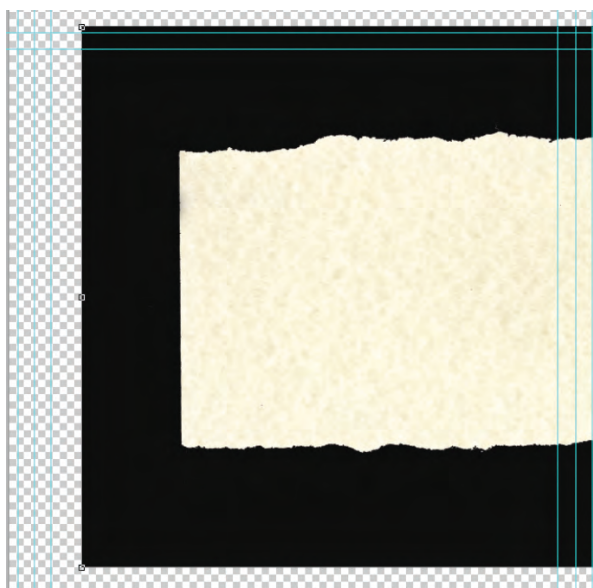
If you can't see all the layers, you can expand the panel height by dragging the bottom edge (whether the panel is docked or not).

4. Choose **Edit>Transform>Scale**.

You can use this menu to apply any specific transformation to a layer or selection.



When you use the transform options, bounding box handles surround the selection; although the parchment doesn't fit inside the area of your file, you can still see the edges outside the page area. Since the parchment file is so much wider than the background file you created, some of the handles might not be visible.

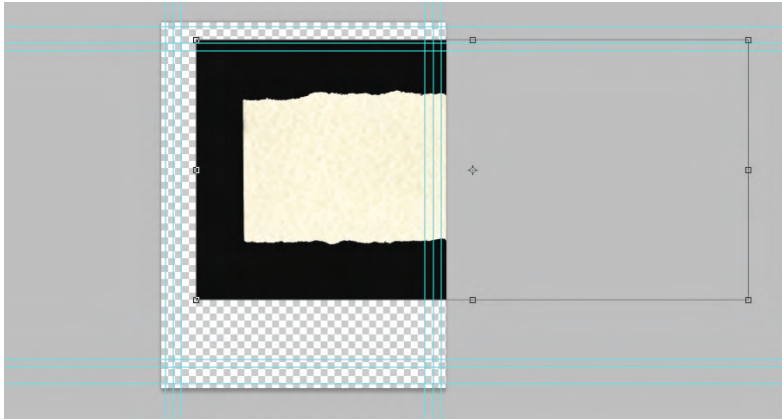


Some handles might not be visible within the boundaries of the document window.

Bounding box handles control the transformation.

The edge of the bounding box shows that some parts of the layer do not fit within the current file dimensions.

5. Choose **View>Zoom Out** until you can see all eight bounding box handles.



6. Place the cursor within the bounding box. Drag until the left edge of the bounding box snaps to the left edge of the image.

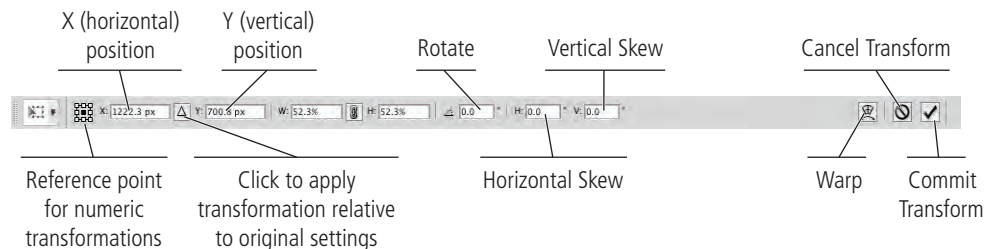
7. Press **Shift**, click the bottom-right bounding box handle, and then drag up and left until the right edge of the bounding box is just past the right edge of the file.

The image dynamically changes as you scale the layer. Pressing **Shift** while you drag a handle constrains the image proportions as you resize it. When you release the mouse button, the handles remain in place until you finalize (“commit”) the transformation.

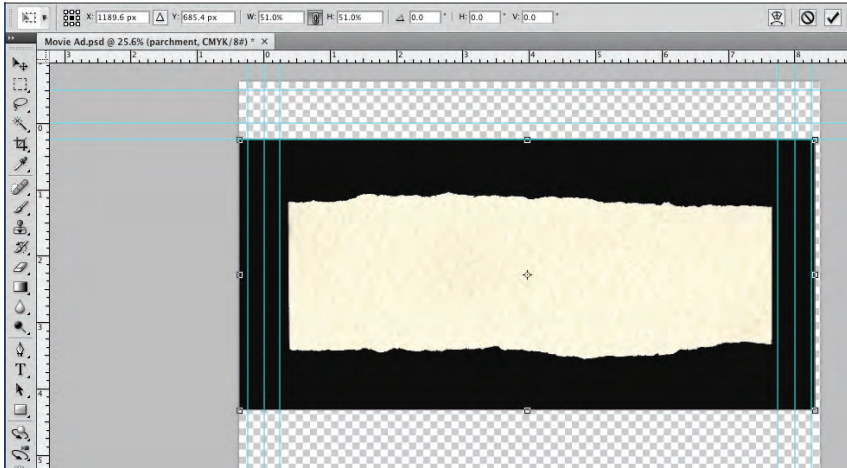


8. Look at the Control panel.

While you’re manually transforming a layer or selection, the Control panel shows the specifics. You can also type into these fields to apply specific numeric transformations.



9. Type **51** in the Control panel Width field, and then click the Constrain button.

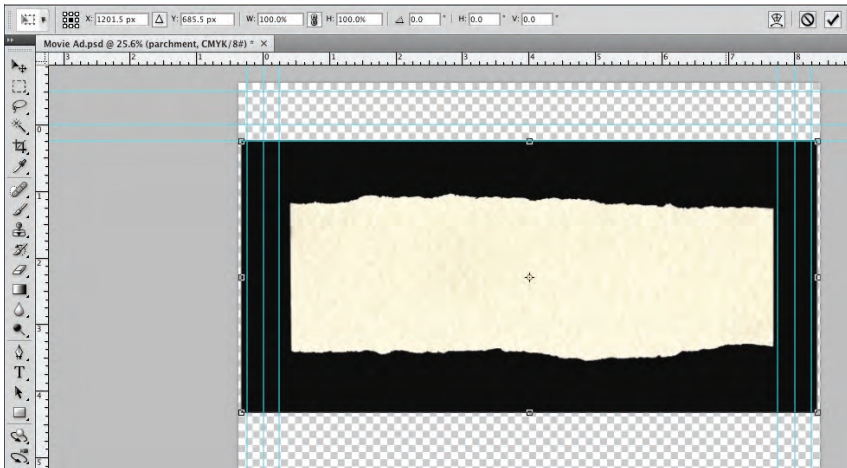


10. Click the Commit Transform button on the Control panel or press Return/Enter to apply the transformation.
11. Choose the Move tool and drag the selected layer until it's approximately centered in the file area.

While the Move tool is active, pressing the Arrow keys nudges the selected layer by a few pixels at a time. This method is useful for slight movements.

12. Choose Edit>Transform>Scale again and look at the Control panel.

Once you commit the transformation, it is final. Looking at the Control panel now, you can see that it shows the layer at 100% instead of the 51% from Step 9.



13. Click the Cancel button in the Control panel or press the Escape key.
14. Save the file and continue to the next exercise.

Note:

The Control panel includes a “hidden” feature called the **scrubby slider**. If you place your cursor over a field name, it turns into a pointing hand with left- and right-facing arrows. While you see this cursor, you can drag across the Control panel to increase (drag right) or decrease (drag left) the value in the selected field.

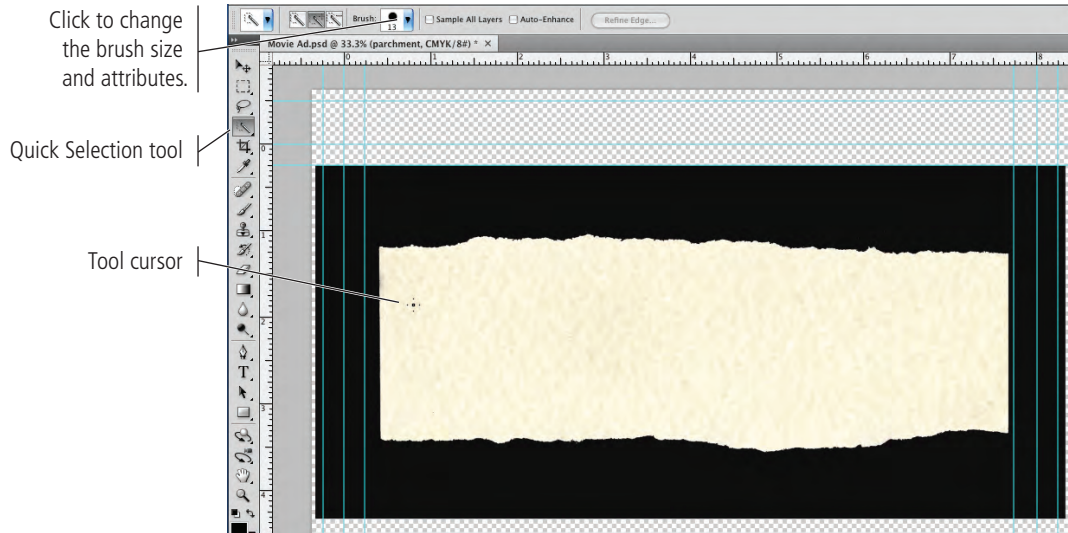


MAKE AND REFINE A QUICK SELECTION

Rather than drawing a selection area, you can make selections based on the color in an image. This technique is especially useful when you want to select large areas of solid color, or in photos with significant contrast between the foreground and background.

1. With **Movie Ad.psd** open, choose the **Quick Selection tool** (nested with the **Magic Wand tool**) in the **Tools panel**.

As with the other selection tools, the Quick Selection tool can create a new selection, add to the existing selection, or subtract from the existing selection (using the three buttons on the left side of the Control panel).

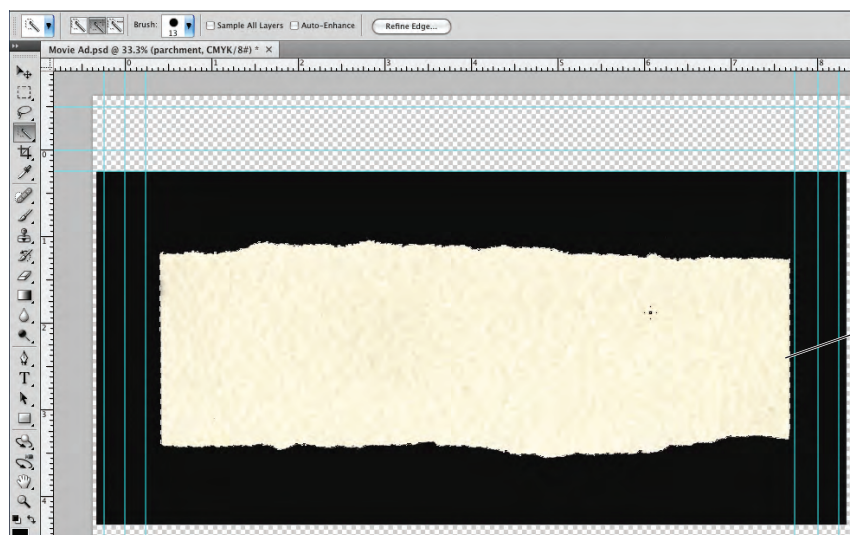


2. Click at the left edge of the parchment and drag to the right.

The Quick Selection tool essentially allows you to “paint” a selection. As you drag, the selection expands and automatically finds the edges in the image. Because the varying shades in the parchment aren’t significantly different, the resulting selection should closely — but not exactly — match the parchment edges.

Note:

If you stop dragging and then click in a nearby area, the selection grows to include the new area.



3. Click the Refine Edge button on the Control panel.

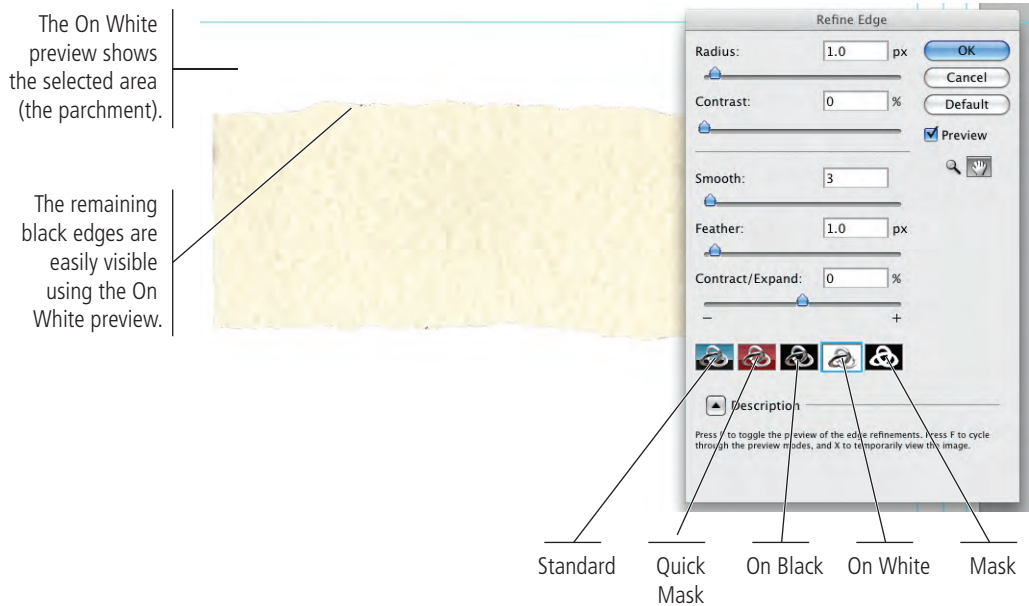
4. If it is not already selected, click the On White preview button.

The five preview options allow you to change the way your image appears in the document window while you refine the edges within the dialog box.

- **Standard** shows the basic selection (including the marching ants).
- **Quick Mask** shows the selection using the current Quick Mask settings.
- **On Black** shows the selection in color against a black background.
- **On White** shows the selection in color against a white background.
- **Mask** shows the selection in white and the unselected areas in black.

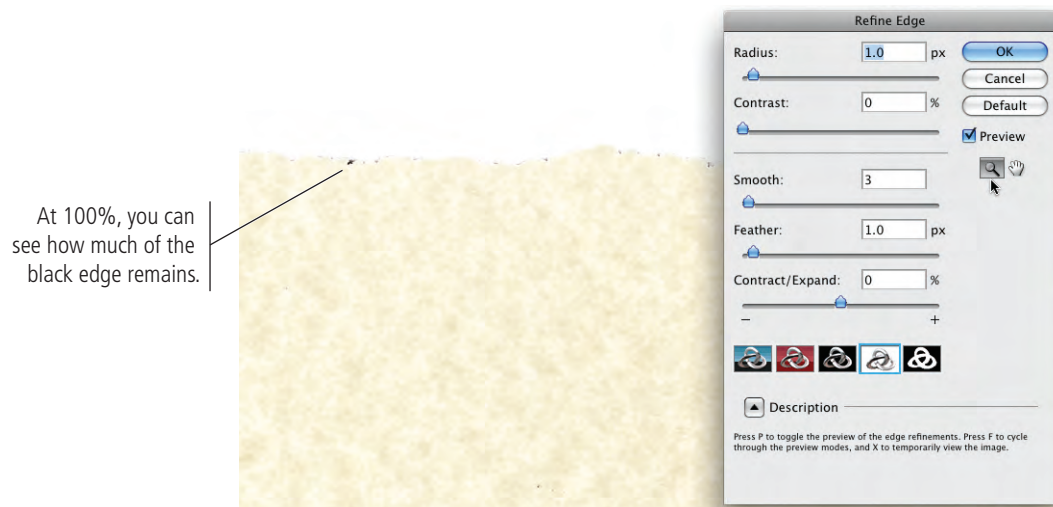
Note:

In a dialog box such as Refine Edge, pressing Option/Alt changes the Cancel button to Reset. If you press Option/Alt and click Reset, you restore the default values in the dialog box without closing the dialog box.



5. Click the Zoom tool in the Refine Edge dialog box, and then click in the image window (where the parchment is located).

It might help to work with a closer view while you refine edges. We're working at 100% magnification in these screen shots.

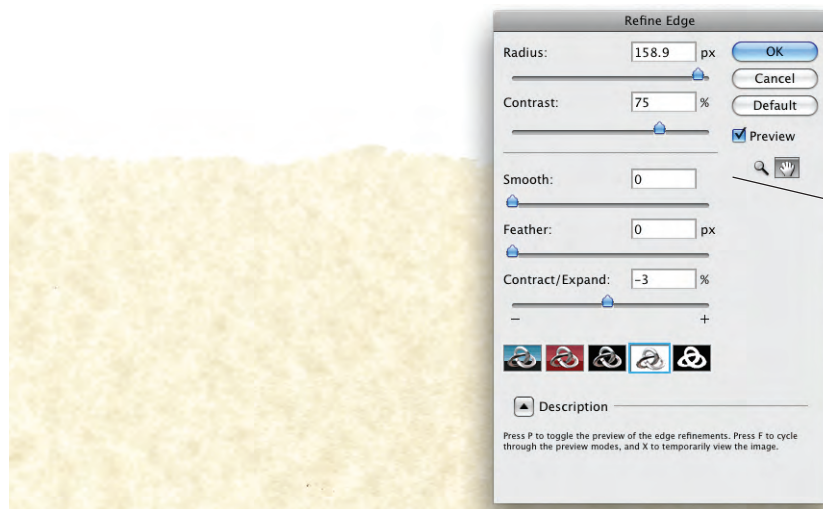


6. Experiment with the five adjustment sliders until you're satisfied with the selection edge.

- **Radius** is the number of pixels around the edge that are affected. Higher radius values (up to 250 pixels) improve the edge in areas of fine detail.
- **Contrast** is the degree of variation allowed in the selection edge. Higher Contrast values (up to 100%) mean sharper selection edges.
- **Smooth** reduces the number of points that make up your selection and, as the name suggests, makes a smoother edge. You can set smoothness from 0 (very detailed selection) to 100 (very smooth selection).
- **Feather** softens the selection edge, resulting in a transition that does not have a hard edge (in other words, blends into the background). You can feather the selection up to 250 pixels.
- **Contract/Expand** shrinks or grows the selection edge by the defined percentage (from -100% to 100%).

Note:

If you increase the Contract/Expand value high enough, you essentially increase the contrast of the edge and create a fairly hard, "refined" edge on the image.



Your numbers don't have to exactly match what we show here, but your finished layer should be close to ours.

7. Click OK to accept your refined selection.

8. Fit the view back in the window (View>Fit on Screen).

The black border is still there; don't be fooled by the On White preview you saw in the Refine Edge dialog box. Now you have to remove that black edge.

9. Choose Select>Inverse.

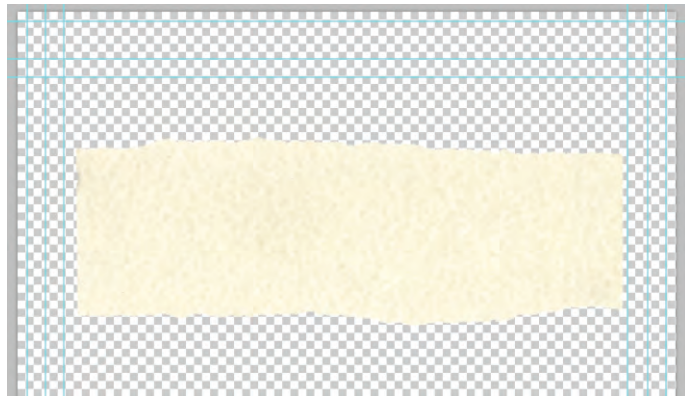
This command reverses the selection, so now everything except the parchment is selected.

Note:

We adjusted the Refine Edge sliders and arrived at these numbers visually. You'll often be in the same situation – performing actions partially by eye and partially "by the numbers."



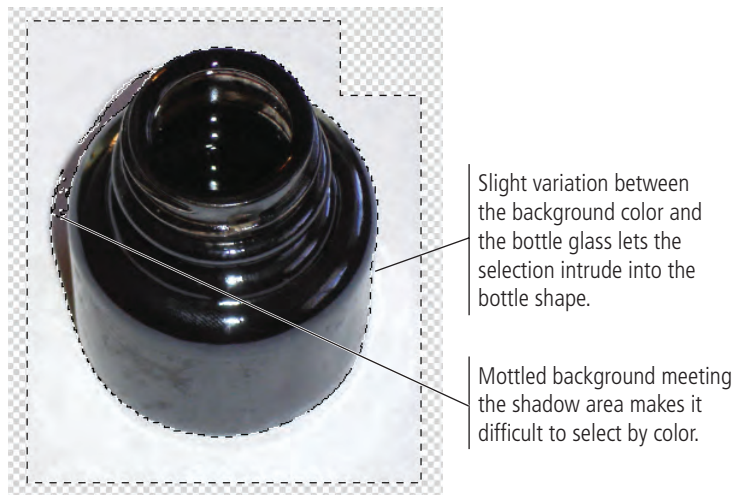
10. Press Delete/Backspace to remove anything within the current selection (the area other than the parchment).



11. Choose Select>Deselect to turn off the active selection.
12. Save the file and continue to the next exercise.

DRAW A VECTOR PATH

In some cases, the image content makes it difficult (or at least tedious) to select by color. The bottle image in this ad, for example, has only black colors — the bottle is black, the shadow is a medium black, and the background is a mottled light gray. Selecting by color range will almost certainly result in some of the selection intruding into the bottle shape, and some of the background/shadow area being omitted from the selection. The good news is that Photoshop has other ways for making selections, including several that are specifically designed for selecting areas with hard edges — such as this bottle.



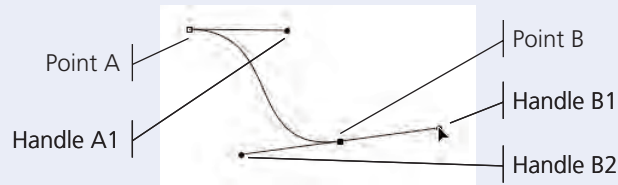
Note:

Photoshop clipping paths can be used to make selections in Photoshop; but if you save an image with a clipping path, the path can also be accessed in layout applications like Adobe InDesign.

Understanding Anchor Points and Handles

An **anchor point** marks the end of a line **segment**, and the point **handles** determine the shape of that segment. That's the basic definition of a vector, but there is a bit more to it than that. (The Photoshop Help files refer to handles as direction lines, and distinguishes different types of points with different names. Our aim here is to explain the overall concept of vector paths, so we use the generic industry-standard terms. For more information on Adobe's terminology, refer to the Photoshop CS4 Help files.)

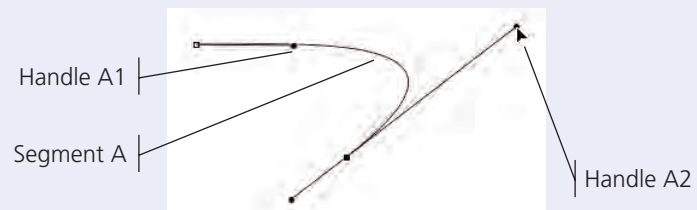
Each segment has two anchor points and two associated handles. We first clicked to create Point A and dragged (without releasing the mouse button) to create Handle A1. We then clicked and dragged to create Point B and Handle B1; Handle B2 is automatically created as a reflection of B1 (Point B is a **symmetrical point**).



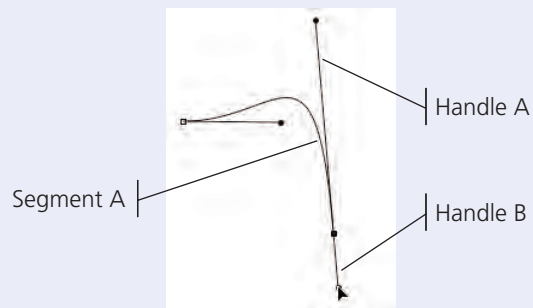
This image shows the result of dragging Handle B1 to the left instead of to the right. Notice the difference in the curve here, as compared to the curve above. By dragging the handle, the segment arcs away from the direction of the handle.



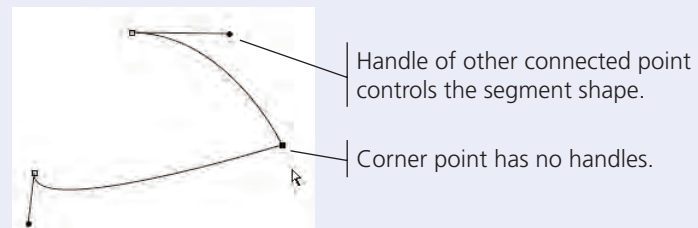
It's important to understand that a segment is connected to two handles. In this example, Handle A1 and Handle A2 determine the shape of Segment A. Dragging either handle to the right pulls out the arc of the connected segment.



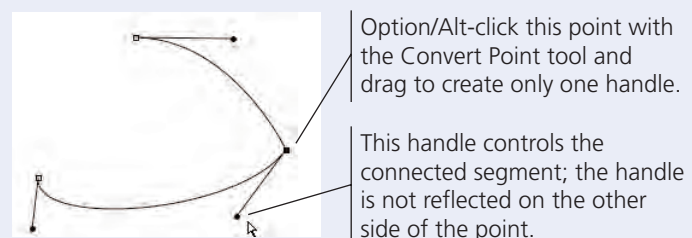
Clicking and dragging a point creates a symmetrical point; both handles start out at equal length, directly opposite one another. Dragging one handle of a symmetrical point also changes the opposing handle of that point. (In the example here, dragging Handle B also moves Handle A, which affects the shape of Segment A.)



You can create corner points by simply clicking with the Pen tool instead of clicking and dragging. Corner points do not have their own handles; the connected segments are controlled by the handles of the other associated points.



You can convert a symmetrical point into a corner point by clicking the point with the Convert Point tool [↵] (nested under the Pen tool). You can also add a handle to only one side of an anchor point by Option/Alt-clicking a point with the Convert Point tool and dragging.



1. With **Movie Ad.psd** open, hide the **Parchment** layer and show **Layer 2**.
2. Choose **Select>Deselect** to make sure any selection marquees from previous exercises are turned off.
3. Double-click the **Layer 2** name and rename it **bottle**.
4. Zoom in so you can more clearly see the bottle edges.

When drawing paths, it helps to work with high view percentages so you can see the edges more clearly. We're using 66.7% in our screen shots; you should use whatever works best for you. It isn't necessary to keep the entire image in the project window if you're more comfortable working at higher percentages; you can scroll around the project window while you create paths.

5. Choose the **Pen tool** in the **Tools** panel.

The Pen tool can be used to create shape layers or paths. Shape layers are vector-based, which means they have mathematically defined edges and can be filled with colors or pixel-based images. Paths are also vector-based, but they do not create their own layers and cannot be directly filled; instead, paths (or clipping paths, to use their full name) are most commonly used to isolate certain portions of an image.

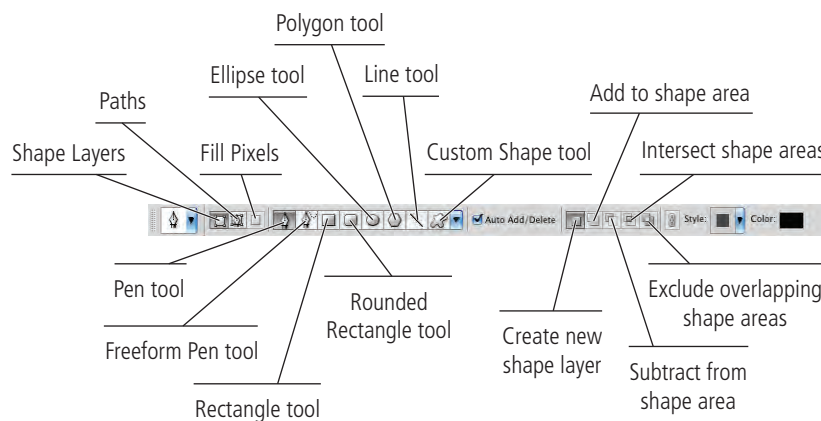
Note:

Pressing **Command/Control-D** deselects selections more quickly and easily than choosing **Select>Deselect** from the **Menu** bar.

You should learn – and use – keyboard shortcuts wherever you can. They result in measurable time savings.



You can use the **Control** panel to determine what type of path you want to create. The Pen tool defaults to create a shape layer. Regardless of which option is selected, you can select any of the vector drawing tools from the group of eight buttons; you see the same buttons when you choose one of the Pen or Shape tools directly from the **Tools** panel.



Note:

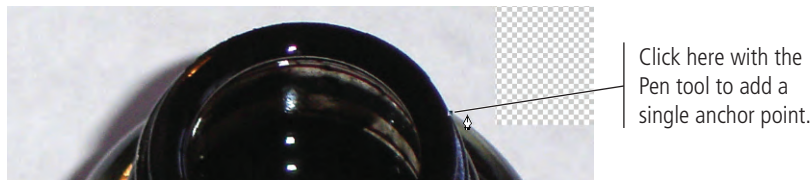
The options for shape layers and paths are virtually the same. One exception, however, is the **Create New Shape Layer** button, which is not available if you are creating a path; new paths are created using the **Paths** panel.

The final options for the Pen tool, which are only available when you create shape layers, are explained in **Project 2**.

The **Auto Add/Delete** option, active by default, allows you to add or remove points on an active path without manually switching to the **Add Anchor Point** or **Delete Anchor Point** tool (nested under the Pen tool).

6. On the Control panel, click the Paths button to draw a path instead of a shape layer.

7. Click in the image where the bottle opening meets the side of the bottle.

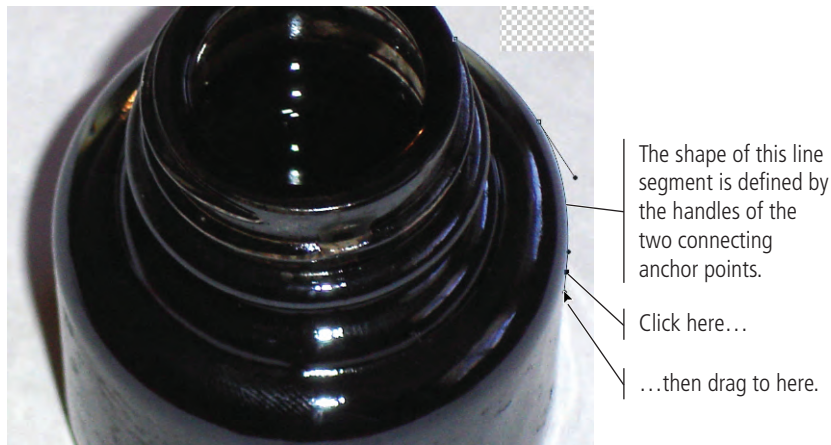


8. Move your cursor down and to the right along the curved edge of the bottle. Click to add an anchor point and drag down and to the right before releasing the mouse button.

When you click and drag with the Pen tool, you are defining the handles for the anchor point. Without getting too heavily into detailed explanations of geometry, you should simply understand that the anchor points determine the ends of line segments, and the handles determine the curve shape of the segments that are connected to that point.



9. Move the cursor down and to the right, then click and drag down to create another anchor point and handles.



Note:

As you work more with paths, anchor points, and handles, you'll become more comfortable with how changing a handle affects the associated line segments. In this case, the best teacher is practice.

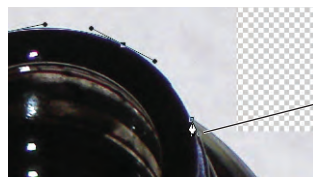
10. Move the cursor down and click to add another anchor point. For this point, don't drag a handle.

When you click without dragging, no handles are created for that point. This creates a corner point.



Click here without dragging. The result is a corner point.

11. Move down and to the left, and then click and drag to the left to create another smooth anchor point.
12. Continue clicking and dragging points until you have outlined the entire bottle. Use a corner point where the left side of the bottle opening meets the left side of the bottle.
13. When you reach the first point you created, place your cursor over the point and click to close the path.



This small hollow circle in the cursor icon indicates that clicking will close the path.

Don't worry if your path isn't perfect. You can edit a path at any point, which you will do next.

Some parts of the path aren't as smooth as they should be.

Some portions of the image are not within the path.



Note:

A smooth point allows the path to flow continuously from one segment to another. A corner point creates a sharp angle, allowing you to change directions of the path.

Click a smooth point to change it to a corner point. Click and drag a corner point with the Convert Point tool to change a corner point to a smooth point.

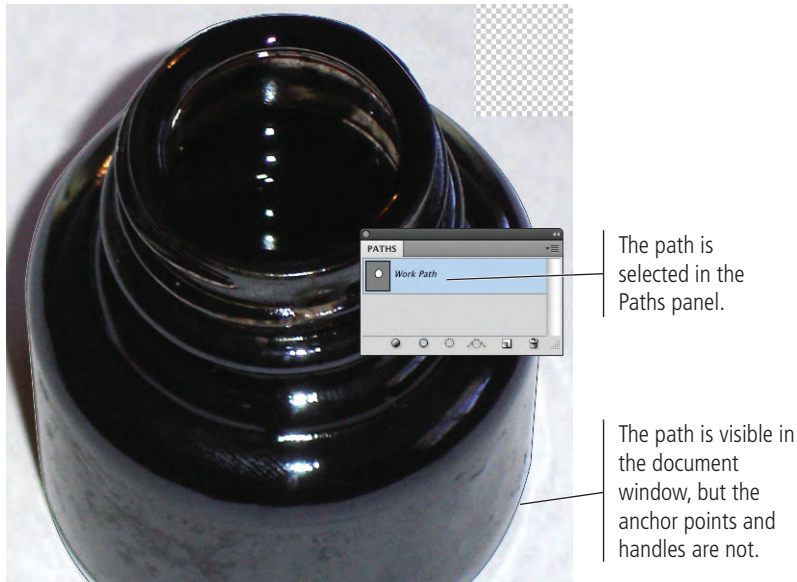
14. Save the file and continue to the next exercise.

EDIT A VECTOR PATH

In most cases, the first path you draw won't be perfect; you'll probably need to edit at least one or two points or segments, move existing points, or even add or delete points before your path exactly matches the shape you're outlining. As you complete this exercise, we show you how to correct the path in our screen shots. You should follow the general directions to correct the path that you drew in the previous exercise.

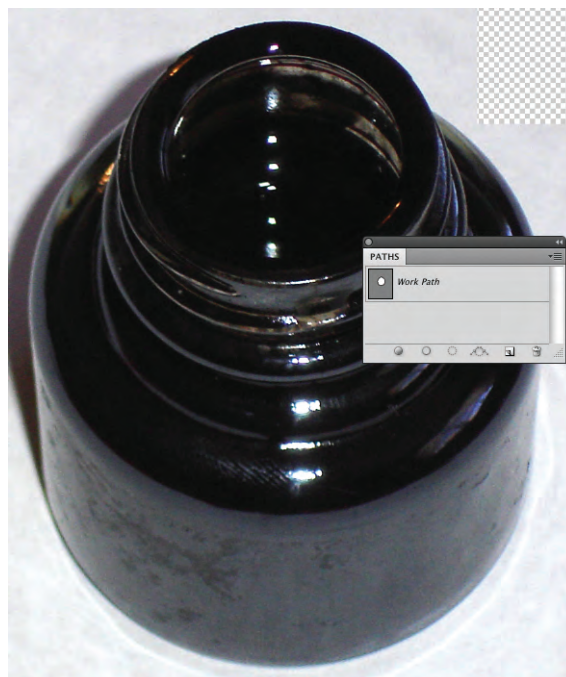
1. With **Movie Ad.psd** open, open the Paths panel.

When you use the Pen tool to draw a path, it automatically appears in the Paths panel as the Work Path (in italics).



2. Click the empty area in the Paths panel (below the work path).

This effectively “turns off” the path; it is still in the Paths panel, but the points and handles are no longer visible in the file window.



Note:

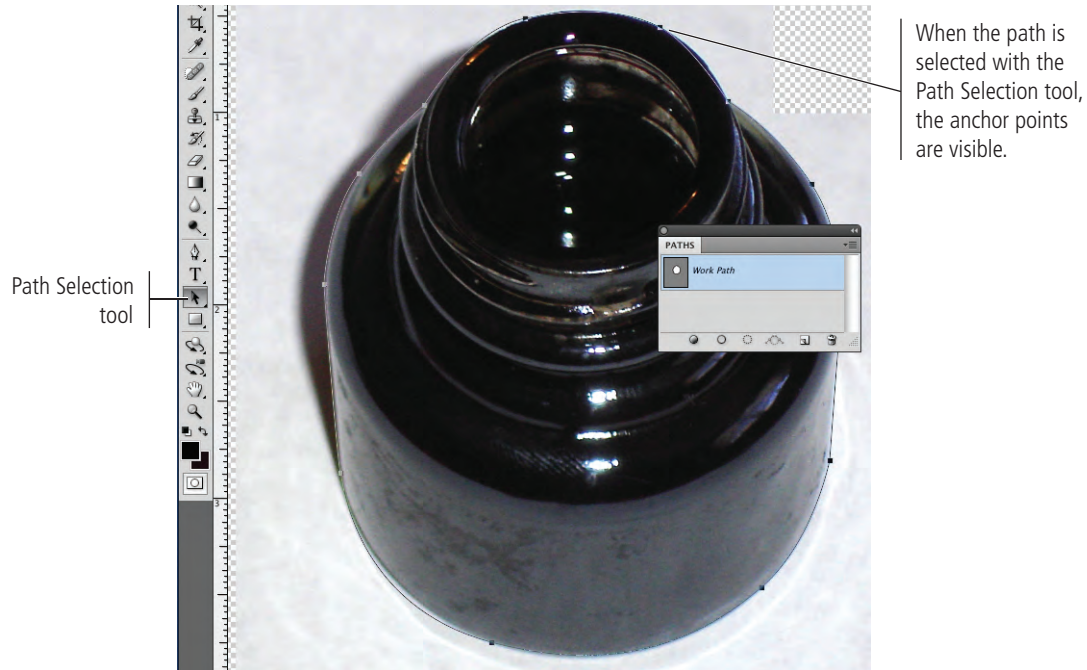
Once you close a path, you can click in other places to create a different (nonconnected) piece of the same path; the Add to Path option is selected by default. If you want to create an entirely new path, you have to click in the Panel area below the work path to deselect it, and then draw the new path.

Note:

If you deselect the work path and then draw a new path, your first work path will be lost. You have to manually save the work path if you want to access it again later.

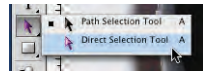
3. Click **Work Path** in the **Paths** panel to show the current work path in the document window.
4. Choose the **Path Selection** tool in the **Tools** panel and click the path in the document window.

The Path Selection tool selects the entire path.



5. Choose the **Direct Selection** tool (nested under the Path Selection tool).

The Direct Selection tool selects individual points and segments of a path.

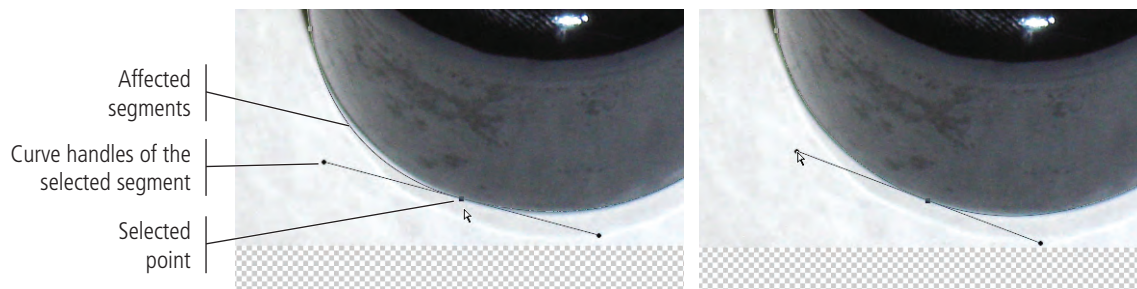


6. **Zoom in if necessary, and then click one of the segments of your path that needs to be edited.**

When you select a segment with the Direct Selection tool, you can see the handles that are associated with that segment.

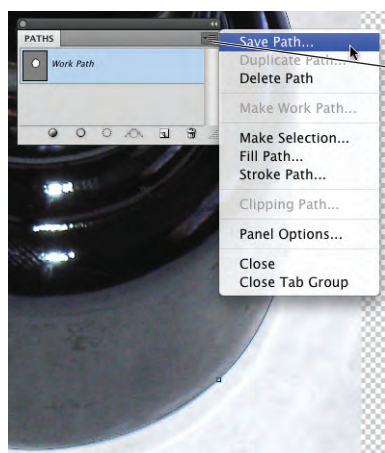
Note:

If you click a point with the Direct Selection tool, the point appears solid. Unselected points appear hollow.



7. **Drag the handle and/or point to correct the bad segment.**
8. **Continue editing the path until you are satisfied with the result. If you need to add or remove points from the path, use the related tools nested under the Pen tool.**

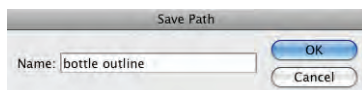
9. When you're satisfied with your path, open the Paths panel Options menu and choose Save Path.



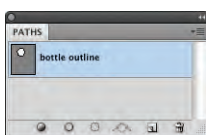
Click here to open the Paths panel Options menu.

10. In the Save Path dialog box, name the path **bottle outline** and click OK.

Trust us — when you get into very complicated files with multiple paths, you'll thank yourself for using names that indicate the purpose of a layer, path, or other element.



After you save a path, it stays in the Paths panel; if you draw a new path now, you create a new work path.



11. Save the file and continue to the next exercise.



CREATE A LAYER MASK

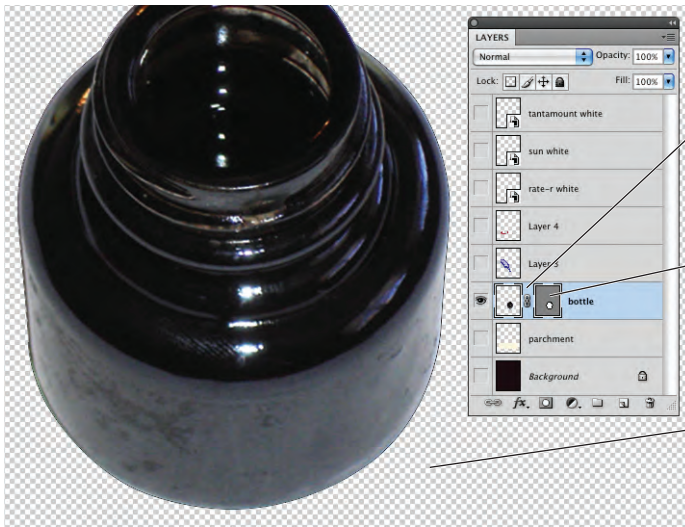
You now have a path that outlines the bottle shape, but the bottle background is still in the image. Since you've already selected the shape (with the path), you can remove the background.

One option for completing this task is to make a selection based on the path (choose Make Selection in the Paths panel Options menu) and simply delete the pixels outside the selection. This is a pixel-based option, even though the path is a vector. When you make the selection, it will be a rendered version of the original vector path.

The second option for isolating an object with a path is to create a layer mask. This option maintains the vector data as the outside edge of the image; areas of the image outside the vector path are hidden but not deleted, so you can later edit the path to change whatever part of the image is visible.

1. With **Movie Ad.psd** open, make sure the **bottle outline** path is selected in the Paths panel.
2. Display the Layers panel and make sure the bottle layer is selected.

3. Choose Layer>Vector Mask>Current Path.

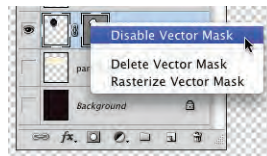


The new linked icon indicates that the layer has a vector mask applied.

As long as the vector mask is linked to the layer, the mask will move along with the layer. You can click this icon to unlink the layer from its mask.

When the vector mask is applied, any pixels on that layer that are outside the mask disappear.

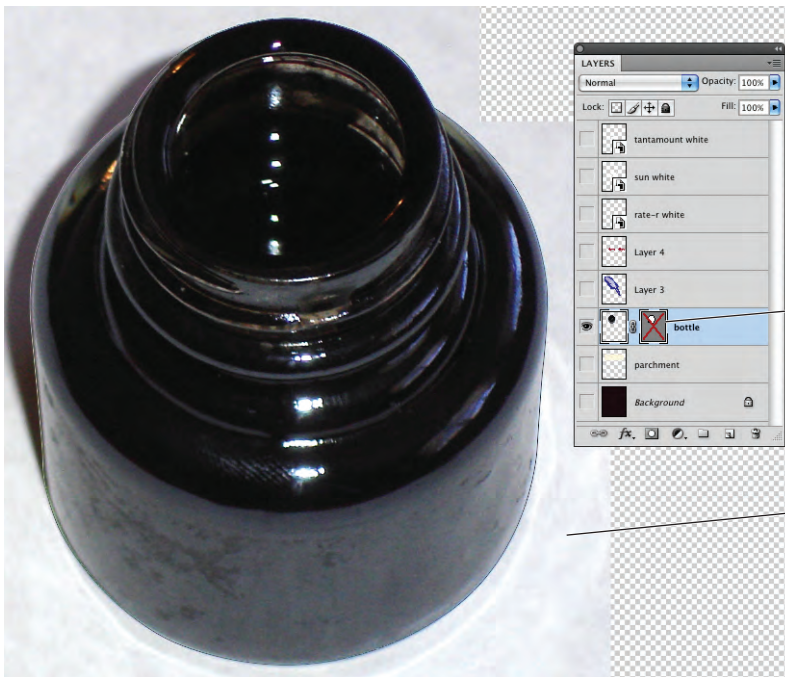
4. Control/right-click the Vector Mask icon and choose Disable Vector Mask from the contextual menu.



When you disable the vector mask, the background pixels are again visible. This is one of the advantages of using masks — the background pixels are not permanently removed, they are simply hidden. You can safely edit the vector mask just as you edit any vector path; moving the vector mask path changes what is visible in the layer.

Note:

Creating selections, reversing them, and then deleting the pixels surrounding an object is a common method for creating silhouettes — but not necessarily the best method. Masks protect the original pixels while providing exactly the same result.



A red X indicates that the mask is disabled.

When the mask is disabled, the background pixels are visible.

5. Control/right-click the Vector Mask icon and choose Enable Vector Mask from the contextual menu.

6. Save the file and continue to the next exercise.

SELECT A COLOR RANGE

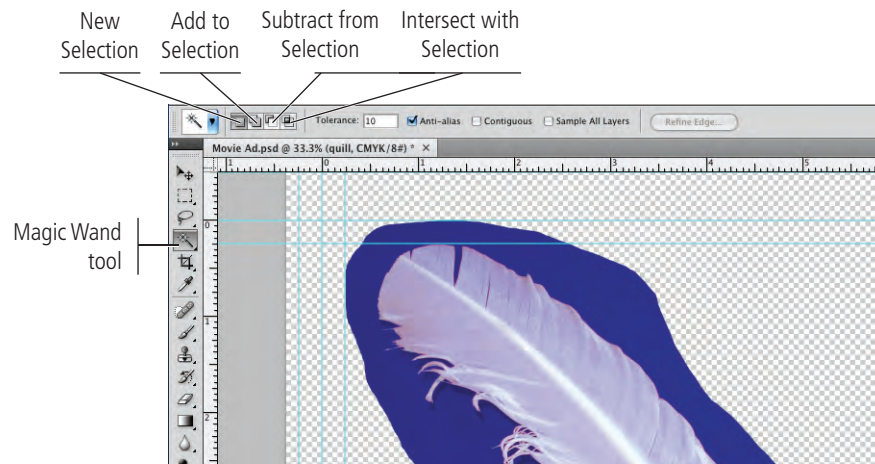
As we said earlier, there is a host of selection options in Photoshop CS4, each with its own advantages and disadvantages. You've already used the marquee tools and lasso tools to select general areas of images; you've used the Quick Selection tool to easily select an entire background, and then refined the edges of that selection; and you've used the Pen tool to select an object with a well-defined edge.

Some images aren't quite as clear-cut as the ones you've silhouetted so far. In fact, many images have both hard and soft edges, and/or very fine detail that needs to be isolated from its background (think of a model's blowing hair overlapping the title on the cover of a magazine). In this type of image, other tools can be used to create a very detailed selection based on the color in the image.

1. With **Movie Ad.psd** open, hide the bottle layer and show **Layer 3**.
2. Rename **Layer 3** as **quill** and zoom out so you can see the entire feather.
3. Choose the **Magic Wand** tool (under the **Quick Selection** tool). In the **Control** panel, make sure the **New Selection** button is active and set the **Tolerance** field to **32**.

The Magic Wand tool is an easy way to select large areas of solid color.

The first four options in the Control panel are the same as those for the Marquee tools (New Selection, Add to Selection, Subtract from Selection, and Intersect with Selection).



Tolerance is the degree of variation between the color you click and the colors Photoshop will select; higher tolerance values select a larger range based on the color you click. If you're trying to select a very mottled background (for example), you should increase the tolerance; be careful, however, because increasing the tolerance might select too large a range of colors if the parts of the foreground object falls within the tolerance range.

The **Anti-alias** check box, selected by default, allows edges to blend more smoothly into the background, preventing a jagged, stair-stepped appearance.

When **Contiguous** is selected, the Magic Wand tool only selects adjacent areas of the color; unchecking this option allows you to select all pixels within the color tolerance, even if some pixels are non-contiguous (for example, inside the shape of the letter Q).

By default, selections relate to the active layer only. You can check **Sample All Layers** to make a selection of all layers in the file.

The **Refine Edge** button opens the same dialog box you used when you isolated the parchment image with the Quick Selection tool.

Note:

The 'W' key automatically picks and toggles between the Magic Wand and the Quick Selection tools (both in the same place on the Tools panel).

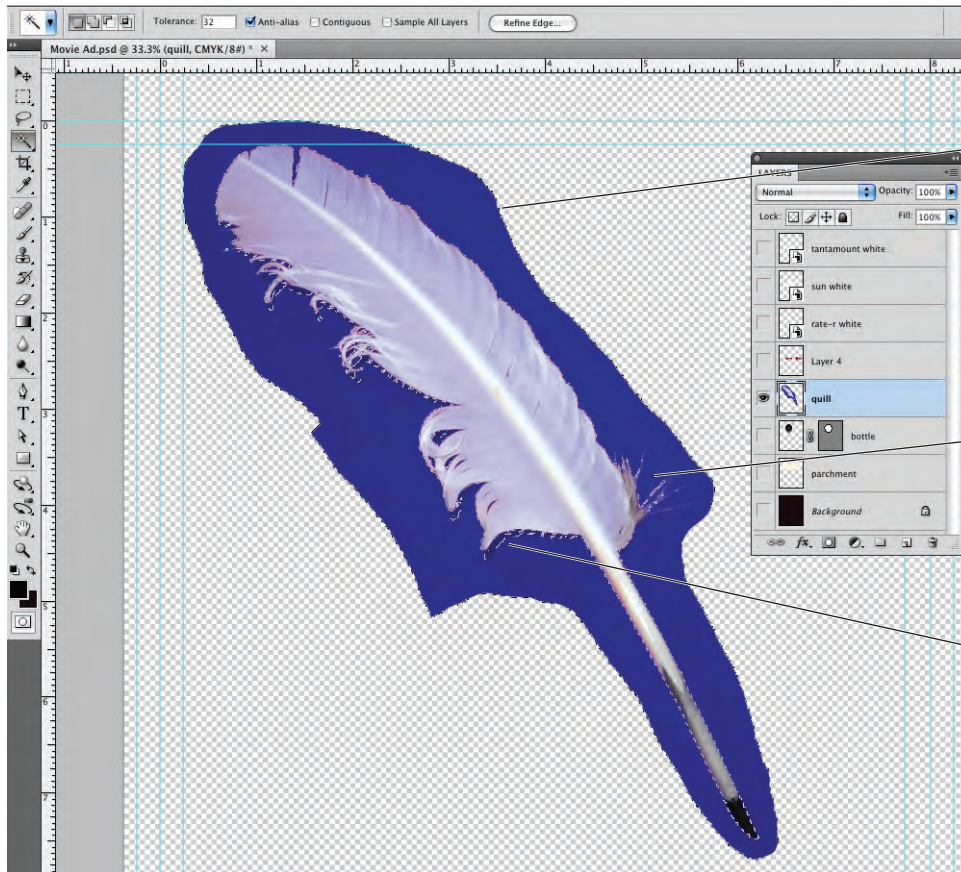
Note:

Using any of the selection tools, press **Shift** and select again to add to the current selection. Press **Option/Alt** and select again to subtract from the current selection. If you use these modifier keys, you'll see a plus sign (Add To) or minus sign (Subtract From) in the tool cursor.

Note:

Anti-aliasing is the process of blending shades of pixels to create the illusion of sharp lines in a raster image.

4. Click anywhere in the blue area of the image.



Marching ants indicate the selection area.

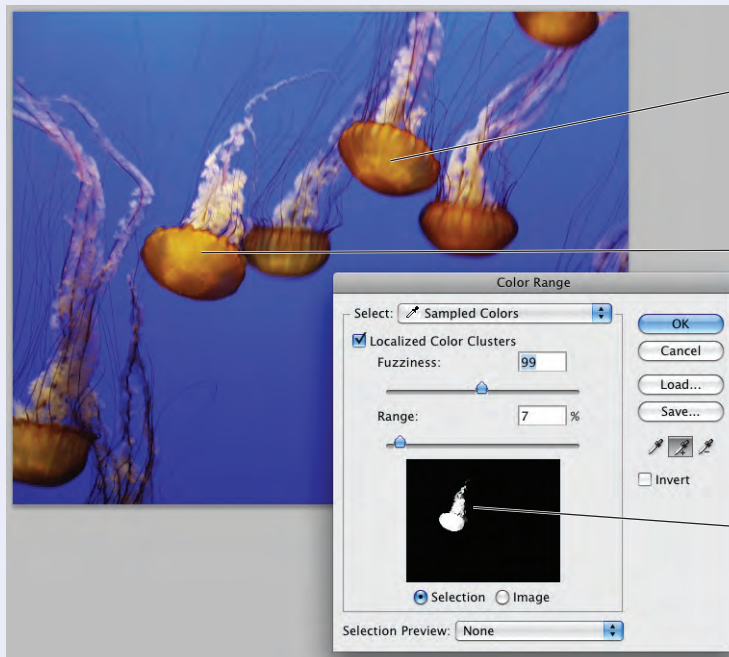
Fine areas of the feather can't be distinguished by the marching ants, so you don't know if they're selected or not.

Blue areas outside the tool's tolerance are unselected.

Selecting Localized Color Clusters

PHOTOSHOP FOUNDATIONS

The Localized Color Clusters option can be used to select specific areas of a selected color. When this option is checked, the Range slider defines how far away (in physical distance) a color from the point you click can be located and still be included in the selection.



The same colors in other jellyfish are not selected because they are outside the reduced Range value.

We used a number of clicks with different Fuzziness values to sample the colors in this jellyfish.

Using Localized Color Clusters and a reduced Range value, we were able to isolate this jellyfish from its school.

5. Choose Select>Deselect to turn off the current selection.

Although you could keep adding to the selection with the Magic Wand tool, the marching ants can't really show the fine detail, and they don't show shades of gray. There's a better way to isolate the feather from its blue background.

6. Choose Select>Color Range.

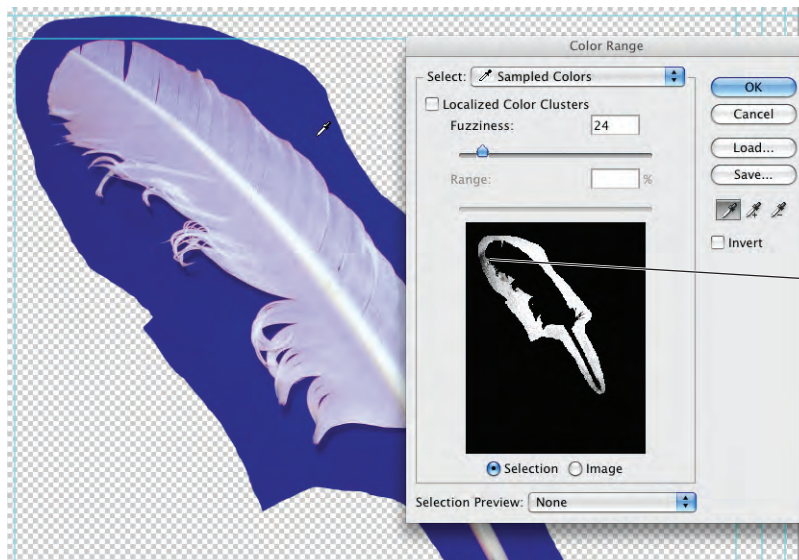
7. Make sure the Localized Color Clusters option is unchecked.

8. Set the Fuzziness value to 24 and click anywhere in the blue area around the feather image (in the document window).

Fuzziness is similar to the Tolerance setting for the Magic Wand tool. Higher Fuzziness values allow you to select more variation from the color you click.

Note:

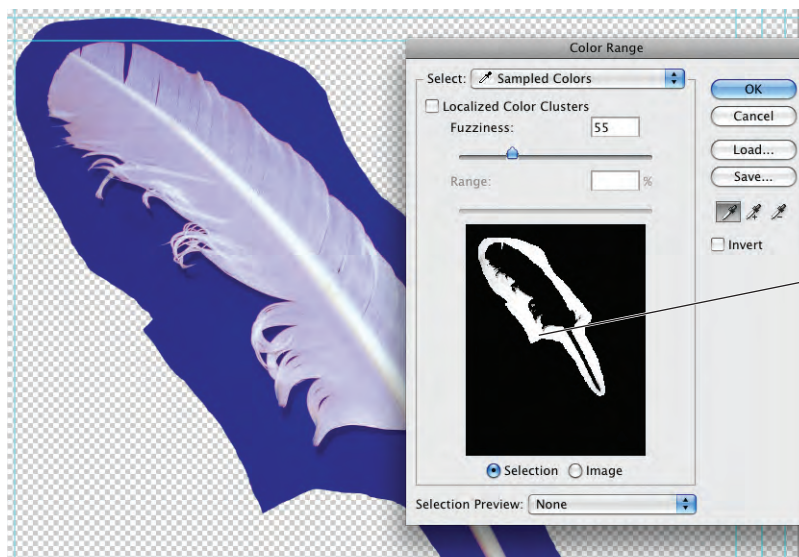
Press Command/Control-D to turn off the current selection.



The low Fuzziness value doesn't select a large enough range of blues.

9. Change the Fuzziness value to 60 and watch the effect on the dialog box preview.

Changing the Fuzziness value expands (higher numbers) or contracts (lower numbers) your selection. Be careful, however, since higher fuzziness values also eliminate very fine lines and details.



Increasing the Fuzziness value allows you to select areas of greater color variation.

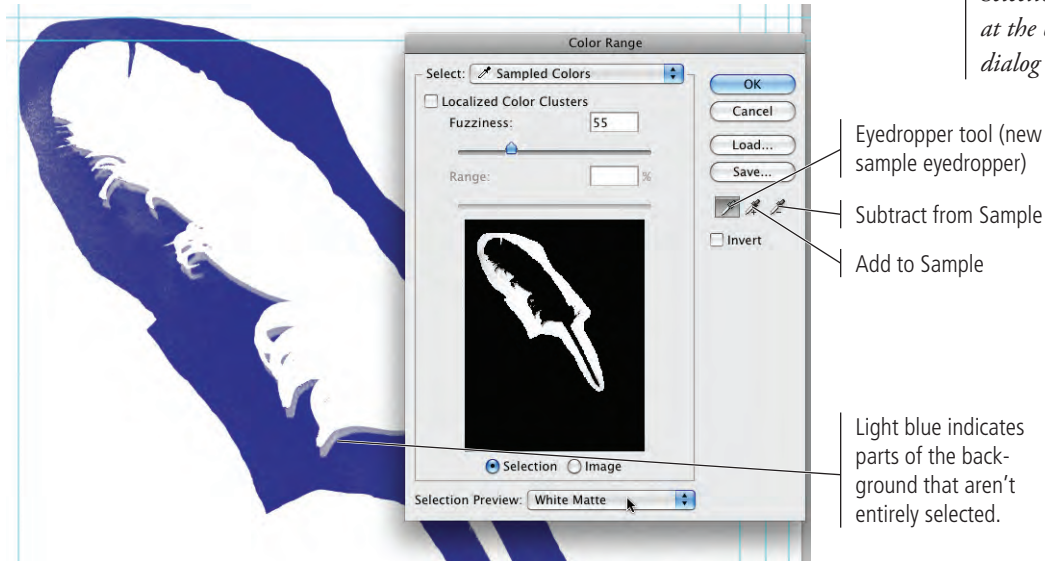
10. Choose White Matte in the Selection Preview menu.

By changing the Selection Preview mode, you can more easily determine exactly what is selected. Using the White Matte preview, anything visible is selected.

You can preview color range selections in the image window as grayscale (areas outside the selection are shown in shades of gray), against a black matte (unselected areas are shown in black), against a white matte (unselected areas are shown in white), or using the default Quick Mask settings. If you choose None in the Selection Preview menu, the document window displays the normal image.

Note:

Because the dialog box preview is so small, we prefer to rely on the preview in the document window, which is controlled in the Selection Preview menu at the bottom of the dialog box.



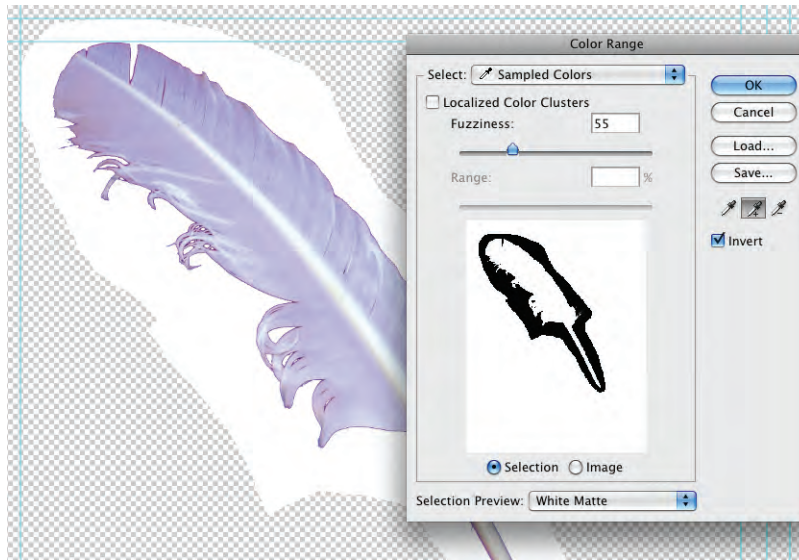
Depending on where you clicked, your selection might not exactly match what you see in our screen shot. For now, the important point is to know that the visible areas indicate the current selection.

11. Click the Add to Sample eyedropper and click in the image where parts of the blue background are not shown in full strength (light blue).



12. Check the Invert box in the Color Range dialog box.

Because your goal is to isolate the feather and not the background, it helps to look at what you want to keep instead of what you want to remove.

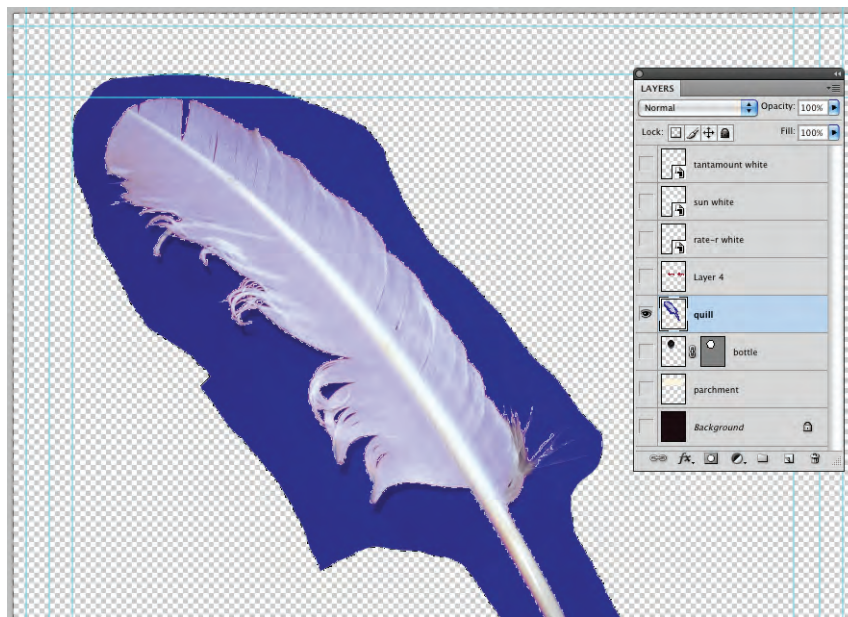


13. Continue adding to (or subtracting from, if necessary) your selection until you are satisfied that all the blue background is gone.

14. Click OK when you're satisfied with your selection.

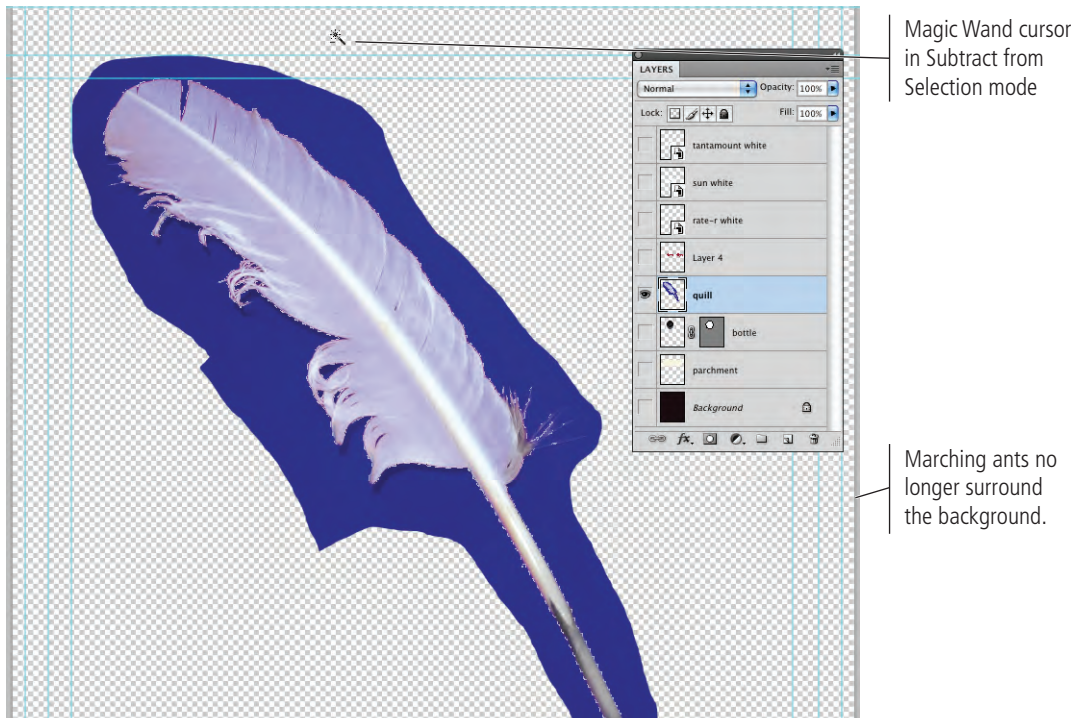
When you return to the image window, the marching ants indicate the current selection. In the Color Range dialog box, you selected the blue and inverted the selection — in other words, your selection is everything that isn't blue.

If you zoom out to see the entire file, you'll see the marching ants surround the file as well as the blue background. Since the transparent area is not blue, it is included in the selection.



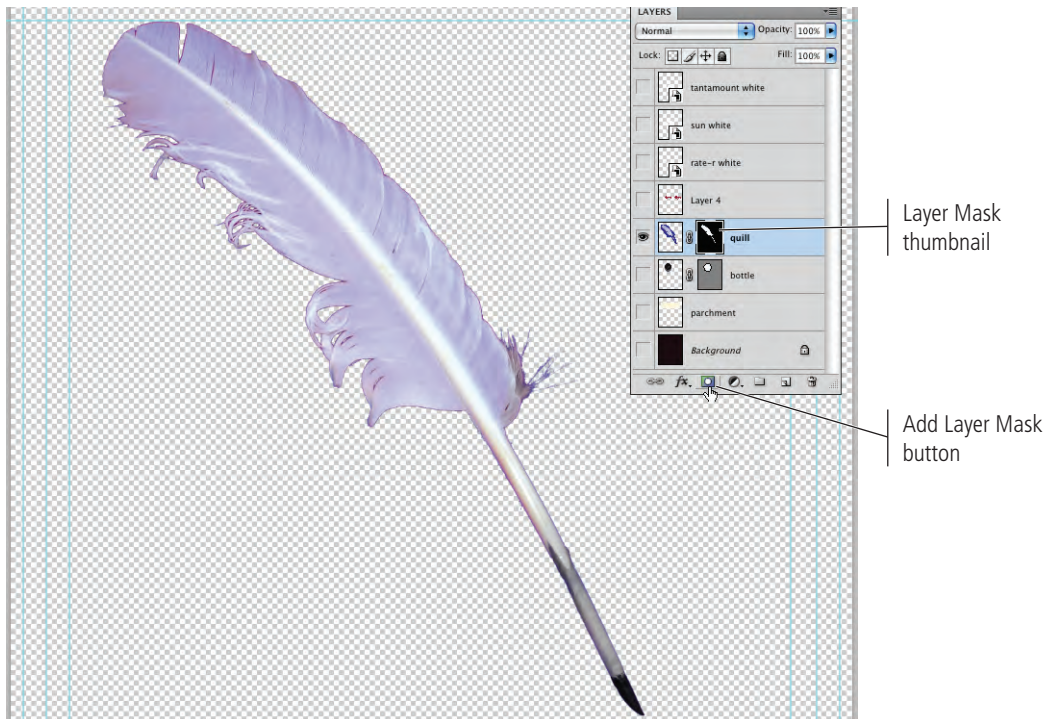
15. Choose the Magic Wand tool in the Tools panel and choose the Subtract from Selection option on the Control panel.

16. Click anywhere in the transparent area (the gray-and-white checkerboard) to remove that area from the selection.



17. In the Layers panel, click the Add Layer Mask button.

Similar to the vector mask you created in the previous exercise, this layer mask shows a new icon linked to the layer icon. A layer mask works on the same principle as the vector mask, except that the layer mask is raster-based instead of vector-based. You can disable the layer mask in the same way you disabled the vector mask in the previous exercise.



18. Save the file and continue to the next stage of the project.

Stage 4 Managing Multiple Layers

Your ad file has most of the necessary pieces. If you show all of the layers, however, you'll still see a bunch of stacked images. It's not yet an actual design, just a pile of images. When you composite images into a cohesive design, you almost certainly need to manipulate and transform some of the layers to make all the pieces work together.

Photoshop includes a number of tools for managing layers, from resizing the layer (as you did for the parchment) to rotating and flipping layers, to aligning different layers to each other, to grouping individual layers so you can work on multiple images at once.

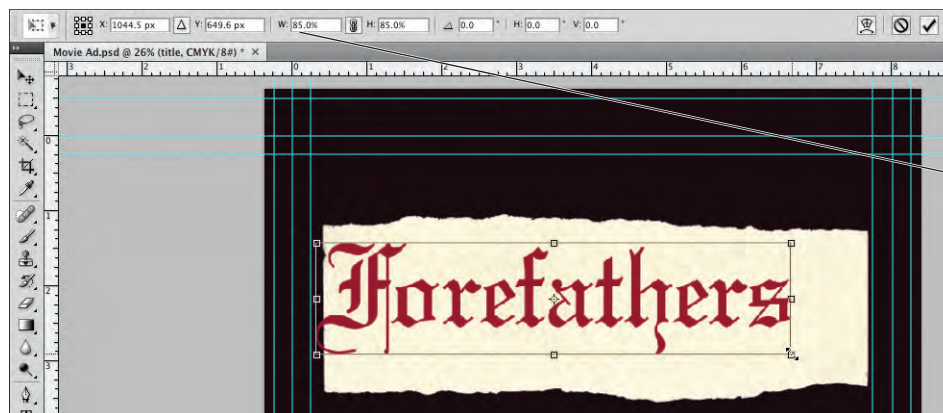
MANIPULATE AND ARRANGE LAYERS

1. With **Movie Ad.psd** open, hide the quill layer and show the Background, parchment, and Layer 4 layers.
2. Rename Layer 4 as **title**.
Right now the title is too large to fit into the parchment layer, so you need to resize it.
3. Using the Move tool, drag the title layer to be approximately centered over the parchment image.
4. With the title layer selected in the Layers panel, choose **Edit>Transform>Scale**.
5. Click one of the corner handles, press Shift, and drag until the Control panel shows the layer at approximately 85%. Press Return/Enter to commit (finalize) the rescaling.

Because you pressed Shift, the layer automatically rescales proportionally.

Note:

Press Command/
Control-T to display the
transform handles.

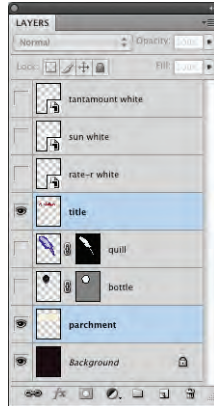


Keep an eye on the Control panel as you transform (scale) the layer.

Once you've resized the title to fit into the parchment, you need to reposition the title in the center of the parchment. You could do this manually, but Photoshop includes tools that make this task much easier.

6. In the Layers panel, press Command/Control and click the parchment layer name.

Since the title layer was already selected, the parchment layer should now be a second selected (highlighted) layer.

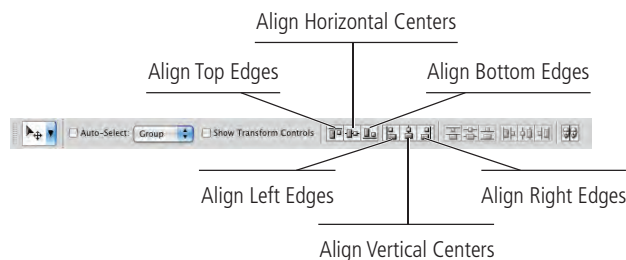


Note:

Command/Control-clicking a layer thumbnail results in a selection around the contents of that layer.

7. On the Control panel, click the Align Vertical Centers button.

When more than one layer is selected, the align buttons become available. This method is far more precise than simply dragging by eye, and far easier than manually calculating positions by the numbers.



Note:

You can select noncontiguous layers by pressing Command/Control. You can select contiguous layers by pressing Shift while you click.

8. Click the Align Horizontal Centers button while the two layers are selected.

The title and parchment should now be evenly positioned horizontally and vertically in relation to one another.



Since these two layers function as a single element in the overall design, it's a good idea to combine them so they can function as one unit. You could merge the two layers, but that would require flattening the pixels in the two layers into a single layer. Once flattened, you would no longer be able to edit the individual layers.

Note:

Deselect all layers by clicking in the empty area at the bottom of the Layers panel.

- In the Layers panel, click the title layer and drag down. When a heavy black bar appears between the bottle and parchment layers, release the mouse button.

You can move a layer to any position in the **stacking order** (the top-to-bottom position of a layer) by simply dragging it to a new position in the Layers panel.

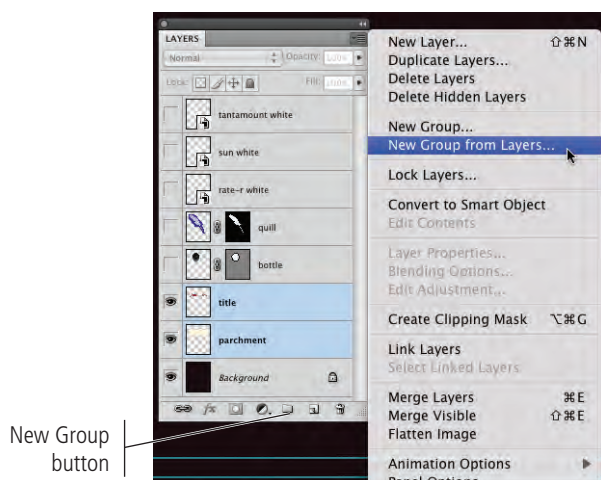


Note:

Step 9 isn't particularly necessary; you can group selected layers even if they aren't contiguous. We simply want to make sure you know how to reposition layers in a file.

- With the title layer selected, press Shift and click the parchment layer to select it as well.
- Click the button in the top-right corner of the panel to open the Layers panel Options menu. Choose **New Group from Layers**.

This option creates a group that automatically contains the selected layers. You can also create an empty group by choosing New Group (this option is available even when no layer is selected) or by clicking the New Group button at the bottom of the panel.

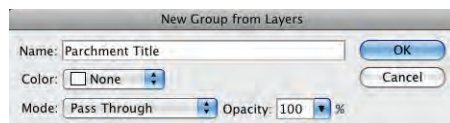


Note:

You can create a group from selected layers by dragging the selected layers onto the New Group button at the bottom of the panel. In this case, the new group is automatically named "Group N" (N is a placeholder for a sequential number); of course, you can rename a layer group just as easily as you can rename a layer.

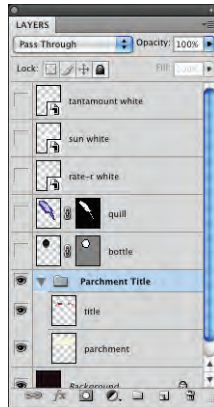
- In the New Group from Layers dialog box, type **Parchment Title** in the Name field and click OK.

As with any other layer, you should name groups based on what they contain so you can easily identify them later.



13. Click the arrow left of the Parchment Title group name to expand the layer group.

The two selected layers are now part of the group.



14. Collapse the group by clicking the arrow left of the group name.

15. With the Parchment Title group selected in the Layers panel, use the Move tool to position the Parchment Title group in the bottom third of the document window.

Because the current selection is the layer group, both layers contained within that group are moved in the document window.



16. Save the file and continue to the next exercise.



CREATE A NESTED GROUP

1. With **Movie Ad.psd** open, show and select the bottle layer.
2. Scale the bottle layer to 40% (proportionally).
3. Using the Move tool, drag the bottle until it is directly above the “he” in the title.



4. Show and select the quill layer, and then resize it to 65% proportionally.
5. With the quill layer still selected, choose **Edit>Transform>Flip Horizontal**.
6. Using the Move tool, drag the selected layer so the quill image overlaps the “er” in the title, and the tip is just within the edges of the parchment. (Use the following image as a placement guide.)



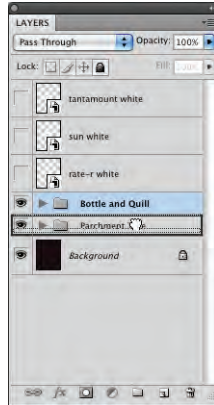
7. In the Layers panel, select the bottle and quill layers and group them together in a group named **Bottle and Quill**.

Note:

When the Move tool is active, you can move the selected object or layer 1 pixel by pressing the Arrow keys. Pressing Shift with any of the Arrow keys moves the selected object/layer by 10 pixels.

8. Click the new layer group and drag down. When a black border appears around the Parchment Title group, release the mouse button.

This places the Bottle and Quill group inside the Parchment Title group (called nesting).



9. Expand the Parchment Title layer group.

The nested group is automatically placed at the bottom of the group's stacking order, so the bottle and quill are behind the parchment.



10. Click the Bottle and Quill layer group and drag it up above the parchment and title layers within the group.



11. Collapse the Parchment Title layer group, save the file, and then continue to the next exercise.

FINISH THE AD

1. With **Movie Ad.psd** open, show the three remaining layers (the logo Smart Objects).
2. Resize the Sun logo to 13% and drag it to the bottom-right corner (inside the live area guides of the smaller ad).
3. Resize the Tantamount logo to 20% and drag it to the bottom live area guide, about 1/4" to the left of the Sun logo.
4. Resize the rating logo to 45%. Drag it to the bottom-left corner of the live area.
5. Select all three logo layers and align their vertical centers.
6. Combine the three logo layers in a layer group named **Logos**.
7. Drag the Parchment Title layer group directly above the logos, centered horizontally on the page.
8. Choose **File>Place** to place the file **declaration.psd** (from the **RF_Photoshop>Liberty Ad** folder) as a Smart Object.
9. Make sure the placed file is scaled at 100% and reaches all edges of the image.
Placed files are sometimes automatically scaled below 100% when you place them. To check, choose **Edit>Transform>Scale** and look at the W or H field in the Control panel.
10. In the **Layers** panel, drag the declaration layer below the Parchment Title layer group.

Be careful that you don't drop the declaration layer onto the Parchment Title group folder, which would place it inside that group instead of behind it.

Note:

If you use the Control panel to resize a Smart Object, the scale percentage is maintained even after you finalize the change (unlike scaling a regular layer, where the layer reverts to 100% once you finalize the scaling).



11. Save the file and continue to the final stage of the project.

Stage 5 Saving Photoshop Files for Print

At the beginning of the project, you saved this file in Photoshop's native format (PSD). However, many Photoshop projects require saving the completed file in at least one other format. Many artists prefer to leave all files in the PSD format since there is only one file to track. Others prefer to send only flattened TIFF files of their artwork because the individual elements can't be changed. Ultimately, the format (or formats, if the file is being used in multiple places) you use will depend on where and how the file is being placed.

As a general rule, many Photoshop projects are pieces of a larger composition; the overall project defines the format you need to use when you save a complete project. The ad you've created, for example, will be placed in magazine layouts, which will be built in a page-layout application like Adobe InDesign or QuarkXPress.

Although the current versions of both industry-standard page-layout applications can support native layered PSD files, older versions can't import those native files. If a magazine is being designed in QuarkXPress 4, for example (and many still are), you can't place a layered PSD file into the QuarkXPress 4 layout. As the Photoshop artist, you would have to save your work in a format that is compatible with the magazine layout.

As you know, the ad you created will be placed in multiple magazines, and different publishers have provided different file requirements. You need to save two different versions of the ad to meet those requirements.

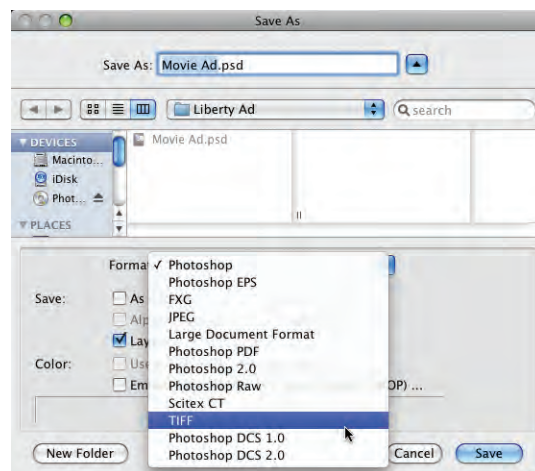
SAVE A LAYERED TIFF FILE

The magazine with the 8.5 × 11" trim size suggests that ads created in Photoshop be submitted as layered TIFF files. Since you designed the ad to incorporate bleeds for pages up to 8.5 × 11", all you have to do for this version is save the file in the appropriate format.

1. With **Movie Ad.psd** open, choose **File>Save As**.
2. Navigate to your **WIP>Liberty Ad** folder as the target location for saving the final files.

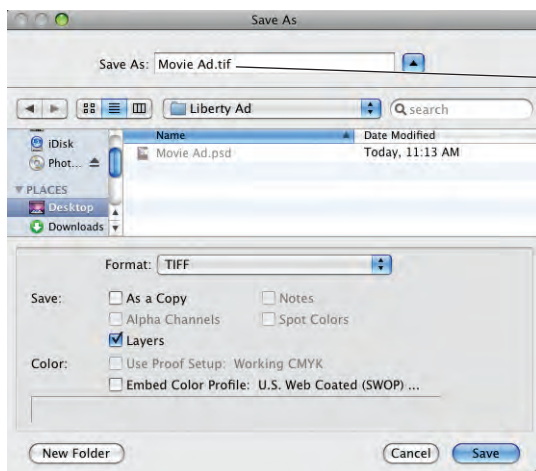
The Save As dialog box defaults to the last-used location. If you continued the entire way through this project without stopping, you won't have to navigate.

3. Click the **Format** menu and choose **TIFF**.



4. Make sure the Layers check box is selected in the lower half of the dialog box.

Because this file contains layers, this option is probably checked by default. If your file contained alpha channels, annotations, or spot colors, those check boxes would also be available. The As a Copy check box can be used if you want to save multiple versions of the same file with different options (which you'll do in the next exercise).



Choosing a different format automatically changes the file's extension.

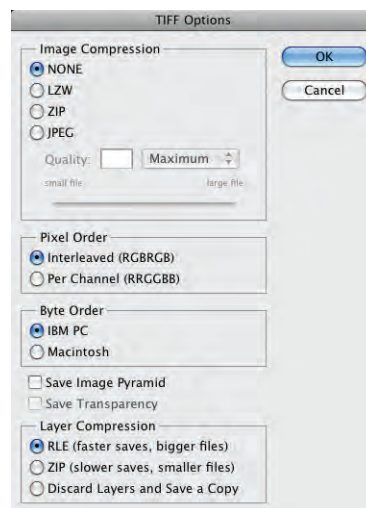
5. Click Save.

Most file formats include additional options, which you should understand before you simply click OK.

6. In the TIFF Options dialog box, make sure the None radio button is selected.

TIFF files can be compressed (made smaller) using one of three schemes:

- **None** (as the name implies) applies no compression to the file. This option is safe if file size is not an issue, but digital file transmission often requires files to be smaller than a full-page, multi-layered Photoshop file.
- **LZW** (Lempel-Ziv-Welch) compression is lossless, which means all file data is maintained in the compressed file.
- **ZIP** compression is also lossless, but is not supported by all desktop publishing software (especially older versions).
- **JPEG** is a **lossy** compression scheme, which means some data will be thrown away to reduce the file size. If you choose JPEG compression, the Quality options determine how much data can be discarded. Maximum quality means less data is thrown out and the file is larger. Minimum quality discards the most data and results in the smaller file size.



7. Leave the Pixel Order radio button at the default value, and choose the IBM PC byte order.

Pixel Order determines how channel data is encoded. The Interleaved (RGBRGB) option is the default; Per Channel (RRGGBB) is called “planar” order.

Byte Order determines which platform can use the file, although this is somewhat deceptive. Even in older versions of most desktop publishing software, Macintosh systems can read the PC byte order but Windows couldn't read the Macintosh byte order. If you don't know which platform will ultimately be used, choose IBM PC.

Save Image Pyramid creates a tiered file with multiple resolution versions; this isn't widely used or supported by other applications, so you can typically leave it unchecked.

If your file contains transparency, the Save Transparency check box will be available. If you don't choose this option, transparent areas will be white in the saved file.

Note:

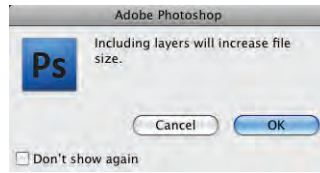
Older desktop publishing software doesn't always support compressed TIFF files. When saving for those workflows, you might have to save the file without compression, regardless of the resulting file size.

8. In the Layer Compression area, make sure the RLE option is selected.

These three options explain — right in the dialog box — what they do.

9. Click OK to save the file.

Photoshop warns you that including layers will increase the file size.



10. Click OK to dismiss the warning and save the file.

11. Continue to the next exercise.

Note:

If you don't see the warning, it's possible that someone checked the Don't Show Again check box. If you want to make sure that you see all warnings and messages, click Reset All Warning Dialogs in the General Preferences.

 **SAVE A FLATTENED TIFF FILE**

The smaller of the magazines (the 8 × 10 version) is still using an older page-layout application that doesn't support layered TIFF or PSD files. This company requires ads to be submitted as either native page-layout format or flattened TIFF files. To meet these requirements, you have to flatten the Photoshop file, and then save it in a different TIFF format. One extra step — cropping it to the appropriate bleed size — will prevent the ad from being placed incorrectly in the magazine layout.

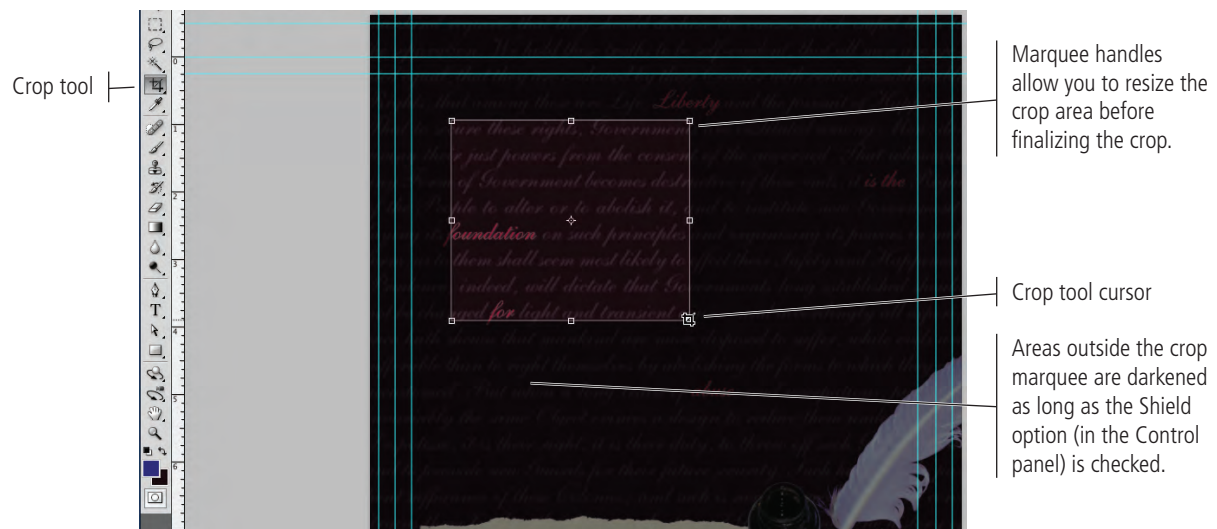
1. With Movie Ad.tif open in Photoshop, choose the Crop tool in the Tools panel.

If you continued directly from the previous exercise, this is the version you just saved. If you quit before you began this exercise, make sure you open the TIF version and not the PSD version from your WIP>Liberty Ad folder.

2. Click in the image window and drag a marquee with the Crop tool.

The crop marquee has eight handles, which you can drag to change the size of the cropped area.

When you draw a marquee with the Crop tool, the area outside the marquee is masked by a darkened overlay so that you can get an idea of what will remain after you finalize the crop. You can turn off this preview by unchecking the Shield box on the Control panel; you can also change the color and opacity of the shield.



3. Drag the crop marquee handles to the smaller page trim guides (8 × 10).

Remember: anything that runs to the page edge has to incorporate a bleed allowance.

4. Extend the crop marquee 1/8" outside each trim guide.

Use the rulers to include the 1/8" bleed allowance within the crop marquee.



Remember, you moved the zero point to the smaller magazine trim. You can use the marks on the rulers to easily find 1/8 inch outside this trim edge.

Note:

You can rotate a crop marquee by placing the cursor slightly away from a corner handle.



Note:

You can press the Escape key to cancel the crop marquee and return to the uncropped image.

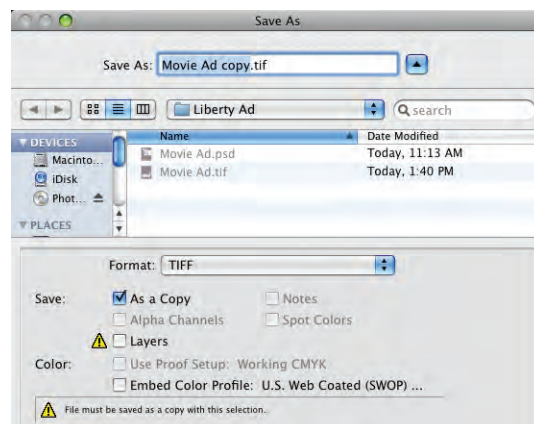
5. Press Return/Enter to finalize the crop.

6. Choose File>Save As.

Since you started this exercise with the TIFF file from the previous exercise, the format and file name extension already reflect the TIFF options.

7. Uncheck the Layers check box.

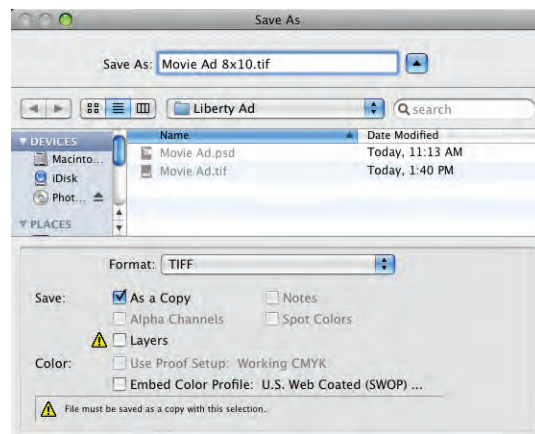
The As a Copy box is now selected by default. A warning shows that the file must be saved as a copy when the Layers option is unchecked. This is basically a failsafe built into Photoshop that prevents you from overwriting your layered file with a flattened version.



Note:

You can manually flatten a file by choosing Layer>Flatten Image.

8. In the Save As field, replace the word “copy” with **8x10** to distinguish it from the larger version.



9. Click Save. In the resulting TIFF Options dialog box, make sure the None compression option is selected and the Byte Order is set to IBM PC.
10. Click OK to save the second version of the file.
11. When the save is complete, choose File>Close. Click Don't Save when asked.

When you finished the previous exercise, you saved the ad as an 8.5 × 11” layered TIFF; that TIFF file remained open at the end of the exercise (not the original PSD file). In this exercise, you used the options in the Save As dialog box to save another copy of the TIFF file, this one with layers flattened and a small file size.

The open file is still the original Movie Ad.tif file, which you saved for the 8.5 × 11” trim requirement. You’ve made changes, though (you cropped the image), so Photoshop asks if you want to save your changes before closing. If you click Save, you will overwrite the 8.5 × 11” version with the cropped version.



Common File Formats

Photoshop, with the extension PSD, is the native format.

Photoshop EPS can maintain vector and raster information in the same file, and can maintain spot color channels.

JPEG is a lossy compressed file format that does not support transparency.

Large Document Format, using the extension PSB, is used for images larger than 2 GB (the limit for PSD files); this format supports all Photoshop features including transparency and layers.

Photoshop PDF can contain all required font and image information in a single file, which can be compressed to reduce file size.

Photoshop 2.0 saves a flattened file that can be opened in Photoshop 2.0; all layer information is discarded.

Photoshop Raw supports CMYK, RGB, and grayscale images with alpha channels, and multichannel and LAB images without alpha channels; this format does not support layers.

Scitex CT is used for high-end image processing on proprietary Scitex computers. (Although rarely used today, this format is still used occasionally, so we include it here.)

TIFF is a raster-based image format that supports layers, alpha channels, and file compression.

Photoshop DCS 1.0 creates a separate file for each color channel in a CMYK image, plus a fifth composite file that can be used for placement.

Photoshop DCS 2.0 is a later variation of DCS 1.0; version 2 supports spot color channels, and can be saved as multiple files (one for each channel) or as a single file.

Project Review

fill in the blank

1. The _____ is the range of visible and available color in a particular color model.
2. _____ is likely to cause degradation of a raster image when it's reproduced on a printing press.
3. A _____ is a linked file that you placed into another Photoshop document.
4. The _____ is context sensitive, providing access to different functions depending on what tool is active.
5. The _____ is the final size of a printed page.
6. The _____ tool is used to draw irregular-shaped selection marquees.
7. The _____ tool is used to create precise shapes based on anchor points and connecting line segments.
8. The _____ tool can be used to drag layer contents to another position within the image, or into another open document.
9. When selecting color ranges, the _____ value determines how much of the current color range falls into the selection.
10. _____ is a lossy compression method that is best used when large file size might be a problem.

short answer

1. Briefly describe the difference between raster images and vector graphics.
2. Briefly explain three separate methods for isolating an image from its background.
3. Briefly describe the relationship between anchor points and handles (direction lines) on a vector path.

Project Summary

Making selections is arguably the most important skill you will learn to do in Photoshop. Selections are so important that Photoshop dedicates an entire menu to the process.

As you created the four-color magazine ad in this project, you used a number of skills and techniques that you will apply in many (if not all) projects you build in Photoshop. You learned a number of ways to make both simple and complex selections — and you'll learn additional methods in later projects. You also learned that after you make a selection, you can create composite images, move pixels to silhouette an object against its background, and much more.

The image shows a magazine advertisement for 'Forefathers'. The background is a dark, textured surface with faint, repeating text in a serif font. In the center, there is a piece of yellowed parchment with the word 'Forefathers' written in a large, red, gothic-style font. To the right of the parchment is a quill pen in an inkwell. The advertisement is annotated with several lines pointing to different elements, each with a corresponding text label:

- Define a custom background color
- Incorporate scans and digital photographs
- Incorporate a Photoshop file as a Smart Object
- Scale, position, and manage multiple layers
- Incorporate vector graphics as raster elements
- Incorporate vector graphics as Smart Objects
- Create a high-resolution file for multiple trim sizes
- Create a silhouette using the Select Color Range utility
- Create a silhouette using the Quick Selection tool
- Refine a selection using the Refine Edges utility
- Create a silhouette using a vector path