

# Composite Movie Ad

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

This project incorporates the following skills:

- Creating a single composite ad from multiple supplied images
- Compositing multiple photographs, using various techniques to silhouette the focal object in each image
- Incorporating vector graphics as rasterized layers and Smart Object layers
- Scaling and aligning different objects in relation to the page and to each other
- Managing individual layout elements using layers and layer groups
- Saving multiple versions of a file to meet different output requirements



# Project Meeting

## client comments

Here's a basic synopsis of the movie:

*A massive hurricane, unlike anything ever seen on the West Coast of the United States, takes aim at San Francisco. The category 6 hurricane sparks tidal waves, fires, floods — the resulting destruction dwarfs even the earthquake and fire of 1906. The movie follows the storm survivors through the process of rebuilding, both personally and politically.*

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 use different software to create the magazine layouts. We need the ad to work for all of our placements, regardless of what software is being used by the magazine publishers.

## 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 first two magazines' specs:

Magazine 1

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

Magazine 2

- Sizes are the same as Magazine 1
- Files should be submitted as flattened TIFF or PDF

## project objectives

To complete this project, you will:

- Resize a raster image to change resolution
- Composite multiple images into a single background file
- Incorporate both raster and vector elements into the same design
- Transform and arrange individual layers to create a cohesive design
- Create layer groups to easily manage related layer content
- Use selection techniques to isolate images from their backgrounds
- Save two different types of TIFF files for different ad requirements





# Stage 1 Compositing Images and Artwork

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; 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.

## Types of Images

There are two primary types of digital artwork: vector graphics and raster images.

**Vector graphics** are composed of mathematical descriptions of a series of lines and shapes. Vector graphics are **resolution independent**; they can be freely enlarged or reduced, and they are automatically output at the resolution of the output device. The shapes that you create in Adobe InDesign, or in drawing applications such as Adobe Illustrator, are vector graphics.

**Raster images**, such as photographs or files created in Adobe Photoshop, are made up of a grid of independent pixels (rasters or bits) in rows and columns (called a **bitmap**). Raster files are **resolution dependent** — their resolution is fixed, determined when you scan, photograph, or otherwise create the file. You can typically reduce raster images, but you cannot enlarge them without losing image quality.

**Line art** is a type of raster image that it 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-and-ink drawings.

## Screen Ruling

The ad that you will be building in this project is intended to be placed in print magazines, so you have to build the new file with the appropriate settings for commercial printing. When reproducing a photograph on a printing press, the image must be converted into a set of printable dots that fool the eye into believing it sees continuous tones. Prior to image-editing software, pictures that were being prepared for printing on a press were photographed through a screen to create a grid of halftone dots. The result of this conversion 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.

The screens used to create the halftone images had a finite number of available dots in a horizontal or vertical inch. That number was the **screen ruling**, or **lines per inch (lpi)** of the halftone. A screen ruling of 133 lpi means that in a square inch there are  $133 \times 133$  (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.

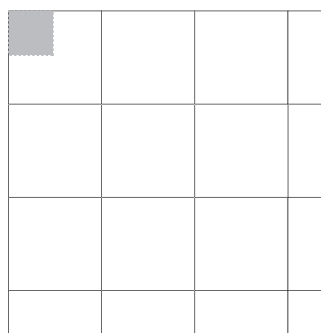
**Line screen** is a finite number based on a combination of the intended output device and paper. You can't randomly select a line screen. Ask your printer what line screen will be used before you begin creating your images.

### Note:

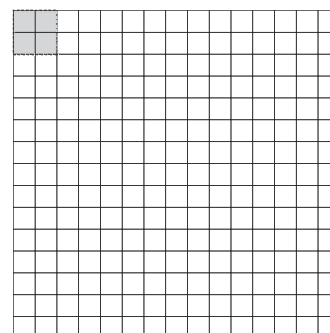
*The ad you're building in this project requires compositing four digital photographs. You will also incorporate title treatment and logo files that were created in Adobe Illustrator by other members of your creative team. The various elements that make up the ad are fairly representative of the type of work you can (and probably will) create in Photoshop.*

### Note:

*Despite their origins in pre-digital print workflows, these terms persist in the digital environment.*



72 ppi



300 ppi

*Each white square represents a pixel. The highlighted area shows the pixel information used to generate a halftone dot. 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.*

If you can't find out ahead of time, or if 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 in the raster image and generates a spot of appropriate size. A raster image's resolution — measured in **pixels per inch (ppi)** — determines the quantity of pixel data the printer can read. Regardless of their source — camera, scanner, or files created in Photoshop — images need to have sufficient resolution so the output device can generate enough halftone dots to create the appearance of continuous tone. In the images to the right, the same raster image is reproduced at 300 ppi (top) and 72 ppi (bottom); notice the obvious degradation in quality in the 72-ppi version.

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

For line art, the general rule is to scan the image at the same resolution as the output device. Many laser printers today image at 600–1200 dots per inch (dpi), but imagesetters typically output at much higher resolution, possibly 2400 dpi or more.



## **OPEN A FILE FROM ADOBE BRIDGE**

Adobe Bridge is a stand-alone application that ships and installs along with Photoshop. This asset-management tool enables you to navigate, browse, and manage 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.

1. **Download PS5\_RF\_Project1.zip from the Student Files Web page.**
2. **Expand the ZIP archive in your WIP folder (Macintosh) or copy the archive contents into your WIP folder (Windows).**

This results in a folder named **Movie**, which contains all of the files you need for this project. You should also use this folder to save the files you create in this project.

If necessary, refer to Page 1 of the Interface chapter for specific information on expanding or accessing the required resource files.

3. **In Photoshop, click the Launch Bridge button in the Application/Menu bar.**



4. **In Bridge, use the Folders panel to navigate to your WIP>Movie folder.**

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.

#### **Note:**

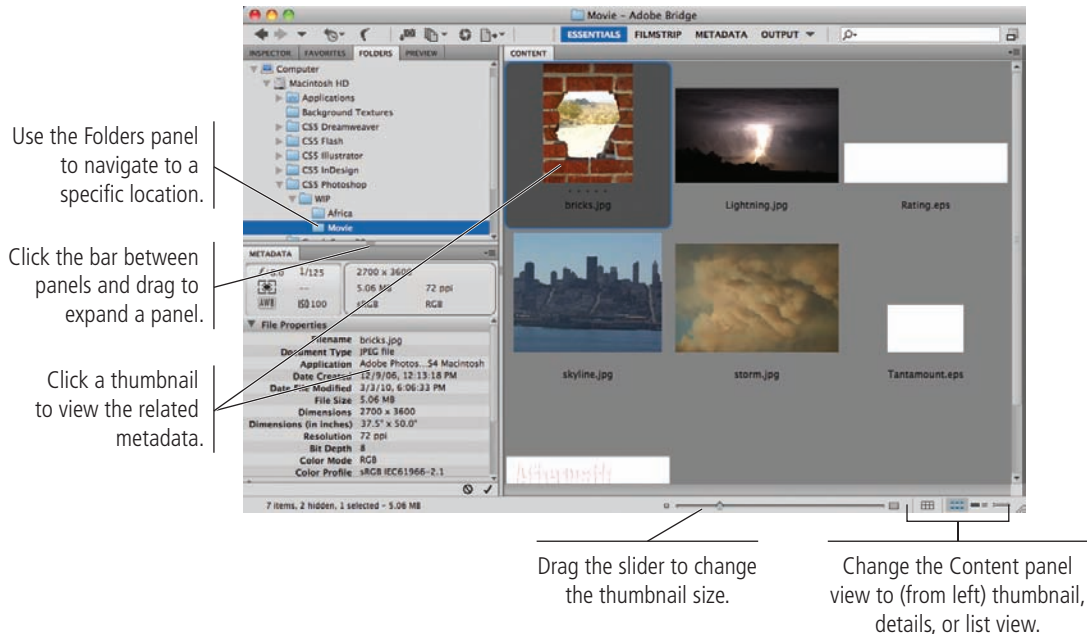
*Adobe Bridge is a complete stand-alone application. However, this is a book about Photoshop, not Bridge. We're simply introducing you to the Bridge interface and showing you how to use Bridge to navigate and access files. We encourage you to read the Bridge documentation (accessed in the Help menu when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



5. Click the **bricks.jpg** thumbnail in the Content panel to select it.

6. If you don't see the Metadata panel, choose **Window>Metadata**. Review the File Properties of the selected image.

The most important information in File Properties is the resolution and color mode. This image was photographed at 72 ppi in the RGB color mode. (We explain more about color modes in Project 3.)

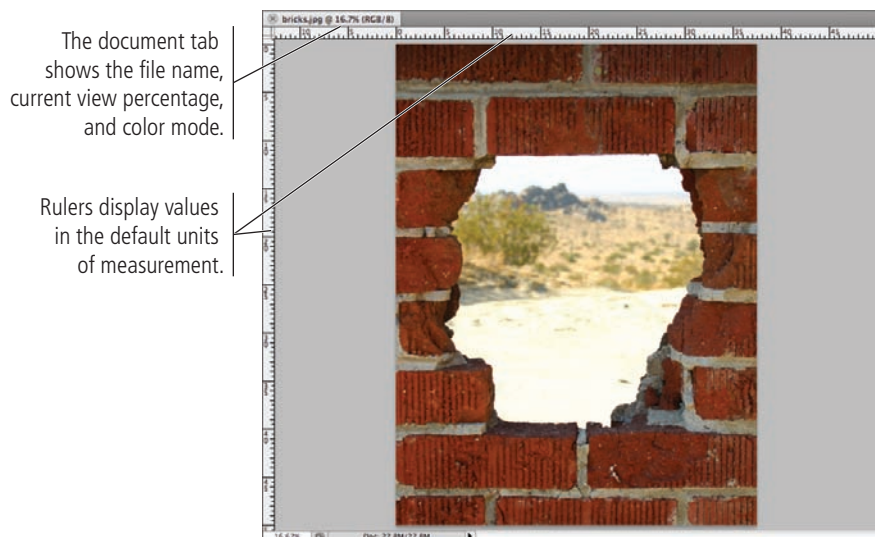


7. Double-click the **bricks.jpg** thumbnail to open that file in Photoshop.

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.

8. If the rulers are not visible on the top and left edges, choose **View>Rulers**.

As you can see in the rulers, this image has a very large physical size. As you saw in the image metadata (in Bridge), however, the current image is only 72 ppi; for commercial printing, you need at least 300 ppi. You can use the principle of **effective resolution** to change the file to a high enough resolution for printing.



**Note:**

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

*You can change the default unit of measurement in the Units & Rulers pane of the Preferences dialog box. (Double-clicking either ruler opens the appropriate pane of the Preferences dialog box.)*

9. Choose **File>Save As**. If necessary, navigate to your **WIP>Movie** folder as the target location. Change the file name (in the Save As field) to **aftermath**.

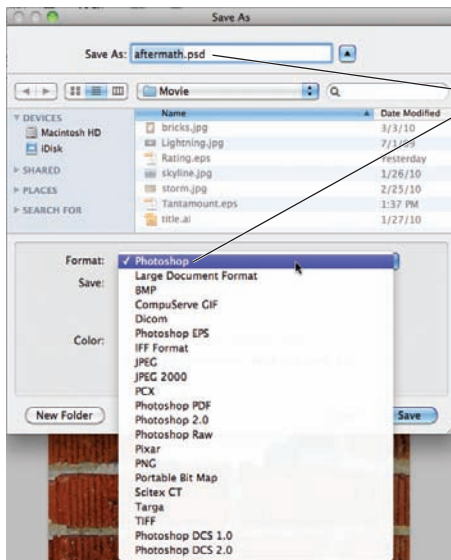
Since this is a basic image file with only one layer (so far), most of the other options in the Save As dialog box are grayed out (not available).

*Note:*

*We are intentionally overlooking issues of color space for the sake of this project. You will learn about color spaces and color management in Project 3.*

10. Choose **Photoshop** in the Format menu and then click **Save**.

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. When you choose a different format, the correct extension is automatically added to the file name.



Files saved in the native Photoshop format display a ".psd" extension.

*Note:*

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

11. Continue to the next exercise.

## RESIZE THE IMAGE

Every raster image has a defined, specific resolution that is established when the image is created. If you scan an image to be 3" high by 3" wide at 150 ppi, that image has 450 pixels in each vertical column and 450 pixels in each horizontal row. Simply resizing the image stretches or compresses those pixels into a different physical space, but does not add or remove pixel information. If you resize the 3 × 3" image to 6 × 6" (200% of the original), the 450 pixels in each column or row are forced to extend across 6" instead of 3, causing a marked loss of quality.

The **effective resolution** of an image is the resolution calculated after any scaling is taken into account. This number is equally important as the original image resolution — and perhaps moreso. The effective resolution can be calculated with a fairly simple equation:

$$\text{Original resolution} \div (\% \text{ magnification} \div 100) = \text{Effective resolution}$$

If a 300-ppi image is magnified 150%, the effective resolution is:

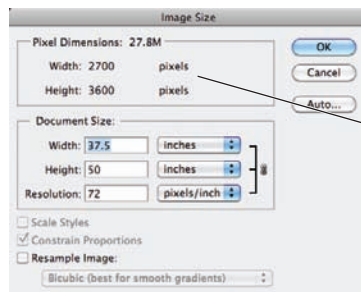
$$300 \text{ ppi} \div 1.5 = 200 \text{ ppi}$$

In other words, the more you enlarge a raster image, the lower its effective resolution becomes. In general, you can make an image 10% or 15% larger without significant adverse effects; the more you enlarge an image, however, the worse the results. Even Photoshop, which offers very sophisticated formulas (called “algorithms”) for sizing images, cannot guarantee perfect results.

Effective resolution can be a very important consideration when working with client-supplied images, especially those that come from consumer-level digital cameras. Many of those devices capture images with a specific number of pixels rather than a number of pixels per inch (ppi). In this exercise, you will explore the effective resolution of an image to see if it can be used for a full-page printed magazine ad.

### 1. With `aftermath.psd` open, choose **Image>Image Size**.

The Image Size dialog box shows the number of pixels in the image, as well as the image dimensions and current resolution. You can change any value in this dialog box, but you should understand what those changes mean before you do so.



The most important information is the actual number of pixels in the image.

### 2. Check the **Resample Image** option at the bottom of the dialog box.

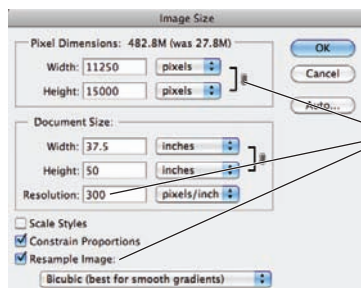
The options in this dialog box remember the last-used choices. The Resample options might already be checked in your dialog box.

**Resampling** means maintaining the existing resolution in the new image dimensions; in other words, you are either adding or deleting pixels to the existing image. When this option is turned on, you can change the dimensions of an image without affecting the resolution, or you can change the resolution of an image (useful for removing excess resolution or **downsampling**) without affecting the image size.

### 3. Change the Resolution field to **300** pixels/inch.

When you change the resolution with resampling turned on, you do not change the file’s physical size. To achieve 300-ppi resolution at the new size, Photoshop needs to add a huge number of pixels to the image. You can see at the top of the dialog box that this change would increase the total number of pixels from  $2700 \times 3600$  to  $11250 \times 15000$ .

You can also see that changing the resolution of an image without affecting its physical dimensions would have a significant impact on the file size. Changing the resolution to 300 ppi at the current size would increase the file size to nearly 483 megabytes.

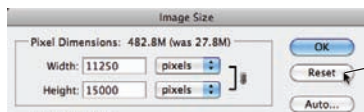


When Resample Image is checked, changing the Resolution value adds or removes pixels.



#### 4. Press Option/Alt and click the Reset button to restore the original image dimensions in the dialog box.

In many Photoshop dialog boxes, pressing the Option/Alt key changes the Cancel button to Reset. You can click the Reset button to restore the original values that existed when you opened the dialog box.



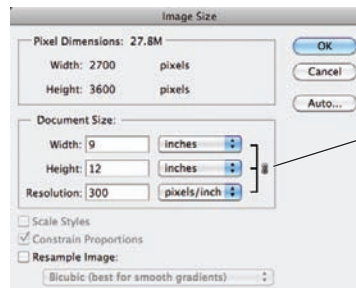
Pressing Option/Alt changes the Cancel button to Reset.

#### 5. Uncheck the Resample Image option at the bottom of the dialog box.

#### 6. Change the Resolution field to 300 pixels/inch.

Resizing *without* resampling basically means dividing the same number of pixels over a different area. When you resize an image without resampling, you do not change the number of pixels in the image. (In fact, those fields in the dialog box become simple text; the fields are unavailable and you cannot change the number of pixels in the image.)

You can see how changing one of the linked fields (Resolution) directly affects the other linked fields (Width and Height). By resizing the image to be 300 ppi — enough for commercial print quality — you now have an image that is 9" × 12".



When the Resample option is unchecked, these three fields are all linked.

## More on Resolution and Resampling

### Discarding Pixels

Higher resolution means larger file sizes, which translates to longer processing time for printing or longer download time over the Internet. When you scale an image to a smaller size, simply resizing can produce files with far greater effective resolution than you need. Resampling allows you to reduce the physical size of an image without increasing the resolution, resulting in a smaller file size.

The caveat here is that once you discard (delete) pixels, they are gone. If you later try to re-enlarge the smaller image, you will not achieve the same quality as the original (before it was reduced). You should always save reduced images as copies instead of overwriting the originals.

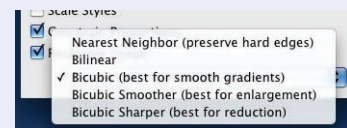
### Resampling

In general, you should always scan images to the size you will use in your final job. If you absolutely must resize a digital image, you can use resampling to achieve better results than simply changing the image size. Photoshop offers five types of resampling algorithms to generate extra pixel data (when increasing the image size) or to determine which pixels to discard (when reducing the image size).

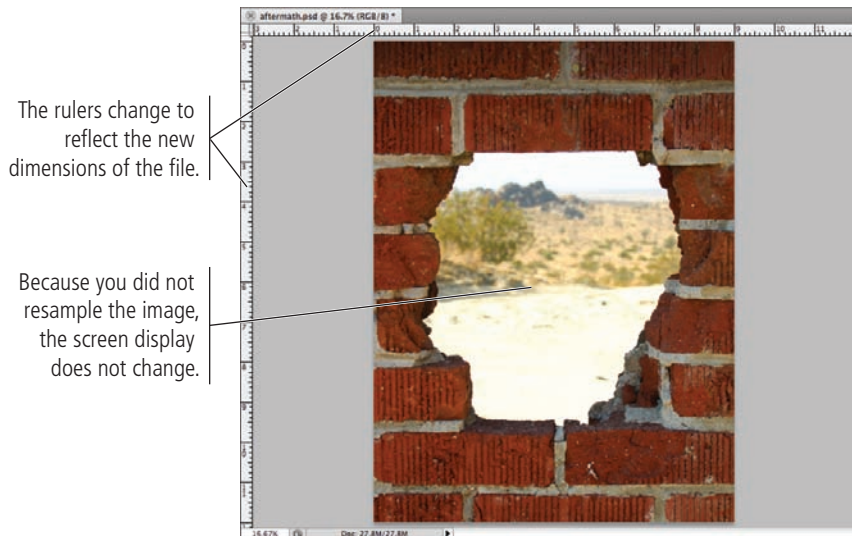
- **Nearest Neighbor** is a low-quality but quick method. Nearest neighbor interpolates new pixel information based on only one of the squares in the grid of pixels, usually resulting in an image with a blocky appearance.
- **Bilinear** is a medium-quality resampling method. Bilinear resampling averages adjacent pixels to create new information.
- **Bicubic** creates the most accurate pixel information for continuous-tone images; it also takes the longest

to process and produces a softer image. To understand how this option works, think of a square bisected both horizontally and vertically — bicubic resampling averages the value of all four of those squares (pixels) to interpolate the new information.

- **Bicubic Smoother** is useful for enlarging images with smoother results than basic bicubic resampling.
- **Bicubic Sharper** is useful for reducing the size of an image and maintaining sharp detail.



## 7. Click OK to apply the change and return to the document window.



### 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.

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

Because you have already saved this working file with a new name, you can simply choose File>Save, or press Command/Control-S to save without opening a dialog box. If you want to change the file name, you can always choose File>Save As.

## CROP THE CANVAS AND PLACE RULER GUIDES

The final step in preparing the workspace is defining the live area of the page. **Trim size** is the actual size of a page once it has been cut out of the press sheet. According to your client, the magazine has a trim size of 8.5" × 11".

Any elements that print right to the edge of a page (called **bleeding**) must actually extend beyond the defined trim size. The **bleed allowance** is the amount of extra space that should be included for these bleed objects; most applications require at least 1/8" bleed allowance on any bleed edge.

Because of inherent variation in the mechanical printing and trimming processes, most magazines also define a safe or **live area**; all important design elements (especially text) should stay within this live area. The live area for this project is 8 × 10.5".

### 1. With **aftermath.psd** open, choose the **Crop** tool in the **Tools** panel.

### 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 "shielded" by a darkened overlay so 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.

### Note:

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

$$1/8 = 0.125$$

$$1/4 = 0.25$$

$$3/8 = 0.375$$

$$1/2 = 0.5$$

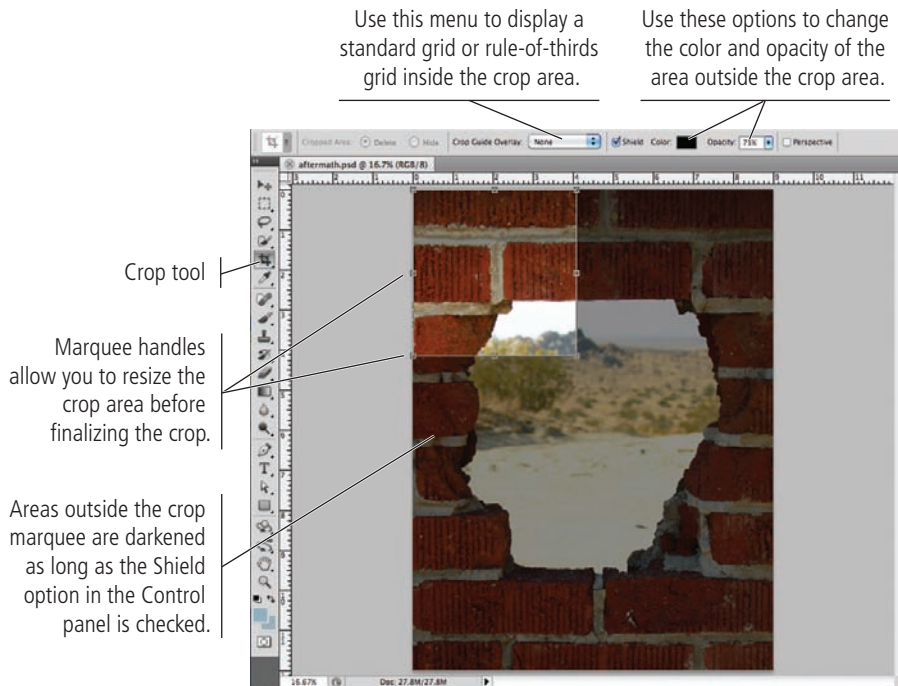
$$5/8 = 0.625$$

$$3/4 = 0.75$$

$$7/8 = 0.875$$

### 3. Choose None in the Crop Guide Overlay menu.

Because you're simply cropping to a known size before you define the overall composition, neither grid is useful for this project.

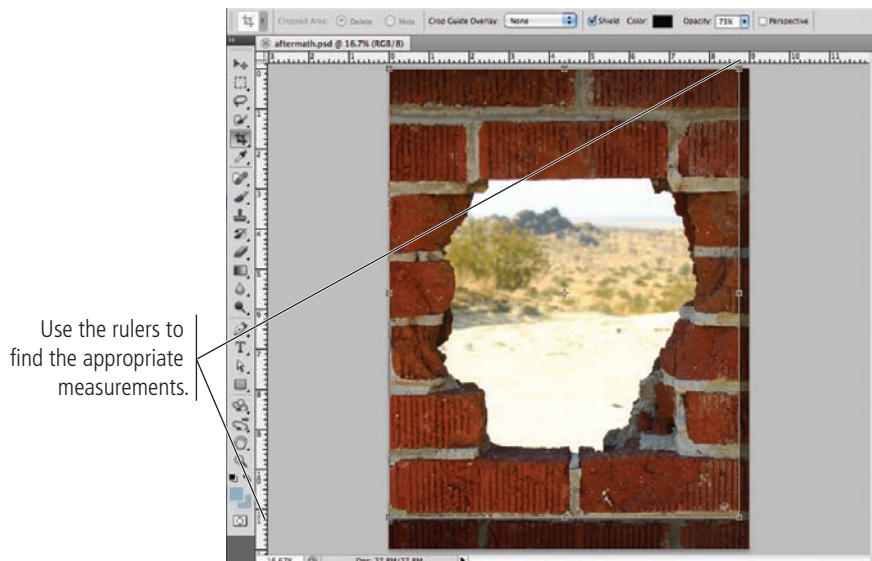


### 4. Using the rulers as a guide, change the marquee to 8.75" wide × 11.25" high.

Remember, the defined trim size for this ad is 8.5" × 11". Anything that runs to the page edge has to incorporate a 0.125" bleed allowance, so the actual canvas size must be large enough to accommodate the bleed allowance on all edges:

$$[\text{Width}] \quad 8.5" + 0.125" + 0.125" = 8.75$$

$$[\text{Height}] \quad 11" + 0.125" + 0.125" = 11.25$$



#### Note:

If rulers are not still visible, choose *View>Rulers* or press *Command/Control-R*.

#### Note:

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

#### Note:

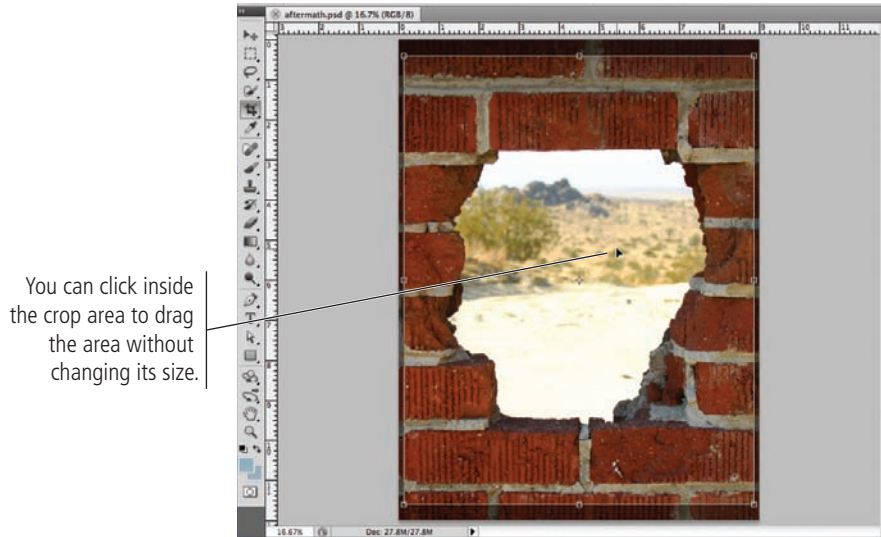
You can rotate a crop marquee by placing the cursor slightly away from a corner handle.





**5. Click inside the crop area and drag to position it in the approximate middle of the image window.**

It might be helpful to toggle off the Snap feature (View>Snap), which causes certain file elements to act as magnets when you move a marquee or drag a selection.



**Note:**

*You can use the Arrow keys on your keyboard to nudge the marquee one pixel at a time in a specific direction.*

**6. Press Return/Enter to finalize the crop.**

**7. Choose the Move tool, and then open the Info panel (Window>Info).**

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.

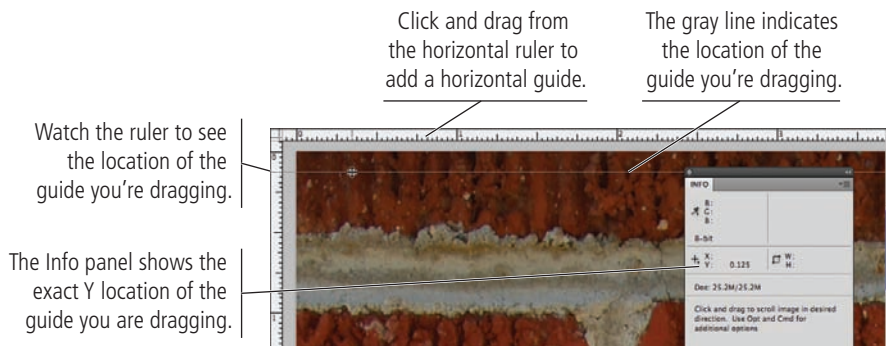
**Note:**

*Remember: panels can always be accessed in the Window menu.*

**8. Click the horizontal page ruler at the top of the page and drag down to create a guide positioned at the 1/8" (0.125") mark.**

If you watch the vertical ruler, you can see a marker indicating the position of the cursor. The Info panel also shows the precise numeric position of the guide you are dragging.

It helps to zoom in to a higher view percentage if you want to precisely place guides. We found it necessary to use at least 66.7% view before the Info panel reflected exactly the 0.125" position. If you zoom in, you can press the Spacebar to temporarily access the Hand tool to reposition the image so you can see the top-left corner.

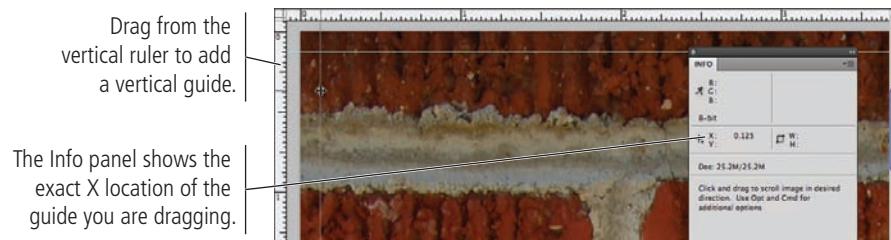


**Note:**

*The X coordinate refers to an object's horizontal position and Y refers to the vertical position.*

9. Click the vertical ruler at the left and drag right to place a guide at the 0.125" mark.

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



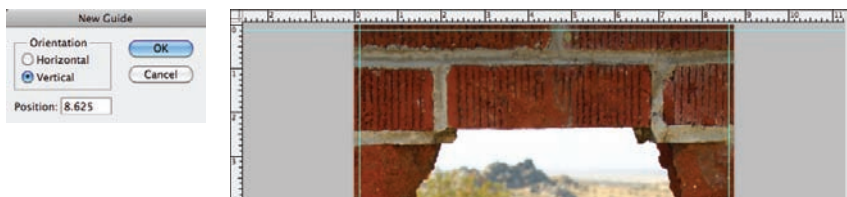
**Note:**

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, you can't move them until you toggle this option off.

10. Choose View>New Guide. In the resulting dialog box, choose the Vertical option and type 8.625 in the field and click OK.

You don't need to type the unit of measurement because the default unit for this file is already inches. Photoshop automatically assumes the value you type is in the default unit of measurement.



**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.

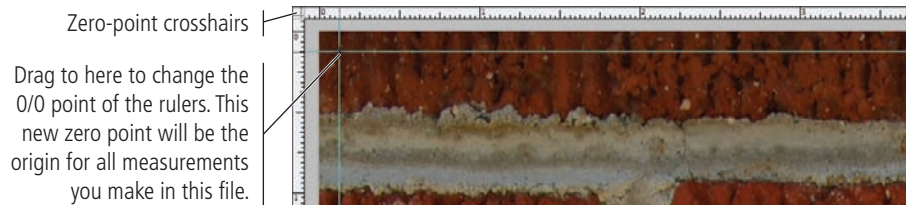
11. Choose View>New Guide again. Choose the Horizontal option and type 11.625 in the field. Click OK.

At this point you should have four guides – two vertical and two horizontal, each 1/8" from the file edges. These mark the trim size of your final 8.5 x 11" file.



12. In the top-left corner of the document window, click the zero-point crosshairs and drag to the top-left intersection of the guides.

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



13. Drag new guides 0.25" inside each trim guide to mark the live area of the page.

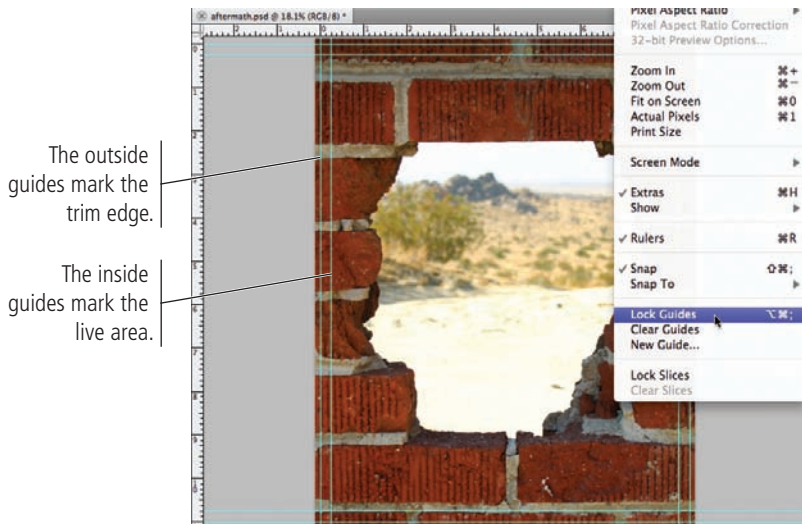
These guides mark the defined live area of the ad (8 x 10.5"). This is how we determined where to put these guides:

$$[\text{Width}] \quad 8.5'' - 8.0'' = 0.5 \div 2 = 0.25''$$

$$[\text{Height}] \quad 11'' - 10.5'' = 0.5'' \div 2 = 0.25''$$

**14. 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 temporarily.



**Note:**

*You can press Command/Control-; to toggle the visibility of page guides.*

**15. Save the file and continue to the next exercise.**

**DRAG A FILE TO COMPOSITE IMAGES**

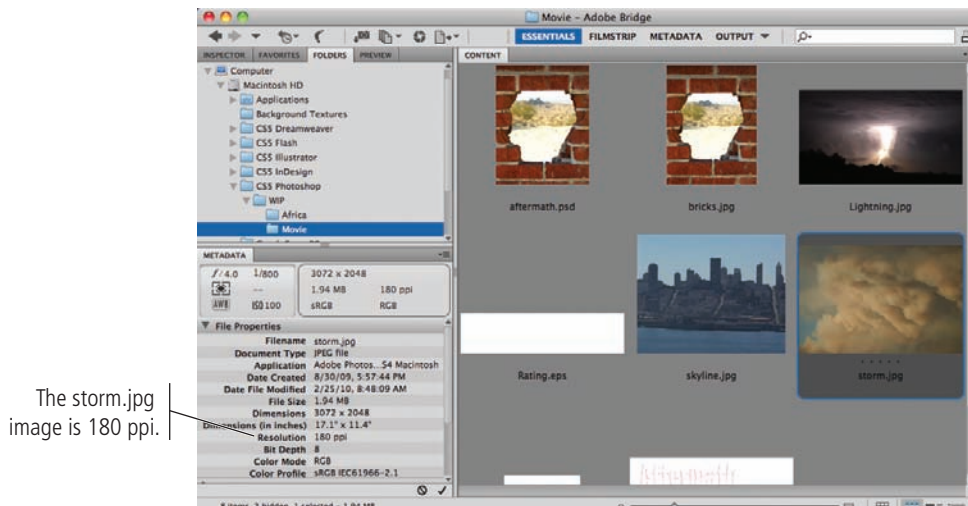
Compositing multiple images in Photoshop is a fairly simple process — or at least, it starts out that way. But there are a number of technical and aesthetic issues that you must resolve when you combine multiple images in a single design.

- 1. With aftermath.psd open, click the Launch Bridge button at the top of the Photoshop interface to return to that application.**
- 2. Click the storm.jpg thumbnail, then review the metadata for that file.**

This image is only 180 ppi, but it has a physical size much larger than the defined ad size. The principle of effective resolution might make this image usable in the composite ad.

**Note:**

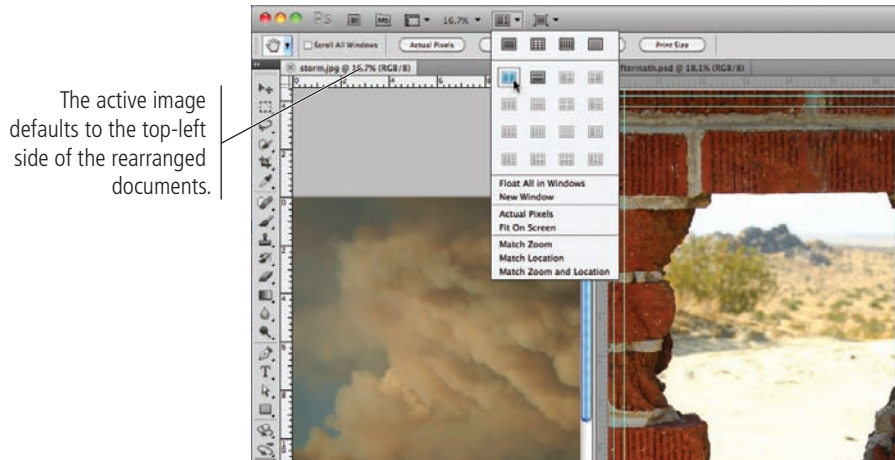
*When you created the background file for this project, you created a raster image that contains pixels (Photoshop files are almost always pixel-based). Digital photographs and scans are also pixel-based, which is why you use Photoshop to edit and manipulate those types of files.*





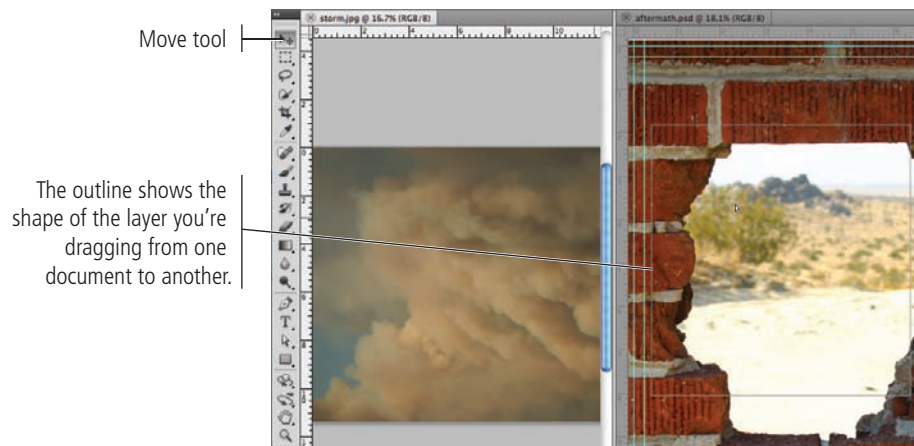
3. Double-click the **storm.jpg** thumbnail to open that file in Photoshop.
4. Use the **Arrange Documents** panel in the **Application/Menu** bar to show **both open files at one time**.

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



5. Choose the **Move** tool in the **Tools** panel.
6. Click in the **storm.jpg** image window and drag into the **aftermath.psd** image window, then release the mouse button.

Basic compositing can be as simple as dragging a selection from one file to another. If no active selection appears in the source document, this action moves the entire active layer from the source document.



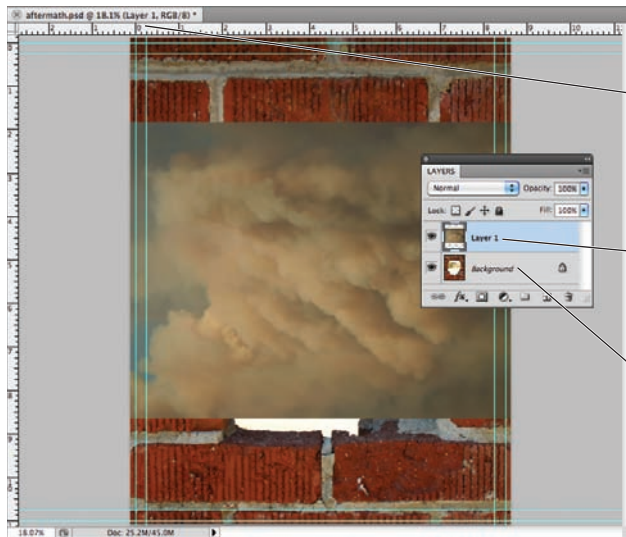
7. Click the **Close** button on the **storm.jpg** document tab to close that file.

After closing the storm file, the aftermath.psd document window expands to fill the available space.

If you remember from the Bridge metadata, the storm image was 17.1" × 11.4" at 180 ppi. Photoshop cannot maintain multiple resolutions in a single file. When you move the image content into the aftermath file, it adopts the resolution of the target file (in this case, 300 ppi). The concept of effective resolution transforms the storm image/layer to approximately 10.25" × 6.825" at 300 ppi.

## 8. Open the Layers panel (Window>Layers).

The original aftermath.psd file had only one layer — Background. Before editing, every scan and digital photograph has this characteristic. When you copy or drag content 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.



When a file contains more than one layer, the document tab shows the name of the active layer.

A new layer (Layer 1) is automatically added to contain the contents that you dragged from the storm.jpg file.

The Background layer contains the original bricks file content.

## 9. Choose File>Save, and read the resulting message.

Because this is the first time you have 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 CS5 applications and other versions of Photoshop.



## 10. Make sure the Maximize Compatibility check box is selected and click OK.

## 11. Continue to the next exercise.

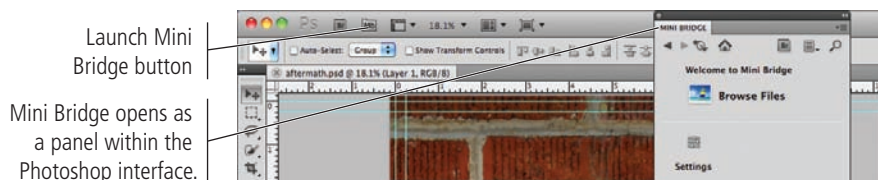
### Note:

If you don't see this warning, 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.

## OPEN FILES WITH MINI BRIDGE

Mini Bridge provides access to certain file-management operations of the full Bridge application, from a panel directly within Photoshop. If Bridge is not already running on your computer, it might take a while for the Mini Bridge panel to show anything.

1. With aftermath.psd open, choose View>Fit on Screen to show the entire image centered in the document window.
2. Click the Launch Mini Bridge button in the Application/Menu bar.



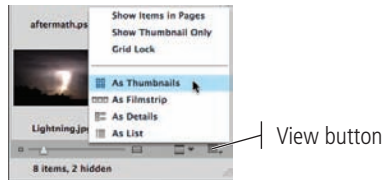
Launch Mini Bridge button

Mini Bridge opens as a panel within the Photoshop interface.

**3. If the Mini Bridge panel does not show the thumbnails in the WIP>Movie folder, click the Browse Files button.**

Mini Bridge defaults to the location of the currently opened file. You should see thumbnails of all the files in the WIP>Movie folder.

**4. Click the View button at the bottom of the panel and choose As Thumbnails.**



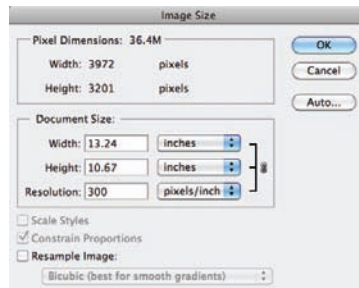
**5. Scroll through the thumbnails (if necessary), and double-click the skyline.jpg image thumbnail to open that file.**



**Note:**

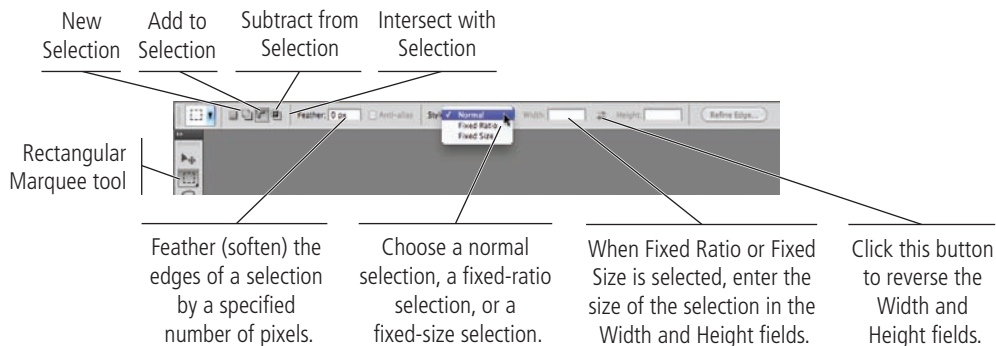
*As in the full Bridge application, double-clicking a file in the Mini Bridge panel opens that file in a separate document window.*

**6. Open the Image Size dialog box (Image>Image Size). Make sure the Resample Image option is not checked and change the Resolution field to 300 ppi. Click OK to return to the document window.**



**7. Choose the Rectangular Marquee tool in the Tools panel and review the options in the Control panel.**

By default, dragging with a marquee 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.

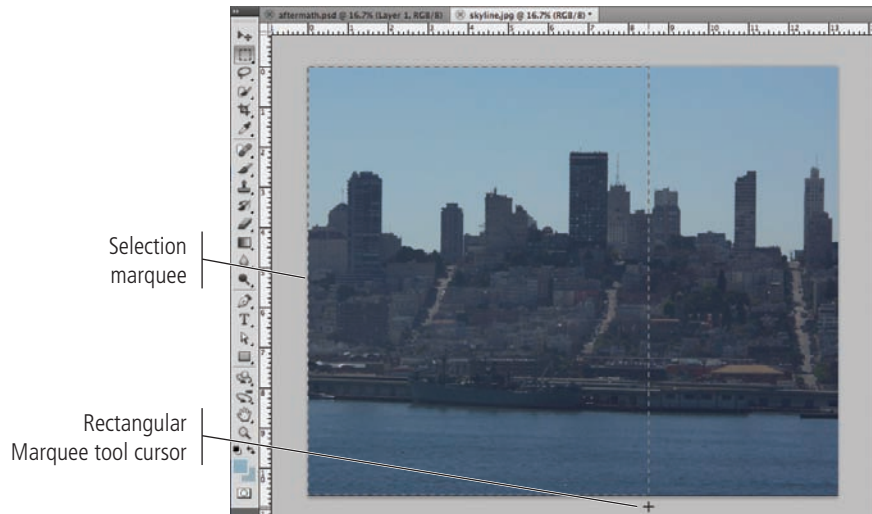




- Choose the New Selection option in the Control panel. Click outside of the top-left corner, drag down past the bottom edge of the image, and drag right to the 8.5" mark on the horizontal ruler.

You can't select an area larger than the current canvas, so the top, left, and bottom edges of the selection snap to the canvas edges.

The edges of this image will be hidden by the bricks, so you don't need the full 8.75" width of the overall ad.



**Note:**

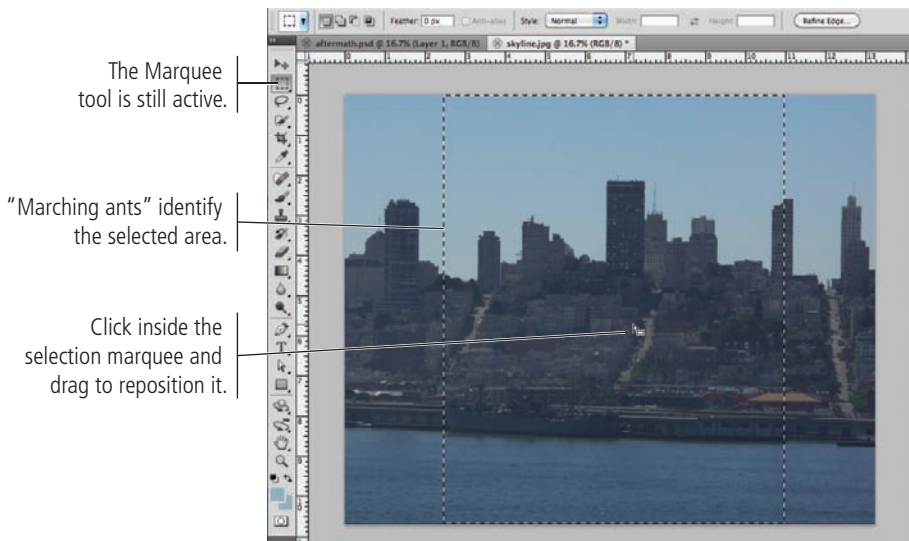
Use the marquee tools to create simple-shape selections such as rectangular, elliptical, single row of pixels, or a single column of pixels.

**Note:**

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).

- Click inside the selection marquee and drag it to the approximate center of the image.

You can move a selection marquee by clicking inside the selected area with the Marquee tool and dragging to the desired area of the image.

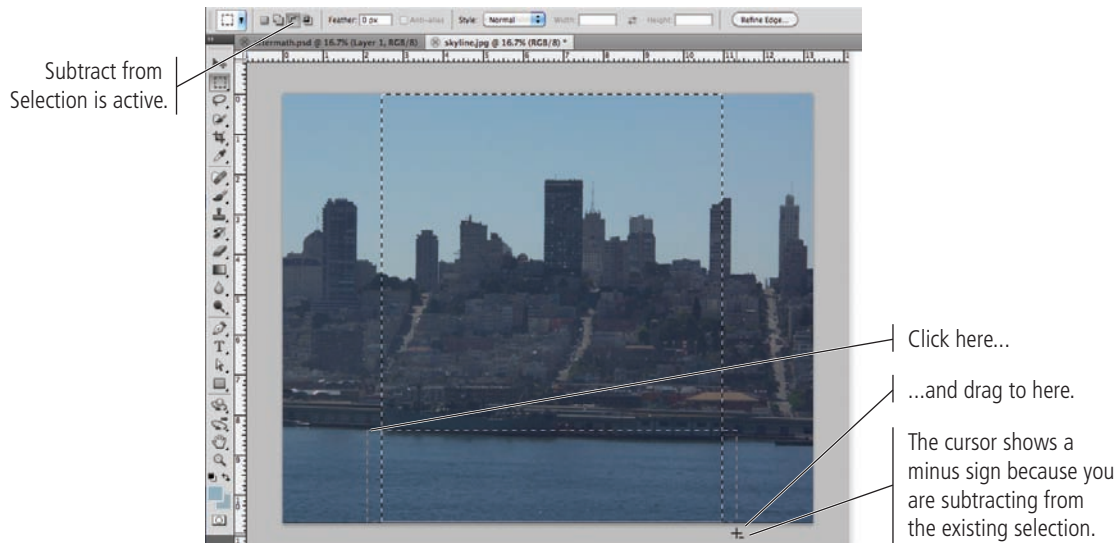


**Note:**

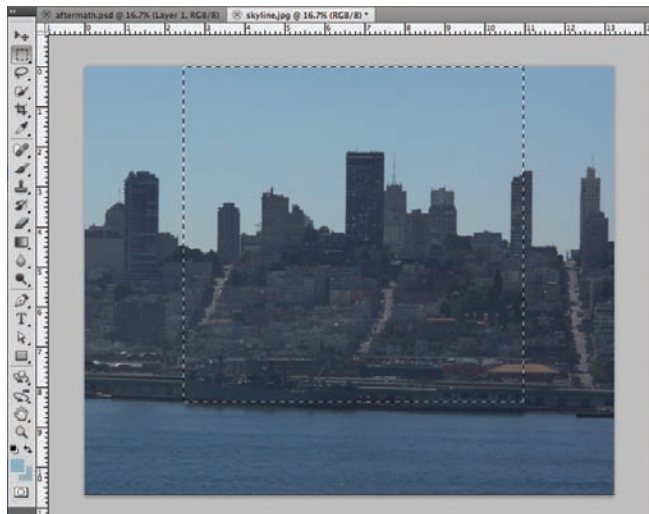
If you want to move a marquee, make sure the Marquee tool is still selected. If the Move tool is active, clicking inside the marquee and dragging will actually move the contents within the selection area.

- In the Control panel, choose the Subtract from Selection option.

11. Click near the waterline at the left edge of the existing selection, drag down past the bottom edge of the image, and right past the right edge of the existing selection.



You only want the city to appear in the ad, so you don't need the water area of this image. When you release the mouse button, the selection is the area of the first marquee, minus the area of the second marquee. (This two-step process isn't particularly necessary in this case, but you should know how to add to and subtract from selections.)



**Note:**

*Press Shift to add to the current selection or press Option/Alt to subtract from the current selection.*

12. Choose **Edit>Copy**.

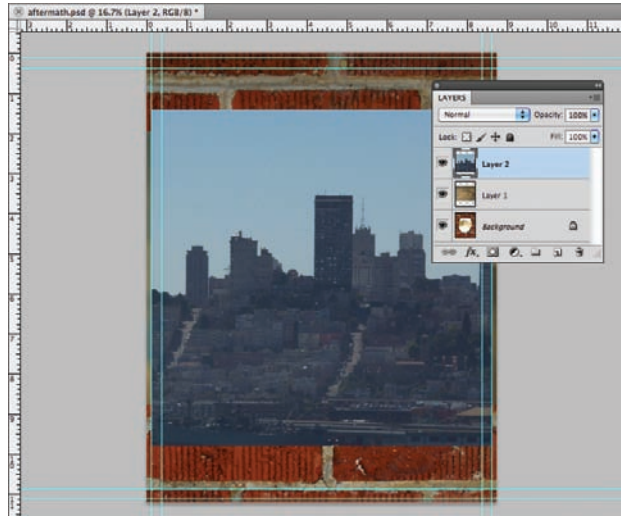
The standard Cut, Copy, and Paste options are available in Photoshop, just as they are in most applications. Whatever you have selected will be copied to the Clipboard, and whatever is in the Clipboard will be pasted.

13. Click the **Close** button on the **skyline.jpg** document tab to close the file. **When asked, click Don't Save.**

Although the city would have adopted the resolution of the composite file, you manually resized the image so you could see the appropriate measurements for making your selection. You don't need to save this change.

#### 14. With the aftermath.psd file active, choose Edit>Paste.

The copied selection is pasted in the center of the document window. Because you used the Fit on Screen option at the beginning of this exercise, the pasted image is centered in the document. Another new layer is automatically created to store the pasted content.



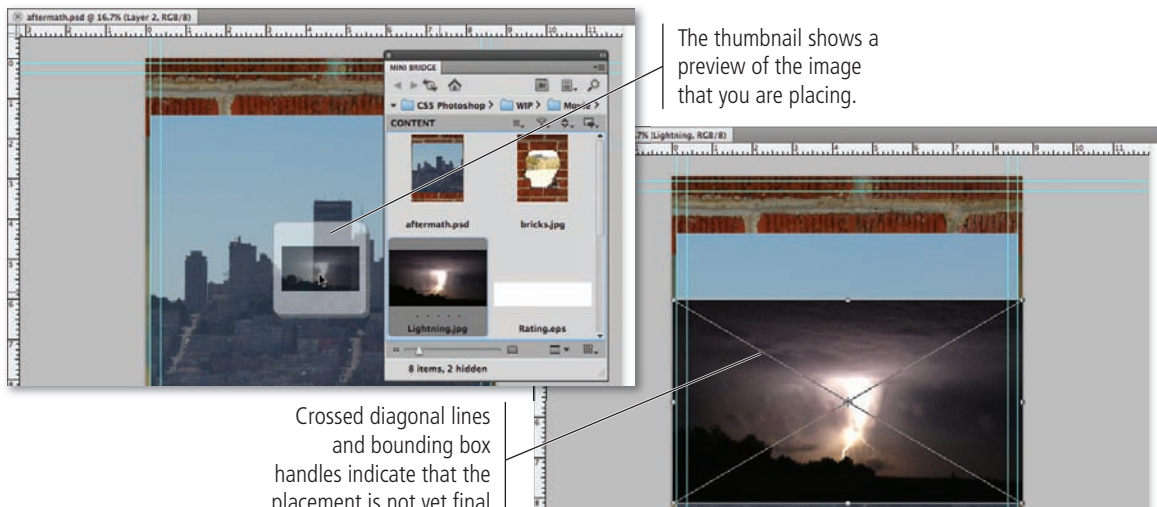
#### 15. Save the file and continue to the next exercise.

### PLACE A FILE FROM MINI BRIDGE

In addition to opening new files, you can also use the Mini Bridge panel to place content directly into an open file. This removes a few steps from the process of compositing multiple images.

1. With aftermath.psd open, choose View>Fit on Screen.
2. Click the Launch Mini Bridge button in the Application/Menu bar to open that panel (if it is not still open).
3. Click the Lightning.jpg thumbnail in the panel and drag it to the aftermath.psd document window.

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.

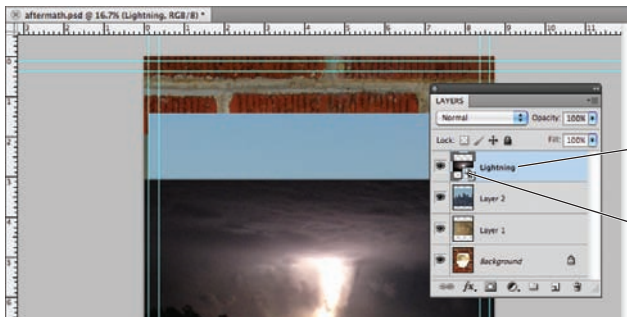




#### 4. Press Return/Enter to finalize the placement.

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. Changes in the original file will also be reflected in the file where the original is placed. (You will work extensively with Smart Objects in Project 2.)



The layer adopts the name of the placed file.

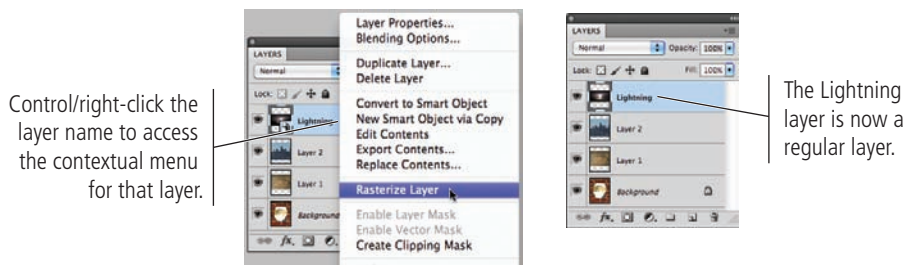
This icon identifies a Smart Object layer.

#### 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.

#### 5. Control/right-click the Smart Object layer name and choose Rasterize Layer.

You don't need to maintain a link to the original file, so this step converts the Smart Object layer to a regular layer.



Control/right-click the layer name to access the contextual menu for that layer.

The Lightning layer is now a regular layer.

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

### RASTERIZE A VECTOR FILE

As you learned earlier, 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 will 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 aftermath.psd open, choose File>Open and navigate to your WIP>Movie folder.

#### 2. Select title.ai in the list of files and then click Open.

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.

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.

#### Note:

If you double-clicked title.ai 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 CS5 from the contextual menu.

The Crop To options determine the size of the opened file. Depending on how the file was created, some of these values might be the same as others:

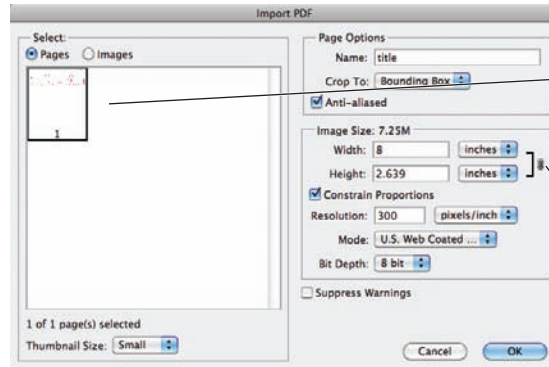
- **Bounding Box** is the outermost edges of the artwork in the file.
- **Media Box** is the size of the paper as defined in the file.
- **Crop Box** is the size of the page including printer's marks.
- **Bleed Box** is the trim size plus any defined bleed allowance.
- **Trim Box** is the trim size as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

**Note:**

*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.*

**3. Highlight the Width field and type 8, and make sure the Resolution field is set to 300 pixels/inch.**

You know the live area of the 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.



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

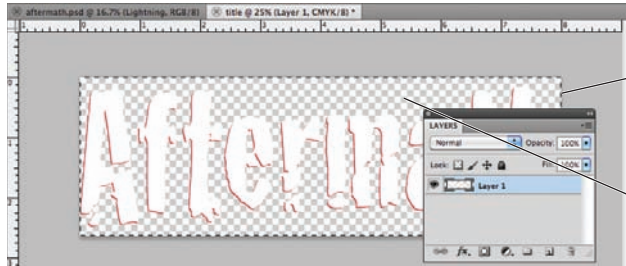
When this chain icon appears, the width and height are constrained.

**4. Click OK.**

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

**5. Choose Select>All.**

This command creates a marquee for the entire canvas.



Using the Select>All command surrounds the entire canvas in a selection marquee.

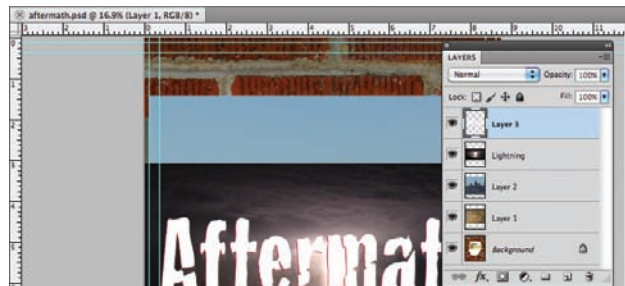
The gray-and-white checked pattern identifies areas of transparency in the layer content.

**Note:**

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

**6. Choose Edit>Copy, then click the Close button on the title document tab to close that file. Click Don't Save when asked.**

**7. With the aftermath.psd file active, choose Edit>Paste.**



**8. Save aftermath.psd and continue to the next exercise.**



## PLACE MULTIPLE EPS GRAPHICS

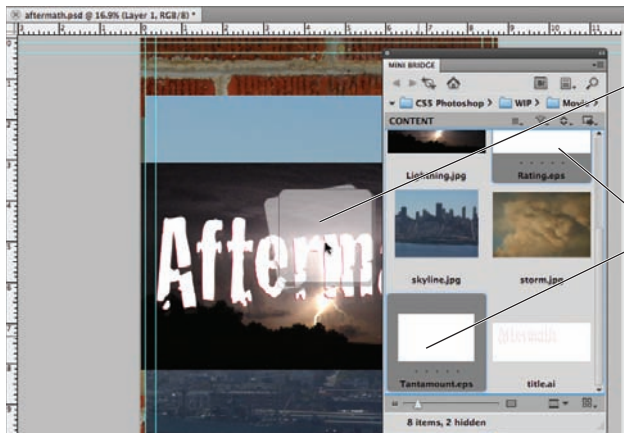
Vector graphics offer several advantages over raster images, including sharper edges and free scaling without deteriorating image quality. To take advantage of these benefits, you might want to maintain vector files as vector objects instead of rasterizing them. Photoshop CS5 gives you the option to do exactly that — maintaining vector information and raster information in the same file.

1. With **aftermath.psd** open, click the **Launch Mini Bridge** button if the panel is not already open.
2. Click the **Rating.eps** thumbnail to select it.
3. Press **Command/Control** and then click the **Tantamount.eps** file to add it to the active selection.

These vector graphics were created in Adobe Illustrator and saved as EPS files. (The EPS format supports both raster and vector information, however, so don't assume that an EPS file always contains only vector information.)

4. Click either of the selected thumbnails and drag into the **aftermath.psd** image window to place both files.

Unlike opening or placing a native Illustrator file, there are no further options when you place an EPS file.



The cursor icon shows how many files are being placed.

Press Command/Control to select non-contiguous files in the panel.



After releasing the mouse button, the first selected file appears with crossed diagonal lines (not yet finalized).

### Note:

*If you place a native Illustrator file from the Mini Bridge panel, you can define the Crop To area for the placement, but you can't access any of the other options that are available when you open an Illustrator file.*



# The Mini Bridge Panel in Depth

The Mini Bridge panel provides access to a number of file management options, directly within the Photoshop interface.

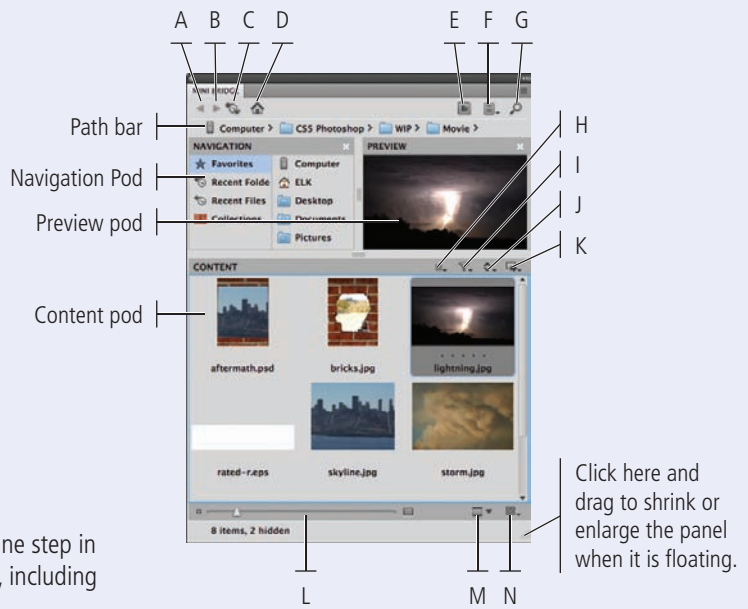
The **Path bar** shows the list of folders that is the “address” of the files currently displayed in the Content pod.

The **Content pod** (which is always visible) shows the files in the selected folder.

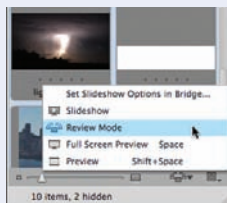
The **Navigation pod** shows a standard file navigation structure, which you can use to find a location on your computer.

The **Preview pod** shows a larger version of the selected thumbnails (in the Content pod).

- A Use the **Go Back** button to navigate back one step in the panel’s history (which folder you viewed, including the panel’s Home Page).
- B Use the **Go Forward** button to navigate forward one step in the panel’s history.
- C Use the **Go to Parent, Recent Items, or Favorites** button to access a menu of the relevant folders on your computer.
- D Use the **Home Page** button to restore the panel to its default interface, with buttons to browse files and change the panel’s settings.
- E Use the **Go to Adobe Bridge** button to switch to the full Bridge application.
- F Use the **Panel View** button to show or hide the Path bar, Navigation pod, and Preview pod in the panel.
- G Use the **Search** button to find specific files anywhere on your computer.
- H Use the **Select** button to show or hide rejected files, hidden files, and folders. This menu also includes commands to select all files in the current folder, deselect all selected files, or invert the current selection (select only the unselected files).



- I Use the **Filter Items** button to show only certain items in the panel’s Content pod, based on user-defined ratings for each file (see below).
- J Use the **Sort** button to change the order of files in the panel’s Content pod, based on specific criteria such as file name, type, or date created or modified.
- K Use the **Tools** button to access options for placing the selected file in InDesign or Photoshop, as well as access a number of other Photoshop-specific options (such as loading all selected files into Photoshop layers).
- L Use the **Thumbnail Size** slider to change the size of thumbnails in the panel’s Content pod.
- M Click the **Preview** button to show a larger version of the selected thumbnail. If you click the arrow to the right of the button, you can view selected files as a slideshow, enter Review mode, or view full-screen previews.
- N Click the **View** button to change the appearance of items in the panel’s Content pod.

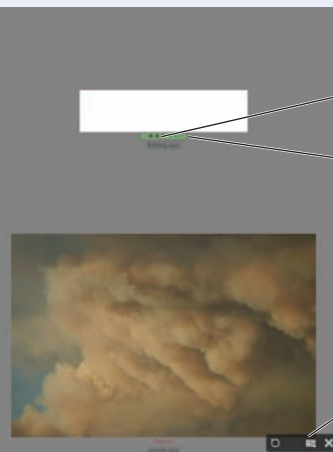


Control/right-click a file in Review mode to access specific options for that file.

Use the buttons to navigate from one file to another.

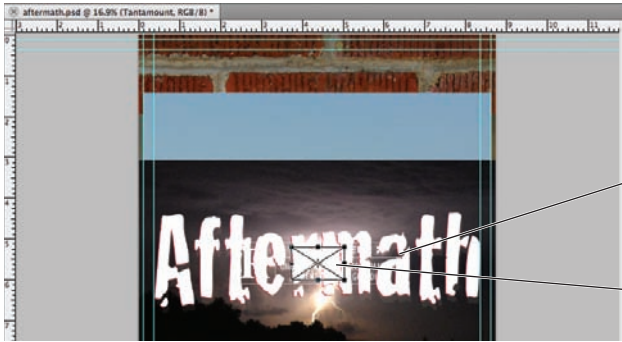


Ratings appear above the file name.  
Labels appear around the rating.



Use these buttons to zoom, create a collection, and exit Review mode.

## 5. Press Return/Enter to finalize the placement of the first file.



After finalizing, the first file no longer shows the bounding box handles.

The second file automatically appears, ready to be finalized.

## 6. Press Return/Enter again to finalize the placement of the second file.



The two placed files are stored on layers named based on the placed file names.

The placed files are Smart Object layers.

### 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.*

## 7. Save the file and continue to the next stage of the project.

Right now, you have a fairly incomprehensible mess of four raster images and two vector objects all piled on top of one another. You will start to make sense of these files in the next stage.

## Stage 2 Managing Layers

Your ad file now has most of the necessary pieces, but it's still not 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 of the pieces work together.

Photoshop includes a number of options for managing layers: naming layers for easier recognition, creating layer groups so multiple layers can be manipulated at once, moving layers around on the canvas, transforming layers both destructively and non-destructively, controlling individual layer visibility, and arranging the top-to-bottom stacking order of layers to determine exactly what is visible. You will use all of these options in this stage of the project.

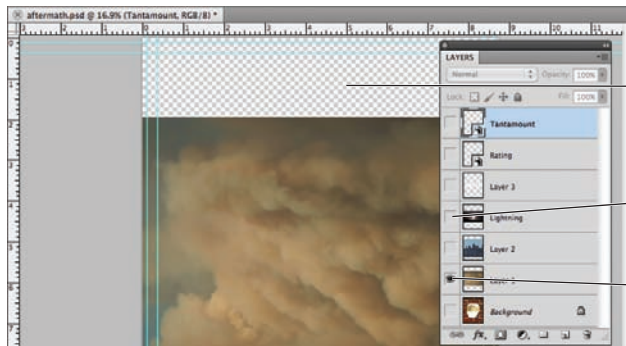
### NAME LAYERS AND LAYER GROUPS

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 (counting the Background layer), it would be tedious to have to toggle each layer on to find the one you want.

#### 1. With `aftermath.psd` open, review 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.

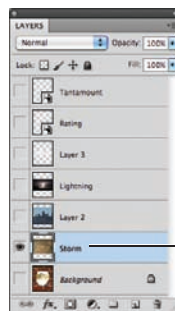
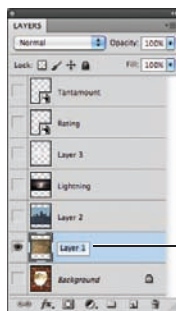


### Note:

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 then type **Storm**.

You can rename any layer by simply double-clicking the name and typing.



## 4. Click the eye icon to hide the renamed Storm layer, and then click the empty space to the left of Layer 2 to show only that layer.

## 5. Double-click the Layer 2 name and then type **Skyline** to rename the layer.

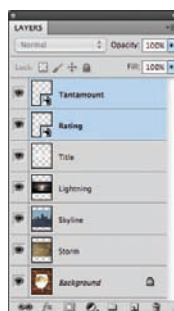
## 6. Repeat Steps 4–5 to rename Layer 3 as **Title**.

## 7. Click the spaces on the left side of the Layers panel to show all hidden layers.

## 8. In the Layers panel, click the Tantamount layer to select it.

## 9. Press Shift and click the Rating layer to select that layer as well.

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



### Note:

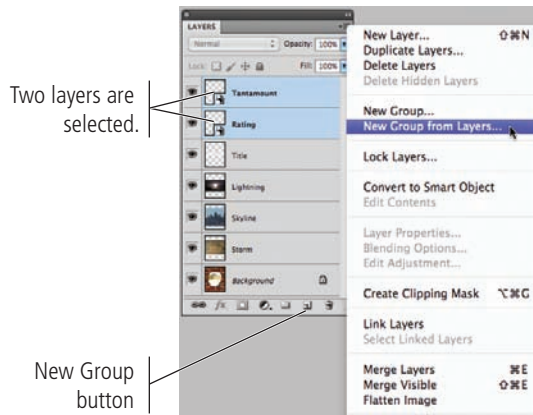
Press Shift and click to select contiguous layers in the Layers panel.

Press Command/Control and click to select non-contiguous layers in the Layers panel.



**10. 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.

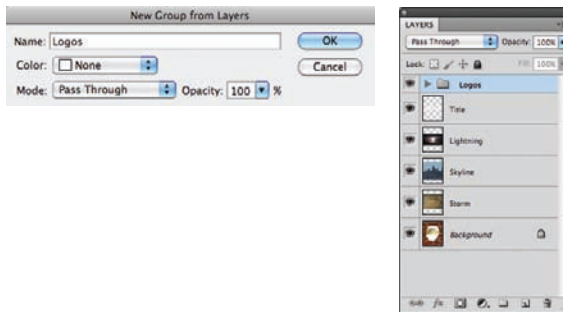


**Note:**

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.

**11. In the New Group from Layers dialog box, type Logos 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.

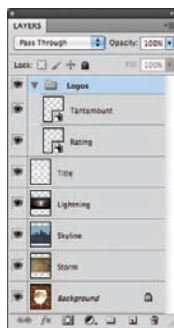


**Note:**

You can create up to ten levels of nested layer groups, or groups inside of other groups.

**12. Click the arrow to the left of the Logos group name to expand the layer group.**

You have to expand the layer group to be able to access and edit individual layers in the group. If you select the entire layer group, you can move all layers within the group at the same time. Layers in the group maintain their position relative to one another.



**Note:**

You can click the eye icon for a layer folder to hide the entire layer group (and all layers inside the folder).

**13. Save the file and continue to the next exercise.**

## MOVE AND TRANSFORM SMART OBJECT LAYERS

Photoshop makes scaling, rotating, and other transformations fairly easy to implement, but it is important to realize the potential impact of your transformations.

1. With **aftermath.psd** open, click the **Tantamount** layer (in the **Logos** folder) in the **Layers** panel to select only that layer.

2. Choose the **Move** tool in the **Tools** panel.

As the name suggests, the Move tool is used to move a selection around on the canvas. You can select a specific area, and then click and drag to move only the selection on the active layer. If there is no active selection area, you can click and drag to move the contents of the entire active layer.

3. In the **Control** panel, make sure the **Auto-Select** option is not checked.

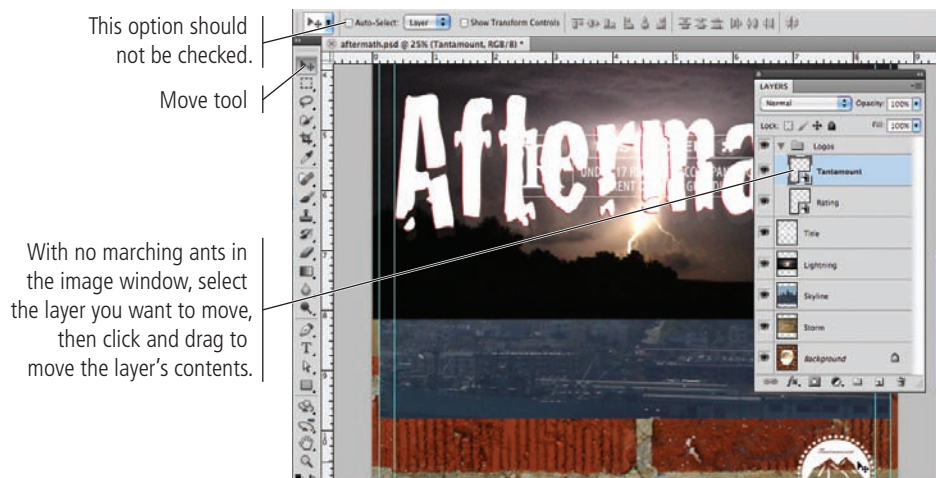
When Auto-Select is checked, you can click in the image window and drag to move the contents of the layer containing the pixels where you click; you do not need to first select the layer in the Layers panel before moving the layer content. This is very useful in some cases, as you will see later in this project. However, the Auto-Select option is *not* very useful when the contents of multiple layers are stacked on top of each other (as is the case in your file as it exists now).

*Note:*

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

4. Click in the image window and drag until the **Tantamount** layer content snaps to the bottom-right live-area guides.

If you toggled off the Snap feature when you used the Crop tool, you should turn it back on now by choosing **View>Snap**.

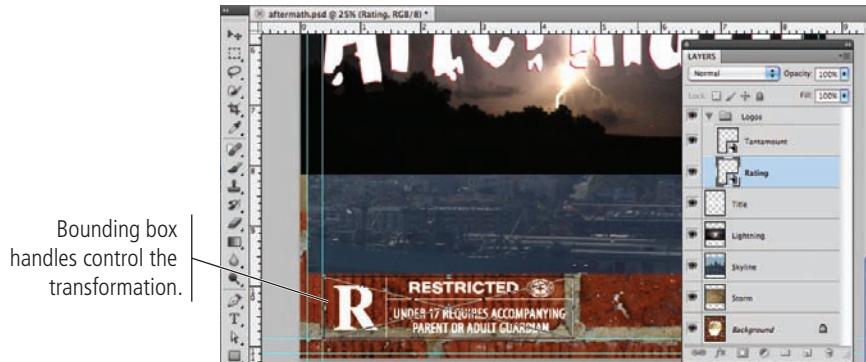


5. Click the **Rating** layer in the **Layers** panel to select that layer.

6. Click in the image window and drag until the **Rating** layer content snaps to the bottom-left live-area guides.

## 7. With the Rating layer still active, choose Edit>Free Transform.

When you use the transform options, bounding box handles surround the selection.

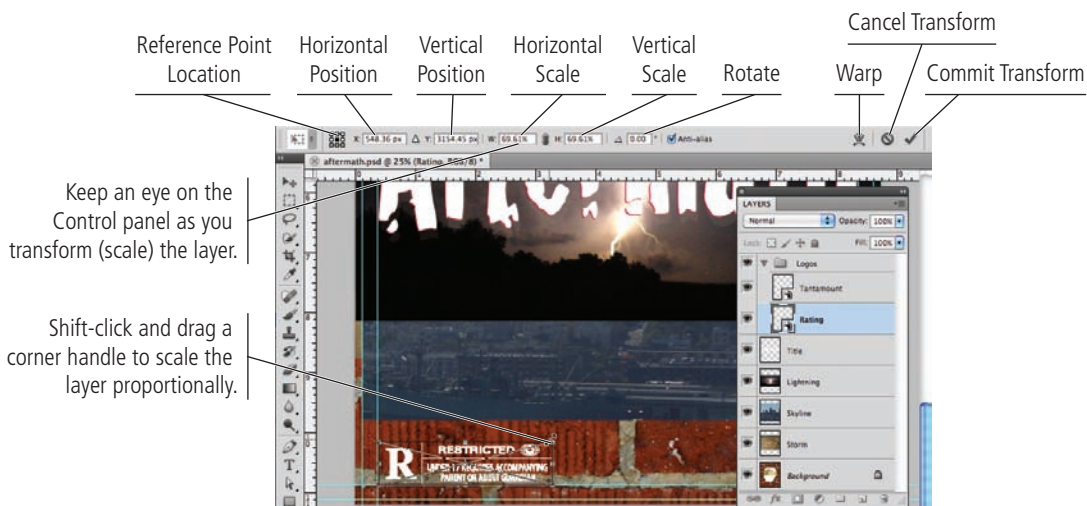


### Note:

You can also use the Edit>Transform submenu to apply specific transformations to a layer or selection.

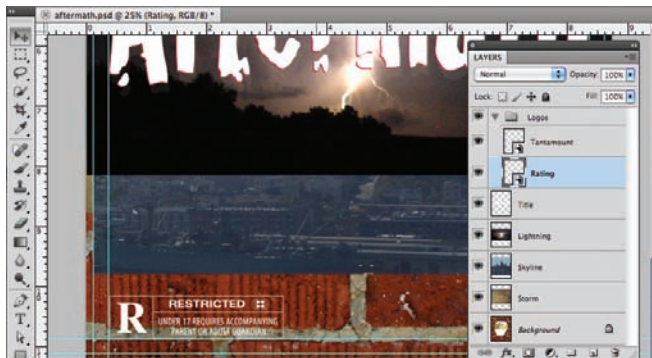
## 8. Press Shift, click the top-right bounding box handle, and then drag down and left until the layer content is approximately two-thirds the original size.

The selection (in this case, the entire Rating layer) 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.



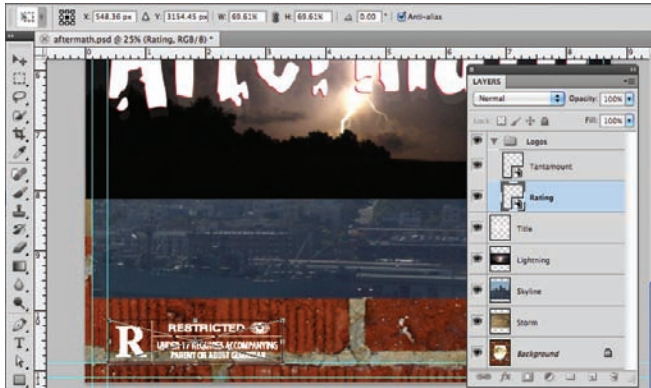
While you're manually transforming a layer or selection, the Control panel shows the specifics. You can also type into these fields to apply specific numeric transformations.

## 9. Press Return/Enter to finalize the transformation.

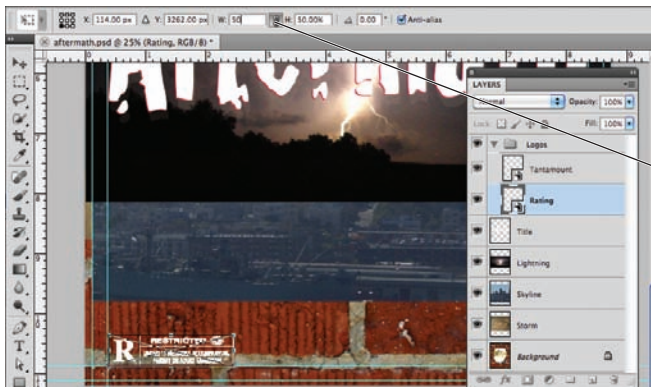


10. With the Rating layer still active, press **Command/Control-T** to enter **Free Transform mode** again and look at the **Control panel**.

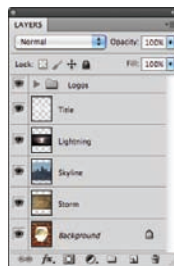
Because the rating layer is a Smart Object layer, the **W** and **H** fields still show the scaling percentage based on the original.



11. In the **Control panel**, choose the **bottom-left reference point** location.
12. Click the **Link** icon between the **W** and **H** fields to **constrain proportions** during the transformation.
13. Type **50** in the **Control panel W** field.



14. Click the **Commit Transform** button on the **Control panel** (or press **Return/Enter**) to **finalize the transformation**.
15. **Collapse the layer group** by clicking the **arrow** at the left of the **group name**.



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

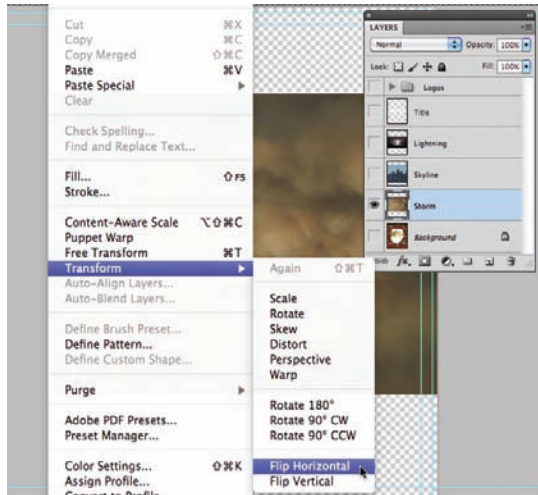


## TRANSFORM A REGULAR LAYER

Smart Object layers enable non-destructive transformations, which means those transformations can be changed or undone without affecting the quality of the layer content. Transforming a regular layer, on the other hand, is destructive and permanent.

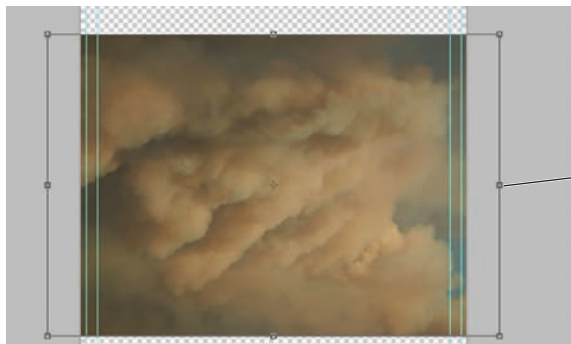
1. With **aftermath.psd** open, hide all but the **Storm** layer. Click the **Storm** layer in the **Layers** panel to select it.
2. Choose **Edit>Transform>Flip Horizontal**.

The Transform submenu commands affect only the selected layer.



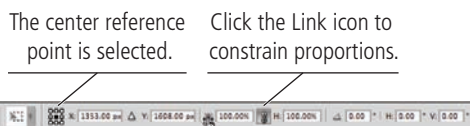
3. Press **Command/Control-T** to enter **Free Transform** mode.

Some handles might not be visible within the boundaries of the document window. If necessary, zoom out so you can see all eight handles of the layer content.



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

4. In the **Control** panel, choose the center reference point.
5. Click the **Link** icon between the **W** and **H** fields to constrain the proportions.
6. Place the cursor over the **W** field label to access the scrubby slider for that field.



The center reference point is selected.

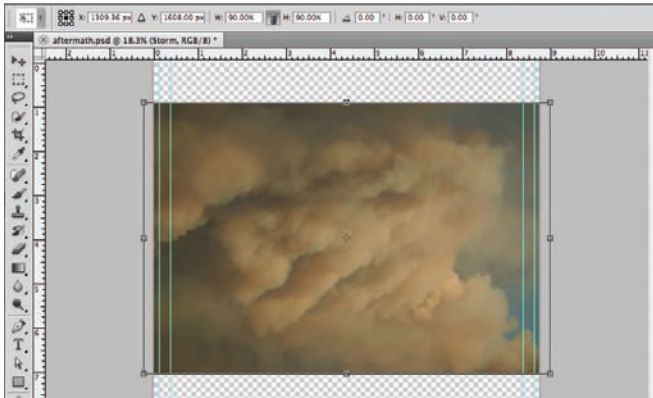
Click the Link icon to constrain proportions.

Place the cursor over a field label to access the "scrubby slider" for that field.

### Note:

When you see the scrubby slider cursor, you can drag right to increase or drag left to decrease the value in the related field.

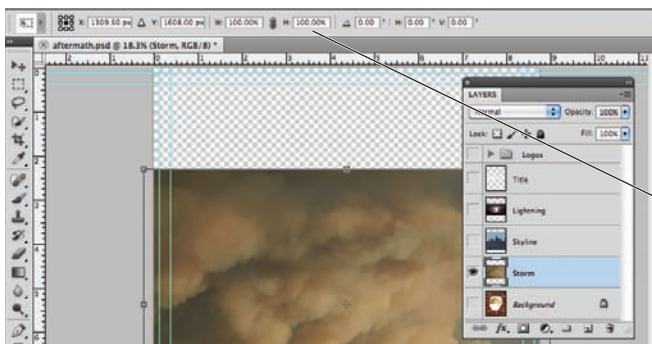
7. Click and drag left until the W field shows 90%.



8. Press Return/Enter to finalize the transformation.

9. With the Storm layer still active, press Command/Control-T to re-enter Free Transform mode.

Once you commit the transformation on a regular layer, the transformation is final. Looking at the Control panel now, you can see that it shows the layer at 100% instead of the 90% from Step 7.



**Note:**

*If you transform a Smart Object layer, the scale percentage is maintained even after you finalize the change (unlike scaling a regular layer, where the layer re-calibrates so the new size is considered 100% once you finalize the scaling).*

10. Press Esc to exit Free Transform mode without changing anything.

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

## TRANSFORM THE BACKGROUND LAYER

Your file currently has a number of layers, most of which were created by pasting or placing external files into the original file. Because every photograph and scan (and some images that you create from scratch in Photoshop) begins with a default locked Background layer, it is important to understand the special characteristics of that layer:

- You can't apply layer transformations, styles, or masks to the Background layer.
- You can't move the contents of the Background layer around in the document.
- If you delete pixels from the Background layer, the removed pixels will automatically be filled with the current background color.
- The Background layer cannot include transparent pixels, which are necessary for underlying layers to be visible.
- The Background layer is always the bottom layer in the stacking order; you can't add or move layers lower than the Background layer.

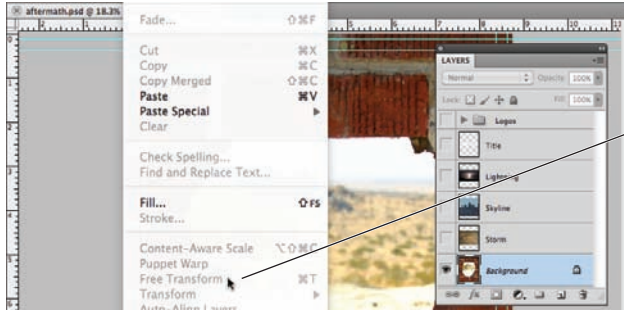
In the final composite file for this project, you need to flip the bricks image from top to bottom, remove the desert area from the hole in the bricks, and place the other photographs to appear through the hole in the wall. For any of these options to work properly, you need to convert the default Background layer to a regular layer.

**Note:**

*Although the Background layer exists by default in many files, it is not a required component.*

1. With **aftermath.psd** open, hide the Storm layer and then show the Background layer.
2. Click the Background layer to select it and then choose **Edit>Transform**.

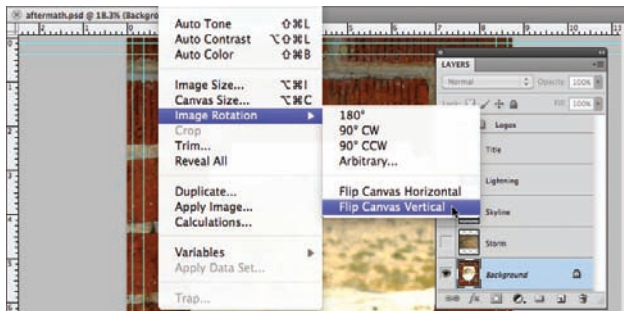
The Transform submenu commands are not available for the locked Background layer.



Many commands are not available because the Background layer is locked.

3. With the Background layer still selected, choose **Image>Image Rotation>Flip Canvas Vertical**.

To affect the locked background layer, you have to flip the actual canvas.



4. Show the Logos layer group.

Because you flipped the canvas, the Tantamount and Ratings layers are also flipped upside-down. Rotating or flipping the entire canvas affects all layers in the file; this is obviously not what you want to happen.



Because you flipped the canvas, the logos are now upside-down.

Showing the layer group shows all layers in that group.

5. Choose **Edit>Undo** to restore the canvas back to its original orientation.

The Undo command affects the last action you performed. Showing or hiding a layer is not considered an “action,” so the Undo command simply un-flips the canvas. As you can see, though, the Logos group is again hidden, as it was when you flipped the canvas in Step 3.



*Note:*

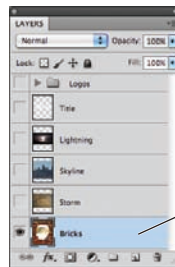
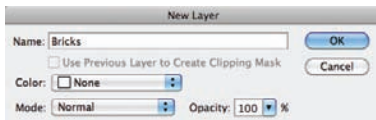
The Undo menu command changes to reflect the action that will be affected. In this case, the actual command is **Edit>Undo Flip Canvas Vertical**.



6. In the Layers panel, double-click the Background layer.

7. In the resulting New Layer dialog box, type **Bricks** in the Name field, then click OK.

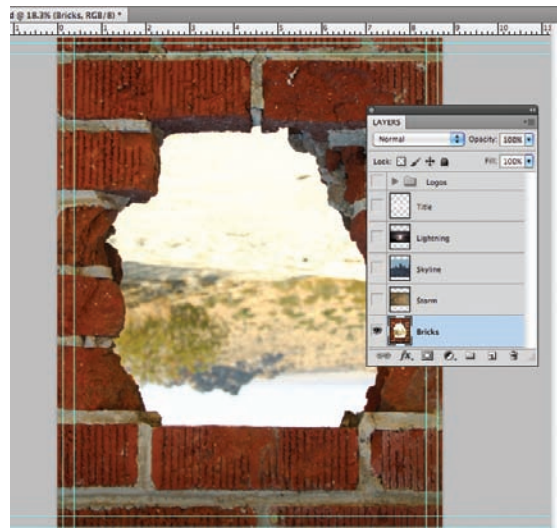
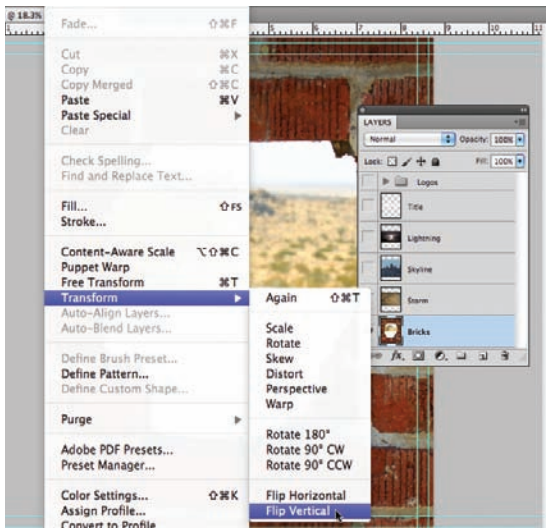
Renaming the Background layer automatically unlocks and converts it to a regular layer.



The renamed Bricks layer is no longer locked. It is now a regular layer.

8. With the Bricks layer selected in the panel, choose **Edit>Transform>Flip Vertical**.

Because the layer is no longer locked, you can now access and apply the transform commands that affect only the selected layer.



9. Show all layers in the file.

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



## Stage 3 Creating Complex Selections

At this stage of the project, you still have a few issues to resolve: some of the images are still randomly stacked on top of one another, and some images have areas that are hiding other images (the blue sky in the Skyline layer, for example). In this stage, you start fixing these problems.

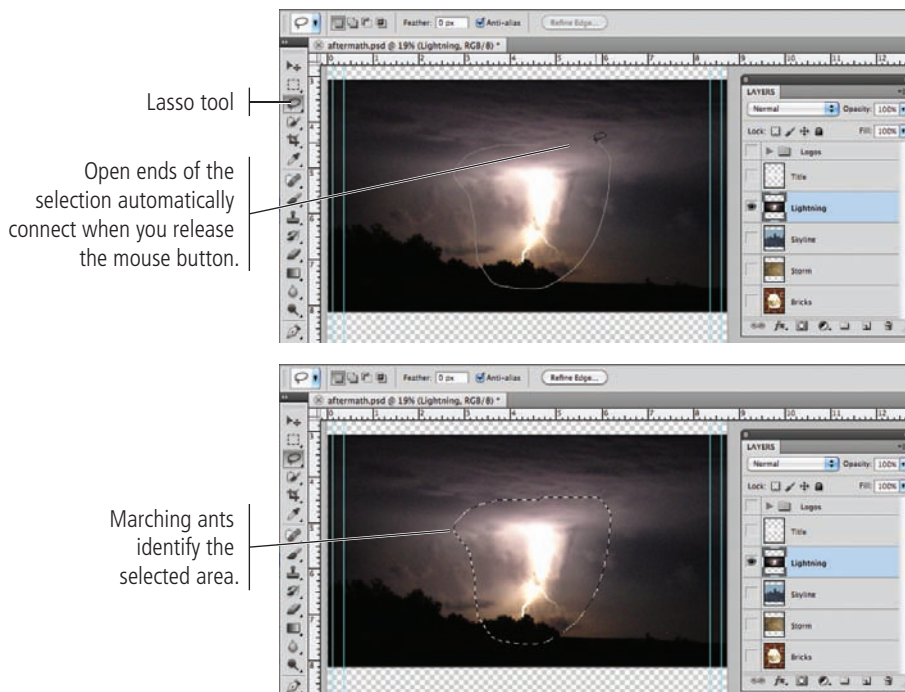
Virtually any Photoshop project involves making some kind of selection. Making selections is so important, in fact, that there are no fewer than nine tools dedicated specifically to this goal, as well as a whole Select menu and a few other options for making and refining selections.

In an earlier lesson you learned how to use the Rectangular Marquee tool to draw selections. In the next series of exercises, you use several other selection methods to isolate pixels from their backgrounds (called **silhouetting**).

### MAKE A FEATHERED SELECTION

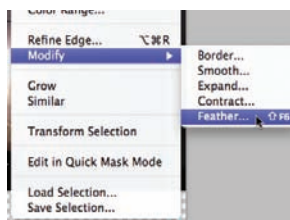
1. With **aftermath.psd** open, hide all but the **Lightning** layer. Click the **Lightning** layer to make it active.
2. Select the **Lasso** tool in the **Tools** panel.
3. Drag a rough shape around the lightning in the photo.

The lasso tools allow you to make irregular selections — in other words, selections that aren't just rectangular or elliptical. When you release the mouse button, the end point automatically connects to the beginning point of the selection.



4. With the marching ants active, choose **Select>Modify>Feather**.

**Feathering** means to soften the edge of a selection so the image blends into the background instead of showing a sharp line around the edge. The Smooth, Expand, and Contract options in the **Select>Modify** submenu are self-explanatory; the Border option creates a specific number of pixels around the active selection (like the stroke/border that surrounds a shape in an illustration program).



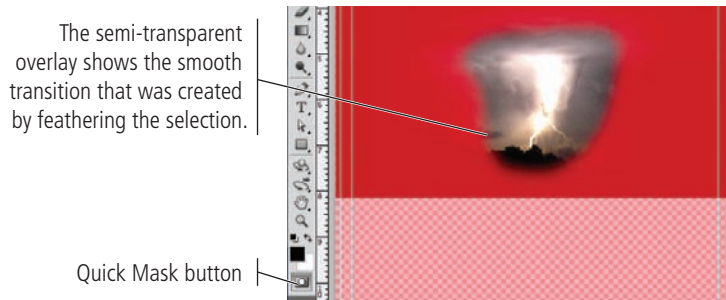
5. In the resulting dialog box, type 35 in the Feather Radius field. Click OK to return to the image window.

The Feather Radius defines the distance from solid to transparent. In the image window, there's no apparent difference in the selection because the marching ants can't show shades of a selection.



6. Click the Quick Mask button at the bottom of the Tools panel to toggle into Quick Mask mode.

This mode creates a temporary red overlay (called an Alpha channel) that shows the graded selection. By default, the overlay is semi-transparent, which allows you to see the underlying image.



## The Lasso Tools

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; you can use the Control panel 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. **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 in these sample images), 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 Escape to clear the selection and then try again.



Lasso tool cursor

Drag any shape to make a selection.



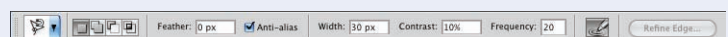
Polygonal Lasso tool cursor

Click each spot to anchor the selection line.



Magnetic Lasso tool cursor

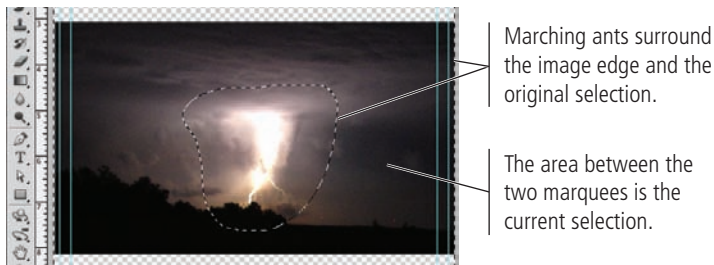
Drag near the edges of the object and the selection snaps to the edges.



7. Click the Quick Mask button at the bottom of the Tools panel to toggle off the Quick Mask.

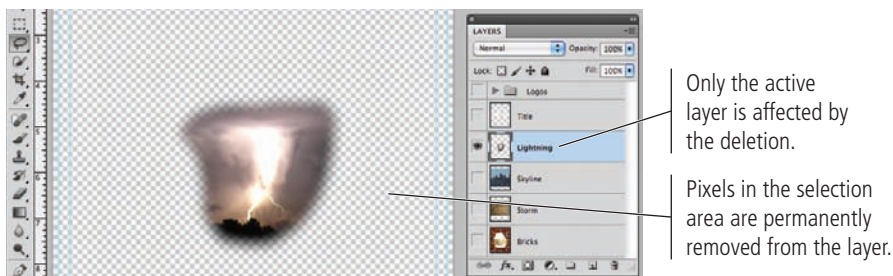
8. Choose Select>Inverse.

You want to remove the area around the lightning, so you have to select everything *other than* what you originally selected — in other words, the inverse of the previous selection.



9. With the Lightning layer selected in the Layers panel, press Delete/Backspace.

Selection marquees are not particular to a specific layer. You have to make sure the correct layer is active before you use the selection to perform some action.



10. Choose Select>Deselect to turn off the active selection (marching ants).

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

*Note:*

*Pressing Command/Control-D deselects the active selection.*

## SELECT A COLOR RANGE AND CREATE A LAYER MASK

As we said earlier, there are many selection options in Photoshop CS5, each with its own advantages and disadvantages. You have already used the marquee tools and lasso tools to select general areas of images.

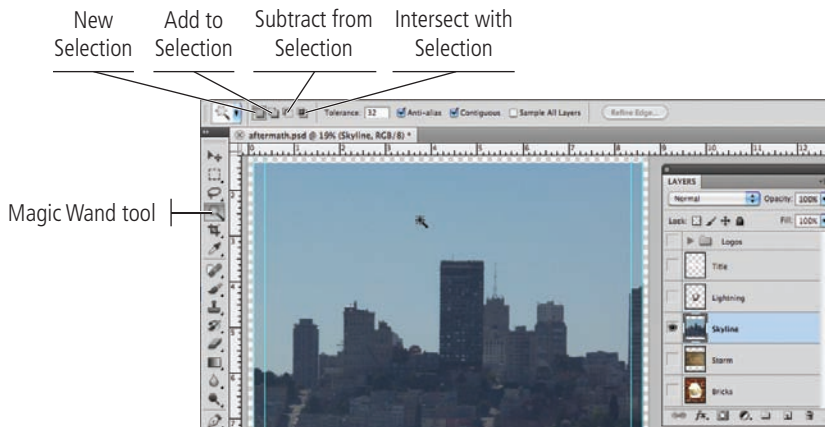
Many images have both hard and soft edges, and/or very fine detail that needs to be isolated from its background (think of a model's blowing hair overlapping the title on the cover of a magazine). In this type of image, other tools can be used to create a very detailed selection based on the color in the image.

Rather than simply deleting pixels, as you did for the lightning image, another option for isolating an object with a path is to create a **layer mask** that hides unwanted pixels. Areas outside the mask are hidden but not deleted, so you can later edit the mask to change the visible part of the image.

1. With *aftermath.psd* open, hide all but the Skyline layer. Click the Skyline layer to make it active.

2. 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 parts of the foreground object fall 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).

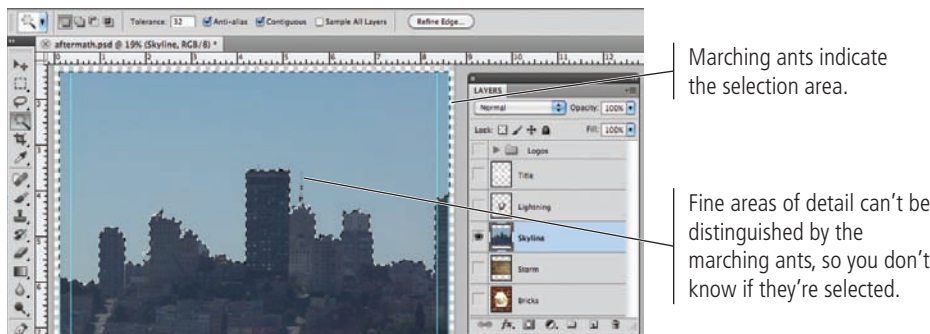
By default, selections relate to the active layer only. You can check **Sample All Layers** to make a selection of all layers in the file.

The **Refine Edge** button opens a dialog box where you can use a number of tools to fine-tune the selection edge.

*Note:*

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

3. Click anywhere in the blue sky area of the image.



4. 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.



## 5. Choose Select>Color Range.

## 6. Make sure the Localized Color Clusters option is unchecked.

## 7. Choose White Matte in the Selection Preview menu (if it is not already).

By changing the Selection Preview, you can more easily determine exactly what is selected. You can preview color range selections in the image window as:

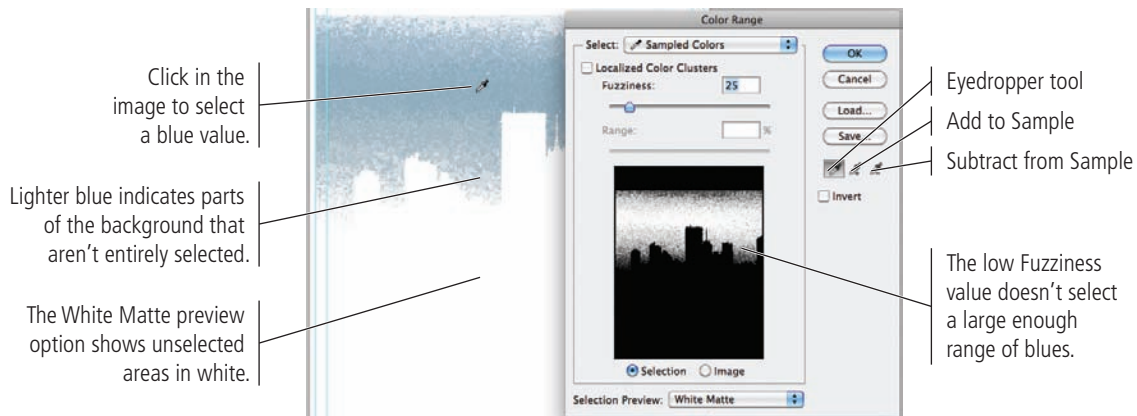
- **None** shows the normal image in the document window.
- **Grayscale** shows the entire image in shades of gray; selected areas are solid white and unselected areas are solid black.
- **Black Matte** shows unselected areas in solid black; selected areas appear in color.
- **White Matte** shows unselected areas in solid white; selected areas appear in color.
- **Quick Mask** adds a partially transparent overlay to unselected areas.

## 8. Set the Fuzziness value to 25 and click anywhere in the blue sky (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.

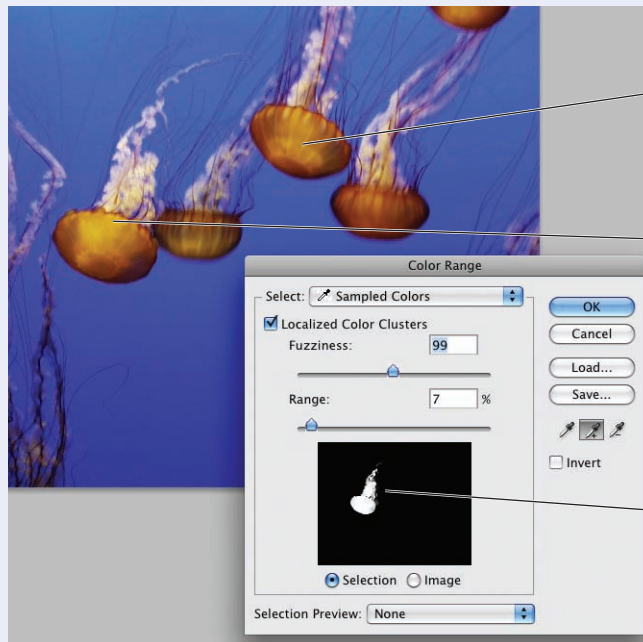
### Note:

*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.*



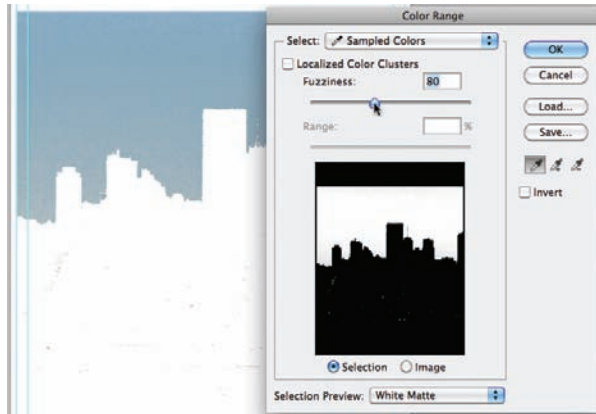
## Selecting Localized Color Clusters

The Localized Color Clusters option in the Color Range dialog box 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 can be located from the point you click and still be included in the selection.



**9. Change the Fuzziness value to 80 and watch the effect on the dialog box preview.**

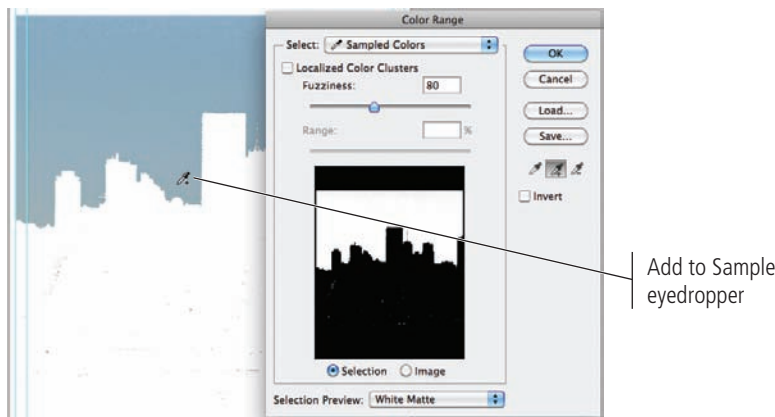
Changing the Fuzziness value expands (higher numbers) or contracts (lower numbers) the selection. Be careful, though, since higher fuzziness values can eliminate fine lines and detail.



**Note:**

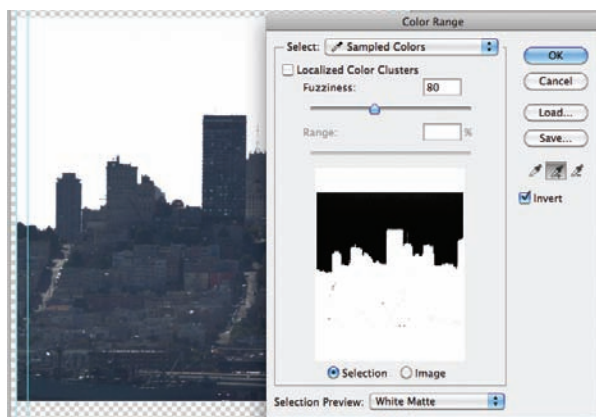
*Depending on where you clicked, your selection might not exactly match what you see in our screen shot. For now, the important point is to know that the visible areas indicate the current selection.*

**10. Click the Add to Sample eyedropper and click in the image where parts of the blue sky are not shown in full strength.**



**11. Check the Invert box in the Color Range dialog box.**

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



**Note:**

*When the Color Range dialog box is open, you can press Command/Control to switch between the Selection and Image previews within the dialog box.*

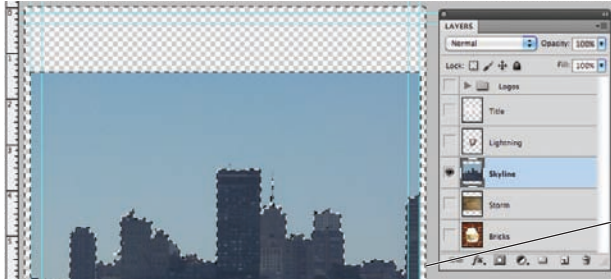
**12. Continue adding to (or subtracting from, if necessary) your selection until you are satisfied that all the blue sky is gone.**

You can also adjust the Fuzziness slider if necessary, but be sure you don't adjust it too far to include areas of the city.

### 13. 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 will see the marching ants surround the file as well as the blue sky. Since the transparent area is not blue, it is included in the selection.



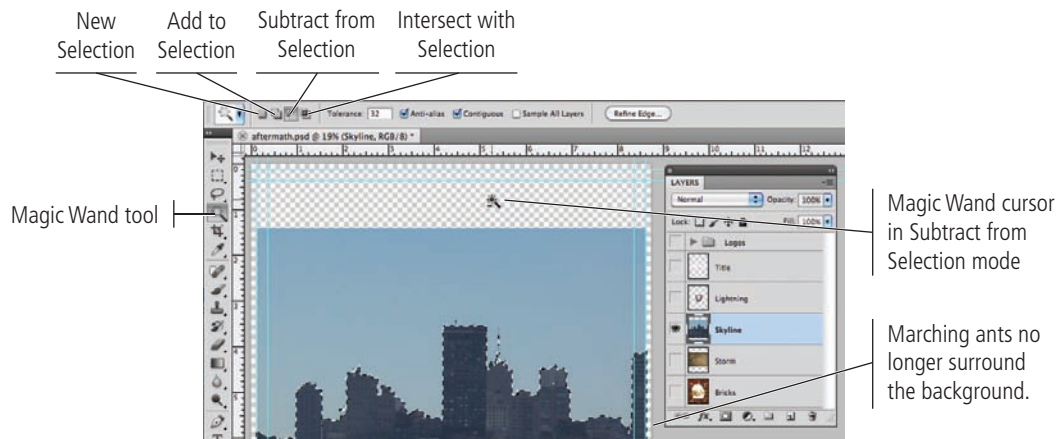
Marching ants surround the image edge.

#### Note:

*For the purposes of this exercise, don't worry if you have small unselected areas in the sky area. In Project 2 you will learn how to paint on a mask to clean up specific areas such as the artifacts you might see in your sky.*

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

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



New Selection    Add to Selection    Subtract from Selection    Intersect with Selection

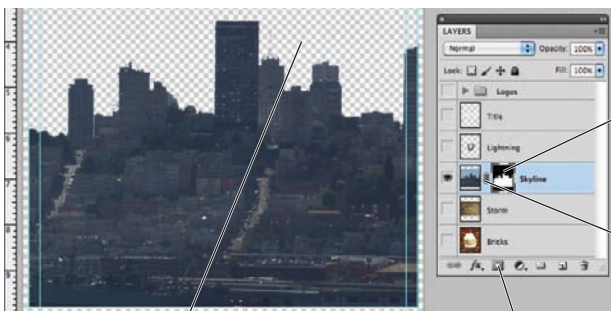
Magic Wand tool

Magic Wand cursor in Subtract from Selection mode

Marching ants no longer surround the background.

### 16. In the Layers panel, click the Add Layer Mask button.

A **layer mask** is a map of areas that will be visible in the selected layer. The mask you just created is a raster-based pixel mask, based on the active selection when you created the mask. This is a non-destructive way to hide certain elements of a layer without permanently deleting pixels; you can edit or disable the layer mask at any time.



On the masked layer, pixels outside the original selection are hidden.

Add Layer Mask button

The layer mask thumbnail shows the masked (hidden) areas in black.

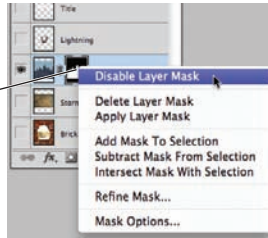
As long as the mask is linked to the layer, the mask will move along with the layer. You can click this icon to unlink the layer from its mask.

#### 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.*

**17. Control/right-click the mask thumbnail and choose Disable Layer Mask from the contextual menu.**

You have to click the mask thumbnail to open the contextual menu for the mask.



*Note:*

*You can also create a vector mask based on a path created with the Pen tool.*

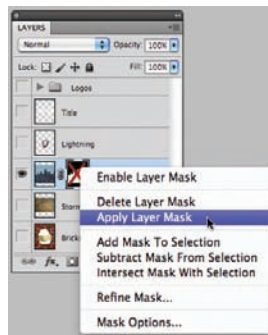
When you disable the mask, the background pixels are again visible. This is one of the advantages of using masks — the background pixels are not permanently removed, they are simply hidden.



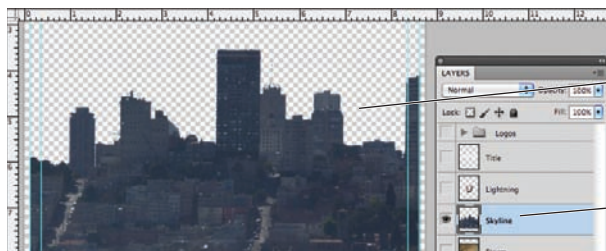
When the mask is disabled, the masked pixels are visible.

A red X indicates that the mask is disabled.

**18. Control/right-click the mask thumbnail and choose Apply Layer Mask from the contextual menu.**



This option applies the mask to the attached layer, permanently removing the masked pixels from the layer.



The masked pixels are permanently removed from the layer.

The mask is removed from the layer.

**19. Choose Edit>Undo to restore the layer mask.**

As you saw in the previous step, applying a mask permanently removes the masked pixels. This essentially defeats the purpose of a mask, so you are restoring it in this step.

**20. Control/right-click the mask thumbnail and choose Enable Layer Mask from the contextual menu.**

**21. Save the file and continue to the next exercise.**



## MAKE AND REFINE A QUICK SELECTION

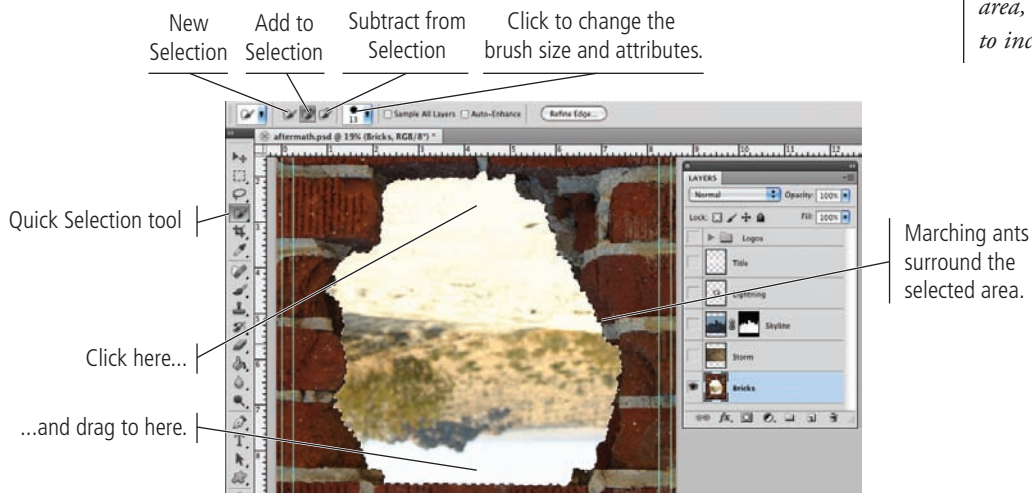
As you just saw, you can make selections based on the color in an image. This technique is especially useful when you want to select large areas of solid color, or in photos with significant contrast between the foreground and background. When the area you want to select has a complex edge, refining the selection edge can produce very detailed results.

1. With **aftermath.psd** open, hide all but the **Bricks** layer. Click the **Bricks** layer to select it as the active layer.
2. Choose the **Quick Selection** tool (nested under the **Magic Wand** tool).
3. In the **Control** panel, make sure the **Sample All Layers** option is not checked.

You only want to select the area in the bricks layer (the hole in the wall), so you do not want to make a selection based on the content of other layers in the file.

4. Click at the top area of the hole in the wall and drag down to the bottom edge of the hole.

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.



5. Click the **Refine Edge** button in the **Control** panel.
6. Click the **View** button. Choose the **On White** option from the menu if it is not already selected.

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

- **Marching Ants** shows the basic standard selection.
- **Overlay** shows the unselected areas with a Quick Mask overlay.
- **On Black** shows the selection in color against a black background.
- **On White** shows the selection in color against a white background.
- **Black & White** shows the selection area in white and the unselected area in black.
- **On Layers** shows only the selected area; unselected areas are hidden.
- **Reveal Layer** shows the entire layer, with no visual indication of the selection.



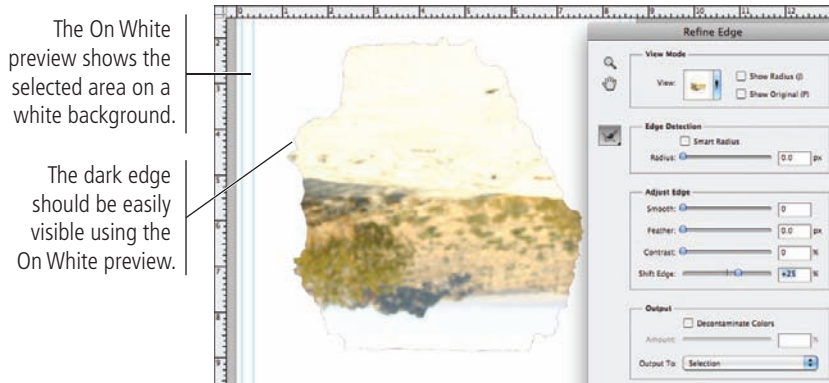
## 7. Experiment with the adjustments until you're satisfied with the selection edge.

You want to include a small amount of darkness around the edge so that, when you invert the selection to remove the hole in the wall, there is no light halo effect left by the selection edge. We used the Shift Edge slider to slightly expand 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.
- **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.
- **Contrast** is the degree of variation allowed in the selection edge. Higher Contrast values (up to 100%) mean sharper selection edges.
- **Shift Edge** shrinks or grows the selection edge by the defined percentage (from -100% to 100%).
- **Decontaminate Colors** can be checked to remove a certain percentage of color from the edge of a selection.

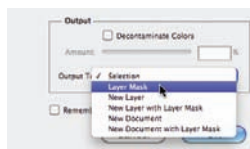
### Note:

*It might help to work with a closer view while you refine edges. You can use the Zoom and Hand tools in the Refine Edge dialog box to change the image view behind the open dialog box.*

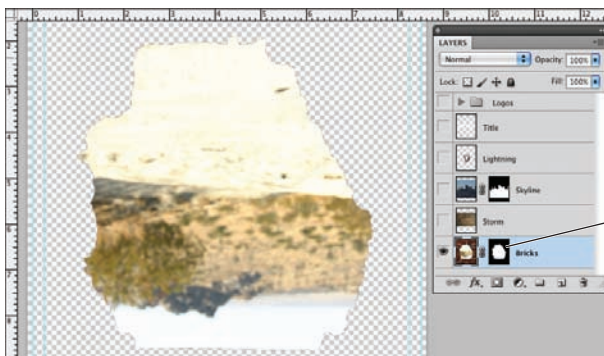


## 8. At the bottom of the dialog box, choose the Layer Mask option in the Output To menu.

This menu can be used to create a new layer or file (with or without a mask) from the selection. You want to mask the existing layer, so you are using the Layer Mask option.



## 9. Click OK to accept your refined selection.



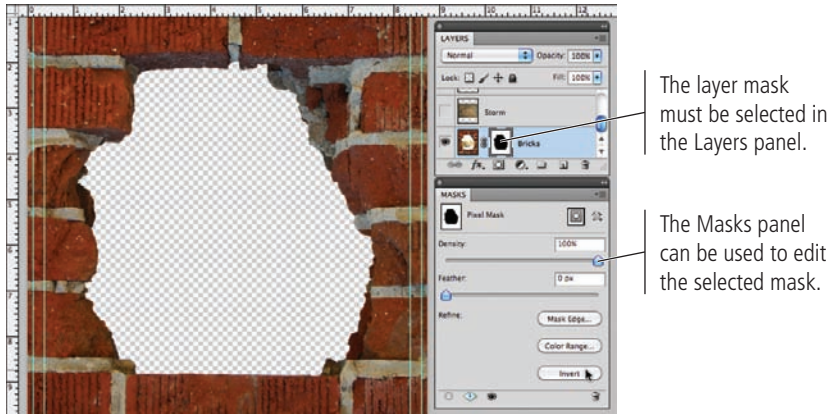
The resulting layer mask hides areas that were not selected.

**10. Click the mask thumbnail in the Layers panel to select only the mask, and then open the Masks panel (Window>Masks).**

As you know, you want to remove the hole in the wall and not the wall. You selected the area in the hole to create the mask, but you now need to invert the mask.

**11. In the Masks panel, click the Invert button.**

This button reverses the mask, so now only the bricks are visible.



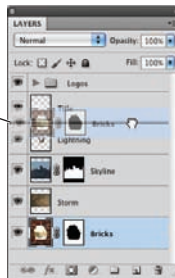
**12. Save the file and continue to the next exercise.**

## ARRANGE LAYER POSITION AND STACKING ORDER

The ad is almost final, but a few pieces are still not quite in position. You already know you can use the Move tool to move the contents of a layer around on the canvas. 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.

1. With **aftermath.psd** open, make all layers visible.
2. Click the **Bricks** layer in the **Layers** panel and drag up. When a heavy black bar appears below the **Title** layer, release the mouse button.

The heavy line indicates where the layer will be positioned when you release the mouse button.



*Note:*

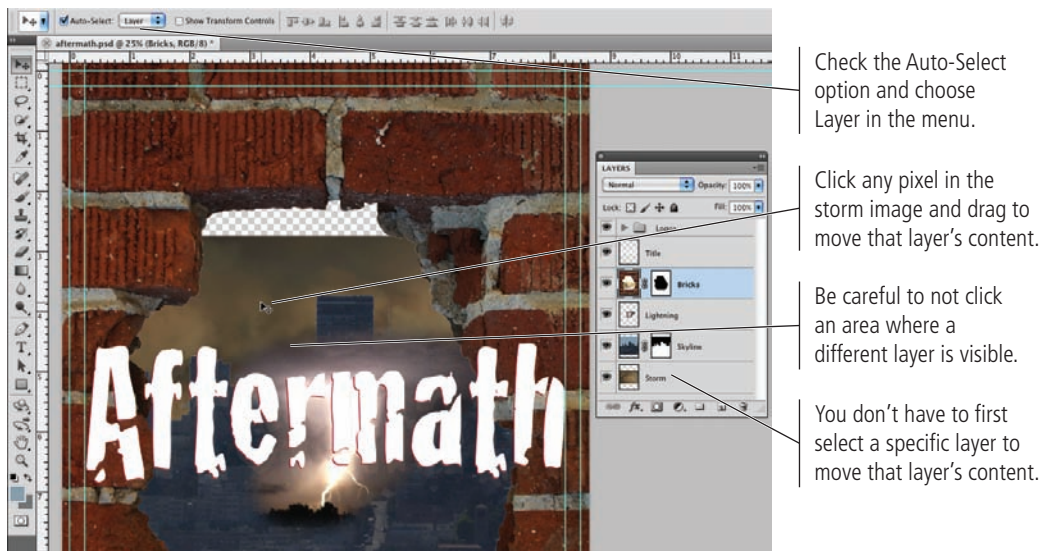
*If the black border appears around a layer group, releasing the mouse button would place the dragged layer inside of the group.*

3. With the **Move** tool active, check the **Auto-Select** option in the **Control** panel. Open the attached menu and choose **Layer**.

When **Layer** is selected in the **Auto-Select** menu, only the relevant layer will move even if it is part of a layer group. If you want all layers in a group containing the selected layer to move, you can choose **Group** in the menu.

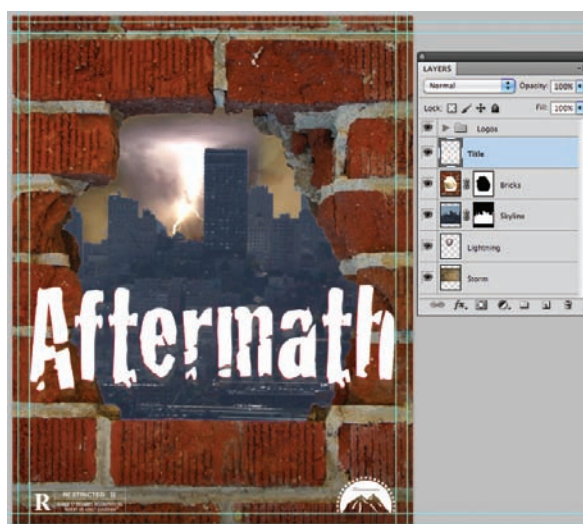
4. In the document window, click any pixel in the storm image, and drag until the image fills the top of the hole in the bricks.

Make sure you click an area where no pixels from another layer are visible. (Because the layer mask on the Bricks layer hides the inner pixels, you can click within the mask shape to select the underlying layers.)



5. In the document window, click any pixel in the city image and drag until you are happy with the position of the layer content.
6. In the Layers panel, click the Lightning layer and drag it below the Skyline layer.
7. In the document window, click any pixel of the lightning image and drag to position the layer content so the lightning appears to strike one of the buildings.
8. In the document window, click any pixel in the title treatment and drag down so the title appears in the bottom half of the canvas.

Your layers should appear in the same order as shown in the following image, with the Logos layer group at the top of the layer stack.



**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.*

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



## Stage 4 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.

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 just created, for example, will be placed in magazine layouts, which will be built in a page-layout application such as 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 that 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

Some software that can't use native PSD files can use layered TIFF files, which allow you to maintain as much of the native information as possible in the resulting file.

1. **With aftermath.psd open, choose File>Save As.**
2. **If necessary, navigate to your WIP>Movie folder as the target location.**

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. **In the Save As field, type *\_layered* at the end of the current file name (before the .psd extension).**

## Common File Formats

### PHOTOSHOP FOUNDATIONS

**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.

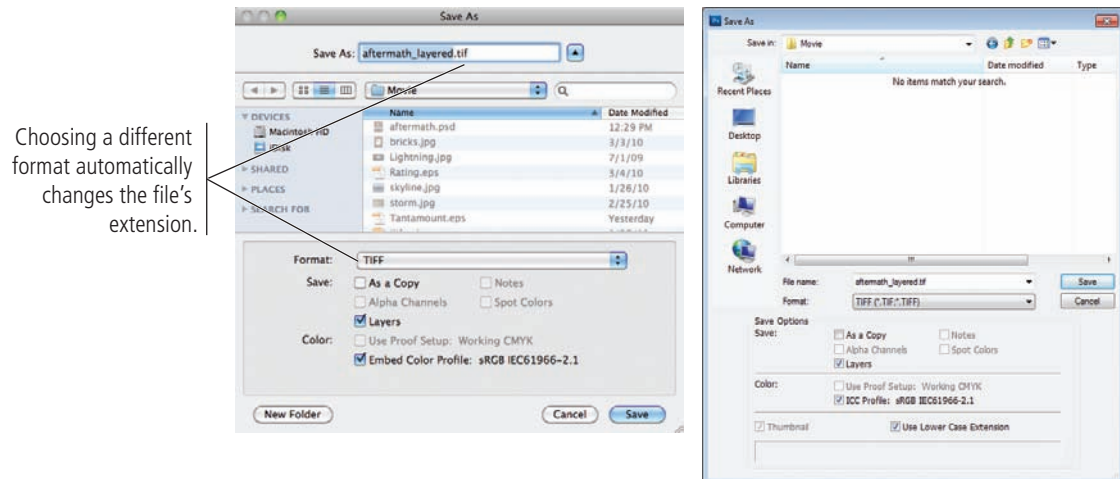
**Photoshop DCS 1.0** creates a separate file for each color channel in a CMYK image, plus a fifth composite file that can be used for placement.

**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.

#### 4. Click the Format menu and choose TIFF.

#### 5. 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 will do in the next exercise).

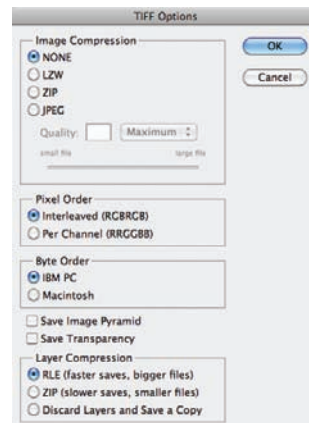


#### 6. Leave the remaining options at their default values and click Save.

#### 7. In the resulting TIFF Options dialog box, make sure the None image compression option is selected.

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

- **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 a smaller file size.



## 8. Leave the Pixel Order radio button at the default value, and choose the Byte Order option for your operating system.

Pixel Order determines how channel data is encoded. The Interleaved (RGRGB) 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. On older versions of most desktop-publishing software, Macintosh systems can read the PC byte order but Windows couldn’t read the Macintosh byte order — which is why even the Macintosh system defaults to the IBM PC option. This option is becoming obsolete because most newer software can read either byte order. Nonetheless, some experts argue that choosing the order for your system can improve print quality, especially on desktop output devices.

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.

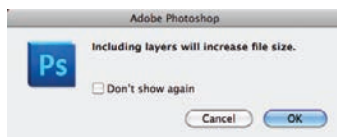
If your file contains transparency, the Save Transparency check box will be available. If you don’t choose this option, transparent areas will be white in the saved file.

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

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

## 10. Click OK to save the file.

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



## 11. Click OK to dismiss the warning and save the file.

## 12. 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 pane of the Preferences dialog box.



## SAVE A FLATTENED TIFF FILE

Magazines using older page-layout applications need files that no longer maintain the layer information — called **flattened** files. You can flatten a file’s layers manually using the Layers panel Options menu, or simply flatten the file during the Save As process.

### 1. With aftermath\_layered.tif open in Photoshop, choose File>Save As.

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 TIFF version and not the PSD version from your WIP>Movie folder.

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

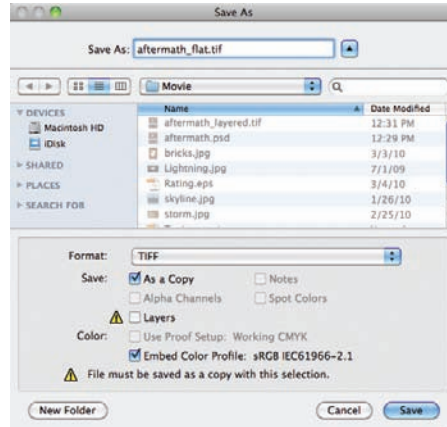
### 2. Uncheck the Layers check box.

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.

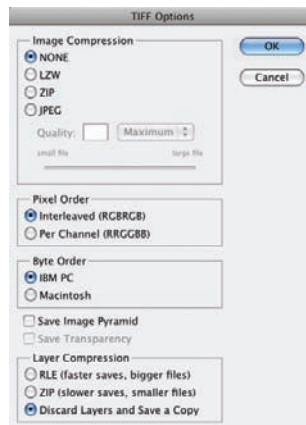
3. In the Save As field, highlight the words “layered copy” and type **flat**.



*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.*

4. 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. At the bottom of the dialog box, make sure the Discard Layers and Save a Copy option is checked.



5. Click OK to save the second version of the file.
6. When the save is complete, choose File>Close. Click Don't Save when asked.



# Project Review

## fill in the blank

1. \_\_\_\_\_ is likely to cause degradation of a raster image when it's reproduced on a printing press.
2. A \_\_\_\_\_ is a linked file that you placed into another Photoshop document.
3. The \_\_\_\_\_ is context sensitive, providing access to different functions depending on what tool is active.
4. The \_\_\_\_\_ is the final size of a printed page.
5. The \_\_\_\_\_ tool is used to draw irregular-shaped selection marquees.
6. The \_\_\_\_\_ tool is used to select areas of similar color by clicking and dragging in the image window.
7. The \_\_\_\_\_ tool can be used to drag layer contents to another position within the image, or into another open document.
8. When selecting color ranges, the \_\_\_\_\_ value determines how much of the current color range falls into the selection.
9. A \_\_\_\_\_ can be used to non-destructively hide certain areas of a layer.
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 explain the concept of a layer mask.



# Project Summary

Making selections is one of the most basic, and most important, skills that you will learn in Photoshop. Selections are so important that Photoshop dedicates an entire menu to the process.

As you created the movie 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 will learn additional methods in later projects. You also learned how to work with multiple layers, which will be an important part of virtually every Photoshop project you create, both in this book and throughout your career.

