

Photoshop Class

Class Objectives

After completing this shortcourse, you should be able to:

- Make a selection using 1 or more of the tools or procedures.
- Move a selection.
- Transform a selection using the **Transform** tool.
- Crop an image.
- Identify and select a layer for various tasks.
- Know how to change the opacity on a layer.
- Create a text layer.
- Improve a photo using some basic methods.

Introduction

You can bring images into Photoshop by way of scanners, stock digital art, and artwork created with a drawing program, such as Adobe Illustrator.

The best part about Photoshop is its seemingly never-ending pull at your imagination. Don't be afraid to "play."

Starting Up

The **Toolbox** is on the left, your **Options** bar is at the top of the screen, and your **Palettes** is on the right.

The selection and layers make up more than 50% of Photoshop's power.

A *selection* is an area you define in an image, using any one of 14 selection methods. You can select image areas and drag them around. You can use paths and turn them into selections. You can select by color. You can select anything if it's on a layer.

Layers are like a transparency on which you can put one or many distinct areas. You can paste Clipboard contents into an image window and create a layer automatically. You can create a new layer manually and paint on it, change the opacity of paint on a layer, change how it looks when blended with underlying layers, and even reorder and delete layers.


Selection Practice 1

Open hamburger.tif

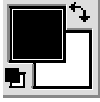
In the Toolbox (on your left) is the **Lasso** tool. This is a *freeform* tool. Your selection can be any shape you want—no constraints. You draw the shape you want by holding the mouse button down and dragging (the drawing starts at the rope end of the lasso), and you close the selection by releasing the mouse button. You can add to the selection by adding the **Shift** key as you drag around what you want to add and subtract by pressing the **Alt** key as you drag around what you don't want.



Draw a selection around the edge of the burger. Keep in mind that the strength of the **Lasso** is not accuracy.

1. For another type of selection, choose the **Paintbrush** tool. 
2. From the drop-down **Brush** menu, select **Small Thumbnail** view.
3. Click the down arrow to the right of the **Brush** icon in the **Options** bar at the top of the screen, and the hard edge size **19** brush. This is to create a tint overlay that can then be converted to a selection. It is called a **Quick Mask**.

- Click the **Quick Mask mode** button on the **Toolbox** (*right* button just below the colored boxes that are the **Foreground/Background** box).




If you do not see a shaded circle inside a white rectangle (what you see below is the default), hold down the **Alt** key and click the icon.



- Paint over the burger. Stay inside the lines. If you make a mistake, press **X** to swap the foreground and background colors (or click on the double arrow), and paint over the area you want to remove from the mask area. Paint in areas you want to add by pressing **X** again. In other words, correct mistakes by switching back and forth between the foreground and background by pressing **X**.
- Click **Standard editing mode** (the left button, beside the **Quick Mask** button). A selection appears around your burger.

For a third type of selection, work with the blue that is all around the burger because it's fairly uniform. For this, use a tool that selects color similarity.

- Click on the **Magic Wand** tool. 
- On the **Options** bar, type **32** in the **Tolerance** field, and check **Anti-aliased** and **Contiguous**. The reason for this is that the burger has a soft edge around it where the pixels make a color transition to the background.
- Click in the background with the **Magic Wand**.
- Hold down the **Shift** key, and click in the shadow area of the burger. This will add the different shade of blue to the overall selection.
- Press **Ctrl-Shift-I** (or **Select>Inverse**) to choose the inverse of the current selection. The burger will be selected perfectly. Don't deselect it yet.

Creating a Layer

With the burger selection still active, *right-click* and choose **Layer via Copy** from the pop-up menu.

You can't see what you've done at the moment because one burger is right on top of the other, but you can see in the **Layers** palette that you now have two layers.

- Click on the new layer (*Layer 1*), and then select the **Move** tool. Click on the burger and drag up. You will now see two hamburgers.



- On the **Layers** palette, lower the **Opacity** percentage until the top burger is only a ghost of its former self.

The opacity change does not affect the bottom burger at all. You cannot accidentally harm other layers while you're working on another.

Selection Practice 2






Open VegChef.psd

Choose **File>Save As**. Make sure the **Save As a Copy** is not checked, and *rename* the VegChef file to one of your choosing.

Start with the **Rectangle Marquee**.

1. Drag the marquee diagonally from the top-left to the bottom-right corner of the melon to create a selection.
You can move the selection border after you've created it to position it better. Use the arrow keys, or move your cursor into the middle to get a white arrow, and drag it. Repositioning works with any of the marquee, lasso, and magic wand tools.
2. **Ctrl-D** to deselect. That was just for practice.

Eyes

1. Now, with the **Zoom** tool, click over the blueberry to zoom in on it. 
2. Hold down the mouse button while clicking on the **Marquee** tool to see the other choices. 
- Choose the **Elliptical Marquee**. 
3. From the top left, drag to the bottom right of the blueberry to create a selection. *Keep the mouse button down.*
With the mouse button still down, you can reposition the border while creating it—change its point of origin.
4. Hold down the **Spacebar** and drag the selection. The border will move as you drag.
5. Release the **Spacebar** (but not the mouse), and drag again. Notice that when you drag without the **Spacebar**, the size and shape changes but not its point of origin.
6. When the border is positioned and sized correctly, release the mouse button.
7. **Ctrl-D** to try an easier way of selecting the blueberry. Let's try it from the *center*.
8. Position the **Elliptical** tool at the center of the blueberry. Click, and begin dragging, then press **Alt** and continue dragging to the blueberry's outer edge.
9. Release the mouse button first and *then* **Alt** when you have the selection where you want it. Once released, you can use the arrow keys to adjust small position errors.
10. Now, we'll move the blueberry onto the carrot slice to create an eye.

- Click the **Move** tool, and position it inside the blueberry selection. The pointer becomes an arrow with a pair of scissors to indicate you'll be cutting it from its present location.



- Drag the blueberry onto the carrot slice.
- Ctrl-D**, and save the file.
- Press **Ctrl-zero** to resize the image to the window. This does not change the actual size of the image, just zooms out.
- Select the **Elliptical Marquee** again. Starting in the center, click and drag, then hold down the **Alt** key to draw a selection around the carrot.
- Release the mouse button then the **Alt** key. Adjust with the arrow keys, if necessary.
- Click the **Move** tool. Hold down the **Alt** key, and position the pointer within the selection. You will now see a double arrow.
- This indicates a duplicate will be made when you move the selection.
- With the **Alt** key still pressed, drag a duplicate of the blueberry/carrot eye onto the left side of the melon face. Release the mouse button and the **Alt** key.
- Do not deselect the eye (if you did, use **Ctrl-Z**—undo—to reselect it before doing anything else).
- Hold down the **Shift** when you move a selection to constrain movement horizontally or vertically. Therefore, hold down **Shift-Alt**, and *drag a copy* of the eye to the right side of the face.
- Save your file.

Mouth

- Select the **Elliptical Marquee** tool again. Drag a selection around the kiwi fruit (using the center method, click in the middle and press **Alt**; don't release **Alt** until *after* you release the mouse.)
- Hold down **Ctrl**, and position the pointer within the new selection. You'll see the pair of scissors again to indicate a cut.
- Drag the kiwi onto the face for a mouth. *Don't deselect.*
- Once you've moved an object, the arrow keys will then allow you to position the selection, rather than the marquee itself. Position the mouth to its proper place, if you need to.
- Save your file.

Nose

This will be a little different to show the diversity of the **Magic Wand**. Remember that this tool selects adjacent pixels based on their similarity in color.

- Click the **Magic Wand**, and check out the **Options** bar. **Tolerance** controls how many similar tones of a color area are selected when you click on an area. Change **Tolerance** to **50** to increase the number of color shades that will be selected.



- Click the **Magic Wand** tool anywhere within the pear tomato. Most of it will be selected.
- To select the remaining area (just as you did with the hamburger), hold down the **Shift** key, and click the unselected areas. With the **Shift** key down, a plus appears with the **Magic Wand** to indicate that you're adding to the current selection.
- Once completely selected, press **Ctrl**, and position the pointer within the selection to get the scissors. Drag the tomato nose onto the melon face.
- Ctrl-D**, and Save.

Bow Tie

You can use the **Lasso** tool to make selections that require both freehand and straight lines. This will be a little trickier, so if you make a mistake, click away to deselect, and start the selection over.



1. With the **Zoom** tool, click a couple of times on the bow tie pasta to enlarge the view.
2. Select the smooth **Lasso** tool. Starting at the top-left corner of the pasta, drag to the right to create a freehand outline across the top curves of the bow tie. *Do not release the mouse when you get to the edge.*
3. Press **Alt**, and then release the mouse but not **Alt**. Notice that the **Lasso** has become a **Polygonal Lasso**. With **Alt** still depressed, begin outlining with short, straight lines. When you reach the bottom of the bow tie, *don't release the mouse button.*
4. Release **Alt**, and your **Polygonal Lasso** will change to the smooth **Lasso** again. Drag to the left to create a freehand outline across the bottom.
5. *Without releasing the mouse*, press **Alt** again. Then release the mouse, and with **Alt** depressed, repeat the zig-zag selection on the left edge. *Be sure the last straight line crosses the start of the selection.*
6. Release **Alt**, and then release the mouse. Don't click anywhere else.
7. Press **Ctrl-zero** to resize the document to the screen.
8. Press **Ctrl** to get the scissors, and drag the bow tie selection to the bottom of the melon face.
9. **Ctrl-D**, and Save.

Hat

This will be more about subtracting from and adding to selections. It's time to put the chef's hat on.

With **Zoom**, click twice on the mushroom to enlarge the view.

1. Select the smooth **Lasso** tool again, and drag a rough outline around the mushroom.
2. To refine the outline, use **Shift** to add any missed spots by drawing a selection around what you missed (cursor will include a plus sign).

Use **Alt** to take away spots you didn't mean to include, drawing a selection around the area you want to remove (cursor will include a minus sign).

Take a little away from the stem (curved) so that the "hat" will sit better atop the melon.



3. Once you have the mushroom selected to your liking, press **Ctrl-zero**.
4. Hold down **Alt-Ctrl** to drag a copy this time to the top of the melon.
5. **Ctrl-D**, and Save.

Ears

Use the grapefruit slice.


For selecting areas with high-contrast edges, you can use the **Magnetic Lasso** tool. Click, and hold down on the **Lasso** tool, and select the **Lasso** with the magnet next to it.



1. Zoom in once on the grapefruit slice.

2. With the **Magnetic Lasso**, click at the lower-left corner of the red flesh of the grapefruit slice, release the mouse, and begin tracing the outline of the flesh by dragging to the right over the curved, upper edge. Notice that the tool snaps to the edge and automatically puts in *fastening points*.
3. If you don't think Photoshop's following the border closely enough, you can add your own fastening points by clicking the mouse button now and then over the border. You can add as many fastening points as you want.
4. You can also remove any by backing up in the path and pressing the **Delete** key then moving the mouse back to the last remaining fastening point. Start working forward again.
5. When you reach the lower-right corner, **single-click** the mouse button when you see a tiny circle beside the lasso. This signals the **Magnetic Lasso** to return to the starting point and close the selection.
6. Press **Ctrl-zero**, and click the **Move** tool to drag the grapefruit ear to the middle of the *left side* of the melon face. *Do not deselect.*
7. Save.
8. To transform the selection, use **Free Transform**. Use **Ctrl-T** to get a bounding box around the selection.
9. Rotate the box by using the broken (curved) arrow near a handle. Move it to the left to rotate counterclockwise.
10. We can also scale the ear while in this mode. Click on one of the *corner handles* (don't **double-click**), and, with the **Shift** down, drag in toward the center to scale the ear down a bit.
11. Click inside the box to get a tail-less black arrow, and move the ear into place.
12. Press **Enter**. *This accepts the transform but does not deselect the piece.*
13. Position your cursor over the selection, press **Shift-Alt** to make a copy, and drag that copy to the right side of the face. *Don't deselect.*
14. Select **Edit>Transform>Flip Horizontal**.
15. Drag to position the ear as necessary.
16. If you need to, you can use **Ctrl-T** to rotate the ear a little to match the melon on that side better. Press **Enter** to accept the transform.
17. **Ctrl-D**, and Save.

Eyebrows


Use the **Magic Wand** tool again to select the radishes. 

You could always use the **Lasso** tool, but what a job that would be!

1. First, get the **Rectangular Marquee** by clicking and holding down the tool and selecting the top, square-edged marquee.
2. Drag a selection around the radishes. This will, of course, include some of the white background.
3. Next, "subtract" that white background. Click on the **Magic Wand** tool, and hold down **Alt** for the minus sign on the pointer.
4. Click anywhere in the *white area* surrounding the radishes. Only the radishes are selected.
5. Press **Alt-Ctrl**, and drag the radish above the left eye on the melon face. Do not deselect.
6. Press **Shift-Alt-Ctrl**, click within the selection (if you accidentally deselect, press **Ctrl-Z** before doing anything else), and drag it to duplicate it and position it over the other eyebrow.
7. Select **Edit>Transform>Flip Horizontal**, and re-position the eyebrow as necessary.
8. **Ctrl-D**, and Save.

Finishing

Finally, crop the picture.

1. Choose the **Crop** tool from the toolbox. 
2. Drag the pointer from the top left to the bottom right of the completed work to create a crop marquee. You can reposition by hovering over the sides and pulling the edges out or in and using the arrow keys to center over the face.
3. Press **Enter** to accept the crop, and Save.

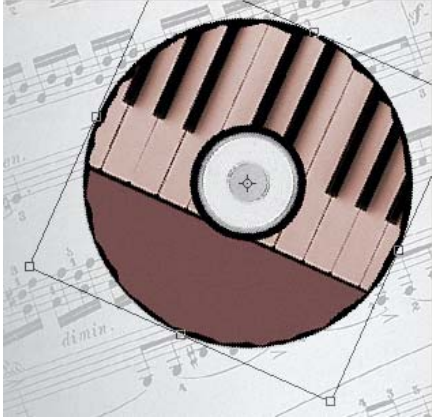
Layers and More Selecting



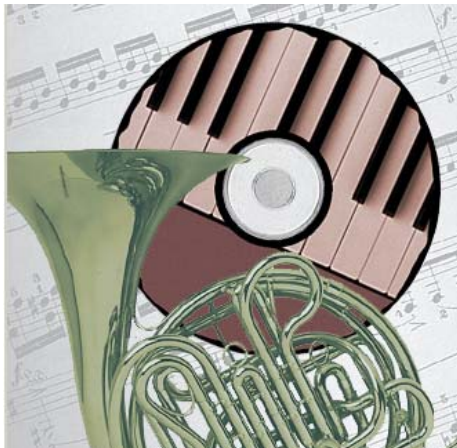
Open Music.psd, CD.psd, and Horn.psd

In this exercise, you are going to work with selections and layers to create a collage.

1. Using the **Elliptical Marquee**, select the CD in the CD.psd window. With the **Alt** key pressed, start dragging from the center. Add **Shift** for a perfect circle. Use the **Spacebar** to alter the placement, if needed (keeping the **Alt** and **Shift** depressed as you did with the blueberry and carrot of the last exercise).
2. With the CD selected, click the **Move** tool. Drag the CD onto the Music.psd window (if you need to, move your windows around so that you can see at least part of the Music window. You will not lose your CD selection. When you see an arrow with a small-boxed **x** in the Music window, release the mouse).
3. Close the CD window.
4. Choose **File>Save As**. Make sure the **Save As a Copy** is not checked, and *rename* the Music file to one of your choosing.
5. Move the CD so that you can see all of it. Notice that you now have a layer called *Layer 1* in the **Layers** palette. **Double-click** that name so that you can change the name to **CD**, and press **Enter**.
6. Press **Ctrl-T** for free transform. To scale proportionately, hold down the **Shift** key, and grab one of the corner handles. You should see a diagonal arrow. Drag *in* until it is about 3/4 its original size.
7. Move the pointer to the outside, and hover around a handle until you get the broken arrow that means rotate. Rotate the CD about 30 degrees. Press **Enter**.



8. Next, use the **Magic Wand** tool to select the French horn. Click the horn window to make it active, and click the white background. Only part of the white background will be selected.
9. Use **Select>Similar** to add the rest of the background to the selection. At this point everything *except* the horn is selected.
10. Use **Select>Inverse** to select everything that was *not* selected before.
11. Press **Ctrl** to get the scissors on the cursor, and drag the horn to the Music window (same as you did the CD).
12. With the **Move** tool, move the horn to the bottom-left corner of the image.



13. Save.

Notice that you now have another new layer: *Layer 2*. Since it was created when you still had the *CD* layer selected, it was created on top of the *CD* layer. Any layer is created *above* the layer that is selected.

14. **Double-click** the new layer to get **Layer Properties**, and change the name to **French horn**. Close the Horn.psd file.
15. There is a hidden layer in your file. Notice that there is an eye icon on every layer except one. Click in that empty spot on the *Notes* layer to show that layer. If you need to, move the French horn in the image down a little more so that all the notes are *above* the bell.
16. Layers can be rearranged at any time. Drag the *French horn* layer to just below the *CD* layer. The horn is now *behind* the CD.
17. Select the *CD* layer to make it the active layer.
18. With the **Move** tool, drag the CD on the image to the top, right corner of the window.



19. Now, to adjust the opacity, find the **Opacity** box in the **Layers** palette. Press **4**. This will change the opacity to **40%**. If you prefer, use the slider you get by clicking on the arrow beside the percentage, or *type* in the percentage. You can now see the others layers through the CD.
20. **Blending modes** (the menu right beside **Opacity**) can determine how one layer interacts with another. Choose **Multiply** from the drop-down menu. You will see the notes in the background come through a little darker (sharper). With **Multiply**, the background bleeds through more to the front—like a felt marker left on a napkin.
21. Save.
22. Next, create some text with the **Type** tool. When you do this, you automatically create a new layer. It will go above the selected layer, in this case above the CD. Click the **Type** tool.

T

23. Click the **Palettes** icon at end of the **Options** bar, and select **Garamond, 30pt, 43pt** leading (second box), and a color of **006699** (click on the colored box to get the **Color Picker**. Type the number in the box beside **#**, and click **OK**. Click **Align Right** on the **Options** bar, and use **Crisp** for the anti-aliasing.
24. Click on the right side of the CD next to the edge, and type **MEZZO PIANO** in all caps on two lines.
25. Select **PIANO**, and change the point size to **48**. Leave the rest the same.
26. Inside the text area you will see an I-beam. Outside the text, you will see the **Move** tool. Use the latter to position the letters better, if needed.



27. Enhance the text by clicking on the **Add a layer style** icon (*f*) at the bottom of the **Layers** palette. You will get a pop-up menu. Select **Drop Shadow** from that menu.
28. In the dialog, change the **Opacity** to **60%** and the **Angle** to **150 degrees**. Do not click **OK**.

29. Select (do not just check) **Bevel and Emboss** so that the middle information changes to **Bevel and Emboss**. Change the **Opacity** for both **Highlight** and **Shadow** to **50%**, and select **Inner Bevel**. This time click OK.

Notice the change in the text. Also notice the **f** icon now beside the layer name and the effects listed beneath.

30. You can still edit the text whenever you have the type layer selected. On the image, select **PIANO** on the image, and change it to **FORTE**. The effects remain applied to the new text.
31. Save.

Filters can be added to a layer to add special effects.

1. Click on the *Background* layer.
2. Select **Filter>Distort>Wave**. Set **Number of Generators** to **3**, **Minimum Wavelength** to **30**, **Maximum Wavelength** to **350**, **Minimum Amplitude** to **1**, and **Maximum Amplitude** to **20**. **Scale** is **100%**; **Type**: **Sine**, and **Undefined Areas**: **Repeat Edge Pixels**. Click OK.
3. Now to add a little color with the painting tools. Click the **Paintbrush** tool. **Opacity** in the **Options** bar should be **100%**. Select a **35-pixel** soft brush. You are going to use 4 different colors: white, yellow, red, and green.
4. Press **D** and then **X** to get a white foreground color. Paint a white arc over the bell of the French horn.
5. The **Eyedropper** tool is used to select additional colors by “sampling” (copying) them to the **Foreground** box. A shortcut for this is to press the **Alt** key and then click on a color. You will see the eyedropper when you press **Alt**. In this fashion, **Alt-click** a yellow note (the *lightest* part possible).
6. Go back to the **Paintbrush**, and change the **Opacity** in the **Options** bar to **80%**, and paint a yellow arc just above the white arc.
7. **Alt-click** a red note, change the **Opacity** to **60%**, and repeat for another arc.
8. **Alt-click** a green note, change the **Opacity** to **40%** and repeat for the last arc.



9. Save.
10. Click on the *Notes* layer, click the **Add a layer style** icon, and select **Drop Shadow**. Click OK.
11. Select the *Background* layer again. You will add a gradient fill this time. Click the **Swatches** palette and click a blue swatch (*Pastel Cyan Blue*, a light blue, from the third row middle is a good one. Hovering near a color gives you the color name.)
12. Click the **Gradient** tool and the far left gradient type in the **Options** toolbar.




Also in the **Options** bar, choose **Foreground to Transparent** (second box), **30% Opacity**, and **Multiply** for the mode.

13. Drag the **Gradient** tool from the top left to the bottom, right corner.

It is time to do a little retouching for some color correction. After all, we do have somewhat of a green French horn.

1. Select the *French horn* layer to make it active. Press **Ctrl-L** to get the **Levels** dialog (**Image>Adjustments>Levels**). Drag the left and right triangles (not the center one) inward to where the first spikes of the dark and light ends of the histogram's color range begin. Click OK.
2. Next, add some red to correct the color. Use **Image>Adjustments>Color Balance** (**Ctrl-B**). Drag the top slider away from **Cyan** toward **Red** to about **+48**. Click OK.

There is a scratch on the French horn.

1. Use the **Clone Stamp** tool. 
2. Click this tool, click **Aligned** in the **Options** bar, and select a small, soft brush in the palettes (**13**).
3. **Alt-click** a good area of the horn. This *samples* the good area.
4. Now, drag the **Clone Stamp** tool over the scratch. Where you click is where you start the “copy” process. If you click right beside the scratch and then draw down across the scratch, you will draw in the shadow as well and make it look as if all is perfect.

Save and close the file.

Fixing a Photo Mistake

There is a Murphy’s Law that says “The longer you look at a photograph, the worse it looks.”

The photo used in the example has two subjects, Renee and her 2-year-old daughter Ariana in a pose on a picnic table. The picture is being reworked to give to Grandma.

Open ReneeSmiling.psd

Look at some of the mistakes. (Leave the picture at 33.3%.)

1. There’s an uneven white border (caused by the scanning procedure), and the picnic table leans to the right.
2. A grilling stand appears to grow out of Ariana’s back.
3. The vehicles in the background and the picnic table at the right are distracting elements.
4. There is a tree behind Renee’s head (known as a compositional flaw).
5. The grass needs touching up in the patchy areas near the foreground and at the tire tracks at the left of the photo.
6. Most important—for Grandma, at least—Ariana is not smiling. Luckily for this little problem, the photographer took a whole bunch of photos, so we have another we can work with called—what else?—*ArianaSmiling*.

In the following steps, a few—not all—of the items are going to be addressed. Try later on to fix some of the others, using what you’ve learned.

Cropping and Rotating the Image

Start with the white border and the leaning table. Cropping and leveling photos are the two most frequently needed edits to improve the average snapshot.

1. Choose **File>Save As**. Make sure the **Save As a Copy** is not checked. Rename the file, and save it. This leaves our original untouched in case something happens.
2. On the Layers palette **double-click** the *Background* layer, and click OK.


This changes the *Background* layer (now *Layer 0*) into a regular layer so that it can be rotated without introducing a new background color at the window corners.

3. Choose **View>Show>Grid**, and press **Ctrl-K (Edit>Preferences>Guides, Grid & Slices)** to display the **Preferences** dialog, and select **Guides, Grid & Slices** from the drop-down menu.

For **Gridline Every**, enter **.2 inches** (make sure it’s **point 2** because 2 won’t be of much help), and for **Subdivisions**, enter **1**. Click the large color swatch in the **Grid field** (*not* the top one), and choose **black** in the **Color Picker** (bottom, left corner). Click OK for the **Color Picker** and **Preferences** dialogs.

4. Press the **Tab** key to hide all palettes, and press **F** to change the view of the work space to **Full Screen Mode with Menu Bar**. Press **Ctrl-zero** to zoom to **Fit on Screen**.
5. Press **Ctrl-T** for the **Transform** command. The anchors appear at the border edge.
6. Hover your cursor just above the top, center anchor until the curved, double arrow appears. Click and drag slightly in a counterclockwise direction (going left or right in the case of the middle handle usually works well) until the

top of the picnic bench is as level to the gridlines as possible. **Double-click** inside the box, or press **Enter** to accept the change.

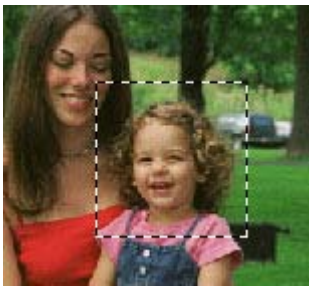
7. Press **C** for the **Crop** tool and press **Enter** to show the **Options** bar. 
8. Click the upper-left image and drag to the bottom right. You can crop to where you wish (going all the way to the bottom and cloning the grass there later), but it's easiest here to crop both top and bottom to get rid of the blank spots. You can adjust the handles by dragging on the center (*not* corner) anchors, if you need to after dragging the crop marquee. **Double-click** inside the marquee to apply the crop.
9. Press **View>Show>Grid** to hide the grid and then **F** twice to return to **Standard Screen Mode**. Press **Tab** to get back the palettes and **Toolbox**.
10. Save your file.

Changing Faces

Editing parts of a person's body, especially the face, requires more precise and artfully applied edits than almost anything else you can bring into Photoshop. The most important goal here is to size Ariana's face correctly from the different photo over her face in the image you're working on.

Open ArianaSmiling.psd

1. Loosely select around Ariana's head with the **Marquee** tool. (Zoom in one time on the photo, if you wish.)



2. Press **Ctrl-C** to copy the selection to the **Clipboard**. Close the file without saving.
3. On your *ReneeandAriana* file, paste with **Ctrl-V**. This gives you a new layer called *Layer 1* with Ariana's smiling face; though, it's too big.
4. Press **V** or click the **Move** tool, and position the smiling face over the face that's not smiling. Precision placement is not necessary yet.
5. Click the **Zoom** tool, and click once for a better view. With *Layer 1* selected, press **5** to change the opacity of the new layer to **50%**.
6. Click the **Move** tool, and position the box *so that you can see both pairs of eyes and nostrils*. (Click and drag *inside* the box to move it. You can use the arrow keys after you once start moving it around.)
7. Press **Ctrl-T**; then rotate the box so that the eyes and nostrils are parallel to those on the other layer. The easiest way to do this is to use numbers already calculated. In this case, type **-6.2** in the Rotate box in the Options bar. *Don't* press **Enter** or **double-click** yet.
8. Hold down the **Shift** key, and gently drag one of the four *corner* anchors in toward the center of the box until the hairline, eyes, and nose align in size with those on *Layer 0*. Just do this a tad at a time, undoing with **Ctrl-Z** if you go too far with a movement.

If you need to, use the arrow keys to nudge the placement after a resizing.

9. **Double-click** inside the box, or press **Enter**.
10. With the **Move** tool still selected, press **0** (zero) to return *Layer 1's* opacity to **100%**.
11. Press **D** for default colors and **B** (or click the **Paintbrush** tool). Click the **Layer Mask** icon at the bottom of the **Layers** palette. (Check your colors. Press **X**, if you need to get the black on top as the foreground.)

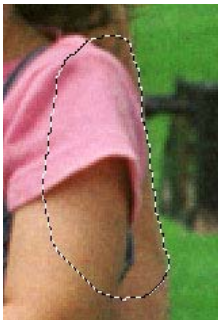
12. Select the **35-pixel** brush from the **Options**, and set the brush **Opacity** for 100%.
13. Start with the top, center of Ariana's forehead at the hairline, and carefully paint along the outside of her face. The brush should pass over her hair, neck, and ears. You may need to move the brush slightly into her face to remove any double-face edges (no double-chins now!). Make sure you paint over the shoulder area you picked up with the copy and across Renee's face. No straight lines from the copy should remain.
14. When you have it the way you want it, click and drag the *Layer Mask thumbnail* into the Trash, and choose **Apply** in the dialog box that appears.
15. Press **Ctrl-E** to merge *Layer 1* into *Layer 0*.
16. Save the file, but don't close it.

Getting Rid of the Grill

Next steps: creating a selection that borders Ariana and Renee's arms and cloning grass over the grill.

Go back to **Full Screen Mode with the Menu Bar** by pressing **F** once, and with the **Zoom** tool click the area a couple of times where the grill stand touches Ariana until you see only the upper half of the stand.

1. Press **L** (or click the **Lasso** tool). In the Options bar, type **1** for **Feather**, and click **Anti-aliased**.
2. Click and carefully drag along the line of Ariana's shirt and Renee's arm where the grill makes contact with these areas and then drag into Ariana's arm, and back to the beginning of the selection.



3. Choose **Select>Inverse** (or **Ctrl-Shift-I**) to create an inverse selection (the picture is so large, you won't see this happen). Then press **Ctrl-H** to hide the marquee. (**Ctrl-H** will bring the marquee back when you need it; it is not gone.) This process will keep you from painting into the girls. That is why it is important to have the right edge of the selection more precise than any other part.
4. Press **D** to get the default foreground; then press **S** (or click the **Clone Stamp** tool), and choose the **21-pixel** brush from the Options bar.
5. Click the initial sampling point of grass by **Alt-clicking** just above and to the right of where the handle of the grill touches Ariana's arm area. Place the cursor on the grill handle, and then click and drag the cursor in a small, circular motion a little way to the right. *Keep a watch on the small cross that denotes your paint area!*



You will eventually start to see some of the grill's black as you paint, so stop there and undo if you have painted in any of the black. **Alt-click** another spot, and then start painting again.

- Repeat the cloning procedure often. (**Alt-click** on various grass areas to get different sampling points.) Paint a little at a time, and pay attention to the different shading within the grass area. Avoid creating any obvious patterns with the repeated areas. Whenever you start seeing some black being painted in, you know you need to select another cloning point. Use the **Hand** tool to move the photo up, if needed, to see the grill's pole. Remember to click back on the **Clone Stamp** tool before continuing.
- When you're satisfied, press **Ctrl-D** to *deselect the hidden selection*, press **F** twice to get your normal Photoshop screen back; then save your image.

Warning: Don't get **Ctrl-D** (deselecting) and **Ctrl-H** (hiding a selection) mixed up. They have totally different functions.

Next steps: creating some grass and removing a tree.

Final Touch Ups

The Tree Behind Renee

Use the **Zoom** tool to move in on the faces until both fill a little more than half your screen (about 100% or more).

- With the **Rectangular Marquee** tool, select a portion over the left side of Renee's head.



- Copy the selection to a new layer with **Ctrl-J**. Check your **Layers** palette to see a new layer (*Layer 1*).
- Flip this copy with **Edit>Transform>Flip Horizontal**.
- Press **5** to change the Opacity to **50%**.
- Click the **Move** tool, and move it to the area so that the *hairlines* are aligned. Use the arrows if you need to.
- Press **0** for **100%** opacity, and click the **Add a mask** icon on the Layers palette. (Press **D** if your colors are not the default-black as foreground/white as background. You must paint with black.)
- Click on the **Paintbrush** tool (**B**), and select the **27-pixel** brush tip from the **Options** bar. Paint over to, but not including, the hairline.

Also paint over Ariana's face and hair, if necessary (if your marquee included that much).

- Drag the mask icon into the **Layers** trash, and click **Apply** in the dialog. Press **Ctrl-E** to merge the two layers.

Now, clone some of the leaves over the remaining tree trunk and close to Renee's head, if desired.

- Click the **Clone Stamp** tool, and **Alt-click** a portion of the leaves to give you an initial sampling point. Use several starting points, and avoid creating a pattern. Use undo (**Ctrl-Z**) whenever you need to.
- Save the file.

The Tire Tracks on the Left

- Go to the left side of your picture (you can use the **Hand** tool to move the image over) to those tire tracks, and use the **Clone Stamp** tool to get rid of those.
- Save the file.

The Patch of Bad Grass on the Right

1. Move to the area that shows you the top, right of the picnic table. You may need to zoom out (**Alt-click** the **Zoom** tool).
2. Create a selection of the grass with the **Polygonal Lasso** tool (click and hold on the **Lasso** tool, and select the second tool there) along the upper-right edge of the table top where the grass is patchy.



Hide the marquee (**Ctrl-H**). In this case, you will not be able to paint *outside* this selection.

3. Select the **Clone Stamp** tool, and clone grass over the areas where the soil is visible. Vary your cloning origins (your **Alt-clicks**) so that you do not see any type of pattern or wrong coloring.
4. Deselect the marquee with **Ctrl-D**.
5. Save the file.

Zoom out, if necessary, and move the image with the **Hand** tool so that you can see both sides of Renee's legs.

6. Create another selection with the **Polygonal Lasso** tool in the grassy area just below the tabletop to the *right* of Renee's legs; then hide it with **Ctrl-H**.
7. With the **Clone Stamp** tool clone the grass from the left of Renee's legs. This is a much better area to sample from because of the lighting in the picture, so use new sampling points frequently, or you'll be painting in part of the table. Remember that the hidden marquee will keep you from painting outside the selection.
8. Deselect (**Ctrl-D**) the marquee, and save your image.

If you wish, open the original file (*ReneeSmiling*) and check out the improvements you made. The other improvements mentioned at the beginning can be accomplished using the various tools and commands already and other ways you discover through experimentation. There are sundry things you can do to improve photographs. Give your new skills a try on them.

More Exercises

Text in Photoshop

Prior to version 5.5, text was an uneditable function in Photoshop. In 5.5 you gained editable properties that could be rendered into a graphic that was just like earlier versions. In versions 6 and 7, Photoshop has greatly increased its text abilities; although, it can be rasterized and converted to a graphic just as in the earlier versions.

Photoshop 5.5 and 6 offer vector text capabilities, which gives you the option to scale text smoothly to any size without losing clarity. Other options include kerning and leading that you see in desktop publishers such as PageMaker, FrameMaker, and InDesign.

While Photoshop has greatly improved its text editing properties, filters still cannot be applied to text until the text has been rasterized (rendered), which means the text can no longer be edited.

Many Photoshop users make a copy of their original text layer so that they can use it for editing at a later time, if needed. Clicking on the eye icon makes it invisible until it is needed.

The Type Tool

When the **Type** tool is active, you have two ways of entering text: create a text layer or create a mask or selection.



Text Layer: text is entered in a document as a new type layer. The new layer is automatically generated for you, and you can edit the text at any time using the **Type** tool on that layer.

Mask or Selection: usually called a *type mask*, this will create a selection border in the shape of the text and will appear on the active layer (not a separate one) and can be copied, moved, filled, or stroked just like any other selection created in

Photoshop. In prior versions, this was created with variations of the **Type** tool itself. In 6 and 7, the option is selected in the **Options** bar.

Text can be entered horizontally or vertically.

Clicking **Palettes** gives you added selections for *Character* and *Paragraph* settings.

Text in the graphics sense is used not only to communicate a message but also to set a mood and compliment the overall look and appeal of your work.

Note

If the fonts used in any of your work are different on one machine from the ones they were created on—Photoshop will let you know (unless the text has been rendered/rasterized). You can select a similar font, but be aware that adjustments may be necessary to the point size, tracking, or any other font options.

Grouping an Image with Text




The type of trick text in the next example is used a lot in advertisements. By grouping an image with the text, you can see the image in the text itself. With this trick you can also move the text around to locate the perfect spot for the text and image to reside together.

Open Sunset.tif

Because the picture is large, work with a 66.7% (or similar zoom in). The file at 100% would be difficult to work on with the palettes open.

Press **D** to make sure you start with your default colors.

1. Press **T** (or click on the **Type** tool).  Click *Left-align* on the **Options** bar. Click the **Palettes** button. In the **Character** palette, choose **Arial Black, 48 points**, tracking (second box, second row) **-50**. Set your cursor near the left edge of the canvas, and type **SUNSET** in all caps.
2. Your text should be black. Use the **Move** tool and arrows to center left-right, if needed.

Now, add a bevel and drop shadow. Never mind that the text is black for the time being.

3. Click the **Add layer style** icon (the first button, **f**) on the **Layers** palette, and choose **Bevel and Emboss**, and *click to highlight it*.
In the dialog choose **Inner Bevel** as the style; be sure the **Use Global Light** is *not* checked; and set **Depth** at **100%**, **Size** at **8 pixels**, **Angle 120 degrees**, **Altitude 22 degrees**, **Highlight Mode Opacity** at **100%**, and **Shadow Mode Opacity** at **100%**. Do not click OK yet.
4. Click the **Drop Shadow** option on the left side of the same dialog, and click to highlight it. Be sure **Use Global Light** is *not* checked, set **Opacity** at **75%**, **Angle 120 degrees**, **Distance 9 pixels**, and **Size 12 pixels**. This time, click OK.
5. Save the file (use **Save As** to save under a different name).

Next steps will be to make the background show through the text.

6. On the **Layers** palette, drag the *Background* layer to the **Create a new layer icon** at the bottom to make a copy (just like we did before). Drag this copy just above the *SUNSET* text layer.
7. Press **Ctrl-G** to group the *Background copy* with the text layer. (You'll see a down arrow to the left of the *Background copy* thumbnail on the Layers palette.)

With the layers grouped, there are many other possibilities for effects. We'll do one. You must work with the **original** *Background* layer.

8. **Double-click** on the *Background* layer, and click OK in the **New Layer** dialog box to accept the default name of *Layer 0*. This is now the active layer.
9. Use **Filter>Distort>Glass**; Distortion 5; Smoothness 3; Texture **Frosted**; Scale **100%**; and no Invert.
10. Save the file.

You could play with other filters to add extra effects.

Another thing you can do is click on the text layer and use the **Move** tool to move the text around. Notice that your text does not pick up the last effect but stays in the bright, untouched background mode. Close without saving.

Reflections



Create a new file **3 inches** wide by **2 inches** high, **200 pixels per inch**, and **CMYK** color with a **Transparent** background.

1. Select a dark, red swatch from the **Swatches** palette (**DarkRed**, 6th down on left side).
2. Choose **Edit>Fill**, and choose **Foreground Color**, and click OK.
3. From the **Layers** palette drop-down menu (or **right-clicking** the layer), select **Layer Properties**, and name the layer **Backdrop** (or **double-click** the old name and rename it).
4. Create a second layer by **Alt-clicking** the **New Layer** icon, and name it **Table**.
5. Press **D** to get the default colors. With the **Marquee** tool, select the bottom half of the canvas, and fill it with black (**Edit>Fill** with **Foreground** color or use **Alt-Backspace**).
6. **Ctrl-D** to deselect, and press **X** to change the foreground to white.
7. With the **Type** tool, type **RED** (all caps) in **Times, Bold, 60 points**. Click **Palettes** in the **Options** bar, and type in **50** in the second box of the second row (kerning). Close the **Palettes** dialog.
8. Click the **Move** tool and, with the arrow keys, position the letters until **RED** is in the center and about 1/5 of the letter height is on the black half.
9. Save and name your file (e.g., "reflection.psd").

You can apply styles by **double-clicking** on a layer. You can apply several at once.

10. **Double-click** the *Backdrop* layer, and click **Pattern Overlay** to highlight.
11. Click the **Pattern** down arrow to see the available patterns. Click that menu's right arrow and **Load Patterns**. **Double-click** on **Patterns.pat** to load that set.

12. Select the red swirly pattern (**Rusted Metal**), and click OK. The upper part of the image will change to that pattern.

For the next several steps, do not click OK until the directions say to.

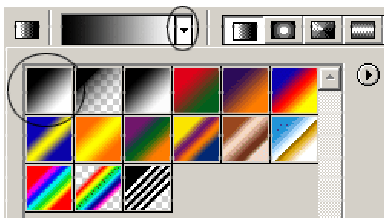
13. **Double-click** the *Table* layer to make it active, and do the same thing, *selecting the same pattern (Rusted Metal)*.
14. Alter the **Opacity** in the **Pattern Overlay** area to **50%**.
15. Click the **Gradient Overlay** to fade the pattern into darkness, and be sure the **Opacity** is at **30%**.
16. Click the **Satin** style. It should be at **30% Opacity**.
17. Click OK.
18. **Double-click** the *RED* layer.
19. Click **Bevel and Emboss**, then **Texture** (at **120-degree** angle). Select the Molecular texture from the drop-down menu (next to the rainbow on the 2nd to the last row). Click **Contour**.
20. Click on **Satin** and **Drop Shadow**.
21. Click OK.

The Reflection

1. Duplicate the *RED* layer by dragging it onto the **New Layer** button at the bottom of the **Layers** palette.
2. You will have to enlarge the palette to do it (grab the lower, right corner, and drag down a bit), but drag the *RED copy* layer under the *RED* layer (which means it has to be dragged to *just above the Table layer, below* all the **Effects** displayed for the type layers).
3. With the *RED copy* layer still selected, choose **Layer>Rasterize>Type**. (You *won't see anything happen*, but the copy layer has been converted into an image rather than text. It can no longer be edited as text.)
4. With that layer still selected, mirror the copy to the original with **Edit>Transform>Flip Vertical**. Now you can see it in the back.
5. Select the **Move** tool, and use the arrow keys to position the flipped text directly below the original. (Don't leave a gap.)
6. To adjust the lighting angle, **double-click** the layer's **Effects** icon (**f**) that is beside *RED copy* (**not** the button at the bottom of the palette!).
7. In the dialog click on **Bevel and Emboss**, and in the **Shading** part of the information area, uncheck **Use Global Light**, and **put a minus sign** in front of the *120-degree* value that is in the **Angle** text box. This flips the light source direction for accuracy.
8. Click OK, and save the file.

To fade out the reflection you're going to use the layer mask in just a little different way this time.

9. Be sure the foreground is white and the background is black! If this is reversed, the fade will also be reversed, which you don't want.
10. With the *Red copy* layer still selected, click the **Add a Mask** icon at the bottom of the Layers palette (second button). You may have to redo the foreground to white! (Click **X** to switch.)
11. Select the **Gradient** tool (behind the **Paint Bucket** tool, if you don't see it). From the first drop-down list in the Options bar, select the first item (**Foreground to Background**, next page).



From the next set of icons in the **Options** bar, select the first icon (**Linear Gradient**, below).



12. Hold down the **Shift** key, and **drag the pointer from the top of the flipped text to near the bottom of the canvas** to create a smooth fade. (If you don't like what you see, use **Ctrl-Z** to undo, and do it again until you like the fade effect.)
13. For a finishing touch, adjust the opacity of the *RED copy* layer to **80%**, and choose **Filter>Blur>Gaussian Blur**. The shinier your intended surface (the table), the less blur you'll want to apply (around 17-20 is good). Click OK on the dialog.
14. Save your file, and you're done.

Warping Text

Photoshop doesn't limit you to straight rows of text. You can't fit text to a path like you can in Illustrator, but you can do something most other programs can't do by bending and curving type with the Warp Text feature (a little like the WordArt in the Office products).

Create a new file **8 inches** by **6 inches** at **72 pixels per inch**, **RGB** or **CMYK** color, and a **White** background.

1. Click the **Type** tool, and, in the Options bar, select **ITC Garamond Bold 72 points** with **0** kern and any color you wish (click the color box, two over from Palettes).
2. Type **Texas Tech**.
3. Click the **Move** tool, and reposition the text to the center if you need to.
4. Select the **Type** tool again, and click the **Warp Text** button in the Options bar (the **T** button next to the Palettes button at the end), or select **Layer>Type>Warp Text**.
5. In the **Warp Text** dialog is a **Style** menu that lets you bend, twist, and distort type along a curve.

First choose the warp style. Select any, and watch the text. Choose another, and check it out and so forth. Move the dialog out of the way so that you can see what you're doing.

6. Now, pick the orientation, bend, and distortion.
 - **Orientation** for the warp is either horizontal or vertical (warps 90 degrees as if you had tipped the style on its side).
 - **Bend** determines the direction of the curve. It has a default of +50%; therefore, -50% would give you the exact opposite curve.
 - **Horizontal distortion** creates a perspective effect. Enter a positive value to position the origin point of the perspective to the *left* of the text, a negative value to position the origin point to the *right*.
 - **Vertical distortion** creates a perspective effect originating *above* (positive values) or *below* (negative values) of the text.

Try **Horizontal orientation**, **+75% bend**, **-60% horizontal distortion**, and **+13% vertical distortion**.

7. Click OK.
8. Get really crazy, and create a **Drop Shadow** by clicking the **Add a layer style** button (*f*) on the **Layers** palette. Also, if you're using a color other than, say, black or navy blue, add a **Bevel and Emboss**.
9. Save and name your file.

Saving an Image for Others To See

You have been saving the file in PSD (Photoshop) format, but this limits most of your audience to Photoshop owners. For others to see it, you need to change the format.

The TIFF file format is supported by just about every image browser around—with the exception of HTML browsers. The JPG format can be seen by HTML browsers and JPG viewers, common to both Macs and PCs. If you wanted to send an image by e-mail, you'd probably want to use JPEG because of its smaller size.

To change to either of these, select **File>Save As**. You want to save a copy of the file.

TIFF

1. In the **Save As** dialog, choose the **TIFF** format from the drop-down box beside **Format**. The **Save As a Copy** is already checked for you (you can manually remove “copy” from the name and still have a copy of the original intact). You always want to keep a PSD format copy of your file so that you can make changes when you want to.
2. Click **Save**. A dialog box that asks you about whether you want PC or Mac display properties added (actually either is OK for viewing on both, unless you know the viewer[s] are going to be using the image on a specific machine type).
3. You also have the choice of the LZW compression. While this saves hard disk space, it takes longer for the image to open, so unless you're short of space (with gigabyte hard disks these days, that's doubtful), leave this turned off.
4. Click OK.


JPEG

1. For a JPEG image, select **File>Save As**, and choose JPEG from the Format List.
2. Click **Save**, and the JPEG Options dialog appears.
3. Select a **Maximum**, **High**, or **Medium Image Option**. **Maximum** has the highest picture quality with the lowest compression, while **Low** has the worst quality with the highest compression. The **Size** area tells you the approximate size of the new file. (You can get a good idea of how these various compressions look on the Web by selecting **File>Save for Web** instead of **Save As**.)

Working with Shapes

Photoshop has several shape tools: Rectangle, Rounded Rectangle, Ellipse, Polygon, Line, and Custom Shape.

To use any of these:

1. Select a foreground color for the shape from the **Swatches** palette or by clicking the **Foreground** box to get the **Color Picker**. (Only one color works on a layer for shapes.)
2. Click the **Shape** tool, and select one of the main categories. 
3. Select one of three options from the **Options** bar that appear at the left when you click on the **Shape** tool.
4. If you have selected a **Custom Shape**, you must select your shape from the drop-down list beside **Shape** on the **Options** bar.
5. Draw the shape by dragging across your canvas.

The Options Bar for Shapes

First box—**Shape Layer**—adds a shape on its own separate Shape layer. This can be edited, moved, and transformed. It acts as a mask. It prints at the full resolution of your printer rather than the resolution of your image.



Second box—**Work Path**—adds a shape that acts like a path. You can use a path as a means of selecting a portion of an image. It will not fill with color.

Third box—**Filled Region**—adds a shape directly on the layer. The **Fill Region** option is the equivalent of painting directly on your canvas with a painting tool. After you use this option, however, you can't edit or move the shape.

The next line of options (shows each shape type—next to the boxes just discussed) has a down arrow at the end that accesses commands to specify the width and height and other things, depending on the shape you choose. For instance,

Proportional lets you draw a shape with a proportional ratio of width and height (you can use your **Shift** key while drawing and do the same), and **From Center** lets you draw your shape from the center out, rather than from a corner.

The next options allow you to do things like add or subtract from a shape area.

Another option on the bar lets you select a **Layer Style**. When you click a custom tool, the **Layer Style** moves to the right, and you get an option for selecting the type of shape you want. This is especially handy for shapes like stars and hearts, which are extremely difficult to freehand and get a good image.



More buttons appear on the **Options** bar, depending on the type of shape you select.

A Quick 3-D Star

1. Choose **Open>New**, and type in **300 PIXELS** by **300 PIXELS**. Leave the **Mode** alone, and choose **White** under **Contents**.
2. Select a color from the **Swatches** palette or the Color Picker.
3. Click the **Shape** tool, and select **Custom Shape**.
4. Click on the first box (**Shape Layer**) in the **Options** bar to create a layer.
5. From the drop-down menu, select **Load Shapes** and select **All** from the list. Click the down arrow next to the **Shape** button in the **Options** bar, and select the **5-point star**.
6. Start dragging on the canvas (from left, diagonally down to the right); then press the **Shift** key (the reverse won't work) to create a proportional star. Don't cover the entire canvas.
7. Change the **Opacity** on the Layers palette to **100%**.
8. Choose **Layer>Layer Style>Bevel and Emboss**. Keep the settings or play as you wish, and click OK.
9. Choose **Layer>Layer Style>Drop Shadow**. Keep the settings, or play as you wish, and click OK.

Shapes are part of the more complicated part of Photoshop; however, the option does reduce the amount of manual labor in creating shapes. One of the big pluses is that in PDF format, these shapes will retain their vector information.

The History Tool

As you've probably already noticed, Photoshop does not have multiple undos. You can press **Ctrl-Z** only once. The next time you press it, it's a redo instead of another undo. There is a way to "back up" in Photoshop, though, and that is with the **History** palette. While it is not exactly like the undo command (because of some grouping it does), you can go back to earlier steps by pulling them into the Trash on the palette. All those below what you trashed are also trashed. While you must use this palette with care, it is certainly better than the old way of saving multiple copies, which was the only way to keep certain stages of your image intact while you tried out new things.

History items do not carry over after Photoshop has been closed.

Get your disk!

Updated April 23, 2003