The PHOTO SHOP 4 WOW! BOOK

Linnea Dayton & Jack Davis

The Award Winning Guide to Getting the Most Out of Photoshop

MACINTOSH EDITION

Most Useful Book
— International Digital Imaging Assoc.

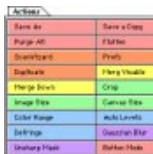**Best Advanced How-To Software Book**
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WOW

50+ Ready-To-Run Actions for Instant Effects!

CONTENTS

Imitating Paint and Canvas

Overview *Prepare a photo; apply a painterly filter and Lighting Effects; apply canvas texture to a duplicate layer; combine the two layers with Layer Options.*

The Painting Actions on the Wow! CD-ROM produce paint-and-canvas effects similar to this one.

Original digital photo

Rubber-stamping with sky to hide a building

Selecting the dark centers of the flowers

Center lightened with a Levels Adjustment layer

FILTERS FROM PHOTOSHOP'S ARTISTIC and Brush Strokes submenus, as well as the Facet, Crystallize, Median, and Smart Blur filters, can automatically generate some pretty amazing painterly effects. But no one filter provides control over all attributes you might like to include in a painting: the gestural brush strokes, the built-up texture of thickly applied paints, and the texture of the white canvas, showing through in areas where paint is thin or absent. Fractal Design Painter has built-in functions to do this kind of imitation of natural media, and you can also approximate it with Photoshop if you use the right combination of filters. To give this photo of sunflowers, taken with an Olympus digital camera, the "feel" of a painting with Impressionist color, gesture, and play of light, we used the Dry Brush filter and then applied the Lighting Effects filter to create an impasto look.

1 Preparing the image. Start by opening an RGB image, removing unwanted detail, and enhancing the colors or tones if you like. We used the rubber stamp tool to paint sky over the building in the upper left corner of the image. Pressing "S" selects the rubber stamp tool, pressing the Enter key opens its Options palette so you can set it to Clone (Aligned) or Clone (Non-aligned), and Alt-clicking loads the stamp with the image.

We also lightened the centers of the flowers and exaggerated the difference in their brown tones: We made a rough selection of the centers by Shift-clicking with the magic wand and applied Image, Adjust, Levels to the selection. This exaggeration of tones would give the painterly filter something more to work on.

2 Making the paint. So you can experiment without permanently changing your cleaned-up image, choose File, Save A Copy before you begin filtering. Apply a painterly filter to your image, or use the smudge tool to create brush strokes by hand. We chose Fil-

2a

Applying a painterly filter

2b
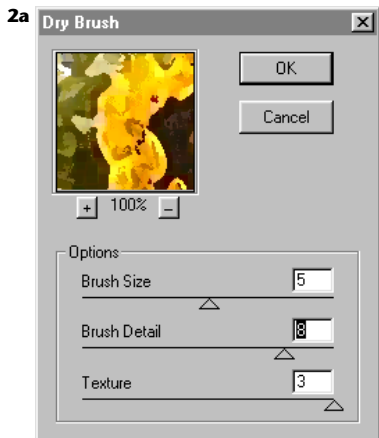
The filtered image

2c

Adding texture with Directional lighting

3a

Adding a "canvas" layer

ter, Artistic, Dry Brush and used high settings for Brush Detail and Texture.

Next you can thicken the paint by applying the Lighting Effects filter. Open the Channels palette (Window, Show Channels) and click on the individual channel names so you can look at each one and choose the channel that best shows the detail of the brush strokes. Then click the RGB composite channel's name to activate the entire image. Choose Filter, Render, Lighting Effects and set up your lighting scheme: Choose Directional for the Light Type to get an overall embossing effect for the paint, without the hot spots a Spotlight would produce. For the Texture Channel, choose the color channel you identified as the one with the best brush stroke detail. Turn off White Is High, adjust the other Lighting Effects settings to taste, and click OK to run the filter. (See pages 158 through 160 for more about using the Lighting Effects filter.)

3 Making canvas. To make the highlights in their paintings, painters sometime leave the white of the unpainted canvas exposed. To combine this technique with the embossed brush strokes from step 2, you'll need to make a duplicate of the filtered and embossed layer. Drag the name of the filtered layer to the New Layer icon. At this point it might be a good idea to double-click each layer's name in the palette so you can rename it to reflect what's on the layer.

With the new top layer active, choose Filter, Texture, Texturizer. In the Texturizer dialog box, choose Canvas or one of the other textures, or load a texture from the Textures For Lighting Effects folder on the Adobe Photoshop CD-ROM, or load one that you've made yourself. (See page 159 for tips on creating textures with filters; and refer to "Creating a Canvas Texture" on page 211 for instructions on making a seamlessly repeating pattern that can be used with the Texturizer filter.)

Often when you're applying a painterly filter, you'll want to vary the size, amount of detail, texture, or direction of the brush strokes from one part of the image to another. To do this, apply the filter to two or more duplicate layers, using different settings for each layer. Then you can add layer masks (for each layer, click the mask icon at the bottom left of the Layers palette) to direct where each kind of stroke appears in the final composite, airbrushing or painting the mask with black paint to hide the filter effect in some areas and white paint to reveal it in other places. When you've got the result you want, choose Merge Visible from the Layers palette's pop-out menu to apply layer masks and reduce the "painting" to a single layer.

3b
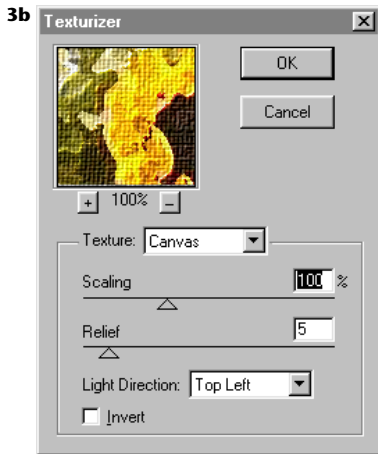
Applying the Canvas texture with Texturizer

3c
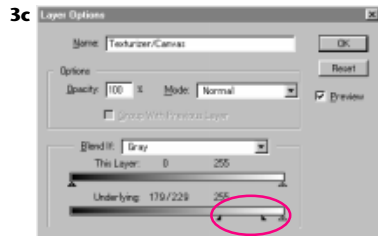
Adjusting the Layer Options to limit the canvas texture to the lightest areas of the image

Now you'll use the Layer Options dialog box to knock out all but the highlight (white) areas of the canvas layer. Double-click the layer's name in the palette to open Layer Options. You can leave the slider for This Layer as it is. But for the Underlying Layer, move the black point triangle far to the right. Then hold down the Alt key to split the black point in two and drag the left half a little to the left so the canvas texture will begin to "fade in" where the colors are light, finally coming in at full strength in the white areas.

Enhancing the color and tone. The Impressionist masters exaggerated light and color to communicate emotion. The same technique can be applied to a digital painting. For instance, add an Adjustment layer: Ctrl-click on the New Layer icon to open the New Adjustment Layer dialog box. Choose Hue/Saturation for the Type. In the Hue/Saturation dialog box, click one of the radio buttons in the column along the left side of the dialog box, and then move the Saturation slider to the right. If you want to saturate another family of colors, click a different radio button and adjust Saturation again.

Also, if the details of the image or the paint have been lost in shadow areas, you can roughly Shift-select these areas with a feathered lasso and then Ctrl-click to add a Levels Adjustment layer so you can move the gamma (gray) triangle on the Input Levels slider to pop them out again.

CREATING A CANVAS TEXTURE

To make a canvas texture that you can apply to a digital painting or filtered photo as in "Imitating Paint and Canvas" on page 209, scan a canvas texture on a flatbed scanner, or create a texture with Noise, Blur, and Emboss (see page 159).

To turn the canvas into a seamlessly wrapping pattern that can fill any size file, you'll first use the Offset filter to reveal the "seams" that would appear between tiles (repetitions of the pattern). Then you'll use the rubber stamp to eliminate them.

Apply the Offset filter (Filter, Other, Offset). Enter Horizontal and Vertical settings that will move the edges of the image into the center. (We offset our 256-pixel-wide scanned canvas image 128 pixels right and 128 pixels down.) Choose Wrap Around for the Undefined Areas (so pixels that are pushed off the right and bottom edges will reappear at the left and top to fill the empty space created there.)

Applying the Offset filer to a scan of canvas

To eliminate the seams, double-click the rubber stamp tool in the tool palette to open its Options palette. Choose one of the Clone options — Aligned might work best for a woven texture, Non-aligned for a random grain. Choose a soft brush tip from the Brushes palette, about twice the size of the "grain" of your canvas. Hold down the Alt key and click the rubber stamp on a part of the image away from any seam to pick up cloning texture. Rubber stamp over the seam, using short strokes if you're working in Non-aligned mode. (In Aligned mode, it doesn't matter whether strokes are long or short because the image is reproduced as a single copy, as described in the "Clone" section at the beginning of this chapter.) Stay away from the edge of the image so you don't create another "seam." You can see if you've accidentally made a new seam by using the Offset filter again.

Using the rubber stamp tool to hide the "seams" revealed by the Offset filter

Casting a Shadow

***Overview** Import a graphic element; "emboss" it with Lighting Effects; add a shadow; scale and skew it; to fade it, apply a blur in stages and add a layer mask.*

The **"Cast Shadow" Action** on the Wow! CD-ROM automates the process of throwing a fading shadow, slightly different than the one shown here, behind a foreground element.

1

The original clip art

2a
Alpha channels added: Graphic (#4) and Blurred Graphic (#5)

2b
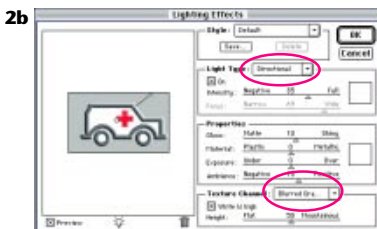
Using a Directional light and the Blurred Graphic alpha channel to "emboss" the graphic with Lighting Effects

3
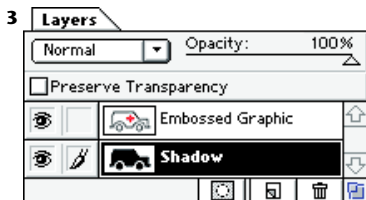
Adding a shadow layer

ONE WAY TO HELP A GRAPHIC look at home in an environment you've created is to make it cast a shadow onto the background so it appears to stand up. We started with clip art, "embossed" it for dimensionality, and built a shadow.

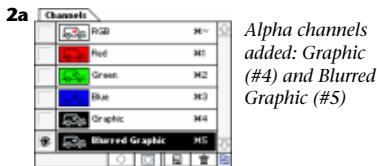**1 Setting up the graphic.** Start with a graphic element on a transparent layer in an RGB file. We opened an EPS file and used Image, Adjust, Levels (Ctrl-L) to lighten the line work to a medium-dark gray, so that when we embossed it (at step 2) the highlights and shadows would show well. Also, the lighter tone would set it off from the dark shadow we planned to add. (You could also set up the file with the File, New command, then turn the bottom layer from *Background* to transparent by double-clicking the *Background* name in the Layers palette, and create a graphic on that layer. Or drag and drop a graphic from Adobe Illustrator and choose Merge Down from the Layers palette's pop-out menu.)

2 Embossing the graphic. The next step will be to make an alpha channel to use with the Lighting Effects filter to "emboss" the graphic. We Ctrl-clicked the name of the composite (RGB) channel in the Channels palette to load the luminosity of the ambulance graphic as a selection. We inverted this selection (Ctrl-Shift-I) to select the lines of the ambulance rather than the lighter area inside and outside the lines). Then we turned the inverted selection into a new alpha channel by clicking the mask icon (second from the left) at the bottom of the Channels palette. We double-clicked the "#4" name in the Channels palette to open the Channel Options dialog box so we could rename the channel "Graphic."

To make the "gray matter" needed for a rounded edge on your graphic, duplicate the new alpha channel by dragging its name to the New Channel icon (next to the trash can) at the bottom of the Channels palette, press Ctrl-D to deselect, and choose Filter, Blur, Gaussian Blur. We used a Radius of 2 pixels for this 1100-pixel-wide file.

Now emboss your graphic layer by activating it and applying Filter, Render, Lighting Effects, using the blurred alpha channel as the Texture Channel. (For more about embossing with Lighting Effects, see pages 236–240 and "Embossing Clip Art" on page 243.)

4

Offsetting the blurred shadow layer to make a drop shadow

5

Scaling (A) and skewing (B, C) the shadow

6a

Using a feathered rectangular marquee to blur the shadow repeatedly

6b

Adding a layer mask to fade the shadow

**3 Starting the shadow.** Duplicate the embossed graphic layer by dragging its name to the New Layer icon at the bottom of the Layers palette. Now you can use the lower of the two identical layers to make the shadow.

   With the shadow layer active and with black as the Foreground color, fill with black by pressing Shift-Alt-Backspace. The Shift key will keep the transparent area of the layer from filling, as if Preserve Transparency were turned on for the layer. (The shadow will be hidden beneath the graphic layer, but you can see it if you click the graphic layer's eye icon to toggle its visibility off.) Soften the shadow by applying Filter, Blur, Gaussian Blur. We used a Radius of 5 pixels.

   Now continue with step 4 to make a drop shadow, or to make a cast shadow instead, skip step 4 and go on to step 5.

4 Making a drop shadow. To make a drop shadow, offset the shadow layer by choosing the move tool (press "V") and using the keyboard arrow keys. Then experiment with Opacity settings.

5 Making the cast shadow. First add a background. We used the gradient tool to make a Linear Foreground To Background color ramp, with black as the Foreground color and blue as the Background color. (For more about the gradient tool, see the beginning of Chapter 6.)

   To tilt the cast shadow into position, you can use the Layer, Free Transform command to both "squash" it and skew it to one side: Starting with the blur-edged shadow at the end of step 3, press Ctrl-T (Layer, Free Transform). Grab the top center handle of the Transform box that appears around the graphic and drag downward to reduce the shadow's height. Put the cursor inside the Transform box and press the right mouse button to open a context-sensitive menu from which you can choose Skew. Then drag the top center handle sideways in the direction you want the shadow to fall. If you need to shorten the shadow more, use the right mouse button to bring up the menu again and choose Scale. When the shadow is the size and angle you want, double-click inside the Transform box to accept the changes.

6 Fading the shadow. For added realism you can gradually blur and lighten the shadow as it fades into the distance. Choose the rectangular marquee, press Enter to open its Options palette, and enter a large Feather setting; we used 20 pixels. Drag out a marquee slightly taller than the shadow, and move it to select the top of the shadow layer, just down to where the top 20% or so of the shadow is included in the selection. Apply a Gaussian Blur; we used a radius of 5 pixels. Then slide the marquee down to include another 20% or so of the shadow and repeat the blur (Ctrl-F). Continue moving and blurring until you get to the bottom of the shadow. To lighten the shadow, add a layer mask to the shadow layer (click the Add Layer Mask icon at the bottom of the Layers palette) and apply a Linear Foreground To Background (black-to-white) gradient.

Forging Steel

Overview *Make two alpha channels, one with a white-on-black graphic and one with a blurred and trimmed version; "emboss" a 3D version of the graphic on a transparent layer with the Lighting Effects filter; add more highlights with the Plastic Wrap filter; color with Adjustment layers; trim the "metal" with a clipping group; add a brushed texture and a dark "halo."*

*The **"Brushed Steel"** Actions on the Wow! CD-ROM automate several ways to make "metal."*

Original graphic in channel #4
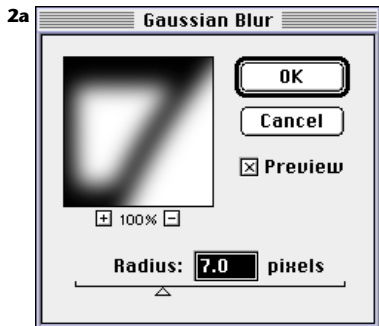
Blurring a duplicate graphic in channel #5

STEEL CAN HAVE A HIGHLY POLISHED, mirrorlike surface, or it can be dull, burnished, or brushed. Starting with a white *Background* layer and a white-on-black graphic in an alpha channel, you can use Photoshop to manufacture the steel, heat it to the point where it shows a rainbow sheen, brush the surface, and cut out a 3D version of the graphic, with perfectly beveled polished edges. (Step 3 of this technique uses the Lighting Effects filter. If your computer doesn't have enough memory to run this RAM-hungry filter, you can create the form and metallic highlights using the method in steps 2 and 3 of the **Chrome.pdf** file on the Wow! CD-ROM that comes with this book; or use the Simple Chrome Actions, also on the CD-ROM.)

1 Setting up the file. Start a new RGB file (File, New) with a white-filled *Background*. The file we used was 1000 pixels wide. Open the Channels palette (Window, Show Channels) and add an alpha channel by clicking the New Channel icon next to the trash can icon at the bottom of the palette. You can either create a graphic in this channel by making a selection and filling with white or import one as we did. Our logo was created in black in Adobe Illustrator, placed in the Photoshop file with the alpha channel (#4) active (File, Place), stretched to fit the file, turned into a selection by double-clicking inside the placement box, and filled with white.

(The pixel settings used for commands that come later in this technique were chosen based on our 1000-pixel-wide file size, on the relative width of the graphic shapes that made up our logo, and on how wide we wanted the bevels to be. If your file is a different size, or if the thicknesses of your graphic elements or the desired bevel are very different from ours, you'll need to adjust accordingly for any command that requires a setting in pixels.)

2 Making the alpha channel to use with Lighting Effects. In addition to the original graphic in channel #4, you'll need a modified version of the graphic to produce the bevel when you apply
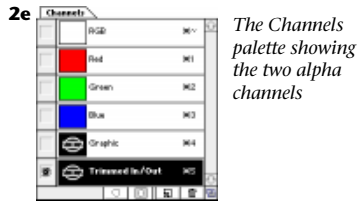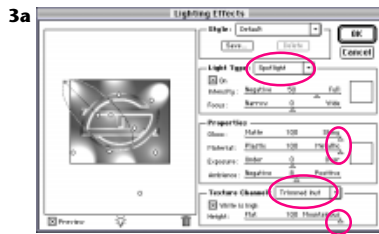
The trimmed outside edge of the blurred graphic
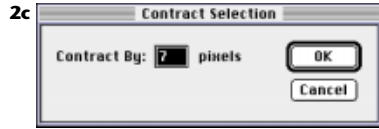
2c

Contracting the selection

2d

Filling the contracted selection with white

2e

The Channels palette showing the two alpha channels

3a

Using six spotlights and the blurred and trimmed alpha channel to add dimensions and specular highlights on the embossed layer

the Lighting Effects filter in step 3. The channel will need to be white where you want it to create the top surface of the metal logo, black outside the logo shape, and shades of gray where you want to create the bevel. The edge between the bevel and the top surface should be sharp, so you'll want a sharp transition between the gray ramp that defines the bevel and the white area that forms the top surface. You can produce this alpha channel from a copy of the original graphic as follows: In the Channels palette, duplicate channel #4 by dragging its name to the New Channel icon next to the trash can at the bottom of the palette. If you have a selection active, deselect (Ctrl-D). To create the "gray matter" for the bevel, blur the graphic by choosing Filter, Blur, Gaussian Blur; we used a Radius of 7 pixels.

Next trim the outside and inside edges: For the outside trim, load the original graphic as a selection by Ctrl-clicking Channel #4's name in the Channels palette; then invert the selection (Ctrl-Shift-I) and fill with black (if black is the Foreground color, press Alt-Backspace; if black is the background color, press Backspace). For the inside edge, load the original graphic as a selection (either re-invert the selection you just filled with black by pressing Ctrl-Shift-I or Ctrl-click channel #4's name again). Then make the selection smaller by choosing Select, Modify, Contract. For the Contract By setting, use the same number of pixels you used for the blur, or a few pixels less for a narrower bevel. Fill the selection with white and deselect (Ctrl-D).

Finally, soften the edges of the alpha channel slightly as follows to cut down on the artifacts that the Lighting Effects filter can produce: With channel #5 active and nothing selected, choose Filter, Blur, Gaussian Blur and set the Radius at 0.5 pixels.

3 Creating the 3D graphic. Next you'll use the Lighting Effects filter to create a 3D beveled metal version of the graphic. Open the Layers palette (Window, Show Layers) and click on the name of the *Background* layer. Choose Filter, Render, Lighting Effects. Choose channel #5 from the Texture Channel pop-out list, and set up several spotlights to create the multiple specular highlighting associated with shiny metal; you can duplicate a light by Alt-dragging. You can get radically different results in the "personality" of the metal, depending on how you design the play of lights on the embossed object. In the Properties area of the dialog box, move the Gloss setting all the way to Shiny and the Material setting to Metallic. When the preview shows a result you like, click OK to accept it.

At this point we gave our *Background* layer the option for transparency just by double-clicking its name in the Layers palette to open the Layer Options dialog box. We also renamed it, typing in the new name (we called ours "Embossed"), and clicked OK.

4 Adding more highlights. To make a layer whose highlights and color you can adjust, Alt-drag the Embossed layer's name to the

Close-up of the embossed layer
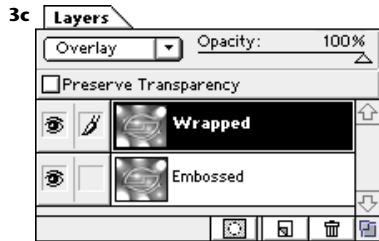
A duplicate layer for adding color and more highlights

*Running the Plastic Wrap filter on a duplicate of the "embossed" layer*

The result of applying Plastic Wrap

New Layer icon in the middle at the bottom of the Layers palette. Running the Plastic Wrap filter (Filter, Artistic, Plastic Wrap) will make highlights and shadows that conform to the curves of the graphic. From the pop-out list of blending modes in the Layers palette, choose Overlay to blend these new highlights and shadows with the layer below.

5 Coloring the steel. With the new layer active, Ctrl-click the New Layer icon to make an Adjustment layer that will store information for coloring the steel. In the New Adjustment Layer dialog box choose Color Balance for the type. In the Color Balance dialog box adjust the color sliders for the Midtones; we made adjustments that would give our steel a blue tone.

To get the multicolored sheen of heated or oiled steel, add another Adjustment layer, this time choosing Curves as the Type. In the Curves dialog box use the curve tool to place points that produces the dramatically alternating colors.

6 Trimming away the excess. To cut the three-dimensional graphic from its background, make a clipping group: Make a new layer, load the original graphic as a selection by pressing Ctrl-Alt-4, and fill with the Foreground color (Alt-Backspace). Deselect (Ctrl-D). Drag the layer's name to the bottom of the list in the Layers palette. To make the nontransparent part of this layer (the graphic) serve as a mask for all the layers above, hold down the Alt key and click on the border between the new layer's name and the one above it; continue Alt-clicking up the Layers palette until all the layers are clipped by the graphic layer at the bottom.
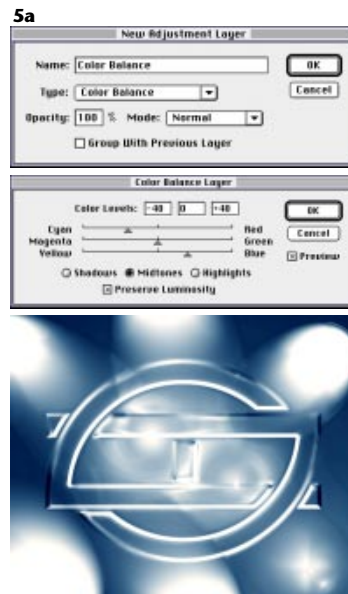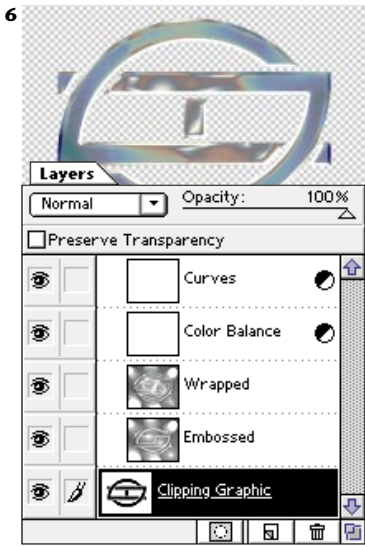
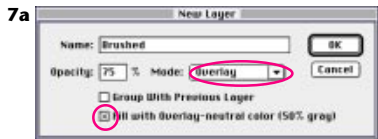*Adding a blue tint with a Color Balance Adjustment layer*
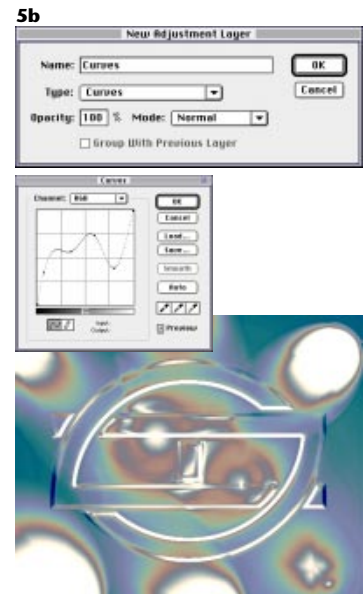
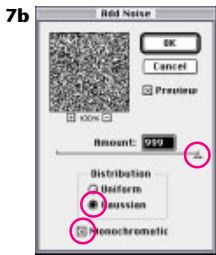*Producing a rainbow sheen with a Curves Adjustment layer*
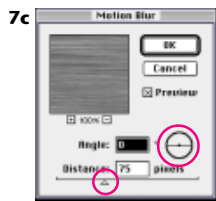
6

Cutting out the 3D logo with a clipping group
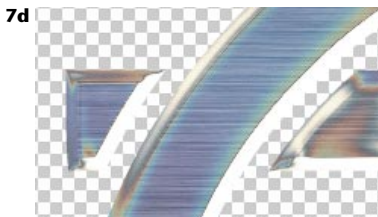
7a

Creating a new layer for the brushed effect

7b

Applying Gaussian noise

7c

*Applying Motion Blur layer*

7d

A contracted layer mask eliminates the brushed effect from the bevel.

7 Brushing the steel. To create the surface texture for the steel, start by adding another new layer, this one filled with gray: With the Curves Adjustment layer active, Alt-click the New Layer icon. Name the new layer and put it in Overlay mode. Click in the check box for Fill With Overlay-Neutral Color 50% Gray. Also check the Group With Previous Layer box to include it within the clipping group. Finally, click OK. With the new layer active, choose Filter, Noise, Add Noise and add Mono-chromatic Gaussian noise at the highest setting. Then choose Filter, Blur, Motion Blur and set up a horizontal blur.

The developing file should now show a "brushed" surface over the entire logo. To remove the texture from the bevel, you can use a layer mask: Press Ctrl-Alt-4 to load channel #4 as a selection; then choose Select, Modify, Contract and enter the same setting you used at step 2. With the brushed layer active, click the Add Layer Mask icon, on the left at the bottom of the palette. A "constricted graphic" layer mask will be created, allowing the brushed texture to show on the flat surface of the 3D logo but eliminating it from the beveled edge.

The Motion Blur filter, applied to a noise-filled layer, can be useful for making textures like brushed metal. But the blur isn't complete at the edges. To make the blur uniform, use the rectangular marquee to select the uniform center of the layer, press Ctrl-T (for Free Trans-form) and Alt-drag a middle handle to stretch the uniform part to the edge of the layer. (The Alt key scales the selected area from the center outward.) Double-click in the selected area to complete the transformation.
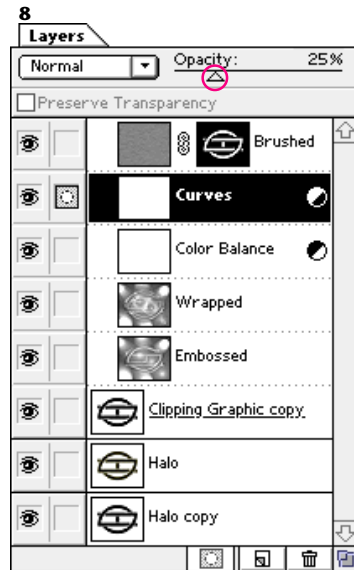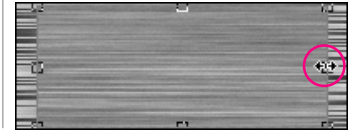
8

The layers palette for the finished 3D graphic, with Opacity for the Curves layer reduced to diminish the rainbow effect

8 Adding finishing touches. To add a shadow, or dark "halo,' we duplicated the Clipping Graphic layer; the copy auto-matically became the new clip-ping layer. The original Clipping Graphic layer was now below the clipping group. We renamed this layer "Halo," Gaussian Blurred it, and duplicated it to darken the shadow. To subdue the rainbow sheen, we lowered the Opacity of the Curves Adjustment layer. A multipointed star created in Adobe Illustrator was dragged and dropped into the file to finish the logo shown at the top of page 263.