



## INTRODUCTION TO GRAPHICS

# Transforming Selections IV: Using Channels

Information  
Sheet No.  
**PS982**

When selecting challenging subjects such as human hair, it's often difficult to make a clean selection using the standard selection methods (Magic Wand, Polygonal Lasso Tool, and Select>Color Range). In the lesson that follows, you'll discover another powerful selection-making method to add to your arsenal. In this particular exercise, we'll make a selection of the individual, then use that selection to place the individual in front of a new cloud-filled sky.

Please note that this technique is designed for making selections of difficult subjects such as hair, fur, grasses, leaves, and fine tree limbs. Although this technique works well on difficult edges, it often creates a visible halo when selecting edges that don't contain fine detail, such as the jacket and shorts worn by the subject in this lesson. The last step in this lesson contains information on how to counteract this halo.

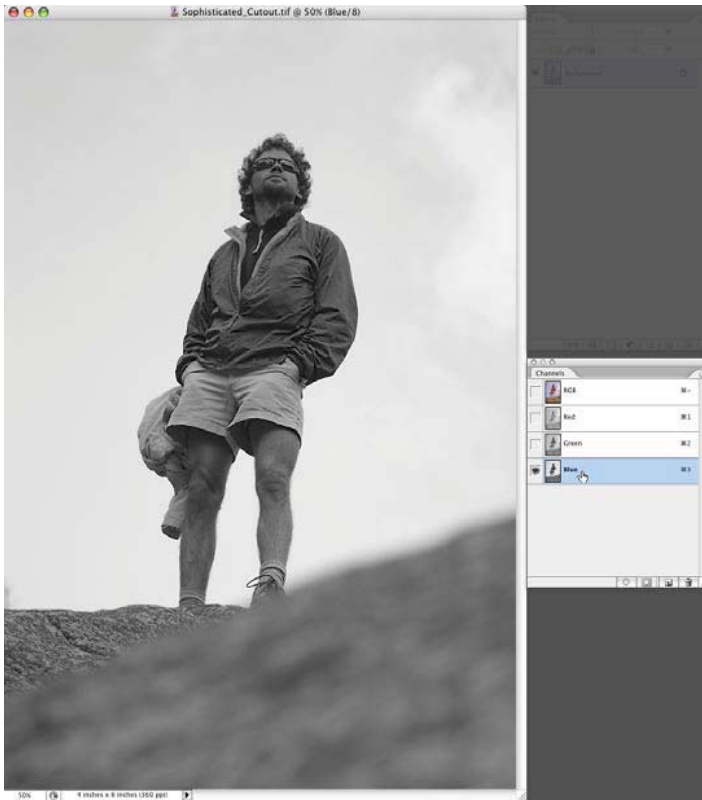
### Step 1: Open an Image

Open the subject.psd image located in this exercise folder and convert it to a .jpg image or select an image of your own — preferably of a person with hair that would take hours to select using the Polygonal Lasso tool or the Magic Wand.



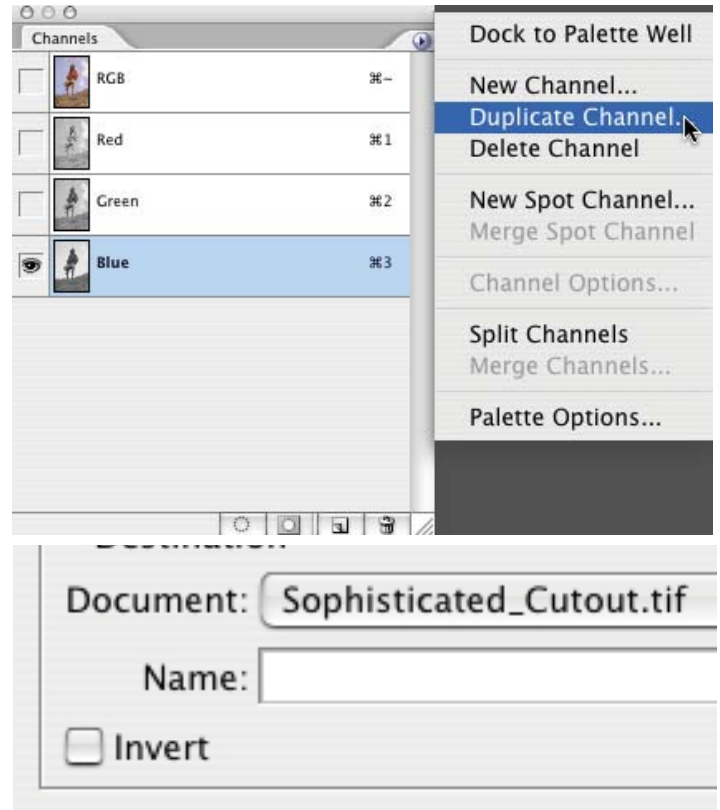
Step 2: Select a Channel with the Best Contrast Between the Hair and the Background

If the Channels palette is not visible, choose Window>Channels. Click on the Red, Green, and Blue color channel names one at a time to view each one separately, and pick the one that has the best contrast between the person and the background.



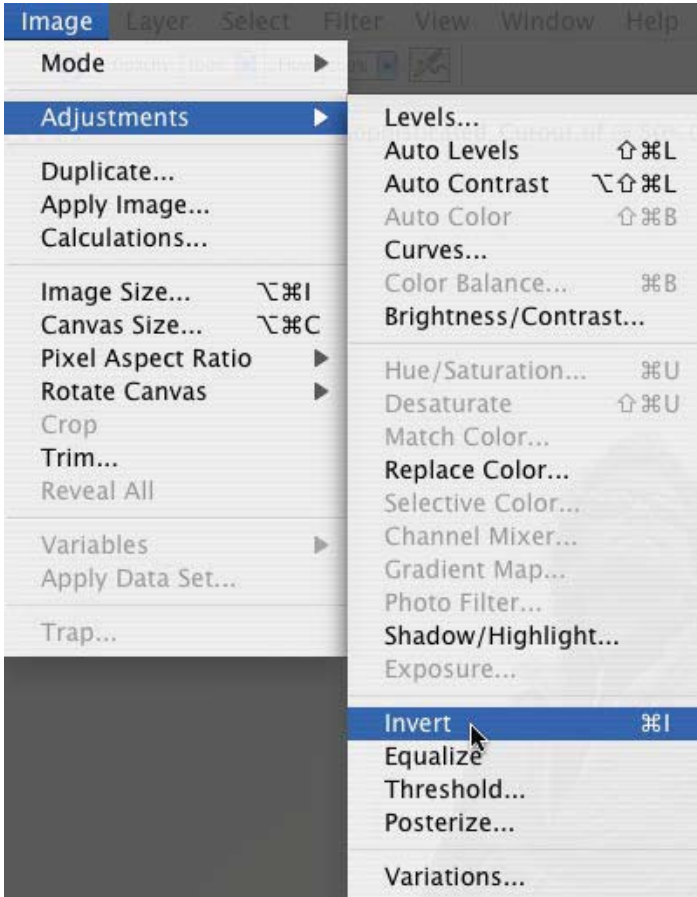
Step 3: Duplicate the Channel

Duplicate the most contrasty channel by highlighting it and choosing Duplicate Channel from the Channels palette pull-down menu. Name the duplicate channel "Person Selection" and click OK.



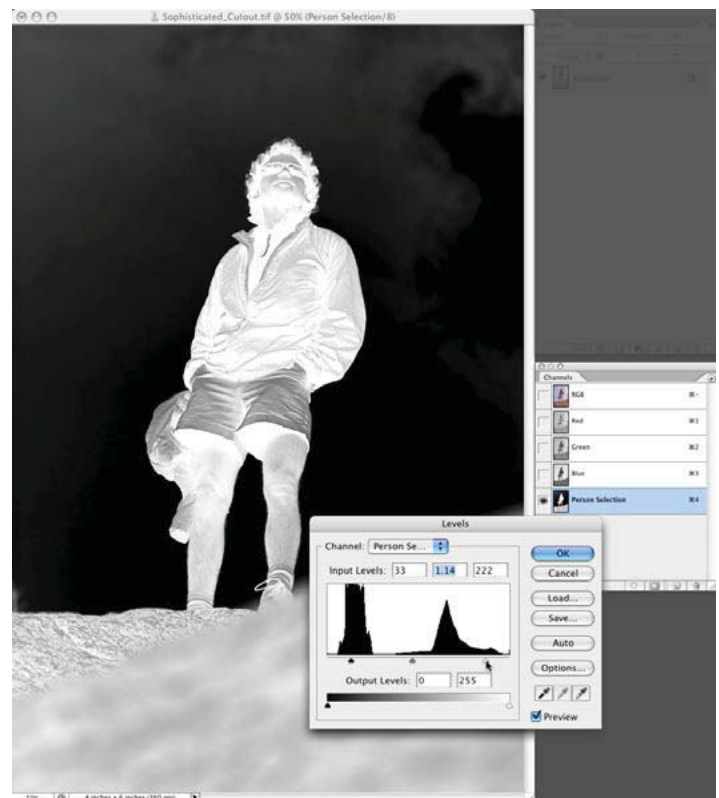
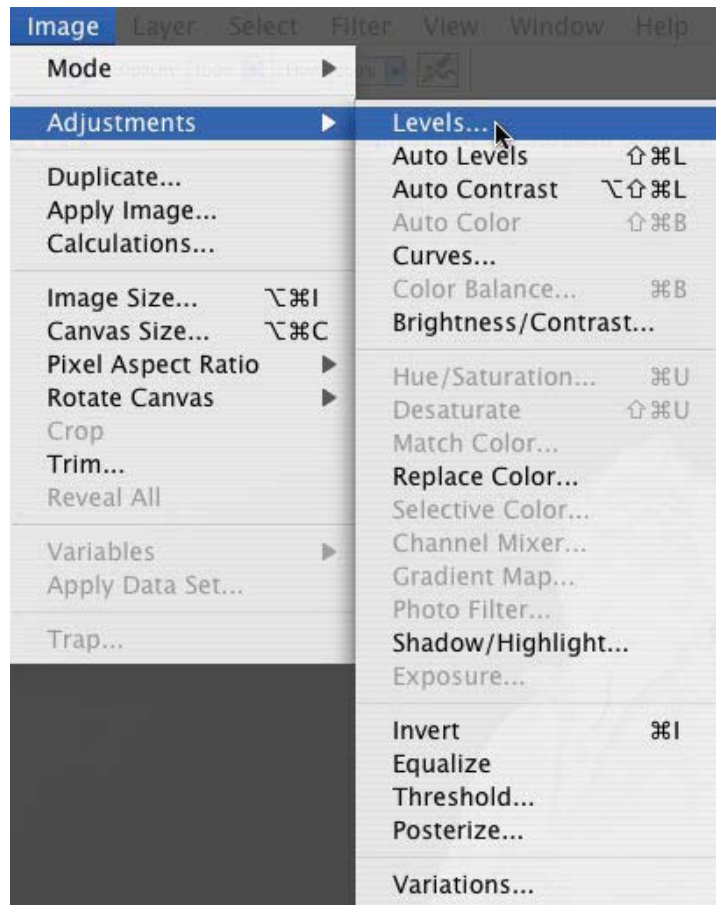
#### Step 4: Invert the Channel

Choose Image>Adjustments>Invert. As you work on the channel, keep in mind that what's white will be part of the selection (opaque on a layer), what's gray will be partially selected (partially transparent on a layer), and what's black won't be selected at all (completely transparent on a layer).



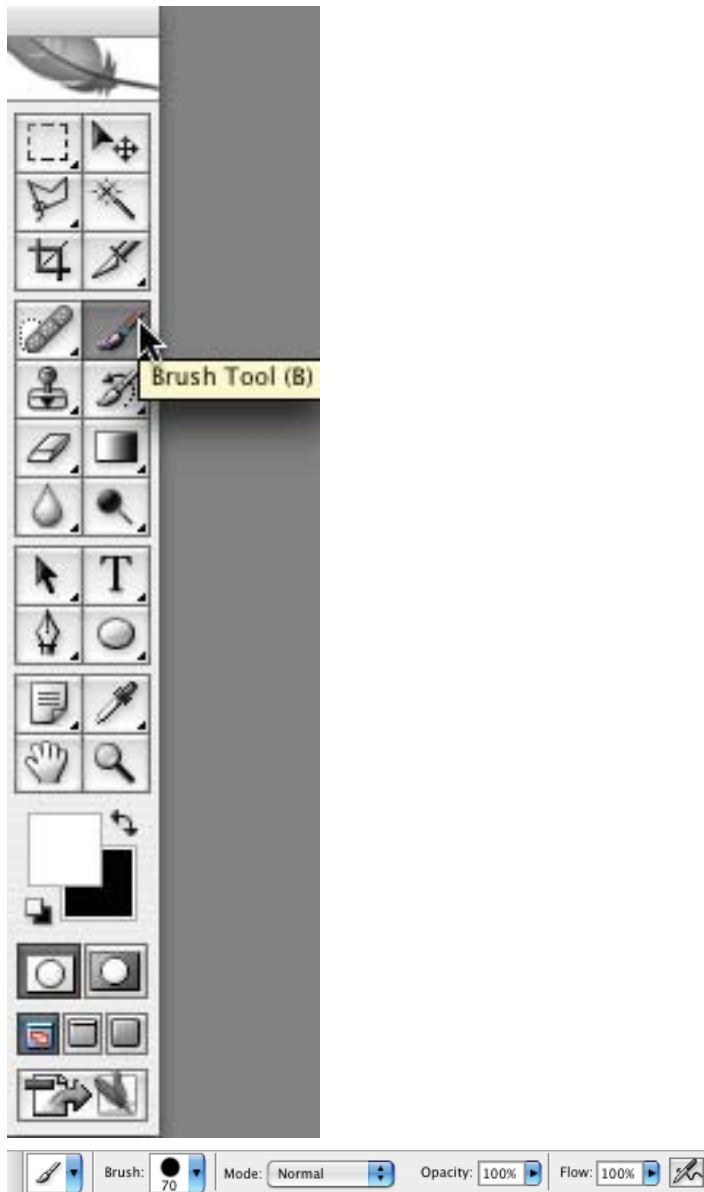
#### Step 5: Use Levels to Create More Contrast

Choose Image>Adjustments>Levels.



In the Levels dialogue, move the Input Levels highlight slider to the left, thus driving light gray pixels to white. Be careful not to go too far. Driving too many pixels to pure white will upset the delicate edges of the selection. If necessary, also move the midtone and shadow sliders to increase contrast in the "Person Selection" channel. Once again, pay attention to the fine details at the edge of the hair. Click OK.

Step 6: Use the Brush Tool to Define the Selection

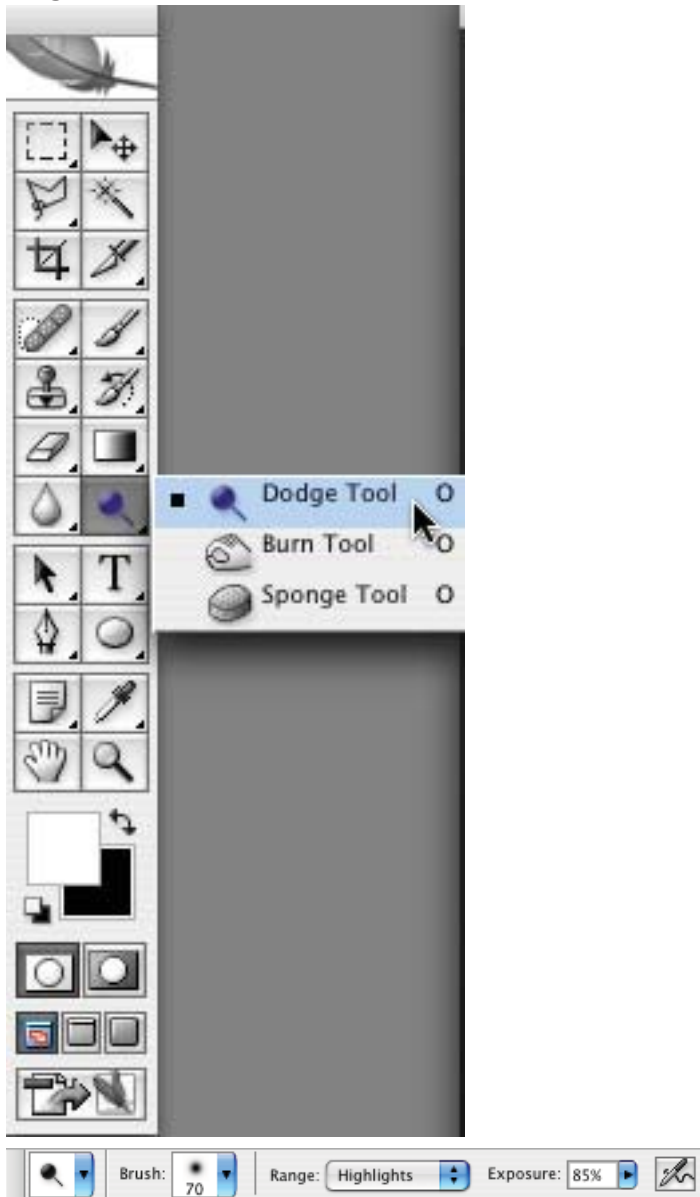


Click on the Brush tool, set the foreground color to white, choose a hard-edged brush, and make the opacity and flow 100%.

Begin painting on all areas that you want selected EXCEPT for the edges of the subject and areas of fine hair detail. This is not the time to concern yourself with fine details at the edge of the subject. We'll take care of the edge details in the next step.



## Step 7: Use the Dodge Tool to Refine the Edges



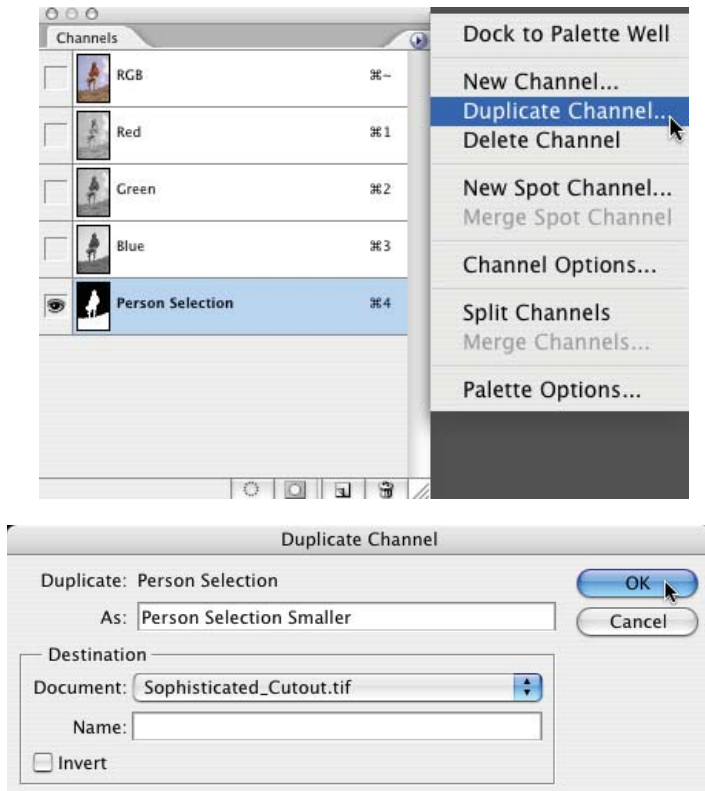
Choose the Dodge tool, pick a soft-edged brush tip, set the Range to Highlights, and the Exposure somewhere between 25 and 100%. Select a brush size big enough to easily cover the edges in one pass.

Dodge along the edges of the subject and into the areas of subtle hair detail. Try to pick an Exposure that permits you to pass over each edge only once (maybe twice); gently driving gray to white without adding body to the fine details of the hair.

If necessary, use the Burn tool to darken areas that should not be part of the selection. In most cases, set the Burn tool Range to Shadows and the Exposure somewhere between 25 and 100%. Perform Burn tool corrections with the same measure of care as the Dodge tool.

## Step 8: Duplicate the Channel

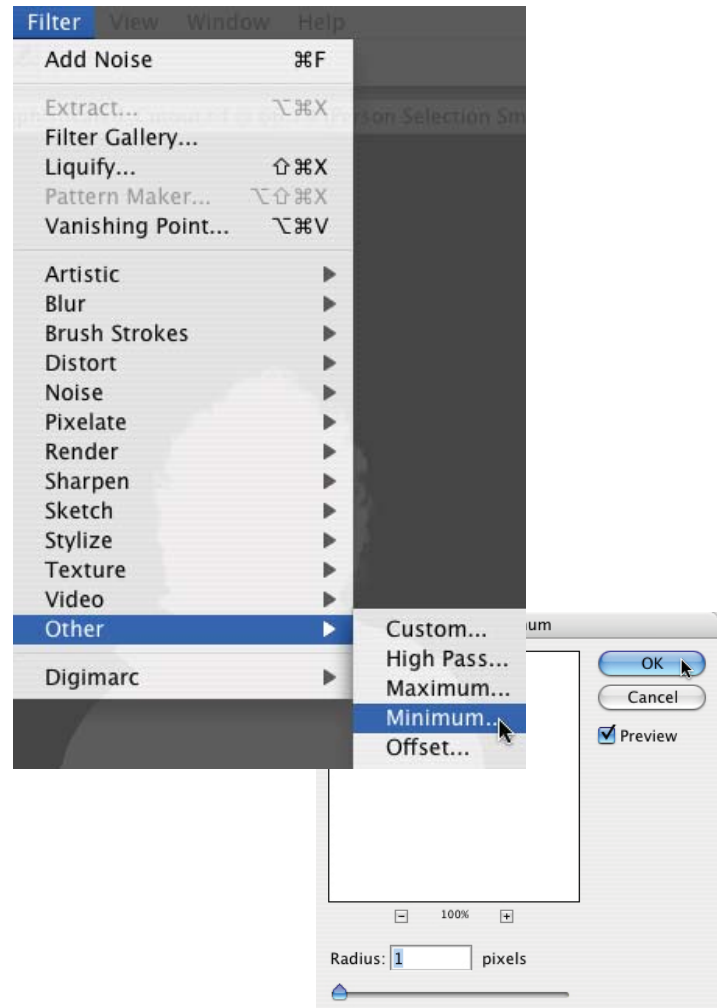
Now that the "Person Selection" channel is perfected, choose Duplicate Channel from the Channels palette fly-out menu. Name the duplicate channel "Person Selection Smaller" and click OK.



## Step 9: Shrink the Channel

Choose Filter>Other>Minimum. In the Minimum dialog, set the Radius to 1 pixel and click OK.

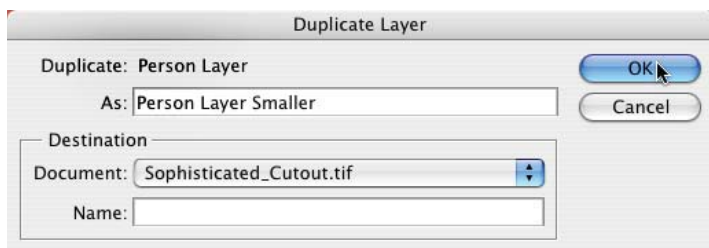
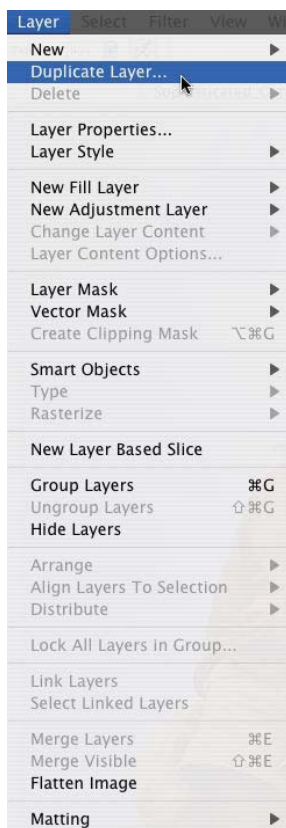
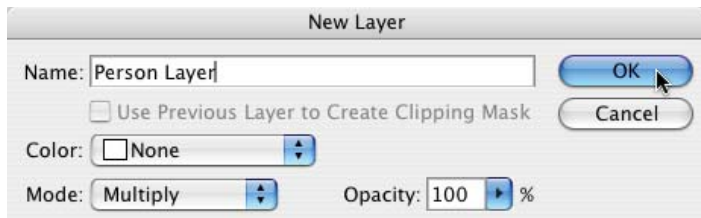
*Note: When working on low-res files, 1 pixel may be too intense. To weaken the impact of the Minimum filter, immediately choose Edit>Fade Minimum. In the Fade dialog, reduce the Opacity to 50%. Press OK.*



## Step 10: Return to the Layers Palette to Prepare the Layers

In the Channels palette, click on the letters RGB, then return to the Layers palette. In the Layers palette, double-click on the Background layer to convert it to a standard layer. In the resulting New Layer dialogue, name the layer "Person Layer," change the Mode to Multiply and click OK.

Choose Layer > Duplicate Layer, name the layer "Person Layer Smaller," and press OK.

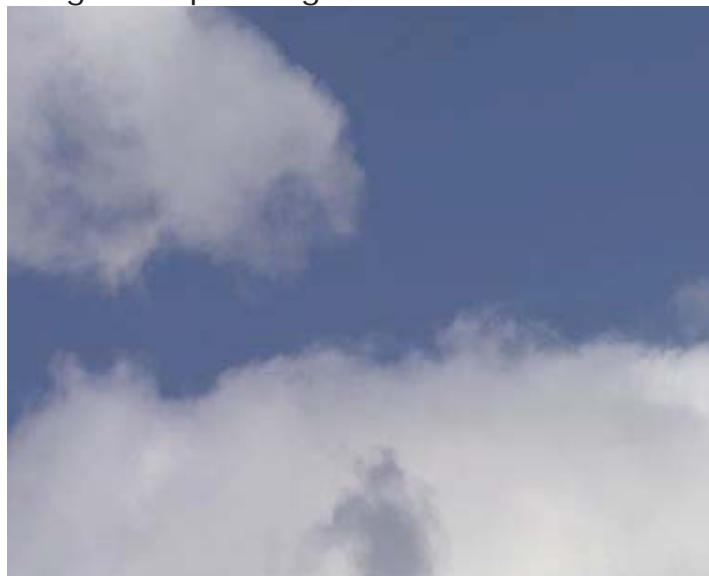


At the top of the Layers palette, change the Blending Mode of the duplicate layer back to Normal.



## Step 11: Open a Cloud Background Replacement Image

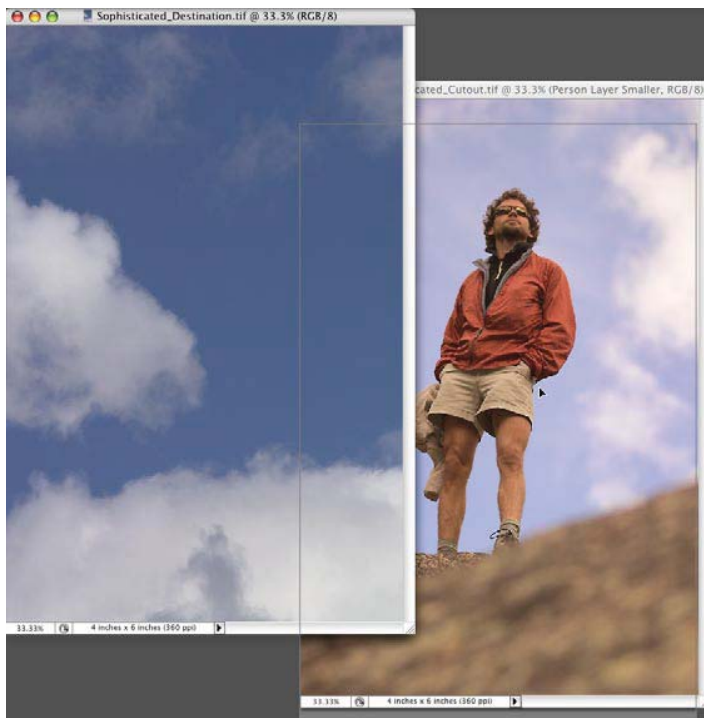
If you are using images from the Sample Images folder, open the image titled "Sophisticated\_Destination.jpg", or open another image of equal or greater file size.



Step 12: Move the Clouds from One Document to the Other

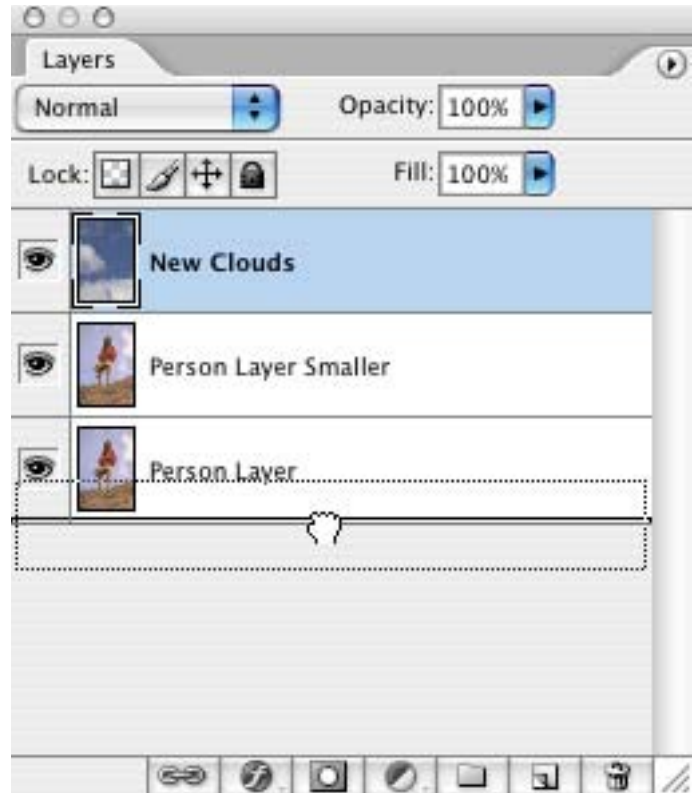
With the "Sophisticated\_Destination.jpg" file (the new clouds) open and the "Sophisticated\_Cutout.jpg" file still visible, press "v" to choose the Move tool, hold down the Shift key, then click-and-drag the new clouds into the scene with the individual.

In some cases, you may need to re-size the placed file. To do so, choose Edit>Transform>Scale. With the Scale bounding box active, press the Shift key and drag a corner handle. When the image is sized appropriately, press Return (PC: Enter).



Step 13: Rename and Restack the New Cloud Layer

In the Layers palette, double-click on the new layer name and title it "New Clouds." Click-and-hold on the blank area of the layer and drag it down below the "Person Layer." Let go to deposit the "New Clouds" layer at the base of the layer stack.



Step 14: Close the Cloud Image  
Return to the cloud-only image and choose File>Close.

Step 15: Turn the "Person Selection" Channel into a Selection

Open the Channels palette and Com-



mand-click (PC: Control-click) on the “Person Selection” alpha channel. This loads the marching ants.

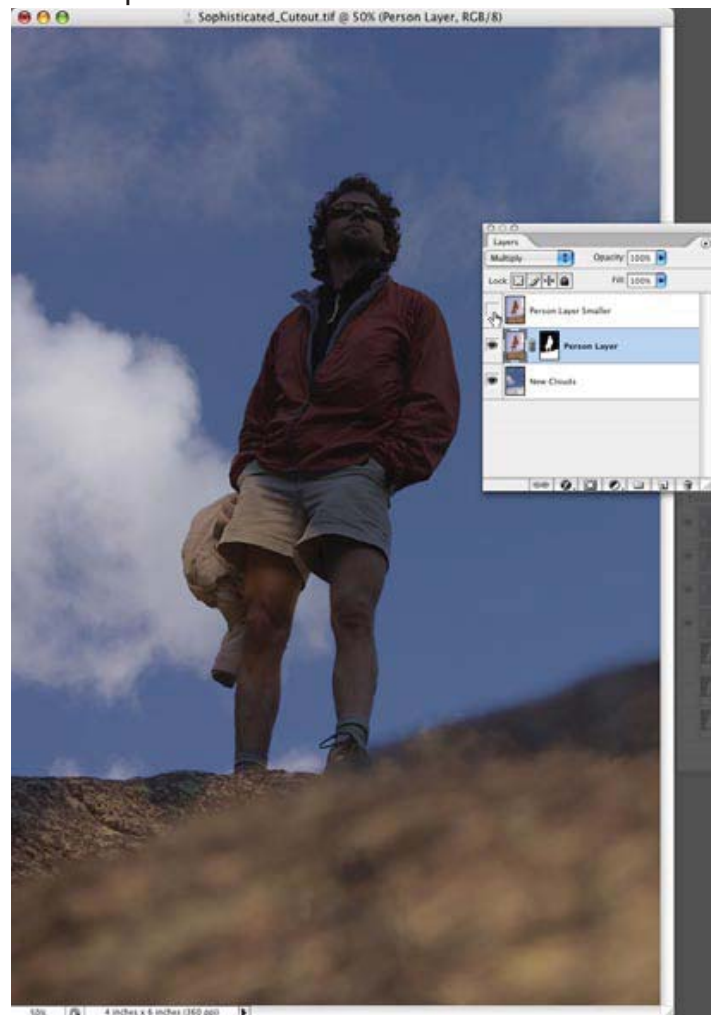
Step 16: Add a Mask to the “Person Layer”

Return to the Layers palette, make the “Person Layer” active and click on the Add layer mask icon at the base of the palette.



Step 17: Temporarily Turn Off Top Layer Visibility

To temporarily hide the top most layer and view your work so far, click on the eye (layer visibility) icon. Notice how the mask has hidden the original sky and revealed the new sky. Since the “Person Layer” is in Multiply mode, the entire subject has added density that will come in handy in the next few steps.



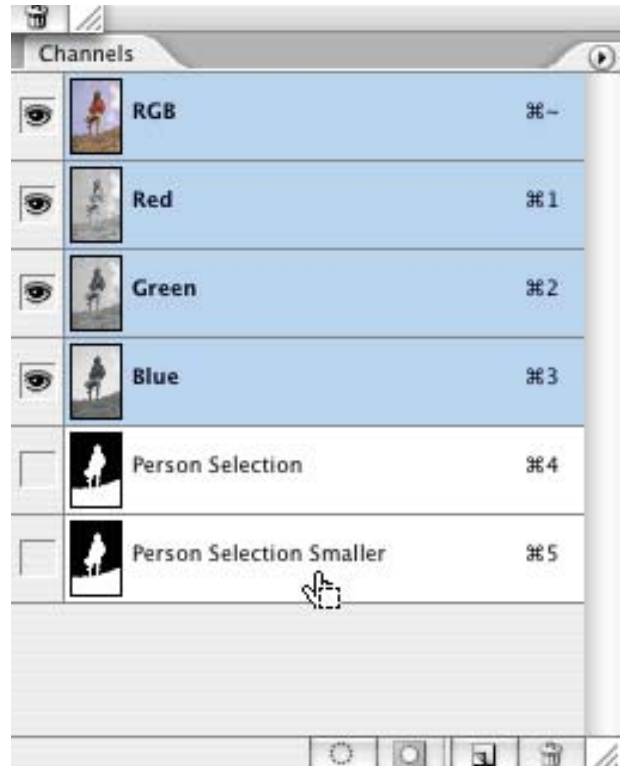
### Step 18: Activate the Top Layer

Turn visibility back on for the top layer and click on the layer name to activate the layer.



### Step 19: Turn the "Person Selection Smaller" Channel into a Selection

Return to the Channels palette and Command-click (PC: Control-click) on the "Person Selection Smaller" alpha channel to load the smaller selection.



Step 20: Add a Mask to the “Person Layer Smaller”

In the Layers palette, with “Person Layer Smaller” active, click on the Add layer mask icon at the base of the palette.



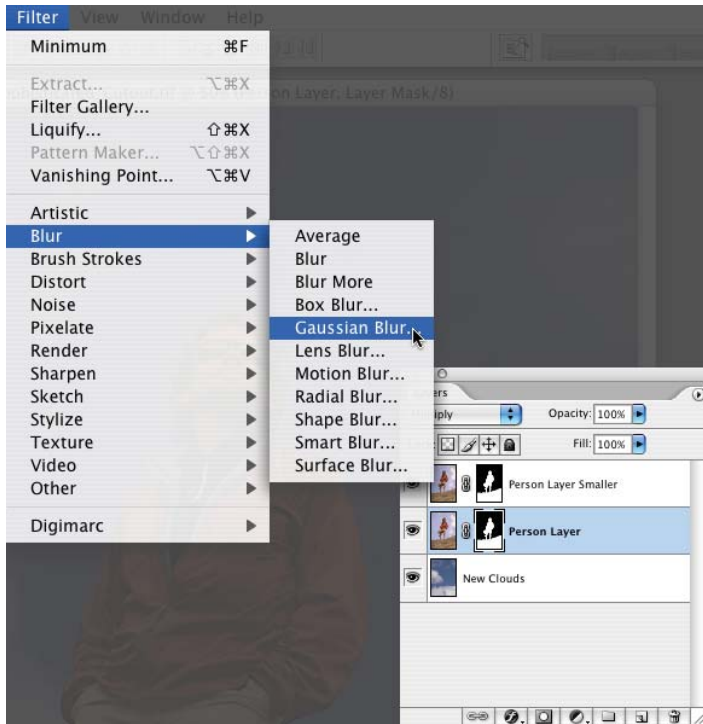
Step 21: Check Your Work

If the “Person Selection” and “Person Selection Smaller” alpha channels were modified correctly, the blend around the hair should be seamless. In cases where the hair still needs a little finessing, try the techniques in Steps 22 - 24. If only the body exhibits a noticeable halo, pay a visit to Step 25.



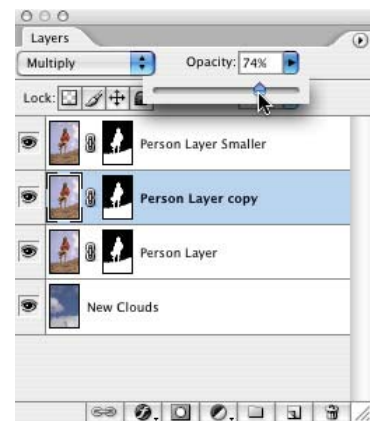
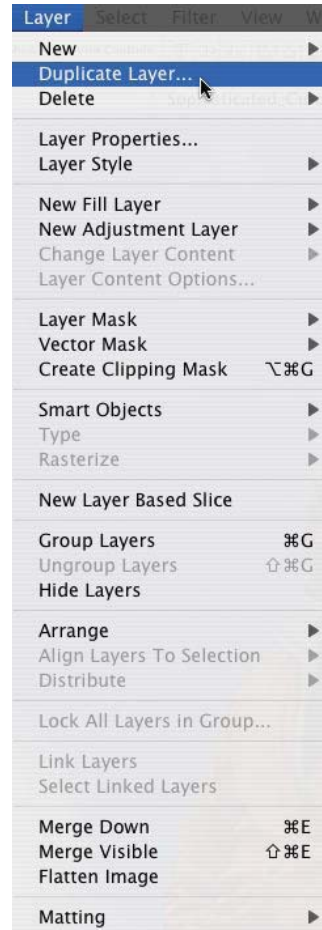
## Step 22: (Optional) To Soften the Edge, Use Gaussian Blur

If the hair edge needs softening, click on the "Person Layer" mask and choose Filter>Blur>Gaussian Blur. Try a Radius setting between 1 and 3 and press OK.



## Step 23: (Optional) To Add Edge Density, Duplicate the Middle Layer

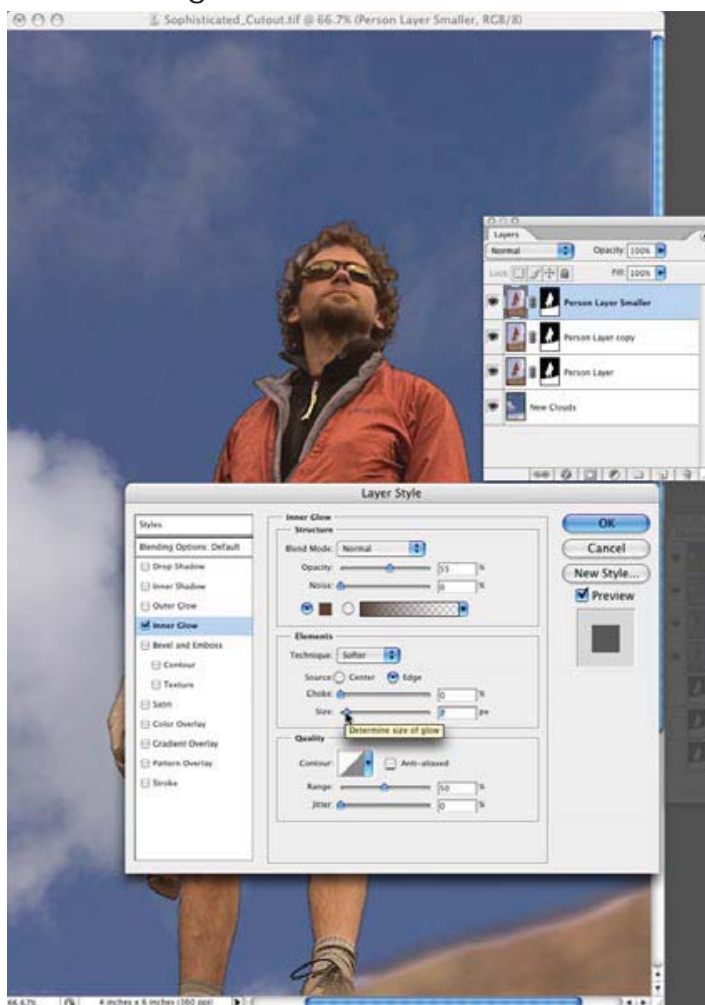
If the hair edge needs density, click on the "Person Layer" and choose Layer>Duplicate Layer. In the Duplicate Layer dialogue, leave the existing name and click OK. If the added density goes too far, reduce the Opacity of the layer.



Step 24a: (Optional) If All Else Fails, Add an Inner Glow

Click on the top layer and choose Layer>Layer Style>Inner Glow. Inner Glow settings will vary from image to image, but try these for starters.

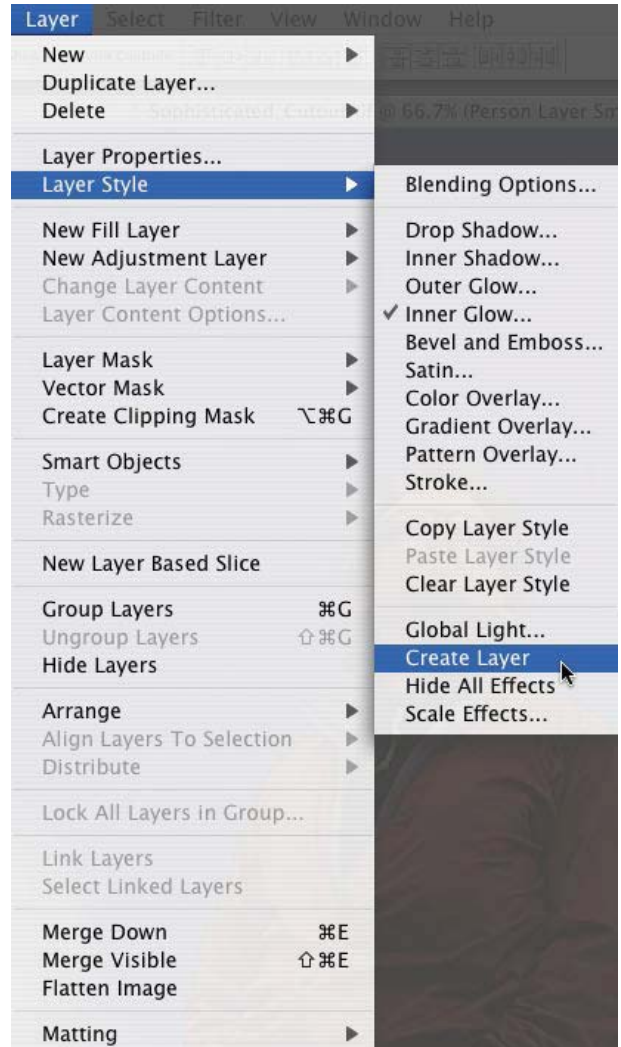
Set the Blend Mode to either Normal or Color. Choose an Opacity between 50 and 100%. Click on the Color Swatch just below the word Noise, position the mouse over the subject's hair, and click to sample a matching color. Press OK to exit the Color Picker. Gradually increase the Size setting until the halo disappears. Click OK to apply the Inner Glow settings.



Step 24b: (Optional) Refine the Inner Glow

If the Inner Glow is doing wonders for the edge of the hair, but looks harsh along the other edges, convert the Inner Glow to a layer (rather than a layer style), add a mask, and paint away the glow from unwanted areas. Here's how.

With the top layer active, choose Layer>Layer Style>Create Layer.



Make the new "Inner Glow" layer active, and click on the Add layer mask icon at the base of the Layers palette.



Choose the Brush tool and paint with 100% black on the mask in areas where you would like to eliminate the glow.



Step 25: (Optional) Eliminate the Halo Along Edges that Don't Contain Fine Detail

If a halo exists along edges of the subject that don't contain fine detail, such as the jacket and shorts, use this technique to counteract it.



Although the "Person Layer" is useful for creating a more believable blend along the edges of the hair, this layer is also the source of the unwanted halo along the edges of the jacket and shorts. In the Layers palette, click on the "Person Layer" mask thumbnail. Using a soft-edged black brush set to 100% opacity and flow, gently paint along the halo edges to eliminate them.





