

Creating masks in Photoshop:

Frequently Used Methods

by Mark Beckelman

The ability to mask or select parts of an image with incredible precision is one of the most useful features of digital image-making. The leading digital-imaging program, Photoshop, has powerful tools for creating and manipulating masks. With an active imagination, and an understanding of the fine art of masking, the visual possibilities are endless.

All masks serve the same purpose—to hide or reveal image areas in a non-destructive manner, allowing you to alter some parts of a photo but not others. And like everything in Photoshop, there are multiple ways of creating them. You can be just as creative in your use of masking as you are in creating your imagery.

There is no one-size-fits-all method, as each photograph has unique visual characteristics. Look at your image and consider what you're trying to accomplish as you work on it. Is your subject hard-edged? Do you want to isolate fine detail like hair or mask semi-transparent objects? How about masking a particular color or tone? These kinds of questions will help direct you in choosing the appropriate tool and technique (see table 1 for some guidance).

All masks are based on selections,



Figure 1. The Polygon Lasso tool is a good choice for selecting geometric objects such as this window.



whether it be an entire layer, or just a section of an image. Once you've created your selection, it then can be converted into a layer or channel mask. Below, I've detailed some of the most common methods of making selections and turning them into useful masks.

Selection-based masks

When you need to select shape-based objects, a variety of tools are at your dis-

posal. The Marquee, Pen tool, and Polygon Lasso are the best tools for selecting geometric objects within a photo.

In figure 1, I used the Polygon Lasso tool around the main subject, and created a layer mask by clicking on the Add Layer Mask icon at the bottom of the layers palette.

I frequently use color range to create selections of specific colors or tonality. These selections aren't strictly black-and-white (like what I'd get from the Pen or

Table 1. Choosing the Right Tool and Techniques for Masking

This table from Katrin Eismann's book *Photoshop Masking and Compositing* (which I worked on) lists quite nicely different types of subject matter, the kinds of selections they might require, and the appropriate tools or techniques needed to select them.

Masking situation	Example	Tool or technique to use
Shape and form	Street signs, fruit, sculptures	Rectangular and Elliptical Marquee Lasso and Pen tools
Tone and color	Highlights and shadows, brightly colored clothing	Magic Wand, Magnetic Lasso, and Color Range
Edges and fine details	Hair and fur	Extract, Luminance Masking, and Image calculations
Translucency and light	Glassware and smoke	Channel Masks, Green Screen, and Image calculations
Opposites and differences	Subject on contrasting background	All of the above

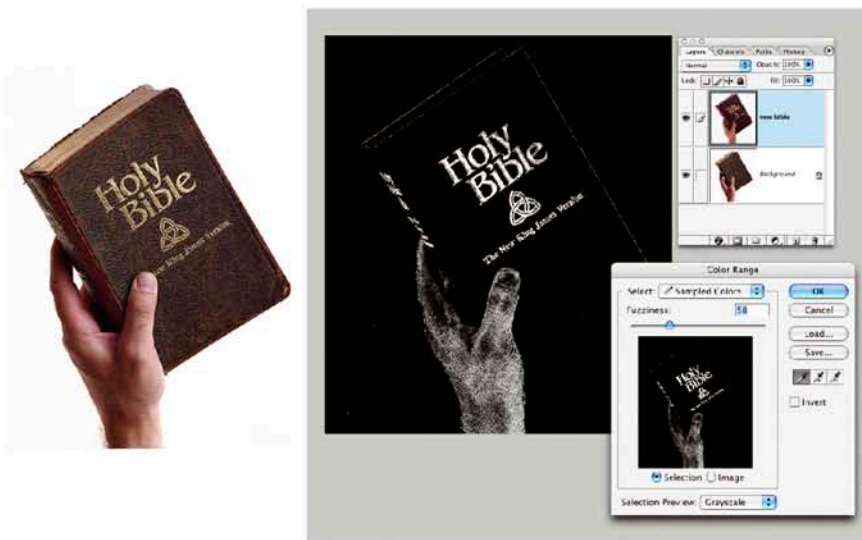


Figure 2. Color Range is useful for selecting specific colors or tonality, as with this gold lettering.

Lasso tools). Rather, I'm able to select specific tones or colors. In figure 2, I needed to select the gold lettering on the new Bible and transfer that to an older Bible that had more character but faded lettering. By using Select > Color Range, and clicking on the letters, I was able to quickly create a selection for my layer mask.

Many times, a look at the red, green, and blue channels of your image quickly shows you which is likely to provide the best contrast between dark and light tones. Go to the channels palette and click on each of the channels. Look for good tonal contrast between the detailed areas of your subject and the background.

In figure 3, I wanted to retain the fine detail of Julia's curly hair. By looking at the individual red, green, and blue channels, I found that the blue channel had the most contrast between the hair and the background. This offered me a starting point for creating an effective mask.

In most cases, channel masks will require some refinement of the layer mask to fine-tune the effect. Here is my step-by-step process for refining the mask used for hair.

- Duplicate the blue channel.
- To increase the contrast of the blue channel further, go to Image > Apply Image and set the blending mode to Multiply.
- This increased the contrast some, but it was necessary to apply a curves adjustment to the blue channel copy to bring the whites of the background to 255, and the blacks of the hair to 0.
- Painting on the copied channel with a black brush set to overlay mode eliminated any unwanted tonality in Julia's shirt, arms, and face.

- Create a layer stack that has the painted background on the bottom, and two copies of the Julia layer above it.
- Set the blending mode of the bottom-most Julia layer to multiply, and the opacity of the layer to 50%. This will make the white of the background disappear, and darken Julia and her hair, and giving the fine wisps of hair a bit of transparency.
- Turn the blue channel copy into a selection by command-clicking on it in the channels palette.
- Select the uppermost Julia layer, and go to Layer > Add Layer Mask > Hide Selection to create a layer mask.
- At this point, you'll see some white fringing around the finer pieces of hair. One method of minimizing this is to target the newly created layer mask, and paint out the fringing with a black brush set to Soft Light mode, allowing the semi-transparent wisps of hair from the layer below to show through.

Layer-based masks

Layers are a powerful tool in the creation of masks. I can control what is revealed or concealed by altering the opacity of a layer, or by changing its blending mode. The various blending modes mathematically compare and calculate the pixel values for tone, color, and brightness.

For the photo of the woman lying in a bed of petals (figure 4), I copied the petals layer four times, and used four different layer-blending modes—Screen, Hue, Soft-light, and Normal (with its Layer Opacity scaled back to 26%) to create the effect I wanted.

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Vector-based masks

The Pen tool offers a precise way of outlining your subject. While it may seem intimidating at first, once you've committed yourself to learning it, you'll wonder how you ever managed without it. Katrin Eismann's book *Photoshop Masking and Compositing* has a great chapter dedicated to the path tool.

Because the Pen tool creates a hard-edged vector, the resulting mask edge might need to be softened in order to blend more seamlessly into your composite image. You could assign a Feather to soften the edge when converting your path to a selection, but that's kind of like driving down the interstate with your eyes closed. Here's a great method to use instead that allows you to see the result you're going to get in real time.

Drawing a Path around your subject (make sure you are viewing your file at 100%–200%). Convert that hard-edged path to a selection (at the bottom of the paths palette, click on the third icon from the left), enter Quick Mask mode (hit Q on your keyboard), and go to Filter > Gaussian Blur > and use a low setting of 0.8. This setting is dependent upon your file size and the level of softening needed for your specific situation. While 0.8 might be appropriate for a file of around 18MB, most likely you'll have to reduce that amount when working on smaller files for the Web. Your best bet is to do your own testing, see how your edges compare to the natural edge-transitions of your original image, and adjust accordingly.

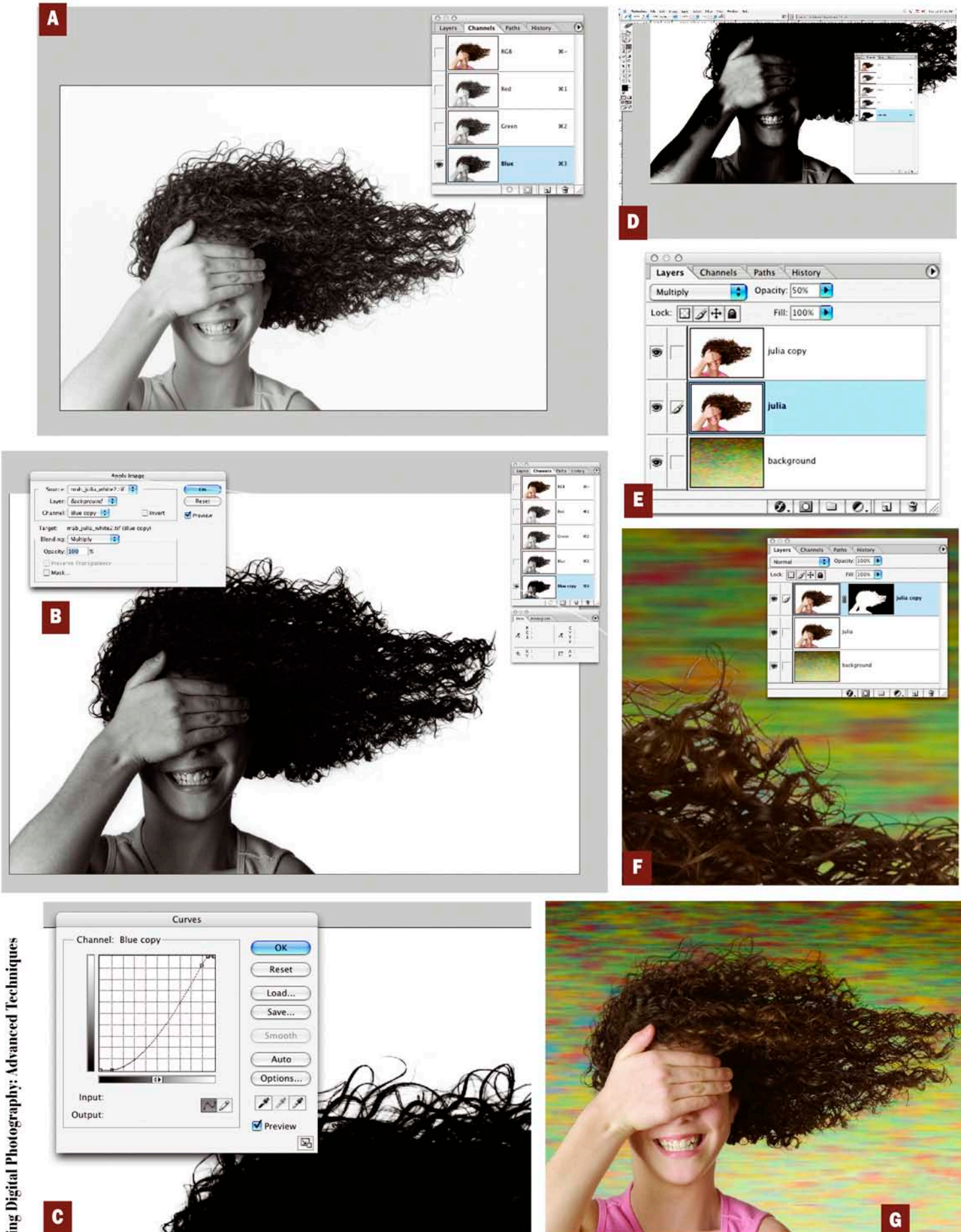


Figure 3. Creating a mask of Julia's hair involved several steps. (A) Duplicating the blue layer. (B) Increasing contrast. (C) Applying a curve adjustment. (D) Painting with black brush. (E) Creating layer stack and minimizing fringing (F) to get to the final composite (G).

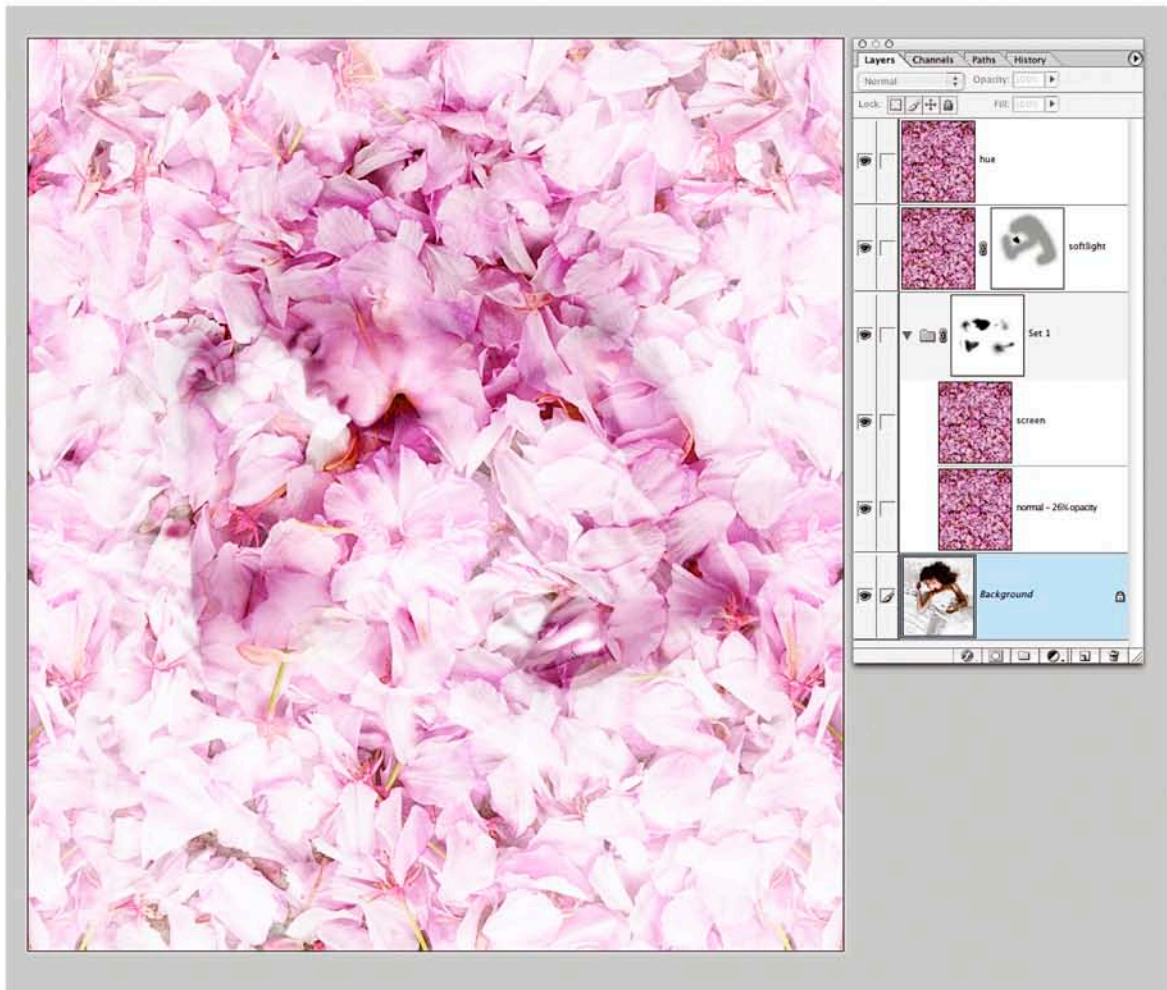


Figure 4. Layer Masks were used in conjunction with various blending modes to create the above image.



Figure 5. The Pen tool is an excellent choice for masking objects with curves, such as this cell phone.



Conclusion

These are but a few of the countless ways of creating masks. You'll find that in many cases, your masks may incorporate a mix of these techniques. Be fearless in your experimenting—your pixels will not be hurt by it! Use ingenuity when creating your masks, and the resulting images will be limited only by your imagination. ■

*Mark Beckelman is an award-winning photographer specializing in editorial and advertising photo illustration. In 2004, he collaborated as lead digital photographer for Katrin Eismann's 550 page book *Photoshop Masking and Compositing*, creating and producing numerous digital composites, concept illustrations, and photographic examples. To see more of his work, visit his web site at www.beckelman.com.*