

Creating Patterns from Photos

It's easier than you might think to make patterns from photos using free software called GIMP

By Jon Deck

Almost everyone has a vast source of potential scroll saw patterns in family photo albums, hard drives, and even their mobile phones. Using a home computer and software, you can create portrait patterns using your photographs.

One way to turn photos into patterns is to use pattern-making software designed for woodworkers, such as Coyote Stencil Shop 3 by Carving Technologies (www.carvingtechnologies.com).

You can also do it yourself with common photo-editing programs. I have updated Gary Browning's classic instructions to show you how.

Your photos will need to be in digital format. It's easy to digitize print photos using local or mail-order scanning services. Alternatively, desktop scanners have become quite affordable if you choose to do it yourself.

You will also need a computer with photo-editing software. Many photo-editing applications are available. I chose to use GIMP, a popular, free, downloadable application with many of the same functions as Adobe Photoshop (www.gimp.org).

If you prefer to use Photoshop, please visit our website (www.scrollsawer.com) to download step-by-step instructions for that application.

Understanding What Software Will Do

To make a scroll saw pattern from a picture, you will need to simplify the image to pure black and white. All of the colors and tones in the photo will be reduced to these two values: black represents the voids cut out of the wood, and white is the wood itself.

The photo software will help you narrow and define the tonal values. You will control the appearance of the image using tools with sliders that allow you to make incremental changes and to preview the results before you apply them to the photograph.

The software will not automatically create the pattern for you. You will need to do further work to the resulting image, on the computer or with a pencil,

to clean up the edges, simplify areas of noise, and build bridges to connect stray white areas to the main body of the pattern (unattached white areas will fall out after being cut).

Before You Start

To make a good pattern, you need to start with a high-quality digital image. The resolution should be at least 300 DPI and the focus should be sharp. Photos that have good contrast between the shadows and highlights will produce the best patterns.

Consider your subject carefully. If you want to create a face portrait, start with a close-up shot rather than cropping a full-figure image. A photo with more detail will give you a better likeness when cut in wood. Backgrounds can be difficult as part of the pattern. Try to pick out a simple element to establish a background and remove what you don't need—for example, use a tree branch instead of the whole tree or a window or door frame instead of room details.

If you want to show more than one person in the portrait, consider using separate photos and combining them in one pattern after they're defined. Rarely will you find multiple subjects represented well in the same photo.

Finally, always duplicate the original image and work on the copy. Having a pattern but no photograph when you're finished is not a good thing.

The Tool Box

The tool box is always present on the screen. You can perform all of the instructions in this article using two tools: the cropping tool (A), and the brush tool (B).

Use the magnifying tool (C) to enlarge the image when working on detailed areas.

Click the small black/white icon (D) to ensure you're working in pure black and white. Change the brush from black to white and back by clicking the double-ended arrow (arrow).

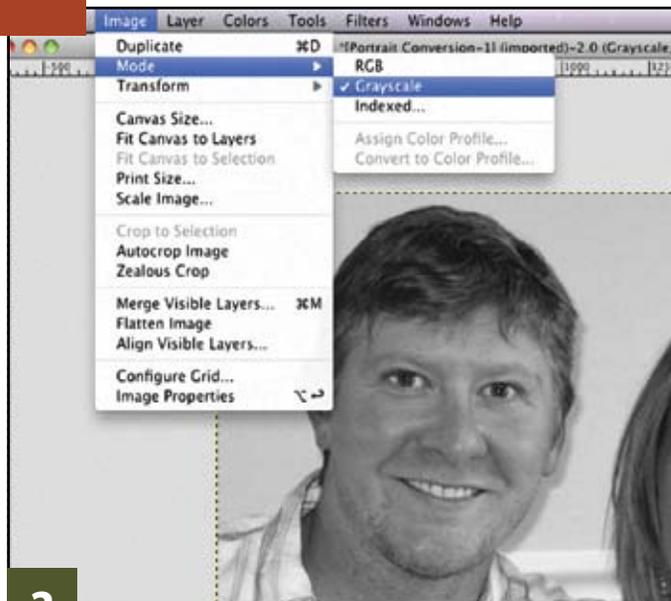


PHOTO PATTERNS: PREPPING THE IMAGE



1

Crop the image. Use the cropping tool to maximize the subjects of the photo, reduce the background, and balance the image. Click the cropping tool on the tool box and place the cursor in the upper left corner. Click and drag the cursor across the photo to define the new image area. Release the mouse button, and drag the edges on the highlight box to fine-tune the positioning. Click the Enter key to apply the crop.



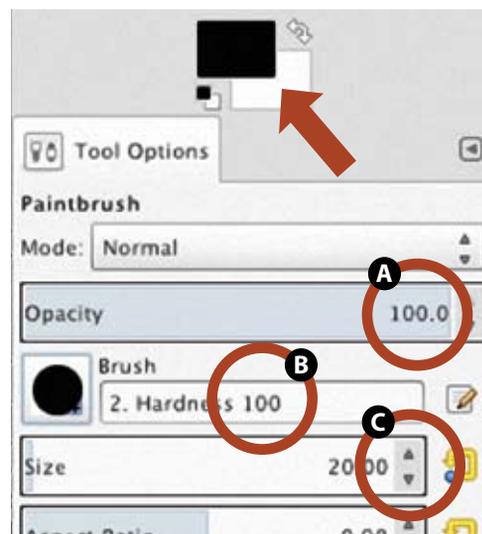
2

Change the image to grayscale. Pull down the Image menu to Mode. Highlight Grayscale on the kickout menu and release the mouse button. The image is now black and white.



3

Paint out the background. Select white to the foreground and paint out the photo background with the brush tool. Select a smaller brush to outline the subjects and a larger brush to paint the fill. The brush size is always previewed on the image. If you paint over an area that shouldn't be white, select Undo under the Edit menu to remove the previous paint stroke.

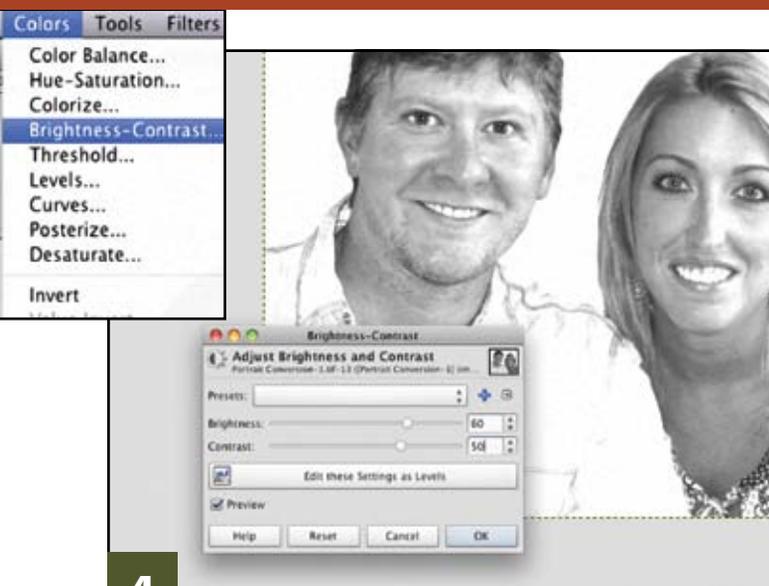


The Brush Tool

Use the brush tool for painting out backgrounds and cleaning up the converted image. **Always** keep the color palette black/white (arrow), the opacity (A) at 100%, and the hardness (B) at or near 100%. Use the size controller (C) to change the brush size for wide or detail areas as needed.

NOTE: This menu appears automatically below the tool box by selecting the brush tool.

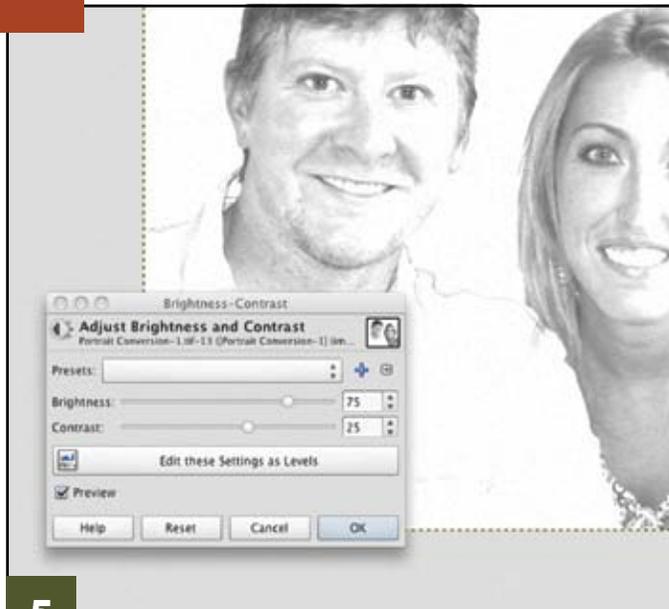
PHOTO PATTERNS: CONVERTING THE IMAGE



4

Begin tuning the image with Brightness/Contrast.

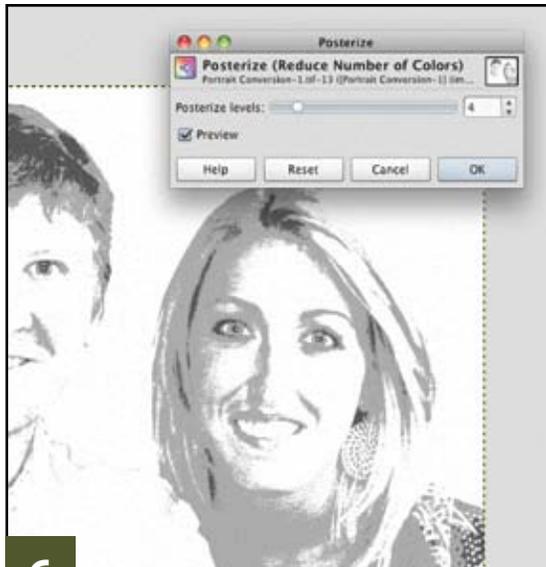
Under the Colors menu, choose the Brightness-Contrast command. Work the sliders on the screen to adjust the image. Don't change the image too much in a single adjustment, or you will lose too much detail. Instead, make the changes in controlled increments. I chose 60% Brightness and 50% Contrast for the initial adjustment. Click OK to apply the changes.



5

Increase the highlights.

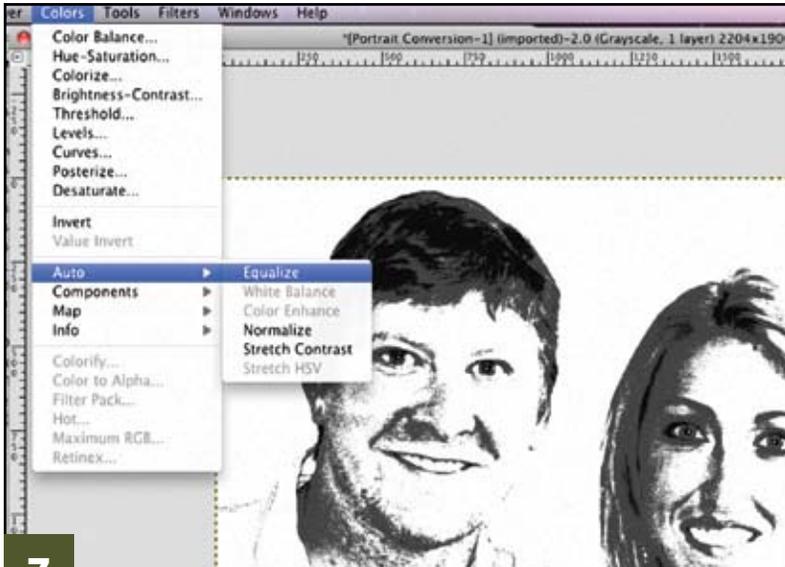
Revisit the Brightness-Contrast command and maximize the white areas with the Brightness slider. Use the Contrast slider to regain enough of the details to have a solid, recognizable image. You'll notice that the black areas are being starved of value, but they will be replenished in further steps. I chose 75% Brightness and 25% Contrast. Experiment with the range of the sliders to achieve a satisfactory result, and then click OK to apply the adjustment.



6

Access the Posterize filter.

Select Colors from the top menu bar. Drop down and choose Posterize. Posterization will break gray areas into coarse dots and clearly define the white areas. Keep the posterization simple. I chose a value of 4 because a value of 3 lost more of the detail than I wanted. Click OK to apply the filter.



7

Equalize the image.

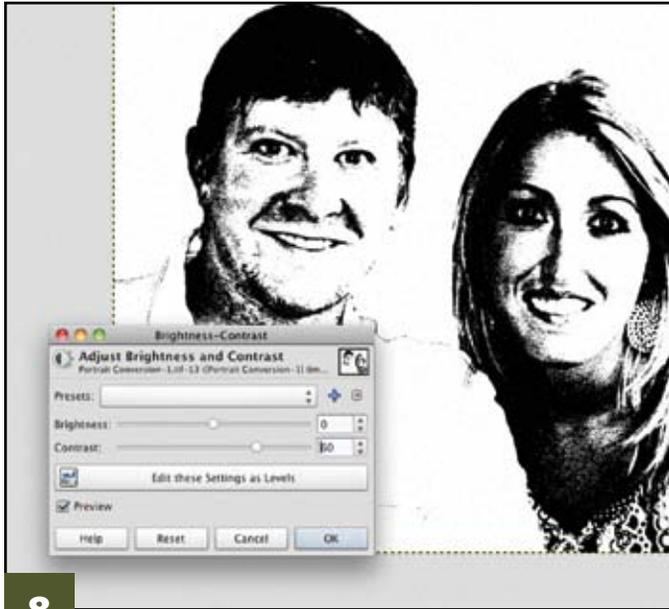
From the Colors menu, drop down to Auto and choose Equalize from the kickout menu. This option will bring the black back to the gray areas left as a result of the posterization.

TIP

VISUALIZING THE END RESULT

Try squinting at the screen preview to see if the values you've chosen are leading you in the right direction. Looking at the image this way can show you if your image is holding enough detail to become a pattern.

PHOTO PATTERNS: CLEANING UP THE IMAGE



8

Finish up with contrast. Return to the Brightness-Contrast command and use Contrast to make strong blacks. Fine-tune the Brightness if necessary for your image. The software has done its work; now you must clean up the image to make a working fretwork pattern. Go to the File menu and select Save As. Retitle the end result so the original file is intact.



9

Clean up the gray areas. Begin filling in dotted, or gray, areas with white, leaving traces of the dots as placeholders so you can come back with black to add detail shadows. If you're cleaning up the image on the computer, use the brush tool as you did in Step 3. Or, you can leave the computer and work on a printout of the computer conversion using paint, pencils, or markers. Refer to the original photo to decide which parts of the image to detail or eliminate.



10

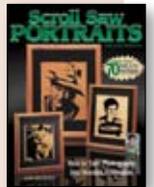
Finish the pattern. Continue to refine the image by converting the dotted areas to either black or white. Add black detail shadows along the dotted remnants you left in Step 9. Smooth the ragged edges left by the software, and bridge all floating white areas to connect them to the main pattern. Save and print the finished digital pattern, or make a master copy of the final version if you've been working on a printout.

Further Reading

Scroll Saw Portraits, Second Edition

By Gary Browning

Detailed instructions for making your own patterns from photos and tips for cutting them successfully, plus 55 ready-to-scroll portrait patterns.



Available for \$17.95 + \$3.99 S&H (parcel post) from Fox Chapel Publishing, www.FoxChapelPublishing.com, 800-457-9112, 1970 Broad St., East Petersburg, Pa., 17520, or check your local retailer.

A BONUS PATTERN of **JOHN WAYNE** is in the pattern pullout section.



ON THE WEB Exclusive instructions for Photoshop users are online.

www.scrollsawer.com