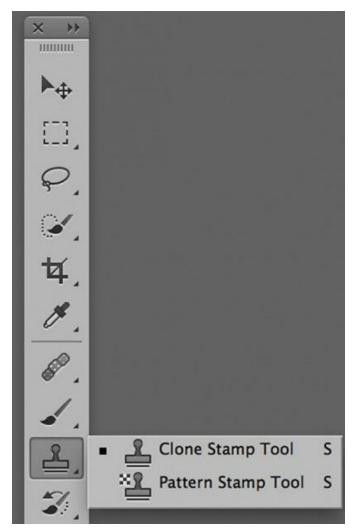
POPULAR TOOLS IN PHOTOSHOP: CLONE STAMP TOOL



How to use the Photoshop clone stamp tool, examples of effective uses for it, and tips for improving your Photoshop efficiency.



The Clone Stamp Tool is one of Photoshop's original tools; the one that initially caught my eye in the late 80's and launched me into the exciting new world of digital imaging.

The ability to copy a selected part of an image and transfer it to a different location turned the most difficult and tedious retouching jobs into child's play. Retouchers used to meticulously paint leaves and branches in order to fill in open patches in backgrounds, and the artwork had to perfectly match the photograph in shape, color, value, grain structure and detail.

The Clone Stamp Tool does it in two clicks and a wiggle. Wow!

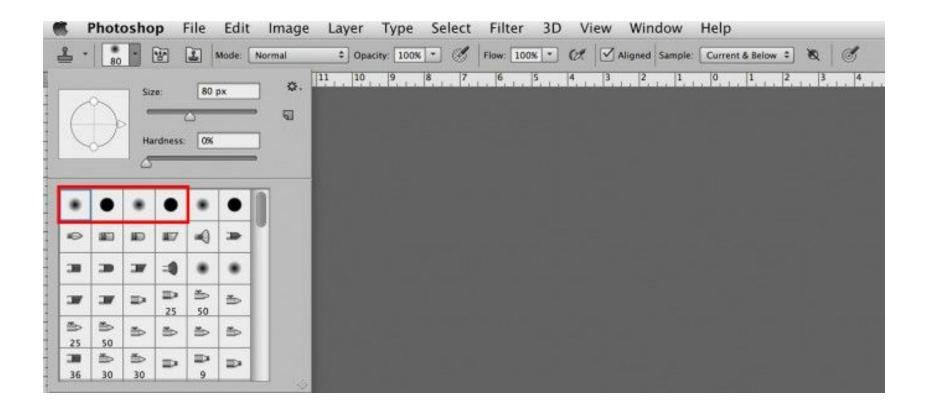
There are a few tricks for the Clone Stamp Tool that will give you the best of it so I will share my experiences with it and my best advice for using it effectively in a variety of circumstances. The Clone Stamp Tool is located in the Tool Bar and can be accessed by clicking on it or using a Keyboard Shortcut(s).

There are two Clone Tools to choose from the Clone Stamp Tool and the Pattern Stamp Tool. Most replacement work is accomplished with the Clone Stamp Tool. The Clone Stamp is constructed to pinpoint two locations, a Source and a Destination. In other words, the user must tell the tool what part of the image should be copied (by setting the source), and then where the part should be copied to (by "painting" in the desired area). A source is selected by positioning the brush icon over the area one wishes to copy, and tapping the stylus upon the tablet while holding down the Option (Alt) key.

As with many of the editing tools in Photoshop, most artists choose to work on a New Layer rather than directly on the image file so mistakes can be made and corrected easily, layer opacity can be employed as can blending modes, layer masks and other layer options.

Let's go over the options for the Clone Stamp Tool.

The first option is the choice of brush. Any brush may be used with the Clone Stamp. Most corrective work is done using one of the basic utility brushes, with either a soft or hard edge depending on the job. These brushes copy the source exactly.

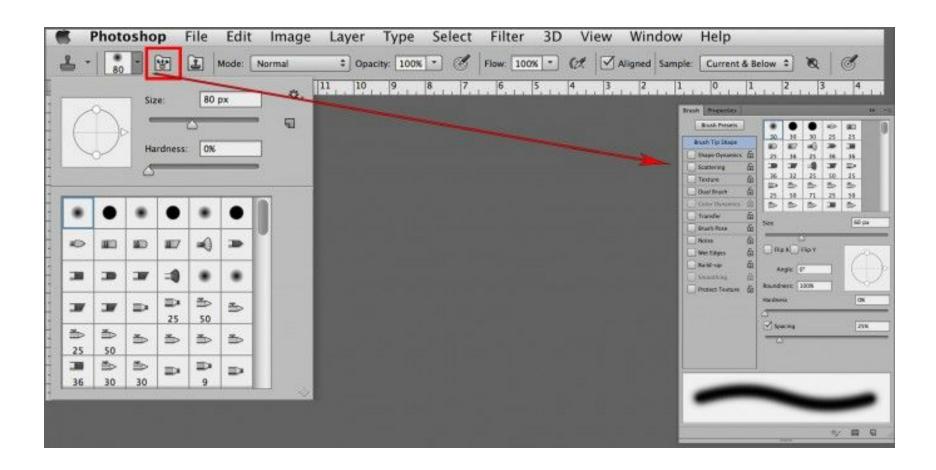


When one of the artistic brushes is used, the cloning is applied using the options that are preset for texture.

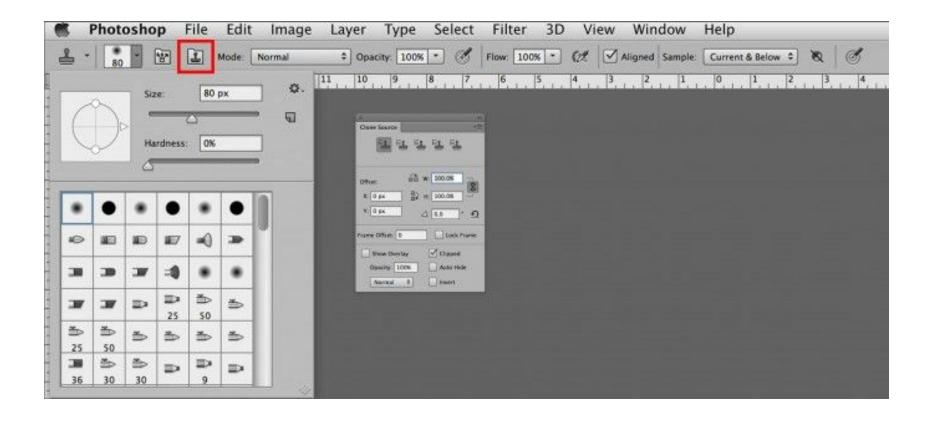


Flat Fan High Brustle Count

The next icon opens and closes the Brush Panel. Click once to open and again to close. Use this to adjust preset options on the fly.

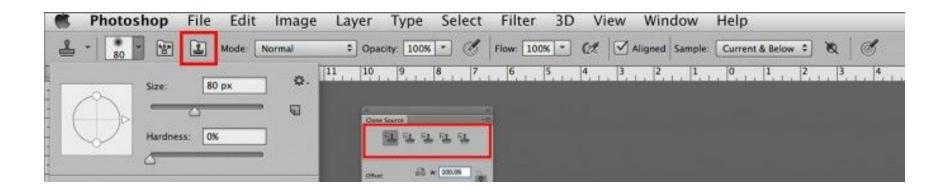


Next in is an icon to open and close the Clone Source Panel. This panel contains options to work from multiple clone sources, even separate images, rotate or transform the source prior to cloning and preset opacity and blending modes.



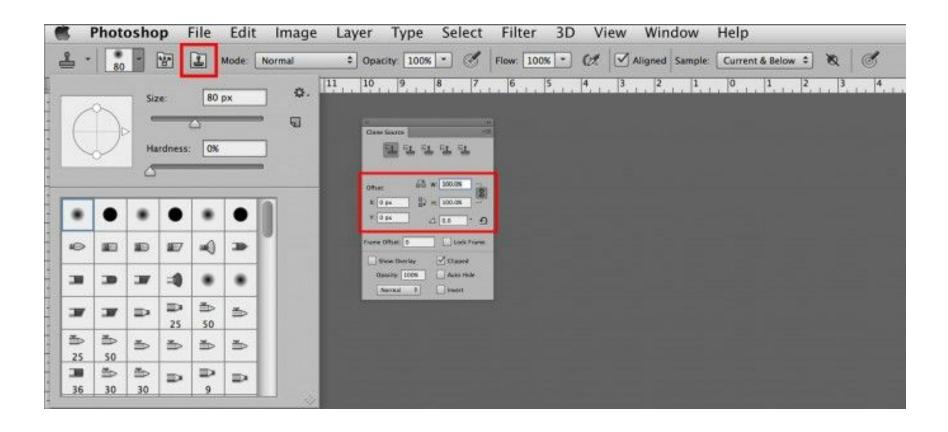
The top section of the Clone Source Panel contains five Clone Stamp icons. The one on the far left is selected as default, and each time the user resets the source, it changes to the new one. Sometimes a user may want to reselect the same source as was used before but also wants other sources available.

To set multiple clone sources Option (Alt) tap the first one, just click on an additional clone source icon and Option (Alt) tap the next desired source material. Photoshop will remember each source so you can reselect them just by choosing the corresponding icon.



The next section down provides options to preselect rotation, flipping or offsetting the source material prior to cloning. It provides the same options as cloning upon a layer and then transforming or relocating the

cloned piece after the fact. Photoshop offers a variety of ways to do the same thing so it's important to learn the software so you can choose the options that you prefer.



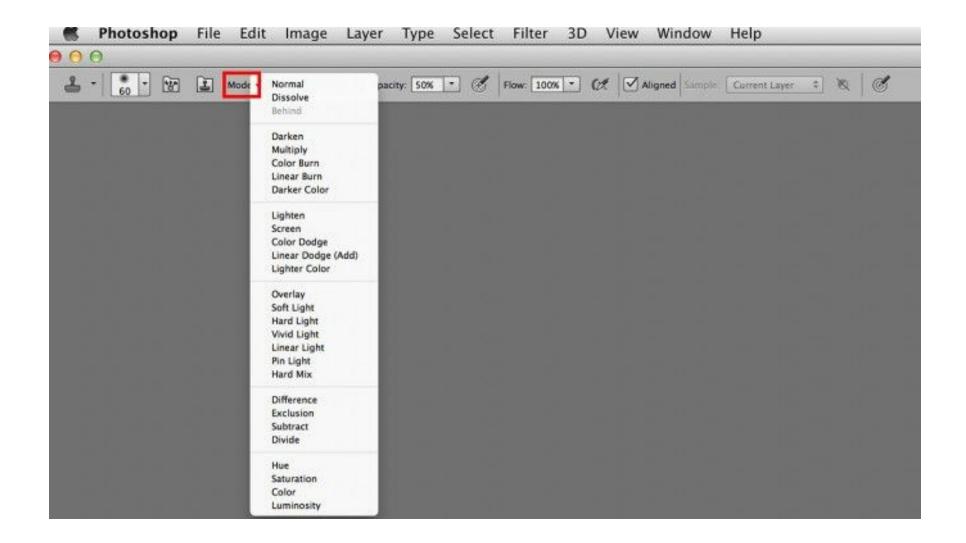
The bottom section of the Clone Source Panel is used to hide or show the overlay (the part you are copying) and also to choose blending modes and whether or not you wish to see the entire image or just the area within the brush icon.



The overlay is the visible clone source that travels with the tool to the destination. Many artists think of it as a ghost. Clone Source is active by default and it is helpful to see it when you are cloning something that must be lined up exactly, like bricks, but can be distracting when working on random things like filling in foliage.

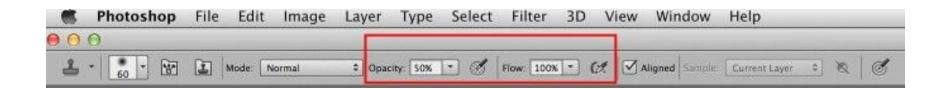
Because most of my work is photo editing, my preference is not to see it unless I need to, so I uncheck this box and turn it on in the rare instances I want to see it.

The next option for the Clone Stamp Tool is the Mode in which you might like to use it.



If the cloning will be applied directly onto the image file, these options apply the source material in the blending mode you select from this option bar. However, if you are working on a layer, the blending mode of the layer will override the blending mode in the option bar. This means that if you want to use Screen blending mode on a layer, the layer's blending mode must be set to Screen. The option bar mode can remain on Normal.

Just to the right of the Mode option are settings for Opacity and Flow. These options work the same for the Clone Stamp Tool as they do for the Brush Tool. Opacity is how opaque the effect will become with one application, and Flow is how fast you will get to the maximum opacity chosen.

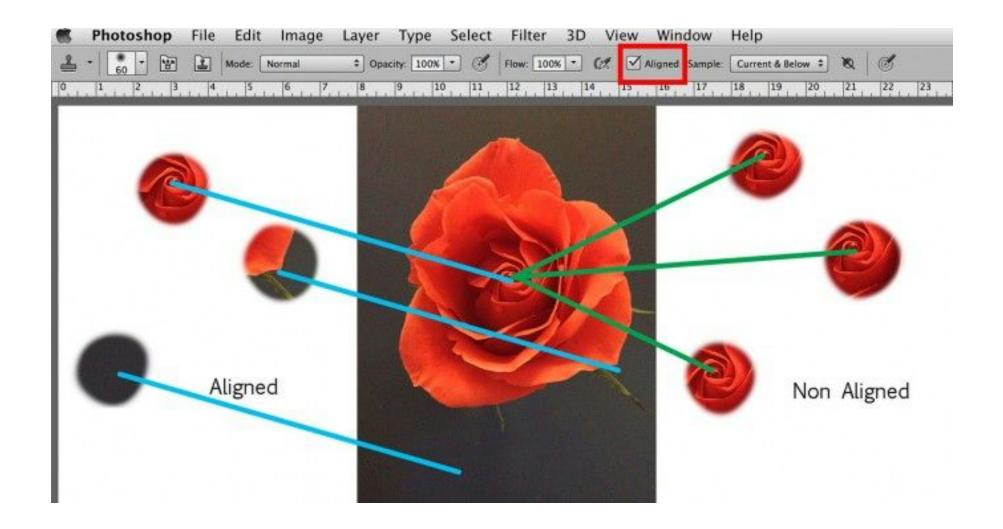


The settings here indicate that we want 50% opacity, all at once. The small icon just to the right of Opacity, if selected, overrides brush presets for opacity and instead leaves it up to stylus pressure on the tablet.

The one just to the right of Flow locks flow into continual build up, meaning that opaqueness will continue to build as long as the stylus is touching the tablet. Once again, Photoshop provides many options for allowing artists to work in different ways.

The next option is to choose the relationship between the Source and Destination, Aligned or Non Aligned.

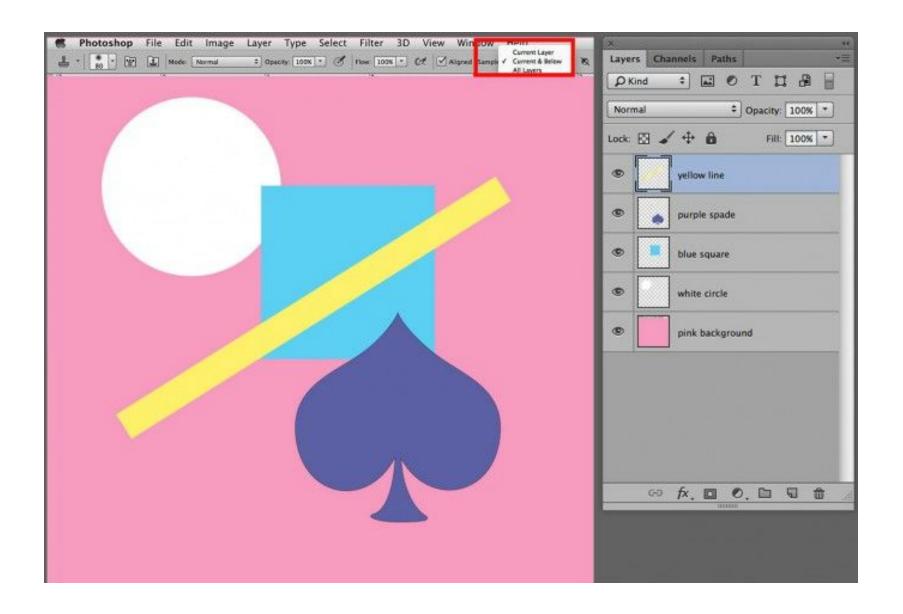
When this box is checked the source and destination are locked together and as the tool is used remain in constant exact relationship to each other as you can see on the left side of this example:



This option is helpful for cloning large areas because it enables the user to lift the stylus and paint again, or apply another coat of opacity, without the fear of losing exact pixel registration.

When the box is unchecked, the relationship is not locked and each time the user paints in a different area, the original source material is used as seen on the right side of the example. This option is helpful when the user wants to repeat the same source in different places, like adding flowers to bushes or working in tight places, like removing blemishes when the subject has severe acne and there is little unblemished skin to sample.

There is also an option for choosing how you wish to sample and copy when you are working with several layers, as is the case in many imaging jobs.



The option may be set to sample and clone only the material that is on the active layer, Current, that in this example contains the yellow line, only the active layer and the one below it, Current and Below, the yellow line and the purple spade, or all of the layers including the background, All Layers. Normally it is used in the option All Layers, but if you are editing within a group or wanting to keep a section isolated in order to move it later, the other options come in handy.

There are two additional toggles in the Clone Stamp option bar.



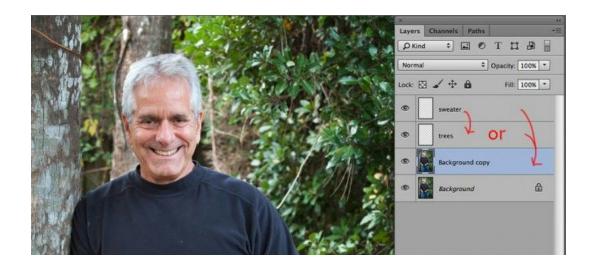
When the one on the left is turned on, any adjustment layers will be ignored when selecting source material. This means that if you have Sample/All Layers selected and want to clone under an adjustment layer that you can choose not to include the adjustment when cloning underneath it. (If not active, the adjustment will be included thus doubling its effect.)

The final option allows you to override brush presets and only use pressure for size. This option is helpful if one is painting using a variety of brushes that have different presets for size and you wish to simplify making edits on the presets while working.

OK. Options done, let's get into the cloning process. The Clone Stamp is a good choice for jobs like filling in trees, transferring bushes, sprinkling flowers around, extending backgrounds and removing small unwanted objects from image files. Many retouching artists like it for removing glares from glasses, adding hair, removing stray hairs from backgrounds and making clothing corrections. Some skin artists prefer the Clone Stamp Tool over the Healing Brush for texture work and blemish removal because they have complete control over how detailed the work will be.

There are many techniques for using the Clone Stamp, depending on what the job is and what end result is desired. In general, the choice of brush type, the size and the opacity are critical to the success of using the tool. Most artists apply cloning to layers so the work can be moved, edited or adjusted as needed prior to

attaching it to the image layer. My process for digital art is to create a Background Copy and work on layers above it, merging them down as needed, always reserving the original image for reference.



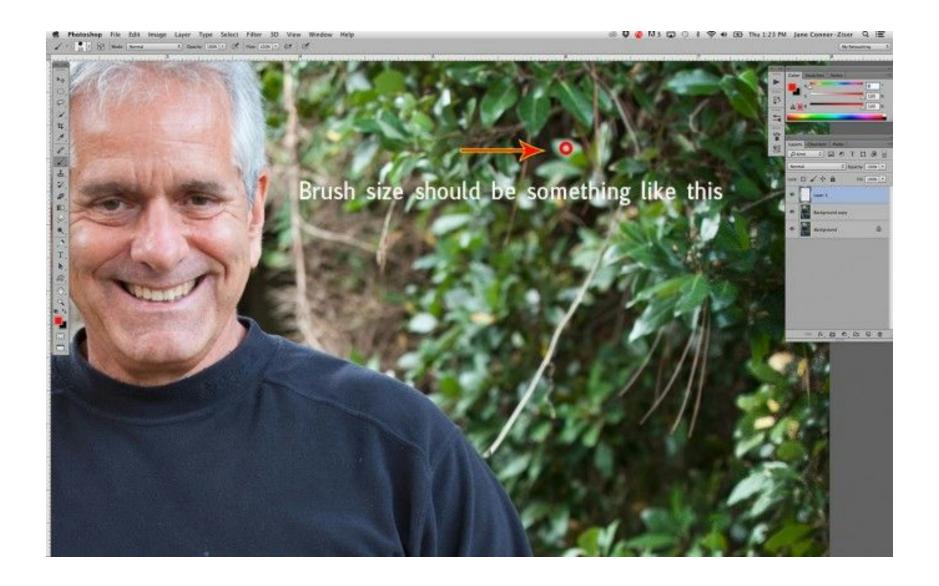
This allows me to temporarily create layers to work on that can be merged together or merged onto the Background Copy without losing track of the original image. The original image (Background) can also be used in an emergency as an "eraser" in the event I make a huge mistake and have to start over on some of the artwork.

Here is an example of how to use the Clone Stamp to fill in trees in a background giving the foliage a lusher look plus removing bare branches that draw attention away from the person in the image. The brush choice is Soft Round, the first brush in the Brush Panel, upper left. It will be used in Normal mode at 100% opacity and 100% flow. Aligned will be checked and Sample will be for All Layers.

A New Layer has been created over the Background Copy upon which the cloning will be applied.

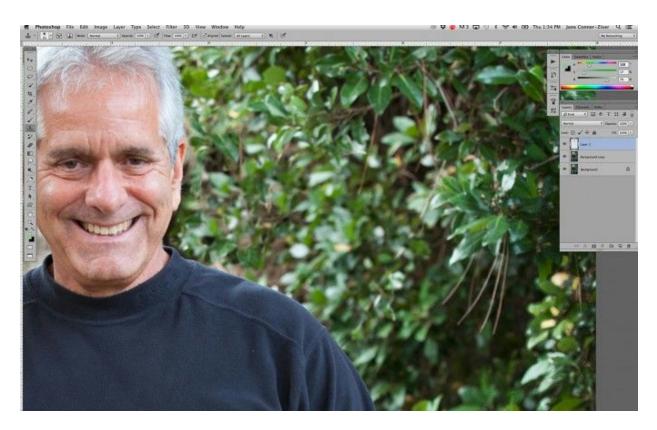
The brush size should be just slightly smaller than the general size of the existing leaves so that the shapes created with the clone will be similar to the others in the image.

The Soft Round brush has a feathered edge. The size icon represents where the feathered edge is at 50% opacity, so the effect extends beyond the icon – that's why the size should be slightly smaller than the leaves.



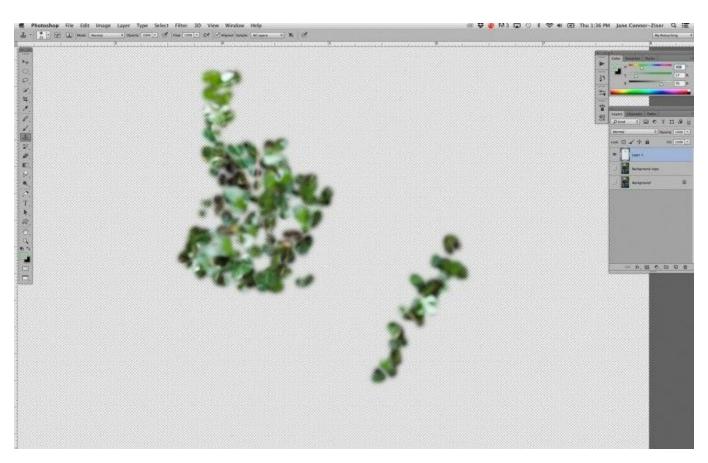
The work process was to sample a nearby cluster of leaves and paint random dots and squiggles over the bare areas.

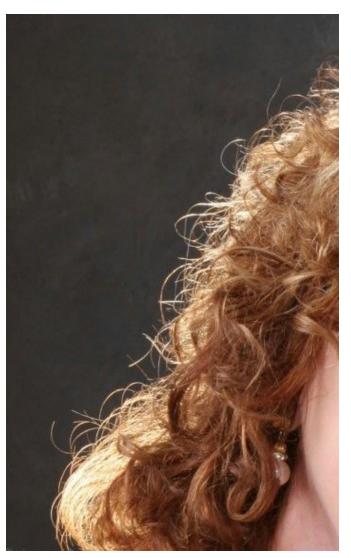
The source was changed several times in order to prevent obviously copied sections of leaves. The work took less than a minute to do and is effective in accomplishing the objective.



Turning off visibility of the Background and Background Copy allows us to see the artwork independently.

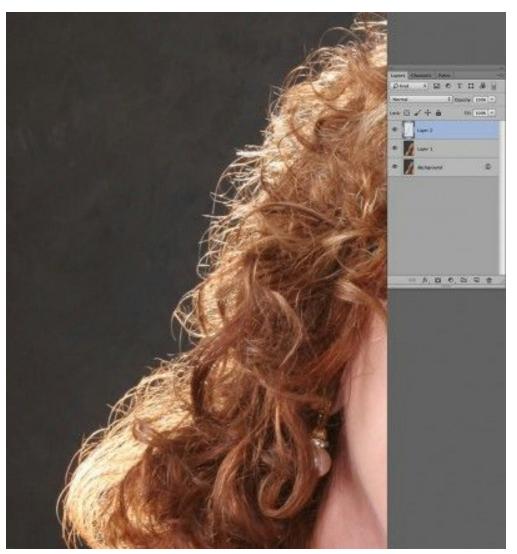
You can see that nothing special has been done; it was the size of the brush combined with multiple source samples that make the "blops" look like they belong there. Essentially we created leafy shapes using leaves.





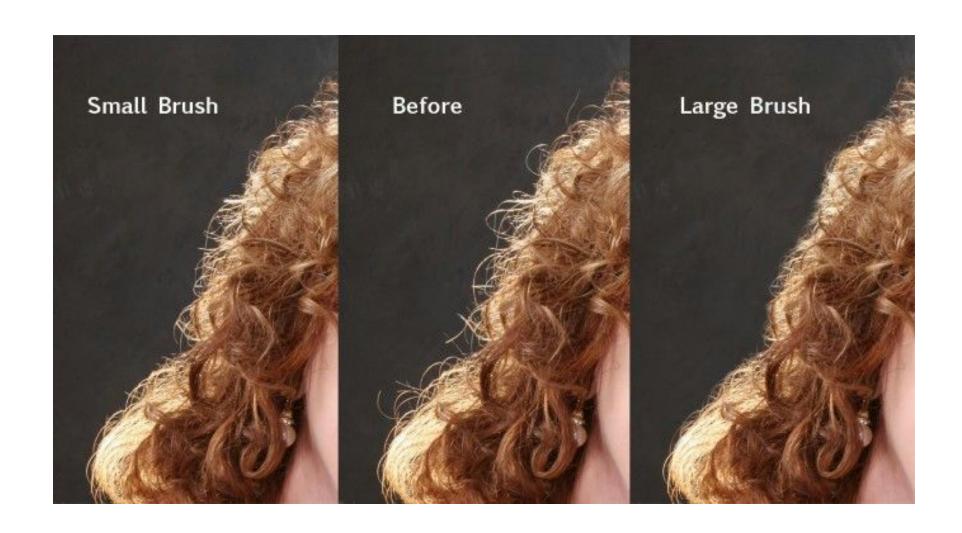
There are times when using the Clone Stamp more exactly produces the best result, like for removing stray hairs from backgrounds.

In order to recreate a neater edge to the hair that still looks natural, some hairs should be removed, others shortened and some left alone. This time the same Soft Round brush is just slightly larger than the width of the hair and the opacity is set to 100% Opacity and 100% flow. The cloning is applied to a New Layer with option to Sample All Layers selected in the Clone Tool Option Bar.



The artwork looks like this.

Using the smaller brush at 100% opacity and flow allows precise removal and distinct edges. Sweeping into a long hair at an angle gives it a point rather than a blunt edge and looks more natural. It is important to leave some stray hairs at the edges for a graceful transition. If they are all removed, the hair looks cut out. Some artists try to cut corners and sweep around the edge of the hair using a large brush but it doesn't compare to the professional look of the technique just described.



The third Clone Tool Technique I'll share is how to use it as a diffusion brush. Sometimes an object of rather similar color looks correct but would look nicer if it wasn't quite so sharply in focus, like skin tones or canvas backgrounds.



In this example the Soft Round brush size is larger than the areas that needed to be softened. The brush mode was Normal, the Opacity set to 10% and the flow at 100%. Aligned was unchecked enabling me to select the color and value I needed in a particular value plane of the face and use it repeatedly until the desired degree of softening was achieved. It's like painting with a selected color over the image, but using selected textures along with it. The cloning was applied to a New Layer and when the work looked completed the layer opacity was adjusted until the desired effect was achieved without going too far.

As are most of Photoshop's tools and functions, the Clone Stamp can be used in different ways to accomplish different looking results, making it a versatile tool to use for a variety of purposes. There are certainly more than space provides here – so please experiment and find your own favorite ways of using it in your art and retouching. Work on layers over the file so you can try new ideas, make mistakes and correct them easily, plus combine the work you do with the Clone Stamp with layer options like opacity, layer masks and blending modes.

Becoming an expert in using Photoshop beyond a means of running third party filters and plug-ins empowers you to create with control and confidence.



Jane Conner-ziser is an award winning photographer, digital artist, premier educator and independent consultant. With over 25 years of experience, 19 of them in digital imaging and evolving technologies, the techniques Jane developed for facial retouching and enhancement and portrait painting from photographs are widely emulated by photographers and digital artists worldwide through her classes, online training and educational products. You can learn more on her website.