

PHOTOSHOP 3: SELECTING & COMBINING

These instructions take you through the process of selecting a portion of one image, copying it into another image, and transforming and retouching the new, combined image.

For the purposes of this exercise, we'll be working with a main image (hands.jpg) and two additional images (cellphone.jpg and house.jpg). We'll cut out a part of hands.jpg and create two collages with it.

All of the images you'll use are located at <http://sorapure.net/images.html>.

Step 1: Go to <http://sorapure.net/images.html> and download hands.jpg, cellphone.jpg, and house.jpg. Open Photoshop and open hands.jpg.

Step 2: Unlock the background layer of hands.jpg by double-clicking on the layer and then clicking "OK" in the Layer dialog box. Give the layer a name ("hands").

Save the file in Photoshop format as "hands.psd". Be sure to choose "Photoshop" from the Format dropdown menu.

Selecting

There are many ways to select part of an image. Remember that the selection you make only applies to the active layer, so if you have multiple layers be sure that you know which layer you're working on. It's also important to remember that when part of an image is selected, dotted lines appear defining the edges of the selected area. Any actions that you perform (for instance, filters or effects) will be applied only to the selected area. To deselect an area, use Control-D (PC) or Command-D (Mac), or go to Select > Deselect.

We'll use the selection tools described below to select one of the hands in the image.

Selection tools:

The **Marquee tool** provides you with options for drawing rectangles, ovals, and lines. The Marquee tool is located in the top left corner of the Toolbox (a square with dotted lines). Under the rectangular Marquee tool are options for the elliptical tool and for single pixel tools.

The **Lasso tool** allows you to draw a selection freehand. The Lasso tool is located directly beneath the Marquee tool in the Toolbox. Under the Lasso tool are options for the Polygonal Lasso and the Magnetic Lasso tools.

- Use the **Polygonal Lasso tool** to draw a shape with straight line segments. Click on the layer to indicate the beginning and end points of the segments; double-click to close the selection.
- With the **Magnetic Lasso tool**, the border snaps to the edges of defined areas in an image. In other words, you can use the Magnetic Lasso tool to draw a color-defined selection on top of an image. Click along the color-defined borders of the image to attach fastening points and create a selection. Double-click to close the selection.

The **Magic Wand tool** lets you select a consistently colored area. The Magic Wand tool is located directly beneath the Move tool in the Toolbox. Once you've chosen the Magic Wand tool, you can specify the

tolerance, or color range, in the option bar across the top of the window. Enter a low value to select colors very similar to the pixel you click on, or enter a higher value to select a broader range of colors. To select only adjacent areas using the same colors, select Contiguous; otherwise, all pixels in the image using the same colors will be selected.

The **Quick Selection tool** combines the Magic Wand and the Magnetic Lasso tools to allow you to click and drag to make selections with color-defined borders. It works really well with some images, and not well at all with others.

With all selection tools, you can remove parts of the selection by holding down the Option key and drawing or clicking. For instance, if you draw a selection with the Lasso tool and then decide you want to deselect part of it, hold down the Option key and draw out the part you want to deselect. You can add to the selection by holding down the Shift key.

Step 3: Use the selection tools to select one of the hands. You may need to also use the magnifying glass to magnify the image so that you can get a clearer view of the pixels that you are selecting and deleting.

Altering the selection

Once you've made a selection, you can make specific alterations to only this part of the image. You can adjust the color, apply a filter effect, even change the size of the selected area—all without affecting the rest of the image.

Step 4: Make changes to the selected area by using the options under Image > Adjustments (for instance, Color Balance, Brightness/Contrast, Hue/Saturation) and by experimenting with different filters (under the Filters menu). Use the History palette to undo any changes you've made.

Dealing with Edges

Note that the hand has some blue pixels around the edge from where the skin initially blended with the sky. Let's get rid of those pixels.

Step 5: While the hand is selected, go to Select > Refine Edge. Use the magnifying glass to zoom in, and experiment with the various settings there. The best one for this case is probably Decontaminate Colors, and Output to a New Layer.

Note that you can also use the Blur and Smudge tools in the toolbox to adjust the colors of the pixels on the edges.

Copying and deleting the selection

You can copy the selected area to use in another image, and you can delete the selected area by hitting the Delete key. When you copy a selection, it's placed on the clipboard and can be pasted into another image or used to create a new image.

Step 6: Copy the selection (Control C) and then delete it. Create a new Photoshop file (File > New). Accept the default size that's offered. Paste the selection into this new file (Control V). Save the new file as "onehand.psd".

Combining Images

Next we'll take the single hand that we cut out of "hands.psd" and make a couple of collages with it.

Step 7: Open "cellphone.jpg". Unlock the background layer of cellphone.jpg by double-clicking on the layer and then clicking "OK" in the Layer dialog box. Give the layer a name ("phone").

Save the file in Photoshop format as "cellphone.psd".

In "onehand.jpg", choose the black arrow tool and drag the hand from this image into "cellphone.jpg". Notice that this automatically creates a new layer specifically for the hand in "cellphone.jpg".

Using the Transform commands

You can transform a selection or a layer by using the Transform command (Edit > Transform). There are options to change the scale, rotate, skew, distort, flip, and adjust the perspective of the selection or layer. The Free Transform command [Edit > Free Transform, or Control-T (PC) or Command-T (Mac)] provides you with the scale and rotate options; rotate the selection by moving the cursor over one of the edges of the selection or layer, until the cursor turns into a rounded arc with arrows.

To constrain proportions as you adjust the scale of a selection or layer, hold down the Shift key while you change the scale.

Once you've started using the transform command, you cannot perform any other actions until you've finished with the transformation. You finish the transformation by hitting the Return key or by selecting the Move tool (or another tool in the Toolbox). If you want to undo the transformation, use Control-Z (PC) or Command-Z (Mac) to undo this step, or use the History palette to undo the step.

You can adjust the size and placement of the individual layers that you now have in "cellphone.psd". For instance, you can make the hand smaller and fit it in the screen of the cellphone, or you can make the hand much larger, reduce the size of the phone, and put it in the palm of the hand. You can also adjust each layer using color adjustments or filters.

Step 8: Experiment with the possibilities of transforming each layer. Save the file.

Compositing

Compositing refers to the process of making two images blend together so that their combination looks realistic. It is also sometimes called photomontage. In Photoshop, you can create composites by applying filters, effects, and color adjustments to the images you're blending together. Make sure that you're working on the proper layer as you apply effects and make adjustments.

Step 9: Open “house.jpg”. Unlock the background layer by double-clicking on the layer and then clicking “OK” in the Layer dialog box. Give the layer a name (“house”). Save the file in Photoshop format as “house.psd”.

Drag the hand layer from “cellphone.psd” into “house.psd”.

Because the arm of the hand ends in a straight edge, it would be easy to position the hand from one of the edges of the picture or to have it emerge from one of the windows of the house. But if you want the hand to appear to grow out of the ground or emerge from the mountains or the clouds, you’ll have to blend the image in a bit.

You can use several tools in Photoshop to make the edges of color on a layer blend better with the background colors. The raindrop icon directly under the Eraser tool in the Toolbox holds a set of tools—the Blur tool, the Sharpen tool, and the Smudge tool—that can help with compositing. The Blur softens hard edges or areas in an image to reduce detail. The Sharpen tool focuses soft edges to increase clarity or focus. The Smudge tool simulates the actions of dragging a finger through wet paint.

Step 10: Experiment with blurring, sharpening, and smudging the edges of the arm.

Clone Stamp & Healing Brush

The **Clone Stamp tool** (keyboard shortcut S) and the **Healing Brush tool** (keyboard shortcut J) allow you to grab part of an image and clone or repeat it elsewhere on the image. To use either tool, first hold down and release the Alt key to set the target area that you want to clone or repeat; then click and drag on the canvas where you want to place the repeated image. (Easier to do than to explain in words!) These tools provide the foundations for fixing blemishes and air brushing photos.

Step 11: Experiment with the Clone Stamp and Healing Brush tools.

You can take advantage of layer stacking in order to put a new layer on top of the “hand” layer. In this new layer, you can copy elements from the main “house” layer using the Clone Stamp, the Lasso tool, or other tools. For instance, you can copy some weeds from the “house” layer and put them on the new layer above the hand.

Step 12: Create a new layer in the Layers palette and call it “top”; make sure that it’s stacked above both the “hand” layer and the “house” layer.

Click back on the “house” layer and use the Clone Stamp or Lasso tool (or another tool) to grab a section of the “house” layer. For instance, if you want to put some weeds on top of the hand, hold down the Alt key and click in the weed area.

Click on the “top” layer and drag (or paste) this selection into the “top” layer. Experiment until you get a realistic looking result.

Save the file.

Cropping and Resizing

The Transform command changes the scale of layers or of selected portions of layers. If you want to change the size of the entire image, there are several ways to do so.

First, it's helpful to have the rulers viewable so that you can see the dimensions of the image. To view the rulers, go to View > Rulers. Rulers will appear along the top and left side of the window.

You may also need to change the units of measurement on the rulers from inches to pixels. To do this, be sure that the Info palette is open (Window > Info). Find the x and y on the Info palette and click on the tiny arrow next to the plus sign. You should get a dropdown menu from which you can choose pixels.

The **Crop tool**, on the left side of the Toolbox beneath the Lasso tool, allows you to crop the entire image—that is, all of the layers in the Photoshop file will be affected by the Crop tool. To use the Crop tool, simply draw a square around that part of the image that you would like to preserve. After you release the Crop tool, you can resize the cropped area by dragging on the small squares along the crop border. Hit Return (or click on the Move tool) to apply the crop. As usual, if you want to undo this step, use Control-Z (PC) or Command-Z (Mac), or use the History palette.

Step 13: Crop the image.

You can also resize an image without cropping it. Resizing an image to make it larger will sometimes result in a distorted and fuzzy image. It's generally better to shrink a large image than to try to expand a small image.

To resize an image, go to Image > Image Size. The width and height of the image appear in the resulting dialog box (select pixels as the unit of measurement). Toward the bottom of the dialog box is a Constrain Proportions check box. You usually want to have this checked in order to avoid causing any distortion in the image. Simply type in a new dimension for the width of the image, and if Constrain Proportions is selected it will automatically yield a new height dimension for the image (or vice versa).

Step 14: Resize house.psd to make it a bit smaller.

Save and finish.