Adobe Photoshop
Introduction Part 2

(Selections - Making and Manipulating Selections and Masks)
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Overview

This workshop will introduce the concept of using selections and layer masks to manipulate images in Photoshop. Selections can be used to modify specific areas of a digital image, make more accurate selections within an image, and modify an image without affecting the original. In a similar fashion, adjustment layers allow users to dramatically alter the color settings of a digital image without changing the original.

Source files required to follow along with the exercises can be downloaded here.

Objectives

- Understand Selections
- Create, Modify and Clear Simple Selections
- Create Complex Selections
- Use adjustment layers to color correct portions of an image
- Understand and Create Masks

Photoshop Fundamentals

New to Photoshop?

Some of the exercises in this guide build on other Photoshop skills. If you are new to Photoshop, you might want to check out our Photoshop Introduction Guide.

Basic Photoshop Selections

What is a Selection?

Selections are how you tell Photoshop what part (or what pixels) of an image you want to manipulate. Once the pixels are selected, they can be replaced, cut, copied, filtered or any number of other manipulations without affecting those pixels which are ‘masked’ off.

Photoshop displays a selection with a moving dashed outline often referred to as the ‘marching ants.’

Most of us are familiar with Microsoft Word or similar word processing programs, so let's look at it in that light. If you want to change part of a sentence, i.e. bold a word or delete a few letters, first you have to tell...
Word what part of the sentence you want to work on. You do this by highlighting certain words or letters or entire sentences before you do anything. Selections follow the same principal, but instead of groups of letters, you select groups of pixels.

**Making Simple Selections**

The easiest way to make selections is with the basic marquee tools, specifically the rectangular and elliptical marquee tools. These tools can be hidden behind each other, to display them hold the left mouse button down over the rectangular marquee tool (or whichever selection tools was last chosen).

The rectangular marquee tool allows you to select a rectangular or square area of pixels. The elliptical tool allows a similar selection of an elliptical or circular area. Creating a selection is as easy as choosing the selection tool best suited for the area you need to select, clicking with the left mouse button, and dragging with the mouse.

The shift key can be used while creating a selection with the rectangular and elliptical marquee tools to constrain the selection to a perfect square or circle.

**Clearing a Selected Area**

Deselecting an area can be accomplished a couple of ways. One by single-clicking inside a selection with a selection-tool chosen. Another way is to simply use the Select > Deselect menu command (or Ctrl+d for short). This menu can also be access by right-clicking inside a selection.

**Exercise**

1. Open the file traffic_lights.jpg
2. Select the rectangular marquee tool.
3. Using the rectangular marquee tool, select and area around the bottom two lights.
4. Select the brush tool and make sure your selected color is black.
5. Paint inside the selection, overwriting the bottom two lights with black paint.
6. Deselect the area by hitting Control + D.
7. Select the elliptical marquee tool and use it to create a circular selection around the top light.
8. Change the color. Use Image > Adjustments > Hue and Saturation and move the top ‘Hue’ slider bar until you get a bluish color where the red once was.

Adding, Subtracting, Inversing and Feathering Selections

Often you will need more selected than a single rectangle or ellipse. To add to a selection, hold down the shift key while clicking and dragging further selections, or click on the ‘Add To Selection’. To subtract, hold down the Alt key or select the Subtract from Selection option.

You can also inverse the selection, meaning that whatever was selected is now unselected, and the rest of the image is selected. This can be done by choosing Select > Inverse or the shortcut Shift+Control+I.

By default, selections have hard edges. To blend or soften those edges with the surrounding area, you can feather the selection. This can be achieved by choosing Select > Modify > Feather. The higher the feather radius, the ‘softer’ the edge will be and the more it will blend with its surroundings.
Exercise

1. Create a new, blank canvas
2. Experiment with creating, adding to, subtracting from, and feathering selections. Use the brush tools to paint inside selections to see the effect.

Irregular Photoshop Selections

Lasso Tool

The lasso tool allows you to ‘draw’ the selection freehand. Without a tablet, it can be difficult to be precise with the mouse, but it is very nice for quick, rough selections. The selection will close itself whenever the mouse button is released.
Polygonal Lasso Tool

The polygonal lasso tool allows you to create a selection using segments, creating a unique polygon shape for your needs. The first mouse click will create a starting point and each subsequent mouse click will end one segment and begin another. Double-clicking will create a final segment, joining with the starting point. Though it can be difficult to create fluid shapes, the polygonal lasso tool offers precision in selections.

The delete key can be used while creating a selection with the polygonal lasso tool to ‘back up’ and delete the last created joint between segments.

Magnetic Lasso Tool

Like the polygonal lasso tool, the magnetic lasso tool creates a selection using segments. The difference is that the magnetic lasso tools attempts to guess where the selection segments should be based upon a contrast in the pixels of the image. Use the contrast option in the options bar at the top to control how loosely or strict Photoshop will follow a given contrast.
Exercise

1. Open the file gold_leaves.jpg
2. Practice creating selections with the lasso, polygonal lasso, and magnetic lasso tools.

Magic and Quick Selection Tools

Magic Wand Tool

The magic wand tool is similar to the magnetic lasso tool in that Photoshop attempts to guess what you are trying to select based on the similarity of color in nearby pixels. To use the tool, simply choose a pixel inside the area you wish to select. Photoshop will examine the colors of nearby pixels and select them if they are close to the color you selected. This is a great tool for selecting irregular shapes that have a consistent hue. How ‘close’ the colors need to be to each other is controlled by the tolerance option. The lower the tolerance, the stricter Photoshop is when deciding how similar pixels need to be.
Quick Selection Tool

Similar to the magic wand tool, the quick selection tool allows you to ‘paint’ a selection. That selection uses a process similar to the magic wand tool to expand to the high contrast areas. You can modify the size of the brush just as you would with any other Photoshop brush tool.
Exercise

1. Open the file *eggs.jpg*
2. *Practice creating selections* with the magic wand and quick selection tools.

Quick Masks

Quick masks are another way Photoshop allows you to view and manipulate selections. To view quick masks, create a selection with any standard selection tools and hit the quick mask button.

Much of the image may look red now. This is how Photoshop displays the areas which have not been selected. The clear area is what is inside the selection. What is powerful about this mode is that all Photoshop brush tools are now available to add to or subtract from the red ‘unselected’ area. Deselect the quick mask option to return to normal mode and the marching ants of the regular selection view.

Exercise

1. Open the file *fruit_tree.jpg*
2. Use the selection tools you’ve learned to *select everything but the fruit.*
3. Select *Image > Adjustments > Hue and Saturation*
4. Move the *Saturation slider* all the way to the left to remove all color from the image, except where the fruit is.
Masks

As we learned in the previous workshop, Photoshop uses layers to create images. Remember that layers can be thought of as sheets of clear acetate stacked on top of each other. Each of these sheets, or layers, may have an image, a part of an image, text, or even a shape on it. When these layers are stacked on top of each other they produce a complete image.

You can think of a layer mask as an opaque sheet of paper placed between the acetate layers. You select the part of the mask layer that you want to become transparent, and everything else is hidden from view. By using masks you do not actually delete any of your images and can easily go back and edit it. If you erase or crop an image you will no longer be able to edit the original image.

Exercise

1. Open the files gold_leaves.jpg and eggs.jpg.
2. Select. Use Select > All (or Control+D as a shortcut) to select the entire gold_leaves image.
3. Copy and paste. Copy the gold_leaves image and paste it on the eggs image.
4. Select the gold leaves layer by holding Control and selecting the small image of the gold leaves in the layer window.
5. Crop the image by selecting Image > Crop.
6. Select the leaves. Using your selection tools, select the leaves in the gold leaves image.
7. Create a Mask. With the leaves selected, choose Layer > Layer Mask > Hide Selection. Now the leaves are masked and we can see the eggs underneath them.
8. Practice using the brush tools to modify the mask in the layers window. Select the Brush tool. Select the mask layer and paint with white or black to show or hide the layer.

Photoshop Resources

Adobe Photoshop is constantly changing and there is a huge variety of great free walkthroughs and tutorials online. Additionally, we offer a few other guides for various Photoshop tools and abilities.

Adobe Photoshop Guide - Introduction: basic fundamentals of Photoshop for those just getting started.

Adobe Photoshop Guide - Clone Stamp Tool: allows dramatic restoration and altering abilities, and the healing brush, which allows pixels to be blended with pixels in a different area of the image.