

04-03-Exercise (VARIOUS TYPES OF SELECTIONS ON THE SHAKER BARN)

We'll learn several ways of selecting parts of images, from crude to very refined

OPEN FILE

- > First, check the pixel dimensions. The horizontal pixel dimension = 4272 px
- > Copy the background (BG) layer to create a duplicate second layer and delete BG to white
- > Our first use of the **selection** probably near the upper right of your tool palette and has two choices
- > One choice is the **rectangular marquee** and one is the **elliptical marquee**. The elliptical can be constrained in its proportions to 1:1 (aspect ratio) effectively turning this marquee into a **circular marquee**.
- > These are good for selecting rectangles, ellipses, or circles.
- > **Feathering** of the selections is possible either before the selection is made, or, the selection can be feathered afterwards.

SELECT USING MARQUEE AND POLYGONAL

- > We first **selected** a rectangle around the base of the light monitor on top of the barn as its general form is reactangular in this perspective (although, we understand the monitor to be cylindrical).
- > As this selection is activated (sometimes I can it *crawling ants*) we can add to this selection either by holding down Shift button or by toggling in the top menu to add to selection. Now a second selection can be made which will cumulate on top of this one, making a single larger one.
- > Using the elliptical selection tool, now draw an ellipse around the roof of the monitor, which, from this angle, appears to be an ellipse. Ellipses and circles are drawn by placing the first point at a theoretical intersection (corner) of a rectangle ex-scribed around the ellipse.
- > Now we've added two selections.
- > Let's add another one. Either toggling to **add to selection** or holding Shift button, switch tools to the **Polygonal selection tool**
- > Now select (draw) by clicking around the perimeter of the small steeple on top of the monitor. It's trapezoidal in shape. Double click at end of the operation, and now you should have added three selections together.
- > Switch back to **elliptical selection**
- > Set ratio to 1:1 and using the same method as the ellipse, select the small ball at the top of the steeple
- > You should have added four selections to each other at this point, in an effort to isolate the light monitor part of the image onto a separate layer to be manipulated.
- > IMPORTANT: As this selection is running (crawling ants), go to menu above Select > Save selection and *save this selection by giving it a name!*
- > Now deselect (Command-D)
- > Now test retrieving the selection by going to Select > load selection and choose this out of the drop-down toggle. You'll see the complex selection is now running again.
- > Deselect
- > There's another way to retrieve this selection: go to your **channels palette** and look in there. The selection you just saved will be listed there with the name you gave it. It's effectively an **alpha-channel** (a transparency channel). You can click on it in channels and then choose turn channel into selection at the bottom of this palette. You've retrieved your selection two ways.
- > SAVE

SELECT USING PEN TOOL

- > Let's use pen tool to make a very accurate selection. Click on the pen tool. This is a **vector tool** which will create a **path**, and the path will be named in the path palette to save it. The path can then be activated and de-activated as needed. If activated, the path can be turned into a selection by clicking on the tiny button below called **turn path into selection**.
- > We're going to go around the lower level of the barn making very accurate segments of curves to approximate the gently curving round roof of this building (which at this viewing angle, appears to be elliptical).
- > Start with a click at the left near the ground, and click again straight up the wall. Okay, easy. You've selected straight up along a straight line to bottom of cornice. Now cornice is curved.
- > Your next click will be either part way or fully around the curve, and as your finger is still pressed down on mouse, a **Bezier handle** is drawn out and manipulated. The Bezier tool consists of a control point and two handlebars springing out in the leading direction and the trailing direction.

NOTE: A Bezier is a mathematical calculation that changes the degree and amplitude of curves on-the-fly, and is very useful in computer modeling and photoshop. It's named for a mathematician

named Bezier.

- > You should be able to establish a perfect matching curve to your source image curvature. Make the second click to establish this.
- > Compound Bezier curves are tricky and not all that usable. What you have to do to keep moving around this curved object to make your **path** is to disengage your forward Bezier handlebar after every operation. What this does is allows your next operation (whether Bezier or straight pen tool) be tangent to the previous path segment. This takes practice. Basically you hold down Option (Alt on PC) while clicking the actual control point. Your forward or leading handlebar should disappear.
- > Now, as your path is still being drawn, take the next step and do another long shallow curve adjusting the Bezier till it's just right, then clicking. Now, again, to keep moving forward, you have to Option click the control point to make forward handlebar disappear.
- > Let's say your control point on the vector path is not quite right (it's not quite perfectly on top of the source imagery). We want to move the control point slightly on-the-fly. Hold down Command (Control on PC) and click on control point in question. Your pen tool icon will change from a pen point to an arrow. Now you can move that control point to wherever. A click just like that on the Bezier handlebar will allow you to fine-tune that as well.
- > You'll work you way all the way around your path so that it connects onto itself. You'll know it wants to loop when a small circle appears next to the pen nib. Go ahead and click to loop your path.
- > You MUST go into the **paths palette** and save this path or you cannot get it back. It will be listed as Work Path. Double click on this and give it a name, like, **stone lower portion of barn**. So you'll know what it is. You've now created a vector path which very accurately isolates a portion of your image. **SAVE**.
- > At bottom of Path Palette, choose **turn path into selection**.
- > With the crawling ants now crawling, go back to your Layers Palette and, making sure that you're operating on the correct layer, either Command-J (Control-J PC) this selection to its own layer, or mask this selection off by clicking the **add layer mask**.
- > In either case, you have isolated a portion of your image very accurately. If you did it using a mask, now you have an image and a mask joined together in one layer. White means opaque; black means transparent; gray means any of 254 layers of transparency between opaque and transparent (256 total levels of gray).
- > This kind of operation gives you an incredible amount of control over your image. You may operate on the image part of your mask OR the mask part of your mask. If you operate on the mask, think of it like this: **you are painting with transparency**.... and all of this is non-destructable and reversible.
- > **SAVE**
- > Now we used four selection tools to select the monitor, and we've used the pen tool to select the stoney lower portion of the barn. We can save both of those selections (they have to be running the crawling ants) on different layers, and also have maps of them in the **channels palette** so we can always get them back.
- > You can practice more by selecting the upper clapboard portion of the barn on its own layer, and also try to select the **shadows only** on both portions of the barn using pen tool.