

In-Class Exercise 03 – Inkscape & GIMP

Topics: Inkscape & GIMP

Objectives:

This exercise is designed to familiarize you with Inkscape & GIMP, the two digital image programs we'll be using for Project 1. Some example submission files accompany this document.

Reminders:

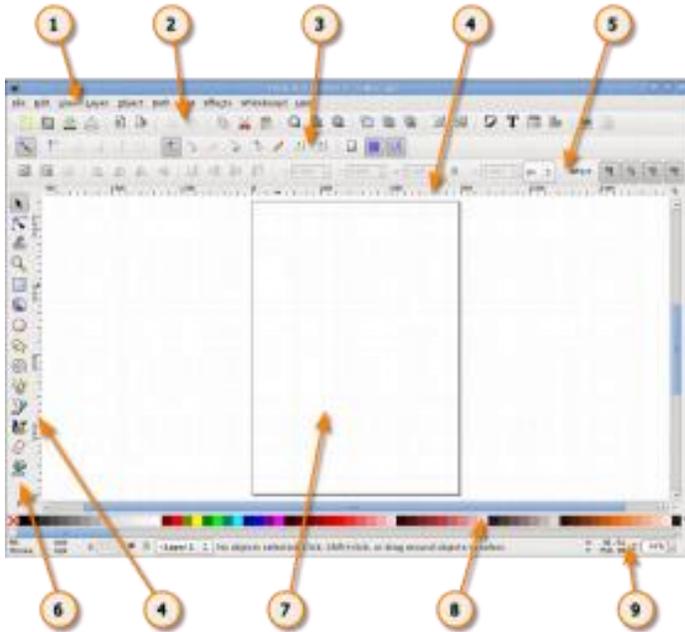
- Please don't hesitate to call on the instructor if you need help. You are also welcome and encouraged to confer with your classmates if the instructor is busy helping somebody else.
- You are welcome to take breaks at your discretion while working on this assignment. However, you are not allowed to leave for the day until the class period has ended or you have completed the assignment and turned it in.
- The instructor is always happy to look over your work upon request.

Please read each step carefully before completing it.

Instructions:

Part I: Inkscape

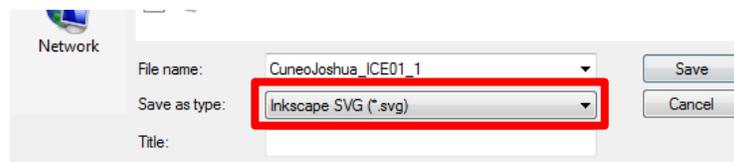
1. Open up Inkscape. You should see something like the following (arrangement may vary):



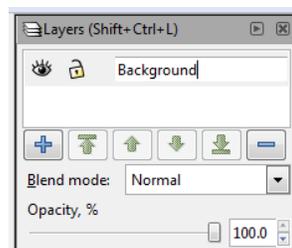
1. the **Menu** (at the top of the window)
2. the **Commands Bar**
3. the **Snap Controls Bar**
4. the **Rulers, Guides and Grids**
5. the **Tool Controls Bar** (also called just **Controls Bar**)
6. the **Toolbox**
7. the **Canvas**
8. the **Color Palette**
9. the **Status Bar**

(**OPTIONAL:** A more detailed breakdown of the Inkscape interface is available at <http://en.flossmanuals.net/inkscape/introduction/the-inkscape-interface/>.)

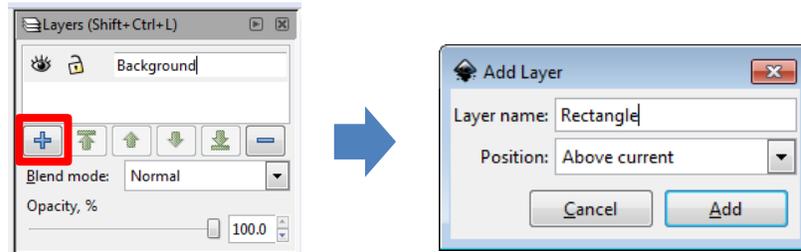
2. Save your file as **LastnameFirstname_ICE03_Inkscape** in Inkscape SVG format. **Save early and often.**



3. Show the Layers window (**Layer -> Layers**). Rename Layer 1 by clicking on "Layer 1" and typing in "Background".

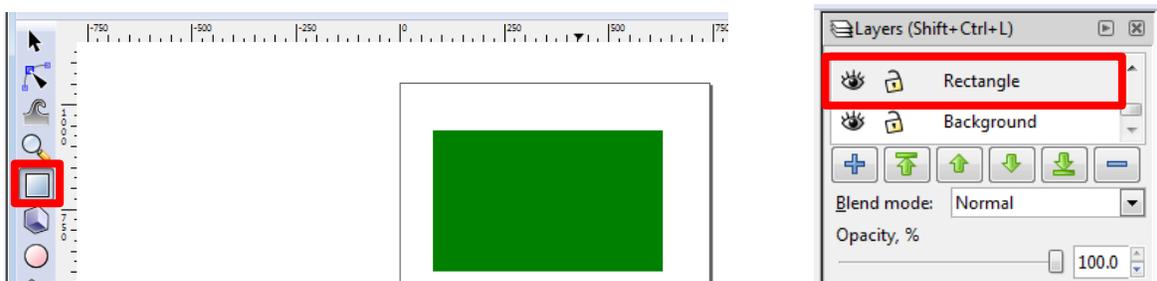


4. Add a new layer (“+” symbol in the Layers window) and name it “Rectangle”.

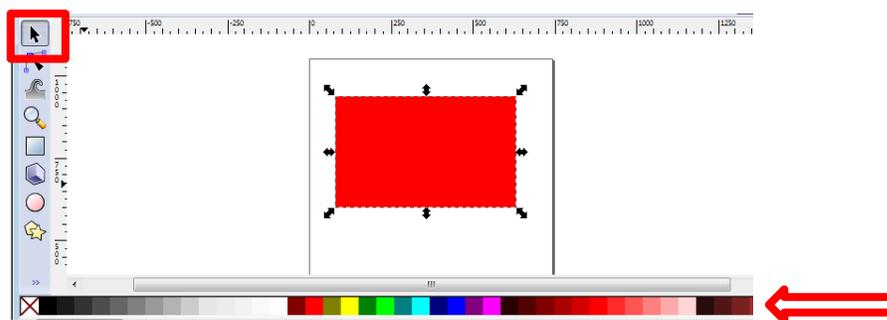


5. **With the Rectangle Layer selected**, choose the Rectangle drawing tool from the bar on the left. Draw a rectangle of any size anywhere on the page.

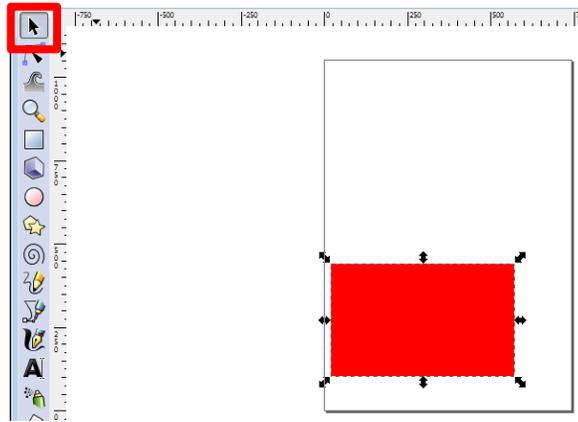
NOTE: All objects must be inside the white rectangle, since this represents the drawing canvas. Anything outside the canvas will not be visible when you convert to PNG later.



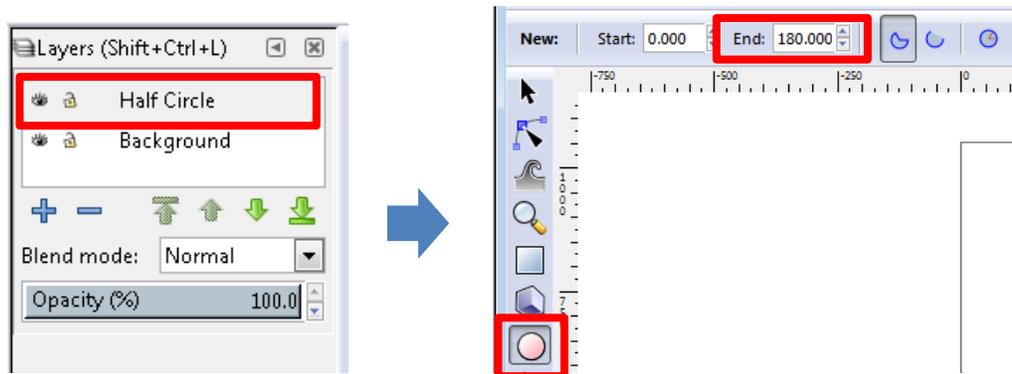
6. Choose the Arrow tool and select the rectangle you drew. Change the rectangle color by choosing any color from the color palette at the bottom of the window.



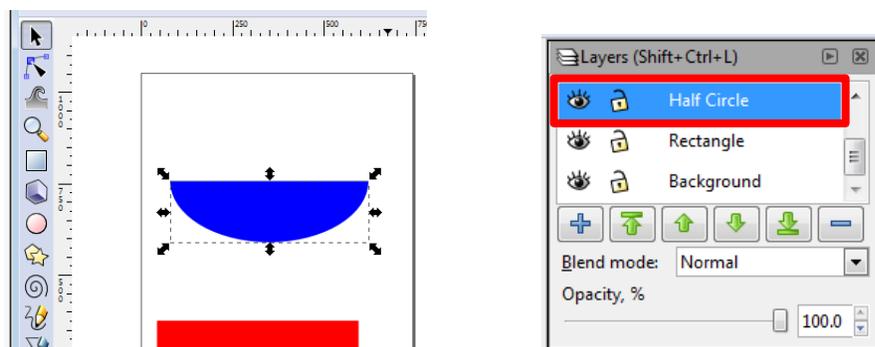
7. With the arrow tool still selected, click anywhere in the middle of your rectangle and drag it to a different part of the page.



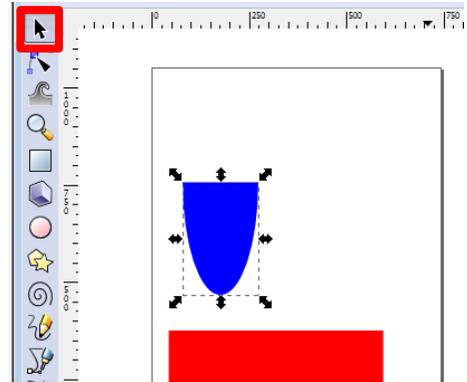
8. Create a new layer called "Half Circle".
9. **With the Half Circle layer selected**, choose the Circle drawing tool from the bar on the left. In the scroll boxes at the top, change "End" to 180.



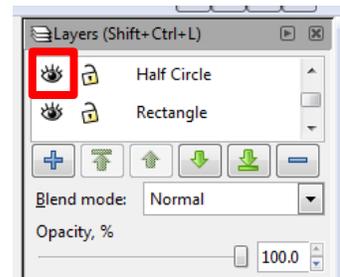
10. **With the Half Circle layer selected**, draw a half circle anywhere on the screen. If your half circle is the same color as your rectangle, change it.



11. Select your half circle with the Arrow tool. Click and drag on any of the eight highlighted corners to change the size.

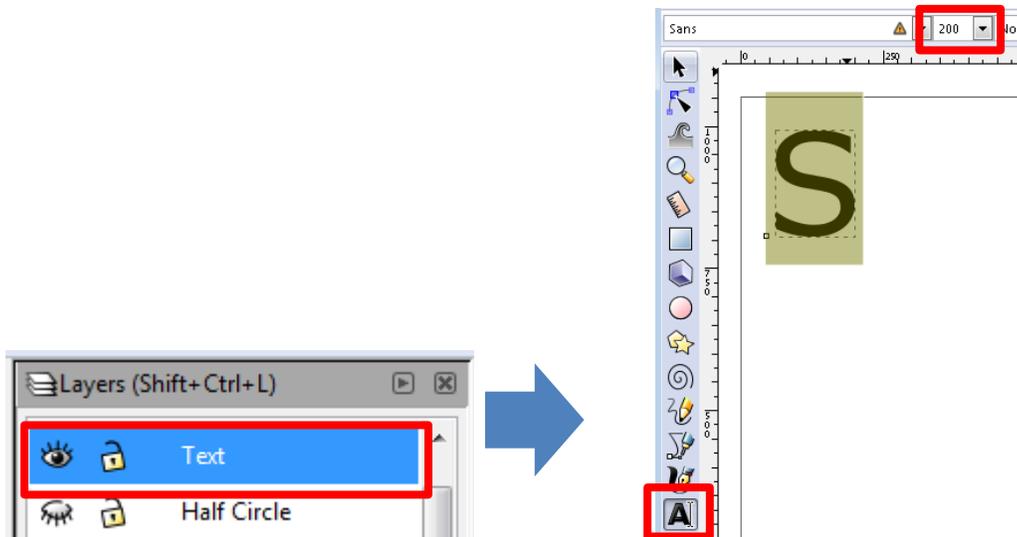


12. Hide your half circle layer from view by clicking on the eye icon next to the Half Circle layer.

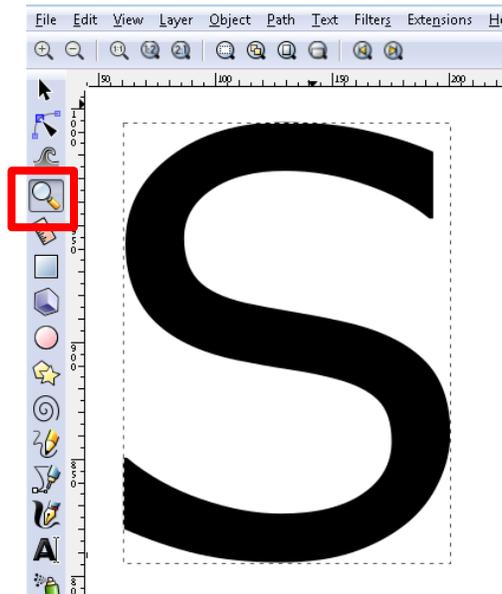


13. Create a new layer called "Text".

14. **With your text layer selected**, select the Text tool and place the cursor anywhere on your page. Type a capital "S", highlight it, and change the font size to 200 (type 200 in the font size box and hit Enter).



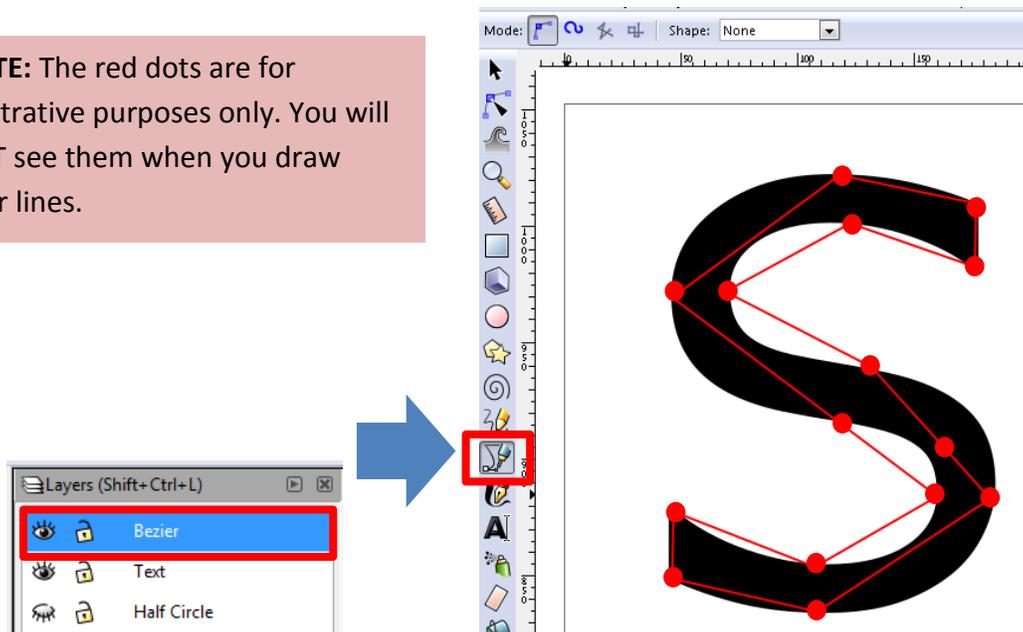
15. Zoom in on the S using the Zoom tool (magnifying glass icon).



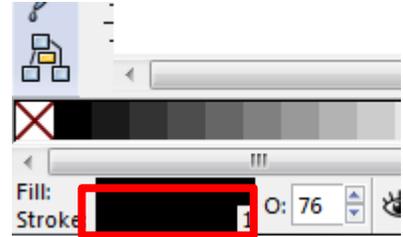
16. Create a new layer called “Bezier”.

17. **With your Bezier curve layer selected**, select the Bezier Curve tool. Using this tool, draw a series of straight lines connecting the various quarter-circle curves of the S. To draw a line, click on a point, move the mouse to the next point, click, etc. as if you were playing connect-the-dots. The red dots show about where you should click. **Do not click and drag.**

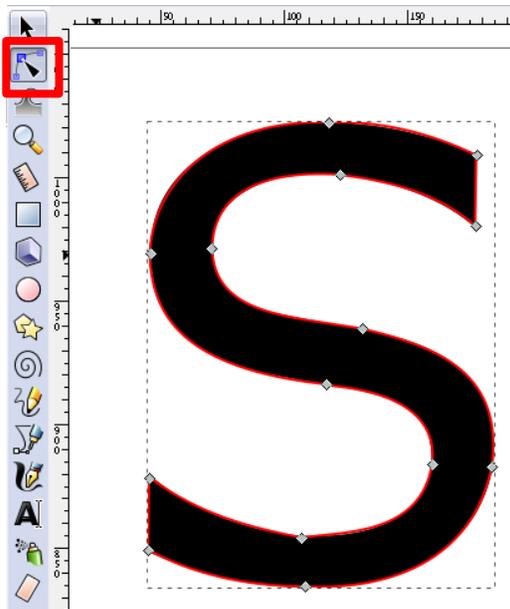
NOTE: The red dots are for illustrative purposes only. You will NOT see them when you draw your lines.



Optional: You can change the color of your Bezier curves by selecting the arrow icon, clicking on the curves, selecting the color next to “Stroke” in the bottom left-hand corner, and using the color menu that appears on the right.

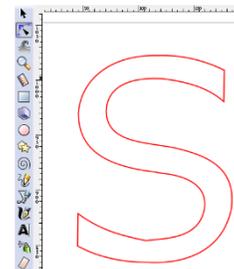


18. Click on the “Edit paths by nodes” tool. Click and drag each straight line from the previous step so that it conforms to the outline of the S. Note that clicking on different parts of the line causes it to bend in a different but very natural way. Try to get the curves to match the S *as closely as possible*, but don’t worry if it’s not exact.



NOTE: Most of your lines should be bent to fit the curve of the S. Do not try to approximate with straight lines!

19. Now hide your Text layer, so all you see is the Bezier curve outline.



20. Check that the following are true:

- Background layer is visible
- Rectangle layer is visible
- Half Circle layer is hidden
- Text layer is hidden
- Bezier layer is visible

21. **Save your file again.**

22. Using Lynda.com, the web, or trial and error, learn about one feature in Inkscape that has not already been covered in class so far. Some examples of a new feature are

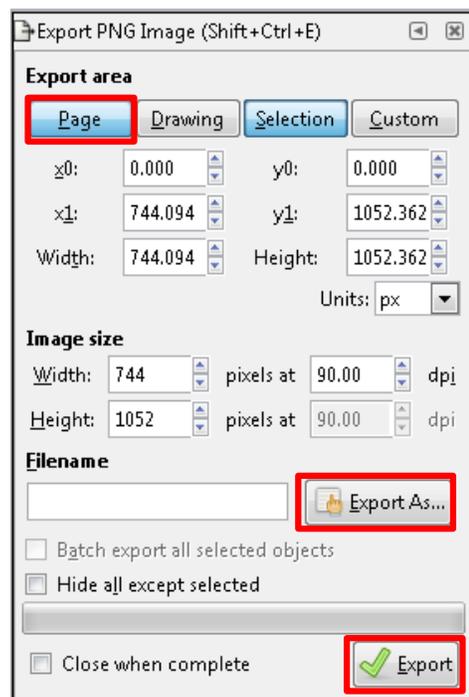
- A new type of shape
- A new option from one of the pull-down menus
- A new way to manipulate an existing shape
- A new process for changing or adding color

23. Create a new Inkscape layer called **New Feature** and draw something that demonstrates your new feature. (If your feature cannot be illustrated in this way, please choose a different feature.) Keep this layer visible.

24. **Save your file again.**

25. Export your file as a PNG file with the name **LastnameFirstname_ICE03_Bitmap**.

File -> Export PNG Image..., then click the **Page** button, click **Export As...** to browse to the desktop, type in the file name, and click **Export**.

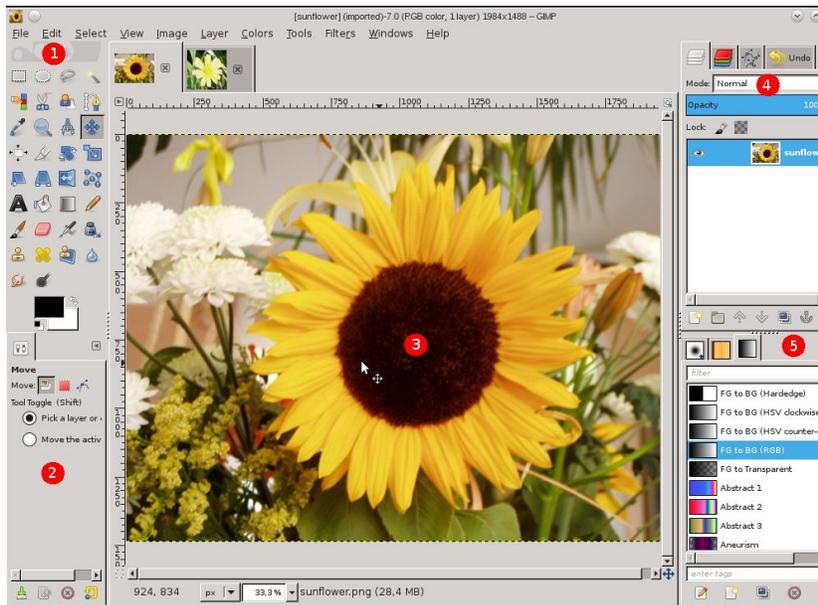


26. Download and open the the **ICE03_Template** file and save it as **LastnameFirstname_ICE03** (ex. CuneoJoshua_ICE03). Fill out the questions for the new feature you learned. (Remember the rules of good grammar!) Be sure to include the following:

- a. What is the feature?
- b. How do you use the feature, i.e. where in Inkscape can you find this feature?
- c. What effect does this feature have when you apply it to your image?
- d. A complete URL to the page where you learned about this feature.

Part II: GIMP

27. Open up GIMP and change to Single Window Mode (**Windows -> Single Window Mode**). You should see something like the following (arrangement may vary):



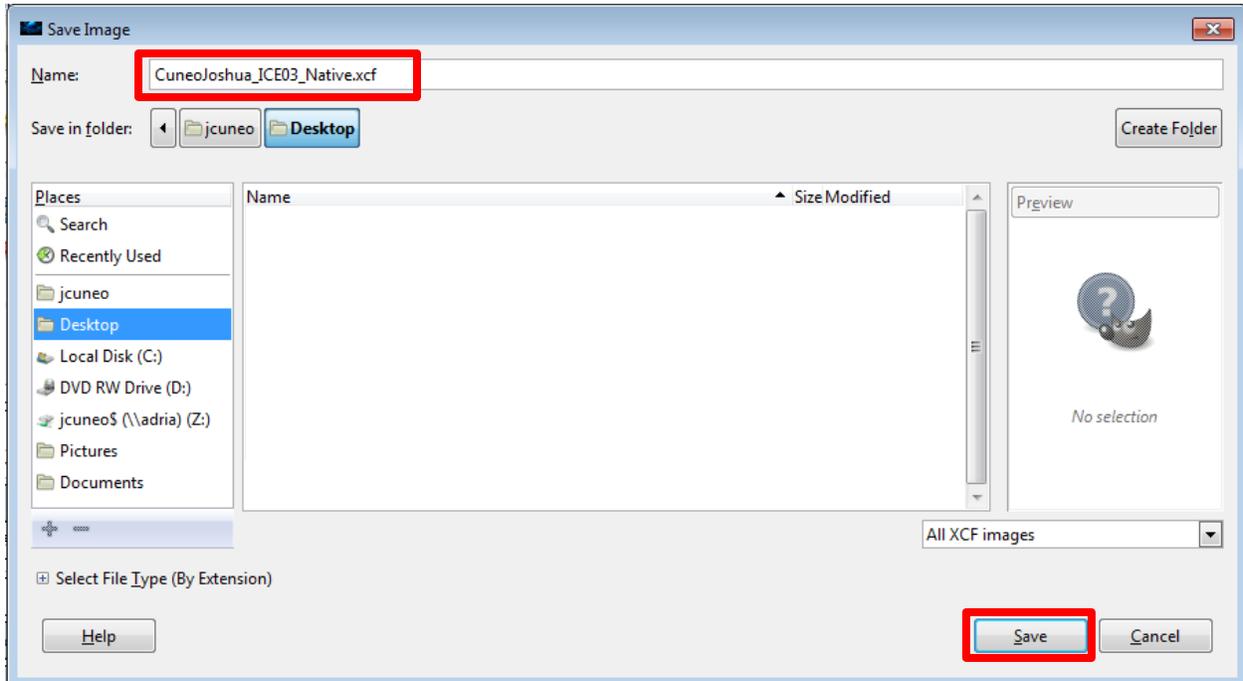
1. Main Toolbox
2. Tool options
3. Image windows
4. Layers, Channels, Paths, Undo History dock
5. Brushes, Patterns and Gradients

(**OPTIONAL:** A more detailed breakdown of the GIMP interface is available at <http://docs.gimp.org/2.8/en/gimp-concepts-main-windows.html> .)

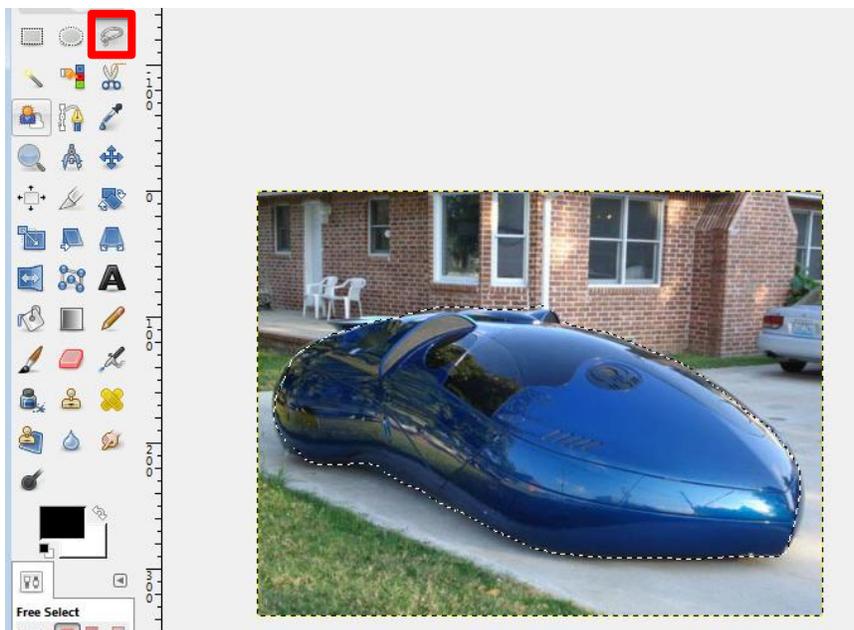
28. Go online and find any photograph of your choice that meets the following criteria:

- a. It is in .jpg/.jpeg, .gif or .png format (look at the extension of the image file)
- b. It is roughly the size of a standard photograph
- c. It is in color and is well-lit.
- d. It has a clear, visible, sharply defined foreground and background (i.e. neither is very dark, blurry or pixelated).
- e. The foreground and background are distinguishable from one another.
- f. The background is busy and has several colors. No single-color backgrounds.
- g. It has had no apparent manipulations done to it already

29. Download the image to your desktop and rename it **LastnameFirstname_ICE03_Original** (ex. CuneoJoshua_ICE03_Original), then open it up in GIMP. Save your file as **LastnameFirstname_ICE03_Native** in GIMP .xcf format. **Save early and often.**



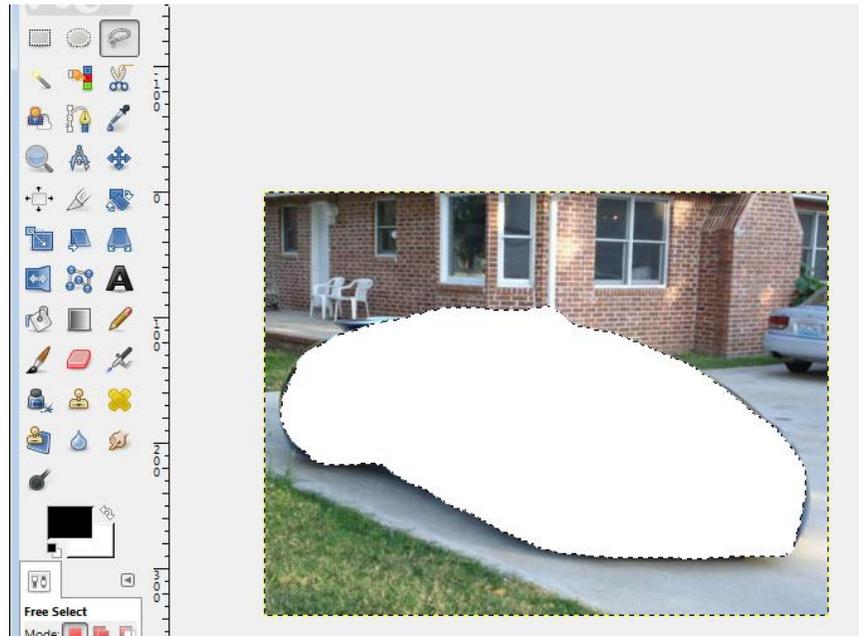
30. In the Toolbox, select the Free Select Tool (looks like a lasso) and click and drag to draw a border around one of your foreground objects.



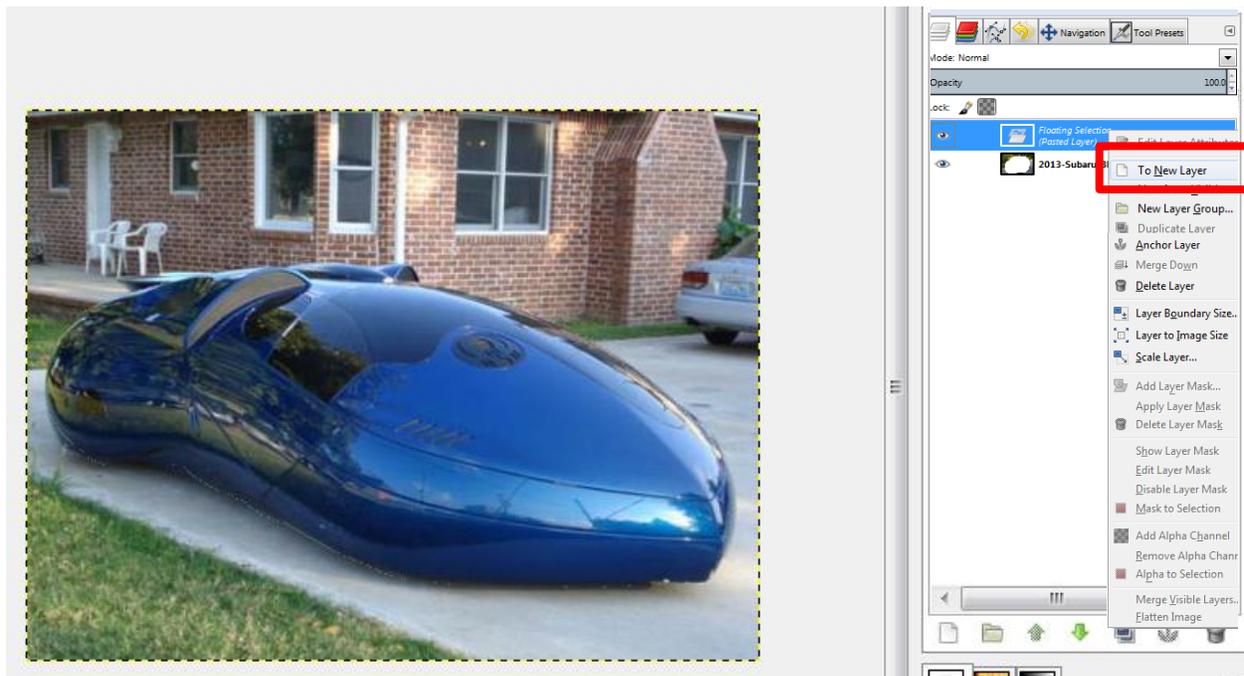
NOTE: Be sure to get a nice, tight trace with minimal background overflow.

NOTE: If you make a mistake in your trace, press the **Backspace** key. You may have to press it more than once.

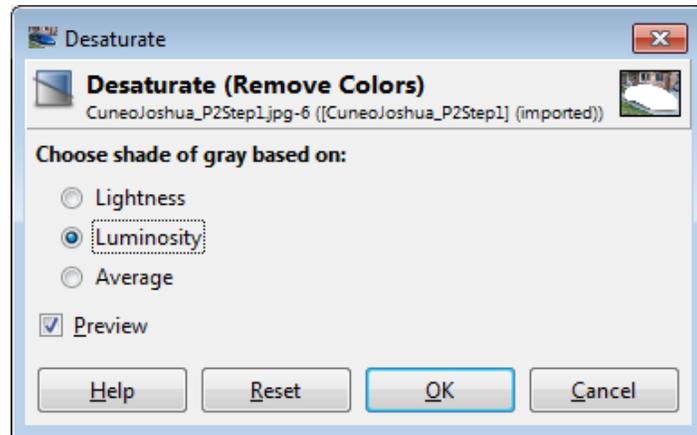
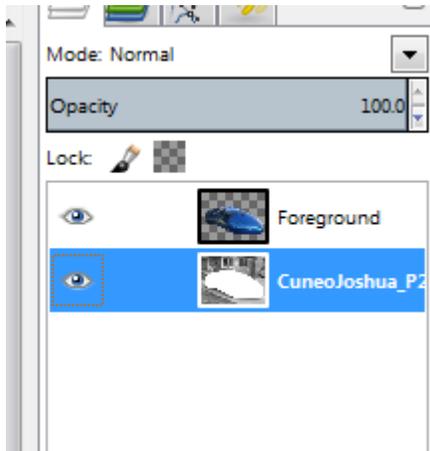
31. Cut the foreground object.



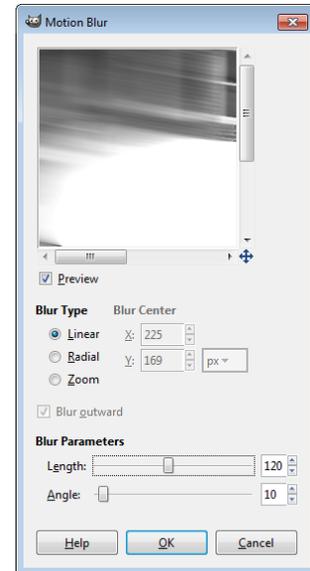
32. Paste your foreground object (**Ctrl + v** or **Edit -> Paste**). A new layer appears in the Layers window called "Floating Selection (Pasted Layer)". Right-click on this layer and select "To New Layer". Your foreground and background are now on two separate layers.



33. Select your background layer in the Layer menu, and then make the background grayscale by selecting **Colors -> Desaturate** and choosing "Luminosity" from the pop-up menu.



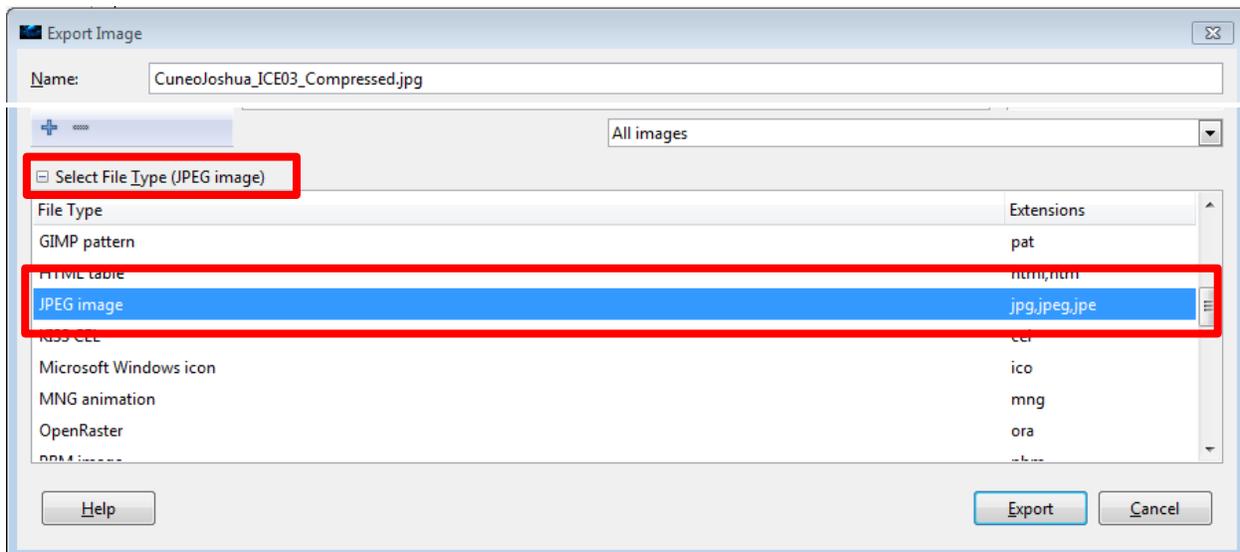
34. Now add a motion blur filter to the background. With the background layer still selected, choose **Filters -> Blur -> Motion Blur** and play around with the options until you get a clearly visible blur effect that you like (see image at right).



35. Save your GIMP (.xcf) file again, keeping the name LastnameFirstname_ICE03_Native (just hit **Ctrl + s** in GIMP).

36. Export your image to JPEG format by doing the following:

- Go to **File -> Export As..**
- Rename the file to **LastnameFirstname_ICE03_Compressed**. Don't worry if you delete any extensions, as GIMP will add them back in.
- Choose "JPEG Image" from the "**Select File Type (By Extension)**" menu (click on the "+" symbol next to these words to make this menu appear). You must use this menu for your file extension to be set properly.
- Click **Export** and accept the defaults on any pop-up menu that appears.



37. Export your file again as a BMP. Repeat the previous step, but choose "Windows BMP Image" under Select File Type. Save it as **LastnameFirstname_ICE03_Uncompressed**.

38. Using Lynda.com, the web, or trial and error, learn about one feature in GIMP that has not already been covered in class so far. Some examples of a new feature are

- A new tool in the Tools menu
- A new filter
- A new option from one of the pull-down menus
- A new process for changing or adding color

39. Apply your new feature to your GIMP file. Export your file as a bitmap (JPG or BMP, your choice) called **LastnameFirstname_ICE03_Enhanced** (ex. CuneoJoshua_ICE03_Enhanced).

40. Save your GIMP (.xcf) file again, keeping the name LastnameFirstname_ICE03_Native (just hit **Ctrl + s** in GIMP).

41. Open up your **LastnameFirstname_ICE03** Word file from Step 26. Fill out the questions for the new feature you learned in GIMP. (Remember the rules of good grammar!) Be sure to include the following:

- a. What is the feature?
- b. How do you use the feature, i.e. where in GIMP can you find this feature?
- c. What effect does this feature have when you apply it to your image?
- d. A complete URL to the page where you learned about this feature.

Save your file as **LastnameFirstname_ICE03**.

42. Turn in all of your files on D2L:

- a. LastnameFirstname_ICE03_Inkscape.svg – Your Inkscape .svg (Step 2)
- b. LastnameFirstname_ICE03_Bitmap.png – Your Inkscape .png file (Step 22)
- c. LastnameFirstname_ICE03_Original – Your original photo (Step 29)
- d. LastnameFirstname_ICE03_Native.xcf – Your GIMP .xcf file (Step 29)
- e. LastnameFirstname_ICE03_Compressed.jpg – Your GIMP .jpg file (Step 36)
- f. LastnameFirstname_ICE03_Uncompressed.bmp – Your GIMP .bmp file (Step 37)
- g. LastnameFirstname_ICE03_Enhanced.bmp/.jpg – Your enhanced GIMP file (Step 39)
- h. LastnameFirstname_ICE03.docx – Your new feature write-up (Steps 26 and 41)

Criteria:

Step	Points	Reason
2	8	Inkscape file
3	5	Background layer, correctly named
4	5	Rectangle, correct layer
8	5	Half circle, correct layer, hidden
13	5	Capital S, large, hidden, correct layer
16	5	Bezier curves, correct layer
23	4	New feature applied on new layer, correctly named
25	5	PNG file
26a	2	What is this feature?
26b	2	How do you use this feature?
26c	2	What effect does this feature have when you apply it?
26d	2	Complete URL to page where you learned about feature
29	5	Original file uploaded
32	5	Foreground, background on separate layers
33	5	Background desaturated
34	5	Background motion blur
35	8	GIMP file
36	5	JPEG file
37	5	BMP file
39	4	Enhanced file with new feature applied.
41a	2	What is this feature?
41b	2	How do you use this feature?
41c	2	What effect does this feature have when you apply it?
41d	2	Complete URL to page where you learned about feature