

Photoshop Elements for Genealogists

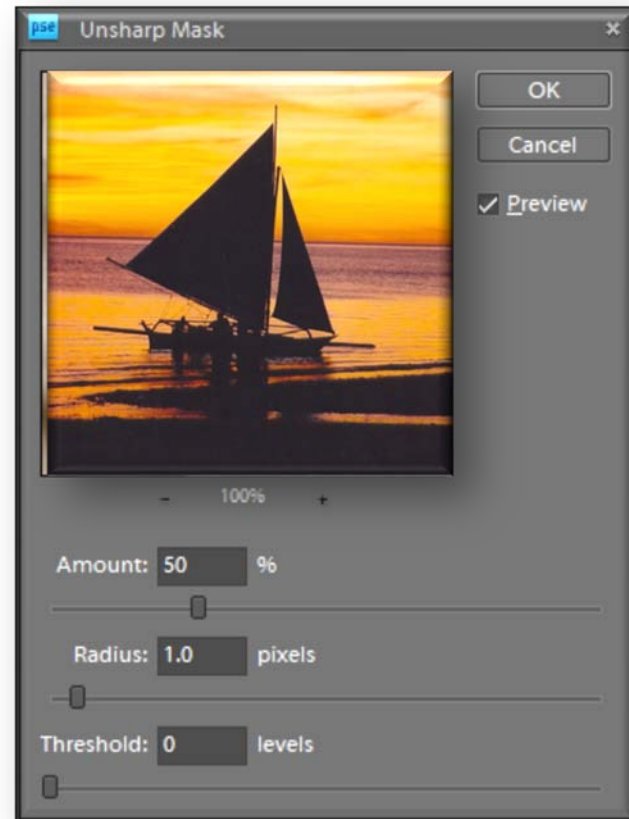
Part 6

By Barry J. Ewell

Topics Covered

- Unsharp Mask
- Image size
- Resampling images
- Marquee tools
- Lasso tools
- Magic Wand tool
- Selection Brush tool
- Quick Selection tool
- Smart Brush tool
- Feathering

Unsharp Mask



Unsharp Mask

- Although sharpening is a useful technique for improving the overall definition of an image, it can sometimes appear too harsh and "jaggy"



Before



Sharp



Unsharp Mask

- For a more subtle effect the Unsharp Mask can be used
- This works by increasing the contrast between light and dark pixels in an image



Before

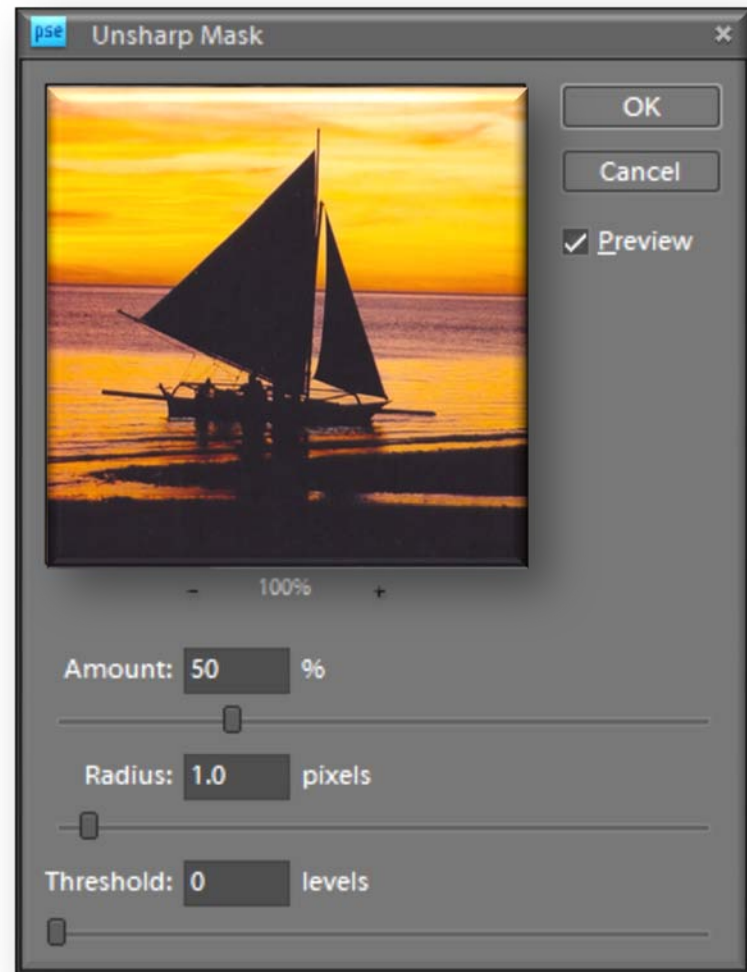


Unsharp Mask

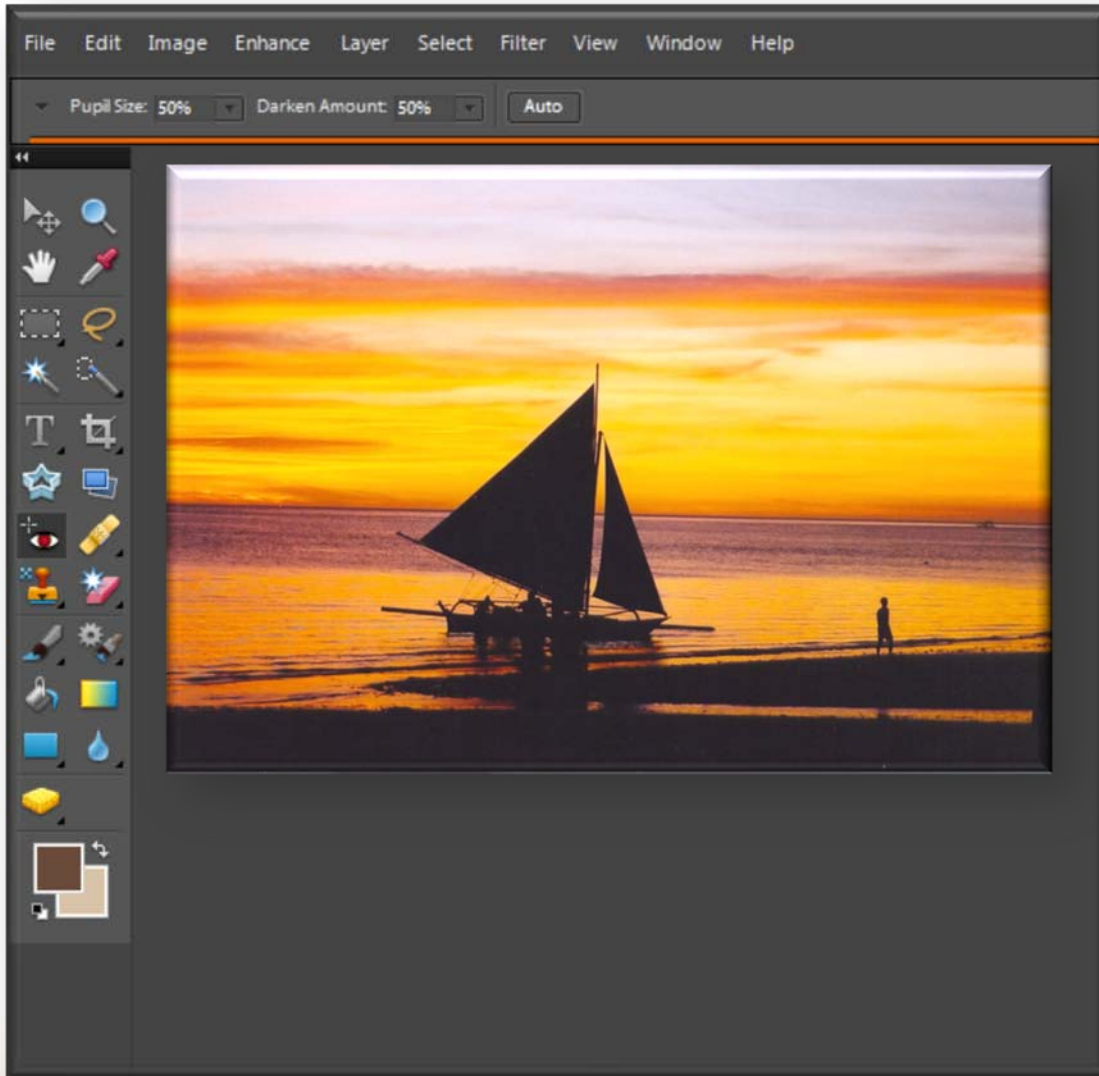


Unsharp Mask

- The settings for the Unsharp Mask are:
Amount, which determines the amount to increase the contrast between pixels; **Radius**, which determines how many pixels will have the sharpening applied to them in an affected area; and **Threshold**, which determines how different a pixel has to be from its neighbor before sharpening is applied



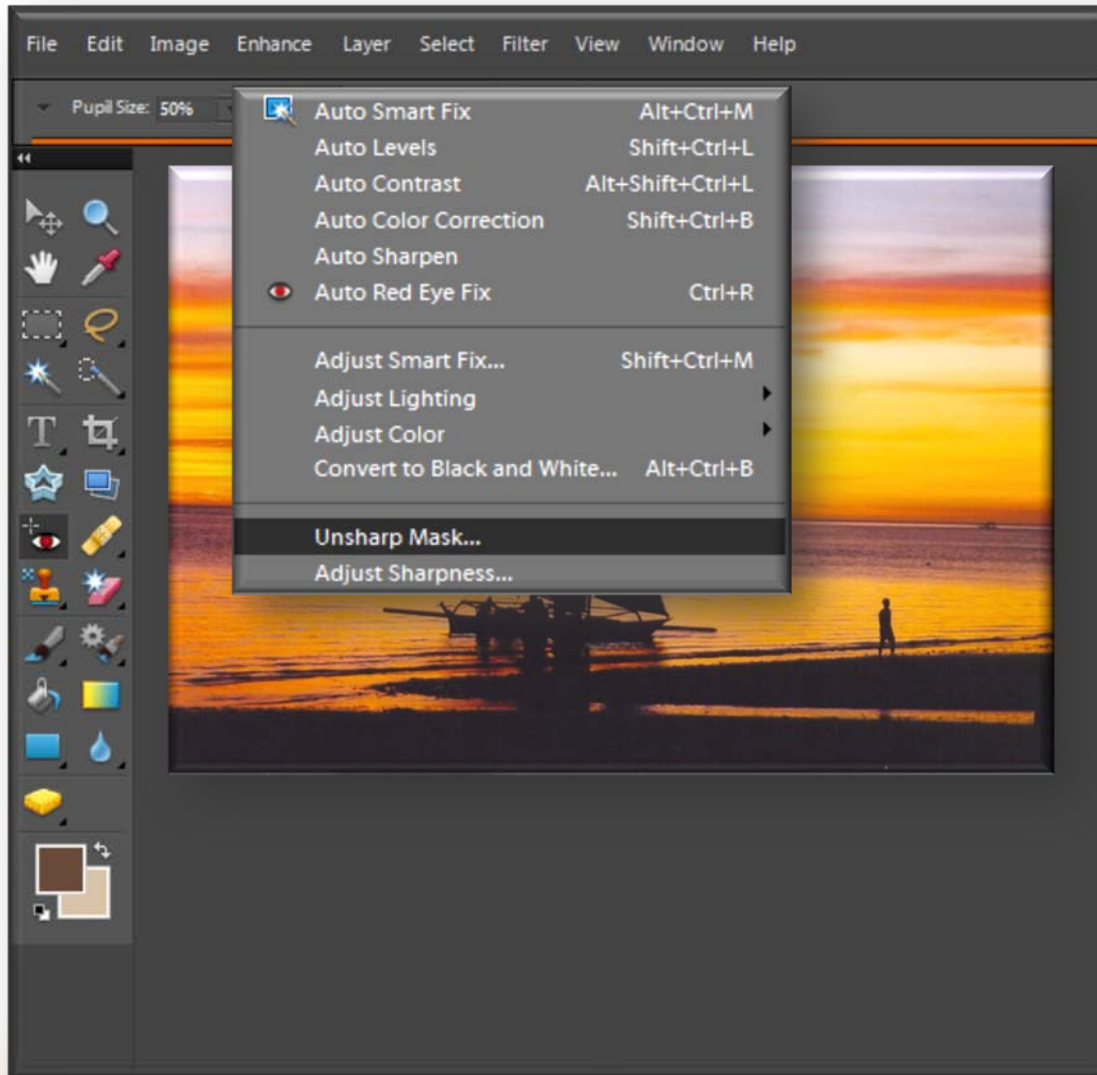
Unsharp Mask



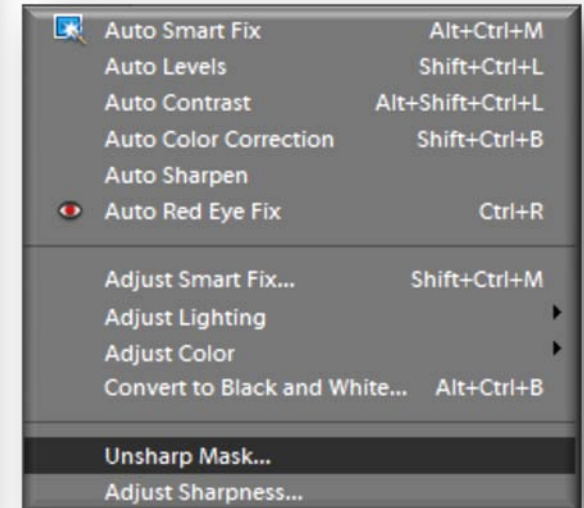
● Open an image that you want to sharpen



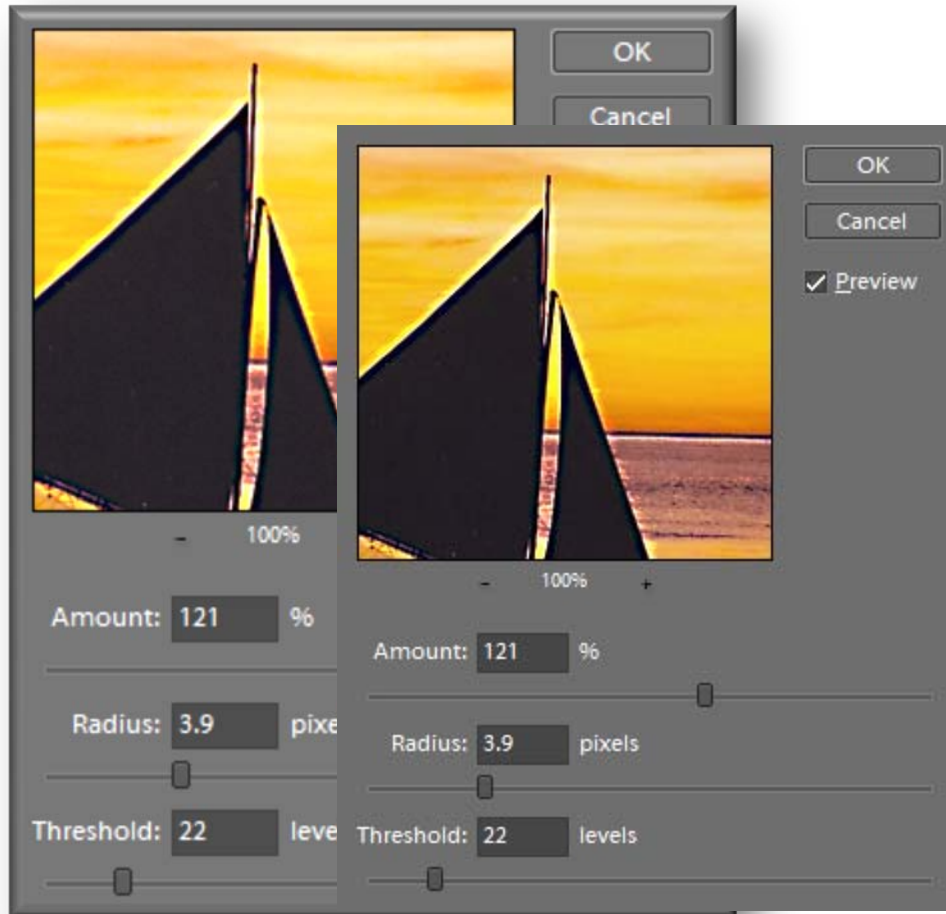
Unsharp Mask



● Select the **Enhance**
> **Unsharp Mask**
option from the
Menu bar



Unsharp Mask



● Apply the appropriate settings in the Unsharp Mask dialog box and click on the OK button



Unsharp Mask



- The contrast between light and dark pixels is increased, giving the impression of a clearer, or sharper, image



Unsharp Mask



Image size



Image size

- The physical size of a digital image can sometimes be a confusing issue as it is frequently dealt with under the term "resolution"



Image size

- Unfortunately, resolution can be applied to a number of areas of digital imaging: image resolution, monitor resolution, print size and print resolution

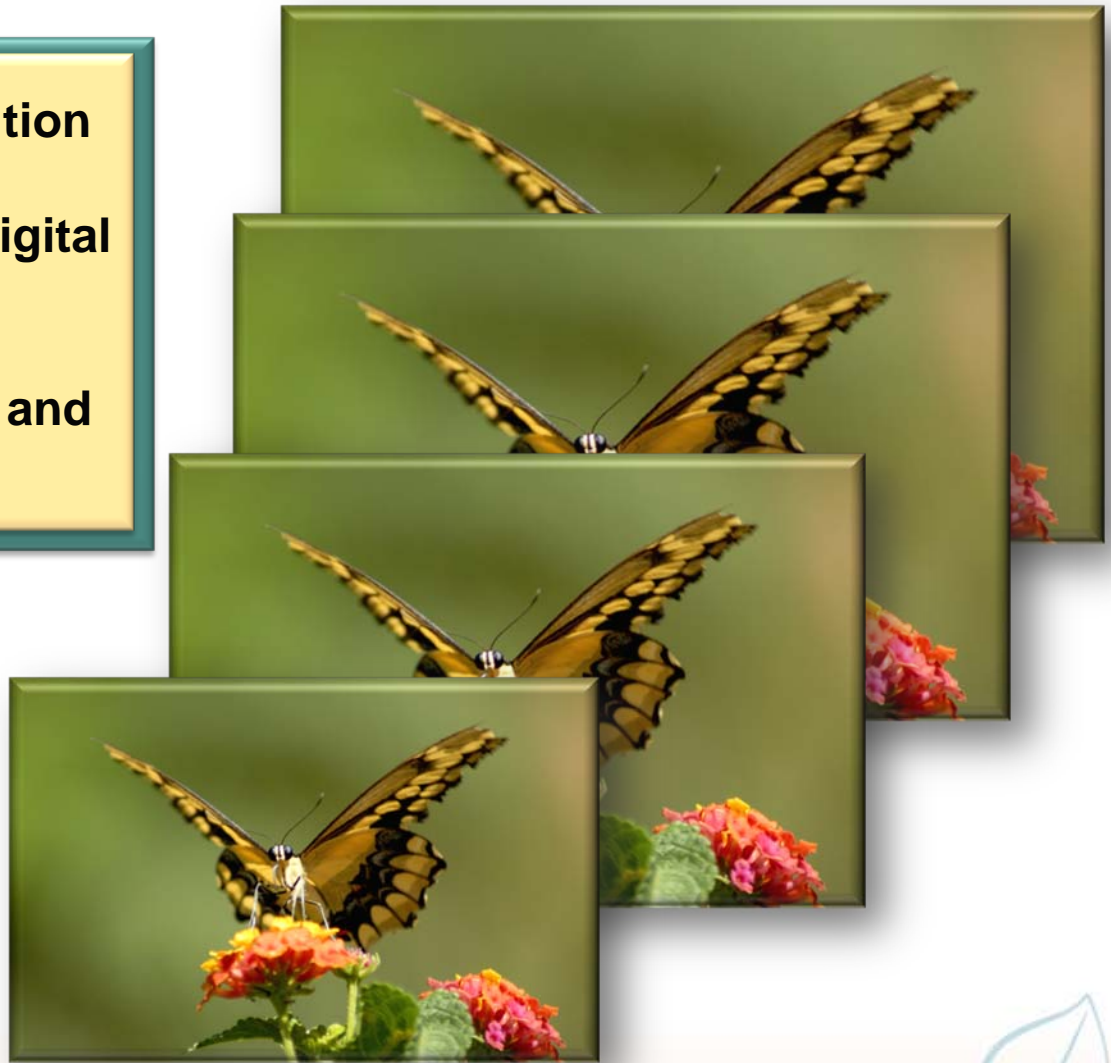


Image size

- The Resolution figure under the Document Size heading is used to determine the size at which the image will be printed
- If this is set to 72 pixels/inch, then the onscreen size and the printed size should be roughly the same

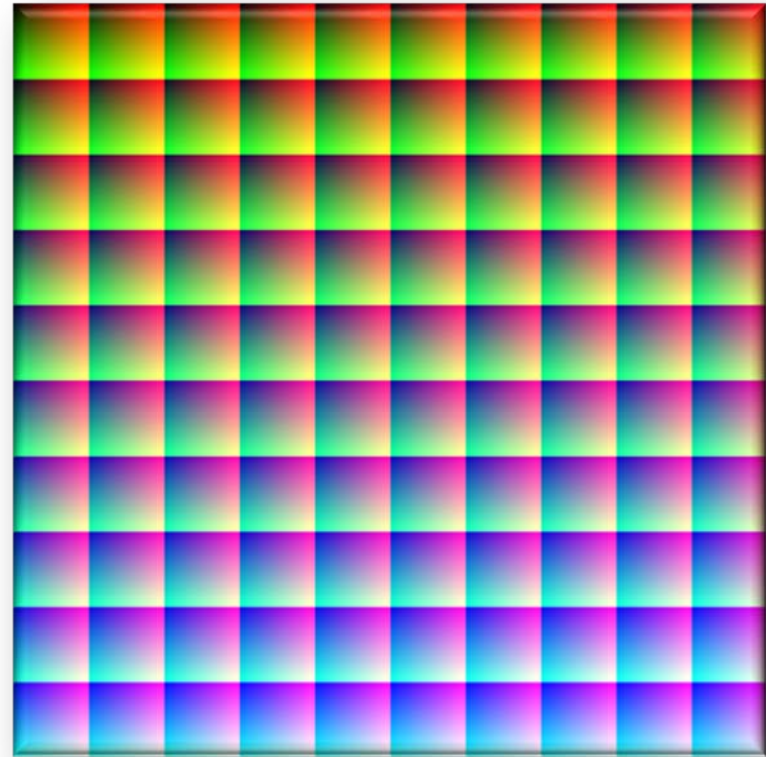
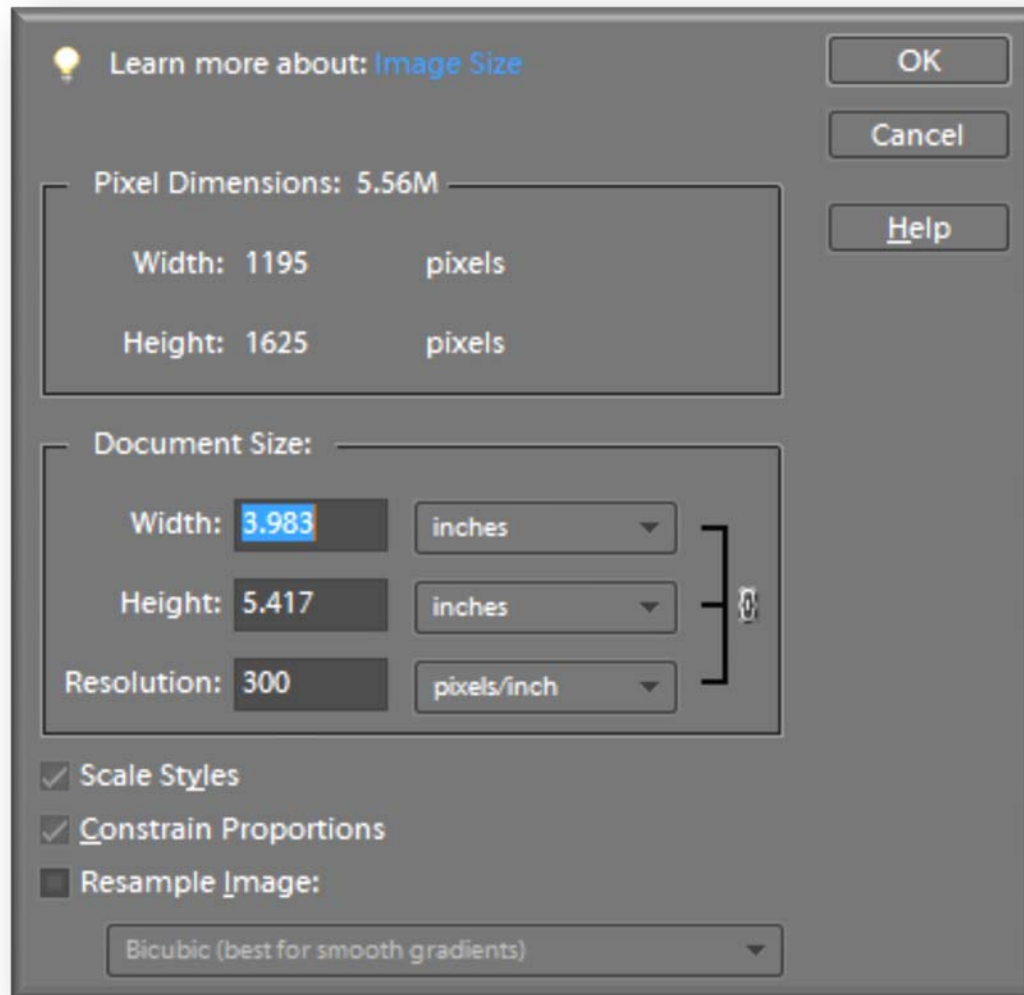


Image resolution

- The resolution of an image is determined by the number of pixels in it.
- This counted as a vertical and a horizontal value, e.g. 3000 x 2000
- When multiplied together it gives the overall resolution, i.e. 6,000,000 pixels in this case



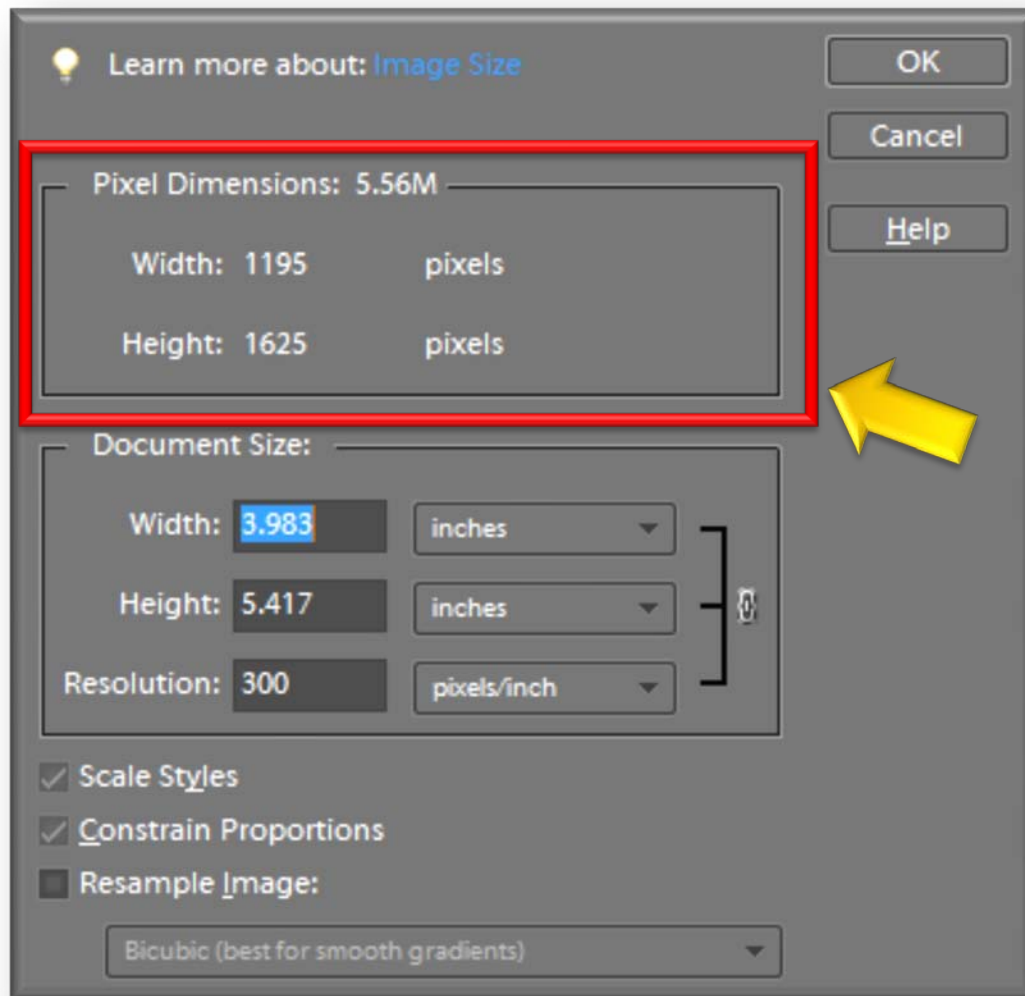
Image resolution



● **Select Image>
Resize>Image Size**
from the Menu bar



Image resolution



● The image size is displayed here (in pixels)



Monitor resolution

- **Most modern computer monitors display digital images at between 72 and 96 pixels per inch (ppi)**
- **This means that every inch of the screen contains approximately this number of pixels**



Monitor resolution

- In modern web browsers this is usually adjusted so that the whole image is accommodated on the viewable screen



Monitor resolution

- This is frequently the headline figure quoted by digital camera manufacturers, e.g. 6 million pixels (or 6 megapixels)



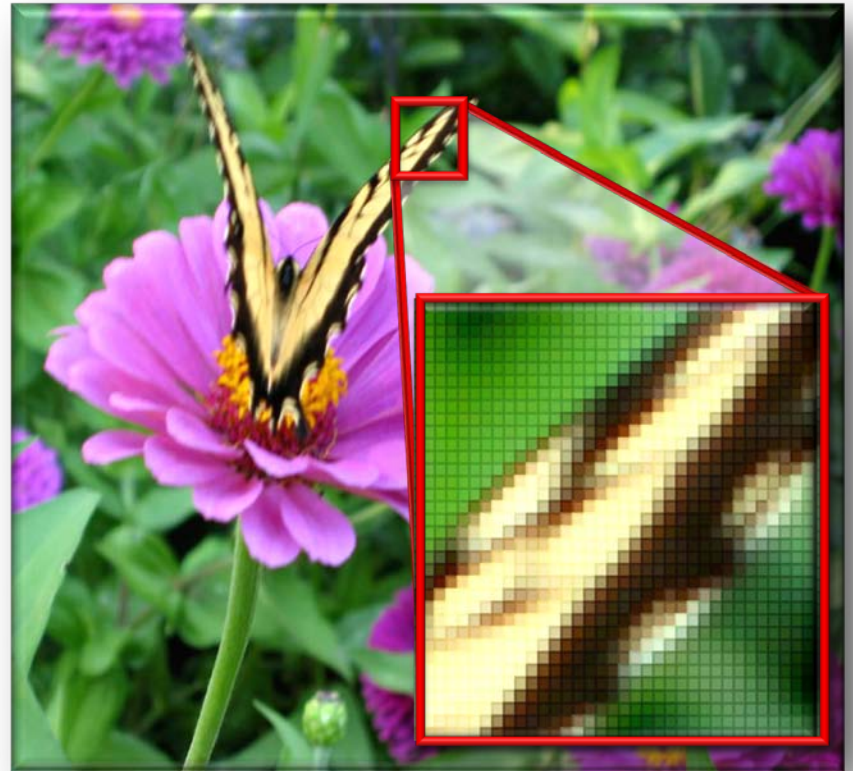
Document size (print resolution)

- **Pixels in an image are not a set size, which means that images can be printed at a variety of sizes, simply by contracting or expanding the available pixels**
- **This is done by changing the resolution in the Document Size section of the Image Size dialog box**



Document size (print resolution)

- **Pixels in an image are not a set size, which means that images can be printed at a variety of sizes, simply by contracting or expanding the available pixels**
- **This is done by changing the resolution in the Document Size section of the Image Size dialog box**



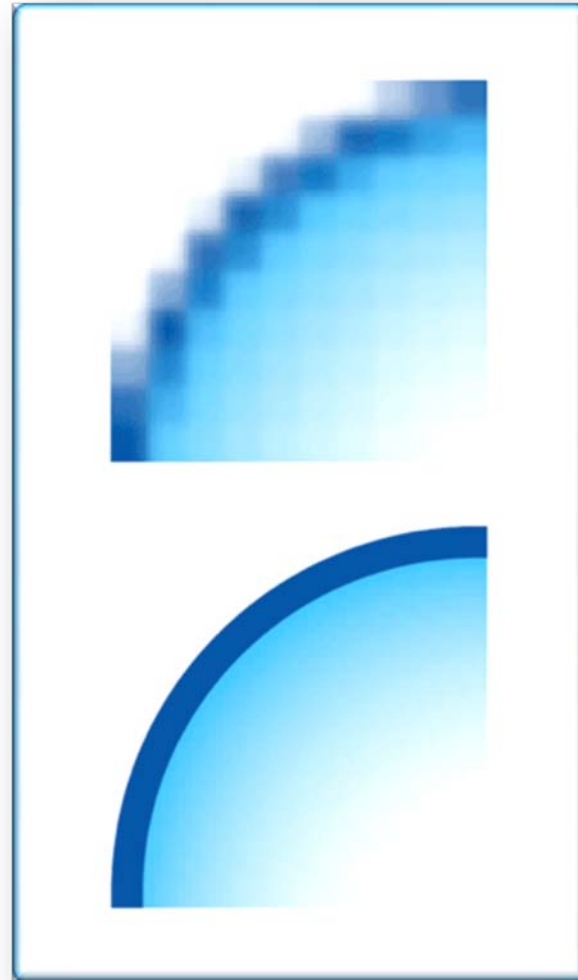
Document size (print resolution)

- The print resolution determines how many pixels are used in each inch of the printed image (ppi)

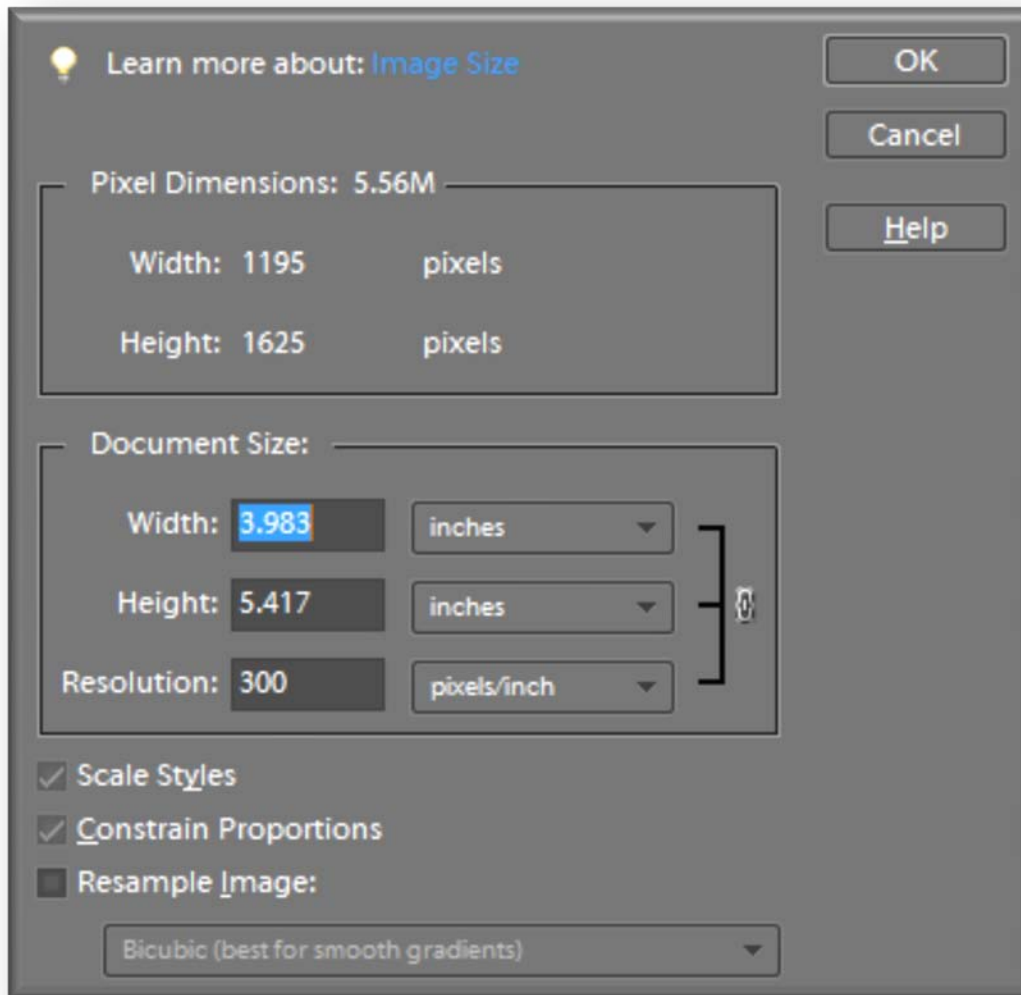


Document size (print resolution)

- However, the number of colored dots used to represent each pixel on the paper is determined by the printer resolution, measured in dots per inch (dpi)
- So if the print resolution is 72 ppi and the printer resolution is 2880 dpi, each pixel will be represented by 40 colored dots, i.e. $2880 \div 72$



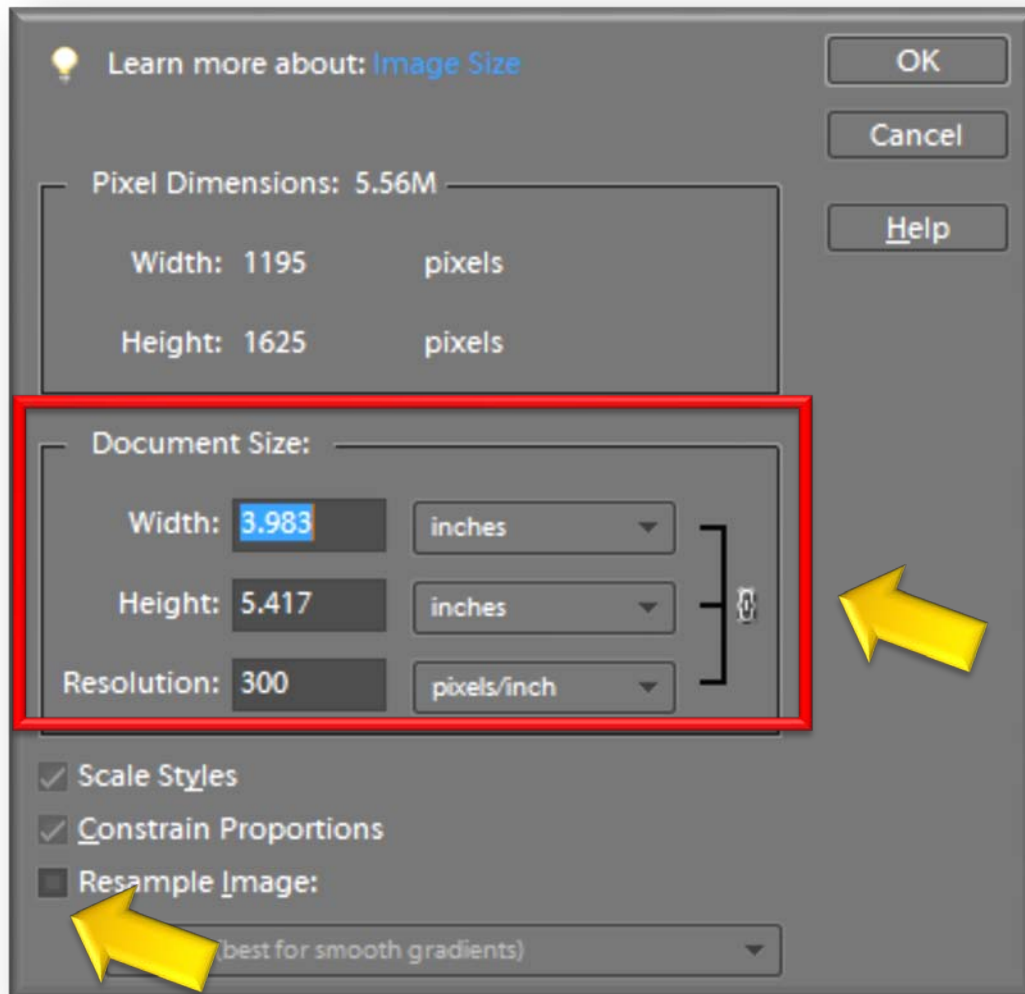
Document size (print resolution)



● Select
**Image>Resize>Image
Size** from the Menu
bar



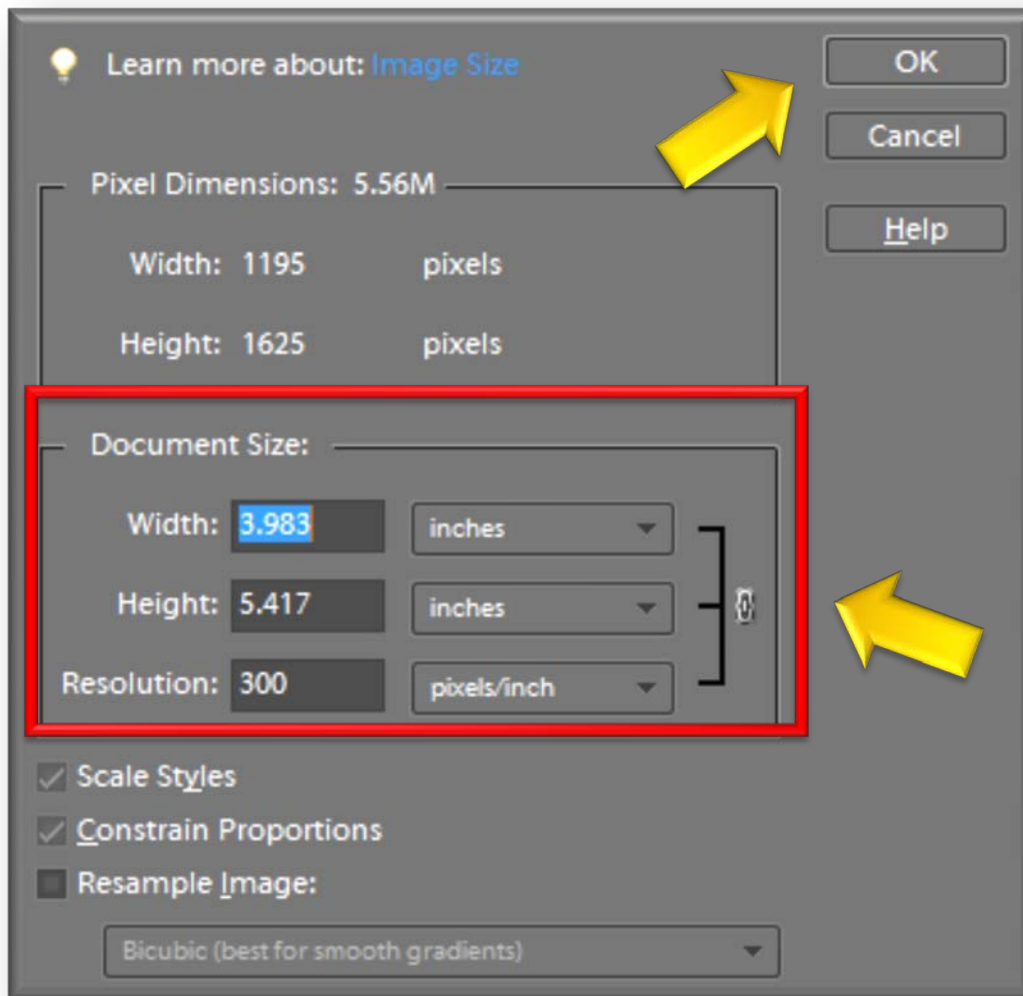
Document size (print resolution)



- Change the resolution here (or change the Width and Height of the document size)
- Make sure the Resample Image box is not checked



Document size (print resolution)



- By changing one value, the other two are updated too.
- Click on the OK button



Document size (print resolution) tip

- The higher the print resolution, the better the final printed image
- Aim for a minimum of 200 pixels per inch for the best printed output



Document size (print resolution) tip

- To work out the size at which an image will be printed, divide the pixel dimensions (height and width) by the resolution value under the Document Size heading



Resampling images



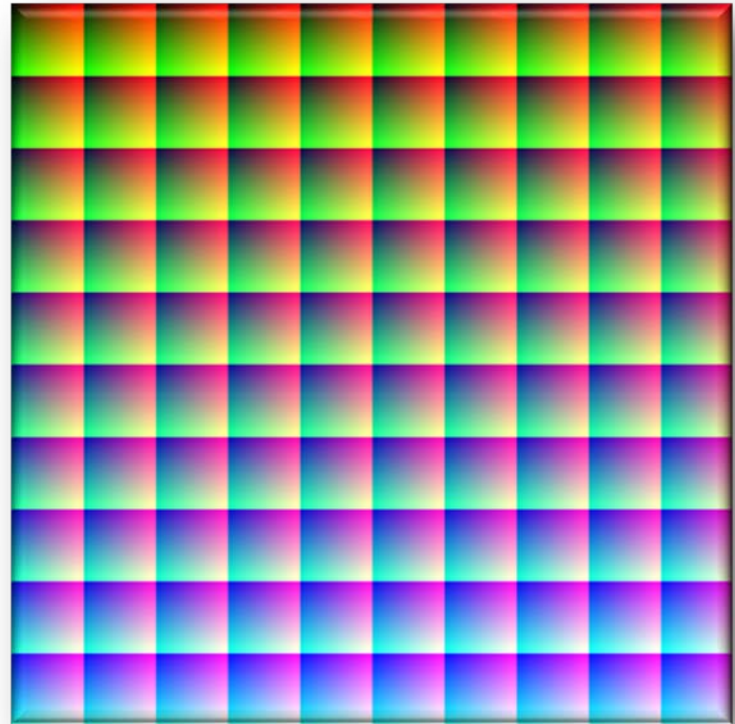
Resampling images

- All digital images can be increased or decreased in size
- This involves adding or removing pixels from the image



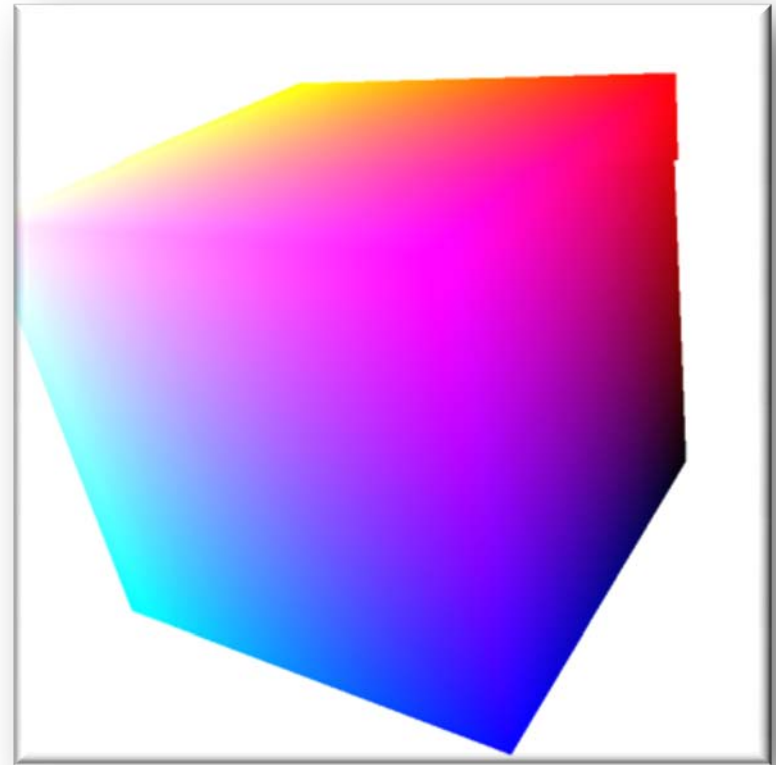
Resampling images

- Decreasing the size of an image is relatively straightforward and involves removing redundant pixels
- However, increasing the size of an image involves adding pixels by digital guesswork



Resampling images

- To do this, Elements looks at the existing pixels and works out the nearest match for the ones that are to be added
- Increasing or decreasing the size of a digital image is known as "resampling"



Resampling images

- The process of adding pixels to an image to increase its size is known as "interpolation"



Resampling images

- Since it involves digital guesswork by Elements, resampling up results in inferior image quality



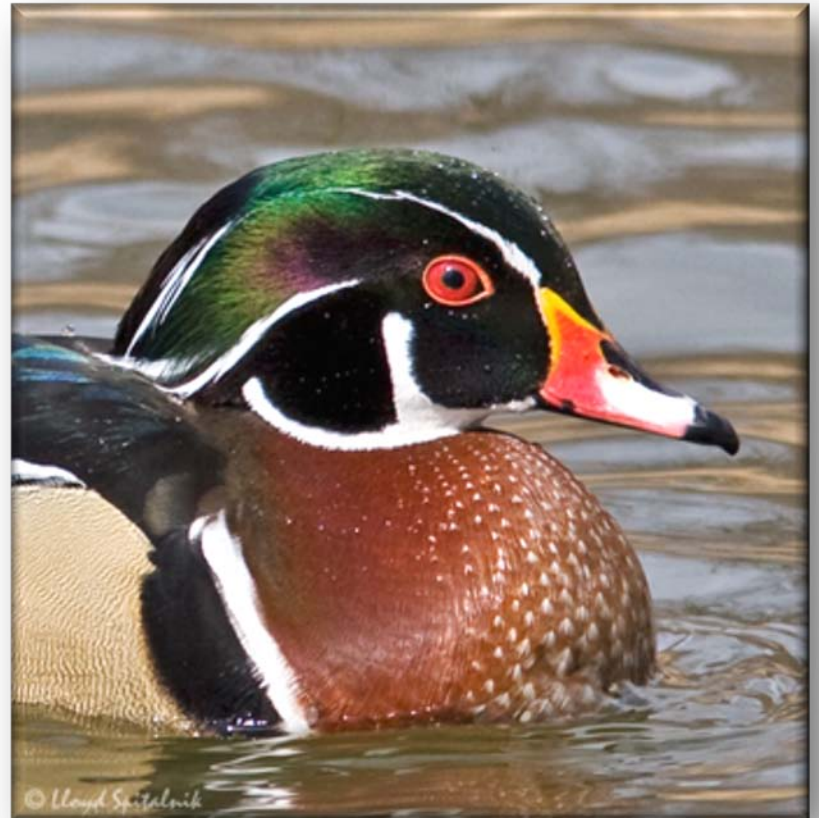
Resampling images

- **Make sure the Constrain Proportions box is checked on if you want the image to be increased or decreased in size proportionally, rather than just one value being altered independently of the other**

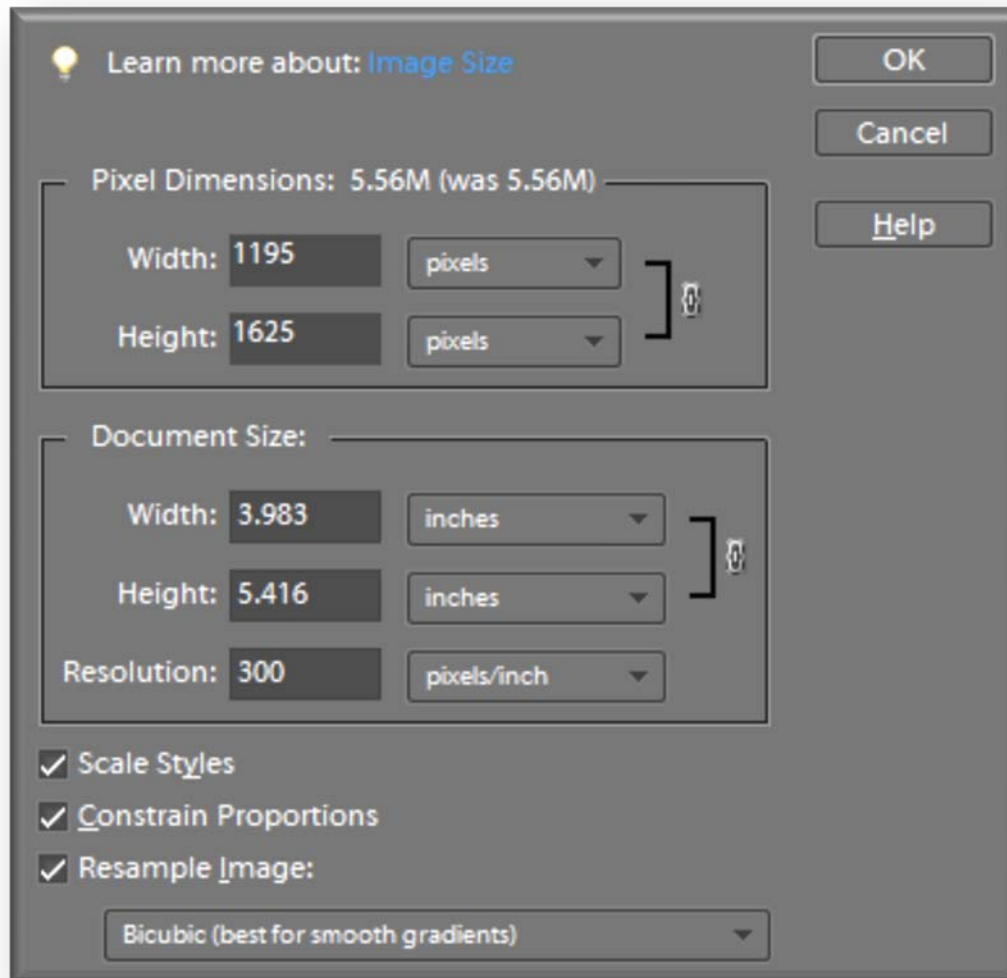


Resampling

- Resampling down decreases the size of the image and it is more effective than resampling up



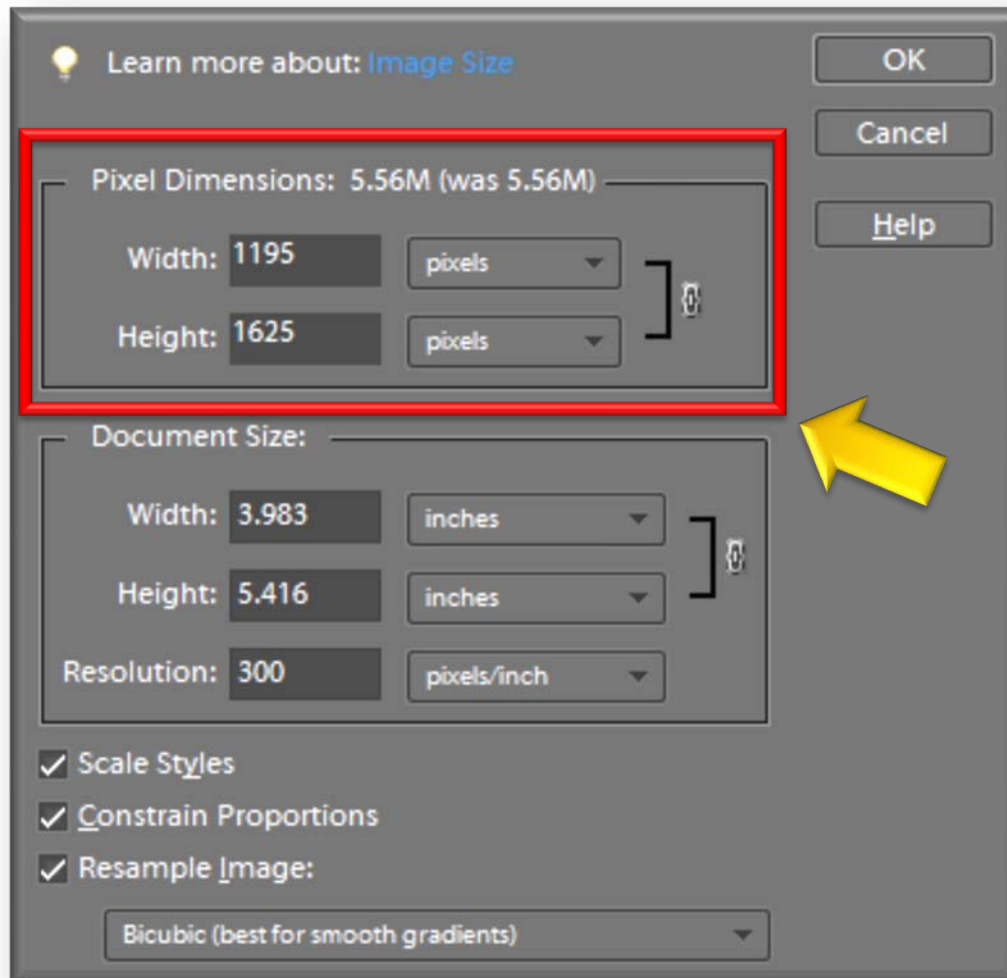
Resampling images



- Resampling down decreases the size of the image and it is more effective than resampling up
- Select **Image>Resize>Image Size** from the Menu bar



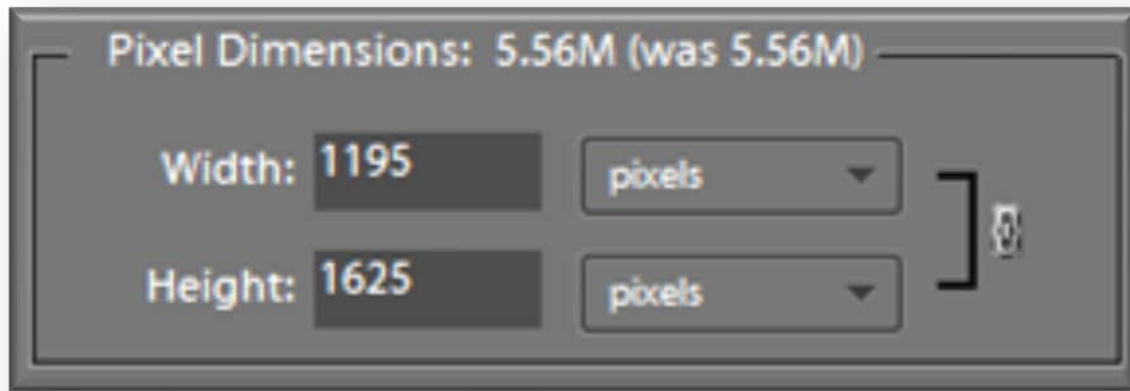
Resampling images



- Check the Resample Image box



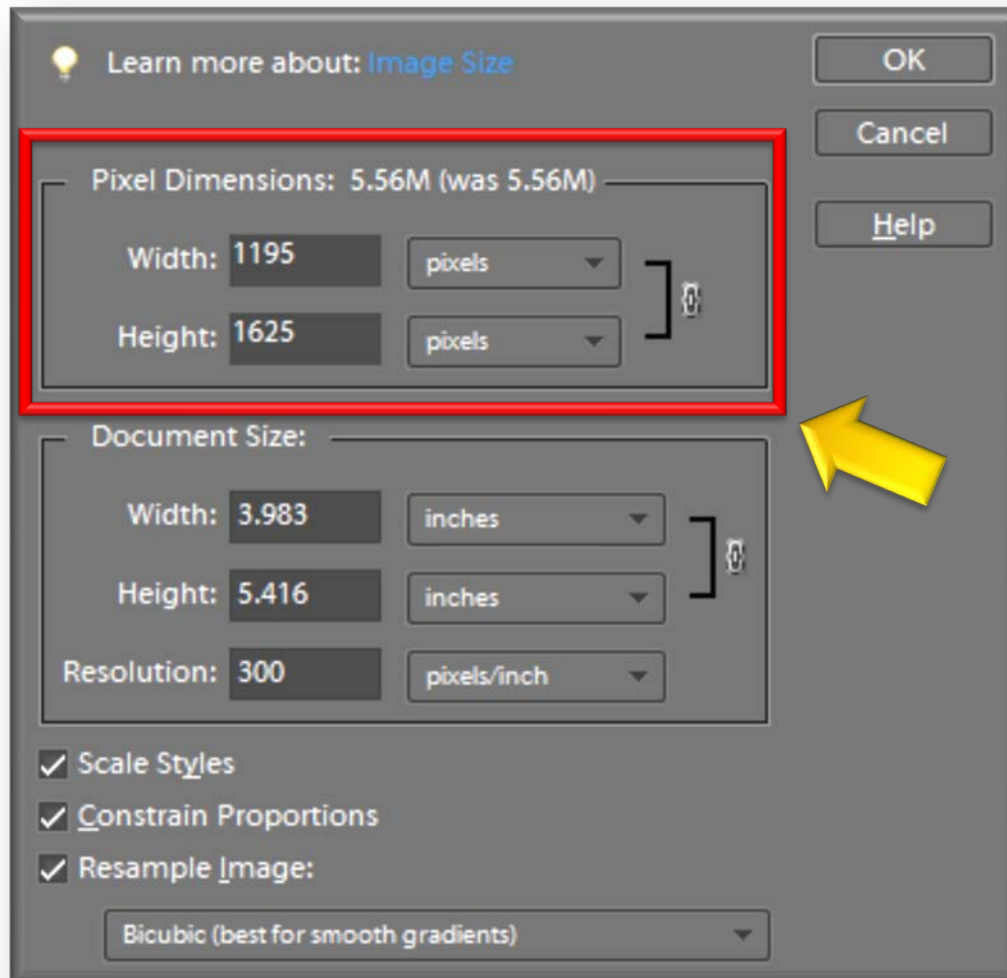
Resampling images



- Resample the image by changing the pixel dimensions, the height and width or the resolution



Resampling images



- Changing any of the values above alters the physical size of the image
- Click on the OK button

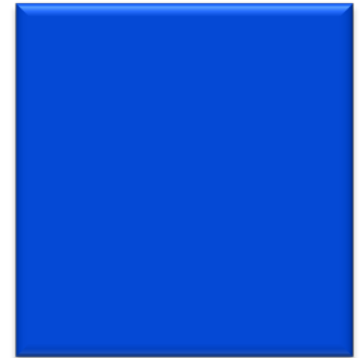
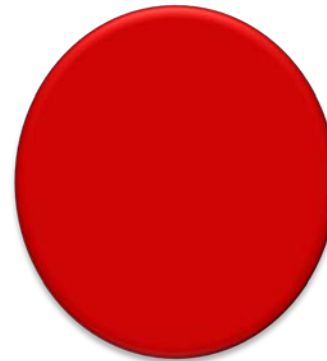


Resampling images tips

- To keep the same resolution for an image, resample it by changing the pixel dimensions' height and width
- To keep the same Document Size (i.e. the size at which it will be printed) resample it by changing the resolution

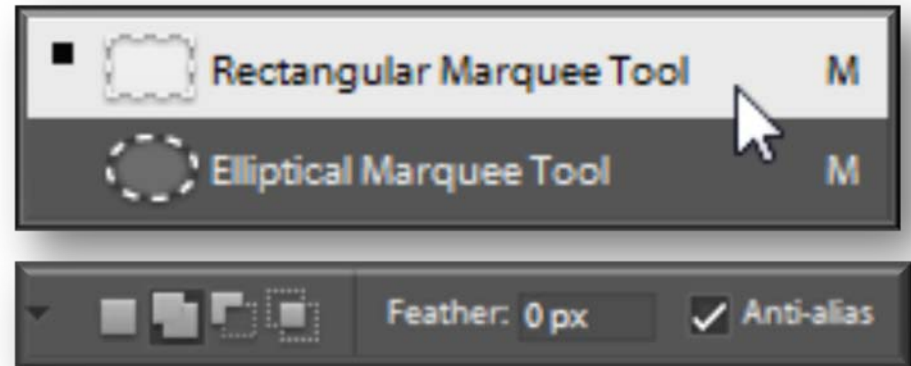


Marquee tools



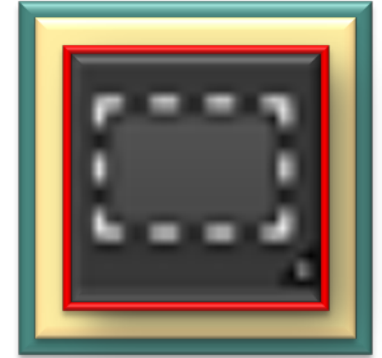
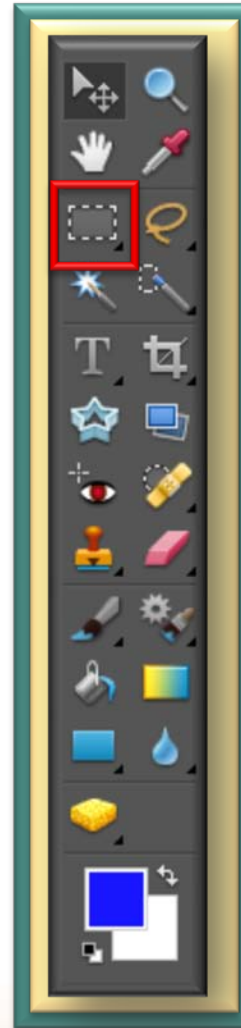
Marquee tools

- Select either the Rectangular or the Elliptical Marquee tool from the Toolbox
- Select the required options from the Options bar

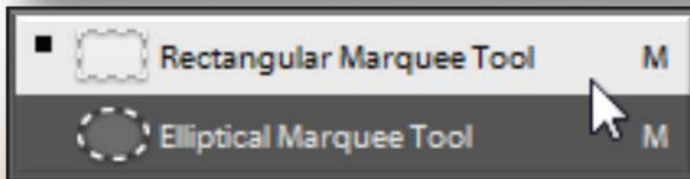
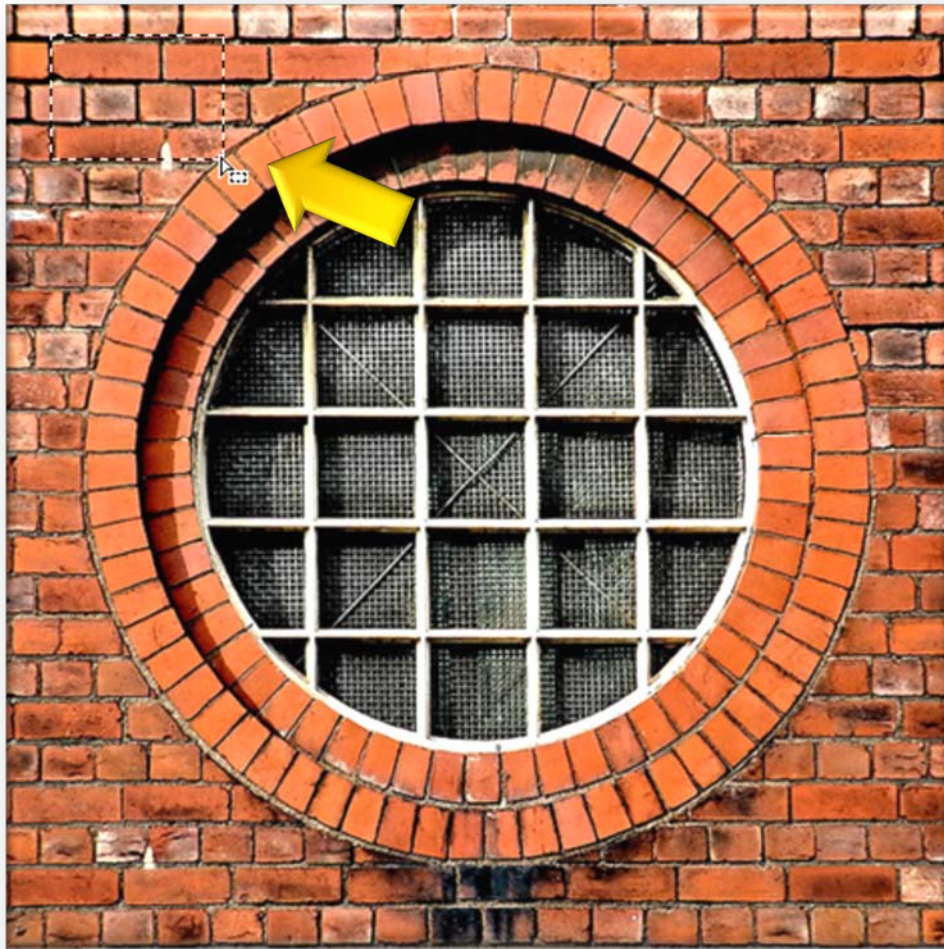


Marquee tools

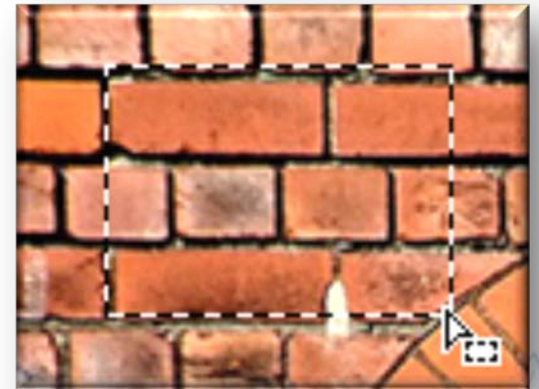
- To access additional tools from the Toolbox, click and hold on the black triangle next to one of the default tools, and select one of the subsequent options that are available



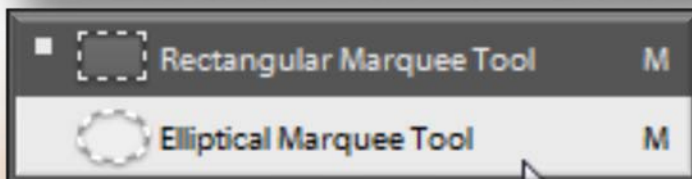
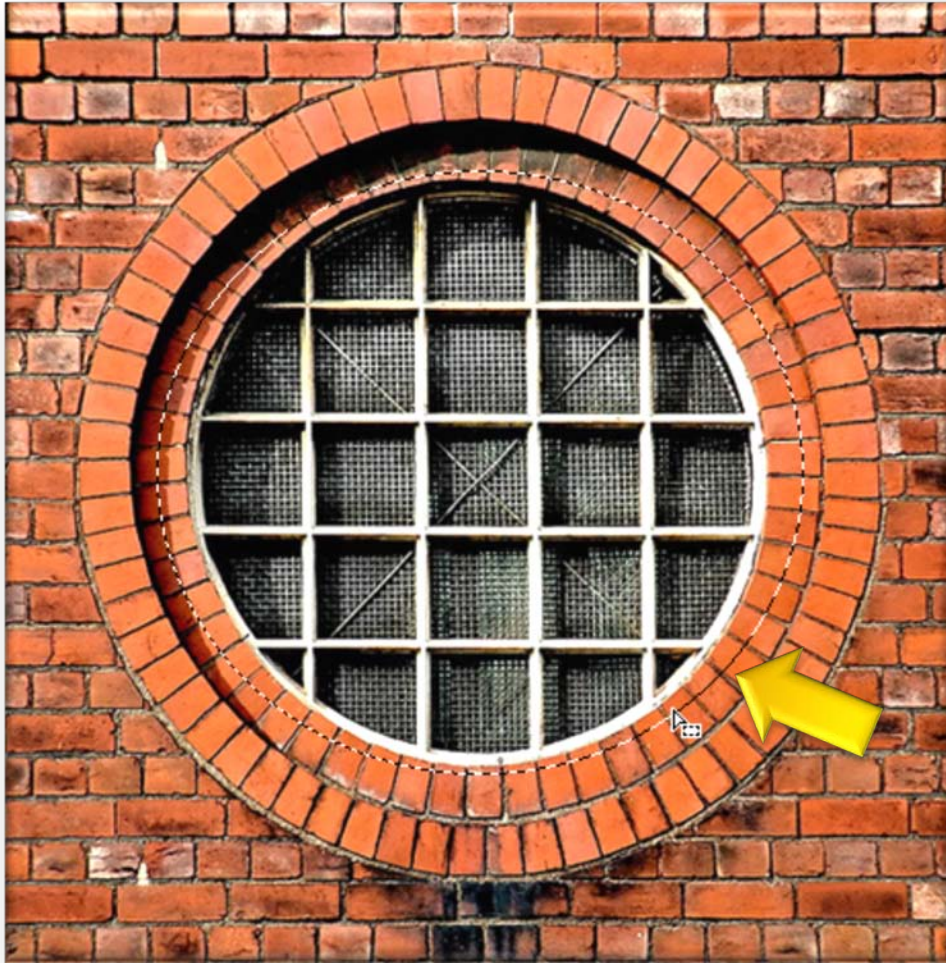
Marquee tools



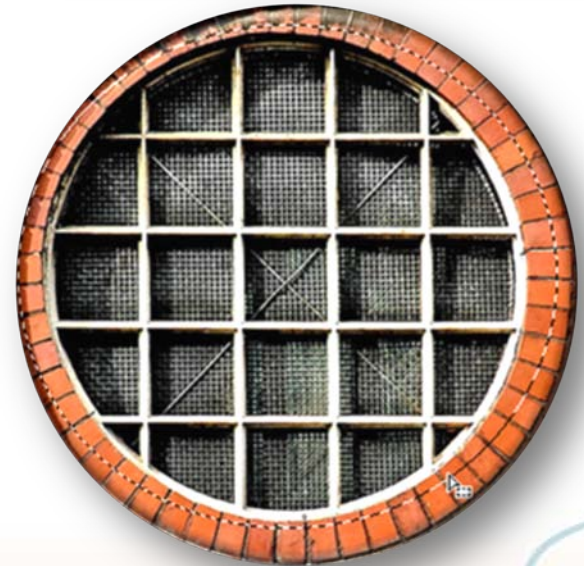
- Select either the Rectangular or the Elliptical Marquee tool from the Toolbox
- Select the required options from the Options bar



Marquee tools

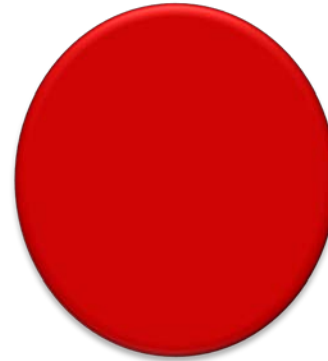


- Make a symmetrical selection with one of the tools by clicking and dragging on an image



Marquee tools tip

- There are two options for the Marquee tool: the Rectangular Marquee tool and the Elliptical Marquee tool
- Both of these can be used to make symmetrical selections

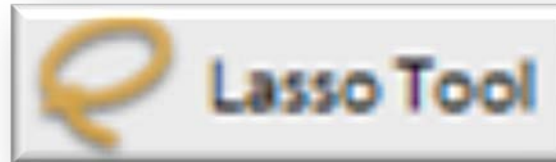


Lasso tools



Lasso tools

- There are three options for the Lasso tools, which can be used to make freehand selections



Lasso tool

- Making a selection with the Polygonal Lasso tool is like creating a dot-to-dot pattern

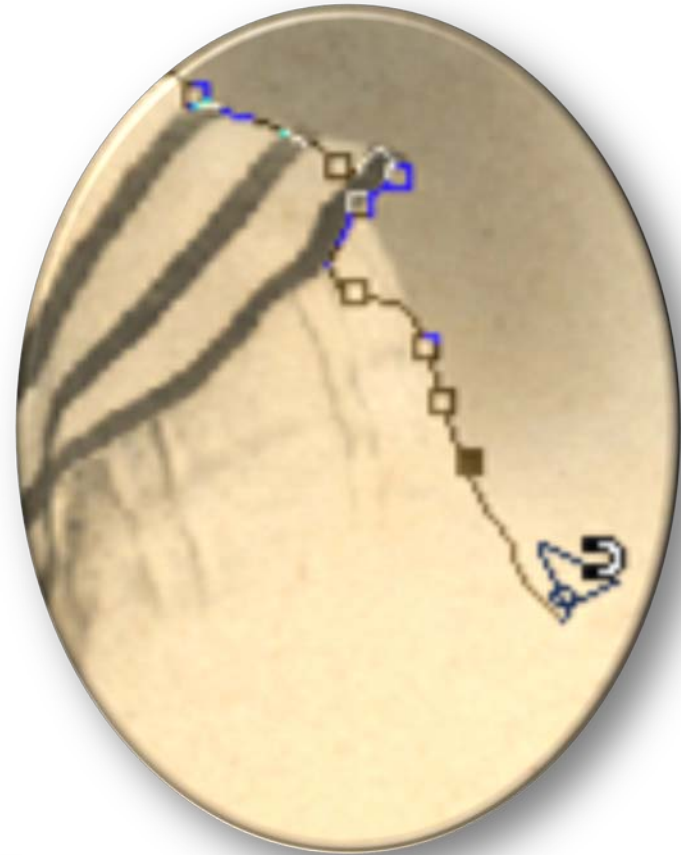


Polygonal Lasso Tool



Lasso tool

- On the Options bar for the Magnetic Lasso tool, the Edge Contrast value determines the amount of contrast there has to be between colors for the selection line to snap to them
- A high value detects lines with a high contrast and vice versa



Magnetic Lasso Tool

Width: 10 px

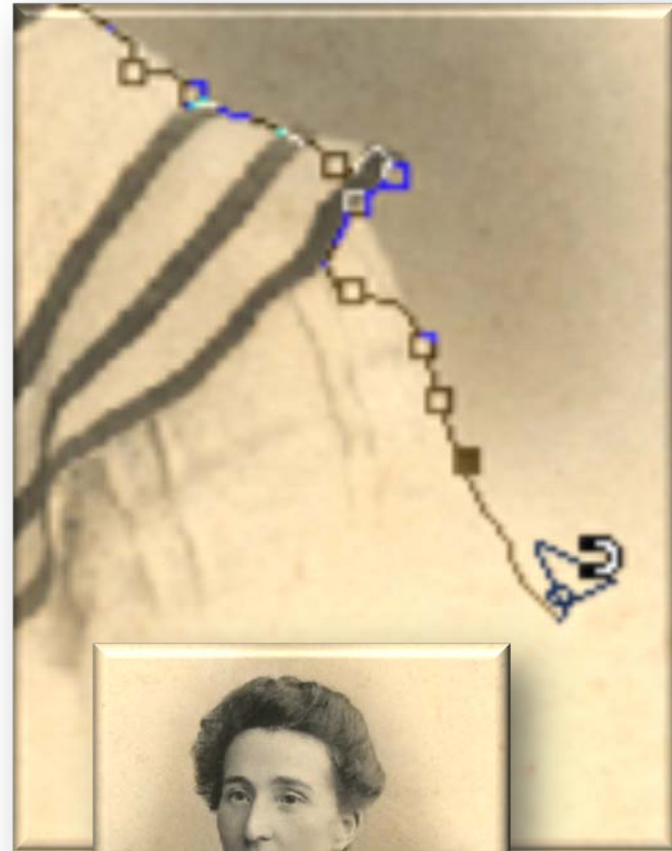
Contrast: 10%

Frequency: 57



Lasso tool

- The Frequency setting on the Options bar determines how quickly the fastening points are inserted as a selection is being made
- A high value places the fastening points more quickly than a low value

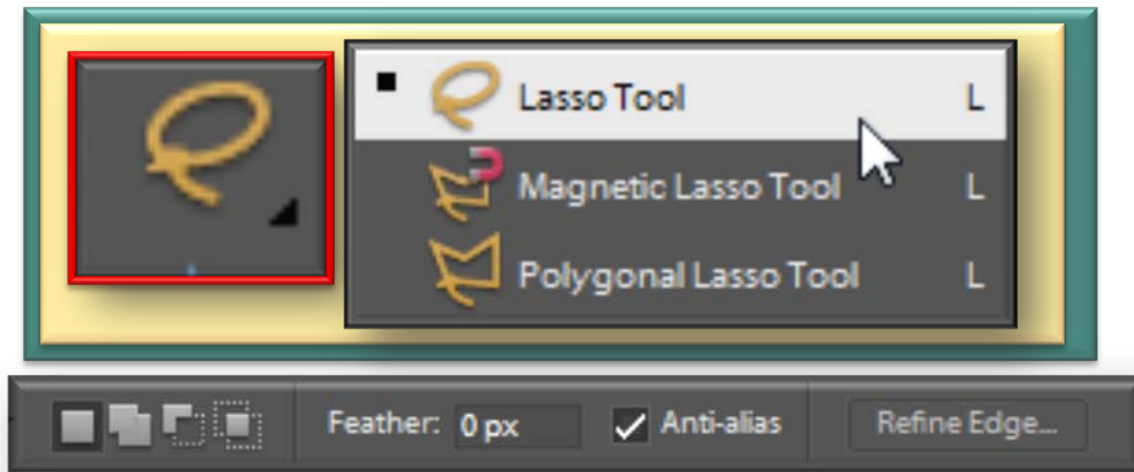


Lasso tools tips

- When a selection has been completed (i.e. its end point reaches its start point), a small circle will appear at the side of whichever Lasso tool is being used
- Click at this point to complete the selection



Lasso tool



● Select the Lasso tool from the Toolbox and select the required options from the Options bar



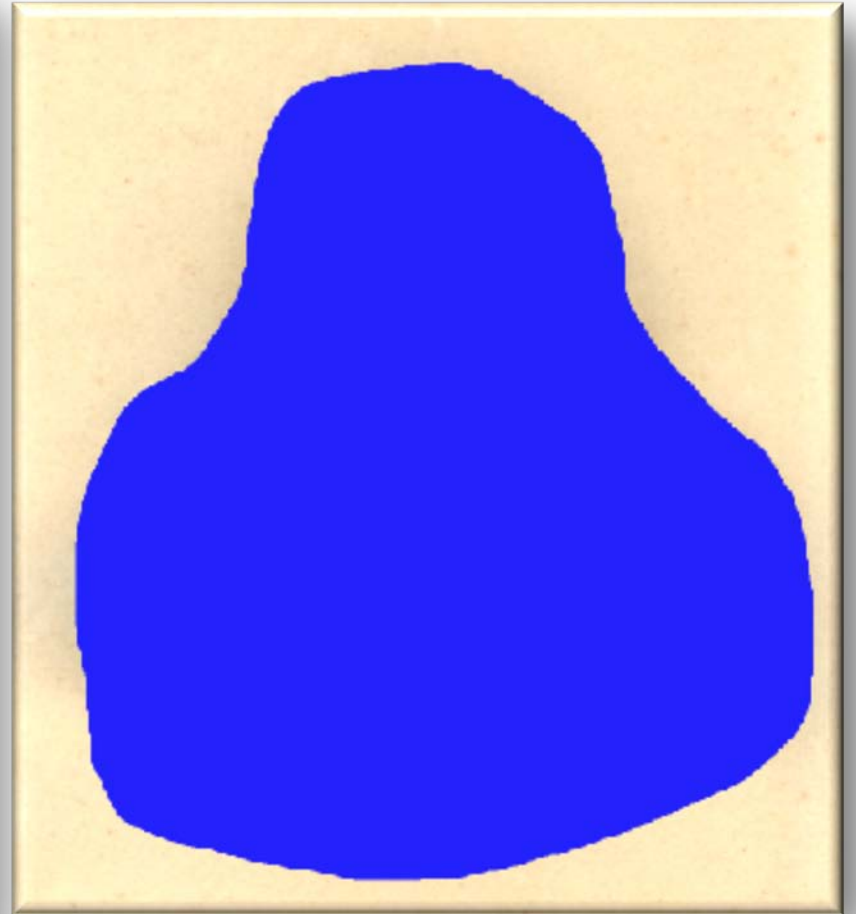
Lasso tool



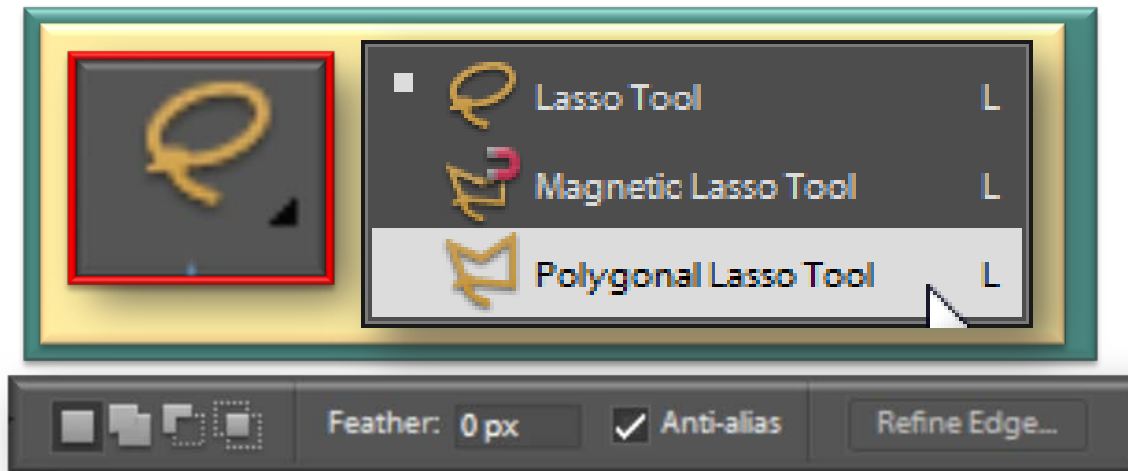
- **Make a freehand selection by clicking and dragging around an object**



Lasso tool



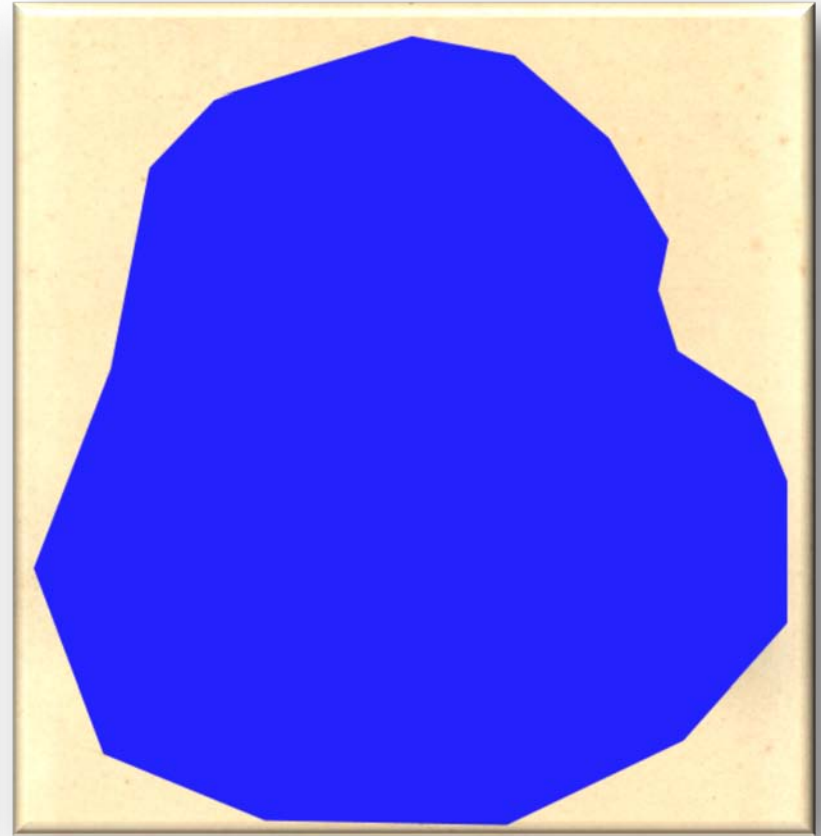
Polygonal Lasso tool



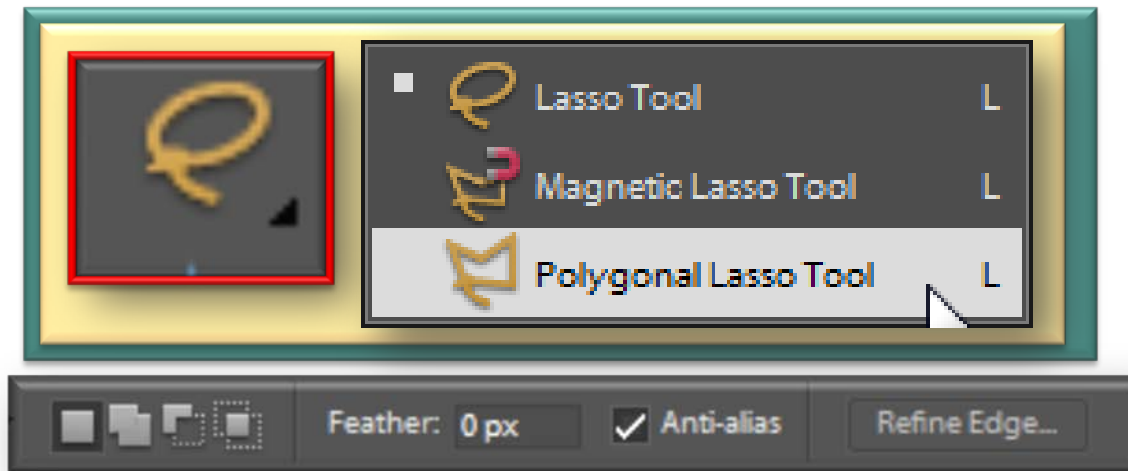
- Select the Polygonal Lasso tool from the Toolbox and select the required options from the Options bar



Polygonal Lasso tool



Magnetic Lasso tool



- Select the Magnetic Lasso tool from the Toolbox and select the required options from the Options bar



Magnetic Lasso tool



- Click once on an image to create the first anchor point

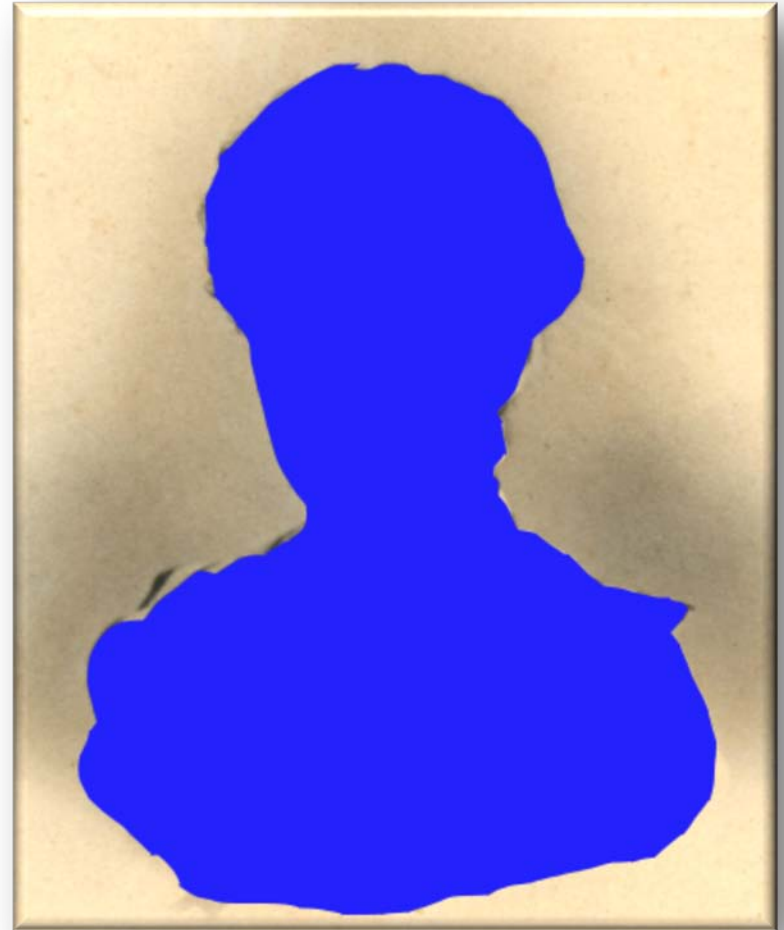


Magnetic Lasso tool



- **Make a selection by dragging continuously around an object**
- **The selection line snaps to the closest strongest edge, i.e. the one with the most contrast**
- **Fastening points are added as the selection is made**

Magnetic Lasso tool



Magic Wand tool



Magic Wand tool

- The Magic Wand tool can be used to select areas of the same, or similar, color



Magic Wand tool

- On the Options bar for the Magic Wand tool, the Tolerance box determines the range of colors that will be selected in relation to the color you click on

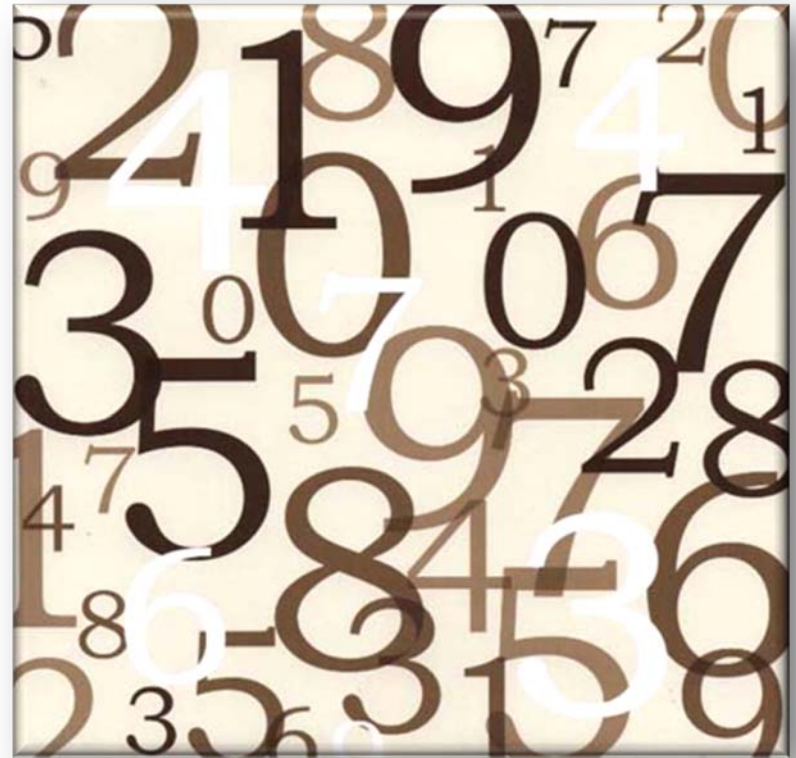


Tolerance: 32

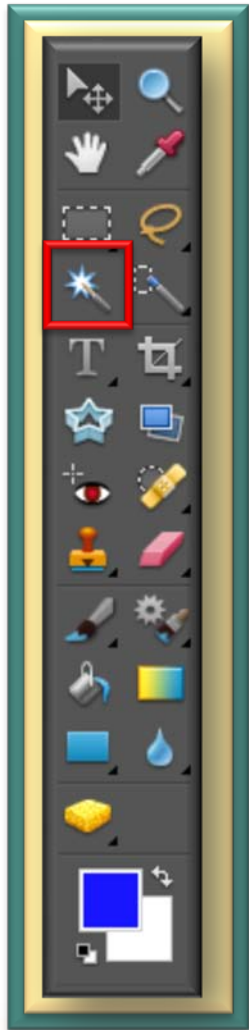


Magic Wand tool

- A low value will only select a very narrow range of colors in relation to the initially selected one, while a high value will include a greater range
- The values range from 0-255



Magic Wand tool



- Select the Magic Wand tool from the Toolbox and select the required options from the Options bar



Magic Wand tool

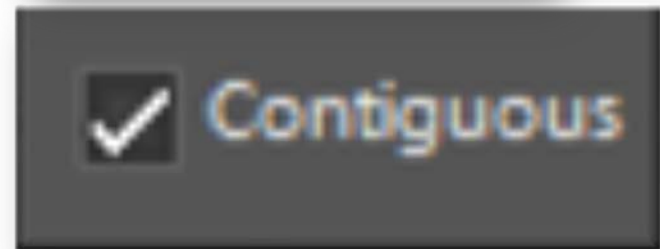


- Click on a color to select all of the adjacent pixels that are the same, or similar, color, depending on the options selected from the Options bar



Magic Wand tool tip

- On the Options bar for the Magic Wand tool, check on the Contiguous box to ensure that only adjacent colors are selected
- To select the same, or similar, color throughout the image, whether adjacent or not, uncheck the Contiguous box so that there is no tick showing



Selection Brush tool



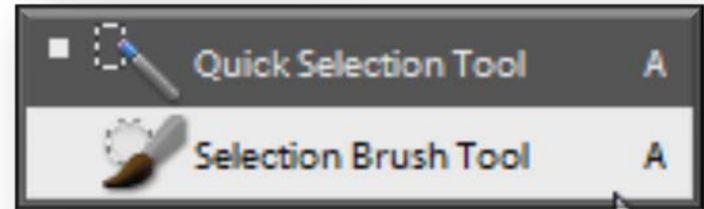
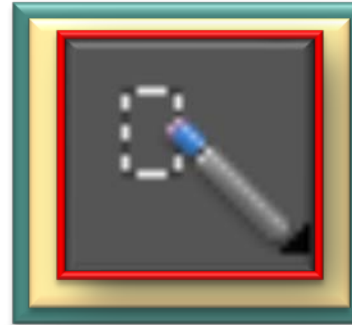
Selection Brush tool

- **The Selection Brush tool can be used to select areas by using a brush-like stroke**



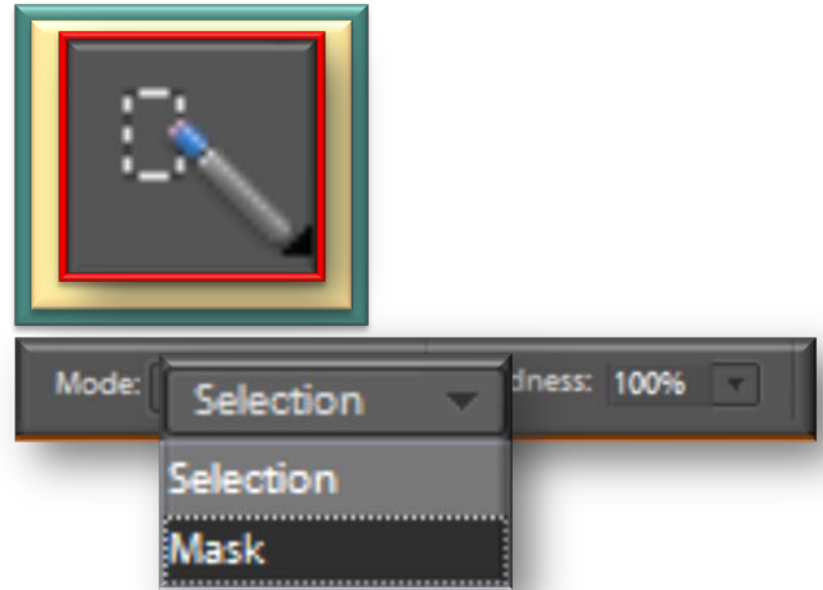
Selection Brush tool

- Unlike with the Marquee or Lasso tools, the area selected by the Selection Brush tool is the one directly below where the tool moves

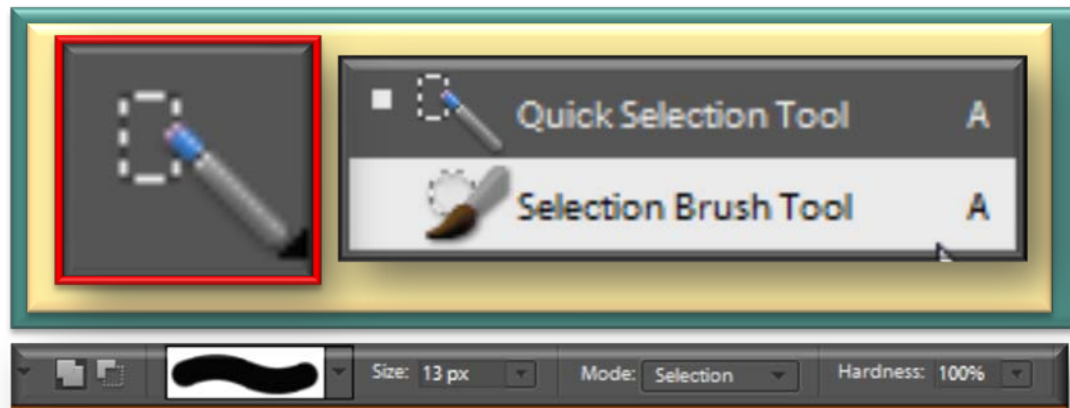


Selection Brush tool

- The Selection Brush tool can be used to select an area or to mask an area
- This can be determined in the Mode box in the Options bar



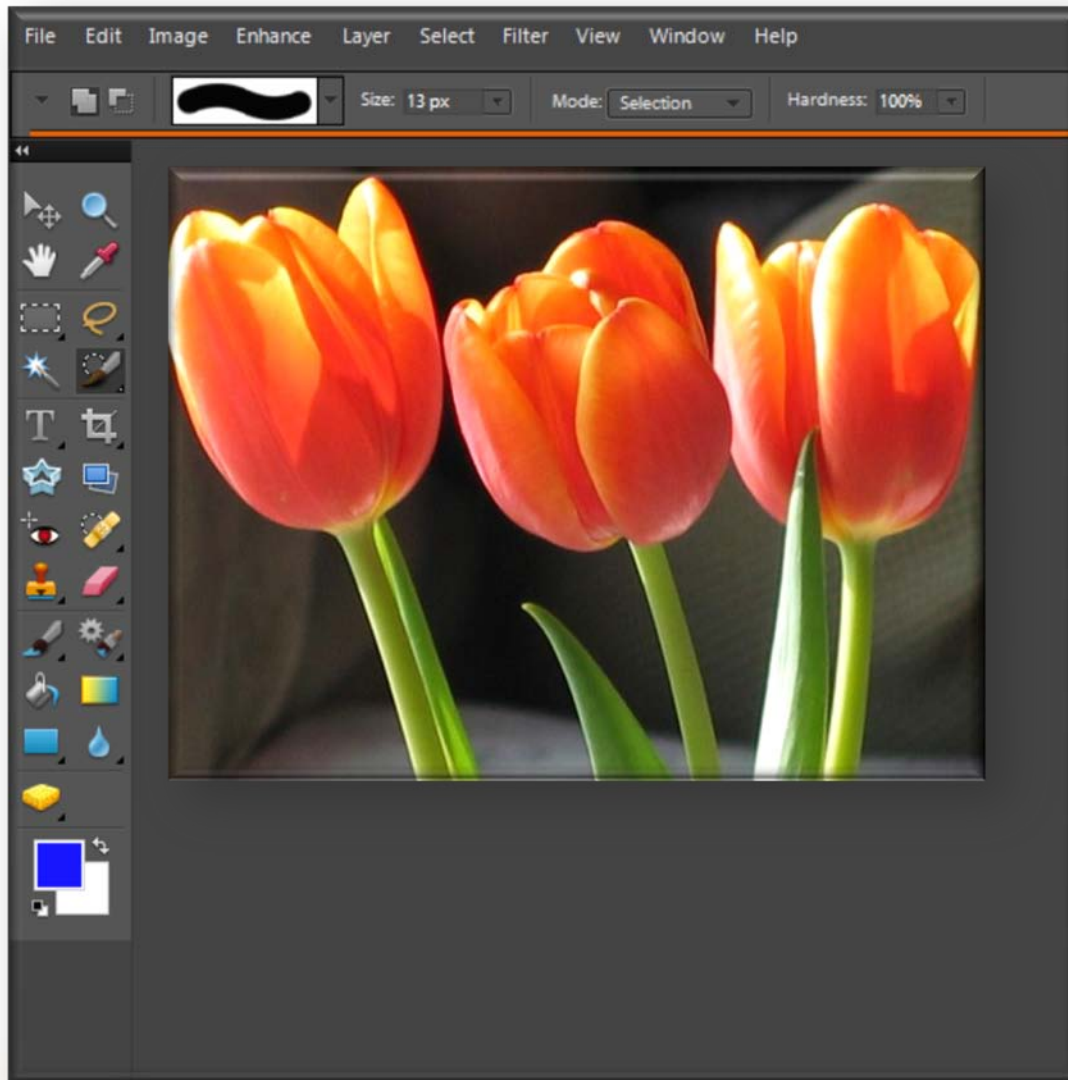
Selection Brush tool



- **Select the Selection Brush tool from the Toolbox and select the required options from the Options bar**



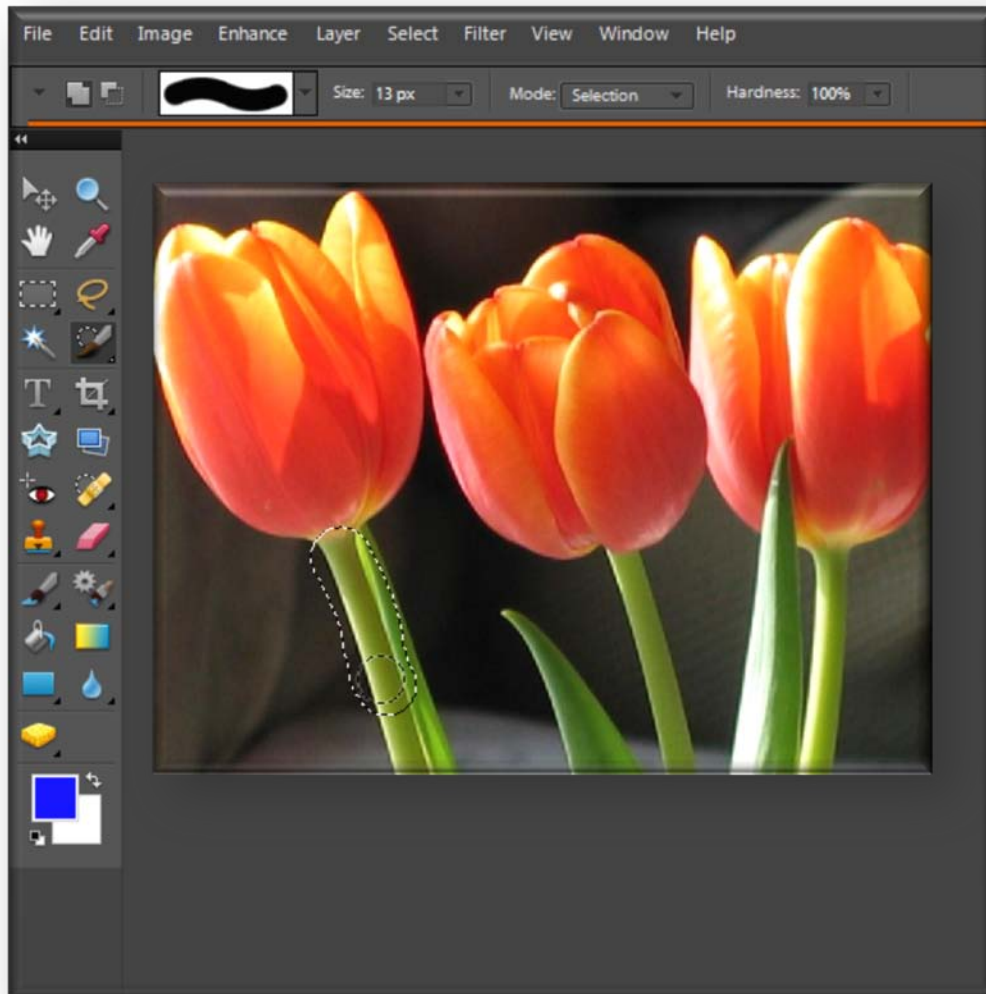
Selection Brush tool



● Open image



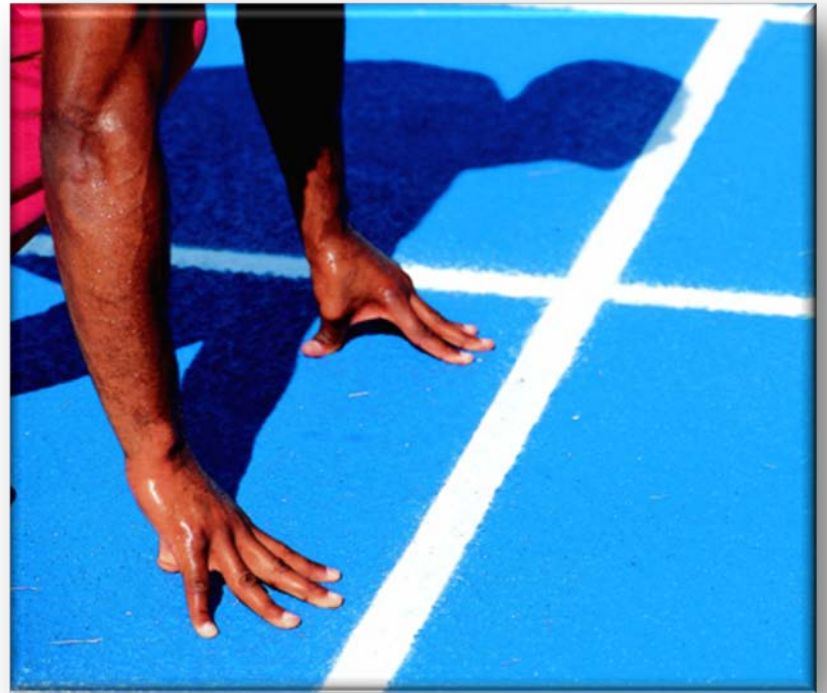
Selection Brush tool



● Click and drag to make a selection

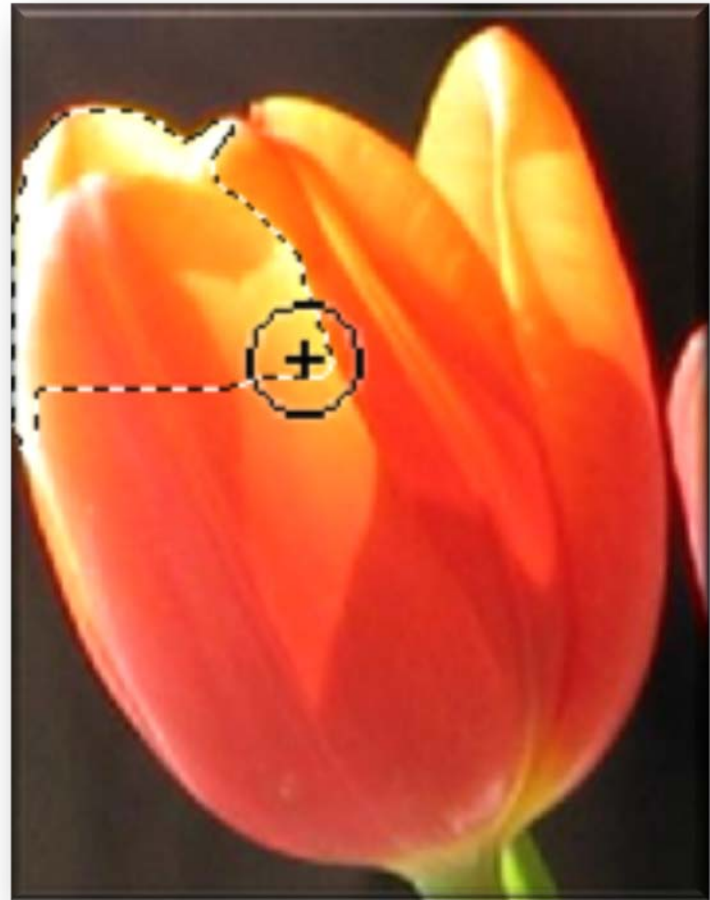


Quick Selection tool

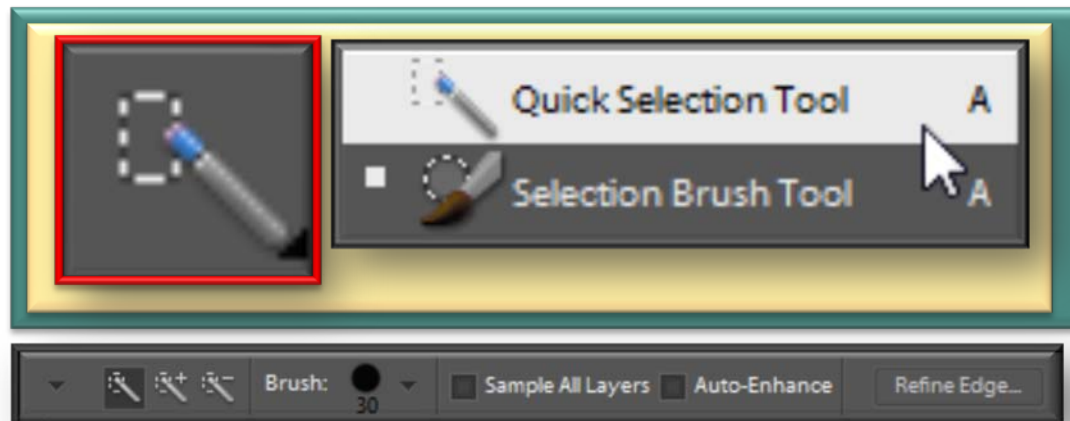


Quick Selection tool

- The Quick Selection tool can be used to select areas of similar color by drawing over the general area without having to make a specific selection



Quick Selection tool



- **Select the Quick Selection tool from the Toolbox**



Quick Selection tool



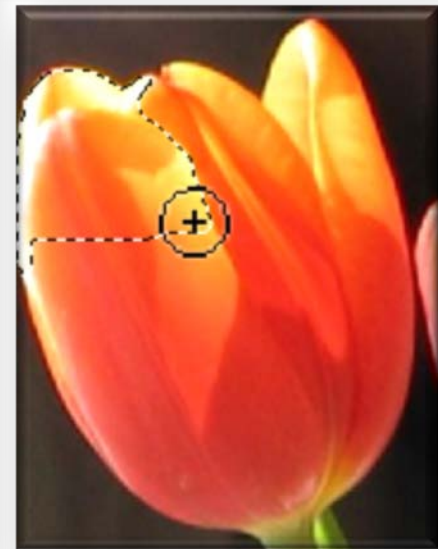
- **Select the required options from the Options bar**



Quick Selection tool



● Draw over an area, or part of an area, to select all of the similarly colored pixels



Quick Selection tool



● Draw over an area, or part of an area, to select all of the similarly colored pixels



Smart Brush tool



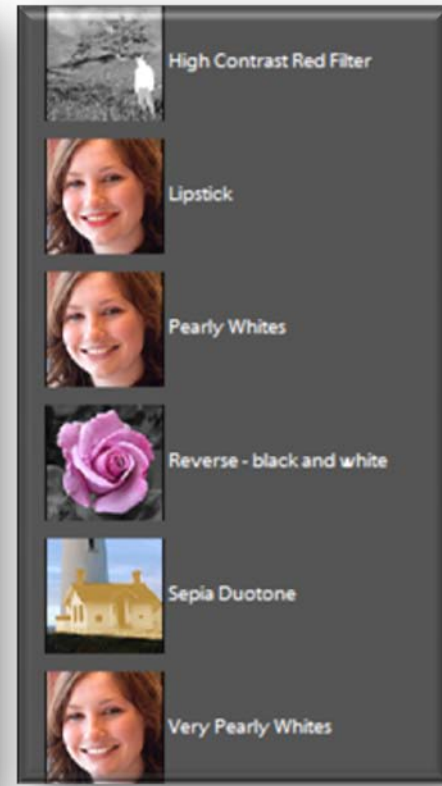
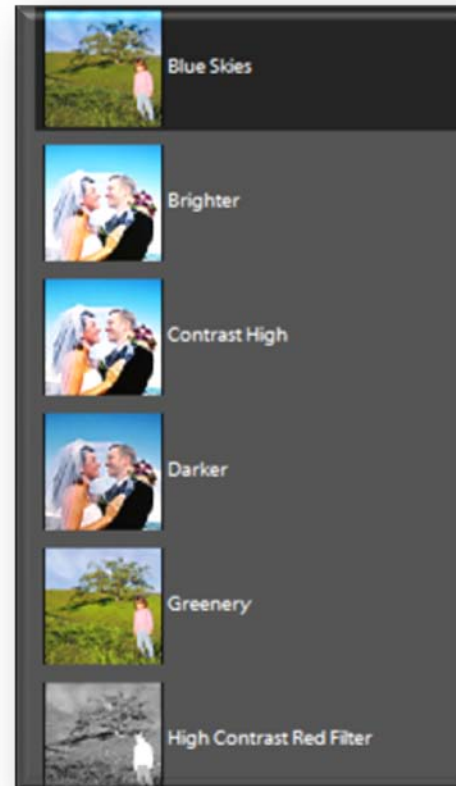
Smart Brush tool

- The Smart Brush tool can be used to quickly select large areas in an image (in a similar way to the Quick Selection tool) and then have effects applied automatically to the selected area

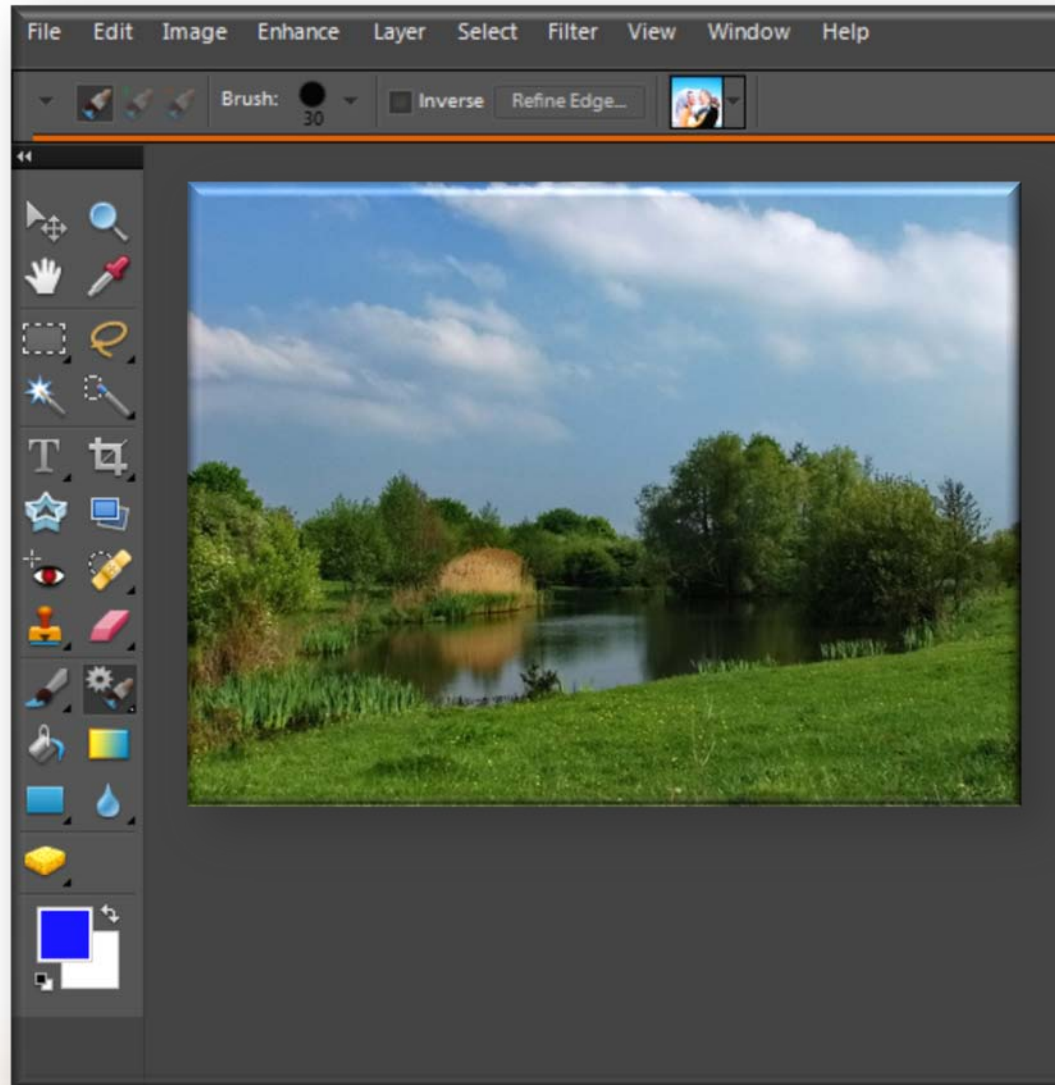


Smart Brush tool

- Multiple editing effects can be applied with the Smart Brush tool within the same image
- This usually requires selecting different parts of the image and selecting the required effect



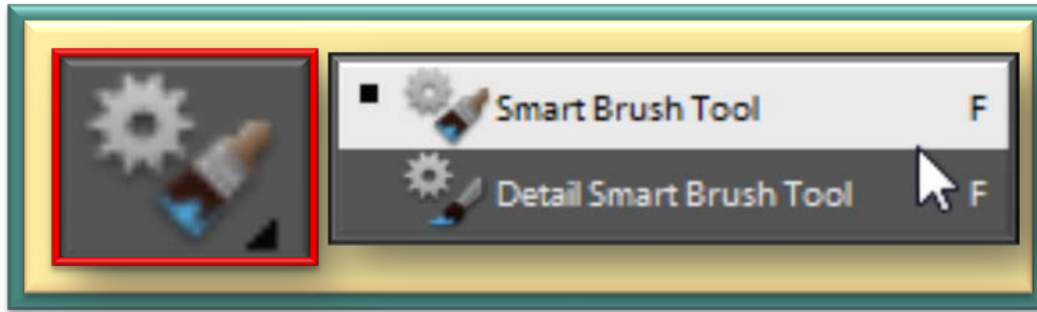
Smart Brush tool



- Open the image to which you want to apply changes with the Smart Brush tool



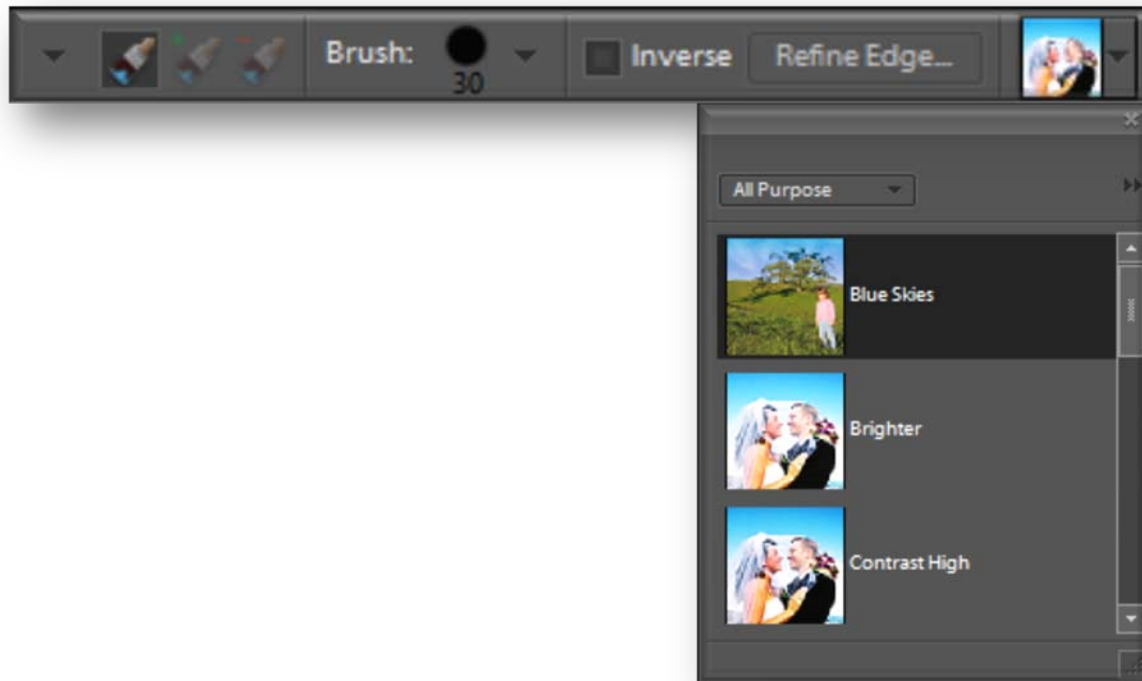
Smart Brush tool



- **Select the Smart Brush tool from the Toolbox**



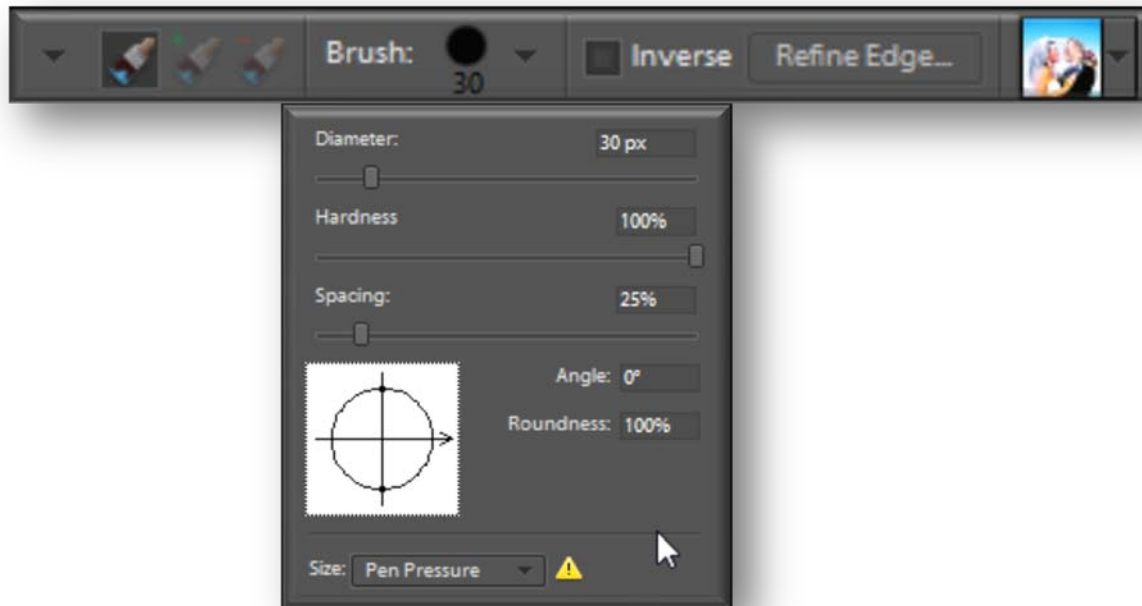
Smart Brush tool



● Select the editing effect you want to apply to the area selected by the Smart Brush tool, from the Options bar



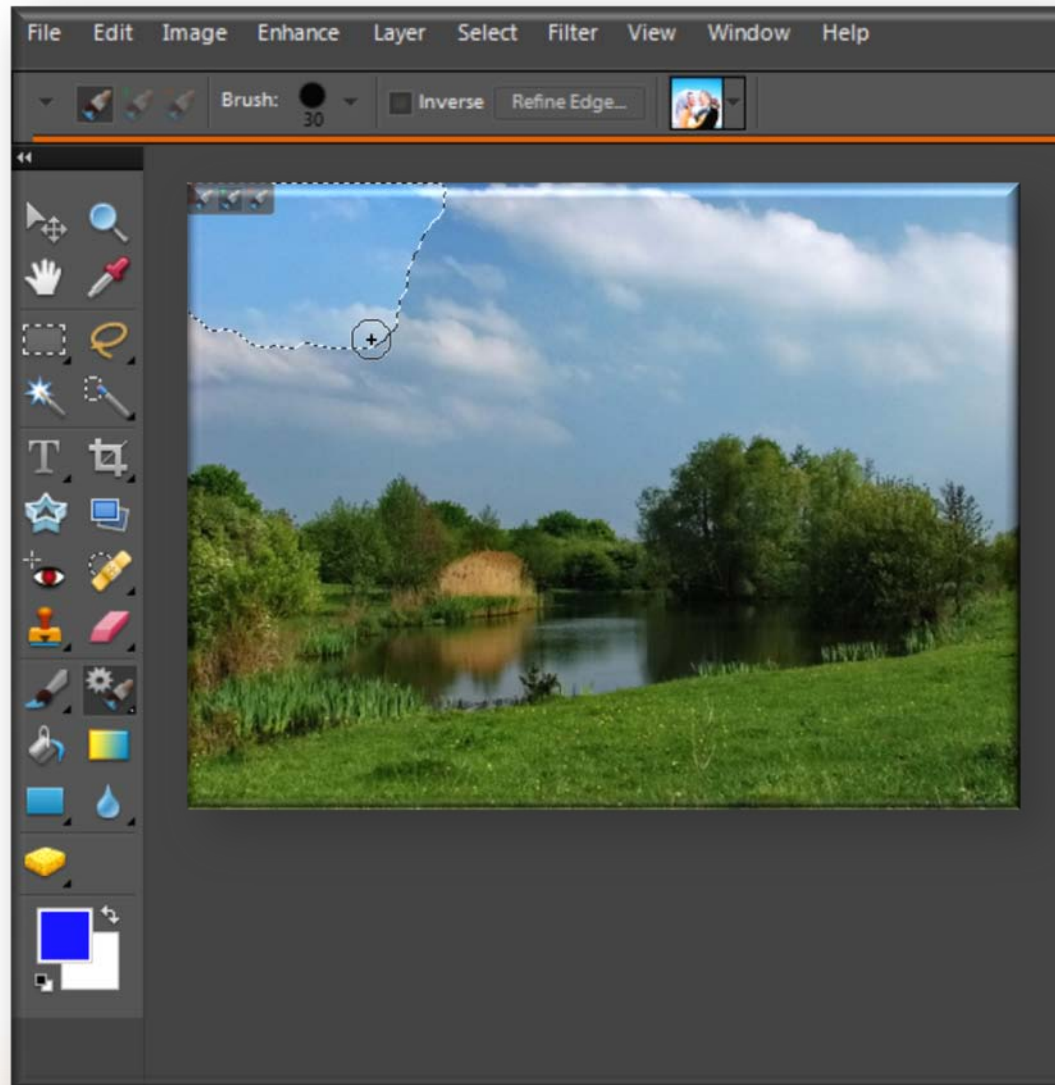
Smart Brush tool



- **Select Brush size for the Smart Brush tool, from the Options bar**



Smart Brush tool



● Drag the Smart Brush tool over an area of the image



Smart Brush tool



Feathering



Feathering

- **Feathering is a technique that can be used to soften the edges of a selection by making them slightly blurry**
- **This can be used if you are pasting a selection into another image or if you want to soften the edges around a portrait of an individual**

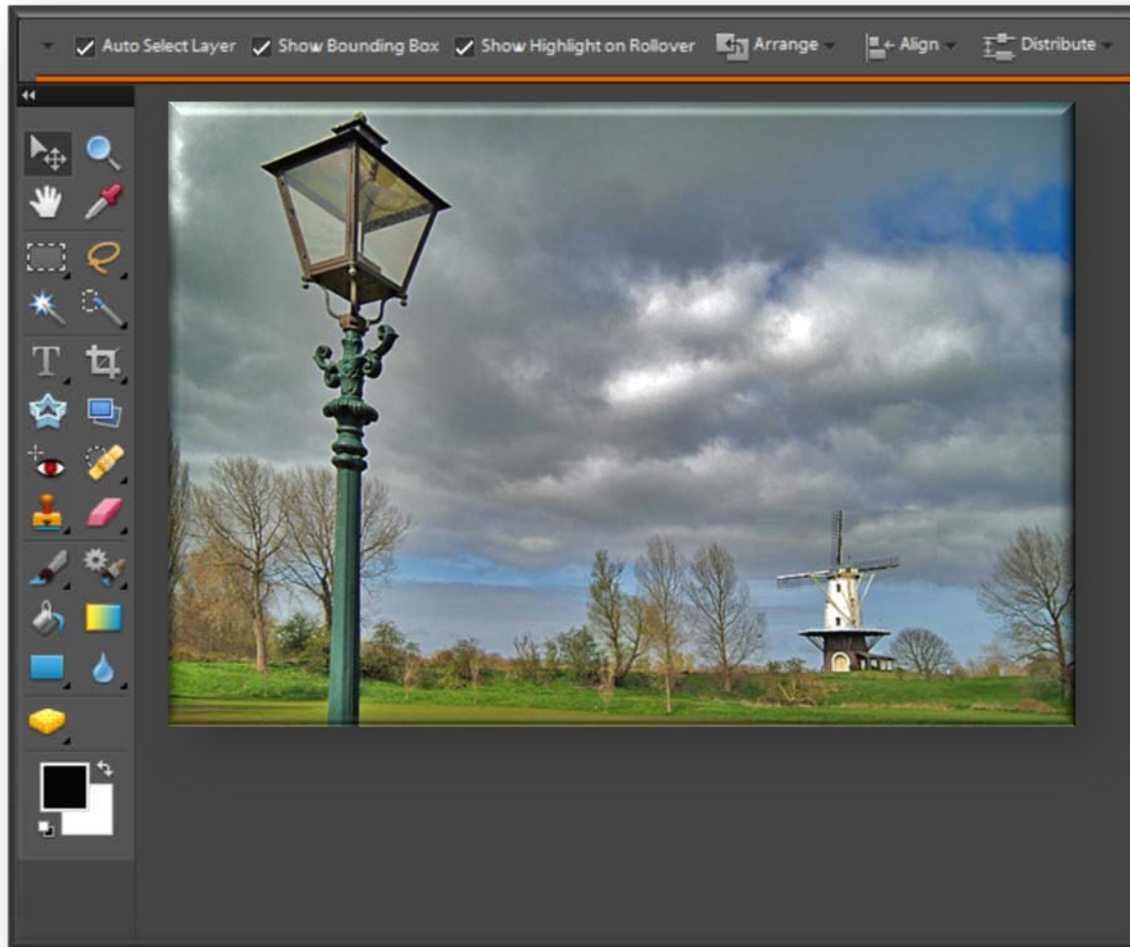


Feathering

- Feathering can also be selected from the Options bar once a Marquee tool is selected and before the selection has been made



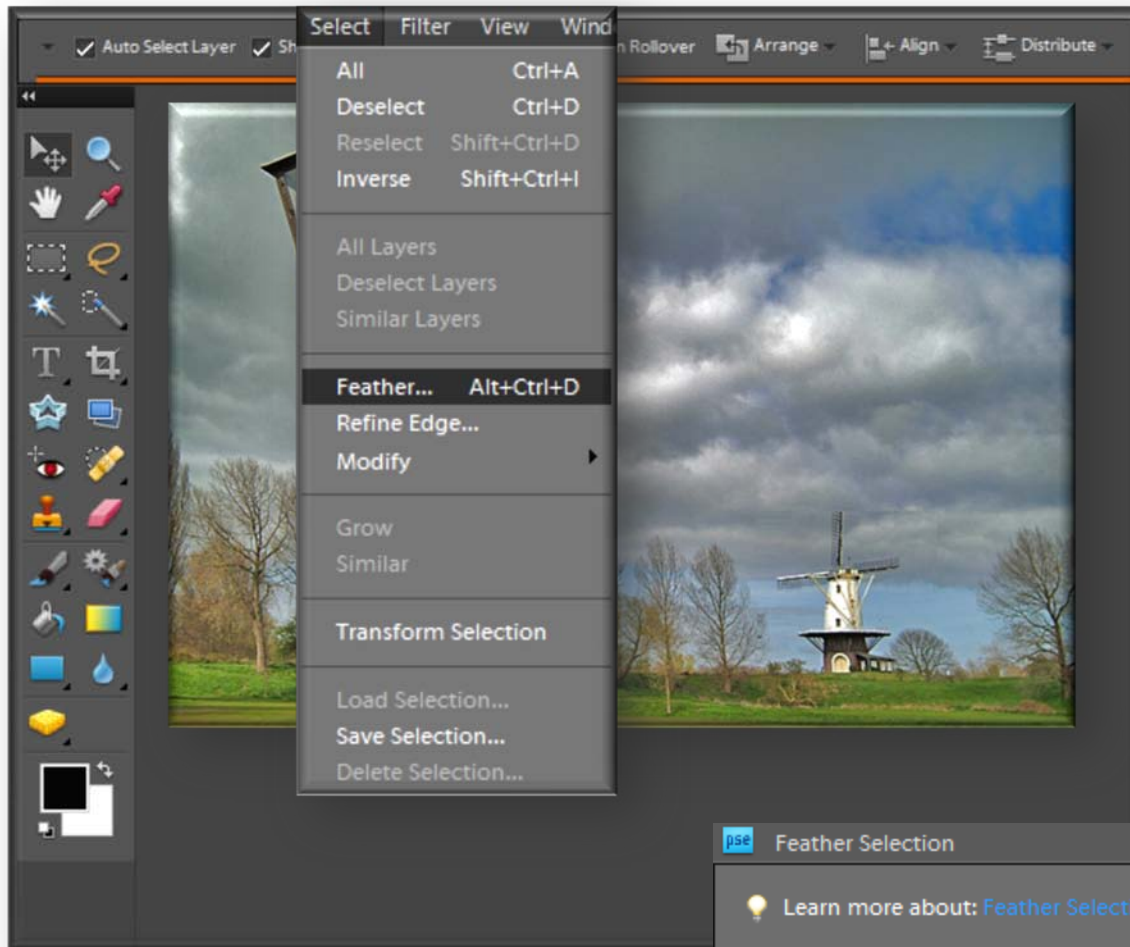
Feathering



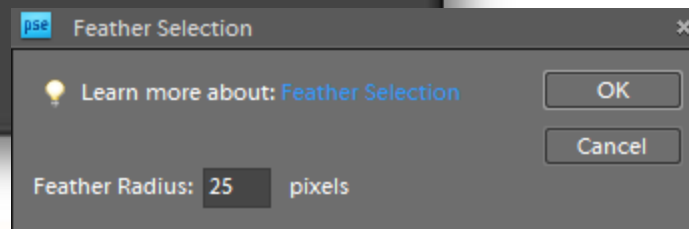
● **Make a selection**



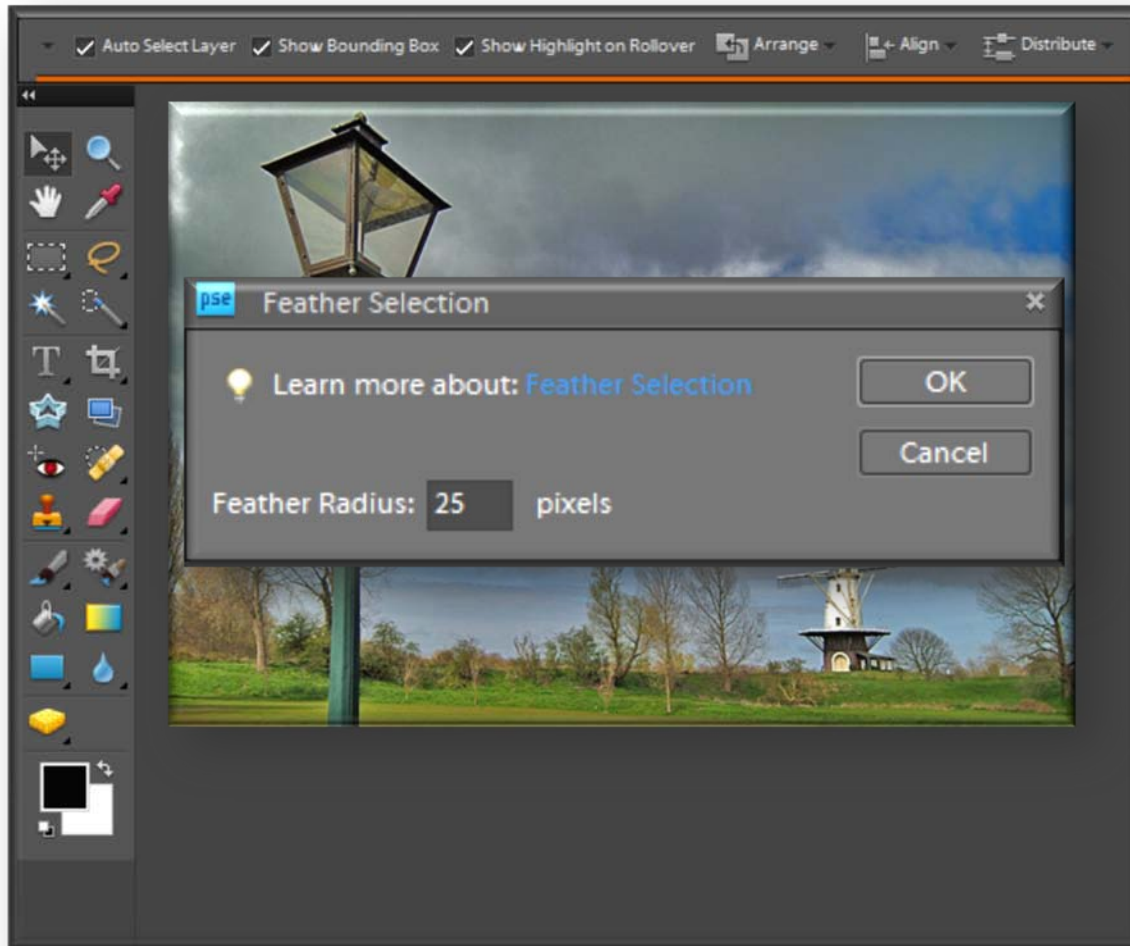
Feathering



● Choose **Select> Feather** from the Menu bar



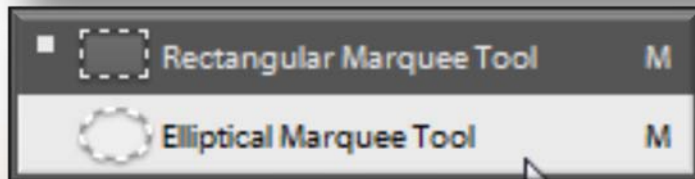
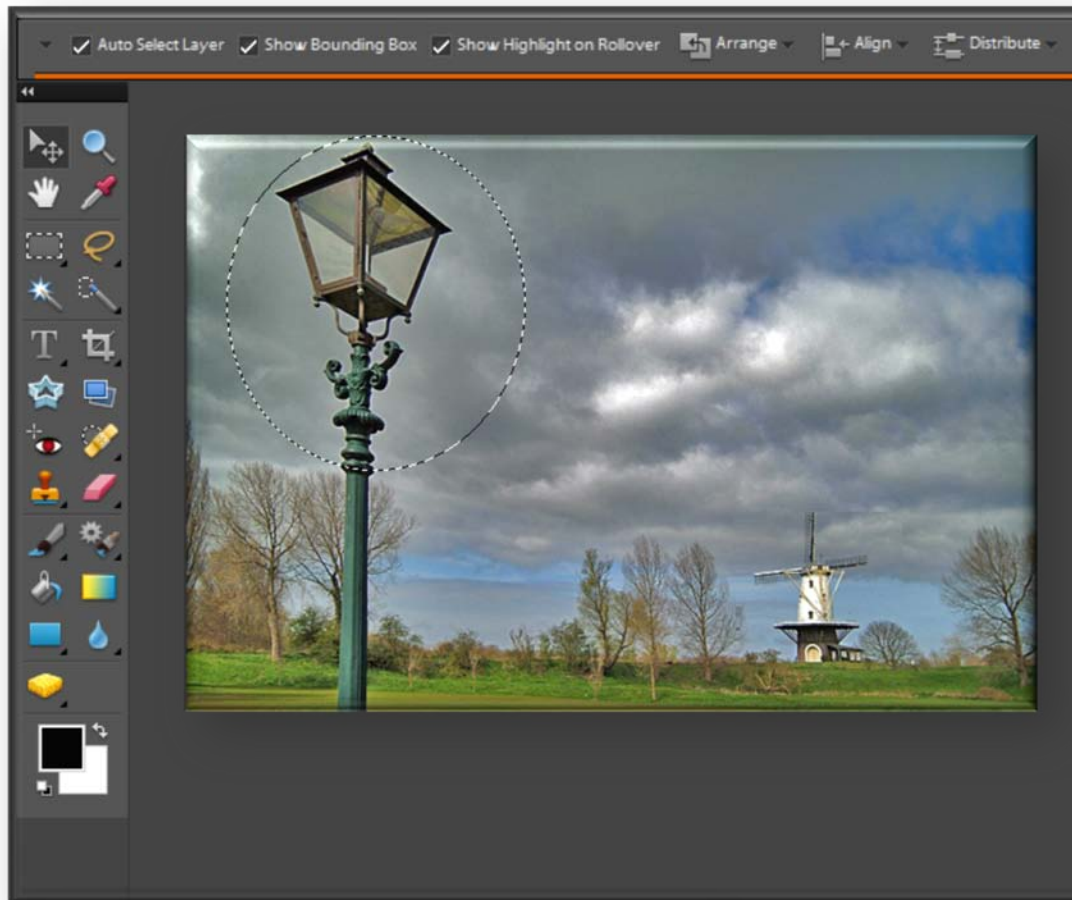
Feathering



- Enter a Feather value (the number of pixels around the radius of the selection that will be blurred)
- Click on the OK button



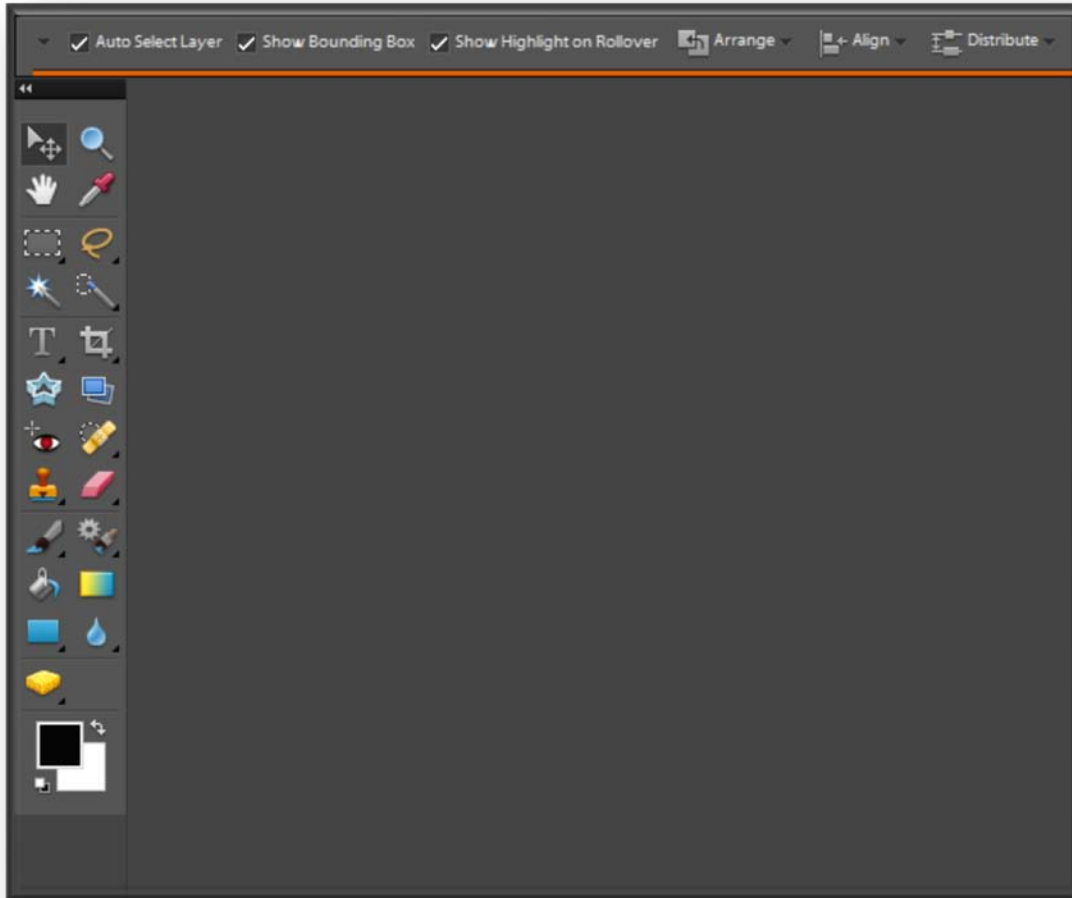
Feathering



You can create a feathered selection with the Elliptical Marquee, Rectangular Marquee, Lasso, Polygonal Lasso, or Magnetic Lasso tool



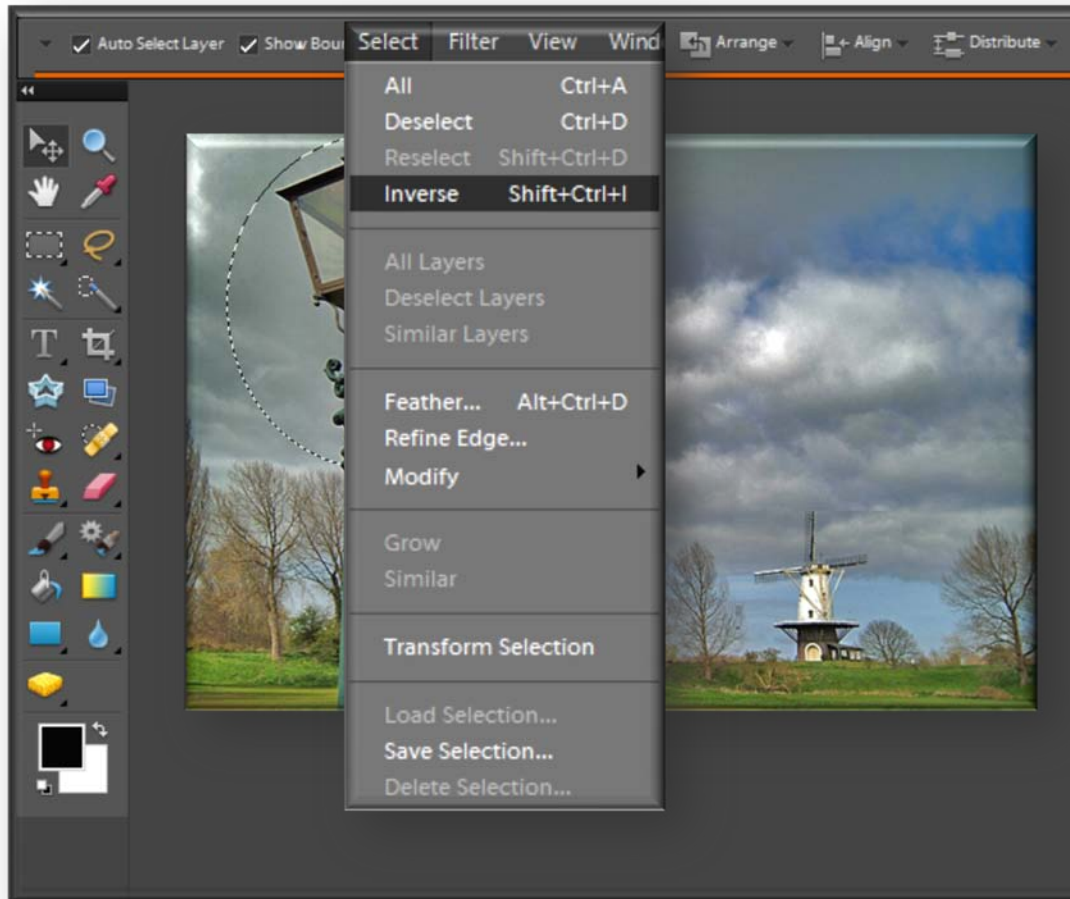
Feathering



- You can also add feathering to an existing selection by using the Select menu
- Feathering effects are apparent when you move, cut, copy, or fill the selection



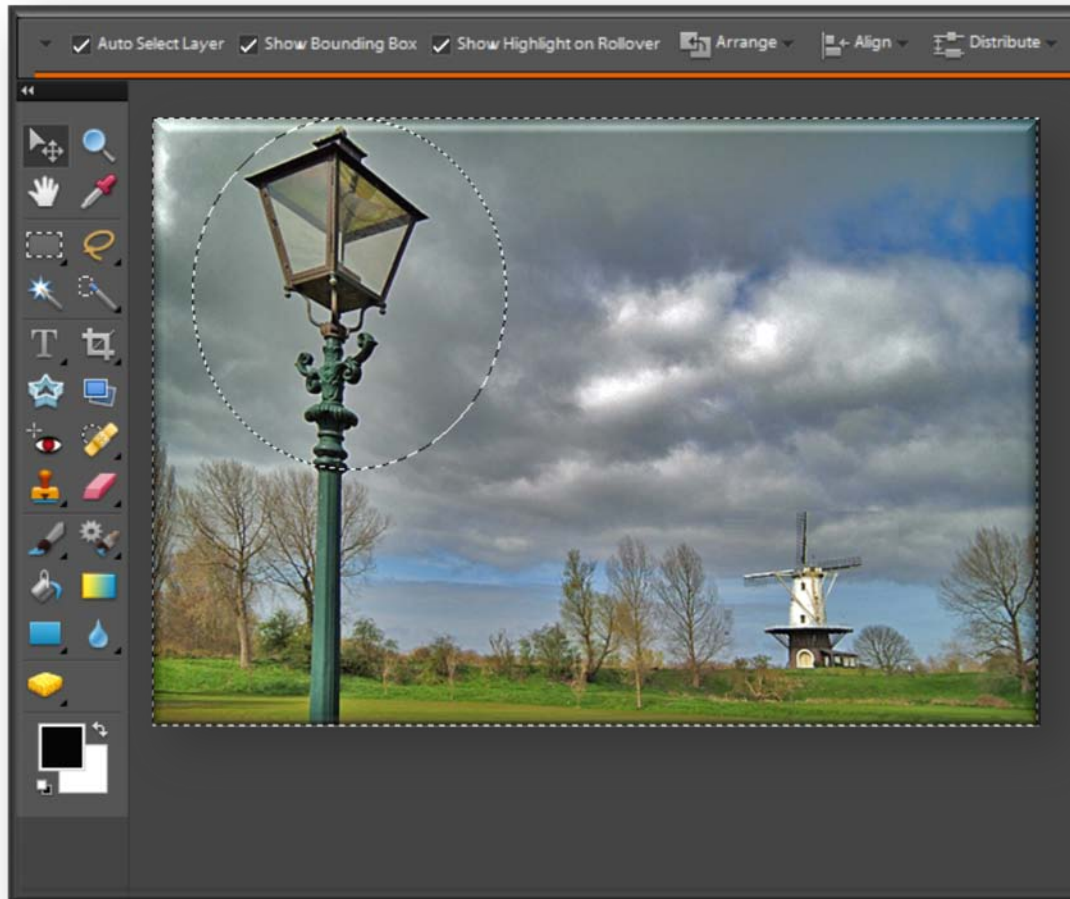
Feathering



- **Invert the selection as shown on the previous page and delete the background by pressing Delete**
- **This will leave the selection around the subject with softened edges**



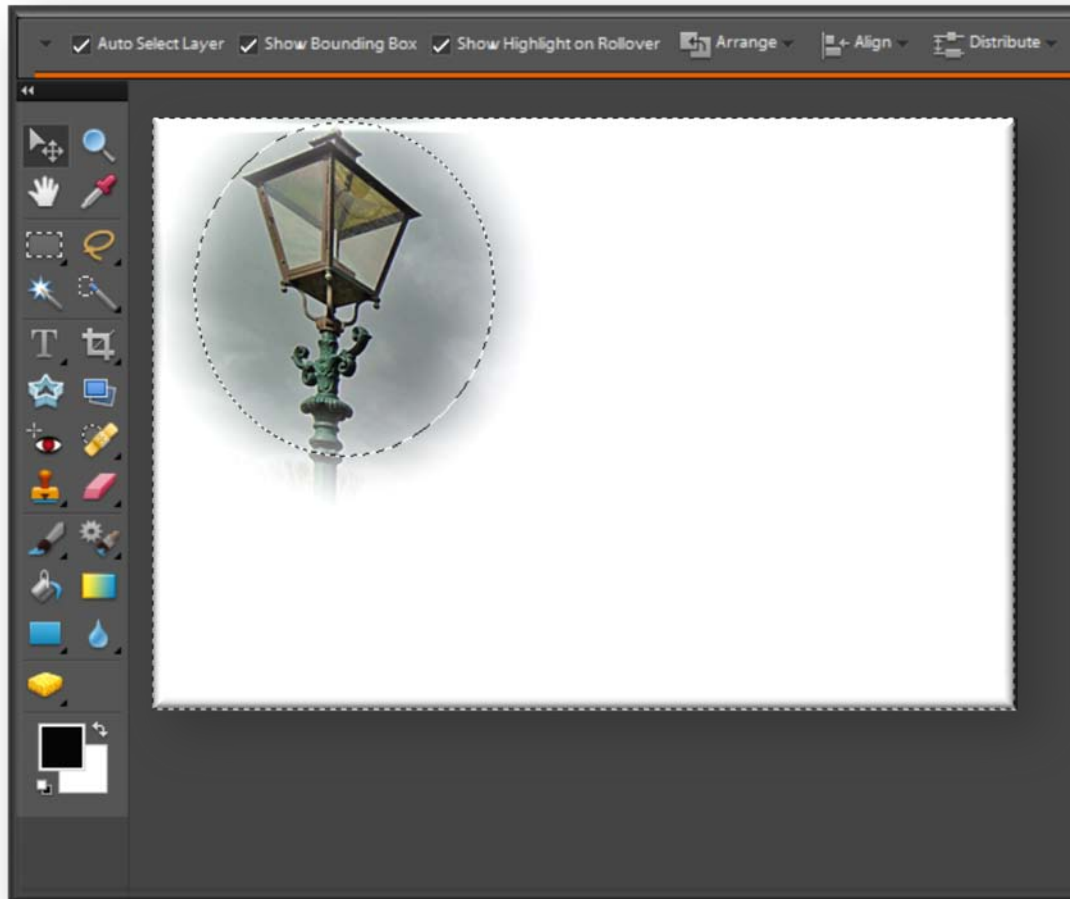
Feathering



- **Invert the selection as shown on the previous page and delete the background by pressing Delete**



Feathering




● This will leave the selection around the subject with softened edges



Feathering tip

- If required, crop the final image so that the feathered subject is more prominent





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