

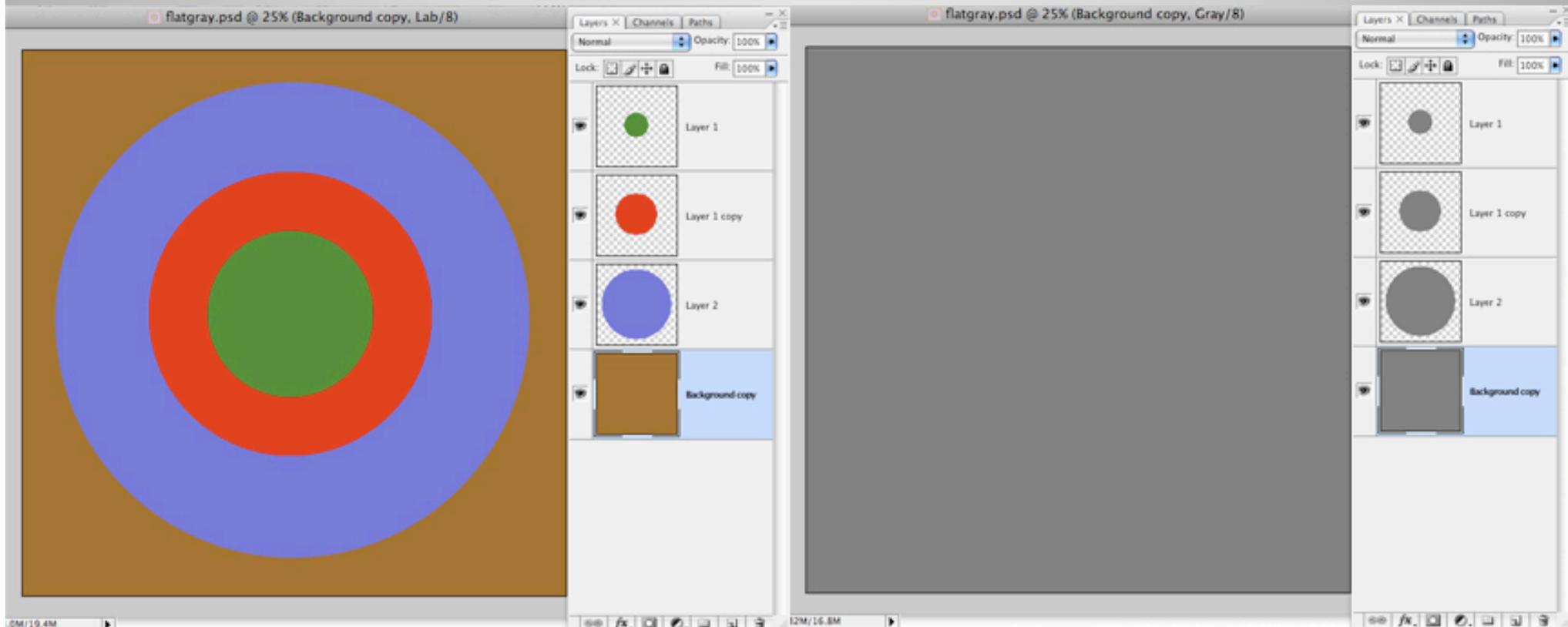
The Digital Darkroom

Workflow

Workflow Overview

- Traditionally the Darkroom is where the photographer developed photographs from a negative using enlargers (a light source) and light sensitive papers and chemicals.
- The “Digital Darkroom” is the place where you develop, fix, correct, make perfect, your digital photograph.
- Workflow is the method or system for “developing” or correcting an image in the Digital Darkroom.
- The following steps are the procedure for “correcting” or improving an image.
- Since each step affects the overall image, it is important to follow the steps in order. Like following a cooking recipe.

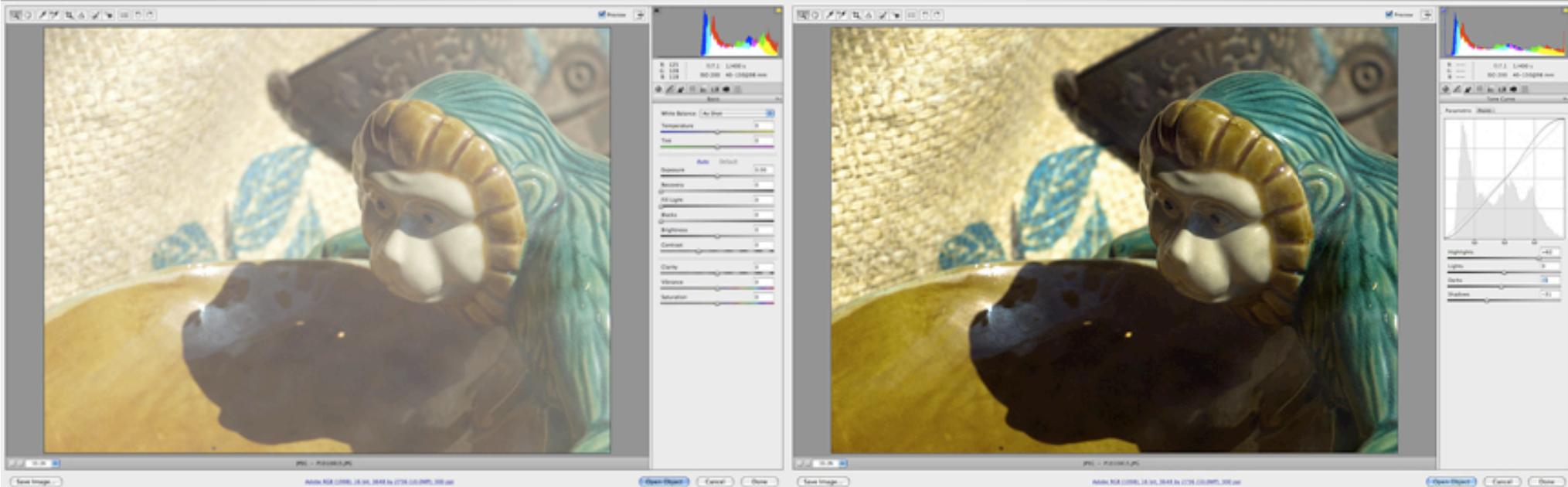
- VALUE is the darks and lights of an image. The Value range runs from Black to White with all the grays in-between.
- HUE is the color of the file.
- In Digital Photography it is important to separate and recognize the difference between the Value and the Color of an image.
- In the Digital Darkroom we work on the Value and the Color of an image separately.



The color image on the left was created in Adobe Photoshop. The image on the right is the same file converted to grayscale. Hue and Value are very different elements.

- The first step in “correcting” a photograph is to adjust the image file so it has a complete tonal range going from black to white.
- Adjusting the Black, White and Tonal Range of your file will instantly make your photo look better, richer, as there is now a greater range of detail or information in the image.
- The second step is to adjust for any color cast which the image file may have, due to the lighting conditions or tints created by the camera itself. Generally these tints are orange from indoor incandescent lights, green from fluorescent lights and blue from forgetting to reset the White Balance when shooting outdoors.

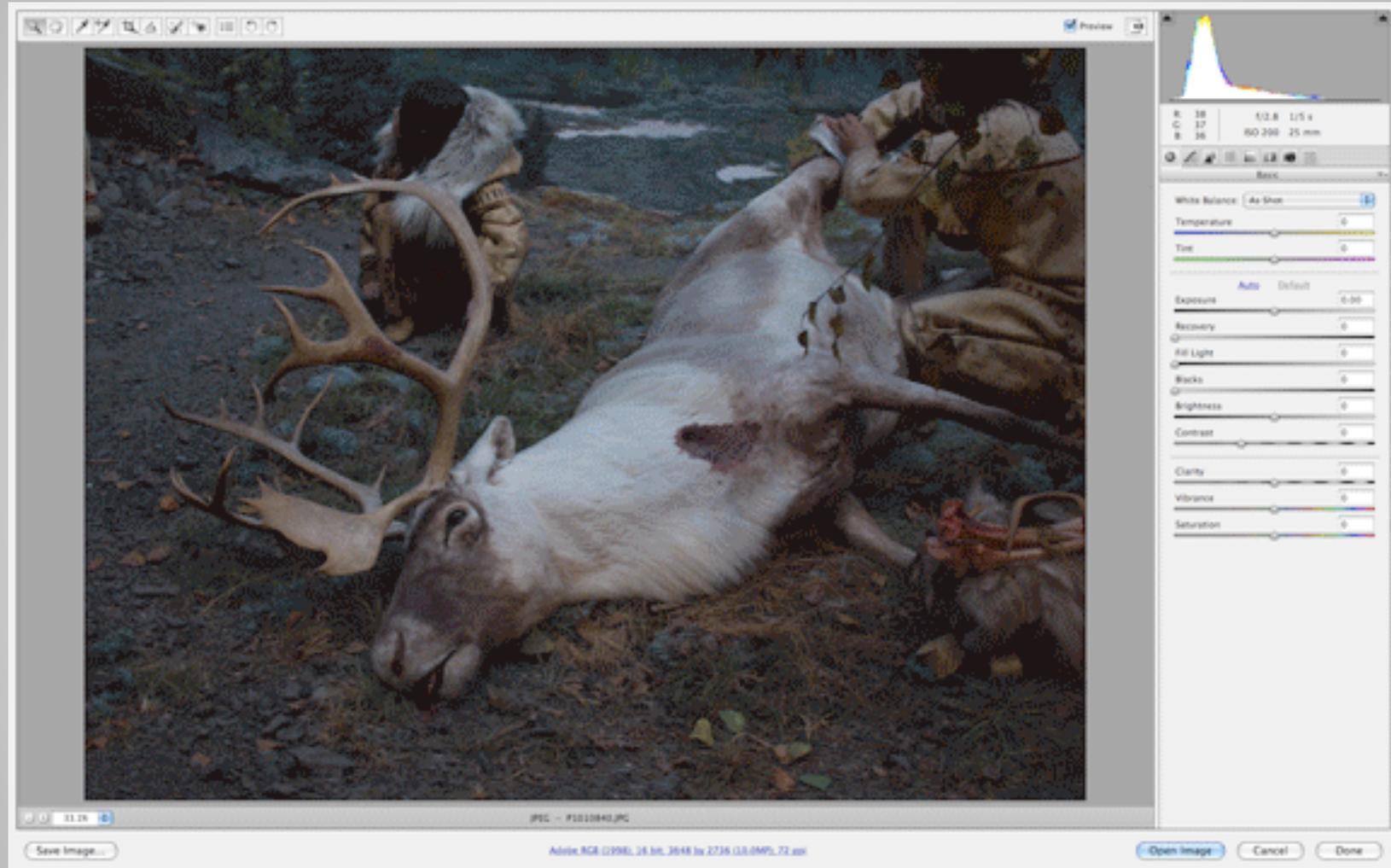




The image on the left is the original shot. The image on the right has been adjusted for blacks, whites, and mid-tones. The color has not been adjusted at all. Notice how much richer the color becomes just by adjusting the Value.

- Next the image file should be cropped and rotated. Sometimes when you shoot a picture you may not be set square. Also many times an image can be improved by cropping out distracting information at the edges of the photo frame.
- Next specific problematic areas of the image file need to be corrected. Sometimes this means adjust certain color areas, such as the sky, or in some cases adjusting the contrast of the values to help direct the eye to the subject of the photograph.
- Finally the image file should sharpened.

Workflow is the process of correcting a photograph to its best possible state.

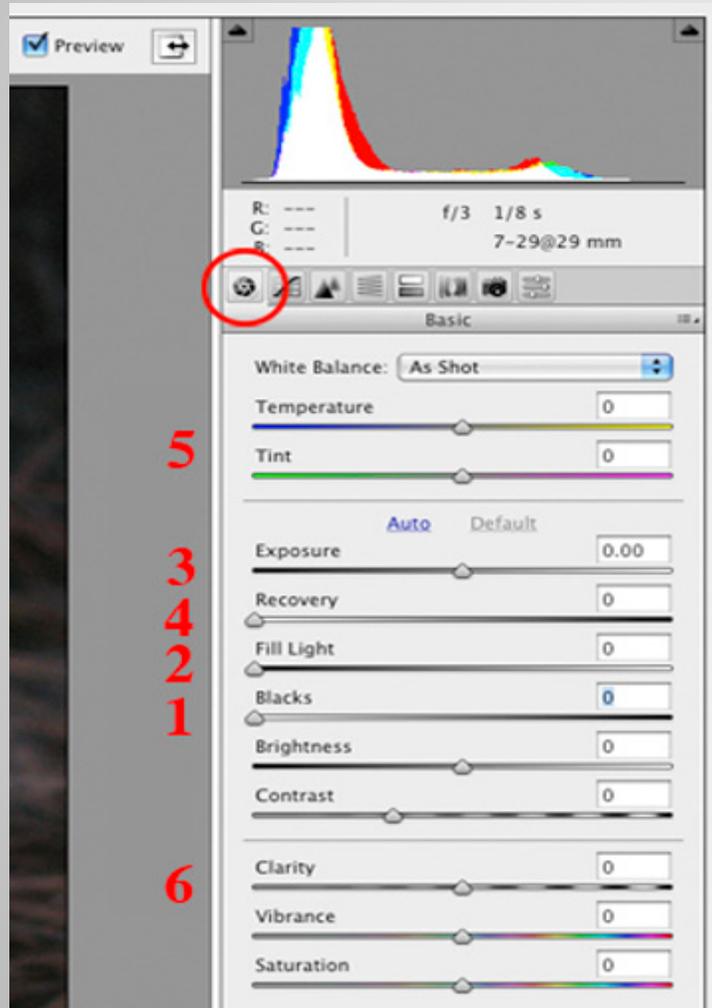


Much like following a recipe to prepare dinner from scratch, it is important to follow the steps in order for the best result.

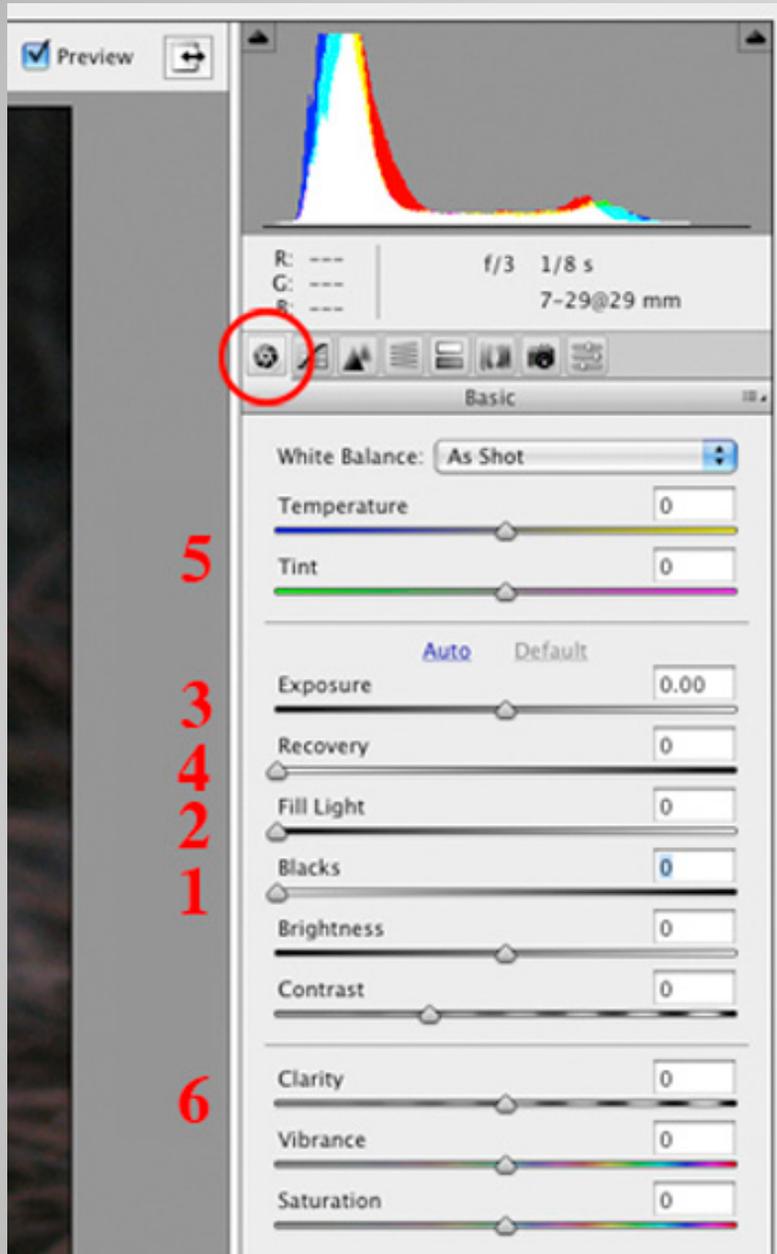
Step One – Global Corrections

- Global Corrections in this case means making adjustments which affect the entire file or photograph.
- Begin by establishing the blacks and whites in your file. This adjusts your file to have true 100% Blacks and pure Whites in it.
- Doing this gives your image the greatest tonal range and will give your image a much richer feel. Almost all photos can benefit from doing this first step.

Basic Global Adjustments in Camera Raw Blacks, Whites and Clarity



- **1.** Blacks - use this slider to make sure your image has true or real black in it. Most point and shoot cameras do not produce a nice dark tone or 100% black.
- Hold down the option/alt key and slowly pull the slider to the right. You will see dark areas begin to appear. As soon as a few of these appear STOP. Do not overdo this, you will lose detail in the dark areas of our image.



- **2.** Fill Light-this lightens up some of the shadow areas to bring back some of the detail. This only works in certain cases. Try it, if you don't like the results, leave it alone.
- **3.** Exposure-the overall lightness or darkness of the image. Can be thought of as the opposite of the Blacks slider. Use this to establish a true white in your image. You want to have an image that goes from true black to true white for the richest looking image.
- Hold down the option key and slowly pull the slider to the right. You will see light areas begin to appear. As soon as a few of these appear STOP. You do not want to lose detail in the highlight areas.
- **4.** Recovery-works like Fill Light, brings information back into overexposed areas.



original



corrected



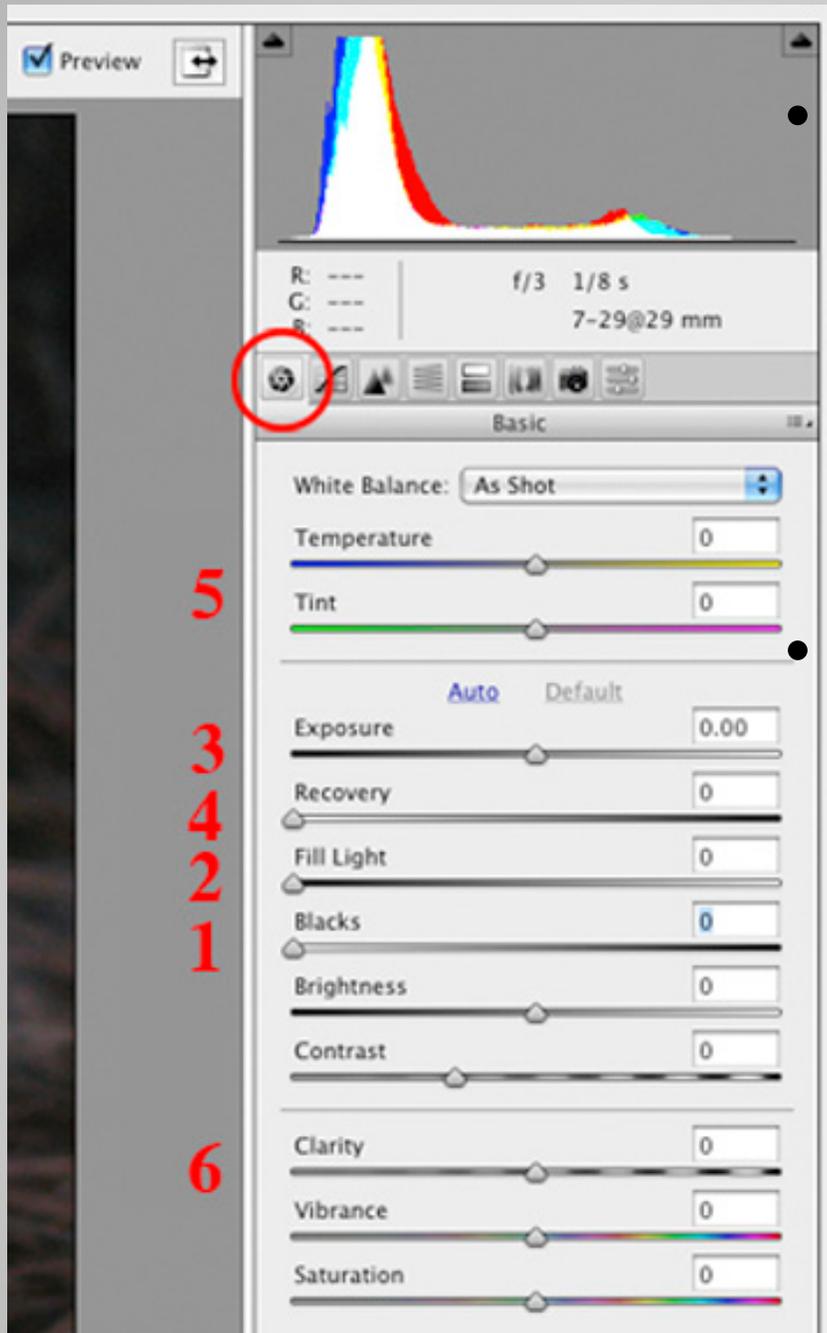
under-exposed



over-exposed

Notice in the under-exposed image the dark areas turn completely black and there is a loss of any detail in those areas.

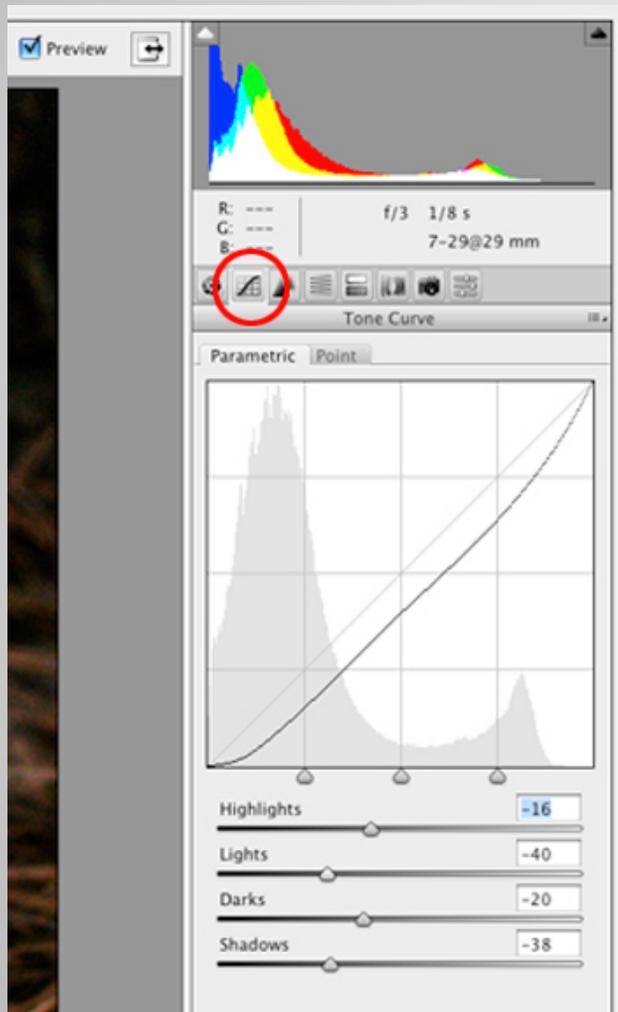
In the over-exposed the detail of the hair on the elks neck is lost.



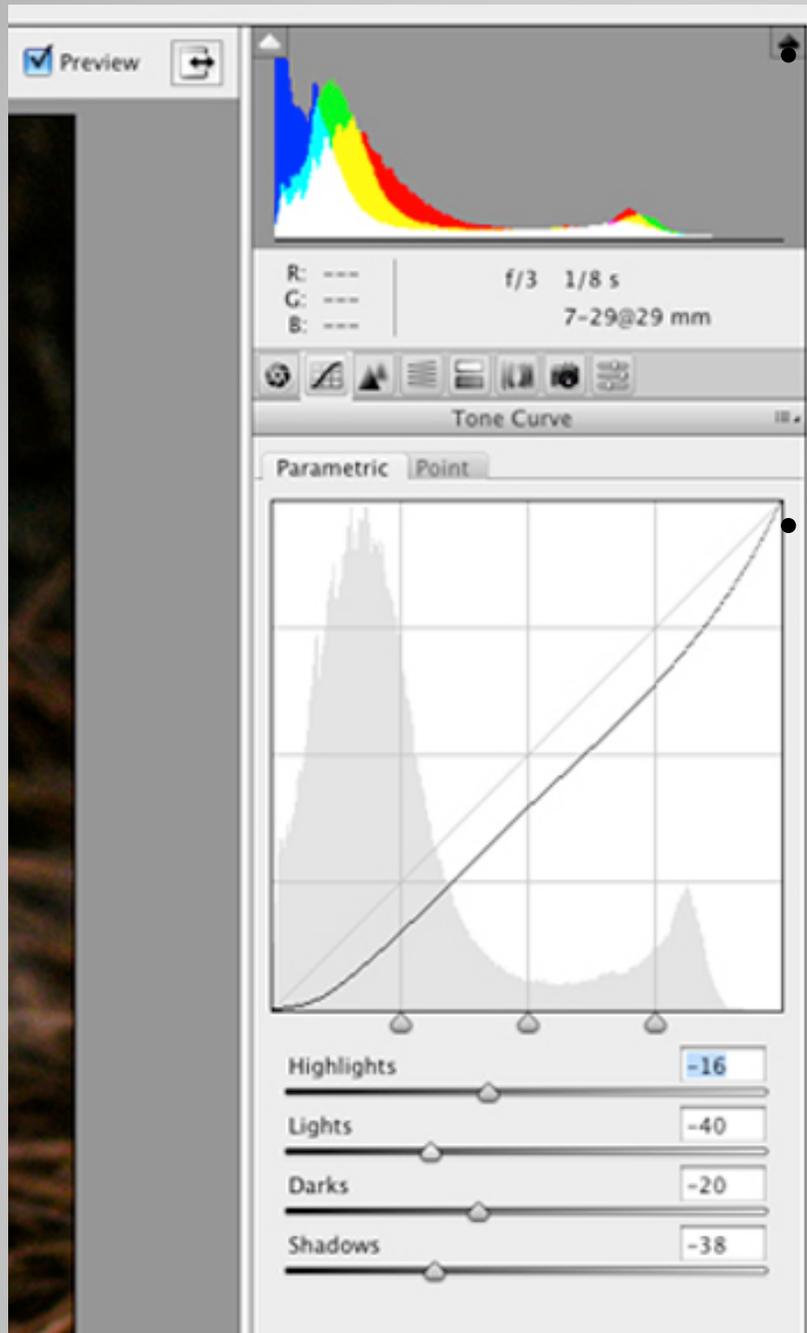
- 5. Temperature and Tint-allow for an overall correction to the color tint of your image. If you have a sunny image you may want to warm it up a little. If it is a snowy cold image maybe you would want to cool it down.

- 6. Clarity - works similar to a sharpening feature. It will increase the contrast along edges. Do last as other steps will also make image look sharper.

Step 2 – Mid-tones

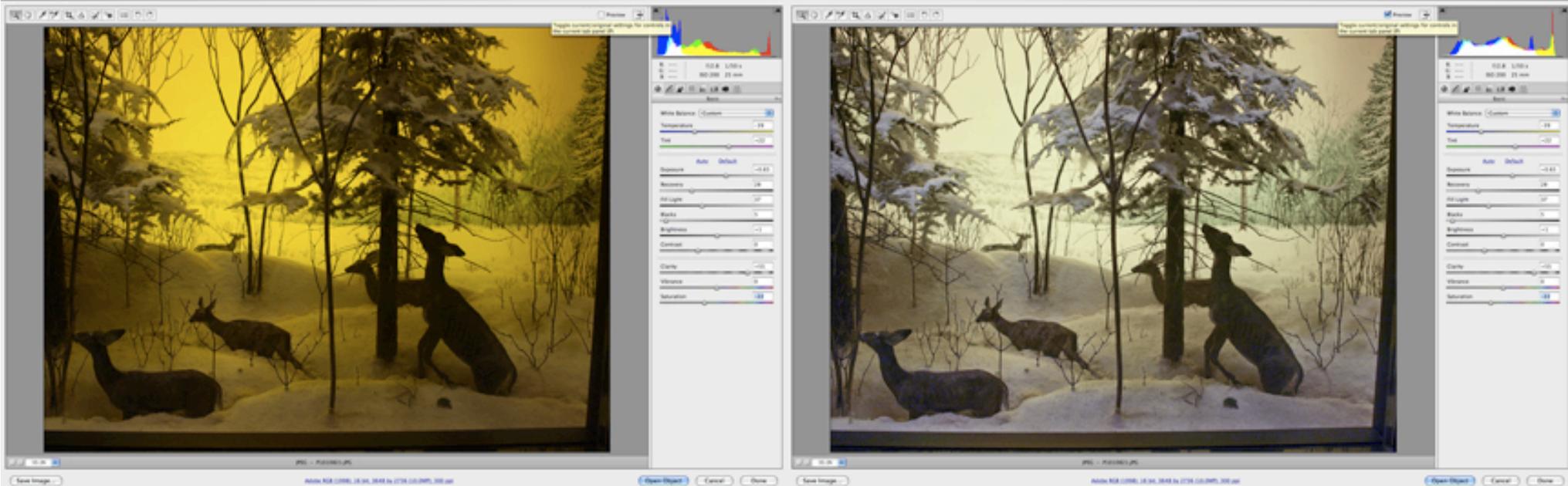


- You've adjusted the black and whites in your file. Now it's time to adjust the Mid-tones. Mid-tones are the shades of gray between the darkest shadows and lightest highlights. The window on the left opens when you click on the second tab (tone curve). You have two choices both are good, although the Parametric is a little easier to use. This tool breaks the tonal range down into 4 areas of complete tonal range from black to white. You pull the slider to effect that particular area of the tonal range.
- If you want to make a dark background darker you would pull the slider to the left in the Darks and Shadows. Be careful not to over darken and lose detail in the dark areas.



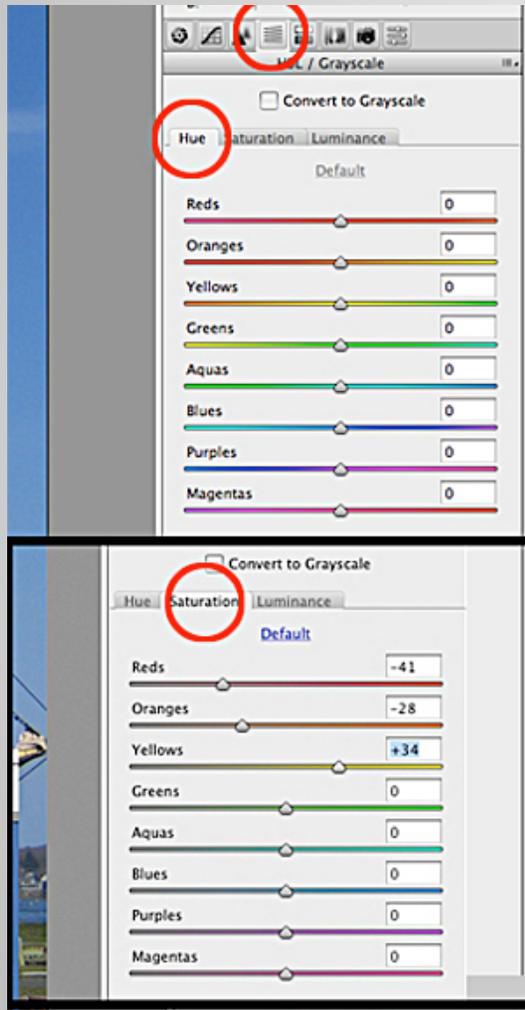
The Point Tone Curve is more of a free form representation of tonal curve. You click on the line and adjust the curve.

You have now adjusted the complete value (grayscale) of your file. Your file should now include a true black, an adjusted tonal range to make your image as effective as possible, and a true white.

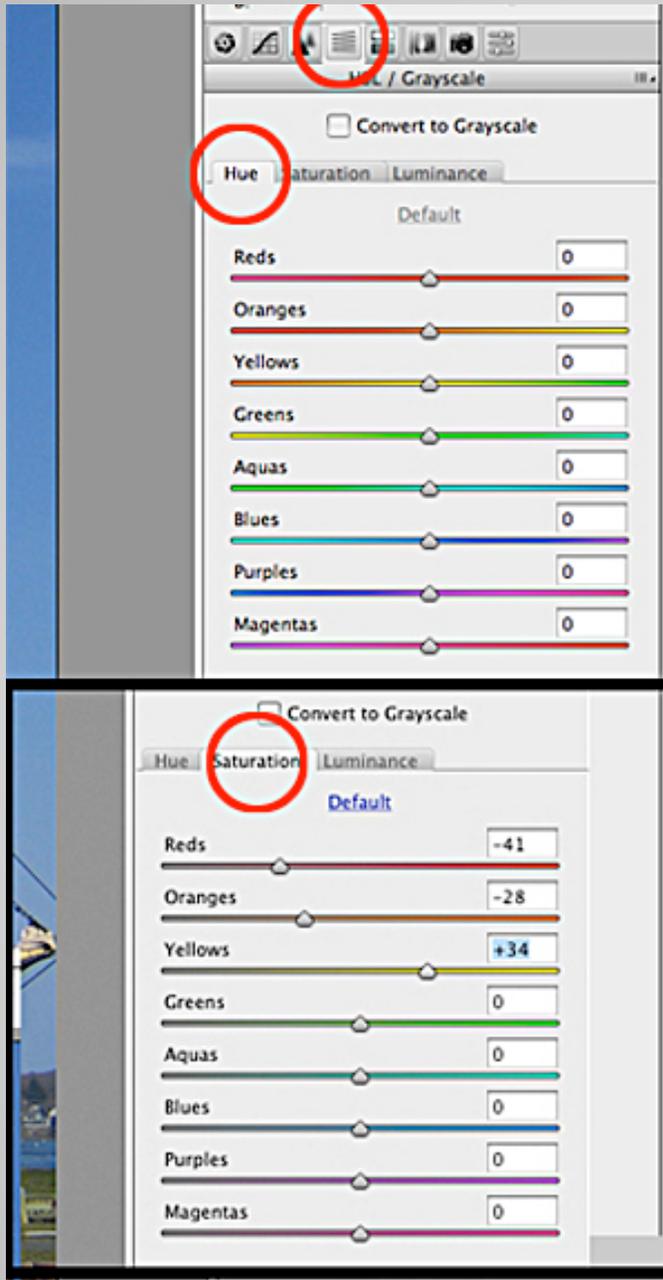


Before and After of an image adjusted for blacks and white, tonal range, color tint and clarity. Notice how you can see more detail in the deer and in the ground.

Step 3 – Adjusting specific color and Grayscale conversion



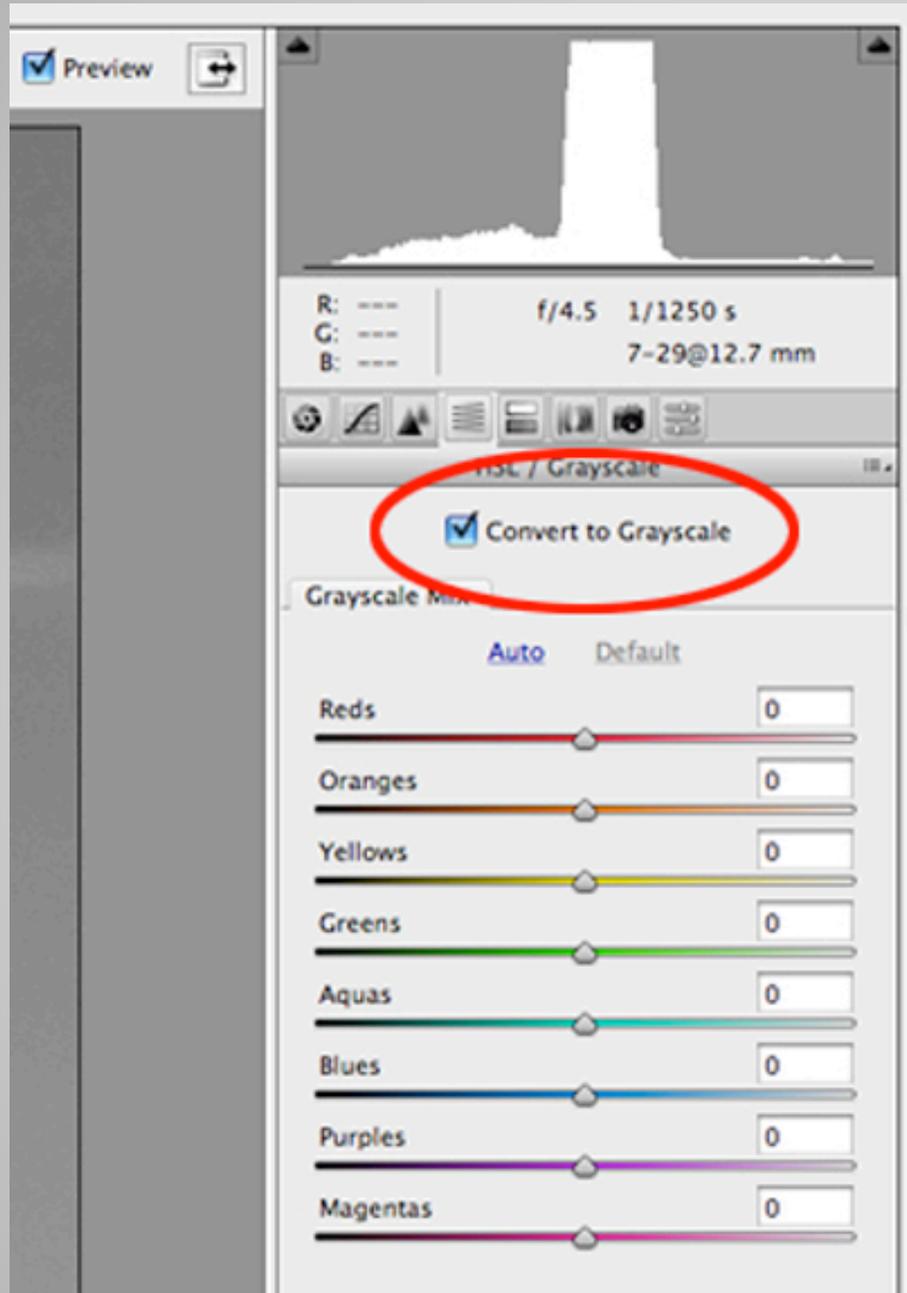
- You've adjusted the black and whites in your file. You've adjusted the mid-tones in your file. You've adjusted the overall color tint in your file. These are all global corrections. They effect the entire file. The next step is to adjust specific colors in your image or convert to grayscale.
- There are 3 tabs used for adjusting specific colors in your files.
- 1. Hue (color) - this allows you to select a specific color and adjust it towards the next color in the color wheel. For instance if you have a landscape and the grass all came out kind of yellow, you can move the Yellows slider to the right or green side to make the grass appear greener.



- 2. Saturation - is the intensity of the color. Moving a color slider to the left will take color out (move towards grayscale) of that specific color range. Moving the slider to the right will intensify the color. In low resolution JPG file watch out for the JPG artifacts, or a deterioration of the quality of the file.
- 3. Luminance – (not shown) is the brightness of the pixels or image. The brightness can be thought of as in a pixel that is not bright is dark and a very bright pixel would be white. Be very careful with this one, especially with low resolution JPG files.
- After you have applied these corrections, you may find it necessary to return to the 1st or basic tab and re-correct the settings there.



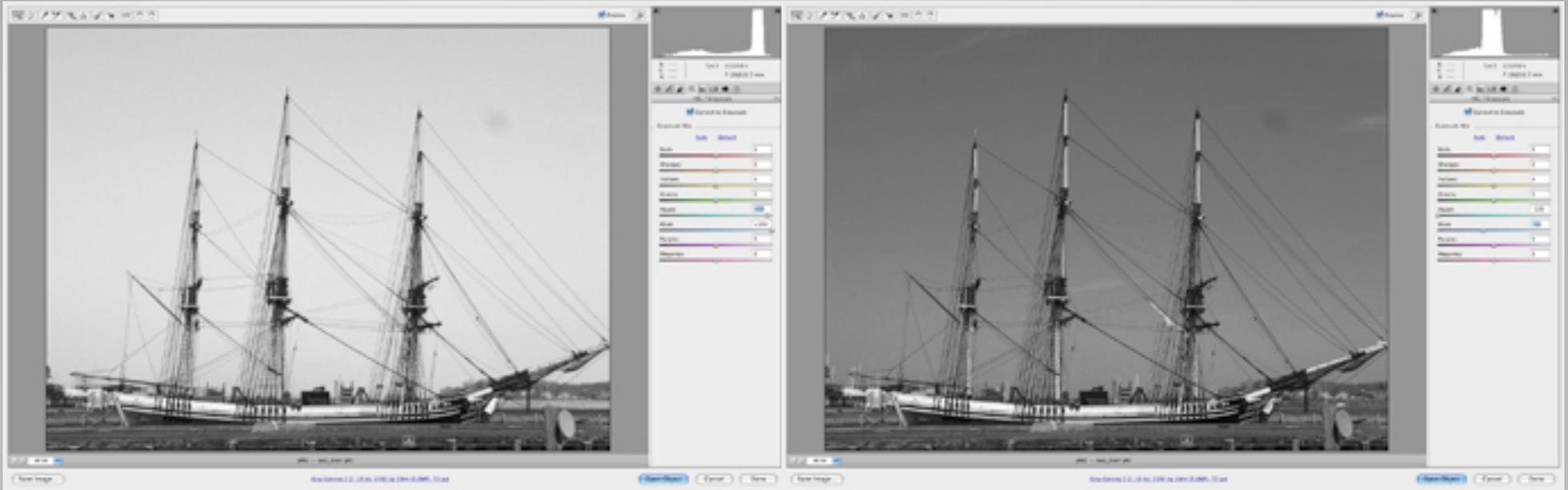
The image on the left is the original. The image on the right has been adjusted (over-adjusted?) with the blues desaturated and pushed towards purple and the greens and yellows pushed to a darker green.



- With every image you have a choice of making the picture color or grayscale. We see the world in color, all the time. This is what makes grayscale images more powerful, allowing us to see things differently. A rule of thumb is to make all your images grayscale, unless color is absolutely an essential part of the image.
- Step 3 (part two) Grayscale
- To convert to grayscale simply click on the Convert to Grayscale button.
- The sliders below the button give you a great amount of control over how your grayscale image looks.
- For another way to do this with different results, see [converting to grayscale in Adobe Photoshop](#).

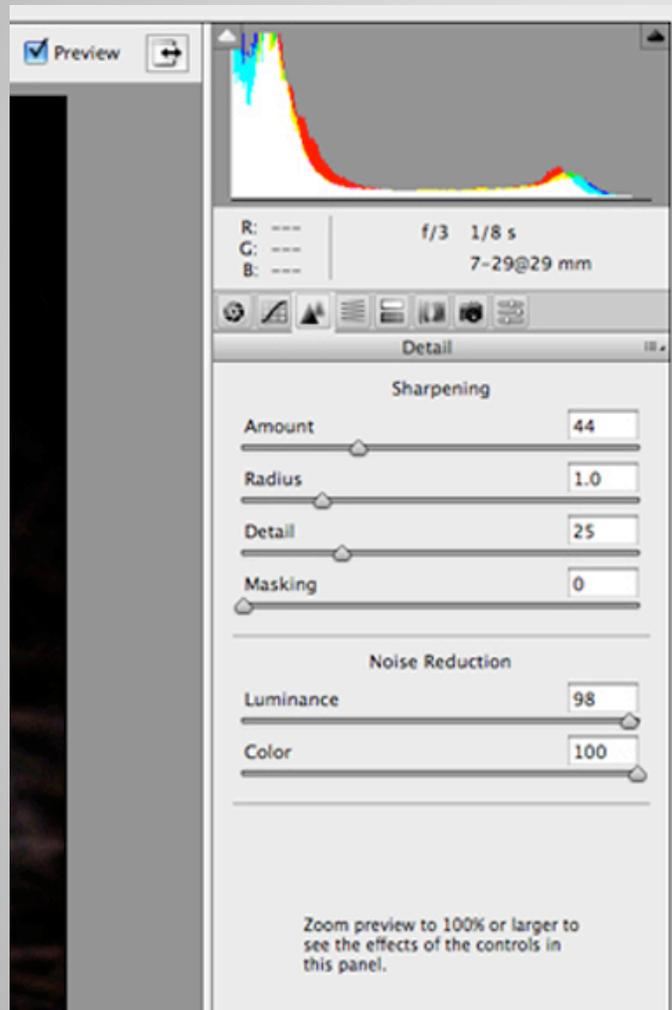


In the photograph above the essential element is the contrast between the white t-shirt and darker background behind it and the relationship between the t-shirt on the boys head and the rock which appears to be sitting on his head. All these elements become much stronger in grayscale photography.



This image of a tall ship had a very bright blue sky. By moving the blue and aqua sliders to the right the sky was made very light, emphasizing the ropes of the ship. In the right image the blue and aqua sliders have been moved to the left, darkening the sky and emphasizing the masts, very different results from the same image.

Step 4 – Digital Sharpening



- This is always the final step in camera raw or in any digital darkroom workflow. You may actually want to skip this step and do it in Adobe Photoshop. If for some reason you don't have Photoshop available you should probably try using these tools.
- Digital sharpening works by increasing the amount of contrast along edges where contrast exists. This sharpening tool is similar to the Clarity tool on the Basic page, but more subtle. Make sure to zoom in to at least 100% to see anything happen.
- If you are using a point-and-shoot camera your image will probably have some noise. Noise is little grainy things that are a little off color, particularly in the dark areas. Use both the Luminance and Color sliders to help reduce the noise.

Review of Workflow

1. Open in image editing software
2. Adjust the image file to have 100% Black
3. Adjust the image file to have pure White
4. Adjust the mid-tone tonal range for maximum detail
5. Adjust the color-tint
6. Adjust specific colors or convert to grayscale
7. Crop and rotate if necessary
8. Darken and lighten specific areas to direct the eye to the subject (dodging and burning)
9. Sharpen image file