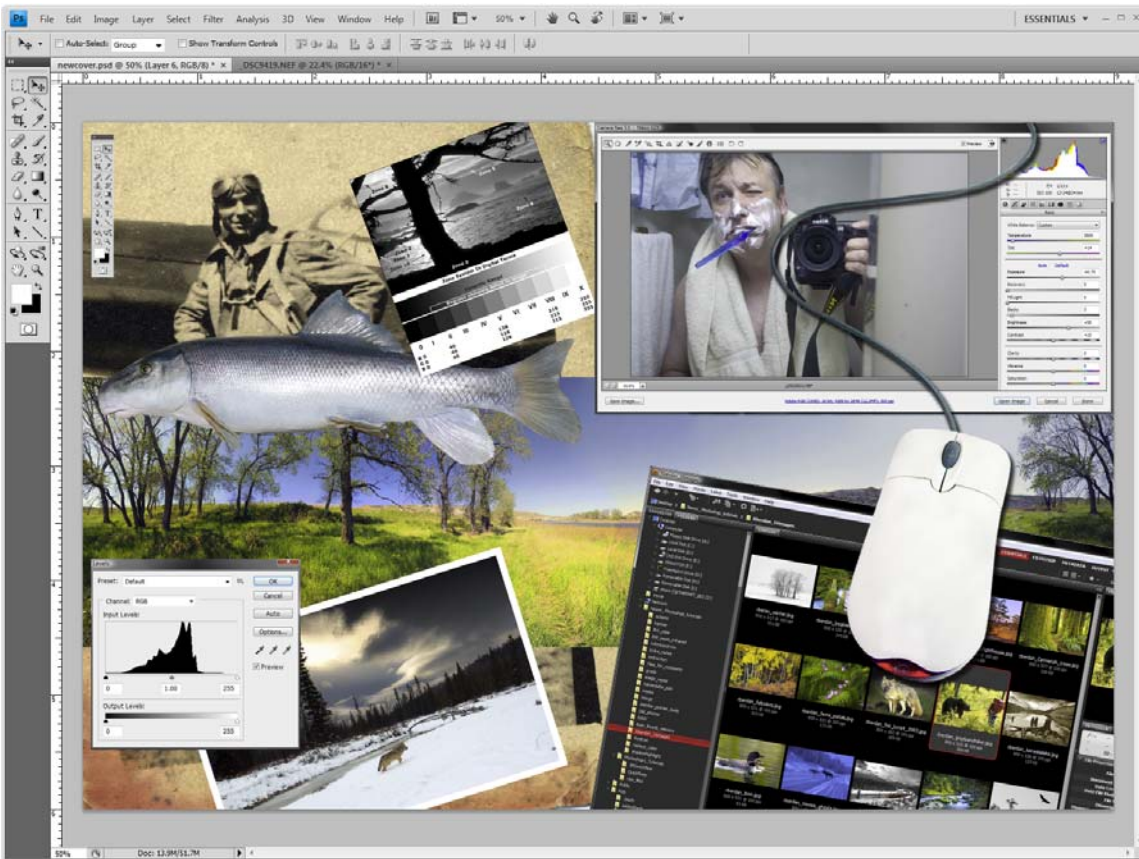


PHOTOSHOP II WORKSHOP



This workshop will take you to the next level with Photoshop CS4 and show you how to use curves, adjustment layers, masks, channels, create actions, convert images so they simulate infrared, hand colour BW photos, combine images to expand dynamic range, create impressionistic images and more. This workshop is designed as a follow up to Photoshop I workshop.

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Suitable for intermediate to advanced level photographers and Photoshop users. The workshop includes a DVD with tutorial images and step by step video clips for self learning.

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Note: These tutorials and notes may not be used in any other workshop or training program without the explicit permission of Robert Berdan. If you are an instructor or institution and wish to use these tutorials please contact rberdan@scienceandart.org. This workshop covers Adobe Photoshop CS4 and includes notes, images and a CD with movies showing you how to perform each of the tutorials. Robert offers a Photoshop I and Photoshop II Workshop on a regular basis in his studio. Each workshop is \$249 you can register at www.canadainnaturephotographer.com.



On the associated DVD within the folder called QTmovies is a series of short Quicktime movies that will show you each tutorial described in the text. You will need Quicktime 7 player installed on your computer to view these movies. The player is available to download for free from Apple (www.apple.com/quicktime/download/). Where you see the Quicktime movie logo in the text there is an associated movie clip (QuickTime logo is copyright of Apple).

1.1 Introduction

This workshop consists of 25 lessons with step by step tutorials followed by a couple of hours where students can practice and apply some of the techniques to their own images.

Prerequisite: This class is designed for experienced Photoshop users. It is recommended that students have taken a Photoshop I workshop that covers monitor calibration, Photoshop configuration and basic workflow procedures or that they have had previous experience with the program and know where the main tools and palettes are located.

Objective: To provide students with a more in depth working knowledge of how to use Photoshop to manipulate and enhance their photos.

The tutorials are designed for use with Adobe Photoshop CS4 (regular or extended versions) though many of the tutorials can also be accomplished with earlier versions of Photoshop.

Photoshop is expensive and there is lots to learn - in part this is because it is the best photo-manipulation program available at this moment in time. There are many alternatives to Photoshop that are much cheaper including Photoshop Elements, Adobe Lightroom, Paintshop Pro, and even a free program called GIMP that will accomplish some of the things described in this workshop. However if you want the maximum control over the final appearance of your photographs then Photoshop has no equal today.

In the past some photographers built their own darkrooms to create custom prints - this was also expensive and required years of dedication to become skillful at. Some photographers choose to process their images in a darkroom because they knew they could produce prints that looked significantly better than those made at photo print shops and they could also interpret and modify their images.

The negative is comparable to the composer's score and the print to its performance. Each performance differs in subtle ways.

Ansel Adams

I had my own darkroom equipment for over 30 years and I was reluctant to sell my equipment because I knew that I was also throwing away 30 years of darkroom experience. I admit working in a darkroom can be fun and there is lots of science and art involved in mixing the chemicals and processing the prints, however the chemicals were also irritating to the eyes, nose and skin not to mention harmful to the environment and I no longer miss it, but I have great respect for those that continue to carry on this craft and tradition.

When digital images began to rival film in terms of resolution and quality and Epson put out the first archival quality inkjet printer in 2000 - Photoshop became even more valuable. Working with Photoshop and an inkjet printer I found I could produce 10-20x more prints than I could in the darkroom in the same period of time. Also I could work in room light with no harmful chemicals. More importantly, I could experiment with my images and view changes instantly on the computer. If I needed multiple prints I could send the printer a command to make 10 images and all of them were near identical. Some darkroom perfectionists might argue that they can produce better blacks or D-max in prints processed the old fashioned way and this may be true, but I have found my prints produced digitally are sharper, have better tonal range and better colour than those produced by printing in a darkroom. I will never go back to working in a darkroom any more than I will return to shooting on film - there are just too many advantages to working with digital files financially and in producing the types of images I see in my "minds eye". Everything a photographer does from choosing a lens, type of camera, use of filters and post processing affects the final image. Some photographers are happy with what they get in the camera, slide or film and that's Ok - but not for me. If you want to have the maximum control over the photographic process then shooting with a quality digital camera and using a program like Adobe Photoshop is the best way to achieve this today.

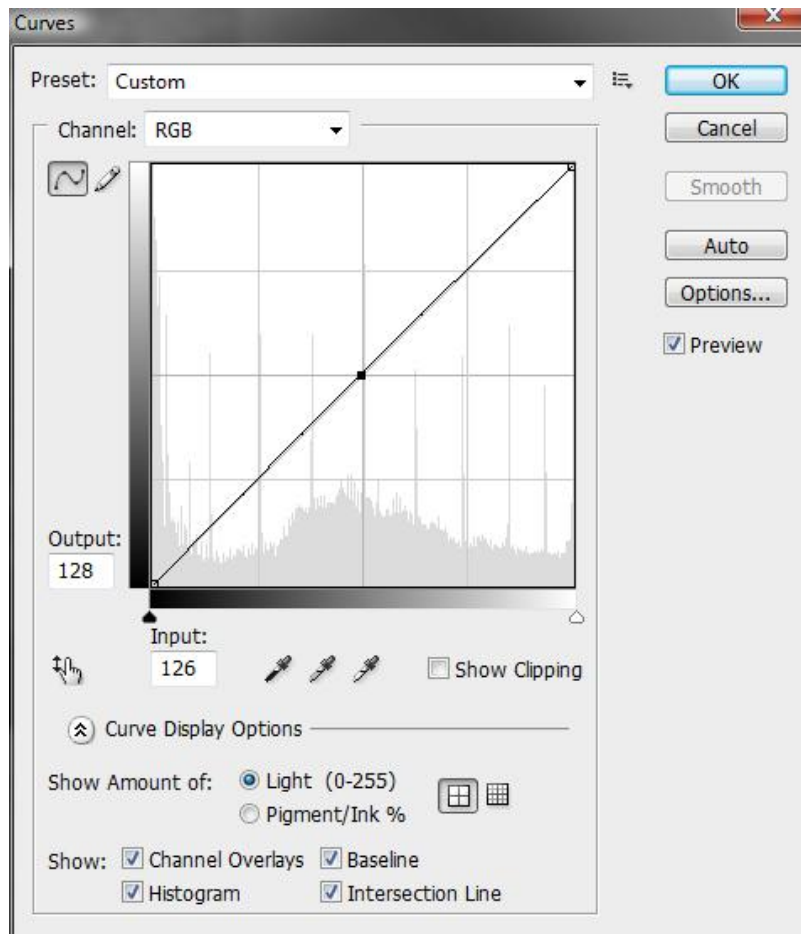
2.0 Photoshop Lessons

2.1 Introduction to Curves

In my normal workflow one of the things I always check on is the image levels or histogram as it shows me the distribution of tones in an image. Often an image can be improved by manipulating the histogram so it includes a true black and white. Another way to modify the tones in an image is to use the curves tool which is often used together with the levels histogram to improve tones and modify contrast in an image. The curves tool offers finer control and is most frequently used to either enhance image contrast or reduce it. In the Photoshop I workshop we also used the curves tool to colour correct an image by using RGB numbers and balancing a gray area.

1. In this tutorial we will first examine how to manipulate contrast in an image. To do this we will open a BW image zonesystem_image.jpg that includes a black to white gradient and 10 levels of gray which will make it easier to see what is happening to the image tones as we change the shape of the curves. Start Photoshop go to the folder called curves and open the file zonesystem_image.jpg.

2. Select Image >Adjustments>curves



3. You should see a pop up box that looks like the picture above, click your mouse in the middle to create a single square point along the straight line. The straight line indicates that the input data is equal to the output data. We can change this relationship by pulling the middle point up or down and thereby change the tones and contrast in an image. Select the center point and drag it up note how the tones change in the photo, then drag the curve down and note how the tones change.

Zone System In Digital Terms

Dynamic Range
Regions showing detail in image

| | 0 | I | II | III | IV | V | VI | VII | VIII | IX | X |
|-----|---|---|----|-----|----|-----|----|-----|------|----|-----|
| R 0 | | | 40 | | | 128 | | | 215 | | 255 |
| G 0 | | | 40 | | | 128 | | | 215 | | 255 |
| B 0 | | | 40 | | | 128 | | | 215 | | 255 |

Pulling the curve down tends to darken the image and you will see the tones between 0 and V get much darker i.e. your shadow tones, the highlights or light tones experience less change.

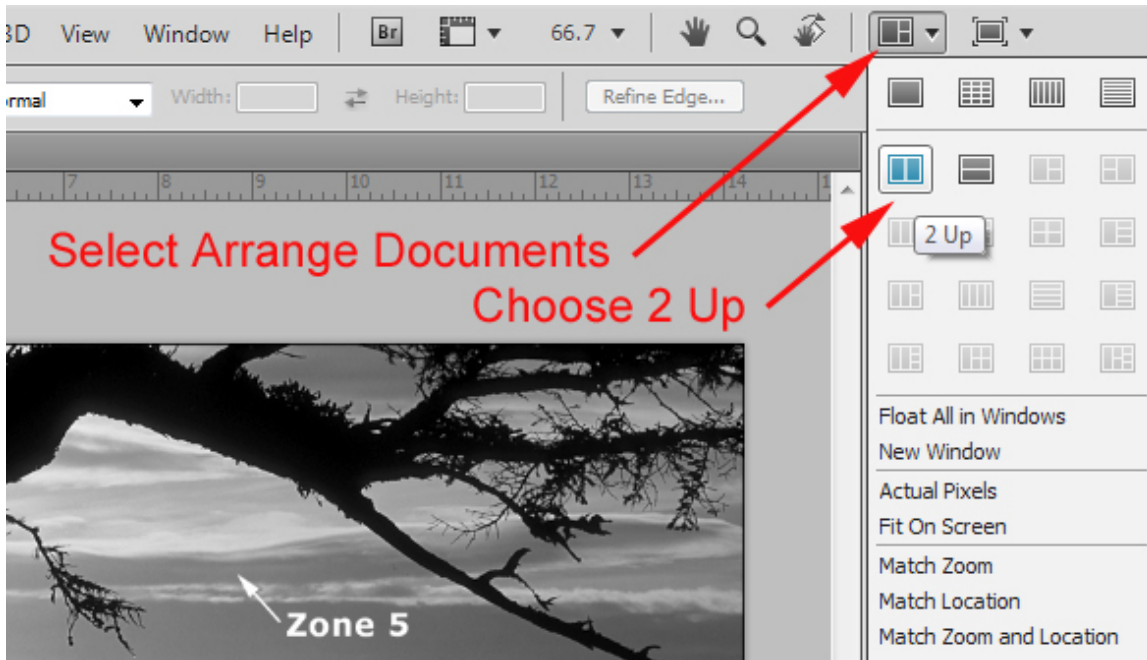
Zone System In Digital Terms

Dynamic Range
Regions showing detail in image

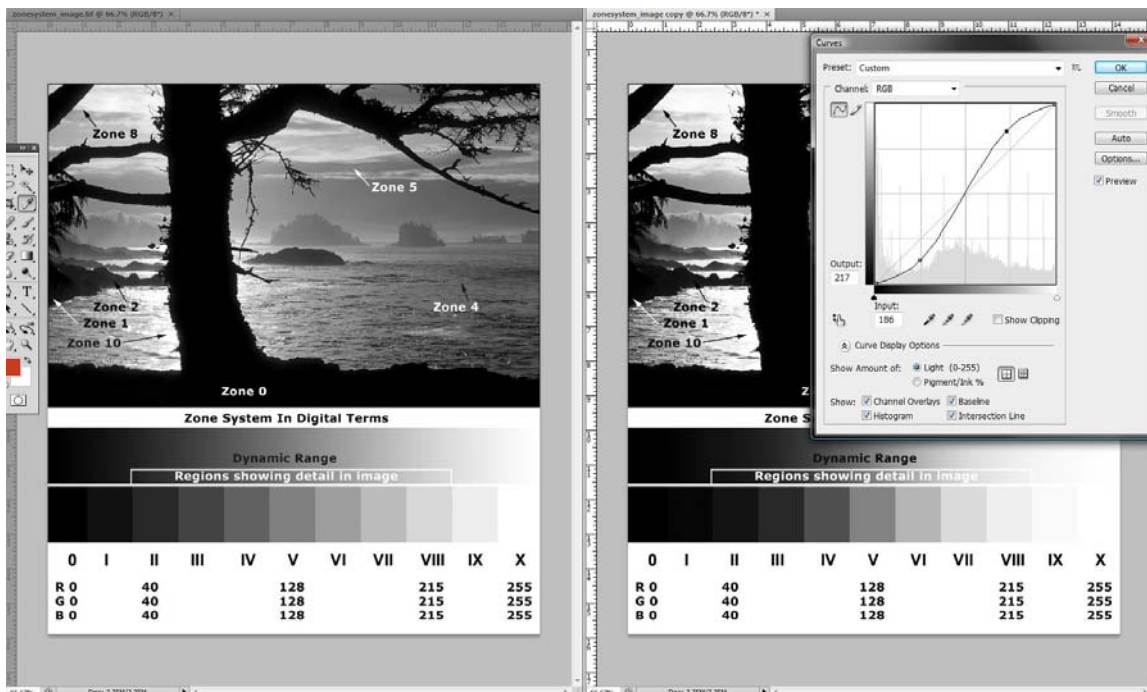
| | 0 | I | II | III | IV | V | VI | VII | VIII | IX | X |
|-----|---|---|----|-----|----|-----|----|-----|------|----|-----|
| R 0 | | | 40 | | | 128 | | | 215 | | 255 |
| G 0 | | | 40 | | | 128 | | | 215 | | 255 |
| B 0 | | | 40 | | | 128 | | | 215 | | 255 |

Pulling the curve straight up tends to lighten the highlight tones and also cause greater separation in the dark tones. These are simple changes that can improve some of your images.

4. Most of the time you won't simply lift or pull the curve down, but rather you will apply two points to create either an S shaped curve to enhance the middle tones or an inverted S shape curve to reduce the overall contrast in an image. If the Curves window is still open - close it. Lets duplicate the image so we can see a before and after version. Select Image>duplicate. Then to see both images at the same time Select Arrange Documents button at the top of Photoshop in the Application Bar as shown below and select 2 Up.

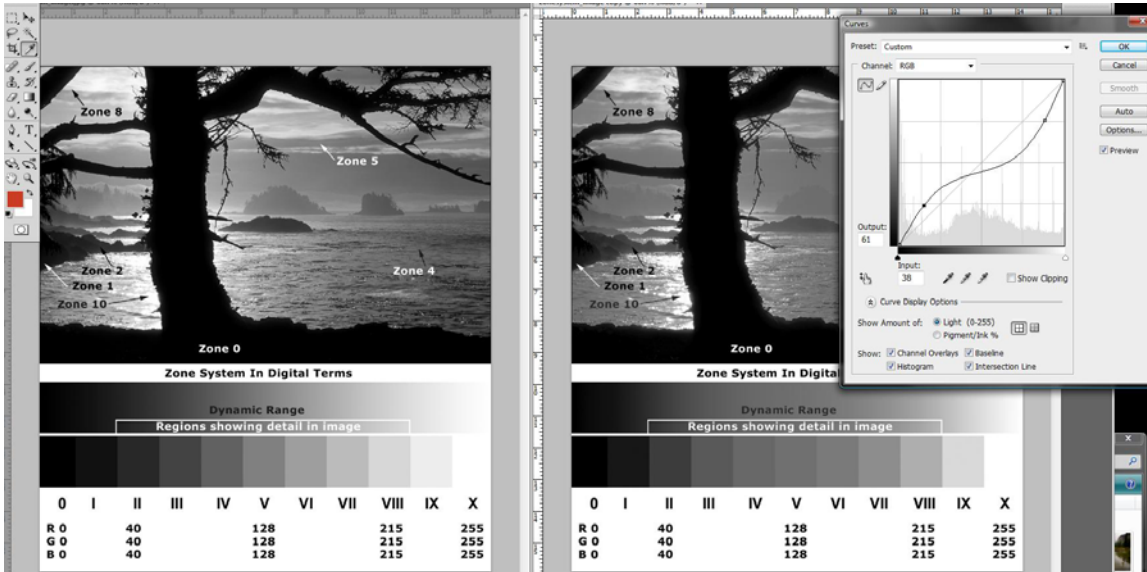


5. Select Image> Adjustments >curves and place two points on the curve as shown below. The first point should be on Input/Output about 35 and another one at about 210. Then drag the top point up and the bottom point down to create a S shaped curve like that below on the right side of the picture.



Note how there is an increase in contrast in the middle tones. The S shaped curve is frequently used to increase contrast in the middle tones while darkening the black tones and lightening the highlight tones. You might use this type of curve on an image with very low contrast e.g. a photo taken in fog. Choose> Cancel.

6. Choose Image>Adjustments>Curves and this time add two points as before one near the bottom of the curve and one near the top of the curve. Pull the bottom point up and the top point down to create an inverted "S" shape curve. This will reduce the contrast in an image. For instance you might use this type of curve on an image that was taken in very bright sunlight or indoors with a combination of indoor and outdoor lighting.

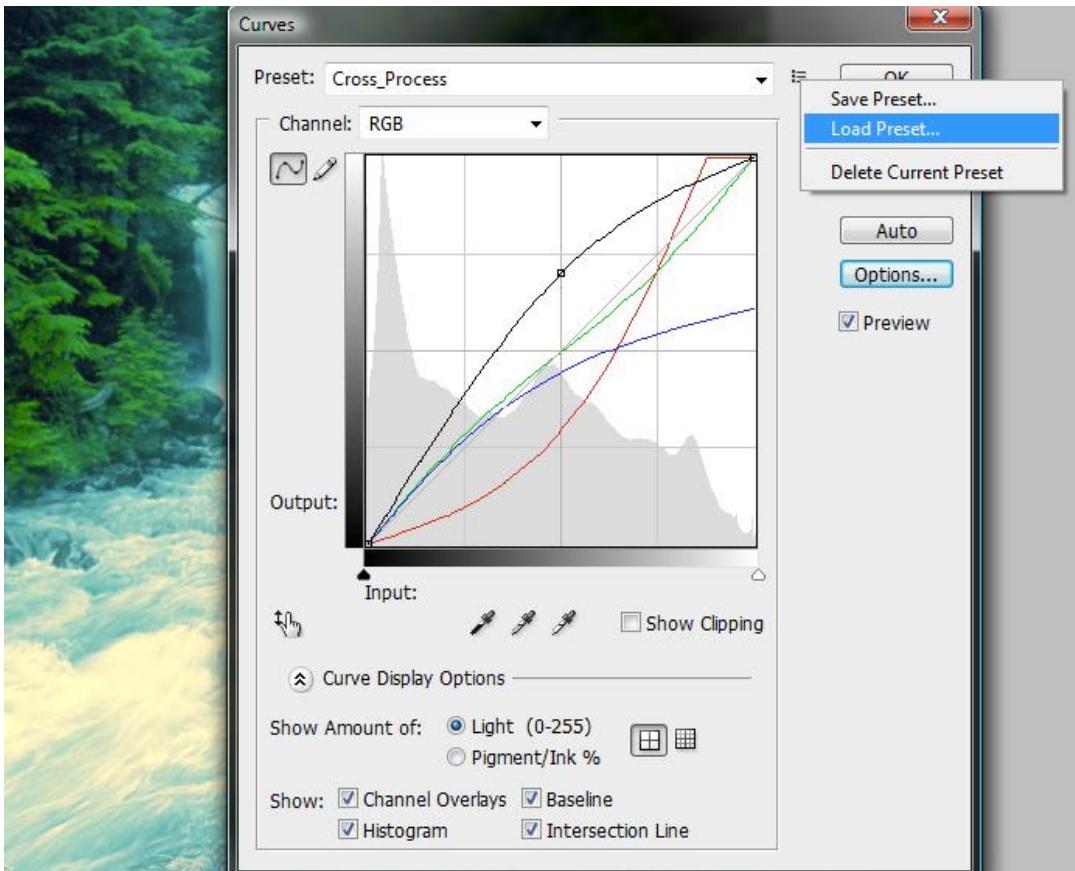


Note how the tones change on the image on the right as the overall contrast of the image is reduced. If you want to keep the change select OK.

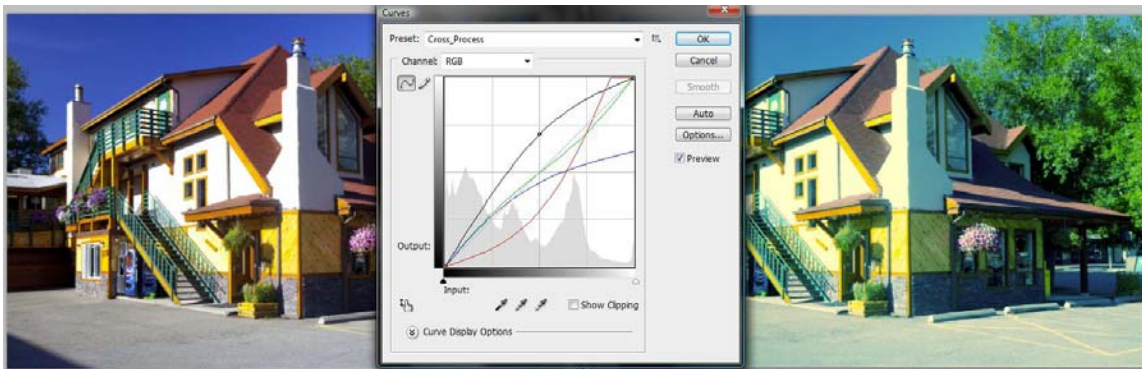
7. Unorthodox changes in curves can result in some interesting effects. Try pulling the curves into a wave and note the changes.

2.2 Cross processing is the procedure of deliberately processing film in a chemical solution intended for a different type of film often slide film in negative processing or slide film in chemicals meant for negative film. The effect is seen sometimes in fashion, advertising and band photography. You won't see the process used very often in Nature photography, but it might be useful if you are doing certain types of portraiture. We will use someone else's curve preset and load it to produce the cross processing effect.

Any settings you make in the curves box can be saved as a preset and you can then load them onto other images. Curves presets have the extension .acv and you can find reset examples on the Internet that different photographers have made. Open an image e.g. in the curves folder select the file building.jpg and then select Image>Adjustments>curves - at the top of the curves box select the drop down menu and select load preset. Navigate to the folder called curves and select the preset cross_process.acv and note how the preset curves changes the colours in your images. I am not a big fan of cross processing because I shoot primarily nature photographs, but if you are looking for a surreal effect this is one way to achieve it.

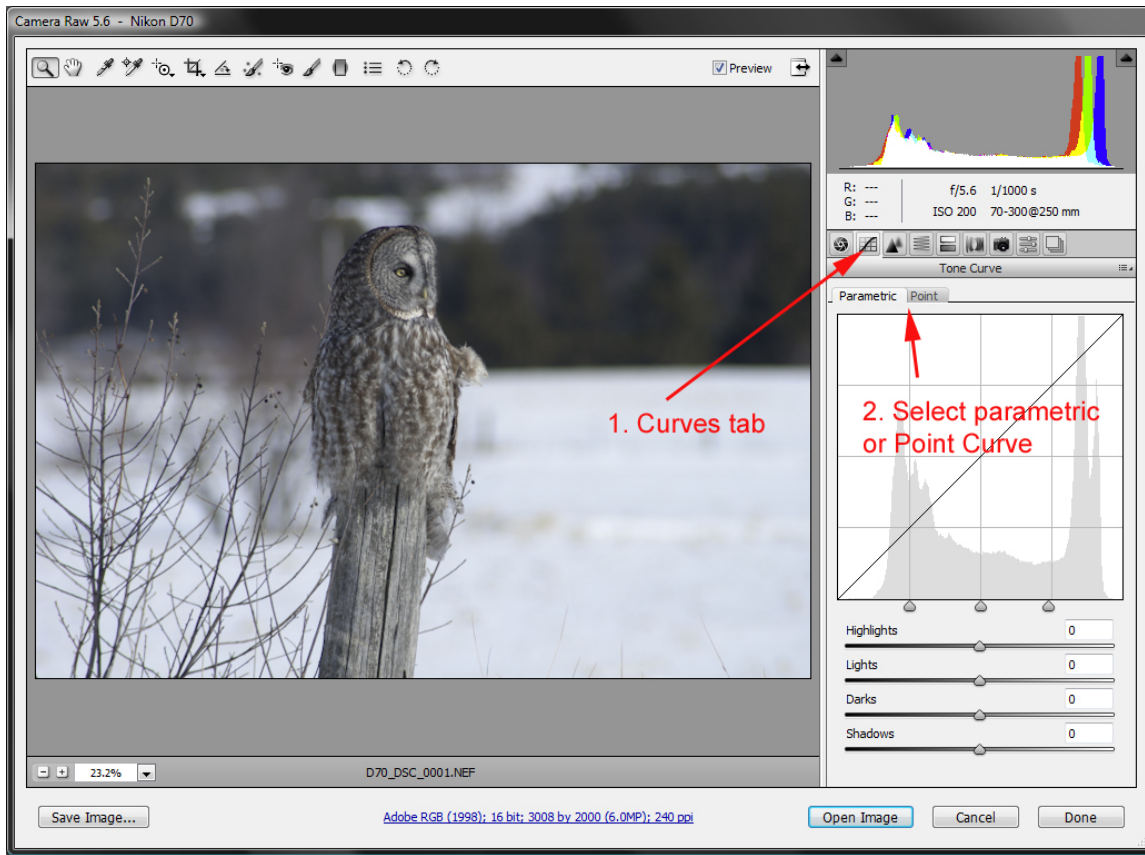


Select the top right box until you view Load Preset - select it then navigate to the folder and load the cross_process.acv file and note the change in the appearance of your image. The effect is not generally suited to nature photography but were you want to make an image look unusual or grab attention. The image is supposed to look surreal not real. Try the effect on the image building.jpg



The image on the left is normal and the one on the right after loading the cross_processing.acv preset. You don't have to like it - just know that you can do it if you want to and without using chemicals and you can view results instantly. Feel free to experiment and pull on the different coloured curves to create a variety of effects.

Curves can also be applied to RAW files using Adobe Camera RAW. Open the RAW file D70_owl.NEF.



Select the 2nd curves tab on the right side of Adobe Camera RAW (ACR), then select point curve (has points already placed on the curve and you simply drag them) or Parametric curve where you control the curve by moving the sliders below the curve diagram. All curves whether you apply them in Photoshop or in Adobe Camera RAW accomplish the same thing. If you are working with RAW files and the image needs a boost in contrast then I recommend using the curves in ACR before opening the file in Photoshop.

Is it better to use curves in ACR or Photoshop? Generally it's better to apply the curve to your RAW data, however you can achieve similar results in Photoshop by using a curves adjustment layer. You will learn how to apply a curves adjustment layers in photoshop in the following lessons and using adjustment layers is another way to modify your images non-destructively.



curves.mov

Additional References:

- 1) Michael Orton, (1992) Once upon an Island – out of print. Michael Orton, (1994) Popular photography, September issue, page 52. Michael also describes the use of this technique in his book “Photographing Creative Landscapes “ Amherst Media, 2001.
- 2) J. Davis & B. Willmore (2004) How to Wow Photoshop for Photography, Peachpit press ISBN 0-321-22799-9
- 3) C. Bloch (2007) The HDRI Handbook, Rocky Nook Inc., California. ISBN 978-1-933952-05-2
- 4) F. McCollough ((2008) Complete Guide to High Dynamic Range Digital Photography, Lark Books, NY ISBN 978-1-60059
- 5) B. Fraser & D. Blattner (2006) Real World Photoshop CS2, Peachpit Press, CA ISBN 0-321-33411-6

About Robert Berdan



Robert currently operates Science & Art Multimedia in Calgary, AB where he offers services in web design, photography, video and private training. Robert has developed and taught a wide variety of courses on photography, web design and Photoshop at local colleges and privately in his studio. Robert has used Photoshop since version 1.0 and has been photographing for more than 35 years. His photos have won international acclaim from Nikon, National Geographic and Canadian Geographic. His photos have appeared in numerous magazines and books. Robert is also an adjunct assistant professor at the University of Calgary. Robert enjoys being outdoors taking pictures of the Canadian landscape and wildlife and spending time with family and friends.

You can view more of Robert's photography on his web sites:

www.scienceandart.org
www.canadiannaturephotographer.com

Robert offers photography workshops, private training and Photoshop training in his studio in Calgary, AB.