

# FOCUS

Newsletter of the Mayslake Nature Study and Photography Club  
Hosted by the Forest Preserve District of DuPage County  
Visit our website at [www.naturecameraclub.com](http://www.naturecameraclub.com)



## Highlights

*December 3*  
Competition

*December 17*  
Christmas Party

*January 7*  
Hank Erdman  
Envision the Landscape

*January 21*  
Competition

*February 4*  
Mike Trahan  
Nature Photography

**Welcome**

**Jeff Woolley**  
**Hinsdale, IL**

## Competition Sheila Newenham

Our second competition of the year is Monday, December 3, 2012. Please bring any print images and all paperwork (one summary sheet per category, print or digital, and one image identification card for *every* image entered) to the meeting. Plan to arrive before 6:45 in order for us to get everything in order.

The two remaining competitions are January 21 and April 1. Digital image deadlines are January 13<sup>th</sup> and March 24<sup>th</sup> respectively. You can find these dates on the club calendar on our website.

Fred Drury gave a presentation in November about how to best select and prepare images for competition. If you missed it, his notes are quite helpful and are posted on the club website's competition page.

## Competition

January 21, 2013  
April 1, 2013

## Join the Yahoo Group

We're trying to better organize the Club's communication to members and keep electronic distributions to a reasonable number.

The FOCUS newsletter is the main communication vehicle for the Club. The FOCUS is distributed to all members monthly.

The Outings Chairman sends out notices about upcoming outings. Members who sign up for the outings then receive detailed information about the outings from the Chairman.

However, often, members have other, often time-sensitive, information that could be of interest to other members. This includes information about education opportunities, equipment news and sales, photo opportunities. While we would like to facilitate this communication among members, we also want to control the use of the Club distribution list.

Our proposed solution is to encourage members to use the Mayslake Yahoo group for these communications. You must be a member of Mayslake Nature Study & Photography Club to participate on the Yahoo group. By joining the Yahoo group, each member has the opportunity to directly post information of interest to club members. It is a place to brainstorm and troubleshoot! On this site you can discuss and enjoy photography outside of club meetings. You can also invite other Club members to join you for an impromptu club outing. Members of the Yahoo group can either check the site for information or opt to receive email notice of new postings.

If you have any questions or are interested in joining the Mayslake Yahoo group, contact Karin Grunow at [karin.grunow@att.net](mailto:karin.grunow@att.net).

## CACCA Monthly Competition Result November Chuck Klingsporn

The CACCA Interclub competition is now well underway for the 2012-13 year; November was the second of 8 monthly competitions. Our members continued to score well, this month, especially in the Small Print arena. We had two HM's, Tom Richardson's image titled, 'My Perch' and Chuck Klingsporn's image titled, 'Success'. Marcia Nye received an AW for her image titled, 'The Perfect Perch'.

You may also recall the report in last month's Focus about the error in digital scoring which resulted in Lou Petkus' outstanding eagle image not being considered in the award cycle of image evaluation even though it received a score of 26, the highest of any image in the competition. Fortunately, they got it right this month, the image received an AW. Bravo to Lou.

The images that receive honors at our Mayslake competition on December 3 will compete in the December and January CACCA meetings.

Good Luck to our local winners!!

SAVE THE DATE  
> SATURDAY <  
APRIL 13TH  
---- 2013 ----

**Mayslake Christmas Party**  
**December 17, 2012**  
**7:00 p.m.**

Join your fellow club members as we celebrate the holiday season at the annual Christmas Party. The party will be held during our regular meeting time on Monday, December 17 at 7:00 p.m. It will be a great chance to relax and enjoy two exciting events.

First, we will have a "Swap and Shop," a repeat of an event held earlier this year. If you have some camera equipment or accessories that you no longer need or use, bring them to sell, swap, or give away. You may earn some cash for more holiday gifts, or decide to give yourself an early gift with the purchase of an item!

Our second event will be two photo shows by members Sue Gajda and David Schooley. Sue will present images from her trip to the Galapagos Islands. Dave's photos will highlight his recent trip to Africa. Both sets of photos will be a chance for us to see some amazing sights and enjoy the nature images that they created.

Finally, throughout the evening, we will enjoy food and beverages. Members are asked to bring a treat to share, either an appetizer or dessert. As always, beverages, napkins, plates and cups will be provided.

Guests of members are welcome. Looking forward to seeing you at this celebration!

**EXHIBITS**  
**Janice Henry**

As promised, I have more information regarding the group show we will be having at Mayslake from January 15 to March 4.

- There is no specific theme for this show the images need to be nature related as we are a nature photography club.
- Hand of man does **not** apply.
- The titles and sizes of the piece(s) you want to put in the show need to be sent to me by Friday, December 28<sup>th</sup>.
- The attached form needs to be filled out and can be given to me at one of the meetings in December. Fill out the PDF form, print it and give it to me. The PDF cannot be saved.
- At present you can submit titles for up to 3 pieces. We may not have room for all 3, let me know if you have a preference which 2 of the 3 you would like to have in the show.
- If the 3<sup>rd</sup> piece is not included it can be picked up at the first meeting in January.
- Drop off for the show can be at the second meeting in December or by Wednesday, January 9<sup>th</sup> to the Mayslake office during normal business hours 9-4 Monday-Friday.
- The pieces need to be framed or canvas wrapped and have wires that have the sharp ends wrapped in tape (to protect the walls at Mayslake).
- The wires need to be approximately 1- 1 1/2 inches down from the top of the frame and taut. This will allow the piece to sit flat against the wall instead of tipping forward.
- Instructions for preparing the images for exhibit are available on the club website.

I am working on other details regarding this show and will have more information at a later date.

# Mayslake Nature Study & Photography Club Group Show

January 15-March 4  
Mayslake Peabody Estate

<b>Name:</b>	
<b>Address:</b>	
<b>City, State, Zip:</b>	
<b>Phone #:</b>	
<b>Email:</b>	

Entry				
	Title	Size	Price	For Sale Y/N
1				
2				

Please list an additional image you would like to submit, if space is available.

3				
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Image(s) to be held after pick up date : Yes No

Image(s) of Mayslake: Yes No

(Images can be held until the second Mayslake Nature Study & Photography Club Meeting in March 2013). Please give this form to Janice Henry by Monday, December 17th.

**Sandhill Cranes  
Jasper-Pulaski  
November 17 & 18  
Gail Chastain**

It was a group of 17 people the headed down to Jasper Pulaski in Indiana to see the Sandhill migration. While some Mayslakers came for the sunset only, others came just for the sunrise, and still others came for both. Although the number of Cranes in the Observation field was low this year, Mayslakers still got some great images. Be sure to visit the Mayslake Website to see all the images from this outing.



**Beverly Bartos**



**Together  
Diana Nestad**



**Norkio Buckles**

In the last column I showed you how to apply the functionality of the Tone Curve panel to real images. In this column I'll jump down to the Sharpening section of the Detail panel.

## Why Sharpening

In the first of these Develop panel columns I proposed that one of the objectives of the image-optimization process was to 'do everything possible to draw the viewer's attention to the primary subject of the image'. This has been an important objective for the artist and the photographer throughout history. Sharpening is one of the most important techniques used to draw the viewer's attention to the primary subject.



**Figure 2:** Look closely at the edge of the fingers. The artist has emphasized the hand by darkening the darker side of the edge, and (to a lesser degree) lightening the lighter side. The effect is to visually emphasize, or 'sharpen' the edge.



**Figure 1:** 'Saviour' by El Greco.

Sharpening has been around for a very long time. El Greco (**Figure 1**) painted 'Saviour' in the early 17th century. Notice the hands and how the artist made the hands stand out from the garment. Along this edge (**Figure 2**) he has darkened the garment and lightened the hands. The technique is conceptually the same as that which we today call unsharp mask, the procedure used in Lightroom.

Sharpening is essential to any digital workflow because of the softening that occurs whenever an image experiences a conversion from analog to digital or vice versa.

An image goes through this conversion either when it's shot digitally or, in the case of film when it is scanned (i.e., converted from film to digital).

An image seen by the human eye or recorded on film is continuous. Imagine a blue sky photographed just before the sun rises. In the east the sky is much lighter than in the west. You can see a continuous gradient from light to dark across the sky from east to west. Shot with film this continuous gradient will be (more or less) faithfully recorded. If you magnify the film to 8x life size you will still see the continuous gradient (perhaps corrupted by a degree of film grain).

The same image photographed by a DSLR undergoes a transition from analog (as seen by the lens) to digital (as recorded by the sensor). Under most circumstances the result looks continuous because of the high resolution of today's cameras. But, as **Figure 3** shows, the situation down at the individual pixel level is quite different. Remember, a pixel can only take on discrete luminance (brightness) values. In an 8-bit system, a those luminance values can be 0, 1, 2, ..... 253, 254, or 255. They cannot be 128.1, 128.5, 128.44, etc. And this becomes an issue when the image is examined at the pixel level. **Figure 3C** is a view of the ceiling of the new Milwaukee Art Museum magnified 8:1. On the one hand, if you look very closely, you can see the individual pixels, and the tonal values are anything but continuous. On the other hand your senses tell you that the stainless steel beams used to construct the ceiling have very sharp edges, not the feathered abomination seen in the image. What's happening here is the result of the pixels having to take on discrete tonal values. The result is the more apparent because the beams run through the image on a diagonal<sup>1</sup>. In many instances, pixels are part beam-edge (mid-tone) and part glass (highlight), but the tonal value has to be a single discrete number, so it's an average. That 'averaging' process produces what one sees as softening along the beam edge. It's next-to-impossible to see at full size (**Figure 3A**) but it's nevertheless there (Figure ). Lightroom's Sharpening panel calls this type of softening 'capture softening', and they designed their panel to correct the problem.



*Figure 3 shows the same image at three levels of magnification. On the left 'A' is full size; in the center 'B' is 1:1; and on the right 'C' is 8:1. In both A and B the edges of the stainless steel ceiling beams are crisp as you would expect. On the right in C the edges of the beams are soft which is an artifact of the analog to digital conversion process, and why sharpening is an essential part of the digital image-optimization process.*

The image goes through the reverse conversion (from digital to analog) when it's printed, and this (or any other) conversion produces softening. Lightroom handles this by including provision for 'print sharpening' as a part of the Print module which will be discussed in a subsequent column.

<sup>1</sup> Camera sensors are rectangular and pixels are square, laid out in neat horizontal and vertical columns. When an image has diagonal lines (like the beams) those diagonal lines do not follow the pixel-layout with the result that there are many more pixels which are part diagonal (beam in this case) and part background (glass in this case). The result makes the softening more apparent to the viewer.

In the new (5th) edition of Professional Photoshop, Margulis makes the argument for more aggressive sharpening this way: ***“Whenever a photographer accuses me of over-sharpening, I always ask whether any clients have ever rejected any of his images for being too sharp. The response is always an indignant ‘Certainly not’ – almost as decisive as the ‘Yes’ when asked whether they reject images as too soft”.***

In simplest terms, sharpening looks for edges and then applies a darkening halo to the darker side of the edge, and a lightening halo to the lighter side of the edge, much as El Greco did with Saviour almost 400 years ago.

## The Detail Panel - Sharpening

Sharpening in Lightroom is done in the Detail panel, (Figure 4) located two panels below the Tone Curve panel. Note: this panel also includes functionality for Noise Reduction.

If you select a RAW image in Library, and then go to the Develop module and examine the Sharpening parameters (Figure 5), you’ll see the default settings are: Amount 25, Radius 1.0, Detail 25, and Masking 0. Repeat the process with anything other than a RAW image and the Amount is 0 (Note: when Amount is 0, no change is made to the image, regardless of the settings of the other three parameters). Lightroom is setup (by default) to apply a small amount of ‘capture’ sharpening to RAW images (but not to any other format image, which presumably was previously capture sharpened). The concept was developed by Jeff Schewe and Bruce Fraser<sup>2</sup>.

The basic Sharpening in Lightroom is applied only to luminance information and not at all to color information. This is important because sharpening color information can (in rare instances) lead to the creation of undesirable color artifacts<sup>3</sup>.

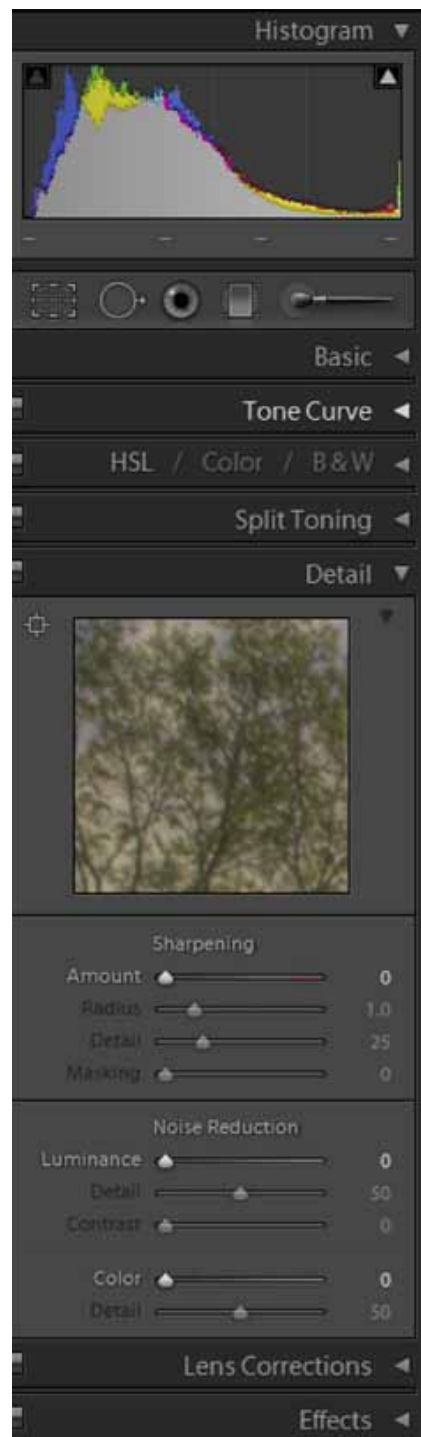
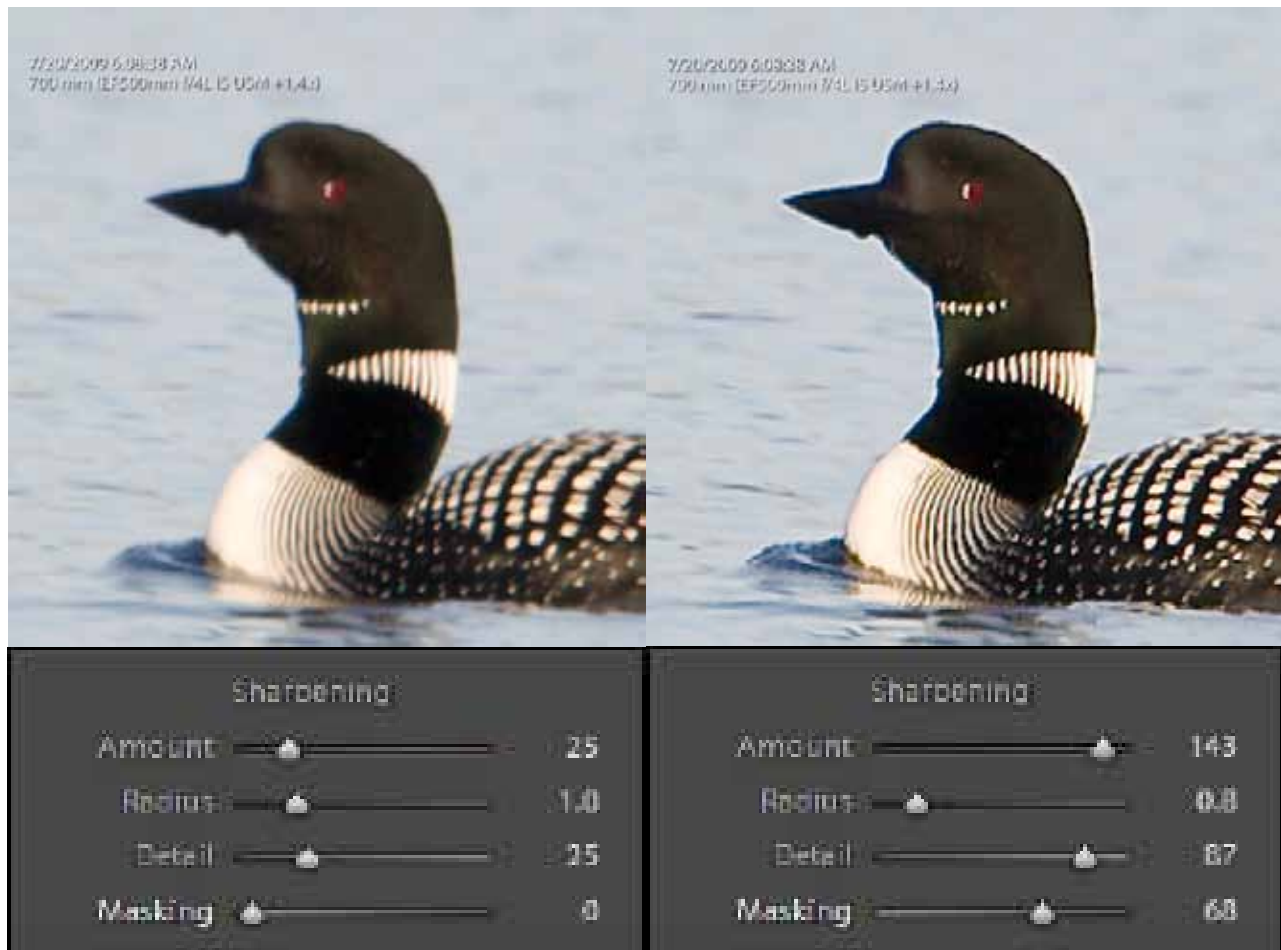


Figure 4 shows the right side of the Lightroom screen with the Histogram and Detail panels open.

- 2 The Lightroom Sharpening module was based on the ideas of Jeff Schewe and Bruce Fraser. Their concept was that sharpening should occur at three times during the image-optimization process. Their book ‘Real World Image Sharpening with Adobe Photoshop, Camera Raw and Lightroom (ISBN 0321637550) is very complete. ‘Capture sharpening’ should be accomplished as early in the process as possible, ideally as a part of the RAW file conversion process. ‘Creative sharpening’ which is often used as one of the methods to draw the viewer’s attention to the primary subject, should occur later in the process. Finally Print sharpening should be accomplished just prior to printing and after the image has been resized for the end print. Creative sharpening is not provided for in Lightroom, but there are many appropriate techniques in Photoshop. Lightroom also provides for screen sharpening and print sharpening in the Export panel, and print sharpening in the Print module, both of which will be covered in subsequent columns.
- 3 In Photoshop, the alternative was to do the sharpening in LAB color space or to convert the sharpening to luminosity only (<Edit><Fade Unsharp Mask><Luminosity>).





**Figure 5** (left) shows a Loon image along with the default settings. Note: these defaults are applied only to a RAW image. Had the image been TIF or JPG image the default Amount would be 0, the presumption being that the image had started out RAW and capture sharpening applied before it was converted. **Figure 6** (right) shows the image along with the final settings.

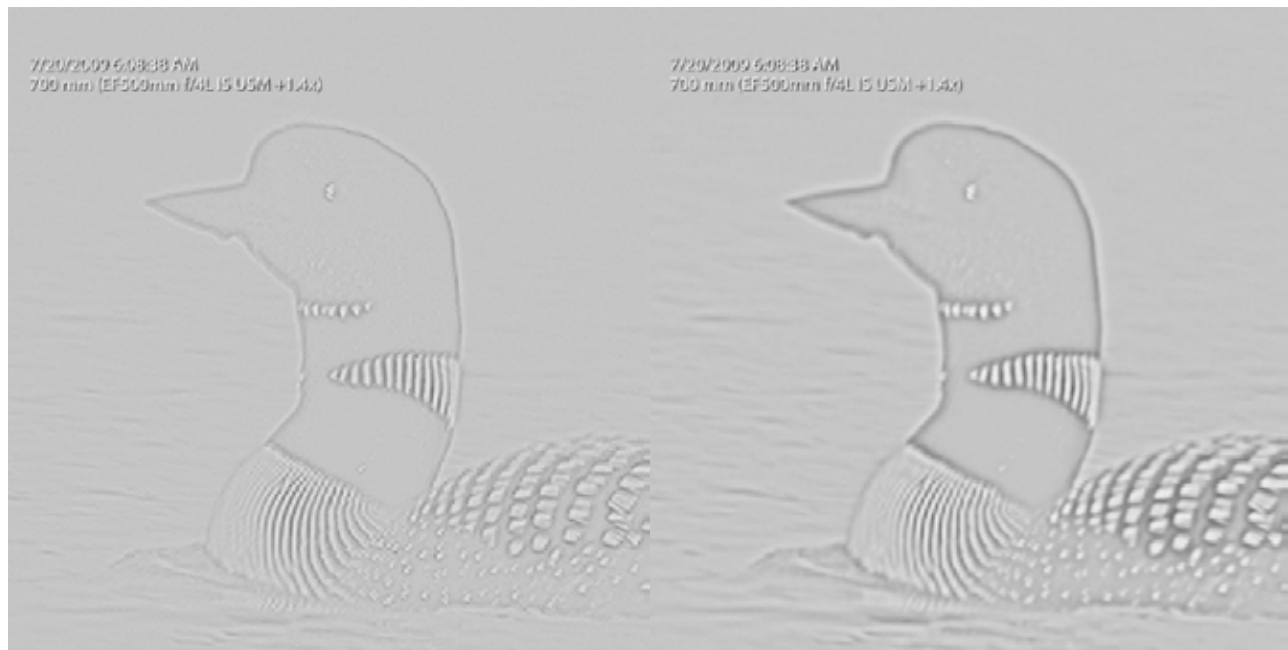
When doing sharpening in the Detail panel, the view you see in that panel is 1:1. If you click on the small square icon at the top left of this panel it turns the cursor into a crosshair. Moving the crosshair over the main window allow you to select which section of the image appears in the panel window. Another option is to change the main window magnification to 1:1.

In Lightroom, there are four sharpening controls<sup>4</sup>: Amount, Radius, Detail, and Masking. The first two control the sharpening of edges in general, while the last two are used to assure that flat-toned areas are not adversely affected. The sharpening parameters should be selected to sharpen edge detail but simultaneously avoid creating artifacts in flat-toned regions. When you are working with these four sliders, it is most helpful to hold down the <Alt> key as you move individual sliders. Doing so allows you to see the effect that slider is having on the overall process. Lightroom has a complete set of Presets which can be accessed from the left side panel in Develop module. You can get a good idea of how capture sharpening works by applying the 'Sharpen-Landscape' preset to a landscape image and comparing that to the result of applying the 'Sharpen-Portrait' preset to a portrait image.

<sup>4</sup> Interestingly, capture sharpening in Lightroom with its four parameters, provides more (and in my opinion, better) control than is available in Photoshop. However the Lightroom functionality is available in Adobe Camera Raw, the RAW converter that comes with Photoshop.

The Amount slider in Lightroom works very much as Amount does in Photoshop's USM filter. Increasing the Amount increases the degree to which Lightroom darkens the darker edge and lightens the lighter edge. When you hold down the <Alt> key while adjusting the Amount, you can see the image switch to grayscale, confirming that Lightroom's sharpening works only on luminance values.

Radius (**Figure 7 & Figure 8**) defines how far back from each 'edge' the sharpening zone will reach. As the Radius increases, the width of the zone increases. A Radius setting of less than 1 pixel is considered a low setting, while a Radius setting of greater than 3 pixels is considered large. A low Radius works better with narrow (aka high frequency) edge detail such as grasses or pine needles. On the other hand, a higher Radius works better with wider edge (aka low frequency) detail, such as the edges between the loon and the water. The ripples on the water are high frequency which if sharpened with a low Radius could potentially create distracting artifacts. However, many images are not exclusively one or the other so a carefully selected compromise becomes necessary.

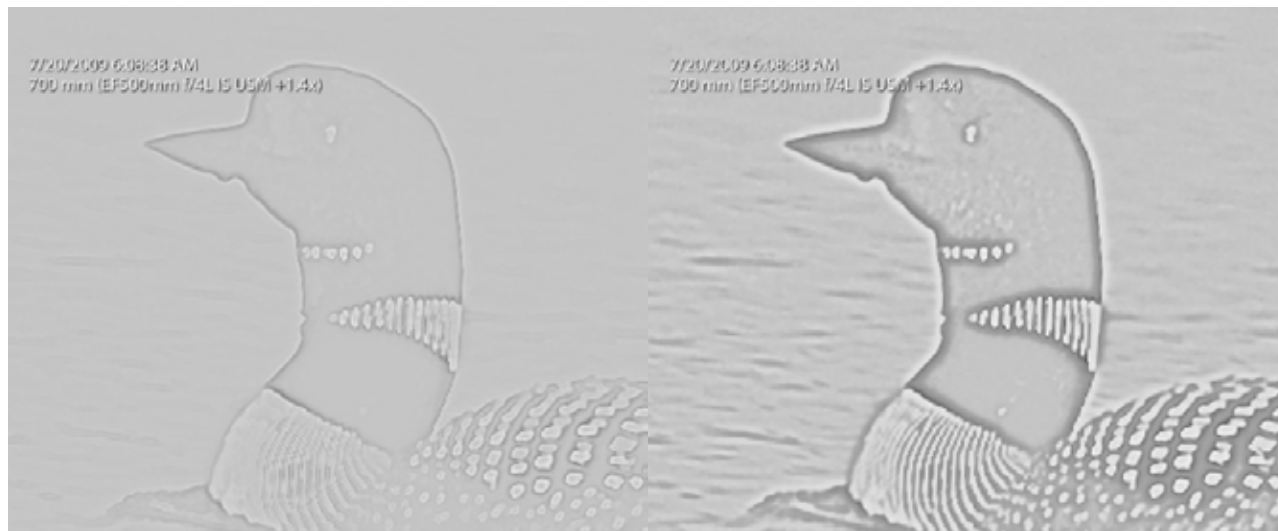


**Figure 7** (left) shows the <Alt> view for the minimum Radius setting. **Figure 8** (right) shows the <Alt> view for the maximum Radius setting.

Coupling a high Radius and high Amount is generally a bad idea because it frequently leads to the creation of objectionable halos. The Detail slider (**Figure 9 & Figure 10**) is the halo suppressor. A setting of 0 applies most suppression; a setting of 100 applies the least.

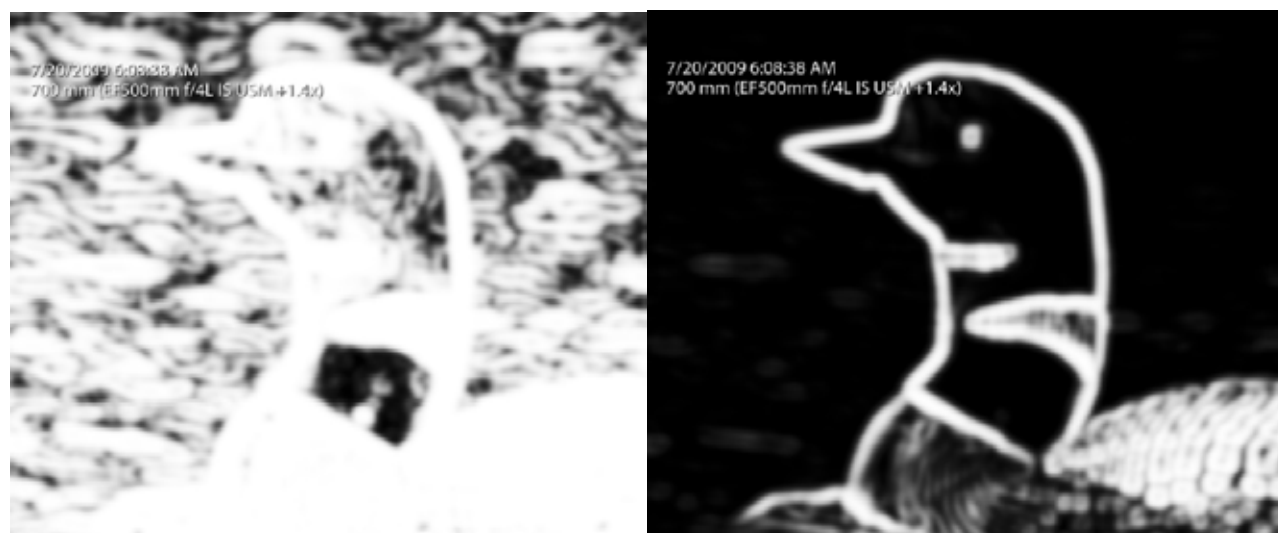
Masking (**Figure 11 & Figure 12**) is very much a Bruce Fraser invention. Consider an image which has a subject with important edge detail, surrounded by more or less flat-toned regions. You'd prefer these areas not be sharpened at all because they are not the primary subject (and you fear the creation of distracting artifacts). Masking<sup>5</sup> deals with this

<sup>5</sup> The operative principle of masks is 'white reveals and black conceals'. Figure 12 and Figure 13 illustrate the principle applied to the Sharpening section of the Detail panel. Where the mask is white the sharpening is revealed and where the mask is black the sharpening is concealed. Where the mask is gray, the sharpening is partially revealed and par-



**Figure 9** (left) shows the <Alt> view for the minimum Detail setting. **Figure 10** (right) shows the <Alt> view for the maximum Detail setting.

by creating a mask which does most masking in flat-toned regions and least masking in regions having a lot of edges. With a Masking setting of 0 there is no mask; with a setting of 100, you get a maximum mask. In **Figure 12**, the black mask prevents sharpening the water while maximizing the sharpening of the edge between the loon and the water. The slider can be used to control the amount of sharpening on the loons body,.



**Figure 11** (left) shows the <Alt> view for a nominal Masking setting. **Figure 12** (right) shows the <Alt> view for the maximum Masking setting.

**In the next column in this series, I'll show you how to use the Noise Reduction section of the Detail panel.**