

FOCUS

Newsletter of the Mayslake Nature Study and Photography Club
of the DuPage County Forest Preserve District

Visit our website at www.naturecameraclub.com or e-mail joekline2006@sbcglobal.net

January 2008

Upcoming Meetings

- | | |
|---------------------------------|--|
| January 7th | Jim Schultz, Brookfield Zoo photographer (Jon Snyder) |
| January 21st | Competition: Digital and Prints |
| February 4th | Bob Andrini, "Birding with a Passion" (Edie Hinckley) |
| February 18th | Jeff Curto, "History of Nature Photography" |

Club News (and announcements)

Welcome to our newest members Charles Baumrucker of Naperville, Marcia Pharis of Bartlett, & Regina Springer of Glen Ellyn. We hope that they will enjoy the many activities that the club has to offer.

On December 11th at 6:30PM, the club held an "indoor" outing at the Thomas Mangelsen Images of Nature Gallery in Oakbrook. It offered those in attendance an excellent opportunity to view the magnificent photos of Thomas Mangelsen up close. The visit allowed members to view the scenic, animal, & bird photos without interruption. Kudos to Jon Snyder for the outing.

At a September board meeting, Tom Richardson brought up the possibility of adding a one page column on a worthwhile photography location that is not in the Chicago area. The idea was presented in the November issue of the Focus & Fred Drury submitted an excellent article on the Roosevelt National Forest. If you have a favorite photography location, please submit an article with photos to me & I'll make sure that it gets published in the next issue of the Focus.

On December 17th, the club held the annual Christmas Social. It is a good time to get together in a casual setting, eat some "finger foods", and view a collection of five photo cameos that are presented by various club members. A list of the cameos & the presenters can be found on page 2.

The Mayslake Forest Preserve has asked our members to contribute winter photos for a display on February 2nd. For further information see Tom Richardson's article on page 2.

Fred Drury has some important information to members concerning upcoming club photo competitions. His article appears on page 3.

Ray Kammer has a thank you for the club members who have helped photograph some important forest preserve functions that helped "pay the rent" for the club's use of the Mayslake location. Please read his article on page 3.

The club's next outing will be led by Hank Erdmann and is scheduled for February 17th at the Indiana Dunes National Lakeshore. Further information will follow in the January meetings.

Do you have a place that you think would make a good club outing location? Jon Snyder is requesting assistance from the club members with planning the outings for 2008. Now is your chance to have input into the outings for next year. Please see Jon's article that begins on page 3 for further information.

Are you interested in learning more about how to take better photos, use Photoshop to improve the finished photo, or learn creative uses for your photos, see Fred Drury's class information that begins on page 4 & that are offered through CACCA that begin on page 7.

This month, Jean Atkins CACCA column contains information about upcoming CACCA competitions and photography classes being offered. Last month, Ruth Smith's entries received two awards, and Edie Hinckley received an honorable mention. See Jean's article that begins on page 6 for further information.

Fred Drury's digital photography series continues with an article on the use of Curves in the Photoshop CS programs. See Fred's article that begins on page 9.

Christmas Cameos

Ruth Smith

Diane Hamernik Title: Cars

Ray Kammer Title: Whales

Barbara Kudrovsky Title: Tucson Arizona and vicinity

Tom Richardson Title: Grand Canyon Journey

Ruth Smith Title: The Misty Isle

Forest Preserve

Tom Richardson

The Forest Preserve District of DuPage County is offering the "Wonders of Winter" event on Saturday, February 2nd from 10 AM to 2 PM. For this celebration of winter our Club members have been asked to set up our Club display at the Mayslake Mansion. We have also been asked to provide photos of winter scenes for the lobby. These would be exhibited in the main hall, where they displayed our Club photos last summer.

The photos should be at least 8 X 10 in a frame with a wire hanger on back. The photo should have the name of the photographer on back and a title. Photos can be dropped off at Mayslake at our January 21st meeting or during business hours that week. The photos may be picked up at the February 4th meeting. The Mansion is kept locked unless staff are in the building to supervise exhibits.

More information will be available at the January 7th meeting.

**COMPETITION
Drury**

Fred

We held our first competition of the '07-08 club year on November 19th. I sincerely hope we'll see increased entries for the January 21st and March 17th competitions. Please keep in mind that you can do unlimited make ups ... which means if you did not compete last month, you can enter additional images in the next competition. Joe Kline kindly sent out a number of files that you can use to simplify the preparation of 'Comment Cards' and 'Entry Summaries'. Don Carter will be posting these on the website in the near future.

I'll give a brief presentation on competition paperwork at the next club meeting on December 3rd ... and I'll be glad to answer any question you might have.

Take a few minutes now, before the Christmas rush arrives, to get your entries organized for the January 21st competition.

FOREST PRESERVE

Ray Kammer

Many thanks to the following Members who photographed at 6 locations for the Forest Preserve:

Jack Brennan	McDowell Woods Fall Color
Fred Drury	Kline Creek Wood Cutting
Jeff Franklin	Danada Fall Festival
Dan Hollister	Waterfall Glen Fall Color
John Janunas	East Branch Cleanup
Ray Kammer	Willowbrook Wildlife Center

Several other Members have volunteered to Photograph at other places which will be dependant upon a good snowfall. Members efforts on behalf of the Forest Preserve District will certainly continue to help maintain good relations for the Club. Thanks again.

OUTINGS

Jon Snyder

The clubs next outing will be hosted by Hank Erdmann at Indiana Dunes National lakeshore Sunday February 17th. Details to follow at the January meetings.

CLUB OUTING SCHEDULE FOR 2008

We plan to try something different next year in planning club outings. In an effort to breathe some new life into the variety of outings, the club will be asking for individual members to pick a month (we will have 6 to 8 outings) and plan an outing. That way any volunteer will only be responsible for planning and running one outing. This we believe will add variety, different ideas and spread responsibility among the membership.

More will be discussed at the Nov. 5th and following meetings. Please consider volunteering to do a month in 2008. I would like to have up to 8 volunteers locked in and an outing schedule completed by May of 08, the start of the new club year.

Please consider volunteering with an outing idea, it is easy and gives you an opportunity to help your club. I will have a sheet with guidelines for planning and executing an outing at the next meeting and will coordinate and manage all the volunteers' efforts throughout the coming year. If anyone has questions, please call or e-mail me – 630-665-2068
jonsnyder@comcast.net

Thanks for your help, Jon

GUIDELINES FOR PLANNING AND RUNNING A CLUB OUTING

- CHOOSE THE OUTING THEME / PLACE. (This does not have to be a photo shoot)
- CHOOSE OUTING DATE AND START TIME.
- IF OUTING DURATION WILL BE OVER LUNCH TIME, MAKE SOME PROVISION FOR A LUNCH BREAK.
- VISIT THE OUTING LOCATION TO HELP MAKE THE BEST USE OF TIME THERE AND IF THE OUTING INVOLVES PEOPLE AT THE SITE, TALK WITH THEM AHEAD OF TIME TO SECURE ANY NECESSARY PERMISSIONS AND TO ARRANGE THE OUTING.
- PREPARE AN OUTING NOTICE FOR PUBLICATION IN THE FOCUS AT LEAST 2 MONTHS IN ADVANCE OF THE OUTING DATE. THE NOTICE SHOULD CONTAIN A DESCRIPTION OF THE EVENT THEME AND INFORMATION DESCRIBING THE EVENT SCHEDULE. ALSO, INCLUDE A MAP IF POSSIBLE AND DIRECTIONS TO THE LOCATION WITH THE STARTING TIME. LOCATION WEB SITE, ADDRESS AND PHONE NUMBER ARE ALSO HELPFUL.
- ANNOUNCE THE OUTING TO THE CLUB MEETING MEMBERS SEVERAL MEETINGS PRIOR TO THE EVENT AND PASS A SIGN UP SHEET FOR THOSE WISHING TO ATTEND. KEEP A RECORD BY NAME OF THOSE MEMBERS WHO ACTUALLY ATTEND THE EVENT AND FORWARD TO THE OUTINGS CHAIRMAN FOLLOWING THE EVENT.
- IF THE OUTING IS A PHOTO SHOOT, ARRANGE AHEAD OF TIME TO HAVE AN EXPERIENCE MEMBER ACT AS AN INSTRUCTOR FOR THOSE MEMBERS NEEDING TECHNICAL ASSISTANCE WITH THEIR SHOOTING.
- AS THE OUTING PLANNER, IT IS YOUR OBLIGATION TO ATTEND THE OUTING. IF FOR SOME LAST MINUTE REASON YOU CANNOT ATTEND, YOU MUST ARRANGE FOR SOMEONE TO TAKE YOUR PLACE AT THE EVENT.

PROPOSED OUTING MONTHS FOR CLUB YEAR STARTING IN MAY OF 2008
MAY, JULY, SEPTEMBER, OCTOBER, DECEMBER, FEBRUARY, AND APRIL.

THE MONTHS LISTED ARE FLEXIBLE AND CAN BE CHANGED AS NEEDED.

WE NEED (7) SEVEN MEMBER VOLUNTEERS TO COMPLETE THE SCHEDULE FOR 2008. I WILL REMAIN THE OUTING CHAIRMAN AND OVERSEE THE EVENTS TO INSURE THAT ALL REQUIREMENTS ARE FULFILLED, AND HELP AS NEEDED. PLEASE CONSIDER VOLUNTEERING AND CALL ME WITH ANY QUESTIONS.

THANKS FOR YOU CONTRIBUTION, 11-05-07
JON SNYDER 630-665-2068
jonsnyder@comcast.net

DIGITAL IMAGING CLASSES

Fred Drury

Here are the classes Fred will be instructing this fall at the DuPage Art League and at The Morton Arboretum. Also included are classes scheduled for the 'Spring' semester at COD, which begins in January!

At the DuPage Art League:

Digital Photography Fundamentals: Today's cameras are wonderful tools that can help you shoot striking images. This class is about learning to take full advantage of all the features included in that digital camera, and in the process, learning about the esthetics of making images. We start with a Digital Camera Workshop (remember to bring both your camera and its manual). Each week an assignment will be given to shoot prior to the next class.

These are designed to show you the capabilities of the camera and to exercise your creative skills. The following week we will look at images, talk about the results, and introduce a new assignment ... 6 Fridays, 9:30AM-12Noon: Feb. 22, 29 & Mar. 7, 14, 21, 28. Additional information is available at the DuPage Art League, 218 West Front Street, Wheaton; Phone: 630 653 7090.

At The Morton Arboretum:

1. **Photoshop 2:** In the second course of the *Photoshop* series you will apply techniques from the first class to your own images. You will also expand your skills learning techniques such as dust and scratch removal, cropping, masks, and local color correction, color management, proofing and printing in *Photoshop*, and using *Photoshop Bridge* and *Adobe Camera RAW*. Users of *Photoshop*, version 7 or later, will be best served by this class. Most, but not all techniques, are available in *Elements* ... 5 Tuesdays, 6:30-9:30 PM: Jan. 8, 15, 22, 29 & Feb. 5 ... prerequisite: Photoshop 1 or equivalent.
2. **Digital Point & Shoot:** Learn to fully use your new digital camera. Fred will explain the differences between film and digital photography, and then work with you to extract all the potential of your digital camera. Please let us know the name and model of your camera as you register ... 5 Thursdays, 6:30-9:30 PM: Jan. 17, 24, 31 & Feb. 7 & 14. **This class is full.**
3. **Presentations:** This class will show you how the basics of matting and framing. During the class, we'll work with you to complete framing of one of your images ... 5 Wednesdays, 6:30-9:30 PM; Mar. 12, 19, 26 & Apr. 2, 9. Note: the first and last of these classes will be held at the Arboretum, the other three classes will be held at Markland Imaging Studios in Wheaton (directions will be provided).
4. **Digital Slide Show:** Just about all of us have had a desire to create a slide show for friends, family and even for their Camera Club. We'll show you how to do it using *ProShowGold* (sorry, this software is Windows only). Using your images (either digital or slides), set the timing and select transitions. Then you'll add music and voice-over dialog. *ProShow* lets you incorporate the kinds of 'pans' and 'zooms' which Ken Burns used so successfully in his PBS presentations, as well as many other special effects. Shows can be viewed on a computer or made into a DVD for viewing on your television screen. All you'll need are your own images, the *ProShow* software, and your imagination ... 5 Thursdays, 6:30-9:30 PM; Mar. 20, 27 & Apr. 3, 10 & 17
5. **Digital Point & Shoot:** Learn to fully use your new digital camera. Fred will explain the differences between film and digital photography, and then work with you to extract all the potential of your digital camera. Please let us know the name and model of your camera as you register ... 5 Sundays, 1:00-4:30 PM: Apr 13, 20, 27 & May 11, 15.
6. **Photoshop 1:** The 'starter' Photoshop course. This first in the series of *Photoshop* courses will help you master the essentials of optimizing digital image files. You will learn to use Photoshop to color correct images from the natural world. Other related skills include image evaluation using the Info palette, image adjustments using Curves, resizing for output, image sharpening, and digital burning and dodging. Users of *Photoshop*, version 7 or later will be best served by this class. Most, but not all of the techniques are available in *Elements* ... 5 Wednesdays, 6:30-9:30 PM: Apr. 23, 30 & May 7, 14, 21 ... prerequisite: Introduction to Nature Photography or equivalent.
7. **Photoshop 3:** Move beyond the basics of color correction into color management, print settings, and confirming that the view on the monitor is the same as your prints ... 5 Thursdays, 6:30-9:30 PM: Apr.24 & May 8, 15, 22, 29 ... prerequisite: Photoshop 2.

You can learn more about the Nature Photography program and sign up for classes at: http://www.peopleware.net/index.cfm?categoryDisp=1633&branchExpand=C_1633

At the College of DuPage: In the Spring term (beginning in January), Fred will be teaching two classes:

1. **PHOTOGRAPHY 1101; Foundations of Digital Photography; 3 credit hours**
Explores the techniques and applications of acquiring, manipulating and outputting digitized photographic images utilizing Adobe Photoshop. Prerequisite: Photography 1100 or equivalent, or concurrent enrollment (6 lab hours), Mondays & Wednesdays, 8:30-11:30AM.

2. **PHOTOGRAPHY 1450; Nature Photography; 3 credit hours**
Introduces specialized techniques for photographing the natural environment.
Emphasizes application of techniques in field situations. Prerequisite: Photography 1400 or equivalent (6 lab hours)

If you have any questions, give Fred a call or drop him an Email at:
fred@marklandimaging.com

CACCA NEWS

Jean Atkins

The following are the upcoming competitions that our club members usually enter. The **competitions are always the 2nd Saturday** of the month. See Jean Atkins for the schedule for the individual Alteration of Reality, Photojournalism, and Portrait competitions if interested.

DECEMBER COMPETITIONS

For the interclub small color print competition, images provided by **Don Carter, Edie Hinckley, and Ruth Smith** represented our club. **Ruth** received an **Award** for her "Prairie Spiderwort & Buds".

Edie Hinckley and Ruth Smith also entered the Nature Print competition where Edie received an **Honorable Mention** for her "Sand Patterns".

Lloyd McCarthy entered the "Trees" individual special category slide competition. He really outdid himself this time. His "Etched With Snow" received an **Award** and his "Frosted Sentinel" received both an **Award** and **Best of Show**. (Can't do better than that!)

JANUARY COMPETITIONS

Interclub

We are competing in the Small Color Print divisions this year. "Small" means the print is mounted on an 11x14 board. There is no special category and it need not be nature-related. Each month the club needs 4 entries in each division, and within each division each entry must be from a different member. Submit as many entries as you like and I will decide which ones will be entered each month.

Nature Slides (Individual)

This is the second of the three individual Nature Slide competitions.

Special Category (Individual) – "Dominant Color or Dominant Color or Hue"

This competition is for slides only and each entrant may submit 2 slides. The images may not have been entered in ANY previous CACCA competition including Interclub, Individual, or Salon. The subject must be the dominant part of the image. There is no charge for entering the special category competitions. (Entries in this competition could be submitted later to the Nature Slide and/or Interclub competitions.)

FEBRUARY COMPETITIONS

Interclub

Same rules as the January competition above.

Nature Print (Individual)

This is the third and last Nature Print competition.

Special Category (Individual) – “Cats (wild or domestic)”

Same rules as the January Special Category competition above.

OTHER NEWS

Panoramic Print Competition

CACCA will be hosting a new individual competition as part of the Spring Salon on March 15 .Specific rules for the Panoramic Print Competition can be found by clicking on the Salon button on the camera, and then at the list of competitions, click the hyperlink at Panoramic Prints. Or go directly by:

http://www.chicameraclubs.org/documents/Panoramic_Competition.pdf

If you have ever made a panoramic print, or wanted to, this is a great opportunity to show off your work in a larger format than is currently allowed under CACCA rules.

Nature Photography for Kids

Do you know any young people who are into nature photography? Nature's Best magazine (a high quality magazine with lovely photos and nature stories) has just started up a new magazine for kids (would make a great gift for you teen grandchildren). Also they are offering a new contest. Perhaps you know some young folks who might be interested.

Digital Photography “Hands On” Classes

Featuring Adobe Photoshop Elements 4.0, 5.0 and 6.0

Monday through Thursday – January 7,8,9 & 10 - 2008
7:00 PM to 9:00 PM at Prairie Lakes Community Center
515 East Thacker Street
Des Plaines, IL 60016
847-391-5711

Jerry Hug, Photographer/Teacher
Assisted by Members of the Des Plaines Camera Club

This class is for beginning, intermediate and advanced users of Photoshop Elements who want to learn how to use or get further into the wonders of this outstanding software that permits one to use digital technology to make better photographic images.

This is not a class on how to use your computer. You must have basic computer skills such as: the ability to turn on and use your computer for basic tasks, to e-mail, to use your mouse, insert a CD or DVD into your computer and open files, know how to save files on your computer etc.

To take this class you must have a Laptop Computer with Adobe Photoshop Elements (4, 5, or 6) already installed and ready to use on your computer.

You will learn how to maximize the look and appeal of everyday images and you'll learn how to optimize photographic images to the level of fine art.

Topics will include understanding Photoshop Elements icons, tools, filters, resolution, file size, cropping, coloring, photo restoration, photo collages, converting color images to black and white, and image sharpening for maximum print quality.

You are encouraged to bring your favorite images on flash drives, memory cards, or CD's for use in class assignments and exercises.

Last month I took a 'time out' from my regular workflow sequence with an article which addressed what I thought were the more significant changes in the new CS3 version of Photoshop. This month I'm returning to the regular sequence with the first of two articles on Curves, which I regard as Photoshop's best and most 'industrial strength' color correction tool. For this and future columns, I'll be including screenshots from CS3.

Objectives of Color Correction

There are three: First, to use the full tonal range available; Photoshop provides 256 tones and most images benefit from the widest possible use of the available tones. Second, to eliminate any undesired color cast. Morning and evening photography often produces desirable color casts, however many color casts are unintended and undesirable. And third, to increase contrast in the primary subject of the image as much as practical; increasing primary subject contrast supports drawing the viewer's eye to that region of the image.

Photoshop's Image Adjustment Tools

Select Image<Adjustments to see (Figure 1) the seven tools Photoshop provides for adjusting the color and contrast of images. The three 'Auto' tools turn control of the adjustment over to the computer and performance is unpredictable. They're for rookies only and that ends our discussion of them! Brightness/Contrast, while much improved in CS3 is still like using

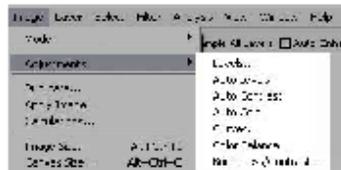


Figure 1: Here are the 7 image adjustment tools. The '...' following a tool name indicates control of the tool is described in a subsequent dialog box.

a 16 lb. sledgehammer for watch repair, and Color Balance is not much better. That leaves Levels and Curves.

Figure 2 shows the Levels dialog. Levels sliders allow you control over the shadows (a & b), the highlights (c & d) and the midtones. Moving the 'a' slider to the right appears to darken the im-

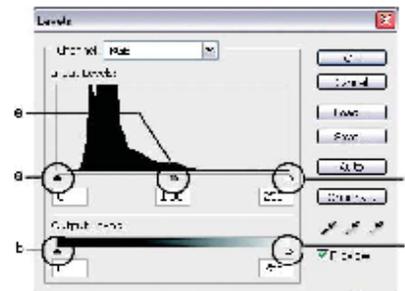
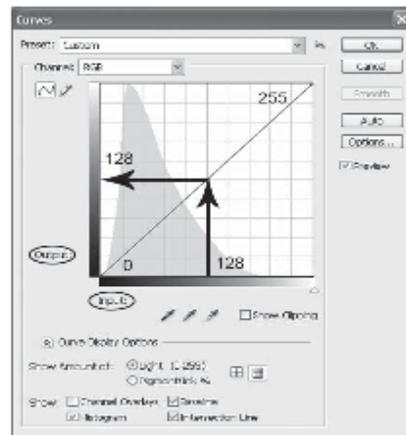


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age. In fact, moving it just a small amount darkens the darkest area of the image (the shadow point); as you move the slider still further to the right the darkening affect moves from shadows to midtones. Moving the 'b' slider to the right produces the opposite affect; it lightens the image. Here again a small movement appears to affect only darkest areas of the image; larger movements extend further towards the midtones. Similarly, the 'c' and 'd' sliders allow darkening or lightening of the highlights respectively. Midtones can be controlled independent of shadows and highlights using the 'e' slider. Moving this slider to the right darkens the midtones; moving it to the left lightens. The bottom line is that Levels permits adjustment of shadows, highlights, and midtones, but nowhere else. If there's a need to adjust a tone somewhere between the shadows and the midtones, Levels cannot do the job!

Curves: the Industrial Strength Color Correction Tool

Figure 3A is the Curves dialog. The grid can be switched from a 10x10 grid to 4x4 by <Alt> clicking anywhere inside the grid area, or by clicking on the appropriate grid icon just below the grid area. Also this grid shows the dark values on the left ... clicking within the small circle along the bottom will reverse this setting. I prefer this setup because histograms show the dark values to the left. I think the best way to visualize the way Curves works is in terms of how it transforms tones from Input to Output. As in Figure 3, the 'curve' starts as a straight line at 45° running from 0 at the lower left to 255 at the upper right. Input comes in from the bottom at the center (say a value of 128) ... moves vertically up to the 'curve', and then turns 90° and moves to the left edge of the grid delivering an output value (in this case 128, the same as the input) ... thus a 45° line makes no change in output values and hence no change in the image.



By contrast, the curve shown in Figure 3B does make changes to the output values, those near the center of the image have all been increased. The markers show that input pixel values of 112 have been increased to an output value of 139 ... you can readily see that the quarter tones and the three-quarter tones have also been increased but not to the same degree as the mid-tones. Note that the values at the extremes have not

Figure 3A ... the initial 'curve' is a straight line, meaning that input values (the horizontal axis) are equal to Output values (the vertical axis). Changes to the curve alter the relationship between input and Output values. Note the addition of the histogram in Photoshop CS3.

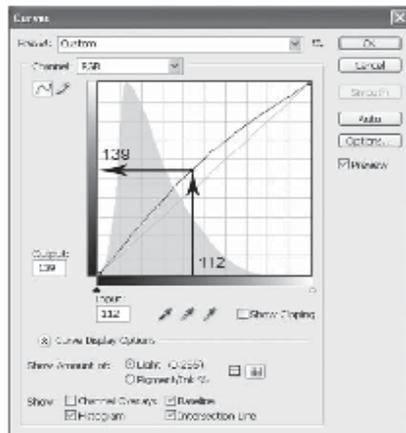


Figure 3B ... the curve has been modified ... a point near the center has been moved up and to the left. The result is that an input value of 112 now has an Output value of 138 and all other input/output values have been adjusted proportionately. Increasing Output values make the adjusted image lighter ... mostly in the midtones.

the three-quarter tone from 205 to 220 making this region lighter. This curve has increased the tonality allocated to the middle range of the image ... the initial range of 131 tones (205-74) has been increased to 161 tones (220-59). A viewer sees this change as an increase in midtone contrast range. Note that there are a total of 255 tones, no more and no less. If we increase the tonality 'spent' on the midtones from 131 to 161, we consequently reduce the tonality spent on the highlights and shadows from a combined total of 124 to 94. This is a very good idea if the image's primary subject is located in the midtones. But try doing this trick in Levels!

Figures 2, 3A & 3B show the Levels and Curves dialog in the composite RGB channel. Figure 5 shows the Curves dia-

been changed. Overall this image has been lightened ... and the move (moving the center point on the curve up and to the left) is the same as could be accomplished in Levels by moving the center slider to the left. You can also see that one could have made moves to either of the endpoints (shadow and highlight) just as one can in Levels.

However, in Curves, you can make moves at any point along the initial 45° line, which means an infinite number of changes is possible ... or thinking of it another way, changes can be made in a very precise way that affects the image only at a specific location. Figure 4 shows another important advantage Curves has over Levels. This is an 'S' curve ... this curve lowered the quarter tone value from 74 to 59 making this region darker ... at the same time it raised

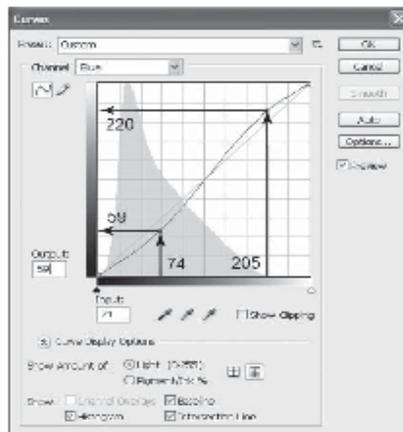


Figure 4 ... two points have been added to this curve. One darkens the quarter tones, the other lightens the three-quarter tones. This steepens the central portion of the curve ... more of the tonal range is allocated to the center meaning we see more detail in that region.

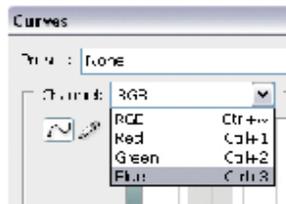


Figure 5 shows the dropdown box in the Curves dialog that provides access to the individual color Channels. Note the keyboard shortcuts on the right hand side.

log's dropdown allowing the user to select individual R, G & B channels. Working in the individual channels has two advantages. First, it allows one to correct color casts; by definition, a color cast is going to require adjustment of one or more channels, whereas working in the composite only adjusts all channels equally. Second, it permits one to adjust contrast selectively ... by color (channel) and then only in the region where that color is important to the primary subject of the image.

Next month's column will be a practical demonstration in which I'll show you how to use Curves to accomplish the three color correction objectives on two images.

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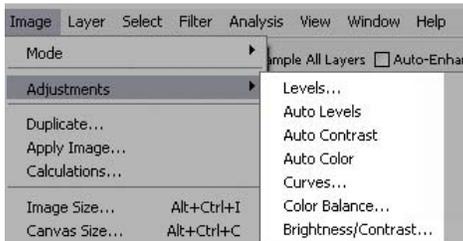


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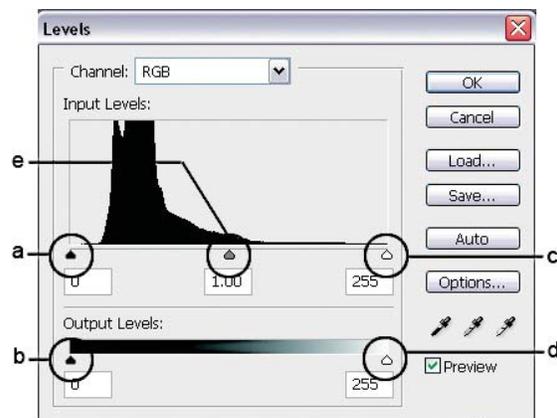
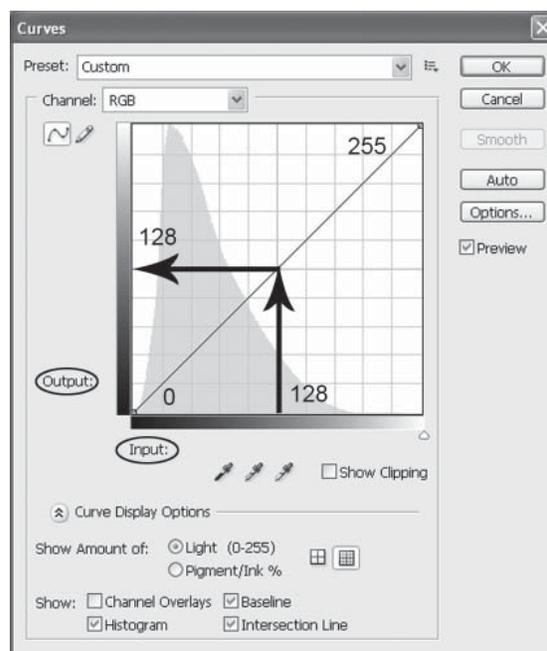


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age. In fact, moving it just a small amount darkens the darkest area of the image (the shadow point); as you move the slider still further to the right the darkening affect moves from shadows to midtones. Moving the 'b' slider to the right produces the opposite affect; it lightens the image. Here again a small movement appears to affect only darkest areas of the image; larger movements extend further towards the midtones. Similarly, the 'c' and 'd' sliders allow darkening or lightening of the highlights respectively. Midtones can be controlled independent of shadows and highlights using the 'e' slider. Moving this slider to the right darkens the midtones; moving it to the left lightens. The bottom line is that Levels permits adjustment of shadows, highlights, and midtones, but nowhere else. If there's a need to adjust a tone somewhere between the shadows and the midtones, Levels cannot do the job!

Curves: the Industrial Strength Color Correction Tool

Figure 3A is the Curves dialog. The grid can be switched from a 10x10 grid to 4x4 by <Alt> clicking anywhere inside the grid area, or by clicking on the appropriate grid icon just below the grid area. Also this grid shows the dark values on the left ... clicking within the small circle along the bottom will reverse this setting. I prefer this setup because histograms show the dark values to the left. I think the best way to visualize the way Curves works is in terms of how it transforms tones from Input to Output. As in Figure 3, the 'curve' starts as a straight line at 45° running from 0 at the lower left to 255 at the upper right. Input comes in from the bottom at the center (say a value of 128) ... moves vertically up to the 'curve', and then turns 90° and moves to the left edge of the grid delivering an output value (in this case 128, the same as the input) ... thus a 45° line makes no change in output values and hence no change in the image.



By contrast, the curve shown in Figure 3B does make changes to the output values, those near the center of the image have all been increased. The markers show that input pixel values of 112 have been increased to an output value of 139 ... you can readily see that the quarter tones and the three-quarter tones have also been increased but not to the same degree as the mid-tones. Note that the values at the extremes have not

Figure 3A ... the initial 'curve' is a straight line, meaning that Input values (the horizontal axis) are equal to Output values (the vertical axis). Changes to the curve alter the relationship between Input and Output values. Note the addition of the histogram in Photoshop CS3.

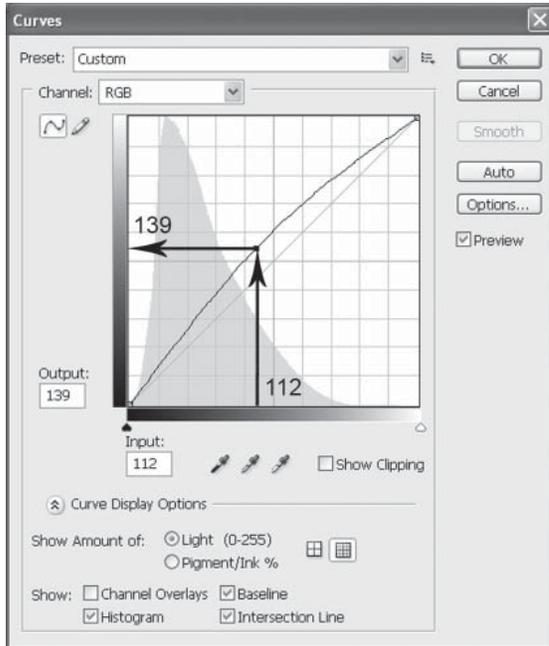


Figure 3B ... the curve has been modified ... a point near the center has been moved up and to the left. The result is that an Input value of 112 now has an Output value of 139 and all other Input/Output values have been adjusted proportionately. Increasing Output values make the adjusted image lighter ... mostly in the midtones.

the three-quarter tone from 205 to 220 making this region lighter. This curve has increased the tonality allocated to the middle range of the image the initial range of 131 tones (205-74) has been increased to 161 tones (220-59). A viewer sees this change as an increase in midtone contrast range. Note that there are a total of 255 tones, no more and no less. If we increase the tonality 'spent' on the midtones from 131 to 161, we consequently reduce the tonality spent on the highlights and shadows from a combined total of 124 to 94. This is a very good idea if the image's primary subject is located in the midtones But try doing this trick in Levels!

Figures 2, 3A & 3B show the Levels and Curves dialog in the composite RGB channel. Figure 5 shows the Curves dia-

been changed. Overall this image has been lightened ... and the move (moving the center point on the curve up and to the left) is the same as could be accomplished in Levels by moving the center slider to the left. You can also see that one could have made moves to either of the endpoints (shadow and highlight) just as one can in Levels.

However, in Curves, you can make moves at any point along the initial 45° line, which means an infinite number of changes is possible ... or thinking of it another way, changes can be made in a very precise way that affects the image only at a specific location. Figure 4 shows another important advantage Curves has over Levels. This is an 'S' curve ... this curve lowered the quarter tone value from 74 to 59 making this region darker ... at the same time it raised

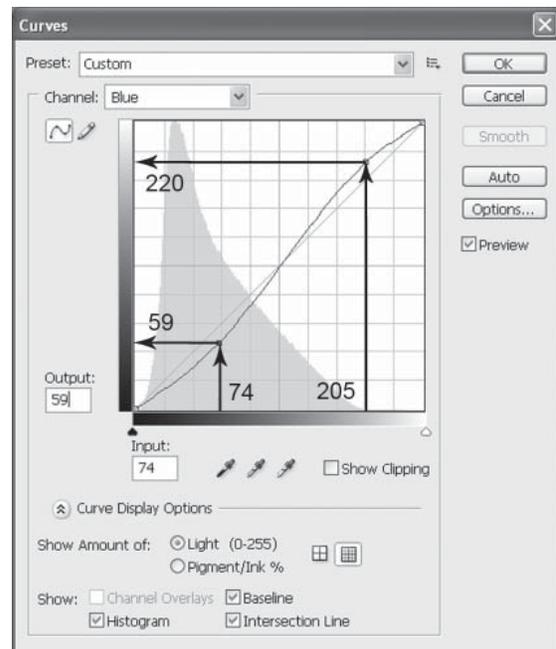


Figure 4 ... two points have been added to this curve. One darkens the quarter tones, the other lightens the three-quarter tones. This steepens the central portion of the curve ... more of the tonal range is allocated to the center meaning we see more detail in that region.

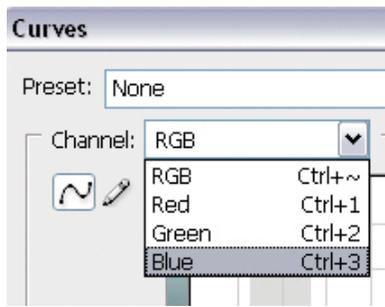


Figure 5 shows the dropdown box in the Curves dialog that provides access to the individual color Channels. Note the keyboard shortcuts on the right hand side.

log's dropdown allowing the user to select individual R, G & B channels. Working in the individual channels has two advantages. First, it allows one to correct color casts; by definition, a color cast is going to require adjustment of one or more channels, whereas working in the composite only adjusts all channels equally. Second, it permits one to adjust contrast selectively ... by color (channel) and then only in the region where that color is important to the primary subject of the image.

Next month's column will be a practical demonstration in which I'll show you how to use Curves to accomplish the three color correction objectives on two images.