

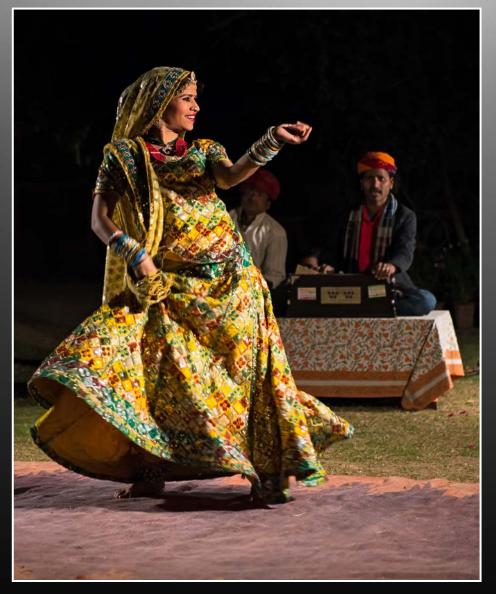
Close-Up



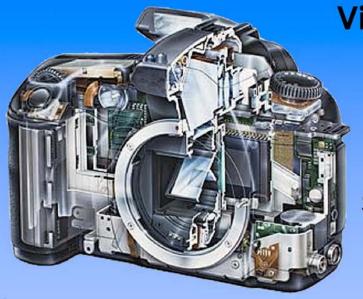
HDR: the Basics

Inside:

Beginners' Corner: Reading the Light Meter Adventures with Wi-Fi and more.....



The cover image, "Dancer, Jaipur" by Richard Marshall placed first in the Novice Open Category in the February 2014 competition. See Page 4.



Serving Victoria and British Columbia for 50 years

www.victoriacameraservice.com

9-5 Monday to Friday 250-383-4311 110 - 864 Pembroke St., Victoria, BC, V8T 1H9

Victoria Camera Service

Full Service Camera Repairs
All Makes and Models

Canon Nikon Olympus Sony Pentax Casio Panasonic JVC Samsung Manfrotto Hasselblad Fuji Tamron Sigma Intec Leica

Sensor Cleaning
Lens Repairs
LCD Replacement
Factory Trained Technicians
1 Year Warranty





Victoria Camera Club

Close-Up is the magazine of the Victoria Camera Club,
Copyright ©, Victoria Camera Club, 2014, all rights reserved.

Mailing address: 2642 Quadra Street, PO Box 46035, Victoria, BC, V8T 5G7.

Deadline for submissions for the May/June issue is April 5th 2014.

Editor, Richard James, e-mail to newsletter@victoriacameraclub.org
for submissions or to advertise in Close-Up.

Established in 1944, the Victoria Camera Club is a group of people who share the love of photography. We come together to appreciate each other's images, to learn, both from the feedback on our own images and from the images of others, and to exchange tips on how and where to take effective photographs. Our focus is on continuous learning. Our media include both film and digital and our expertise ranges from novice to master.

Events

We hold a number of events including:

- Three meetings a month from September to April (excluding December)
- · Field trips
- Workshops
- Special Interest Groups (SIGs)
- · Competitions within the club and externally

Meetings begin at 7:30 PM at Norway House, 1110 Hillside Avenue, Victoria, BC.

Membership

Annual fees include all workshops (except studio shoots and special events), meetings and all field trips unless travel/accommodation is involved. Annual fees are: Individual, \$85; Family, \$128; Student, \$43.

Please support our advertisers.

They make the publication of Close-Up possible. Remember to tell them that you saw their ad here.

Member Discounts: VCC members can take advantage of discounts offered by several retailers in Victoria. Details are on the members only page on our website.

For current event information and locations please go to the website *victoriacameraclub.org* where you can also read or download the colour version of *Close-Up*.

For additional information: please contact the appropriate Committee Chair:

Membership: membership@victoriacameraclub.org Workshops: workshops@victoriacameraclub.org Field Trips: fieldtrips@victoriacameraclub.org Meetings: meetings@victoriacameraclub.org Website: webmaster@victoriacameraclub.org Close-Up: newsletter@victoriacameraclub.org or call Lois Burton, President at 250-652-6940.

What's Inside

Club Calendar	4
President's Message	4
Imagination at Play	5
Panorama Photography: Part 2	8
Competitions	10
Sensor Cleaning 102	15
Selective Adjustments in Photoshop	15
HDR: the Basics	16
How I Did It	18
Shoots Around Victoria	19
Beginners' Corner: Reading the Light Meter	20
Adventures with Wi-Fi	21

The Victoria Camera Club is a member club of the Community Arts Council of Greater Victoria (CACGV), Canadian Association for Photographic Arts (CAPA), and the Photographic Society of America (PSA).







Calendar

Our workshop and field trip program is too extensive to list in *Close-Up*. Please go to the calendar page on the website (*www.victoriacameraclub.org*) for the latest details of all our workshops, field trips and meetings.

Thursday, April 3rd; Competition Night

The March competition results will be presented. One of the judges will review selected images. Annual Competition submissions are due. Please see the Competitions page on the website for details.

Thursday, April 10th; Presentation Night

Our presenter is Al Smith, a professional photographer and entrepreneur based in Victoria. Al will be showing his "Photographic Adventures" from some far out places.

Thursday, April 17th; Members' Night

Presentation of members' images, field trip slide shows, prints or short technical topics. This is also our AGM.

Featured Workshops

Bird Photography

Featured Field Trips

Full moon at sunset and the total lunar eclipse: April 14.

Meeting, field trip and workshop visitor policy: Visitors are welcome to attend any three events in a two month period subject to the availability of space and a \$20 per session fee for workshops.

Cover Image

The cover image, "Dancer, Jaipur" by Richard Marshall, is an edited version of the image that placed first in the Novice Open category in the February 2014 competition.

In January I travelled to India on a tour organized by the Maiwa Foundation (Vancouver) that focuses on reducing poverty in rural villages by promoting the economic self-sufficiency of artisans. On the tour's first evening together we had a wonderful dinner in the garden of an old Haveli (mansion). This vibrant dancer was part of the evening's entertainment. As dancers do, she wouldn't stay still for long and kept moving in and out of the garden spotlights. I shot the dancer trying for a sharp well-lit face with movement in her body and dress. Nikon D610, Nikkor 24-70mm, at 70mm, ISO 2000, f2.8, 1/160 sec.

President's Message

There are many reasons why individuals join photography clubs. Some join because they enjoy the spirit of competition; for others it is furthering their photography skills through hands on learning opportunities and still others join for the friendships with individuals of similar interests. But the underlying reason that we have all been drawn to the Victoria Camera Club is our interest in, and our love for, the art of photography. Have you ever asked yourself if photography is a hobby for you or whether it is your passion?

A hobby and a passion are quite similar. Both involve being engaged in an activity that brings us pleasure and allows us to get away from busy schedules, but there is a clear distinction between the two and the fundamental difference is intensity.

Hobbies are usually casual and informal, something we dabble at every now and then, but a hobby doesn't consume us. They round out our lives and keep us balanced, but we don't feel a particular need to do them everyday. Whereas a passion is something we go out of our way to find the time for.

A passion is powerfully intense and compelling. It is a driving energy that inserts itself into your life and has a power over you. As hard as you might try, it is always in the back of your mind and you can't seem to turn it off or even turn it down.

Passions demand a high price from you. They transform into a raw enthusiasm which drives you to spend extravagant amounts of time pursuing and elevating what you love and working very hard to become fluent in it, sometimes to the point of neglecting other things. They also demand perfection. "Good enough" doesn't exist because the passion will not allow it.

Photography is my passion and taking pictures brings me personal peace and satisfaction. My love of photography has taught me to observe life and appreciate the world in a totally new way.

Everyday life is full of beauty whether it be capturing the sun dip into the ocean at the end of the day or the full moon rise above the horizon. There is always a story to be told and images, without saying a single word, can write the most interesting stories.

Lois Burton, President.

Imagination at Play April 2014

by Lydia Dagg

I was asked to write about something uniquely "Lydia" for Close-up, emphasizing "where do I get my inspiration, what makes me the kind of photographer I am, and how does my background influence me." I was speechless. "Who could possibly be interested in reading about that?" was my immediate reaction. It got me thinking that everything that happens in one's life is totally integrated in each of us to make us uniquely who we are.

My very early childhood was spent in war-torn Europe, without toys, TV and very little or no food. I spent hours in my father's fine furniture maker workshop, playing with a few tools and lots of wood shavings that became fascinating objects of my fantasies. Nature's beauty takes my breath away, and I can easily be amused by simply examining, in minute detail, the veins of a leaf, the core of an apple, or the exquisite structure of an acorn or seashell. My imagination took flight, and "what if" is always foremost in my thoughts.

A very strong ability to concentrate and totally ignore reality became a way of survival. I fantasized a different life and world. For many years after the war, each of us four children received one orange per week as a very special treat. I "ate" that orange with my eyes at least a hundred times a week, played with it, smelled it, squeezed it, and tossed it jubilantly into the air. Of course, I would not eat it until the next week's orange was received. This way, I could have an orange every day, whenever I wanted one! When I was 13, my family emigrated to Canada.

Nearly five years ago I took up photography after having started art training in my mid-twenties. Photographic inspiration comes from everywhere, wherever I may be



"Interactive: Intertwined and Interwoven"

and whatever the subject at hand. One of my favourite subjects to photograph are professional dancers. I am inspired by what I see and feel, and desperately want to share and capture the discovery.

I need to express how a specific scene, object, person or emotion affects me. I look for the best light and that unique angle. Then I select the most interesting component and place that area into one of the image "Power Points" for good composition, being fully aware that I want to show it in the most effective way that I possibly can.

It is necessary to react quickly and precisely by analyzing the scene (which sometimes lasts but a split second), deciding which components of the scene add to its effectiveness, or take away from it. My eyes roam around the scene instinctively and I zero in on the area that holds the most fascination for me.

I need to create order, leading lines that draw the viewers eye to where I want them to look, and make certain that the viewers attention is kept within the scene, and that they feel what I feel. This sounds arduous, but it all happens in a split moment or two. A trained eye reacts amazingly quickly, as do your feet and your equipment.

In post-production, it is easier to add creative expression. Layering opens the doors to opportunities that photographers of the past could not even dream about. Take extra shots of skies, clouds, backgrounds, textures, landscapes, etc., during all times of the day and evening. Establish a library of subject matters, along with different lighting directions, which are vitally important in creating believable composites.

Learn the importance of backgrounds and why they can



"The Power Within"

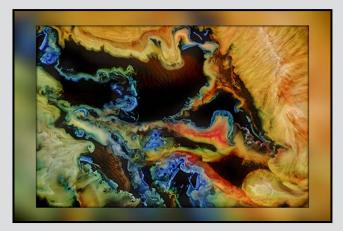
add to the effectiveness of the image, or totally destroy it. Always play with depth of field, light and shadows.

Analyze every scene. I used to study catalogues and magazines dissecting images, comparing two shots and discovering why one was so much more effective than the other. Study simple and complex shapes, create balance, play with various lines for impact, get really close, remembering that the eye is naturally drawn to the lightest part of the image.

Learn all the rules and then feel free to break them, and follow your own road to wherever it leads you. Experiment and try everything. Train your eyes daily to learn to see compositions all day long, wherever you are. Open your eyes and feel what you are looking at. How you react to what you see and how you set up your angle as well as your light and shadows will greatly influence what your viewer will feel and why the viewer will want to linger and experience what you are expressing.

My tools are not sophisticated. I do not have any "plugins." Lightroom 4 is used predominantly as a sorting/retrieval system. Layering and masking in Photoshop are my preferred post-editing tools. Unfortunately, these tools are also the most challenging for me and I look forward to the day when it all flows "naturally." This is where a lot of creativity occurs and is artistically most rewarding.

My imagination takes over and I can add or delete layers, adjustment masks, smart objects, etc., (allowing one to work in a non-destructive way), to give the image more emotion, or add a much more three-dimensional feel. I am only limited by my technical skills, or lack thereof. Constantly I say "what if" I try this or that as there is always room for improvement. I love



"Galactic Vistas"

the Photoshop playground and highly recommend it to everyone! It allows each of us to take our images to the next level. Excellent workshops are regularly offered free of charge to VCC members.

I never copy anyone, but like others, am unconsciously influenced by my peers, and artists from all corners of the world. I always aim to make a photograph my own by adding something unique that I feel or wish to express about the subject. My passion about photography has no limits. Time stands still, or simply vanishes and I am totally oblivious to everything except my "playing."

It really doesn't matter what level of photographic skills you may be at, novice, intermediate, or advanced. The most important thing to remember is to take pleasure in the creative process. If your audience can feel the pleasure that you had in creating your image, they will be convinced of its legitimacy and take joy in your discovery or interpretation. Therefore, play like a child, and put away your responsibilities and goals. Just enjoy the process.

We may not have all the photographic equipment we covet; however, we have to make the most of what we have been blessed with. I always try my best, no matter what. Learning and art are very important and vital to my happiness. Art is an escape, as well as the most demanding "mistress." It will take everything you have.

So many of you have a very expansive range of technical abilities as photographers. All I can add is "let the child within you come out and play." You will be surprised that you will then find your own voice as an accomplished photographer. You have nothing to lose. Just relax, play, have fun, and let your imagination SOAR!



"Mystic Mask"



2014 summer studio workshops



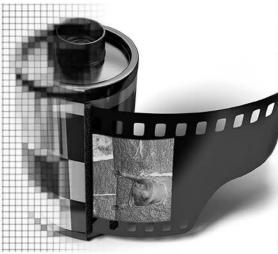
june 30 – july 4 / with ALLAN MANDELL.com WITHIN A GARDEN, WITHIN A FLOWER

july 7 – 11 / with HELENE CYR.com
PHOTOGRAPHY – Awareness & Editing

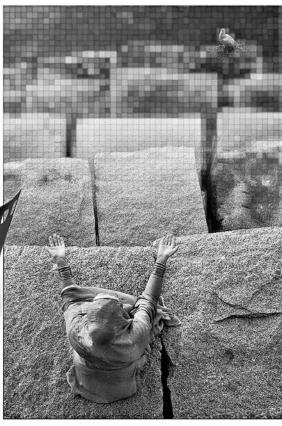
for more information + METCHOSIN to register: missa.ca INTERNATIONAL SUMMER SCHOOL 250-391-2420 OF THE ARTS



www.prismimaging.ca 250.386.7787 791 Fort St.



Bridging Photo Technologies



Pro - photofinishing
Custom Printing
Giclee reproduction
Pro film sales
Large Format printing
Canvas printing
Business Cards
Backlit Display
E-6 and C-41 processing
Passport Photos

Digital Imaging

Equipment, Parallax, and Software

by Doug McLean

In last month's article I introduced concepts, types and shooting techniques for panorama photography. Hand-holding your camera and stitching with software will work, but to achieve great results you need to know more about your tripod setup, parallax, panoequipment and software options.

A sturdy tripod enables consistent, level shots throughout the range of the panorama and provides a stable platform on which to rotate the camera around a fixed point. A tripod also permits longer exposures, resulting in sharper images with greater depth of field. The tripod adjustment and locking points must be tight to avoid wobble and equally important is levelling both the tripod base and the head/camera.

Many tripods have built-in levelling bulbs in the base where the head attaches and levelling is made easy by changing the lengths of the tripod legs. The tripod head must also be level using the levelling bubble built into either the camera clamp or on the pano-head attachment or by using an inexpensive 2-axis spirit level attached to the flash shoe on top of the camera. Levelling the tripod and tripod head will align the series of images, maximizing your panorama coverage and minimizing the corrections required by the software

A remote release in the form of a cable; or using infrared, or radio frequency "wireless" technology, can provide steadier shots, eliminating the chance of accidentally bumping the camera while shooting. If your camera is a DSLR, using the mirror lock-up with the remote release will minimize vibration when the shutter is activated.

The series of images making up your panorama must be taken around a fixed point within your camera and lens configuration. This point is known, correctly as the No Parallax Point (NPP) or sometimes incorrectly as the nodal point as I did in the first article. These terms and concepts can be bewildering but can be demonstrated and understood by the following simple experiment.

Close one eye and stretch out your arm with the thumb up. Line up the edge of a doorway with your thumb and rotate your head from side to side. You will see that the door jamb moves back and forth relative to your thumb, demonstrating parallax. The reason your

thumb shifts is that your eyes are in front of where you are rotating your head. If your images are taken without compensating for parallax the images won't line up properly and the stitching software will not be able to deal with this distortion, causing a poor result.

The no-parallax point (NPP) is different for each lens set up but is usually fairly close to the centre of the lens. To determine where the NPP is, a focusing rail is needed, which allows the camera and lens to be moved forward and backward on the tripod head into and away from your scene. By using this rail, which clamps onto your tripod head, you can find the NPP by trial and error.

Set up your camera and tripod inside looking out through the window, with a vertical piece of masking tape on the window. Look through the viewfinder or ideally turn on live view and swing the camera back and forth using different positions along the pano rail to find the point at which there is no parallax. The point where the near reference object (the masking tape) does not move relative to the background, is the No Parallax Point. Every lens set-up is different and with zoom lenses, the point changes with different focal lengths.

Here is a list of some pano head manufactures. It is important to find one that fits the style of your tripod head.

- AGNOS (www.agnos.com)
- bophoto (www.bophoto.com/bracket)
- Kaidan (www.kaidan.com)
- Manfrotto (www.manfrotto.com)
- MK Panorama Systeme (www.vr-head.com)
- Peace River Studios (www.peaceriverstudios.com)
- Panofix.
- Panorama-hardware (Panorama-hardware com)
- Panosaurus (*gregwired.com/pano/Pano.htm*)
- Really Right Stuff (www.reallyrightstuff.com)

Multiple row image shooting allows coverage of a subject that is taller than one pass will allow, using a specific focal length of lens. There are pano attachments that will allow tilting of the camera to capture additional rows. These can be very handy if you are positioned close to a tall subject.

There are many software options for stitching your images. Having carefully acquired your images using the correct procedures and hardware described in

these two articles, you want to get the best results from your software. Programs vary from simple to complex and cumbersome. Some panoramic software companies lead you to believe that their products can overcome the poor quality of bad images. Despite these claims, no software can salvage images that are the result of cutting corners or disregard the basic techniques of image capture. When choosing the software, disregard the frills and use your high quality images to enable seamless stitching.

All lenses have some distortion around the edges, especially wide-range zooms and wide-angle lenses. Each image has to have this distortion corrected by the software so that continuous straight lines don't become kinked when images are assembled. Programs usually read the info from digital camera EXIF, or have this entered manually for film scans. Unfortunately some panorama utilities simply stitch together images without correcting them. This gives awful results, since straight horizontal lines become one long line with kinks. Good stitching software will correct each of your images so that they become one smooth, fluid panorama when joined.

There are many software choices; this is by no means a complete list. Demo the software before buying and search the internet for more options.

- Canon Photo Stitch 3.1 (free)
- Panoramic Tools Gold (free, very advanced and complicated; however, the following programs use it, with a more user-friendly interface and are well rated). PT Assembler, PTGui and PTMac.
- · HUGIN (free)
- Photoshop
- PT Assembler (has good recommendations)
- RealViz Stitcher 5 (excellent, professional, difficult to use)
- AutoPano

A comparison of photo stitching software can be found at: http://en.wikipedia.org/wiki/Comparison_of_photo_stitching_software.

Panoramic photography can be as simple as using your phone and superb results can result when the images are captured using basic steps, common equipment and straightforward software.



Victoria Camera Club Presents "ILLUMINATION" April 3 - 15, 2014

This exhibition by members of the Victoria Camera Club is aesthetically and technically strong and features a cross section of work spanning several photographic genres.

Community Arts Council Gallery at Cedar Hill Recreation Centre 3220 Cedar Hill Road

For further Information Contact Hanna Cowpe printshows@victoriacameraclub.org

Open to Public Admission Free

Gallery Hours Monday - Sunday 8:00am -9:00pm Opening Reception April 4, 2014 7:00pm - 9:00pm

Opening comments by André Gallant award winning Canadian freelance photographer and author.

CAC Gallery, 3220 Cedar Hill Road Community Arts Council of Greater Victoria in partnership with the Arts Centre at Cedar Hill. www.cacgr.ca 250-475-7123 Close-Up Competitions

VCC - Eastwood Competition

by Don Peterson and Gita McCormick

The Victoria Camera Club participates in a number of external competitions. One of the most exciting of these is our annual competition with the Eastwood Photographic Society in Glasgow, Scotland. First held in 2007 thanks to the initiative of former VCC club member, Douglas Bain, the event has now become an annual fixture.

Images by 20 photographers from each club are judged by a Canadian and a Scottish judge. This year the Canadian judge was Gregg Eligh and the Scottish judge was Guy Phillips. The combined scores decide individual winners. The total scores from all images determine which club wins the Novice and Advanced sections as well as the overall competition. The images and judges comments are available in the competitions gallery on our website.

Individual Results from this year's Novice Section are:

- 1st: Bee on Clematis by Edward Beveridge (E)
- 2nd: Bow Lake Morning by Bob Hunter (V)
- 3rd (Tie): Reach for the Basket by Ross Eaglesham (E)
- 3rd (Tie): Grinding the Rail by Scott Campbell (E)
- 3rd (Tie): Slow Dive by Richard Marshall (V)

Total Points for the Novice Category were Eastwood: 315, Victoria 303. Congratulations to Eastwood for their win in the Novice Category!

Individual Results from this year's Advanced Section:

- 1st: Firebirds by Barbara Burns (V)
- 2nd: Snowy Egret Aerial Combat by Suzanne Huot (V)
- 3rd (Tie): Contemplation by Len Claydon (E)
- 3rd (Tie): If at First you Succeed by Ken Lindsey (E)
- 3rd (Tie): Saffron-winged Meadowhawks by Mike Wooding (V)

Total Points for the Advanced Category Eastwood 305, Victoria 326. Congratulations to Victoria for their win in the Advanced Category!

Total club scores for all images Eastwood 618, Victoria 629. Congratulations to Victoria for winning the overall competition this year!

"Many congratulations from all at Eastwood Photographic Society. It is really interesting to see your images each year and your natural history images in particular are always top quality." Jim McCreery, Eastwood Photographic Society.

February 2014 Competition Judges

We would like to thank our external judges for February, Glenn Bartley, Jim Hoskins and Paul Saturley for judging the Intermediate and Advanced categories. We also extend our thanks to our internal judges for the Novice category this month VCC members Pam Irvine, Paul Ross, Caspar Davis, and Willie Waddell. All images and judges' comments are available here: http://victoriacameraclub.org/vcccompetitions.

Glenn Bartley (Digital Nature, Nature Prints): Glenn is a world-renowned professional nature photographer from Victoria. After obtaining a M.Sc. in Ecological Restoration Glenn dedicated much of his time and resources to mastering bird photography. Today Glenn's images are well respected and represented around the world. His work is regularly featured in magazines such as Audubon, Bird Watching, Canadian Wildlife, Birder's World, and in books on birds including several by National Geographic. Glenn has also published several books of his images on the birds of Ecuador, Vancouver Island and British Columbia. You can learn more about Glenn at his website: www.glennbartley.com.

Jim Hoskins (Digital Open, Digital Theme) Jim spent most of his life in North Vancouver, BC but was transferred to Salmon Arm, BC in 1992 and he and his wife have both retired there. Jim's interest in photography started early, he purchased his first SLR in the late 1970s. Jim is an accomplished photographer and his main subjects of interest are landscape and nature. Jim enjoys digital photography study groups on the Internet and feels this is a great way to learn and connect with other photographers. Jim is currently a member of the Shuswap Photo Arts Club where he has served as president as well as an instructor, judge and mentor.

Paul Saturley (Digital Creative, Open Prints, Monochrome Prints) Paul has been a photographer, graphic artist and post-secondary photo educator for more than 30 years. Paul has degrees in Fine Art from Alberta College of Art and Design, and in Literature from Memorial University. He has worked in a variety of traditional subjects; still life, portraiture and land-scape, as well as digital compositing and illustration. His more recent work has been called dark and secretive, reflecting an ancient order in nature. His work is in private collections in Canada and the United States, and has been published in Canada, the USA. and Europe. Paul currently lives in Victoria, British Columbia. Visit Paul's website here: www.inkriver.com.



Advanced Digital Nature - 1st "Bufflehead Drake Fly-by" by Mike Wooding

Judge's comments: The clear winner in this group of images. Fantastic wing position and iridescence on this speedy little quacker. Nice job!!!



Advanced Digital Creative - 1st "Joy" by Barbara Burns

Judge's comments: Great composition. The flowers and natural elements blend well with the dancer's physique. Greyscale seems to be an appropriate treatment here because it focuses more attention on form. Good sense of movement in what is otherwise a still image. Nice work.



Advanced Digital Theme - 1st "Skyfall" by Rob Raymond

Judge's comments: Very good colour, composition, and the use of line and perspective.



Advanced Nature Print - 1st "American Bison" by Jacquie James

Judge's comments: This is a strong image. I love the colour tones and the soft flat light.



Advanced Monochrome Print - 1st "Stay a While" by Hanna Cowpe

Judge's comments: Technically, this is very well handled. The distribution of light and shade emphasizes the perspective in the scene and invites the viewer to "walk in" to the image visually. Good highlight and shadow detail/tone. The outside portion of the picture creates a second plane of reading that manages to attract the eye without completely dominating the darker foreground. The image is very still.



Intermediate Digital Nature - 1st "Jokulsarlon Beach" by Jonathan Adams

Judge's comments: This image really stands out to me. What really works here is the fact that there is visual interest running through the entire frame. The ice in the foreground is very interesting and the 3 pieces create great depth. The slow shutter speed and moody lighting are also very effective here. Well done!



Intermediate Digital Theme - 1st "Dew Drops" by Scott Green

Judge's comments: This is a very creative image, using graduated pattern and texture. The deep blue drops morphing into round highlights work very well. Excellent.



Intermediate Digital Open - 2nd "Sisters" by Steve Lustig

Judge's comments: There is a good tension between the subjects here, one looking at us, one looking away. Nice story. Sharp enough, good exposure.



Intermediate Open Print - 1st "Conflict" by Steve Jakes

Judge's comments: This works extremely well on the level of illustration. The two weathered pieces in the foreground stand out in sharp contrast to the opposing chess men. Off-centre placement works well. Great sense of texture in the image and the lighting looks under control. Nice work.



Novice Digital Open - 3rd
"Gun Fight in Tombstone, AZ" by Del Lucas

Judge's comments: Very good technically, the colours are great, and the texture is good. Nicely composed.



Novice Digital Theme - 1st "Reflections in the Rain" by Mary Weir

Judge's comments: Excellent capture of rainy day reflections. Red umbrellas are great. Diagonal lines are a powerful element of the image.



Novice Digital Nature - 1st "Keeping Watch" by Christina Aitchison

Judge's comments: Excellent portrait. Good blurry background. Great placement of the bird. Lots of room to the right for the bird to look into.

Continuing EDUCATION



- Photography and other courses for all levels and areas of focus.
- Taught by outstanding professionals with remarkable portfolios.
- Creative, technical, artistic, inspirational.



Photography Level 1 – Introduction

Courses start Apr 2 & 3 with Mitch Stringer

Photography Level 2 – Intermediate

Courses start Apr 1 & 7 with Mitch Stringer

Computers Level 1

Courses start Apr 5 & 8

Shaping Moments in Memoir (Writing)

Course starts Apr 8 with Yvonne Blomer

iPhone/iPad Photo Essentials – How to get Better Photos

Course starts Apr 8 with Tony Bounsall

Nature Photography

Course starts Apr 22

with Josh McCulloch

Publish Your Own E-Book

Course starts Apr 24 with Nicola Furlong

Spanish Level 3

Course starts Apr 28 with Lisa Reid

Computers Level 1 for Mac

Course starts Apr 30

Photography As Art

Course starts Apr 30 with Mike Sroka

Digital Cameras for Absolute Beginners

Course starts May 3 with Joel Friesen

WordPress

- Create a Simple Website

Course starts May 5 with Clarke Wright

To register: 250-370-3550 (press 2) or online camosun.ca/ce

Questions? sofbus@camosun.ca or 250-370-4565

For full course descriptions and fees please see

camosun.ca/ce

Tech Tips April 2014

Sensor Cleaning 102

by John Roberts

Last month's item on sensor cleaning covered some of the "dry cleaning" methods. We will now cover the others and go on to the "wet cleaning" methods.

Another dry method uses a tool called the "SensorKlear." It is just a smaller version of the "LensPen." I do own one, but this one scares me. If you press too hard, you scratch the sensor, if you have a slight angle on the pad, and you use the edge of the pad you scratch the sensor. Under ideal circumstances, it does get results, but my heart feels like it is doing 120 at complete rest while using it. So, not my favourite tool to use for this. It does come with some replaceable tips to change out when you have used one too many times, or got oil or something on it.

There is a new tool that I have not tried yet, but the concept is very interesting. This is the "Sensor Gel Stick" that combines the two concepts already discussed. It has a soft gel tip, that picks up the dust, but it is non-abrasive to the sensor unlike the LensPen. You just dab the gel pad straight down, and the gel picks up the dust. I have watched a video of this in action; it works very well, and I am excited for it.

Lastly there are the wet kits. These consist of a reusable stick, single use pads (or single use stick/pad), and a solution to put on the pad before use. The big key is to use a drop or two... absolutely no more than that! You do not want to have the solution spill over onto the circuit board! Which solution you need to use depends on whether you have dust or oil on your sensor. You use it much like the Arctic Butterfly, but once you are done cleaning you replace it with a new pad next time.

So there you have it for the options you have, now some final tips on how to do this all better:

- If you have a Nikon camera, your sensor has a sticky substance surrounding your sensor that collects dust as it falls off, and if you go in at an angle and get your brush/tip/pad in that area, you run the risk of dragging that sticky substance over your sensor. Go straight down!
- Always use a freshly charged battery!
- Use a clean work surface, the less dust you have in your workspace, the better

If you have any further questions, feel free to contact me at jrphotographybc@icloud.com

Selective Adjustments in Photoshop

by Richard James

I'm going to talk very briefly about two essential Photoshop tools (Creative Suite/Creative Cloud and Elements). These are adjustment layers and clipping masks.

Adjustment layers: these are layers added to an image that make some adjustments such as levels, contrast, exposure, colour balance, B/W etc. The key feature of adjustment layers is that they do not change the fundamental image (background layer) but apply an adjustment to it which can then be changed later if you wish. To use an adjustment layer, click on the layer that you want to apply the adjustment to and then in the adjustment tool window (Window/Adjustment) click on the particular tool that you want to use. Then use the sliders to make the adjustment. You can continue moving the sliders until you achieve the effect you're looking for.

Clipping masks: this is the magic potion of Photoshop! A clipping mask allows you to apply the contents, or effect, of a layer only to the area that is unmasked. This means that you can, for example, change the exposure of part of the image in a much more uniform way than you could do with dodging and burning. Or you can apply specific black-and-white conversions to different areas so that you achieve better control (separation) over the grey tone represented by those colours. This is something that you will find particularly important in preparing black-and-white images. To make a clipping mask, you hold the Alt/Option key down while you click with the mouse on the line between two adjacent layers. This "clips" the upper layer to the lower layer locking the function of the upper layer to the lower layer. Let us say that the upper layer is a levels adjustment; then this adjustment will only be applied to the layer it is clipped to, not the whole image stack.

The next step is to create the mask. I could spend pages telling you all the different ways of doing this, but in a nutshell you have to select the portions of the image that you want the effect to apply to and then in the layers palette, with the adjustment layer highlighted, right click on the preset mask (white rectangle on the layer icon) and delete it; then click on the "make mask" icon at the bottom of the layers palette (the rectangle with a black hole in the middle). That's the simple part. If you want to learn the secrets of masking, I would suggest you read Chapter 1 of Matt Kloskoski's book "Photoshop Compositing Secrets." You will learn a lot very quickly.

Close-Up HDR: the Basics

by Neil Boyle

HDR is the acronym for High Dynamic Range. Ok, we've got the technical stuff out of the way. What is it and how do I use it?

This is a process designed to fix a photographic problem inherent in images that have very bright and very dark areas. The issue is that the human eye can see a much wider range of light intensity than a camera sensor (or film). We can see eleven stops from darkest to lightest, the digital sensor about six to seven stops, and film five or six. So we see a lovely scene, with lots of details, and the camera sensor loses the details in the dark areas and the details in bright areas are blown out. Result, a flat image that doesn't represent what we saw.

HDR fixes this by using several images, one overexposed to give good exposure of the dark areas (showing details in the shadows, but blowing out much of everything else); then adding an image with proper exposure of the middle range, and finally another under-exposed image to avoid blowing out the bright areas (but losing detail in most of the rest). Sometimes several images are added in between. You take these images, and use software to produce one final image with good exposure in all areas. The final result may not look realistic, and the software has several methods of dealing with this.

The photographer produces these images by bracketing, using a constant ISO and f-stop, and changing the shutter speed, by ½ or 1 stop, for 3 to 9 images. It can be done hand held, if you are very steady and the shots are taken quickly, but often a tripod improves the final image. Many newer cameras can be set for rapid-shooting bracketing (burst mode). Some cameras can do HDR processing in camera, but you have no control over the process. Doing the HDR processing with your computer uses its much greater processing power with many more options and much better artistic control.

Technical bit: In the simplest scenario, we have three images. The best results are produced when the under-exposed image (the darkest one) has details in the brightest part of the image (the only blown out bits of the image should be the specular highlights). You can check the image on a digital camera display, but it is more accurate to look at the histogram. The information in the histogram should not be up against the right edge. The over-exposed image (the brightest one) should have good details in the shadows, and the

histogram information should not be up against the left edge. If this paragraph makes no sense to you, ask one of the gurus at a VCC meeting to explain it.

There are some limitations to HDR, primarily the images should all be of exactly the same scene. If the camera moves, or elements of the scene move, the software combining the images will have difficulties, and the flaws in the resulting image are called ghosting. Some of the more sophisticated HDR software can deal with this, but the greater the variation, the poorer the final image. The more images the software has to work with, the better the result, up to a point, after which you start wasting processing power/time for less improvement. The ideal seems to be 3-5 images. It is best to start with RAW files. The results are much better than with jpegs as you have a lot more information to work with. One of the flaws in HDR is halos, bright areas around dark objects. Again, the software can often deal with this. If there are dust specks in the image, HDR software tends to magnify them, so it is best to clean up the images before processing.

There are a number of companies making HDR software, and often you can get a free trial, allowing you to pick your favourite before you commit dollars. Some are stand-alone programs, and some are plugins for common photo software (Aperture, Lightroom, Photoshop). The final images differ, so it is worth trying several. I use Nik HDR Effects Pro 2 from Google software, as a plug-in for Lightroom. Photomatix Pro comes highly recommended, and one of our own VCC members really likes Oleano HDR. Other options include SNS-HDR, HDR Darkroom 3 Pro, and EasyHDR. I found a few free programs on the web (Fusion, FDRTools Basic, Picturenaut, Luminance HDR). I haven't tried most of these.

An online proponent and guru of HDR is Trey Ratcliff, and his websites are worth exploring in detail (www. stuckincustoms.com/hdr-tutorial/). Currently, you can get a discount coupon on his website for Photomatix Pro. Tony Sweet, another HDR aficionado, sold me on HDR Pro and occasionally offers discount coupons. If you search the web, you can often find reviewers and promoters of software offering discounts (www.ronmartblog.com/2012/07/review-nik-software-hdrefex-pro-2.html).

The HDR technique is fairly simple. After loading the images into the software, and allowing it to process for a while, you get an image. This can be a long while if

HDR: the Basics April 2014

there is a lot of data to process, such as large or many images. To mitigate this, I often process more than one series of HDR photos at once, and my Mac copes well with this multi-tasking. HDR Effects Pro offers some options to fix ghosting and halos, and then produces the final image for your manipulation. Other software has similar options.

There are many ways to process the multiple images into one HDR image, with different results. HDR Effects Pro allows the user to choose amongst several, and it's worth exploring to find the ones that suit your taste. In addition to the method of rendering the image, there are many factors that can be varied: the usual (e.g., brightness, contrast, saturation, blacks, whites, shadows, saturation) and some new ones (in HDR Effects Pro, i.e., method strength, structure). Some can be very realistic, and some quite artistic. I find that the image often needs further processing after the HDR image is finished.

Final technical bit. What we see, what our screens show, and what our printers can produce, are all different. Some of the art of photography lies in accepting and dealing with these limitations. An HDR image adds one more layer to this mix – it has far more information than our screen or printer can display. The software gives us many options to use this abundance of data to produce the image we want to show people.

Our goal as photographers is to produce the image we like the best. With HDR, we have one more tool to play with.

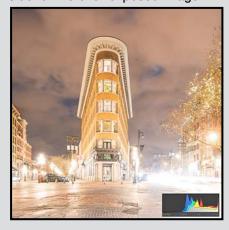
Here are three images of the same scene, each shot with the same ISO and f-stop. The first is underexposed, and there are good details in the highlights (not counting the specular highlights). Little of the image is blown out.



The second is exposed for the middle range and shows little shadow detail and some blown out areas.



The third is over-exposed and shows good shadow details, and lots of blown out areas. Note the histograms for each image. The information is against the left side for the under-exposed image, and against the right side for the over-exposed image.



The final image is the HDR product. It has a look that reflects the settings I chose, and shows details in the shadows, and no blown out high-lights. Compare this histogram to the others, no information is lost at either end.



Wine and Roses, Painting with Light

by Pam Irvine

The theme for January's competition was "Painting with Light" so I set up a black cloth as a backdrop and started shooting white roses painted with a red laser pointer.

The effect was not what I was hoping for, so I tried filling a wine glass with sparkling water and used the laser pointer to "paint" the wine glass, better but still not quite right.

Next I tried quickly swirling a blue glow-stick around in the wine glass. I also tried using a flashlight to add some extra light to the stem of the glass that resulted in the white streak.

I was not really happy with any of these attempts so I abandoned the project. On the way home from Comps night on January 9th I realized I could do a composite image of various wine glass shots that might look more interesting.

Just as last month's speaker had said, sometimes you need to step away from what you are doing and return to it the next day with a refreshed vision.

As soon as I got home from the meeting I loaded up Photoshop Elements with the three best wine glass images and some of the rose images and I got to work.

My final image has seven layers, three wine glasses, three roses and a black background. I managed to finish before midnight and uploaded my image to the comps gallery just in time.

All the images were shot at f8, ISO 100 with shutter speeds ranging from 15 to 20 seconds.



Window Or Aisle? Window Please

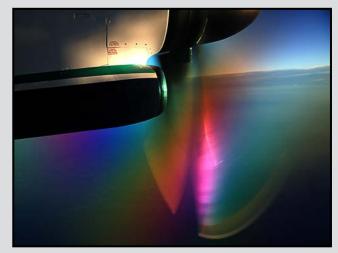
by Ian Faris

Last September, we travelled to Yellowstone National Park for our vacation. The first leg of our flight home was in a mid-sized turboprop aircraft. Despite my large six foot plus frame, I always choose a window seat. I usually pass the time gazing out of the window because I am so cramped.

We were located directly in line with the engine cowling looking forward into the setting sun. The sun's low-angled golden rays were skimming across the scattered cloud cover with the occasional mountain top poking through, beautiful! I wanted to photograph these scenes as they unfolded beside me. By the time we were in a position to capture the image, the angle of the light had changed; the clouds had moved or the wing and engine obscured the view.

Then I noticed the engine cowling and propeller in the viewfinder. I always use a circular polarizer in these circumstances to reduce the haze. When I turned the polarizer, I discovered this rainbow effect created by the low-angled sunlight passing through the propeller. For the next 11 minutes (love that metadata), I captured 24 images before the effect dissipated.

In terms of technique, I positioned the lens at a 45 degree angle close to, but not touching, the glass; used a circular polarizer; metered manually at a middle aperture; focused manually to avoid focus hunting; engaged VR/IS and squeezed the shutter slowly and smoothly. After the first couple of shots, I quickly checked the image display and histogram. In these conditions I usually shoot in jpeg large to obtain as many images as possible before the buffer is filled.



Shoots Around Victoria April 2014

Tuesday Shoots

by Garry Schaefer

April 8th: Framing. Framing is an inherent aspect of using your camera. When you raise the camera to your eye and look through the viewfinder, or at your LCD monitor, you are framing some portion of the broader scene before you. In today's challenge, this will be taken one step further. Our target is to utilize a frame within the frame. That is often accomplished by making use of surrounding elements from the edges of the scene but it can be taken a step further.

Today, search for something which completely encloses the targeted subject. Rectangular structures are most commonly available. Windows, open doorways, construction scaffolds and other similar items come to mind. With luck, alternate shapes may be spotted, such as the circular frame in this example.



April 22nd: Baskets. Where to begin? A Google search shows over 37 million hits for baskets. Basket making has been a part of human culture for 10,000 years. Ah, well, onwards to the theme for today. Baskets of many types may be fashioned from wicker, wire, fabrics or plastics. They may be simply utilitarian, such as those found on bicycles or in grocery stores, or they may be ornate, decorative pieces spotted in a gift shop. One's focus could be on the shape or the overall design of the basket or it could be on the detail of its patterns. In some cases, such as in a hanging flower basket, the secret may be in its contents. It is clear that today's theme offers a very large array of possibilities!

Weekend Shoots

by Dave McLean

Lunar Eclipse: On April 14, 2014, there will be a total eclipse of the full moon. The timing of the eclipse is:

- 9:58 pm, partial umbral eclipse begins
- 11:07 pm, total eclipse begins
- 00:25 am, total eclipse ends
- 01:33 am, partial umbral eclipse ends

There are several ways to shoot the full moon, from shots of just the moon with a telephoto lens to doing landscapes with the full moon eclipse as the "star." You need do everything possible to reduce camera shake; therefore it is important to use your tripod, remote shutter release (or self-timer), and mirror lock-up. Also, consider hanging your camera bag, or other weight on your tripod. To determine the best shutter speed, refer to "Lunar Photography" by Richard James or the Mr. Eclipse web site. Depending on the focal length of the lens, your minimum shutter speed may be no longer than 1/25, or 1/250 of a second, or you will get image blur from the earth's rotation. Adjust the ISO and aperture to get the correct exposure without generating too much noise and too long of an exposure.

If you want to shoot the eclipse as a landscape, you should scout out a location with an interesting foreground. The Photographers Ephemeris is a great resource, as you can scout locations with your computer and show the trajectory of the moon. Then go to the location you plan to shoot at and determine where you want to set up. The moon rises about 50 minutes later each night so you may wish to go to the location the previous evening at 9:09 pm and see exactly where the moon is and determine exactly where you'll be setting up for your shot.

Other gear you may wish to take on the night of the eclipse is a flash, so that you can provide better lighting on your foreground, as it will be between you and the moon, and you will have to deal with moon shadow.

References:

"Lunar Photography" victoriacameraclub.org/Lunar.pdf

www.nikonusa.com/en/Learn-And-Explore/Article/ h1sctsrv/How-to-Photograph-a-Lunar-Eclipse.html

www.mreclipse.com (resource for all things "eclipse").

photoephemeris.com (Sun/Moon rise/set etc. data).

Reading the Light Meter

by Nancy MacNab

Cameras have come a long way since the early models, which had aperture and shutter speed controls, but gave the photographer no assistance from a built-in exposure meter to determine which aperture or shutter speed combination to use. The ISO would have been already chosen when you put in the film.

External light meters were used (and still can be used) to determine the appropriate exposure required for a specific scene. Commonly used in portrait or still life photography, they may be less often used when shooting landscapes.

Modern cameras have built-in light meters that are amazingly accurate, under most circumstances. They can still be fooled, however, if your subject is not composed mainly of mid-tone colours, or the image is not well matched to the exposure database in the camera. This is because your camera's light meter assumes that the scene you are viewing is comprised mainly of mid-tones that will, overall, reflect approximately 18% of the light that falls on it. Think of green grass or a blue lake. If your subject does not fall into this category, then your camera's light meter can mislead you.

If the majority of your image includes mid-tones, or if the light and dark tones will average out so that overall the image is one of mid-tones, then you can get a correctly exposed photograph by shooting "on-meter" and doing what the camera tells you.

If your image will be mainly light tones, such as snow or a bride in a white gown, then your camera's light meter will assume it is a mid-tone and want to darken the scene. In this case you will need to add more light to return the colours to the lighter side and over-expose according to what your camera meter says. Your histogram will be mainly to the right.

If you are photographing a scene with mainly dark colours, such as a night scene or one with a lot of deep shadow, your camera's light meter will want to lighten it up to the mid-tones. In order to maintain the dark shades, you will need to subtract light from the scene by under-exposing from what your camera's meter is telling you to do. This will result in a histogram that is mainly to the left.

How do you adjust your camera's exposure from what the camera is telling you to do? You have three

choices: change the aperture; change the shutter speed; or change the ISO.

Changing the aperture will affect the depth of field, or how much of the photo from front to back is in focus. Changing the shutter speed will change how motion is shown, either frozen or blurred. Changes to the ISO will affect the amount of noise you will see in your image. Depending on your subject and the result you want to obtain, you can change whichever one, or ones, you wish.

If you are using Manual mode, you can easily change the aperture or shutter speed by turning the appropriate dial. If you are using Aperture priority or Shutter priority mode, then you can adjust the exposure by using the exposure compensation dial, which is usually marked by a +/- sign.

A good way to learn how your camera's light meter reads a scene is to either look for naturally occurring scenes that are mainly light or mainly dark in tone, or set up your own scenes. Photograph a white flower in front of a light background and change your settings from being what your camera recommends to adding light (over-exposing). Take a series of shots at various exposures and compare the differences. Which one gave you the result you wanted?

Then do the same with a mainly dark scene, perhaps a person wearing a black sweater and black hat in front of a black or dark backdrop. Again change your settings from what your camera is telling you to use to subtracting light (under-exposing). Try different combinations of ISO, aperture and shutter speed and compare the results. Which one do you like the best? Now you just need to repeat this until it becomes automatic, a lifetime, in other words! So start shooting now!



Adventures with Wi-Fi April 2014

by John Coenraads

The purchase of a Canon EOS 70D, with Wi-Fi capabilities, gave me the idea to explore whether this technology gives one the capability of having animals trigger their own self portrait. Of course, all kinds of accessories can be purchased to do exactly that, and if you are a Nikon owner you can simply resort to "trap focus" on some cameras.

But my idea was to have the creature trigger a (wireless) mouse which, via a computer, would trigger the camera. This requires that the computer be networked to the camera as illustrated in figure 1. The connection can be made through any wireless local area network such as you probably already have in your house, or the connection can be made directly from camera to computer. Canon refers to the former as an infrastructure network and the latter as an ad hoc network. Setting these up requires some doing, including delving into the mysteries of IP (Internet Protocol) addressing.

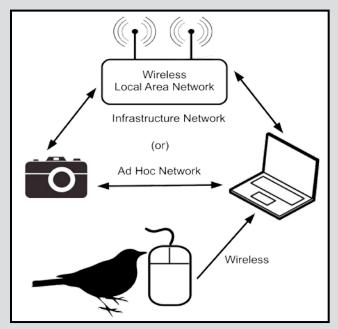


Figure 1: The target (bird) activates a wireless mouse thereby triggering the shutter using Canon's EOS Utility program and a wireless connection between computer and camera.

Canon Manuals: The EOS 70D comes with a separate manual to cover Wi-Fi operations, and using it I was eventually successful in setting up the (infrastructure) network through my Apple AirPort. At one point, I failed to notice that the EOS Utility software supplied by Canon had installed a tiny camera symbol on the menu bar of the MacBook I was using, a critical detail.

Apparently other users had experienced the same difficulty. A quick Google search solved the problem and allowed me to complete the pairing of computer and camera. But our Wi-Fi network is marginal on the deck where I wanted to use the camera, so I decided to proceed with setting up an ad hoc network.

Here the manual turned out to be only marginally useful, and I became very frustrated when, although the computer "recognized" the camera on the network, the 70D refused to consummate the pairing. Even posting the question on the Canon Forum yielded no solution so I dug deeper.

Apparently Canon makes a series of Wireless File Transmitters that professionals use for high speed file transfer from camera to computer. The following website provides a good introduction to Wi-Fi enabled photography but also warns, "Keep in mind that setting up a wireless network is an exacting procedure. Take careful notes of all pre-existing network settings before you change them, as well as any changes you make."

learn.usa.canon.com/resources/articles/2012/wft_setup_guides.shtml

I discovered that Canon provides step-by-step manuals for these wireless transmitters covering just about any computer/operating system combination. I read through the manual specifically for Mac OS X and, even though the menu structures differed significantly, I decided to adapt the steps outlined to the 70D. Lo and behold it worked the first time! Go figure. Key to the whole process is the creation of an ad hoc network and manually assigning an IP address to it. This time the instructions, which were models of clarity, made it easy, but they neglected to tell you that once you are finished with the ad hoc network you need to reset your network to DHCP or your local network connection will no longer function. DHCP (Dynamic Host Configuration Protocol) is the web service that normally assigns unique identifiers (IP addresses) to all your internet enabled devices.

EOS Utility Mode: Running Canon's EOS Utility application provides full remote control of camera functions such as shutter, exposure, white balance, and LiveView. Image files can be transferred to your computer, but the very limited bandwidth is such that you should not expect to transfer RAW files anytime soon. Wi-Fi also puts a considerable drain on the camera's battery. Using the computer's trackpad, the screen pointer is made to hover over the shutter button and now a left click from a remote wireless mouse will cause a picture to be taken.

Close-Up Adventures with Wi-Fi

The distance over which your wireless mouse will operate will be proportional to how much you paid for it. While my Logitech mouse is good for up to twenty feet, a \$10 Nexttech dropped out at about four feet.

Mouse Trigger 1: Deciding to make birds my first target, I set up a perch so that a bird landing on it would trigger the mouse. When the bird lands on the perch, the branch tips sideways against the force of a spring. This pulls on a piece of string taped to the left button of the mouse which then remotely triggers the shutter. The mouse is protected by an old CD ROM case from rain and bird poo.

Figure 2 shows my first result: a Steller's Jay landing. Immediately a problem is obvious; when a large bird lands, it absorbs the impact of its landing by squatting down on its legs, which leads to a very unflattering pose. I may just decide to tie the aforementioned string to one of the peanuts we feed the Steller's and see what happens. The point is, you can have fun experimenting and with some ingenuity come up with any number of schemes for triggering the shutter.



Figure 2: Steller's Jay taking a self-portrait. Note the landing crouch.

Mouse Trigger 2: For a real Rube Goldberg approach, I decided to make use of a Lego Mindstorms robot kit. (In a former life I taught, among other things, electronics to high school students.) This kit includes an ultrasonic acoustic sensor similar to the type used in later models of Polaroid SX 70 cameras for focusing. Mounted on a pole, it was aimed in a direction frequented by the birds. The sensor plugs into a small computer which was programmed to turn a small motor whenever anything approaches within a few feet. The motor turns a shaft on which a small cam is mounted that brushes past the switch on the mouse thereby triggering the shutter.

Mouse Trigger 3: Running the camera in LiveView mode means that the viewfinder image appears on the computer screen. This suggested another approach. I mounted a small light sensor over the computer screen, see figure 3, and positioned it over that part of the scene I wished to monitor for the arrival of a bird. When a bird arrives, the sensor detects the change in the light and triggers the mouse as before. The one second delay in the arrival of the LiveView image means this method is not suitable for catching fast action.



Figure 3: Light sensor pointed at the LiveView image detects the arrival of a bird and triggers the shutter via the wireless mouse.

So far my approach has yet to yield a result close to that produced by a skilled and patient nature photographer, but I had fun trying. By the way, I am aware that Magic Lantern makes custom firmware for Canon cameras that provides trap focus, but I'm reluctant to install it knowing it will void the warranty on our new camera.

Further Exploration: A Wi-Fi equipped camera gives scope to many other possibilities such as remote control using a smartphone and sending images directly to the cloud or to a printer. The latter, in particular, may seem like a frivolous application for a serious photographer, but I ask you to consider the following scenario. You are shooting images of people in a remote country and would like to reward them for posing by giving them a copy of the image to keep.

If you carried a printer with you, such as Canon's PIXMA portable printer, wirelessly linked to your camera, you could print out a 4x6 print in about 50 seconds or about the same time it used to take a Polaroid image to develop in the days when photographers carried Polaroid cameras for that purpose. So, be creative and explore the possibilities.



PRINT MOUNT FRAME DISPLAY ARTBOX

ArtBox is your professional print, mount & frame shop. Friendly experts working with you from start to finish on just about any project, from business cards, to fine art prints, to murals or commercial display. All of our work is done completely onsite (even blockmounting & canvas) so your project is ready in half the time at a great price!

artboxvictoria.com

250.381.2781

2504 Douglas (at Bay) info@artboxvictoria.com





Beau Photo carries the latest bodies and lenses from Canon, Nikon, Fuji and Hasselblad as well as professional lighting, grip, camera bags, filters, accessories and even film and darkroom supplies.

We are a local, independent shop, where clients are not just customers, but a part our larger photographic community. Stop by and see how personalized service and advice can change the way you look at photography.





BEAU Beau Photo Supplies 1520 W. 6th Ave.

Vancouver, BC

PHOTO 604.734.7771 1.800.994.2328







beauphoto.blogspot.ca

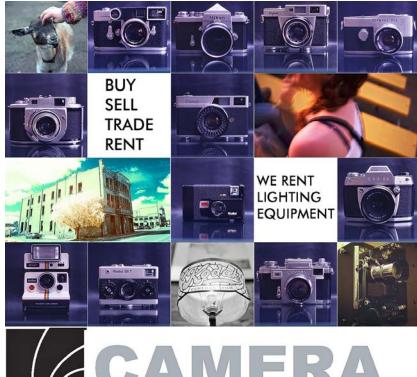




Beau Photo

Discount for

CC Members





110-560 Johnson Street, Victoria, BC., 250-382-6838 www.camera-traders.com Nikon 1 AW1



Largest Selection of Cameras and Accessories in Western Canada



www.kerrisdalecameras.com

FOLLOW US FOR THE LATEST NEWS & DEALS:



www.facebook.com/KerrisdaleCameras https://twitter.com/KCLvictoria https://twitter.com/KCLmain

VISIT US AT:

3531 Ravine Way, Saanich, BC
By Tim Hortons in Saanich Plaza
250-475-2066