

Close-Up

Inside: Creative Photography The Orton Effect Getting Perspective Right Shoots Around Victoria Beginners' Corner Buying a Lensand more

Clematis by Hanna Cowpe - 1st place Advanced Digital Open - 2012/13 Annual competition.



Victoria Camera Club

July/August 2013 Volume 66 Number 6

From taking the perfect shot...



Victoria's Local Apple Specialists

Apple Products | Fast Repairs | Trade-Ins | Free Seminars





The new MacBook Air All the power you want.

All day long.



2000 Cadboro Bay Road | Victoria, BC | 250.412.6899

Get social with Simply

simply.ca



Victoria Camera Club

Close-Up is the magazine of the Victoria Camera Club, Copyright ©, Victoria Camera Club, 2013, all rights reserved. Mailing address: 2642 Quadra Street, PO Box 46035, Victoria, BC, V8T 5G7. Deadline for submissions for the September/October issue is August 5th 2013. 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.

> *Ie. re.* 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).

> > NeoClation for Photomatics





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
Editor's Message	4
Creative Photography	5
The Orton Effect	8
Competitions and Gallery	10
Tech Tips	15
Getting Perspective Right	16
How I Did It	18
Shoots Around Victoria	19
Beginners' Corner	20
Buying a Lens	21
Shoots Around Victoria Beginners' Corner Buying a Lens	19 20 21

Please support our advertisers. They make the publication of Close-Up possible. Remember to tell them that you saw their ad here. Meeting refreshments are sponsored by:



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.

Our Thursday evening programme will resume in September, but other events will be continuing throughout the summer so please check the calendar for details.

2013-14 Theme Competition subjects:

September: Water drops (see article on page 10) October: Orton effect (see article on page 8) November: TBA (CAPA Nature Theme) January: Light painting February: Reflections March: Architecture

Featured workshops:

Nature and Creative SIGs, and a Perspective Correction workshop.

Additional workshops will be added so please check the calendar pages on the website frequently.

Featured field trips:

Tuesday field trips include "Photojournalism" and "Negative Space" in July and "Uneven/Unbalanced" and "Zen" in August.

Hurricane Ridge: a one day trip to shoot alpine flowers in Olympic National Park, in early July.

Sandcut Beach and Muir Creek: waterfalls and more, in July.

Whale watching and more: watch for one or more trips. These will be 6 hour charters in our own boat. We go where the whales are! (July 12th)

Tofino - 3 nights/4 days: our first summer trip to this area, July 26 - 29.

Additional field trips will be added so please check the calendar pages on the website frequently.

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.

President's Message

Next year the Victoria Camera Club will mark its 70th anniversary, and as members we should all be tremendously proud to celebrate the success of our club over these past seven decades. These accomplishments are a direct result of the loyal support of club members throughout the years.

The club has a long and distinguished history in Victoria and is the oldest and largest camera club on Vancouver Island. It was established in 1944 when the Victoria Photographic Society and the Civil Service Camera Clubs merged to create the Victoria Camera Club. This was back in the day of black and white print makers developing images in their own darkrooms.

Cameras and technology have changed significantly since that time. Digital photography has emerged as the standard; computers and software are now the photographer's darkroom; and new technology continues to challenge us to push the boundaries in new directions, offering us endless creativity and artistic power. Our photography is limited only by our imagination, aspirations and level of skill. You may not be able to create a hand drawn portrait or a water colour painting but with computer programs like Photoshop you can now take your photography to a new level and create a piece of art.

Despite all of the technological changes over the years, the traditions that the old Victoria Camera Club were built upon persist today. The bonds of friendship are still strong between club members, and there is still excitement as members share ideas and knowledge and engage in group shoots. The club is still dedicated to fostering the creativity of its members as they enhance their skills in the art of photography, and we continue to maintain an environment in which photographers can learn from one another and socialize with like-minded individuals.

Over the years our membership has grown to approximately 200 members and I believe that the club will continue to grow, continue to provide friendship, and continue to promote the art of photography. The executive is committed to running the club in a way which is aligned with the interests of our members, and with the support of the membership behind us; we will continue to strive to be one of the best camera clubs on the island. I am looking forward to a year of more great photography, new friendships and all of the wonderful things our club has to offer. *Lois Burton, President*

by Hanna Cowpe

When asked to write an article on creative photography my first thought was that my extremely limited abilities in post processing didn't make me a good candidate. But shouldn't all photography be creative from the time we pick up the camera?

For those of us who take it seriously and have moved beyond snap-shooting, creativity is a critical element in producing an image that captures the imagination and elicits a positive response. Whether we are photographing a bird in flight or a soaring skyscraper, a bowl of fruit or a rural landscape, we must observe the subject and absorb as much detail as possible. Then we can decide how to portray it in a way that is visually stimulating.

Some photographs are made purely for pleasure, both in the taking and in the viewing. Others are intended to impart information or send a message. But the goal should always be to create an image that captures the viewer's eye. Even in photojournalism the captured image must be thought provoking, informative and emotionally evocative.

The Camera is your Tool: The camera is a versatile tool and there are many ways it can be used to make a photograph creatively. Modern digital cameras have a plethora of settings to aid in achieving the goal we have in mind. But an all-singing, all-dancing camera isn't necessary. Aperture, shutter speed, flash, and focal length are a few of the basic camera features that can be used to vary effects. Becoming familiar with these features will help you, the photographer, to control the image and make a statement with it.

Use of a large aperture can isolate an element in the scene, such as a flower in a field, a rock in a flowing



stream or a face in a crowd to draw attention to it and render a subtle background or bokeh. One might say this is producing a "portrait study" of the subject.

Accentuating Detail: When photographing mammals and birds, consider introducing an element of humour or other emotion. Candid images of members of the animal kingdom can intentionally or unintentionally draw an emotional response. Awkward movements and expressions which are atypical of animals can be juxtaposed with an inanimate object and can give a human quality to the subject, producing an image that draws a smile from the viewer. Accentuating features and linear elements can create an abstract or stylistic effect and can be used to give a message or lesson. The calm water and sleek lines of the sleeping swan accentuate the shape and form and induce a sense of serenity. It is saying "be cool and relax."



Shape and pattern can become dominant elements in images. Reflections found in surfaces such as still waters, mirrors and other polished surfaces can be captured to play with symmetry and pattern. An ordinary subject and its reflection, when clean and unobstructed, can be rotated and found to become something altogether different and abstract. Or it can produce an image of a subject which has taken on a new shape or design.

Working with the light offers more opportunities for creativity. Using exposure to alter the impact of an image can be done by exposing entirely off the lightest part of the scene to produce a silhouette. This concentrates the visual impact on shape rather than form or depth of field. This may render a geometrically oriented image and can be intensified by converting to monochrome, thereby eliminating the distraction of colour. Paying extra attention to composition and placing the subject to form an extreme asymmetry will also add impact. **Capturing Movement:** Using shutter speed is an old favourite for photographing movement, be it to slow things down or to speed them up. Water texture can be controlled from a state of silky calm to aerial suspension or turbulence. Including a stationary object in the scene will accentuate the movement of the water.



Any moving subject can give an impression of being in slow motion through long exposure or can be stopped with panning by following the subject with the camera and using a high shutter speed. The resulting blurring of the background gives an alternative sense of movement. So by varying one setting on the camera, entirely different impressions are created with one subject.

A more fundamental use of the camera to achieve interesting effects is with camera movement. Impressionistic images of infinite variety come with this method. The secret is to find a combination of shutter speed, aperture and camera movement that produces a smooth result, requiring practice through trial and error. This might attract some quizzical looks from passersby which adds to the fun. Panning in certain directions is particularly suitable, such as a



vertical movement for vertical subjects such as trees. Rotating the camera can produce a vortex effect or a sense of turbulence. Zooming the lens in or out and combining this with rotation can result in surprising and entertaining images. Evenly overcast weather conditions will bring subtly blended tones, whereas brighter light will result in more contrast. This can introduce some jarring lines into the picture and can be used to suit one's taste. The possibilities are unlimited.

Up Close and Personal: Put on your macro lens and get up close and personal with your subject. Whether your aim is to achieve a meticulously detailed image or an ethereal impression, the macro lens can accomplish either. When capturing a lot of detail and depth, a tripod and a small aperture are essential and can produce amazing insight into the structure of a flower or the anatomy of an insect. Patience is required if you are waiting for a tiny tree frog to pose motionless or for a flower to stop shivering in a breeze. Alternatively a more abstract image can allow you to handhold the camera, use a large aperture, and manual focus. This can be a more relaxing approach. It enables you to move up close or away from your subject until you find the sweet spot of focus, fine tune with manual focus and create beautiful photographs. When shooting flowers in macro mode, placing the light behind the subject will enhance the detail and add a warm glow, drawing the eye through the image.



These are only a few of the myriad possibilities of creative photography. Relaxation and enjoyment of your photographic activities promote the power of creativity. Keeping an open mind, and an observant eye, help in the search for a potential subject. Consider your options of how to approach it and don't have too many preconceptions. Sometimes you just have to let it happen. You might surprise yourself.



Do it Yourself and Professional Framing

Serving Victoria since 1976

Professional Quality - Personal Service Mounting, Matting and Framing for all Types of Artwork Hundreds of Frame Styles and Mat Colours 15% Discount for VCC Members

FREE PARKING at Rear - Off Hillside

2651 Douglas Street at Hillside 250-381-4022

GICLEEPRINT SUMMER DISCOUNT

Art Paper Bamboo Paper



Nikonians

dem

Art Canvas

e.g. Print, 1.25" Stretcher, Varnish 20x16"- \$69+Tax 30x24"- \$129+Tax

THANKS to all 58 NEW CUSTOMERS, as well as Existing CLIENTS/FRIENDS. Who took advantage of the Spring Discount Printing!

T. 250-656-1234 906 Hillside Ave. FREE PARKING on Wark St.

Nikonians Workshops Are Coming To Victoria!

THE PASSIONATE PHOTOGRAPHER by Steve Simon Learn from a Nikon Master Photographer

Four Different Master Classes:

Master Series (One Day): D600, D7100 & D700 - In Depth I - August 27, 2013 D800, 800E, D4 - In Depth I - August 28, 2013

D800, 800E, D4 - In Depth 2 - August 29, 2013

Mastery Class (Two Days): The Passionate Nikon Photographer - August 30 & 31 2013

These classes are guaranteed to take you to the nex level in your work.

Where: Executive House Hotel, 777 Douglas Street, Victoria, BC

For more information and to register: http://www.nikoniansacademy.com Info: steve@stevesimonphoto.com Website: www.stevesimonphoto.com

by Richard Webber

The Orton Effect was originally developed in the 1980s by Vancouver Island photographer Michael Orton. It was developed for slide film photography and involved "sandwiching" two overexposed slides of the same subject in the same slide mount. One slide, the detail component, was taken in sharp focus and overexposed, and the second slide, the blur component, is out of focus and overexposed. The resulting combination was a correctly exposed image with a unique soft focus look. The Orton technique produces a painterly or ethereal-like effect that works particularly well for portraits, landscapes, and black and white images.



There are many variations available on how to create this effect in either Photoshop, or Photoshop Elements. It is even possible to create a faux Orton Effect in Lightroom although most approaches involve using layers.

The following is an overview of two different techniques, one done in camera and one using Photoshop with a single well exposed image. Part of my inspiration for writing on this topic was based on Andre Gallant's book "*Expressionism, Digital Dreamscapes and Other Techniques.*" This is an excellent resource for anyone interested in impressionistic photography.

In Camera Technique

This technique involves taking two photographs of the same subject. A tripod is essential because this

approach involves manipulating focus without moving the camera. Zoom lenses such as a 28 - 70 mm or 70 - 200 mm are recommended. I also achieved good success with a 90 mm macro lens.

Step 1: Subjects that exhibit good colour and tonal contrasts but preferably not extremes in terms of highlights and shadows are the preferred choice for this technique. The first photograph should be taken in focus and overexposed by one stop. To ensure your image is overexposed check your histogram. With the same subject, select the widest aperture on your lens, defocus the image (by focusing closer to magnify this image) and take a second properly exposed photograph. Again check your histogram to ensure you have a good exposure.

Step 2: Upload your images to your computer and open both the focused (image #1) and unfocused (image #2) images in Photoshop. Click on Window>Arrange>Tile and both images will be shown. Make sure the layers palette is open and select the 2nd (defocused) image. Now, with the Move tool selected and while holding the shift key down, drag the layer icon for image 2 from the layers palette into image 1 (the in-focus image).

You should have created two layers that are correctly aligned, the background layer (image 1) and Layer 1 (image 2). The next step is to blend the two layers by selecting the multiply blending mode for layer 1 (click on the box in the layers palette that says "Normal" then select the 4th choice down in the sub-menu – "Multiply"). Andre Gallant recommends flattening the "dreamscape" but I suggest you don't as you can then make further adjustments. (Note: Before blending the two layers, it may be necessary to increase the size of the unfocused image in Photoshop to ensure you achieve an adequate amount of glow in your image.)

Step 3: I usually save the image as a Tif file with a new name indicating it is an "Orton" image and import it into Lightroom for any global and local adjustments including contrast, lightening, sharpening and noise adjustments. Any adjustments can also be done in Photoshop or other photo editing software.

Creating Orton Images in Photoshop

This method uses a single image and creating two new blur layers. One of the advantages of using Photoshop is that you can control the strength of the effect. However, the blur layers will not look quite the same as a defocused camera image as it produces a more subtle effect. **Step 1:** Open any image you like in Photoshop. It is preferable to select an image that doesn't have a lot of white in it (e.g. waterfalls), has strong color, is in focus and has a dominant subject. Flowers are ideal subjects.

Step 2: In the layers palette right click on the background layer and select duplicate layer. Name the duplicate layer Focus. Next right click on the Focus layer and select convert to "smart object" from the drop down menu. (Note: the advantage of creating a smart object is that the image will remain completely flexible and adjustable in the future, even after the file is saved and re-opened.)

Step 3: With the Focus layer highlighted, go to the Filter menu at the top of the page select, Blur>Gaussian Blur and choose a radius value 0.1 pixels. Click OK, and the filter appears as a Smart Filter in the Layers panel. Next, double click the little icon that looks like sliders next to the Gaussian Blur Smart Filter. This opens the blend options dialogue box. Change the blend mode to Screen, and click OK. The image is considerably brighter.

Step 4: Create another new blur layer by right clicking on the background layer (i.e. the layer located at the bottom of the layers panel) and select duplicate layer. Rename this new layer "Blur". Now drag the Blur layer to the top of the layers stack. Right click on this newly created layer and select convert to smart object.

Step 5: With the Blur layer highlighted, select Filter > Blur > Gaussian Blur again (you can add multiple instances of the same filter to a Smart Object). This time, set the radius to between 12 - 16 pixels. Notice the filter appears as the second Smart Filter in the Layers panel.

Step 6: Now double click the sliders icon next to the second Gaussian Blur filter on the Blur layer and this time in the blend modes dialogue box, change the blend mode to Multiply. The resulting image should have a soft look with a bit of a dreamy glow. You can make exposure adjustments to either or both layers. (Note: you can automate these steps by creating an "action" in Photoshop, see page15.)

With the benefit of smart filters you change the amount of blur to anything you like. You can change the amount of blur by doubling clicking on the Gaussian blur in the Blur layer and you can change the value plus, with the Preview enabled, you can see the results as you adjust the radius slider. To compare the before and after, just click the eyeball icon next to the Smart Filters in the Layers panel. With this technique it is sometimes necessary to increase the luminosity of the "ortonized" image by using adding a levels and/or curves adjustment layer. The other advantage of using smart filters with this technique is that they come with a built in mask. For example, if you decide you want to protect some of the detailed areas from your Orton effect, just paint in black on the layer mask, and the unfiltered original image shows through. This is especially helpful in bringing back blown out highlights (the Orton Effect will do that) and for bringing back detail where the soft glow is too strong.

To mix things up a little try these variations:

- Lower the Opacity of the Screened filter to darken the image if it is too blown out.
- Use Surface Blur instead of Gaussian Blur to maintain more detail.
- Change the blend mode of the highly blurred filter to Color Burn or Linear Burn for a more intense effect.

Recommended references

Photoshop tutorials without using smart filters:

Peter Hill's weblog http://peterh111.wordpress.com/ 2010/12/11/the-easy-guide-to-creating-the-orton-effect

Digital Photography Tips & Tutorials at http://learn prophotography.com/orton-effect-tutorial-with-photoshop

Darwin Wiggett describes the film technique that can also be applied for use with digital cameras in Nature Photographers online magazine: at http://www. naturephotographers.net/articles0106/dw0106-1.html

If you are a Lightroom enthusiast check out these sites:

http://projectwoman.com/2011/02/create-the-ortoneffect-in-lightroom.html

M&M's Musings at http://www.wolfnowl.com/2012/08/ the-orton-effect-in-lightroom

Try both techniques and experiment a lot: you might be surprised what kind of dreamscapes you can create.

There are unlimited possibilities so don't be afraid to experiment. What I like most about this approach is that you never really know in advance what sort of outcome you are going to get.

Waterdrops

by Gita McCormick

Waterdrops is the competition theme for September, so here are some ideas for you to work with.

Shiny raindrops add the finishing touch to macro flower shots, catching the eye and acting as miniature lenses that magnify the detail in leaves and petals. A macro lens will let you get in really close and capture minute details in the flower's petals, while maintaining a shallow depth of field for that dreamy macro feeling.

You get bigger, more cohesive and more interesting drops on humid days. A slight exposure adjustment (-0.3 to -0.7EV) compensates for the natural surface sheen of the water drop, keeping it from being burnt out. Most important, remember that because a water drop acts as a lens, everything is upside down and reversed.

Focus: Set your camera to aperture priority to control the depth of field. The trick is to have enough depth of field so the drop and the plant (and maybe some nearby drops) are all in focus, while leaving the background sufficiently blurred so it doesn't compete for attention.

Composition: Give attention to the Rule of Thirds, simplicity, the geometry within the frame, and to all the usual elements of composition. It is important to remember that when photographing water drops, the very shape of the drop influences compositional decisions.

Background: If you're working from nature, your control over the background is limited. You have to work with what you've got. The unique qualities of the lens formed by a drop of water allows you to make minor adjustments in the camera position that will have a profound effect on what's seen within the drop.

There are several ways of shooting falling water droplets in a studio but they generally fall into three methods:

1. In a dark room, the flash guns are fired independently from the camera when the droplet is hopefully in the right place.

2. In a room with subdued lighting you can trigger the camera which fires the flashguns.

3. Use a fast shutter speed with the lens aperture wide open and the ISO rating cranked up. Add some very high powered lamps, say 500w or more.

2013 Annual Competition Judges

We would like to thank our Annual Competition judges: Chris Deakin, Pete Ryan and Gregg Eligh.

Chris Deakin, (Victoria, BC): Photographically speaking Chris got his first camera when he was eight. For many years he shot with Pentax gear using all manner of B&W film & the immortal Kodachrome 64. When he "went digital" he jumped to the Nikon camp.

His heavy photographic habit has also evolved into being an Apple Certified Pro with Aperture. Somewhere in the next year he will become an Adobe Certified Expert for Lightroom.

All of this involvement has afforded him the opportunity to teach. He has been lucky enough to teach locally in Victoria at the University of Victoria, Royal Roads University & Camosun College. He has also been involved with technology businesses training staff as well as private training facilities such as North Studio and Q College. He is currently involved with Camosun offering instruction in their web, CSS and photography courses.

Pete Ryan, (Victoria, BC) Pete is a documentary photographer/cinematographer specializing in adventure travel and cultural tourism promotions. A regular contributor to a wide variety of media outlets including the National Geographic Society. Corporate clients include the Hong Kong Tourism Board, Hawaii Visitor and Convention Bureau, and Nunavut Tourism to name just three contrasting examples.

Gregg Eligh, (Victoria, BC) Following 3 years in Art School in Ontario, he moved to Montreal, then Vancouver to return to college studying technical photography. He graduated in 1978 and has been self-employed since then. Gregg served on the National Board of CAPIC (Canadian Association of Photographers and Illustrators in Communications) for 7 years including a term as National President. He has designed and taught education programs, and has been on advisory boards for George Brown College (Toronto), St. Lawrence College (Kingston), Langara (Vancouver), North Island College (Courtenay), and the Western Academy of Photography (Victoria).

He continues to teach, shoot for clients, produce personal work for galleries and shows, and he judges photography for clubs and industry world-wide.

The next competitions are in September.



Advanced Digital Creative - 2nd "Moon Dance" by Dan Takahashi

This full moon image was taken in Tofino with a 400 mm lens on a Nikon D300. It was cropped, sharpened and processed in Photoshop to enhance the image. The reflection was added as a mirror image and modified to show a ripple effect.



Advanced Digital Open - 3rd "Jump Ship Landing" by Garry Schaefer

A low vantage point caught the rider against the sky. The shadow on the landing zone was key to the success of the image.



Advanced Digital Nature- 2nd "Pacific Tree Frog" by Hanna Cowpe

No larger than a thumbnail, photographed with a macro lens. They are tiny but their intricate detail and amazing athletic abilities provide hours of observation and fun-filled photography.



Advanced Monochrome Print - 1st "Silver Dancer" by Barbara Burns

This image of Stacey, an accomplished Victoria dancer, was taken at a VCC Lighting Group photo shoot. It was rendered in monochrome using Google's Nik Silver Efex software.



Intermediate Digital Nature - 2nd "Little Blue Heron Juvenile" by Don Peterson

The plumage of the juvenile Little Blue Heron is pure white but will change to slate-blue as it matures. This bird was photographed in Lo De Marcos, Mexico. Nikon D700, 300 mm, f2.8 telephoto lens, tripod.



Intermediate Digital Open - 1st "High In The Sky" by Gail Takahashi

This was taken at Jump Ship 2012. ISO 1250, 1/8000 sec, f4.5 and 70 mm lens. I shot from a low position to get as much air under the rider as I could. The seagull in the sky was a bonus.



Intermediate Open Print - 1st "Shrimp Fleet at Sunrise" by Don Peterson

Up at sunrise to enjoy the morning light on the beach at Lo De Marcos, Mexico, I took several images of shrimp boats that had anchored in the bay overnight. Nikon D700, 300 mm, f2.8 telephoto lens, tripod.



Intermediate Monochrome Print - 2nd "A Place Called Eden" by Richard Webber

This waterfall is located just west of Koksilah River Provincial Park, BC. Image capture involved 3 bracketed shots processed in Photomatix. Monochrome conversion and adjustments were made in Lightroom.



Novice Digital Nature - 1st "Black-chinned Hummer Swooping" by Steve Lustig

This is one of three species of hummingbirds that migrate through the Bull River Valley near Cranbrook, BC. It was shot while approaching a feeder, using a 300 mm lens and three flashes.



Novice Open Print - 2nd "Hawk" by John Clarke

I have always been awed by the ferocity, beauty and intelligence of raptors. This hawk was clearly contemplating some serious thoughts.

The image was taken on a club field trip to the Raptors Center (Pacific Northwest Raptors) in Duncan, BC. Canon EOS Rebel, 200 mm f4 lens, details not recorded.



Novice Digital Open - 1st "Wild Hawaiian Surf" by Delmar Lucas

We were driving on the road to Hana, on the Island of Maui, HI and saw these huge waves pounding in and several surfers out there enjoying them. The image was taken with a Canon 60D and a 100-400 mm lens. The images eligible for the Annual Competition are all 1/2/3 placed images in the year, plus one additional image per category.

There are no judges comments for the Annual Competition. Instead, the photographers have provided background information on their images.

There is also no annual "Theme" competition, so there are only three categories for the Novice level in the annual competition images here.

Competition images for *Close-Up* this year have been selected to show the range of subjects entered as well as to give exposure to as many photographers as possible. This means that a "1st place" image may not be selected and "frequent winners" would generally only have one image selected in a given month.

All competition images and judges' comments are available on the website for public review. Please go to the galleries at: victoriacameraclub.org/vcccompetitions.





2912 West Broadway 604-736-3461 #100 - 549 Howe Street 604-669-4696 WEST VAN. #977 - 1000 Park Royal South 604-925-1108 ABBOTSFORD Sevenoaks Shopping Cen. 604-557-0029 KELOWNA 2061 Harvey Avenue 250-762-2221

VICTORIA #5-1005 Broad Street 250-383-7443

Photoshop Actions

Did you know that you can record a sequence of keystrokes in Photoshop (and Illustrator) and play it back again? This is a powerful tool for repetitive tasks that you might wish to perform on either a series of images or, something that you routinely do on most images.

To do this you have to record an "action" and save it. It is then available for future use on any image. You can also edit an action after you have created it, but it is a lot easier to get it right the first time. A good way to do this is to work through what you want to do writing down the sequence without any of the "errors" you made and then start over and record it.

Actions can include almost anything that you can do in Photoshop including pausing for your input such as using a painting tool or entering values in a dialogue box. An action can also start another action, as well as a Photoshop script. You can insert conditional commands so that the action will do something different that is dependent upon a specified condition. If you want even more automation, an action can be converted to a "droplet," a small application that automatically processes any file that is dragged into its icon.

Recording an action is quite simple. In the Window tab make sure the Actions panel is selected; then click the "create new action" button, enter the name for the action and which action set it is to be placed in. You can also specify a function key that can be used to run the action without using the actions menu. Next, begin recording by clicking on the "begin recording" button in the actions panel (which then turns red). Now perform the operations and commands you want to record. If you find something that can't be recorded, then you may be able to insert it by using commands in the actions menu panel. To stop recording click the "stop playing/recording" button. To resume recording in the same action, choose "start recording" from the actions panel menu.

You can insert a stop command to allow you to do something that can't be recorded or to check the result of where you're at. Simply click on the play button to resume playing the action. You can also change settings in a dialogue box by inserting a modal control which pauses the action so that you can specify the values and then press enter to continue.

Made a mistake? No problem, you can edit and rerecord parts of the action.

Focus Stacking

One of the common uses for image stacking is to merge images of the same subject taken with a slightly different focus point which allows you to expand the depth of field to encompass more of the image's depth. This could be as simple as 2 images, the foreground and background of a landscape, or it could be a closeup of a flower with 20 or more layers taking you from the tip of the petals to details on the ground.

This technique requires the use of a tripod and cable release but no other specialist equipment is required to get started. If you make extensive use of the technique you might invest in a focusing rail which can be either manual or automated. This allows you to move the camera very precisely, which is one method of changing the focal point for macro-range subjects. The other technique is to refocus the lens slightly between each frame without moving the camera. Whichever technique you use, it is essential that the area in focus overlaps between each image which has detail in that area.

Even the slightest movement of the subject will result in processing problems. So, choose a windless day to shoot that flower on a long flexible stem.

It is important to use the same aperture for each frame as this affects the depth of focus. Choose an aperture that maximizes the depth of field without introducing diffraction effects at the highest f-stops of your lens. A good balance is probably 2 f-stops below the smallest aperture. Shutter speed selection depends on how much the subject may move or how you want to manage the ISO setting. It is preferable to always use the "base ISO" for your camera (usually ISO 100 or 200).

You now have to merge the images. Photoshop can do this or you can use one of several dedicated image stacking programs including Helicon Focus, PhotoAcute, Zerene Stacker etc. They all work on the same principle, by identifying the in-focus (i.e. higher contrast compared to the same point in another layer) portion of each layer and then blending them into a single output layer. Each layer has to be corrected for slight changes in magnification and alignment introduced by refocusing or by moving the camera position.

PhotoAcute has another useful function which uses the same underlying algorithms to produce an image with twice the resolution of the input image, so your 4000 x 2666 pixel image becomes 8000 x 5332 pixels.

by Wyman Lee and Richard James

What do we mean by "getting perspective right"? When we look at the subject, our eye and brain interpret vertical lines as being vertical. However, the camera isn't quite that intelligent and unless things are set up correctly you may have a problem with your image. The image of a building or tree will appear to be falling backwards if you are looking up at it to include the top in the frame.

In this article we are going to deal with verticals and horizontals as well as depth of field. The issue of lens distortion with super wide-angle lenses is a different issue which we are not going to address here. This article is also a prelude to a workshop scheduled for the end of July where we will work with these issues in more detail.

We always say "get it right in the camera" and this is very true here as correcting perspective distortion in editing is potentially quite destructive of image resolution. The steps necessary to eliminate perspective distortion in the camera are very simple. Make sure the camera is horizontal side to side, front to back and that the sensor is parallel to the plane of the subject, and you're done. Unfortunately this doesn't always work unless you have freedom to move so that the axis of the camera/ lens points through the centre of the subject at right angles to its plane.

If you are shooting a tall building it may not be possible to do this with the lens focal length you would prefer (so the subject just fits the frame) which leaves you with two possible solutions. Firstly you can use a wider angle lens, or move farther back from the subject, and then crop the extra image area out later. This may be acceptable if it gives you enough resolution to produce an image of the final size you want. The second solution is the one that gives you the problem! Either lean back to get the top of the image in the frame and to eliminate unwanted foreground, or shoot at an angle to the side to get the full horizontal width in.

The problem with the second solution is that you have introduced perspective distortion where the building appears to be falling backwards or disappearing off into the distance when in fact you know it isn't. The solution to this is to correct the distortion in your editing. If you are going to do this, remember that you are going to lose potentially significant portions on the edges of the image so you want to make sure you have plenty of clear space around the subject to play with. View cameras, typically 4" x 5" or greater in size, didn't have this problem as you could move the lens relative to the film plane and solve the problem optically. This solution is based on the Scheimpflug principle (en. wikipedia.org/wiki/Scheimpflug_principle). Put simply, this means the plane of the film or sensor, the plane of the subject and the plane of the lens all pass through a common point. Both Nikon and Canon make "perspective control" (PC), also known as "tilt/shift" (T/S), lenses, which are based on this principle and can be used to solve the problem so long as it is not too extreme. These lenses also allow you to control depth-of-field by applying the same principle.

Tilting the lens relative to the sensor corrects verticals, while shifting it moves the image up/down on the sensor. Turning the lens sideways on its mount allows you to do the same thing horizontally.

Hopefully you can solve the problem in camera, but if you can't, there are a number of ways you can do it in editing. These include the raw converter in Photoshop or Lightroom (ACR), other RAW converters such as DXO Optics, using one of several editing tools in Photoshop or Lightroom, or in freestanding software such as DXO ViewPoint. In the following paragraphs we will go through the steps you need to follow in order to correct the perspective in your images.

In Lightroom, go to the Develop tab and scroll down to the "Lens Corrections" section. There you will see the transform parameters set to 0. The image will also be overlain with a rectangular grid. Using the grid as a guide, adjust the sliders to make the horizontals horizontal and the verticals vertical. The next 2 images show before and after versions of a building in San Francisco's Chinatown. When you are done note the greyed out image areas on the lower left, bottom, and right sides of the image; you will have to crop your image to eliminate these.



Lightoom - Before Correction



Lightoom - After Correction

If you are working directly in Photoshop using ACR, then you go to the lens correction tab (the 5th button across), click on the manual tab and you have the same set of controls and results.

In DXO Optics, in the customize tab, scroll down to "Keystoning/Horizon" and "Advanced Settings." You can either use the sliders or the "Make Parallel/Make Rectangular" icons. Make parallel allows you to draw 2 lines on the original image that you want to be parallel while make rectangular allows you to draw a rectangle and move the 4 corners so that the connecting lines match the lines in the subject that you want to form the final rectangle.

As in ACR, you will have an unusable area left within the rectangle that needs to be cropped out. This is shown below.



DXO - After Correction

If you are already working in Photoshop with an image that has been converted from the raw file and you don't wish to go back there, then you can use the Perspective Crop tool to draw your crop around the building. The difference here is that you are working in a bit-mapped image vs. the original RAW file and adding another step to the editing process, which may be working on an already somewhat degraded image compared to the original file. This is shown in the next image.



Photoshop - Perspective Crop Before Correction

Of course, there is yet another way to do it in Photoshop, and that is to use the Lens Correction Filter (Filter>Lens Correction menu item). Click on the custom tab and go down to the transform (bottom section). Here you have two sliders for vertical and horizontal perspective. You may also need to rotate the image to improve the correction.

However, as you can see in the next image, the resultant image is somewhat different in that the crop is a bit tighter and the horizontal line, out of parallel to the building faces, is not properly corrected (while the top is horizontal the bottom is obviously sloping up to the right).



Photoshop - Lens Correction Filter After Correction

In the workshop at the end of July, we will show you how to setup your camera, how to set up a PC/TS lens and how to do these edits so you can follow along if you bring your laptop. So register for the workshop and learn how to really improve your images.

Bleeding Heart

by Gordon Griffiths

I thought this particular plant was a good subject because the flowers were set against a silver coloured fern that had dark red veins in it. The blooms were located along a single vine, and because of their configuration on that vine and depth of field limitations, it was impossible to have each bloom in focus in one exposure regardless of the aperture selected.



I used a process called focus stacking (see page 15) to address this issue. With the camera mounted on a tripod and using a constant ISO, shutter speed and aperture, I took 3 separate photos of the bleeding heart plant focusing each exposure on a different flower.

I used Helicon Focus, which combines the focused areas in each image to create one completely focused image. It aligns the images as the subjects can change their size and position from shot to shot.

I then made some adjustments in Photoshop to the image using levels and vibrance. To make the image a bit more unique, I lightly applied the Photoshop oil paint filter. This gives an image a painterly effect. If the image is then printed on canvas paper, this effect is enhanced.

This image was shot with a Canon DSLR on a tripod with a Canon 100 mm macro lens and a polarizing filter. The mirror was in lock-up mode, and a remote shutter release was used.

Although I used Helicon Focus, other software is available including Adobe's Photoshop "photomerge," PhotoAcute and Zerene Stacker. Focus stacking can also be accomplished using a macro rail and software from Cognisys.

Wisconsin Gas Pump

by Paul Ross

It was January 3, the first Thursday of the month, and I was working on my monthly competition entries. I had everything ready but my creative entry.

I searched my library for an appropriate image to work on. I was looking for an image that has lots of different colours and shapes to give the software something to work with. When working with images, I use Google's NIK Colour Efex for my creative images.

I tried a number of different images before I tried the Wisconsin Gas Pump. The image was taken in the middle of a very bright day while I was out hunting for barns.

I tried a number of different processes before using a preset called Detail Stylizer (no longer in Color Efex version 4). The software transformed the image into the image that was entered. The Detail Stylizer has a number of colour conversions and adjustments.

The finished image had an area at the top right which was sky in the original image. In February I adjusted that area of the image to match the rest of the image.

When I was asked to explain what I did for "How I Did It," I no longer had the original image. Trying to recreate the image took much longer than it should because I had not documented the steps I had taken.



Tuesday Shoots

by Alan Heartfield

The Tuesday morning group has the following challenging themes scheduled for July and August.

Photo-Journalism: The challenge is to produce images that would be suitable for publishing in a newspaper or photo-journalism magazine. So, the photos must tell a story or depict an event. Perhaps a single photograph can tell the story, or you might need a sequence of images. For once, the technical quality of the photos is not the prime objective for this shoot. Can you find a good story (or stories) to shoot in 90 minutes?

Negative Space: The challenge is to produce images in which negative space dominates the photo. Negative space surrounds the main subject in your photo. Negative space defines and emphasizes the main subject of a photo, drawing your eye to the subject. When used properly, negative space provides a natural balance against the positive space in a scene. Getting this balance right is not necessarily easy.

Uneven/Unbalanced: In June, we said that virtually every image that has any wow factor to it must have excellent balance, so it will be quite a challenge to produce images with the wow factor that are not balanced. Perhaps the easy way out will be to take balanced photos of uneven subjects. Uneven is one of those words that can have many meanings, and it is always interesting to see how our mixed bag of shutterbugs meets these challenges that are open to interpretation. For the member who excels at our Tuesday get-togethers, I expect to see some unbalanced, uneven shots.

Zen: Photography is often defined as "painting with light." Zen is a major form of enlightenment, but accepts enlightenment only through direct means. That is, experience and observation are the important factors, and of course, extreme patience and calmness. So come out and find your essential nature with us, or find a scene that illustrates someone (or something) else's essential nature. Photographs of motorcycle repair shops will be acceptable if there is a Zen mood observable in the photo. For other subject ideas, look up Arthur Koestler's definition of Zen.

For more details and to register for these shoots, go to the VCC website and click on the calendar. Look for the Tuesday field trips. Come on out and enjoy good company and some great shooting challenges.

Weekend Shoots

by Dave McLean and Donna Robertson

There are a number of trips planned for July and August, so please check the website Calendar page for details.

Metchosin Lavender Farm: Mid-July is your last chance before the lavender is harvested to capture the rows of purple lavender and other plants growing in geometric designs. The opportunities here are many. Bring normal, wide-angle and macro lenses.

Sandcut Beach and Muir Creek: are on the West Coast Road between French Beach and Jordan River, beyond Sooke. Sandcut is a gravel beach with a creek flowing over a low sandstone cliff as it drops in a beautiful waterfall to the beach. There are pools where the water has eroded the rock. Upstream, beyond the road, there is a second waterfall. There are many great picture opportunities, including long-exposures of the waterfalls, reflections, rock patterns etc. Bring ND filters, wide and macro lenses, and a tripod for this location.

Muir Creek has Old Growth trees, fossils in the sandstone along the beach, and otters have often been seen in the creek. Be prepared with a longer lens here.

Tofino: This will be our first summer field trip to Tofino and Ucluelet. Shooting possibilities will include: beaches, wildlife, sunsets and seascapes, and flowers. Reservations at the Eco-Lodge are required for this trip.

Full Moon: We are planning twilight/full moon rising shoots in July and August. Longer lenses work well to make the moon appear larger than it really is.

Low Tides: Early summer mornings have some of the lowest tides of the year that give opportunities for shooting tidal pools, life in the inter-tidal zone and sandbars. Bring a polarizing filter to minimize reflections from the tide pools.

Saanich Historical Society: On Lochside Drive off Island View Road in Central Saanich, there are nature trails, a pond with very photogenic frogs and dragonflies, and artifacts from the early 1800s. Fill flash is useful here as well as a 100 mm+ lens that focuses close in.

Whale Watching: The primary objective will be whales, (Orcas and Humpbacks). Other mammals that may be encountered are sea lions, harbour seals, and porpoises. Also expect a variety of birds.

The Small Things

by Nancy MacNab

The fine detail of a butterfly's wing. The delicate curve and soft colours of a flower petal. The huge eyes and seeming grin of a dragonfly's face. The beauty of an elegantly curved sculpture or architectural detail. Who hasn't, at one time or another, admired the amazing detail made visible in close-up photographs?

How do you go about taking a close-up like those? Most zoom lenses these days have a macro setting (or micro, for those Nikon users), which is a good place to start. However, the definition of a true macro is that the image on the film or sensor is the same size as the object being photographed, a one-to-one ratio. Zoom lenses generally only go down to a four-to-one ratio, so the object appears at one-quarter life-size on the film or sensor. You can get closer!

There are several choices if you want to add macro equipment to your camera bag: a macro lens, close-up lenses or filters, or extension tubes. A true (one-to-one) macro lens is your most expensive choice, but also provides the best quality. Here again, you will have the choice of several focal lengths. By using a longer lens, you will be able to stay further away from your subject while obtaining the same magnification. This can be an advantage if you are going to photograph insects or spiders, which may disappear at the sight of this looming lens coming at them. A shorter macro lens requires you to get closer to your subject, but is also lighter and takes up less space in your bag.

Canon is the only company that makes a lens that gives greater than one-to-one magnification with their MP-E 65mm f/2.8 1-5x Macro lens, which has a 1:1 to 5:1 range – that's five times life size! Focusing it can be very tricky and challenging, though. (This lens does not focus beyond 1:1, about 150mm).

Close-up lenses or filters screw onto the front of your lens, just like your polarizer or UV filter. They come in various strengths or magnifications, and can be used singly or in combination. As with any filter, each time you add something to the front of your lens, you run the risk of degrading the resulting image, so buy the best quality ones that you can afford.

Extension tubes are attached between the camera body and the lens of your choice. The tubes do not contain any glass, but simply increase the distance between your camera's sensor and the lens, which increases the magnification. Tubes usually come in sets of three, and can be used singly or in combination.

Now that you have sorted out your camera and lens choice, the next step is to practice, practice, practice. Because your subject is magnified, any camera movement will be magnified too. This makes your tripod your best friend.

Because your lens is so close to your subject, you are going to have to learn a whole new range of aperture/ depth of field relationships. While shooting wide open (f1.4, f2.8, f4 end of the lens) will always give you a shallower depth of field, now it can be measured in millimetres rather than metres.

Even with a small aperture of f22 to f32, you may have a depth of field of one centimetre or less, depending on your distance from the subject! This is what gives you that softly blurred background, but can be infuriating if you want to have the entire subject in focus. There are ways of combining photos with different focal points into one in order to achieve this, but that is a more advanced technique for a different article (and a different author! - see "Focus Stacking" on page 15).

The distance between your subject and the background will also affect how much of it is in focus. The minimal depth of field of even a small aperture can be a great help when you want to render the background as an indistinguishable blur.



by John Coenraads

As a general rule, "Buy the best glass that you can afford, and it will serve you well through several camera bodies." If your camera came with a "kit lens," then the most important step that you can take is to replace the general purpose, and usually "middle of the road", kit lens with the best piece of glass that your finances allow. Through computer-aided lens design, it is now possible to design complex lenses virtually free of the aberrations and distortions that used to bedevil the simple spherical lenses of the past. Throwing in zoom capabilities and image stabilization makes the modern lens a marvel of design and production, well worth the hundreds or thousands of dollars it costs. Let's examine the factors we need to consider when picking the best lens for your purposes.

DX or FX Format

A DX-format (APS-C) sensor is about 24 x 16 mm and has a "crop factor" of 1.5, but varies slightly by brand and model. (Canon uses 1.3 and 1.6 crop factor sensors.) A FX-sensor is 36 x 24 mm, i.e., 1.5 times as wide, with more than double the area. The FXformat is the same as that of 35 mm (135) film and is therefore often referred to as "full frame." DX-format cameras are lighter, smaller and cheaper as are the lenses specifically designed for DX cameras. Although both types of lenses will usually work on both types of cameras, a DX lens on a FX camera will result in a 2/3 crop and is therefore best avoided. A FX lens on a DX camera on the other hand can make sense. Aimed at professionals, FX lenses are likely to have a better build quality incorporating better weather sealing and durability. Also, the DX sensor only captures the central portion of the FX image field which is where any lens is sharpest.



Figure 1: Comparison of image field and sensor size for FX and DX lenses.

An extra bonus is that the 1.5 crop factor means that a 400 mm lens now effectively becomes a 600 mm lens. Unfortunately, at the other end, a 24 mm wideangle lens turns into a 36 mm lens. However, if there is any chance you may someday upgrade to a FX-format camera, investing in FX lenses would be a smart move.

Reflector or Refractor

Mirror lenses employ the same optics as astronomical telescopes and are inherently free of chromatic aberration. A 500 mm f5.6 or even 1000 mm f11 reflector is much lighter, more compact and cheaper than the comparable glass lens. But their fixed aperture and lack of edge-to-edge sharpness makes them at best a second choice for photography.

Prime or Zoom

A prime lens has a fixed focal length. This makes a zoom lens an attractive option giving one several focal lengths in one package and the ability to alter the perspective of an image without changing the lens. But a prime lens is inherently simpler meaning that for a given price, a prime lens will likely be lighter, of higher quality (sharper) and have a higher speed (larger aperture).

Focal Length

The following table lists various focal lengths and the applications for which they are best suited.

Focal Length (mm)		Lens Type	Application
FX Body	DX Body (1.5 crop)		
<21	<14	Extreme Wide Angle	Architecture
21 - 35	14 - 24	Wide Angle	Landscape
35 - 70	24 - 50	Normal	Street/ Documentary
70 – 135	50 - 90	Short Telephoto	Portraiture
135 - 300	90 - 200	Telephoto	Sports/ Wildlife
300 - 500	200 - 330	Long Telephoto	Birds/Wildlife
>500	>330	Extreme Telephoto	Wildlife/ Astronomy

Nature photographers rely on long (telephoto) lenses to bring their subjects closer and isolate them from the background. Lenses in the range of 50 mm (35 mm on a DX camera) are popular for general purpose shooting (family pictures) because their perspective matches that of the human eye. Landscape photographers are likely to carry a short (wide angle) lens or two with which to take scenics where both the foreground (field of flowers) and the background (mountains) are simultaneously in sharp focus. Wide angle lenses come in two flavours: distorting and non-distorting. For example, a fish-eye lens distorts the field of view in a characteristic way that can yield some stunning images, but do not use it to photograph your spouse sleeping on the couch with their mouth wide open.

The focal length can be altered by using extension tubes, teleconverters or close-up lenses. But there is no free lunch; all will decrease the light capturing ability of your lens. For example, a 1.4x teleconverter will result in a one stop decrease in aperture. In the case of close-up lenses, it is never a good idea to put cheap glass in front of expensive glass (and the same applies to filters).

Aperture

Larger apertures means more light gathering power and is a major consideration when buying a lens. Since aperture is defined as focal length / f-number, for a given f-number, a long lens requires a larger aperture which translates into larger (diameter) glass. Large glass comes with a hefty penalty in price and weight. But if you are tempted to think that f5.6 might be adequate, think again. With a polarizing filter (two stops) and a 1.4x teleconverter (one stop) you would be down to an almost unusable f16. Always buy the biggest glass that you can afford and can comfortably carry.

Coatings

Lens coatings reduce reflections at the glass-air interfaces and with a lens containing a dozen or more glass elements the loss of light and internal reflections (flare) can otherwise be substantial. Coated lenses used to be identifiable by their purplish sheen, an indication that the coating was optimized for green in the centre of the visible spectrum. Modern lenses have multiple coatings to minimize reflections at all wavelengths and when examined these surfaces appear quite black, a testament to the efficiency with which they transmit light.

Mounts

When the weight of a lens exceeds the weight of the camera on which it is mounted it becomes necessary to have a tripod mount on the lens itself. Typically a 200 mm or longer lens will have such a mount which should also incorporate a ring that allows the camera to be easily rotated from vertical to horizontal. With a 400 mm f2.8 lens you will probably want to combine this with a gimbal tripod head which allows that camera-lens combination to easily swing around its centre of mass with the nudge of a finger.

Image Stabilization

Optical image stabilization is an asset when hand holding a long lens in less than ideal lighting conditions. Yielding the equivalent of an extra two stops (or more) it makes it possible to take an image, which would normally require 1/(focal length) sec, at 1/125, 1/60 or even 1/30 sec. Nikon and Canon lenses have image stabilization built into the lens itself and is a worthwhile feature.

Macro

Macro lenses are a great convenience when doing close-up work and yield images that can be life size. A lens specifically designed for macro work will be a prime lens with a very flat focal plane and will focus to 1:1 (life size). Some zoom lenses have a "macro setting," however these lenses are not optimized for close focus and will not have as flat a focal plane. A 105 mm macro lens will typically have a close focus distance of 31 cm making it perfect for insect photography. Shorter focal lengths will have closer working distances which may pose problems.

Auto-focus

Although auto-focus is strictly speaking a feature of your camera, it relies on your lens having the electromechanical mechanism that should rapidly and quietly respond to the camera's focusing instructions. When buying extension tubes, it is worth remembering that some do not have the electrical connections that implement auto-focus. On long lenses, a switch that lets you limit the focusing range can reduce excessive nearby "searching" when the subject is in fact far away.

Although any lens is only as good as the photographer using it, there is nothing like a superb lens to take your photography to the next level.

PRINT MOUNT FRAME DISPLAY ARTBOX



Friendly, local experts working with you from start to finish! All of our work is done completely on-site (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)

Full Service Camera Repairs All Makes and Models

Victora Camera Service



www.victoriacameraservice.com Sensor Cleaning, Lens Repairs, LCD Replacement, Factory Trained Technicians, 1 Year Warranty.

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



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

We Know Pro



Largest selection in Western Canada New & Used
Trade-ins welcome
Competitive prices

We share your passion

3531 Ravine Way (Saanich Plaza) Victoria Vancouver • West Vancouver • North Vancouver • Burnaby • Richmond • Coquitlam • Langley



www.kerrisdalecameras.com