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Exporting and Saving from Photoshop What Makes a Great B and W Image Member Profile: Lorna Shaw Urban Exploring Experimental Light Painting VCC's 75th Anniversary Shoots Around Victoria Matting and Framing Images The Science of ISO Beginners' Corner: Lenses

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Victoria Camera Club

"Café in the Rain" by Tim Agoston April 2020 Volume 73 Number 4





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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.

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

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Close-Up is the magazine of the Victoria Camera Club.

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For additional information: please contact:

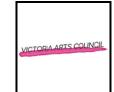
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The Victoria Camera Club is a member society of the Victoria Arts Council, Canadian Association for Photographic Arts (CAPA), and the Photographic Society of America (PSA).









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.ca) for the latest details of all our workshops, field trips and meetings.

April 2nd: Competition Night. Submission of Annual Competition images. The March competition results will be presented. There is no Theme for April.

April 9th: Presentation Night, Leslie notifice: will talk about "Often overlooked there is to the tograph in the Canadian Rockies". April 16th: Member celled un for schedule tograph and presentation car for schedule trip slide shows, prior short kennical presentations. Meeting and presentations. Meeting short kennical presentations. Morkshop jeashlights: Creative Portraits and Shoot-ins Wildflowers

Field Trip Highlights: Bloedel Conservatory and Van Duesen Gardens, Hornby Island Flowers..

Cover Image: "Café In The Rain" by Tim Agoston. As retirement approached in 2014 it was mentioned in a seminar that one should do something to celebrate the end of their working career. So, a European river cruise from Budapest to Amsterdam was planned.

The village of Cesky Krumlov in the Czech Republic was one of many fascinating places to visit during this adventure. It offered history and architecture that, as a new country, we don't have here in Canada.

The café is on the edge of the main plaza and it wasn't until I started my post-processing that an idea evolved. It was quiet that afternoon and I thought, "Why is no one having coffee today?" Perhaps it could be raining.

After using On1 Photo 10 to add a rain texture, I adjusted colours along with dodging and burning in Lightroom. A lot of my post-processing involves moving sliders around and clicking on different effects until the magic happens and I see exactly what is in my head. Big help, right?

I took this image with my old Nikon D7000 using the 18-105 mm kit lens with settings of 1/60th sec at f10 and ISO 100. (This is a modified version of the competition image on page 11 of this issue.)

Be free to explore your own creativity. Sometimes good things just happen.

President's Message

As I come closer to the end of my time as Club President, I reflect on the past two years, what it meant to me and what I leave behind. I have enjoyed my time as the leader of an amazing group of artists and have learned so much from you all.

Around this time of the year the President's Message in Close-Up makes mention of the one thing that makes our Club run, volunteers. Our Club is fortunate to have an excellent group of individuals who work countless hours to make everything in the Club run smoothly. Without them we would not be able to offer everything that we do but, as is the case with many clubs, it is often the same group of people who volunteer their time year after year to help keep our Club viable.

As we are thinking about the upcoming AGM some volunteers may be thinking about stepping down from their positions. I encourage all members, especially those who have not volunteered in the past, to think about what you get from the Club and consider giving back by filling a role next year.

By becoming an active participant, you can have a positive impact through your contribution. This past year seemed we've had many new Club members stepping forward and helping out with various committees. I thank you for that. As is said, "many hands make light work" and I also add that it makes our Club better.

Our Club AGM will be taking place on April 16th where we will be nominating a new President, Vice President and Director-at-Large.

There will also be a motion brought forward to increase the annual fees. The Club has had the same annual fees for many years and, with the increasing costs with more frequent workshops and external competitions, among other things, the executive feels that a modest increase will help cover the costs involved in these activities. The proposal will see individual fees raised to \$100 per year, family fees to \$200 and student fees to \$50.

Now that we are into April, there are Spring flowers popping up everywhere on south Vancouver Island. This offers the opportunity to dust off your macro and close-up lenses and practice photographing with shallow depth of field. You might even want to try to get "bokeh" shots. Keep an eye out for the flower field trips coming up. Maybe I'll even see you at one.

Teri VanWell, President

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Exporting and Saving from Photoshop

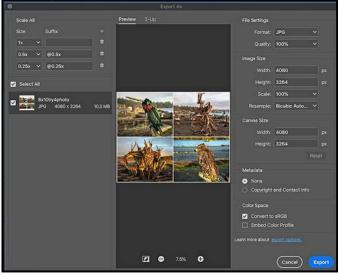
by Kirk Schwartz

To get anywhere, to navigate, you have to know your destination and that "last thing" is the first thing you need to know when you prepare for export.

Many years ago I was preparing a brochure for a media arts program. Everything seemed fine when I looked at it on my computer. One of the photos was of the program leader. In the proof she turned a bright red and looked positively devilish. Three proofs later and some unexpected expense, I discovered that I had saved her pic in the wrong colour space. The lesson learned is that you need to pay attention to the specs for your destination.

Make sure you ask and get the specs before you hit the send button. Ask about colour space, compression and quality. The best results give the "client", whether a printer or a paying customer, the file that works best for them.

So, now that I've given you a sermon on what not to do, what should you do? The default colour space these days is sRGB. Instagram, Facebook, all the web browsers and most of the print shops support sRGB. No matter what colour space you chose to work in, "Export As" gives you an easy check box option to convert your output to the sRGB colour space or to embed your Color Profile.



"Export As Screen"

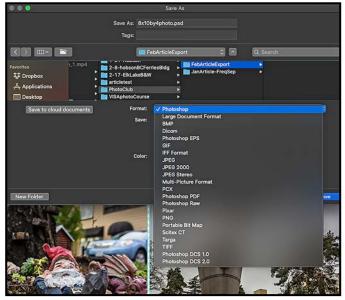
Your format options in "Export As" are JPG, PNG, GIF and SVG. Whether we like it or not, JPG is the most common and most supported photo format. PNG supports a transparent (alpha) channel. SVG is primarily used for graphics and scaling and GIFs are now seldom used.

One nice feature of "Export As" is that it allows you to rescale your image and also allows you to select the

"quality" (which is really just a way of saying how much compression you apply) and subsequently, how big your image file will be.

The Preview feature lets you see how reducing the "quality" affects your pic but remember to peek at 100%. Often, especially for reduced web sizes, lower "quality" really doesn't affect the quality of the image. You might think of using this feature when submitting to competitions where the pixel size (i.e. 1400x1050 px) or the file size (MBs) is restricted. Finally, on the left side of the "Export As" HUD (heads up display) you can choose to create multiple versions of your photo, that is, perhaps, an advantage if you want to create a print size, a web size and a thumbnail all with a click of one button.

"Export As" flattens your image. "Save As" is where you must go if you want to save a working or layered copy for later or for a specialty process. Adobe now recommends the TIFF format. Otherwise, you should probably have a good reason for choosing another format. In "Save As" you also have the option of saving to "cloud documents", assuming you have a current version of Photoshop and you wish to utilize the cloud storage that Adobe supplies. If you use multiple devices in different locations the cloud storage may be a real asset.



"Save As Screen"

In summary, for the most common web or print tasks you will use "Export As" with its multiple options and versatility. For layered or working files, or special applications, you will use "Save As".

Here are a few web links for you to explore: PiXimperfect : youtu.be/ytsip27072l and youtu.be/mtlJ LIMOuy0 Adobe help : adobe.ly/32TEB1z Ken Rockwell : sRGB vs Adobe RGB bit.ly/3cFHuHZ

What Makes a Great B and W Image

by Normand Marcotte

Shooting successful black and white images requires that you change the way you look through your viewfinder; you need to start viewing in tones rather than colours. The tonal range of your image is the amount of highlights, shadows, and every shade of grey in between.

Colour: When assessing an image for black and white processing, ask yourself if colour is needed to tell the story. We get easily distracted by elements in photos with bright colours that really have nothing to do with the main story or subject. Black and white puts the emphasis on the other qualities of the image such as composition, mood, texture, graphic, etc.



"Sitting Pretty"

Simplification: It may be objectionable in a colour image to have a subject exhibit an extreme range of lights and darks, though this may work well in black and white. Simplicity is an asset. Sometime less is more and cropping can drastically improve an image. You do not have to maintain the original image format (vertical or horizontal) or aspect ratio (3:2 or 4:3). "Peekaboo" was taken while visiting a museum in Los Angeles. I noticed a person well above me looking down in my direction. I instinctively knew there was a good image to be taken but I had a wide-angle lens on my camera. I took the shot rather than risk loosing the moment by taking the time to change the lens. The final image represents less than 20% of the original horizontal format. I removed a lot of

unnecessary information to create a more graphic and dramatic black and white image.



"Peekaboo"

Low-Key and High-Key images: Consider subjects and compositions that are either predominantly white and/or dark as this can make for very effective and dramatic black and white imagery. High-key images (overall very light) and low-key images (overall very dark) are visually enticing. They encourage the viewer to look more careful and study the content. In "On Watch", the image is mainly dark shadows with a slim bright outline on the person's upper body and a bright silhouette on the floor.



"On Watch"

Still, even without a lot of details, the image keeps the viewer interested.

Graphic Elements: Is there a strong graphic element in the image? Graphic images work very well in black and white; feature simple, strong lines and shapes with high contrast (wide tonal range from the lightest greys to pure black). In "Getty Museum Study", the original image of a white building and blue sky became even more compelling by turning the sky a deep black to increase contrast.



"Getty Museum Study"

Mood: Black and white photos can include a whole range of grey, which adds subtlety to the images. For example, a photo taken on a cloudy day may look flat and lifeless in colour, but if you remove the colour element then the distracting colours are recast as subtle shades of grey. This helps to focus on the mood of the image and gives it a timeless quality. Subjects with subtle tonality and many layers of grey tones may work particularly well in black and white.



"Harvesting the Wind"

Black and White Camera Settings: Depending on your camera you can use a black and white preset to preview each image in monochrome on the LCD screen. You can also use the Live View feature with a black and white

preset so that you can preview the monochrome image and make adjustments accordingly while still saving the colour image. Some cameras also offer grid overlays to help with composition, and Live Histograms to help with optimal exposure. Bracketing can be a useful feature to help show you the potential of extreme exposure and how such abstraction can actually work well in your final black and white image.



"The Man in the Straw Hat"

Post-production: If you shoot RAW you can choose to convert each image to black and white in post-processing or you can leave it in colour. Consider using grain to add texture and a bit of nostalgia to the image. Software will allow you much more precise control over the final look of your black and white image compared to what is available with in-camera processing. When in doubt, you can make copies (virtual copies in Lightroom) and process the original file in colour and the copy in black and white. Compare the final versions and then decide which appeals to you.

I currently use Photoshop and Lightroom Classic (the Adobe Photography Plan) that work very well with the conversion from colour to black and white. I also use Silver Efex Pro 2 (part of the NIK/DXO suite of programs) that is excellent for the conversion to black and white images. This program has several presets (essentially processing recipes). These presets are only starting points and should be modified to produce the vision you have in mind for your image.

References: Many photographers specialize in the black and white medium. Think of the well-known landscapes of Ansel Adams and the street photography of Henri Cartier-Bresson. There are also magazines dedicated to the black and white medium, for example: "*Black+White Photography*" and "*Black & White*". These magazines can provide great inspiration and invaluable help on what makes a great B&W image.

September Theme "Play"

by Judy Plummer

The September competition theme is "Play". Examples of "play" could be children engaging in an activity or the action of a sports team. It could be someone performing with a musical instrument. Examples of "play" could also be "wrote a play" and "stage a play". So, how you use this theme is up to you, the photographer.

Find your interpretation and let your creativity begin. Some suggestions on how to get the photograph if you are having difficulty getting that shot of your children/ grandchildren/nieces/nephews playing: stand back and let the moments happen on their own, be creative with your angles, get in close, add mystery by shooting from behind and, be creative with your shutter speed.



"Trudging Through the Sand"

Here are some suggestions when photographing musicians. If you are not photographing at a concert, ask the musician to play for you. Remind them you are there to catch their relationship with their instrument. If you can move around them while they are playing you will have an opportunity to capture the image from different angles thus giving you more images from which to choose your submission.

Any type of post-processing or in-camera manipulation is acceptable for this theme as long as the interpretation of "play" is the main subject. Use the theme as a challenge to improve your photography. Themes give photographers a chance to shoot activities outside their norm. Shooting for the theme could take you to a location that you are not familiar with or to an event that you have never been to before. Use this an opportunity to try something new. You have the whole summer to work on this project.

The competition deadline is September 3rd, 2020.

February 2020 Competition Judges

We sincerely thank our external judges for the February Intermediate and Advanced level competitions, Michael Breakey, Karen Stoyles, Dan Jones Said, Sheena Wilkie, Rick Leche and Gregg Eligh. We also extend thanks to our in-house Novice Judges: Pam Irvine, Lorna Zaback, Jill Turyk, Nicci Tyndall and Richard Webber. Images and judges' comments are available at: *victoriacameraclub.ca/Competitions/CompetitionResults.aspx*.

Michael Breakey: Digital Altered Reality. Michael is a professional photographer based in Kelowna. His passion is landscapes and available light portraiture. Michael has presented numerous workshops, specializing in Photoshop and Lightroom. He is currently the Director of Education for CAPA, which includes overseeing the judging course.

Karen Stoyles: Digital Nature. Karen lives in Brantford, Ontario where she is an active member of the Brant Camera Club. Her main interests lie with wildflower, macro and creative photography. She likes to travel the back roads of Ontario where she finds many varieties of wildflowers. Karen has been judging photography for over 10 years for camera clubs, local organizations and fairs.

Dan Jones Said: Digital Open. Dan has been a member of the Camera Club of Ottawa for 23 years where has achieved the level of Master Photographer. He is a part time professional photographer. His work includes stock photo fine art prints, and he enjoys judging for a variety of photo clubs.

Sheena Wilkie: Digital People. Sheena Wilkie is an enthusiastic participant in the global photography community. She is a passionate fine art photographer who enjoys sharing her knowledge and expertise with others. Sheena has been giving presentations and teaching photography and software courses for over fifteen years.

Rick Leche: Digital Theme. Rick currently lives in Black Creek, BC and is an avid photographer of anything or everything. He never leaves home without his Canon gear, whether it is traveling around the world or around the Comox Valley. Rick is a member of the Comox Valley Photographic Society where he and his wife Donna act as mentors in photo editing.

Gregg Eligh: Advanced Prints. Gregg is a good friend to the club and well known around the club for his judging over the years and his interesting workshops. He currently teaches continuing education photography courses at Camosun College. Gregg's work can also be seen in several gallery shows every year.

CONTINUING STUDIES OUVIC



Spring 2020 Photography Courses

Natural Light Portraiture Made Easy, with Tony Bounsall

Learn how to photograph people on location. If you have wanted to learn the professional secrets to getting a great portrait then this class is for you. We will cover: portrait lighting using natural light; which lens to use and when; how to maintain consistent accurate colour; and understanding your light meter.

Participants should have an understanding of how their camera functions. This class is suitable for the informed novice to more advanced hobby photographers.

Friday, May 1 from 7 to 9 pm; and Saturday, May 2 from 9 am to 1 pm

Image Transfer, with Tony Bounsall

Learn a range of techniques to transfer your photographs onto printmaking paper, acrylic skins and other surfaces that be can incorporated into your paintings, collage or mixed media artwork. Discover how to blend, distress and create composite images by hand (as opposed to through a digital process). Artists, photographers and anyone interested in photo-based mixed media will find this workshop of interest.

Please note that we will use oil of wintergreen in one of the transfer processes. All materials included, although you should bring photocopies of your images to work with. No experience necessary.

Saturday, May 9 and Sunday, May 10 from 10 am to 5 pm

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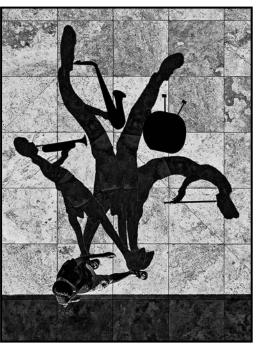
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Advanced People Digital - 2nd "Hauling Water" by Leah Gray

Judge's comments: Grand sense of scale here, the position of the subject is excellent. The image is made stronger by the bright colours in the main subject. Great work!



Advanced Creative Digital - 1st "I wish I was a One Man Band" by Normand Marcotte Judge's comments: Very imaginative. Shadows are well done for the most part. Composition well done.



Advanced Theme Digital - 1st "Reflections on Metal, Museum of Pop Culture, Seattle" by Lorna Zaback

Judge's comments: Well seen and captured. The tones in the image are pleasing and relaxing. The geometry of the shapes is also very effective. Thank you!



Advanced Open Digital - 1st "Icy Sunburst" by Mark Sicherman

Judge's comments: This gorgeous landscape, with its strong leading lines, lends itself very well to the vertical format which the photographer has chosen. The cracks and bubbles in the ice provide a powerful foreground and middle ground, while the beautifully shaped, well-exposed mountain, accented by the sunburst, create an enticing reward for the eye in the background. The image is sharp throughout as it needs to be. Congratulations to the photographer.



Advanced Open Print - 1st "Café in the Rain" by Tim Agoston

Judge's comments: Lovely, lyrical space that is well captured. Nicely framed to include the lantern and the surroundings.



Advanced Monochrome Print - 1st "Music Lesson?" by Steve Smith

Judge's comments: A lovely story nicely composed and framed. I really enjoy it when a photographer finds something interesting in the ordinary. Nice proportions and asymmetry.



Advanced Nature Print - 2nd "Red-bellied Woodpecker" by Mike Wooding

Judge's comments: A beautiful study with a Japanese style of composition. Good timing and excellent representation of this bird.



Advanced Nature Digital - 1st "Three of a Kind - Zebras" by Nicci Tyndall

Judge's comments: Groups of three present a very pleasing image. The contrast between the zebras and grasses works well. Exposure, depth of field and sharpness are all done to perfection. Landscape format allows room in the image, not cramping the zebras. A lovely image.



Intermediate People Digital - 1st "Lumberjack Ballet" by Sharon Moysey

Judge's comments: Love the post-processing treatment here. I can almost hear the log rollers waltz. A well-done people shot



Intermediate Open Print 2nd (Tie) "Happy Sledding" by Lorna Shaw

Judge's comments: A great capture depicting a compelling story. Good use of depth of field giving sharpness to the dogs in the foreground and decreased sharpness as our eye moves to the back of the image enhances the thickness of the snowfall. Very pleasing well-balanced composition with effective use of negative space in both the foreground and background. The diagonal line of sled dogs leads our eye into the frame.



Intermediate Creative Digital - 1st "And into the Forest I go, to Lose my Mind and Find my Soul. John Muir" by Jill Turyk

Judge's comments: Good Composition. A pleasing painterly effect was produced



Intermediate Nature Digital - 1st "Golden Helicon" by Greg Blaney

Judge's comments: Exquisite capture. The framing of the subject is exceptional. Depth of field, exposure all come together to make this a lovely image. Kudos to the maker.

Close-Up



Intermediate Theme Digital - 1st "Threads of Gold" by Kim Smith

Judge's comments: This image is sublime, containing a beautiful palette, extraordinary texture, good composition. It speaks to the viewer in a very effective manner! Well done and thank you for sharing!



Novice People Digital - 1st "Moroccan Fish Vendor" by Terri Kott

Judge's comments: The image of the vendor is interesting with his colourful product surrounding him. The image is sharp and has good depth-of-field. It is a fun and captivating scene.



Intermediate Open Digital - 2nd "Autumn in the City" by Kahsia Hartwell

Judge's comments: This gorgeous, impressionist image has a wonderful painterly look and earned a well deserved second place. A creative and effective use of what appears to be a multiple exposure technique. Nicely balanced image taken at a colourful time of year, with the lightest portion of the image directing our eye to the pathway and the strollers. Congratulations to the photographer for going beyond the norm.



Novice Open Digital - 2nd "Hibearnation" by Alison Poole

Judge's comments: A creative choice of subject and perspective. A well-exposed and sharp image. The black background really helps focus the viewer's eye on the subject.



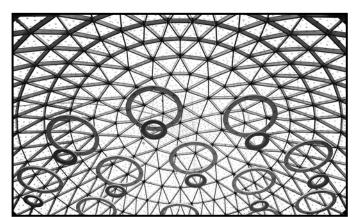
Novice Nature Digital - 2nd "Heron Striking a Pose" by Johanne-Pascale Audet

Judge's comments: The heron is in focus. Nice twisting of the frontal feathers. The heron is lighter than the background so one's eye is drawn to the bird.



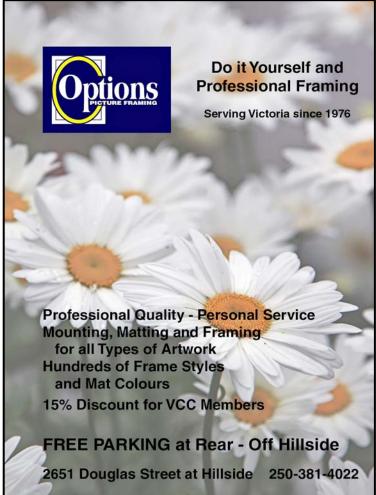
Novice Open Print - 1st "Paris" by Gwen Long

Judge's comments: Excellent tones, sharpness and exposure. Symmetrical composition works well for this subject, as does the long exposure to soften the clouds. Monochrome conversion with a slight vignette is a good choice here.



Novice Theme Digital - 1st "Round and Round" by Wendy Clay

Judge's comments: The background of geometric triangles with the circles hanging below makes for a fascinating image. Perspective is good. Focus and exposure look good. Having the circles disappear off the bottom gives a sense that they could go on forever outside the boundary of the image and we are just seeing the start. Good choice going with B&W to remove any distracting colours. Well done.



Member Profile: Lorna Shaw

The enjoyment and excitement of photography began in childhood with a Kodak Instamatic. I filled oodles of albums with mediocre pictures, mostly of sunrises, animals, family and friends.

When my son was born in 1995, I started using the year's best photos to make individualized calendars as Christmas presents. My photography progress can be clearly seen in the calendars collected over the years I've been doing them. Having a huge extended family, with plenty of reunions, has given me lots of images to choose from.

In 2007, the week's highlight was attending my son's soccer games, capturing the expressions of concentration and effort of the whole team. I would continue taking the team's photos for seven years, with two upgrades in Pentax cameras. What I love most about photography was developed here, capturing moments! I could identify soccer players by their stride and was thrilled with the expressions of concentration and effort. Sharing these with others was a bonus; my tag-line has become "Sharing Joy through Photography".



"Intense Effort"

This capturing became more evident with photography of dogs, especially my Doberman, Dezi. I would study dogs playing and was excited that the camera's results were often different to what we dog trainers thought was happening. Two dogs playing "too rough" could, at home on my computer, be seen as dogs with soft, open mouths, who never touched each other's skin with their teeth. It's precisely these moments that enthrall me, whether in dogs, people or landscapes where I "see" something that I didn't notice in real time.

A second thing I appreciate about photography is distraction. I can lose myself in this hobby. While working on the transition to manual settings, my son, at age 18, decided to go to Brazil for the soccer World Cup, by himself! I was sick with worry and used photography to get my mind off that worry. I took more photos in those six weeks than I took in the whole year prior.

My husband's prompting was instrumental in an upgrade to a full-frame Nikon D750 in January 2018. I took Mitch Stringer's Level 1 and 2 photography courses at Camosun College. Mitch's advice to print one 8 x 10" photograph each month, and hang it, has stuck with me, helping to increase my confidence. Getting together with my mom, Edie, for two photo trips in each of the past four years, has given me practice in new environments. "Happy Working Dogs" was taken while adventuring with her in Canmore, AB this January.



"Happy Working Dogs"

A year after I joined the VCC (Oct 2017) as an intermediate member, I used the competitions, a completely new experience, to print two 11x17s per month. I was elated to win several competitions. My competitive nature, however, had a tendency to wreck overall enjoyment and creativity. Some self-talk was necessary to get back on track to do photography for my own pleasure, and to print two 11x17s per month just because I liked them.

Another piece of advice I've taken to heart comes from Gregg Eligh: not to take photographs of great things, but rather to take great photographs of everyday things. This fits for me, as I like to study everyday things, flowers, dogs, people, movement, reflections and light.

I'm now learning about off-camera flash for portraiture and delving into post-processing, something I've strongly resisted. Post-processing often deviates from what I think photography is about, capturing what's really there, versus making something too perfect. I'm finding the balance with this.

I'm honoured to be part of this special club, with people who love to share their knowledge and friendship. As long as I continue to see improvement in my skills and get a thrill in capturing moments, this journey suits me just fine.

Urban Exploring

by Deb Thurlbeck

Victoria has a variety of alleys, heritage buildings and parks which are worth exploring but I am taking this a step beyond into Urban Exploring Photography (Urbex). It is finding man-made structures, old and abandoned buildings, or hidden components of the man-made environment, including parts of civilization that are normally unseen or off-limits, then exploring and documenting them with photographs. Before you go there are some important factors to keep in mind.

It is illegal to trespass. Anyone entering an abandoned building is trespassing and could be charged with Break and Enter, mischief or more. I am in no way suggesting you do any of the above.

Some of the locations that previously allowed access to photographers have been shuttered or require permission. Please be respectful of the owners and property. Also keep in mind that some of the public areas may be home to those who live outdoors and remember the importance of preserving civic courtesy.



"E&N"

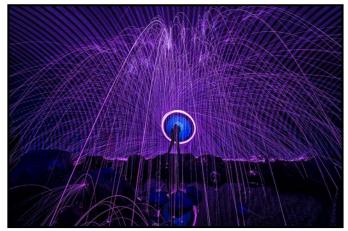
Always go with a friend and let someone know where you are going. Bring a good flashlight, your phone, food and water and medikit. Wear good boots, jacket and long pants as there may be broken glass or other hazards. Also bring gloves, hat and safety glasses for protection if needed. Please be very careful of where you step and always be aware of your surroundings.

Photo equipment should include a wide-angle lens and tripod as many locations are dark, dusty and in confined spaces. Bring a lens cloth and rain hood to protect your equipment. Remember to take a look around when you are leaving to be sure to pack out what you brought in.



"Warrior Princess"

Some of the parks in the area contain interesting treasures. Macaulay Point Battery is a historic gun emplacement and is now a park with bunkers, lookouts and defensive berms. At Tod Inlet you may find intriguing artifacts and crumbling remains of building foundations. Francis/King Regional Park, Mount Tzouhalem and Wallace Island Marine Provincial Park are among those that have abandoned vehicles.



"Purple Rain"

Further afield is the Canso Bomber crash site in the Tofino area. The RCAF Canso crashed shortly after takeoff on February 12, 1945. The plane remains on the side of a hill and is still fairly intact. The trail is marked through a muddy bog. The Whistler Train wreck site is an easy 1 km hike in. In this 1956 train derailment, seven boxcars were pushed off the tracks and left to artists.

Tunnels, under bridges, and culverts are all candidates for Urbex. If exploring underground, please keep in mind flowing water in storm drains and also the possibility of fumes or low oxygen levels.

Urban explorers and graffiti artists have turned a tunnel in Victoria into what is known colloquially as the "Hall of



Wonders." While these "wonders" in question are predominantly cobwebs, waterlogged trash, and the fear of encountering something living, the diverse gallery of graffiti is the main attraction. These tunnels have a whole time-line from the beginning of time all the way to the future (2096) with spray painted images and laminated descriptions of the images and their relevance.



"Urban Explorer"

Here are a few locations to consider when planning your outing. They can be found while walking on paths or trails, though all are not obvious without taking a closer look. These locations lend themselves to light painting techniques and model shoots.



"Smoke"

The Railyard on Esquimalt Road has an abundance of photo opportunities with its brick walls, old wood doors and turntable. With the right angle you can include boxcars and old shop buildings in the background. The area is undergoing redevelopment and, eventually, it will not be available as it is today.

"E&N" was shot at the Railyards then post-processed to fit a past era. Model: Ann Marie Hak.

"Warrior Princess" was shot on the E&N trail in Esquimalt using the Street Art as a backdrop. A group of street artists banded together to enhance the warehouses from the Wholesale Club into town. Model: Stephanie Lewis.

"Purple Rain" was captured in a corrugated steel tunnel with a 14 mm lens. The wide-angle lens, in combination with the light, enhances the shadows of the corrugation.

"Urban Explorer" shows what we can find when we look deeper into our neighbourhood. Under the Six Mile Bridge we find graffiti and a skate park. The skater community began this project about eight years ago and it has been a work in progress ever since.

"Smoke" was shot at the Butter Church (Duncan) where permission is now required to access the property. Model: Mars Romer.

"Defending the Tunnel" was taken in a costume/model shoot at MacAulay Point Park.Model:Justin Grievs.



"Defending The Tunnel"

I've given some thought to what urban exploration means to me. My focus continues to be both challenging myself with photo techniques and learning more about the area I live in by researching and visiting the more obscure, secret, and historic places in my area. Plus, I aspire to stay curious, keep exploring and strive to be creative.

Experimental Light Painting

by Vanessa MacDonald

The basic definition of light painting is by no means universally agreed upon but generally involves the use of a moving light source in a long exposure photograph. Most photographers will be familiar with the technique of waving a flashlight across parts of a darkened scene to help objects and features within the scene stand out and have more depth in low-light conditions. In this article I intend to go beyond this basic definition and will introduce "Experimental Light Painting" with images illustrating some of the more fun and rebellious trends and lighting effects that this genre has to offer.

Experimental Light Painting has been expanding in popularity over the last decade due, in large part, to online forums like The Light Painting World Alliance, where artists connect and share their work and techniques. In this genre, you will find photographers mixing different types of light sources and light painting techniques within a single image. I would describe it as excitingly innovative and unconventional, and known for its unapologetic use of colour and edgy design elements. It's a radical departure from mainstream photographic genres and has its own distinctive sense of aesthetics. Recently there has been such a huge proliferation of different lighting techniques and tools as well as an emphasis on DIY tool construction and experimentation that it's probably more apt to characterize this as a growing photography sub-culture.



"Steelwool Spin Selfie" (1)

Light painting techniques can generally be broken down into three main sub-categories: off-camera light painting, light writing or light graffiti, and kinetic light painting.

Off-Camera Light Painting: A dark scene is literally "painted" with an off-camera light source (usually a flash-light), which cannot be seen in the frame. The light source is either projected from outside of the frame, or

the light painter is inside the frame illuminating parts of the scene, concealing themselves with dark clothing and the light source with a black snoot or hood. For my own shoots I regularly use high-lumen tactical flashlights, with adjustable settings to control brightness. I make my own colour gel attachments to be able to paint the scene with different hues.



"Night Crawler" (2)

Light Writing or Light Graffiti: This is a light painting technique where light elements and designs are drawn directly in the camera frame. A familiar version of this might be writing your name with an LED light or sparkler. A range of tools can be used for light writing including: fire-staffs, light-sabres ("tubes"), LED rope rigs, steel-wool, plexiglass light blades, orb tools (rope with LED lights attached to one end), Electro-luminescent (EL) wire (for glowing smoke), fibre-optic brushes, string lights, lasers, fireworks, and various home-made lighting tools.



"Light Writing with Tubes" (3)

"Light Writing with Tubes" shows an example of light writing using a technique pioneered by Eric Paré. I used a combination of a white T12 tube guard with two tactical lights inserted in it and one light on continuous strobe (for the halo), a sparkler taped to the tube, and a flash with a warming gel that was set to "second-curtain".

Kinetic Light Painting: In this technique the lights in the scene stay still but the camera is moved to create different shapes and designs. Camera rotation, zoompulls and ICM (where you move your camera with the shutter open to create streaks or light shapes) are examples of this. Combined with other techniques this can be a great way to achieve an altered reality effect.



"Backlit Smoke and Camera Rotation" (4)

Pre-scouting Your Locations: One of the most difficult aspects of light painting is composing your shots in near or total darkness. Getting out to your locations and coming up with concepts and compositions ahead of time will help yield better results.

Safety: Read up on safety for the techniques you are using Come prepared with safety equipment and safety instructions for all participants in the shoot, and carefully consider the hazards at a given location. Fire sources in particular are not to be trifled with; you don't want to accidentally burn people or start fires.

Collaboration: These types of shoots often involve the coordination of a small team of people and one or more models who can pose in the shot or help to do the lighting effects and stunts. It's a good idea to experiment with your tools and the effects they produce before the shoot day so that you can direct team members to use them safely and effectively.

Camera Settings and Equipment: A shutter remote is better than a cable release, as it allows you to move around freely or go directly into the frame while the shutter is open. Bulb Mode is the most common manual set-



"Spin with LED Rope Rig" (5)

ting used at it allows you to open and close your shutter remotely. Your aperture will depend on what type of light sources you are using. If fire or steel wool, the starting aperture needs to be in the f7-f11 range with ISO 100. Going any wider or bumping the ISO higher may result in the fire features looking blown out. For other light sources that aren't as bright, my baseline settings are f7 and ISO 320. From there I do a test shot and make adjustments to lighting, ISO and aperture accordingly.



"Fire Staff, Flash and Gelled Tactical Light" (6)

Focusing in the Dark: If your location does not have any lit features to focus on, you will need to shine a flashlight on a target area to get your focus sharp. There are several ways to focus: switching to Live View mode, zooming in to the lit area and using your manual focusing ring; setting your focus to infinity (although the easiest way, it is not always reliable and some lenses do not have this option); using Autofocus and then locking it into manual.



"Lighting a Textured Foreground" (7)

Light Direction: This is really important to think about and may require a lot of experimentation. Having light coming from different directions, not just straight on, will probably give a better sense of depth and texture. Side lighting tends to emphasize textures, like a brick or stone wall, wood, or foreground features like rocks and sand.

Multiple Do-overs and Experimentation: Light Painting is not an exact art form and you may have to keep repeating variations of the same idea until you find the right formula. Sometimes the lighting is not even, your settings over/underexposed, or the photographer and/ or participants make mistakes. "Instant perfect" results are rare; it usually requires a lot of patience and problem solving on the fly to get to a good image.



"Steelwool and Three Gelled Light Sources" (8)

Credit Sharing: Given the collaborative nature of these shoots, credit sharing is very important when displaying images after the fact. This is not like other types of photography where the mentality of, "You pressed the shutter, you take full credit" applies. Acknowledging all the participants who had an active role in creating the final image is common courtesy in Light Painting communities. If you participate in or lead a shoot, it's im-



"LED Rope Rig, Sparkler and Blue String Lights" (9) portant to consider and acknowledge who came up with the concept/vision, who was directing and possessed technical knowledge of execution, who was doing the lighting, stunts and modelling, etc.



"Backlit Man with Smoke Bombs" (10)

To conclude, if your curiosity is piqued and you'd like to see a good range of what this photography subculture has to offer beyond some of the images I've presented here, I recommend visiting some of the popular Instagram hubs such as *Steelwoollandmarks, Lit By Hand, Night Creators, Light Junkies, Tube Tribe, Windy City Spinners, Spin Godz, Nightcrafters_Art,* etc. or various Flickr groups such as *Light Junkies, DazzlePix LIGHT, Light Painting Community.* The sheer range of creativity and inventiveness is astounding, so it's worth checking out.

Collaborators: Justin Grieves (2, 3, 4, 5, 10), Ann-Marie Hak (2, 3, 4, 5, 10), Deb Thurlbeck (2, 3, 4, 5, 10), Mary-Lee Sampson (1, 6), Melody Harrison (6), Mars Romer (8, 9), Paige Whitehead (6, 7), Derek Lawrence (8).

VCC's 75th Anniversary

Following its formation by the merger of its predecessor clubs, the Civil Service Camera Club and the Victoria Photographic Association in 1944, the Club was very active in several areas. In 1945, the Club sponsored its first International Photographic Salon, the fourth to be held at the Empress Hotel in Victoria. Salons continued to be held annually until the final one at the Art Gallery of Greater Victoria in 1966.

In 1946 the Club's activities were expanded to include regular field trips. Monthly competitions for members' images were held, with the Victoria Daily Times and the Daily Colonist newspapers publishing the winning photographs. June 1946 also saw the start of the Club's newsletter, one typewritten legal page, under the editorship of Dr. Lewis Clark, author and photographer of "Wild Flowers of British Columbia." There is a copy in the Club's archives and on the website. In October of that year the newsletter was named "*Close-Up*" and continued under the editorship of Gar Dixon.

Initially a broadsheet, *Close-Up* soon changed to a halfpage format. In the fall of 2012, a colour cover was introduced, and in January, 2013 it was reformatted as a full-page magazine with a colour cover and centrefold. Typewritten changed to "cut and paste". Advertising paid for its printing. It is now produced digitally with both printed and on-line versions. Entirely written and produced by Club members, *Close-Up* has won a number of awards in the PSA (Photographic Society of America) annual newsletter competition starting with a first place in 1951, and again in 1989, 1992, and 2002. We achieved first place in 2018 and 2019 after several years of third places and Honourable Mentions.

Originally, all photographs produced by club members were black-and-white images. Colour slides were accepted in PSA-sponsored salons in 1949, however, it wasn't until 1957 that the Club accepted colour in competitions, with the first colour photography clinic being offered that year. At this time the first slide competitions were also held. Colour prints did not enter our competitions until the late 1970s.

In 1980, the Club introduced the public "Photographers in Action" presentation, replacing the Photographic Salons. This became an annual display of Club members' slide shows and prints along with instruction in the art of photography. It was discontinued in 2008. In 1994, the Club published a book and held a Print Show for its 50th anniversary. For its 70th anniversary in 2014 it published another book featuring members' images.

In 2002, the Club's website was launched. Under the management of a small group of volunteers, the website evolved and expanded so that today it is the focus of the Club's communication of current events for both members and the public. The website has won awards in the annual Photographic Society of America (PSA) competition in the large club category and placed first in 2013 and 2016 with several awards in other years.

The Club entered the digital world in 2006 with its first laptop and projector making it possible for members to show their digital images at Club meetings. In 2007 members began offering workshops to assist others in their endeavours and around the same time, the Club's field trip offerings expanded from one or two Saturdays a month to three or four weekend events each month. Tuesday morning theme shoots were added later.

In 2009, the Club entered the Club Entry section of the Nature's Best Nature Photography competition sponsored by Nature's Best magazine and the Smithsonian Institution. We were awarded 1st place and our images were included in a display at the Smithsonian Institution in Washington, DC.

Club meetings have changed over the decades to adapt to new technologies and our members' changing interests. Instead of separate meetings (clinics) for prints and slides, the Club now hosts separate meetings for competitions, a presentation by a talented artist or photographer, and members' night, when Club members are encouraged to show their work or present a technical subject.

In the early 2010s, the Club began focusing more on the artistic content of members' work. Local artists who are not necessarily photographers are now invited to make presentations to the Club and are also competition judges. The results have been illuminating. Members are now more aware of what it takes to make an image with the "wow" factor that draws one's immediate attention. Members are eager to rise to the challenge of creative photography that goes beyond mere documentation.

In 2010, the Club started holding Print Shows. The first was combined with a public presentation by Andre Gallant. These have been held several times and are a confirmation of our place in Victoria's artistic community. In 2012 we started Special Interest Groups (SIGs) for members interested in specific aspects of photography. The Club has two groups that meet monthly to focus on their area of interest, the Creative and Nature SIGs.

The Victoria Camera Club is proud of its history and achievements. It will be interesting to see what the next 75 years will bring to photography.

How I Did It

Small World

by Doug Neal

The Small World image was inspired after seeing "Little Planet" images on the Internet. After some research and initial attempts, I decided to take things one step further.



First, I made a 360° spherical panorama using a 28 mm lens, vertical orientation and a tripod with degree markings to be as consistent as possible. These were stitched together using the Hugin software (free). This image took a fair bit of manual tweaking to get a good stitch, especially with the power lines and so much blue sky.

Using Hugin I selected "Stereographic" projection and moved the center point of the image to be looking straight down and voila! A planet was born. I then made a second image by moving the center to point straight up and zooming in a bit. The planet turned inwards on itself with the church and trees pointing towards the center.

I opened them in my photo editor, horizontally flipped the inward image and overlaid it on top of the planet. I then erased all but the center area of the inward image allowing the background planet layer to come through. Careful erasing, rotation, alignment, and minor touch-up of the inward image allowed it to blend well and create the hubcap-like mirror effect in the middle of the scene with the outer and inward objects aligned.

For the most effective "Little Planet", it's best to have a few tall objects whose tops are 40° to 60° above the horizon. Being too close with high angles may be overly dramatic while objects at lesser angles can quickly disappear into the distance.

Seagull with Clam

by Jim Fowler

This seagull had quite a mouthful! Two elements allowed me to capture this photo: patience and a long lens. Sometimes you have the opportunity to observe wildlife going about their business and if you have a long lens, you can often watch them for a while without disturbing them.

In this case, this industrious fellow had dived into Esquimalt Lagoon, retrieved a clam from the lagoon bed and had swum ashore with it. It was amusing because the extra weight tipped his mouth almost to the water line, with his aft quarters bobbing high. He looked about to drown himself. A little weight makes a big difference when you are very light. Two or three times he dropped the clam on the shore, picking it up again. Whether he was fumbling it or wanted just the right grip, I do not know.

The lens was a Nikon FX 200 - 500 mm f5.6, mounted on a DX D7200 body. Zoomed to 480 mm, it was the equivalent of 720 mm on the DX body. It was a bright day with full sun so I was able to keep my ISO down to its basic 100, even with a shutter speed of 1/800th of a second. I used the wide-open aperture of f5.6.



The combination of the long lens, together with the wide aperture, blurred the background, allowing me to keep the viewers' attention on the subject. I did not want the shore or the water behind to draw attention. The original shot included the whole bird, but I cropped it down to just the essentials: head, neck and clam.

With the clam gripped securely in his beak, he flew up about six metres, and dropped the clam onto the rocky shore. Three minutes after I captured this shot, my industrious little friend was enjoying his fresh clam lunch on the beach.

Shoots Around Victoria

Beacon Hill Park

by Christine Hutchins Gallagher

Beacon Hill Park is a city-centre, 80-hectare area filled with a range of photographic opportunities from landscapes and flowers to wildlife and historic landmarks. The land was set aside by Governor James Douglas in 1858 as a protected area and the park was formed in 1882 using John Blair's traditional English garden designs.

The park has cultural and archaeological significance to the Lekwungen People (Songhees Nation) who cultivated camas and other native plants for food and trade. In the spring you can find a spectacular field of blue camas on the pathway heading towards Finlayson Point and on the southeast slope of the hill a field of daffodils.



"Blue Camas"

The world's fourth tallest totem pole, carved by Kwakwaka'wakn craftsman Mungo Martin, was erected in 1956. You will often see a Bald eagle perched on it surveying its territory. At the intersection of Dallas Road and Douglas Street is the "Mile Zero" monument, the western terminus of the Trans-Canada Highway, and the Terry Fox Statue.

A zoo was established in the park in 1890 with a "bear pit" and eventually a cage for the first captive white Kermode bear called Ursus (1924 to 1948). The zoo operated in various states until 1973 when it was re-established as the Beacon Hill Children's Farm. Peacocks wander the grounds around and inside the petting zoo. During the mating season the males display their multi-coloured tail feathers in beautiful fans while the females play hard to get. For fun go inside the zoo and photograph the baby goats.



"Cooper's Hawk"

As you walk the pathways you will pass native Garry oaks, Douglas firs, water parks, multiple ponds, stone bridges and flower beds. The park is also home to many ducks and if you want to practice your "bird-inflight" shots bring some seeds and grains and you will have wigeons and mallards flying towards you.

There is a nesting colony of Great Blue Herons in the treetops by the bandstand. You will know you are in the right place because of the smell and squawking of the fledglings. The adults can be seen standing motionless by the sides of Goodacre Lake waiting for prey to feed the hungry youngsters.

As you head south-east along the path towards the Cook Street and Dallas Road park entrance, you might be lucky enough to see and photograph Cooper's hawks or a family of Barred owls. This is one of their favourite nesting and feeding areas. You will need a low-light capable camera and a fairly fast lens as it is quite dark in the dense forest.



"Papa Barn Owl"

Matting and Framing Images

by Giuseppe Buccoliero

How to frame one's personal work can often be subjective and challenging. Here are some general guidelines that are helpful to know and follow so that your images are framed and ready to hang in your home or at an art show.

Mat and Frame Sizing: When you take a print or painting to a picture-framing store or if you do it yourself, the framing is usually custom sized to your image's dimensions. For example, a 16" x 24" image will require at least a 3" border and some people prefer even 4" borders all round with a suggested heavier bottom of $\frac{1}{2}$ " or a full inch to compensate for an optical illusion due to the angle of view. (The bottom border appears to be narrower than the top.)

So, a finished horizontal picture that is 16" x 24" requires a 22" x 30" frame because of the added 3" mat around, or $22\frac{1}{2}$ " x 30" if we add an extra $\frac{1}{2}$ inch on the bottom. Some people prefer the same mat size all around or very unusual dimensions like 4" top and bottom and 2" on the sides. If a double mat (two mats with a smaller opening in the back mat) is used, the top mat opening is usually offset by 1/8" up to 1/4" to allow the inner mat to show. One also has to keep in mind the complete size of the framed piece to avoid issues such as not enough space for it to look good on the wall.

If you have an existing frame or a required frame size for a show, the mat has to be sized to properly fit the image and frame. This option is not always successful from a visual perspective. A print that is too big or, has a different aspect ratio to the frame, will require an unbalanced mat size. For example, for a 16" x 20" size frame a good print size would be 12" x 16" with a 2" border, 11" x 15" with a $2\frac{1}{2}$ " border, or 10" x 14" with 3" border all round. But if an existing vertical print is 13" x 15" the border size to fit into a 16" x 20" frame will be only $1\frac{1}{2}$ " for the left and right and $2\frac{1}{2}$ " on the top and bottom, This would create an unpleasant look.

Images matted with double, or occasionally triple mats, will often stand out and have better overall harmony and depth because of the two colours (mat surface and edge colour) and the extra mat thickness.

Mat Quality and Colour Choice: Most professional framers will favour an acid-free conservation quality mat board that lasts a very long time, won't discolour and will protect your valuable artwork. They come in hundreds

of colours and a couple of thicknesses, with a 4-ply generally used. Choosing the best mat colour that will enhance the image can be a bit challenging but rewarding.

There are several ways to pick a colour for the mat. A few guidelines are: choose based on the dominant colours in the image, choose contrasting colours, opt for a neutral colour, black or white, or choose a specific colour to go along with a theme. For some gallery shows you might be required to supply only a black or white mat to keep the show looking consistent, but other galleries will allow any colours that work best for the image.

Frames: The choice of frame styles and colours is almost endless! Styles vary from narrow and plain to wide and ornate. Colours range from black, white, and silver to almost any colour of the rainbow. The style and colour of the frame should complement the image. However, we regularly see some exceptions, for example, where large ornate frames are used for quite small abstract artwork.

A frame's front width can vary greatly from ¼" to 5" and more. Frame depths are more standardized and often around 1-2". For gallery shows you may be required to use a specific frame style and colour or may have the freedom to choose your own frame.

Artwork on paper or similar bases is usually framed behind glass with a mat but canvas is often mounted on a stretcher frame with the canvas wrapped around the edge. This can be hung "as is" or can be placed in a floating frame which has a gap between the artwork and the frame and is not glazed.

For glazed work an important function of the mat is to keep the artwork separate from the glass so that it doesn't stick and become damaged. Unglazed work is often laminated with a protective material to enable gentle cleaning and protect the surface from damage.

Black and white images are usually mounted in black, white or silver frames. For colour images there are literally thousands of frames available. The staff at a good framing store can help you choose one that is ideal for your image.

Backing and Glazing Options: For original artwork and valuable prints, it is suggested to use archival backing, archival hinges and UV filtering glass or museum glass. For any other pieces, it is up to your individual discretion or cost considerations.

Happy framing!

The Science of ISO

by Richard James

It is important to understand that the camera sensor has a fixed ability to record light that is not changed by altering the ISO setting. When setting the aperture and shutter speed, at the base ISO, our objective is to make as much use of the sensitivity range of the sensor as possible to achieve a "correctly exposed" image. This means that the highlights are just not overexposed which maximizes the information recorded at both the high and the low end of the sensor's sensitivity range. If we cannot get a correctly exposed image with our desired aperture and shutter speed settings, we can change the ISO setting to amplify the recorded signal to increase its brightness.

There are many design considerations and parameters involved so what follows is necessarily a very simplified explanation.

Noise: All electronic devices produce "noise" which can be regarded as an unwanted signal that is not part of the information to be recorded. In photography this noise appears as coloured or brighter pixels distributed through the image. The signal to noise (S/N) ratio shows how noisy the image is. The amount of noise is a function of the sensor design but also increases with sensor temperature. So, if you are using Live View (constant exposure) on a very hot day you may record a slightly higher noise level.

A useful way of considering how a sensor collects light and the impact of noise on that signal is to consider each pixel as a small bucket. The information in the bottom of this bucket is the inherent noise of the system. If the bucket collects a small amount of light, then the S/N ratio will be quite low and pixels in this area may exhibit noise.

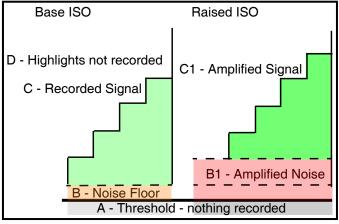
If the bucket is nearly full, the S/N ratio is much higher, and noise may not be apparent. But pixels have a limited capacity for light that you do not want to exceed, or the bucket will overflow, and you will have a blown-out highlight pixel.

If we increase the ISO setting both the usable signal and the noise are amplified. So, if you have very little signal the noise will be amplified and become more visible. If you have a lot of signal (the bucket is nearly full) you will still have a cleaner signal but run the risk of amplifying the signal so much that it cannot be recorded properly in the raw file (overexposure).

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Dynamic Range: When we increase the ISO setting we are endeavouring to produce a brighter image that is just not overexposed in the highlights. This means that, with the aperture and shutter speed settings that we are using, there is not enough light reaching the sensor to properly record the image. We are thus losing information at both the dark and the bright end of the image. At the dark end nothing is being recorded and at the bright end there is unused pixel capacity, so the brighter parts of the image are recorded at a darker level with less tonal separation.

When we amplify the signal we raise the whole range of the signal by the same factor (for example, two times if we double the ISO). Since the sensor was not able to record across its whole range we have reduced the potential dynamic range of the image and although it is brighter overall, the range between the brightest and the darkest possible areas is not as high as it should be, hence a reduced dynamic range which impacts the overall quality of the image.



"Base vs. Raised ISO"

As illustrated on the left side of this graphic, a sensor has a minimum threshold illumination level below which no signal is recorded (A). Above that is an area where the predominant signal is noise (B). Then there is an area with a recorded useful signal (C). Above this is an area where there was no high-level illumination that could be recorded at the top of the sensitivity range (D). This image is essentially underexposed.

On the right side of the graphic the signal has been amplified by increasing the ISO setting. Below the threshold (A) nothing was recorded so nothing can be amplified. The noise level (B1) is also amplified as is the useful signal (C1). The result of this amplification is that the image is brighter but has increased noise levels in the darker areas, and the potential dynamic range is reduced as nothing was recorded in the shadows or highlights, although they are now brighter.

Beginners' Corner: Lenses

by Josée Ménard

Manufacturers' advertisements seem to show an infinite number of lenses for their cameras. How do you choose appropriate lenses for your needs? You can start to narrow it down by making selective choices such as macro, landscape (wide-angle), wildlife (telephoto) or portrait, prime or zoom, and so on. This month, I will discuss lens type abbreviations, key lens types, focal lengths, and points to consider in your choice. Understanding more about lenses adds a solid foundation to your growth as a photographer.

The selected aperture sets the lens to admit the right quantity of light to create the perfect exposure. The optical quality of the lens, as a conductor of light, will have a direct impact on your final image. As expected, pro-quality lenses, being more expensive, with often wider aperture, better quality optics, etc., provide better data for the sensor. The better-designed glass elements deliver a more precise light beam with less distortion at the edges, chromatic and geometric aberrations, etc.

Camera manufacturers will create an array of lenses that fit their cameras like a glove. Technically, it makes sense to look at these lenses first. Just as with other industries, there are third-party brands such as Sigma and Tamron that have mastered the art of producing quality lenses compatible with multiple camera bodies. Overall, many of their lenses are excellent and more affordable than the camera makers lenses..

DSLR full-frame cameras require full-frame lenses (FX, EF, etc.) to cover the full image. Crop sensor cameras (such as APS-C, m4/3, etc.) can use both full-frame or crop-mount lenses (DX, EF-S, etc.). Mirrorless cameras require their own mounts but may also be able to use full-frame lenses with an adapter. Each lens comes with its own descriptor engraved on the barrel's top edge or side such as 24-70 mm, f4-6.3, Ø72. This is more consistent across brands while lens-feature abbreviations vary with the brand. The first numbers (24-70 mm) are the focal length. The second grouping describes the range of the maximum aperture (f4-6.3). The filter diameter is last (Ø72).

The rest of the lens barrel is busy with rings to focus manually and, for zoom lenses, to adjust the focal length. The numerical scales assist with setting the focal length, aperture and sometimes, depth-of-field (DOF).

The switches may allow you to set image stabilization

as well as lock the barrel from extending freely during transport. Heavier lenses may have a tripod bracket to take the weight of the lens off the camera mount thus protecting it and securing its seal where they join. More compact lenses may combine options for convenience.

Prime lenses have a fixed focal length, such as 50 or 100 mm. They are often lighter and produce sharper images. Zoom lenses have a variable focal length such as 70-300 mm. These tend to be heavier due to the higher number of glass elements needed. Aperture range-wise, the first number refers to the widest aperture at the shortest focal length say f4 at 70 mm and the maximum length's aperture is the last number.

Different types of photography require different lenses. Fisheyes (such as 8-15 mm) give a circular look to landscapes and cityscapes. Ultra-wide-angle lenses (14-24 mm) add drama and perspective to landscapes. "Normal" primes (50 or 85 mm) will usually be used for portraits, street or general shots, although some photographers prefer a zoom (24-70 mm). Macros, usually primes, capture small subjects in detail. Wildlife and sports use 70-300 mm or more to bring distant subjects closer.

Here is an image I took overlooking the Cascades. I came across this valley view and used my 70-300 mm lens to bring the distant landscape closer in.



"Cascades"

When selecting lenses consider the maximum aperture for low-light work and how fast the lens focuses and maintains vibration reduction to capture wildlife in action. Take the time to analyze what type of photography you enjoy and what your needs are in terms of weight carrying, hand-held situations, weatherproofing, and so on. Read independent reviews. No matter the options and your desires, stay within your budget. Consider secondhand or trade-ins. Rent to try out a lens or for occasional shoots. Photographers grow to have their favourites for their different needs and yes, wishes too.



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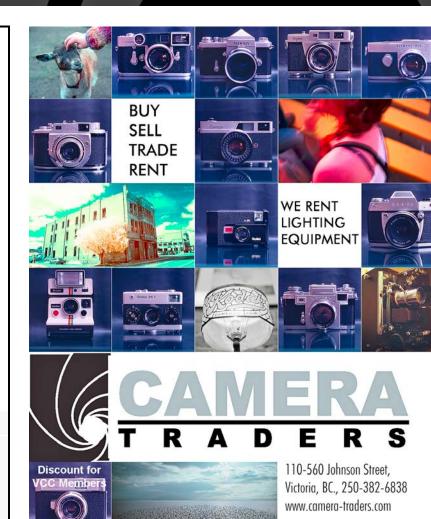
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