



Camera Club of Oak Ridge Newsletter for June 2017

Next meeting: Tuesday June 13th, 2017 at Roane State Community College (Oak Ridge campus), Room A-111. Come at 7:00 pm to chat.

Annual Election of Club Officers

The slate of nominees presented by the nomination committee (Lee Smalley (chair), Dennis Clark, and Ann Barber) at the **May 9th club meeting** was as follows:

President:	Yvonne Dalschen	prex@oakridgecameraclub.org
VP 1 - Program chair:	Jill Vandagriff	progvp@oakridgecameraclub.org
VP 2 - Competition chair:	Jim Parks/Pat Postma	compvp@oakridgecameraclub.org
Secretary-Treasurer:	Dawn Isbell	sec-treas@oakridgecameraclub.org

No other nominations from the floor were accepted at that time, so these nominees were all accepted without a formal vote. Transfer of responsibilities will occur at the conclusion of the June meeting.

Obituary



We are sad to announce that long time CCOR member Joel Buchanan passed away suddenly on May 7 in Nashville.

Joel and his wife Jane Gray Buchanan are one of the winningest couples in the camera club. They were club presidents during the transition time in the early 2000s and kept the club alive. After moving to Nashville they were still following the club news and have only recently helped with the club history project.

Salon News

Due to the healthy finances of the club, the CCOR board approved a recommendation from the treasurer to include the entrance fee to the 2017 Salon as one of the CCOR member benefits. Thanks to Doug Hubbard for his suggestion. **The entrance fee is therefore FREE to CCOR members and students, and \$20 for non-members.** This entry fee includes all entries from each person. *We are hoping to be able to announce the salon dates at the June club meeting.*

American Museum of Science and Energy 2016 Salon Prints Display

From Kathleen at the American Museum of Science and Energy (ASME): some of the most vibrant print images from the 2016 CCOR Salon are now on display in AMSE's auditorium. Bright colors and living organisms are featured, but some technology-related photos are also still in the mix. Feel free to stop by and take a look!

The **Visitor Services Manager**, Sarah McAuliffe sarah@oakridgevisitor.com, at **Explore Oak Ridge** is redecorating the welcome center at the Chamber of Commerce, and she is urgently looking for ~15 prints up to 16" x 20" in size from our CCOR members that encompass "Life in Oak Ridge". She would like to show visitors what there is to do and show Oak Ridge off with some beautiful pictures of the outdoors, science, history and art in Oak Ridge. They will provide the frames. Please contact Sarah or prex@oakridgecameraclub.org for additional details.

Facebook banner competition - May Photo Challenge!

Lee Smalley won the last Facebook banner challenge and has selected a new theme of **FOG** for May. Lee has started us off by posting his images, and please join the challenge by adding up to two images each in response. Winner will be decided by the number of likes, and will win the coveted Facebook banner position! This challenge will be open until May 31st. Happy Fogging! Please limit yourself to one or two entries per member.

Upcoming club meetings:

The **June 13th meeting** will feature a bi-monthly competition on "**Construction**": *Images of new construction. Consider the geometry of the structure, the workers and machinery doing the work; the texture of materials, the piles of junk, the dust and the puddles. Obey all construction site rules and regulations, and photograph only when it is safe to do so.* Please e-mail up to 3 digital entries per member to compvp@oakridgecameraclub.org by **June 9th**. Please resize your jpg format, sRGB images to fit within the resolution **1920 pixels horizontal by 1080 pixels vertical** of the projector. You may

use any aspect ratio within this area. Please remove any star ratings and watermarks and include your name in the metadata. Digital image files should be named as follows: Your Last name, followed by first name plus a short title for the image, e.g., Duck, Donald Rain on the Lake.jpg. *By submitting images to the competition, the entrant agrees that the images may be used by the CCOR for promotional use, including, but not limited to, the CCOR website, the CCOR monthly newsletter, and on CCOR Facebook. If an image is used by the CCOR for promotional use, the photographer will be acknowledged for their image.*

Pat Postma will announce the schedule of upcoming monthly competitions, with a hand out, at the August **Meet & Greet** meeting. For the August 8th **Meet & Greet** meeting, we would like all CCOR members to please start gathering together 4 images that were taken during the past year, a picture of the photographer, and short statement of photographic interests, for submission between June 16th and August 4th to compvp@oakridgecameraclub.org.

The treasurer's report of the CCOR finances for the last fiscal year will also be presented at this meeting in accordance with the CCOR constitution.



Our member's 10 min. presentation at the June meeting will feature the amazing photography of Lee Smalley. If you have taken some interesting pictures and would like to present a 5 to 10 min. maximum slideshow or movie at an upcoming meeting, please contact progvp@oakridgecameraclub.org. Our wildflower expert Kris Light will present the next 10 min. member slideshow.

Past events:



The **May 9th club meeting** featured a very comprehensive presentation on **Street Photography** by David Rudd - many thanks to David for stepping in at the last moment. Some of his great tips on street photography were - be prepared, take your time, practice, wait for expression, emotion, stay candid, and stay close. Below are some of wonderful examples from his presentation.

(photo courtesy Yvonne Dalschen)



Although the club has introduced several new features in these newsletters, at the club meetings, and held various workshops over the last year, the board would like to increase the involvement of our members even further. We would particularly like to address items of interest to all our new members and those who would like to bring their camera expertise to new levels. So if you have any requests for workshops on any photography related subject, please send a brief e-mail to our program VP at progvp@oakridgecameraclub.org.

So in that vein, I hereby introduce another NEW FEATURE:

Member's tip of the month "Introduction to IR Photography" from Dallas J. Lombard



Picture of Calhouns with the boat dock and the railway bridge on Melton Lake (River) taken by Dallas Lombard with a Canon 80D with the 18-55 mm kit lens and a Hoya R72 infrared filter - 65 s exposure at f/11.

Infrared Photography (IR) captures light that is mostly invisible to the human eye in wavelengths of 780 nm and higher. IR reflects differently than visible light, and the effects can be quite surreal and stunning. Unlike shooting landscapes, the best time of day to capture IR images is mid-day on a bright sunny day. Areas with lots of green foliage, blue skies with white clouds, and bodies of water all photograph well in IR. Also, you will need to be shooting in RAW for this technique to be successful.

In this short article, I will try to provide you with some basics, along with links to the YouTube videos where I learned the techniques I will discuss. As in all types of photography, there is no one way to do things. I will describe the processes I used.

Equipment: More than likely, you already own most of the equipment you will need to capture IR images. Most modern digital SLRs will work well. A good, sturdy tripod and a cable release are also essential. In addition, you will need a filter designed to block most of the visible light and only allow light in the IR wavelengths to strike the sensor in your camera. I used the *Hoya R72 Infrared filter* to capture these images. Another option is to have a camera converted for exclusive IR photography. This can be costly, and is permanent, so I suggest trying the filter first to see if IR photography is something you enjoy.

Capturing the Image: The first step I recommend is setting a custom white balance, if your camera allows it. You will want to capture an image of green grass in direct sunlight with the R72 filter attached to your lens and set this as your custom white balance (check your camera's manual to learn how to do this). Keep in mind that an IR filter blocks out almost all visible light and is the equivalent of a 13 stop ND filter. Therefore, your exposure will be between 15 and 30 seconds at f/11. For this step, focusing and sharpness are not important. In fact, this works better if you gently move the camera in circles during the exposure. You are looking for an evenly exposed pink to red image with no detail. Use your histogram and try for a solid, middle of the graph exposure.

Next, with the filter off of your lens, compose your image. Once you have the composition you like, lock your focus by turning off AF and IS/VR/OS, if your lens has it. Take your meter reading in the manual mode and make note of it. Carefully mount the filter to your lens, taking care not to accidentally adjust your focus and composition. As mentioned earlier, the R72 filter has a filter factor of 13 stops. I use an (Android and iPhone) app called *ND Filter Timer* to calculate the time of my adjusted exposure. In the images above, I metered 1/125 of a second at f/11. My final exposure was 65s at f/11. Don't be alarmed that your images have an unusual color cast, this will be corrected in post.

Processing the image: I used both Lightroom and Photoshop to process my images. When you import your images into Lightroom, be sure to convert them to DNG. For Lightroom to correctly color balance your images, you will need to

create a custom camera profile using DNG Profile Editor by Adobe. This is free to download. You can find instructions here: <https://www.youtube.com/watch?v=ke8If0LXWQQ>.

Once you have imported your images and decided which ones you use, you will need to choose the camera profile created and apply it to your image. Use the color balance adjustment in Lightroom to make your image have a bronze colored sky and blue foliage. Next, right click on your image and choose, Edit in Photoshop.

Now that the image is in Photoshop, you will need to swap the red and blue channels. This video will show you how: https://www.youtube.com/watch?v=PseqRWv_nms. After the channels have been swapped, your image should now have cyan colored skies and reddish foliage. Use the color adjuster to adjust the skies to a color blue that appeals to you and de-saturate the reds so that the foliage turns white. Again, this is my vision, feel free to let your imagination run wild with the colors. This is the magic of IR photography, you create the world as you want to see it!

Finally, save the image so that it moves back into Lightroom. Here I recommend that you adjust your exposure and contrast to your liking. IR images are quite flat out of camera, and they will usually need some contrast added. I also like to bump up the clarity just a bit.

And that's it, but this is only the beginning. There is so much more you can do with IR photography and I encourage you to experiment. I have included links to some of my favorite videos that will help you find your own, special IR vision. Links to videos:

- <https://www.youtube.com/watch?v=ke8If0LXWQQ>
- <https://www.youtube.com/watch?v=9poH5FQx6Cc>
- <https://www.youtube.com/watch?v=WUtTDvESgnc&t=648s>
- https://www.youtube.com/watch?v=P_dQJDZ7CKs

Many thanks to Dallas Lombard. If you would like to share a tip, please contact Sec-Treas@oakridgecameraclub.org

Some additional references:

- Introduction to IR photography: picturecorrect.com/tips/infrared-photography-tips-on-how-to-get-started/ and wrotniak.net/photo/infrared/index.html
- IR camera conversion: <https://www.lifepixel.com/introduction>, kolarivision.com/, etc.

Upcoming community events and photo opportunities:



The Secret City Festival: June 2 -10 – note the extended time. There will be a **Celebrate our Heros** tribute to all the men and women who protect us on June 2nd and 3rd including 2 WWII re-enactments on Saturday June 3rd at 10 AM and 4 PM and several performances of the Freedom Bells. See celebrateoakridge.org/secretcityfestival for details of all the events and entertainment. Please contact Rob Welton rfwelton@gmail.com, if you are interested in photographing these events.

- On Friday, June 2 at 6pm., at Melton Lake there will be the first of what is intended to be an annual "**Flatwater Festival**". Bring your camera and meet at Melton Lake Park, look for the boat building area. This is not part of the Secret City Festival but sponsored by the 3 Rotary Clubs in Oak Ridge. Events are entertainment by three local bands, a corn hole tournament, bounce houses for the youngsters, delicious treats from local and regional food trucks, a variety of beverages for young and old, and our signature event of building your own boat and sailing or paddling it from materials provided.
- List of upcoming classroom events at the Knoxville Community Darkroom (a non-profit organization) at **5117 Homberg Drive, Knoxville, Tennessee 37919**, see theknoxvillecommunitydarkroom.org/eventsclasses/ for details
- Other events may be found throughout the month on our Facebook page www.facebook.com/groups/cameraclubOR/

Total Solar Eclipse: August 21st. See eclipse2017.nasa.gov for details. **NEVER LOOK DIRECTLY AT THE SUN**

I am putting these tips for photographing the eclipse out this early so you have time to prepare, practice using the camera in Manual (M) Mode, and obtain all the items that you will need before they get difficult to get and the prices go up. In addition to your camera (preferably one with a tiltable LCD screen), lens, and STURDY tripod and head, you will need a solar filter, solar glasses for everyone in your party (I recommend the wrap around plastic frame variety (e.g., Rainbow Symphony part #07910 not the ones with paper frames), a cable release, and a red flashlight. A folding chair would also be handy, as the sun will be fairly high up.

From first contact (when the moon starts to obscure the sun) to fourth contact (when the sun is no longer obscured by the moon) should take about two and a half hours. However, totality (second to third contact) will be a maximum of 2 mins 40.2 s. Note that Oak Ridge is right on the edge of the grey-shaded region of totality (so you may get no or at best 30 s of totality) and Knoxville is well outside this region so you will only get a partial eclipse. Your best option is to move a few miles nearer the centre of the grey band region below, where totality is the longest. vimeo.com/187505855



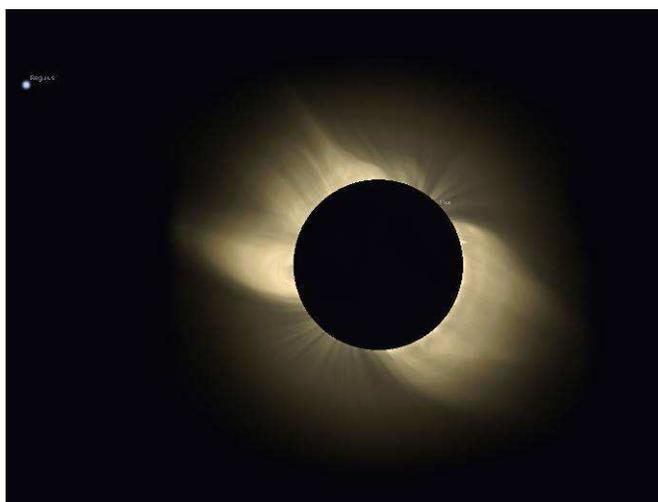
I would recommend that you prepare by taking pictures of the craters on the moon. You can practice setting the focus manually and your long lens technique on the moon, see example at moosepeterson.com/techtips/longlens.html.

You can test your solar setup and get the manual focus and exposure conditions set well before the eclipse starts by taking pictures of sun spots – if there are any, as we currently have about 27% of days with none. Here is an example from a Nikon D500 (DX) with **500 mm f/4 lens, 1/3200s, f/8, ISO 160, with a Gosky Optics Full Aperture Astronomical Telescope - Aluminum Baader Solar Sun Filter** covering the exposed end of the lens and a sturdy tripod /ball head and the viewfinder shutter closed. With this lens, I use a Wimberley Sidemount V2 head, as the sun or moon actually move through the field-of-view so quickly that you constantly have to adjust the position. Another filter option is the Marumi screw-in 77 mm ND100000 filter (i.e., 5 zeros) if your lens has filter treads. Note the images will be grey and you have to adjust the white balance to get this normal sun colour.

If you would like to get an idea of what to expect, download and install Stellarium (from Stellarium.org) for your platform. In the location window (F6), enter your GPS coordinates (or 35° 41" N 84° 15" W), in the date/time window (F5) enter the date 2017/8/21 and time (starting at 13:00:00, totality at 14:34) (blow up the image to see the sun with the mouse wheel, and drag it into a suitable position with the left mouse button). To get GPS coordinates of places – just type in “GPS coordinates of Oak Ridge TN”, etc. into Google, or just look them up on your smartphone. Then hit play/fast forward in the main menu.

No significant changes occur for about the first hour of the eclipse, apart from the moon obscuring more and more of the sun. About 10-15 min. before totality, you should notice a change in the daylight, a temperature drop, and some

reactions from the birds and animals. Around 1-2 mins before totality, the sunlight changes, displays a gradient of colors, dark to the west and blue to the east, and possibly see the elusive **shadow bands** (thin wavy lines of alternating light and dark) on white surfaces. Immediately before totality, you may momentarily observe the thin crescent of the sun break up into a string of bright **Baily's beads** as the sunlight peaks through the valleys on the moon. The first view of the corona at totality is called the **diamond ring**. The innermost dark red layer is the **chromosphere**. This 1-2 min sequence is best recorded by video as it all happens very quickly. Google the terms highlighted in blue for more details.



Screen shot of the corona during totality from the stellarium simulation. **DURING AND ONLY DURING totality**, you should remove the solar filter from the lens as the image is much dimmer. Note the corona is much larger than the sun/moon, so the focal length of the lens should be no more than 500 mm on a full frame camera and 300 mm on a crop frame if you wish to see most of the corona in the frame.

During totality, typical settings for your camera would be f/5.6 to f/8, 1/800 to 1/50 s, at 200 to 400 ISO. I strongly recommend bracketing the exposure over several stops, as the intensity of the corona varies greatly with distance from the surface of the sun. (This would be a good use of HDR)

Remember to put the solar filter back on the lens and switch back to the solar settings at least 30 s before totality ends to get ready to watch/record the above sequence in reverse.

A couple of things to watch for as it gets close to and after totality are the strange shadows on the ground from leaves, etc., (so bring a small point and shoot and a white card for those). Finally, there are likely to be traffic jams so plan to arrive at your chosen spot early. Now all we need is a nice clear day with no clouds to interfere.

Websites of the month:

- Introduction to Adobe Lightroom: photographylife.com/how-to-use-lightroom-a-tutorial-for-beginners/
- Want to see a video of disassembly of your camera – see lifepixel.com/tutorials/infrared-diy-tutorials
- App to find the rise and set positions of sun and moon at specific location: app.photoephemeris.com/
- Depth of field calculator: dofmaster.com

Finally, I hope that you have enjoyed and learnt a few things from these newsletters over the past year. It has been my pleasure to produce them for you. Many thanks to all the people who have made invaluable contributions to these newsletters. Please note that although I will no longer be performing the duties of the secretary-treasurer of the CCOR, including these newsletters, after the June 13th club meeting, the Sec-Treas@oakridgecameraclub.org e-mail address will be transferred to Dawn Isbell - the newly-elected secretary-treasurer.

CCOR website: oakridgecameraclub.org

Club Facebook page: www.facebook.com/groups/cameraclubOR/

Past CCOR Newsletters: oakridgecameraclub.org/documents.shtml

3CT: 3ct.org/. **NEW 3CT** has a new website 3ct.life/ both are active till they get everything moved over

Past 3CT Newsletters are at <http://www.3ct.org/publications/newsletters/>

Mike Miller