“Don’t drop those Bailey’s Beads, you’ll never find them again.”

**Eclipse Shot From The Final Frontier**

Going where no photographer has gone before capturing the eclipse and another space traveler.

May 2018 Palouse Field Trip In The Works

Watch your membership email for continuing information about a spring Field Trip to the Palouse area in eastern Washington state planned for May 25–27.

Two days in Colfax in the center of beautiful green and yellow farm fields, old barns and equipment – possible paragliders and crop dusters – One day in Walla Walla with the old fort, new museum and old town. This is a prime spring photo opportunity!

Contact: Bruce Bittle for full information.

**Palouse area photos on p. 3**

**Inside This Issue**

- Starr wins top prize – Giesy show at UofO 2
- Photo Ops from the Palouse area 3
- EPS Club News - Calendar judging finished 4
- Camera w/ No lens – Camera sees invisible 5
- NW Nature Photographers - Nov 4 6
- 4Cs Convention, October 5-6 Ashland, OR 7
- Tim Grey Q&A – LrRm vs PS - JPEG vs TIFF 8
- What to Know - Where To Go – Classifieds 9

THE FIRST RULE OF PHOTOGRAPHY...“BE THERE!”
Susan Starr Wins First Prize At Shutterbug

“Crater Lake Star Trails” image wins a large canvas print for Susan in a recent Shutterbug contest.

Giesy Has A Show At Uof O Law School

EPSer, Greg Giesy, has an outstanding show “Connecting with Nature” currently being shown at the University of Oregon located on the second floor of the Law School at 1515 Agate St.

His show may be seen daily 9:00 am to 6:00 pm until the 31st of December. Congratulations Greg!
Palouse Field Trip Planned For May 2018
2018 Club Calendar Judging Complete

At the last meeting in September thirty-three EPSers had an opportunity to vote for their favorite images among forty-five that were entered in the 2018 EPS Calendar Project.

EPS has been making calendars longer than any of the other thirty-two photo clubs in our three state Columbia Council region. For thirteen years EPS had a cooperative arrangement with a local print shop. We would provide photos and the print shop would print high quality calendars for self promotion for both them and for us.

This was a golden opportunity for EPS because at that time the cost of printing good calendars was way more than the club could afford to print on our own dime.

So, the print shop made us a heck of a deal. The shop would choose a theme and EPS would provide thirty good images from which the shop would choose 13 finals for the calendar, then each year they printed a very high quality calendar.

Our payout was 100 calendars for club fund raising and the maker of each photo chosen for the calendar would receive 15 copies for personal use. All free of charge!

That arrangement ended several years ago when EPS failed to provide adequate images to keep the co-op arrangement continuing. Diminishing club interest was the best guess as to why this agreement ended.

Then a couple of years ago I learned that local printing technology had changed suddenly making it possible for EPS to afford to do a calendar project on our own dime. Well, on our own $5 per calendar actually. This was way less than the previous lowest cost of $12 each.

So, as of last year EPS is back in the calendar business as long as club interest stays high enough to make it a viable annual club project.

The Calendar Committee of Dave Horton, Jeff Green, Graham Smith and myself will soon make the final decisions on which 13 images will be in next year’s finished product. These final decisions for each month are the most difficult.

First, each photo has to be at least somewhat representative for each month, i.e. spring, summer, fall and winter.

Second, with the theme of North American Birds and only 13 bird photos to be included when there are over 700 possible species, we really shouldn’t have duplicates of any single species, no matter how much we like humming birds.

We will let everyone know just as soon as final decisions have been made who the lucky winners are. And a big “thank you” to all who entered the competition this year.

Bruce Bittle
EPS Calendar Project Coordinator

Who Knew? (Trivia for Oregonians)

Prominent geographic markers all have names because they were signposts as pioneers moved west on trails and rivers. One geo-marker on the Columbia River, Rooster Rock, known by many, doesn’t look like a chicken at all. What gives? Originally named by men who arrived first so when the women arrived they demanded and got, a new more refined name. Next time you’re in Arches Nat. Pk. ask to see the Brigham Young Memorial formation. It’s a far better sculpted geo-marker that won’t be on your NPS map. Find it and I’ll bet you can’t resist taking a photo of it!

Landmarks sometimes have a hidden history

Prominent geographic markers all have names because they were signposts as pioneers moved west on trails and rivers. One geo-marker on the Columbia River, Rooster Rock, known by many, doesn’t look like a chicken at all. What gives? Originally named by men who arrived first so when the women arrived they demanded and got, a new more refined name. Next time you’re in Arches Nat. Pk. ask to see the Brigham Young Memorial formation. It’s a far better sculpted geo-marker that won’t be on your NPS map. Find it and I’ll bet you can’t resist taking a photo of it!

Remainig EPS Field Trips

• October 21
Japanese Gardens Portland - Adrienne Adam

• November 18
The Dalles Exploration w/ Maryhill Moon Shoot / Alford Desert - (Alt. Deerhorn property) A. Adam

• December - TBA

••• Potentials •••
Xmas lights
Tuba gathering
Springfield Santa Parade
New home for Albany Carousel

Next EPS Board Meeting
Monday
November 20
7 pm
In our regular meeting room – All members are welcome

2017 Board of Directors
Dave Horton - President
Stephen Franzen - Vice President
Tom Bruno - Secretary
Kevin Reilly - Treasurer
Mike Van De Walker - Webmaster
David Putzier - Challenge Chair
Education Chairs –
Tom Bruno, Jon Parker, Susan Starr
Competition Chairs –
Hernando Convers, Mark Gotchall
Kurt Pratt - Photo Forum Chair
Bob Petit - Critiquing Chair
Board Members at Large –
Jeff Green, Graham Smith, David Winther
Ultra-thin Camera Creates Images Without Lenses

Engineers at Caltech in Pasadena, CA, have designed a camera that can switch from a fish-eye to a telephoto lens instantly. The new camera replaces lenses with an ultra-thin optical phased array (OPA). An OPA replaces lenses by manipulating incoming light to capture images on a flat surface making cameras thin, light, cheap, and flexible.

Phased arrays currently used in wireless communication and radar are collections of individual transmitters all sending out the same signal as waves amplifying in one direction while canceling out elsewhere. Thus, an array can create a tightly focused beam signal, which can be steered in different directions by staggering the timing of transmissions made at various points. This system represents a proof of concept for a fundamental rethinking of camera technology.

“The applications are endless,” says graduate student Behrooz Abiri, coauthor of the research report. “In today’s smartphones, the camera is the component that dictates the thickness of your phone. Once scaled up, this technology can make glass lenses and thick cameras obsolete. It may even have implications for astronomy by enabling ultra-light, ultra-thin, but enormous flat telescopes, on Earth or in space.”

The ability to control all optical properties of a camera electronically using a paper-thin layer of low-cost silicon photonics without any mechanical movement of lenses, or mirrors, opens a new world of imagers that could look like wallpaper, blinds, or even wearable fabric,” researchers say.

Next, the team will work on scaling up the camera by designing chips that enable much larger receivers with higher resolution and sensitivity.

New Graphene Based Camera Can See Invisible

The first graphene-based camera has now been developed and is capable of imaging visible light, ultra violet, (UV) light, and infrared, (IR) light simultaneously.

Researchers have, for the first time, demonstrated that integration of a CMOS circuit with graphene results in a high-resolution image sensor consisting of hundreds of thousands of photo-detectors. thus creating a digital camera that is highly sensitive to all light at the same time. This has never been achieved with existing imaging sensors.

In general, this opens a wide range of possible optoelectronic applications, such as low-power optical data communications with compact and ultra sensitive sensing systems.

The easy and cheap to fabricate camera is also easily integrated onto flexible substrates that will be useful for many applications such as night vision, fire control, vision under extreme weather conditions, applications, that range from safety, security, low cost cameras, fire control systems, night surveillance cameras, automotive sensor systems, medical imaging applications, food and pharmaceutical inspection to environmental monitoring, to name a few.

This project is currently incubating in ICFO’s Launchpad. The team is working with tech transfer professionals to bring this breakthrough along with its full patent portfolio of imaging and sensing technologies to the market.

Source: ICFO-Inst. Photonic Sciences

Science Daily, May 29, 2017

Science Daily - June 22, 2017
Califomia Institute of Technology
FALL MEETING
NOVEMBER 4, 2017

Our 2017 fall meeting will be November 4th at Linn-Benton Community College in Albany, OR. We will open the doors at 8:30 a.m. and the program will begin at 10:00 a.m.

The invited speaker will be Robert O'Toole under the generous sponsorship of SIGMA. Robert is a professional nature photographer who specializes in wildlife photography. He is widely published and conducts an impressive array of workshops and tours. Robert reports that his passion is to help others grow photographically. The titles for Robert’s presentations are: “Ten Secrets Every Aspiring Nature Photographer Needs to Know”, “The Dream Shot: Tips and Strategies for Making Memorable Wildlife Images”, and “Hand-held Macro Photography – Some of the Most Fascinating, Interesting, Exciting, ‘Forget-All-Your Troubles’ Experiences a Photographer Can Have”.


LUNCHEON INCLUDED
As a special treat, NPPNW will provide a lasagna and salad luncheon for all participants at no extra charge. Hence, it is especially important that you pre-register as soon as possible if you plan to attend.

COMPETITION RULES

SENSOR CLEANING: Bring your digital camera bodies to our meetings for specially priced sensor cleanings by Advance Camera. They will professionally clean your sensor, clean the outside of your camera body, and upgrade your firmware if needed while you enjoy the speaker.

Please Note: If bringing in your camera for sensor cleaning, please be sure it has a fully charged battery or we won’t be able to clean it.
4Cs Convention, October 6-7, Ashland, OR

SAVE THE DATE!
October 5-8, 2017
Columbia Council of Camera Clubs
Photography Convention

in beautiful Ashland, Oregon
Keynote Speaker & Workshops by George Lepp

Workshops by:
David Vanderlip (Lightroom & Photoshop Instruction)
Gordon Battaile (Surreal Photography)
Michael Anderson (HDR)
Deb Harder (Portrait Photography & Travel)
David Lorenz Winston (Ashland Alleys)
“Photo Joseph” Joseph Linaschke (Mirrorless Cameras)
Lewis Anderson (Textures in Photoshop)
Glen Bledsoe & Chris Taylor (Infrared Photography & Compositing)
Kat Sloma (Cell Phone Photography)
Christopher Briscoe (Drone photography)
Field Trips and more!

Public Invited!
Convention will be held at Southern Oregon University’s Stevenson Union
www.columbiacameraclubs.org
Email: sopacameraclub@gmail.com
Q & A With Tim Grey

It's generally advised to do a light sharpening in Lightroom up front, then do final sharpening at the end in Photoshop. I do all sharpening at the end of Lightroom processing (using the sharpening preview, then apply Luminance noise reduction). Would you support this workflow with no Photoshop or Plug-in sharpening?

A:

For more “casual,” sharing such as [sending] photos online, I’m perfectly comfortable sharpening in Lightroom. In this case, for example, I might use the “Screen” and “Standard” options when exporting the image.

The output sharpening available when exporting online, or otherwise sharing images from Lightroom is actually quite good. The challenge is that you don’t have significant control over that sharpening, nor do you have any preview of the final effect.

For printing I am more focused on ensuring optimal detail sharpness in an image, so I send images to Photoshop when ready to print. I resize to the final output size and apply sharpening before printing from Photoshop. (Or save the sharpened image and return to Lightroom to print, after disabling output sharpening in Lightroom). Naturally, third-party Plug-in software could also apply this final sharpening if you prefer.

If you’re comfortable making use of the available Lightroom’s output sharpening options, that’s perfectly fine. But I would not recommend using the Develop module sharpening as a replacement for additional final output for printing.

I shot in JPEG instead of RAW so, to avoid lossy compression after edits I saved the JPEGs as TIFFs. File size increased [from] 19 MB for a JPEG to 147 MB for a TIFF. What happened?

A:

These file sizes are actually no surprise at all. Images saved even as high quality JPEGs will have file sizes significantly smaller than TIFFs. Put simply, JPEG compression is relative based on image complexity and will [always] be smaller than a [comparable] TIFF image.

What is most surprising about JPEG compression is how well image quality can be maintained when you use a high quality setting [i.e. Large-Fine]. While JPEG compression is always lossy, at a high quality setting the amount of degradation is minimal.

Note that if layers are included in the TIFF image, the file size can grow significantly larger. For example, creating a copy of the Background image layer in Photoshop will cause the TIFF image to double in size.

If applying strong adjustments to a JPEG image and re-saving multiple times after applying changes, it is [always] a good idea to save the JPEG capture as a TIFF [before, during and after changes are complete]. But the saved TIFF will always be quite a bit larger than the same image saved as a JPEG.

A:

After watching your discussion of Vibrance, I am wondering about the tradeoff of Vibrance versus HSL [Hue, Saturation, and Luminance].

Tim Grey currently publishes the monthly online magazine PIXOLOGY. He is a top educator in digital photography imaging, offering clear guidance on complex photo subjects. Tim has written books – magazine articles – and is a Photoshop World Dream Team member.

[Ed Note: Articles are reprinted with permission & abridged to fit.]
**October 2017**
- 5 Challenge Night - Theme “WORDS”
- 12 Ed. Night, TBA
- 19 Print & Digital Competition night
- 26 Photo Forum Night, Q & A, Demo

**November 2017**
- 2 Challenge Night - Theme TBA Oct. 5
- 9 Ed. Night, TBA
- 16 Print & Digital Competition night
- 30 Photo Forum Night, Q & A, Demo

**December 2017**
- 7 Challenge Night - Theme TBA Nov. 2
- 14 Print & Digital Competition night

**January 2018**
- 4 Challenge Night - Theme TBA Dec. 7
- 11 Ed. Night, TBA
- 18 Print & Digital Competition night
- 25 Photo Forum Night, Q & A, Demo

**February 2018**
- 1 Challenge Night - Theme TBA Jan. 4
- 8 Ed. Night, TBA
- 15 Print & Digital Competition night
- 22 Photo Forum Night, Q & A, Demo

**March 2018**
- 1 Challenge Night - Theme TBA Feb. 1
- 8 Ed. Night, TBA
- 15 Print & Digital Competition night
- 22 Photo Forum Night, Q & A, Demo

**March 2018**
- 1 Challenge Night - Theme TBA Mar. 1
- 8 Ed. Night, TBA
- 15 Print & Digital Competition night

---

**What To Know**

**Where To Go**

**At the In Eugene Real Estate Office**

Gina Reynolds has a personal show that may be seen until the end of this month. This office is located at 100 East Broadway Suite 100.

It will be a part of the **First Friday Art Walk** with a reception that night from 5:30 until 8 pm. Folks are welcome to stop by anytime during normal business hours and take a chance or they can contact Gina for a personal showing. She will have a key for the month and be willing to meet people at the office at their convenience.

---

**BEST PRICES in town EPS WHOLESALE print show supplies**

- **$7 MATS** (16”x 20” OD).
  - Double whites, acid-free surfaces with stiff backers. Center-cut with 10”x 15” or 12”x 16” openings.
- **$14 WHITE MATS BLACK CORE** available only with 10”x 15” center-cut opening.
- **$17 FRAMES** (16”x 20” OD).
  - Black or Silver aluminum, with hardware & glass.
- **$5 TRANSPORT BOXES** for framed images. (some assembly req.)
  - $2 from each mat, frame or box purchase goes to EPS.
- **FREE Delivery to club meetings!**

---

**Legal Stuff**

*The Bellows* is published ten times per year by the Emerald Photographic Society, a non-profit organization, and is completely supported by EPS funds. All materials within do not necessarily reflect the views of the EPS Board of Directors, officers, membership, supporting vendors or editor of this publication. All brand and product names listed are trademarked and/or registered and are not necessarily endorsed by EPS. However, EPS does endorse vendors, offering discounts to our members, listed on the last page (randomly as space allows on other pages) of each issue.

*The Bellows* policy is to always adequately attribute all images & posted content. *The Bellows* cannot be responsible for images or any other content acquired from unidentified web pages with no visible attribution or on-line contact information. Reprinting articles from *The Bellows* for non-commercial use is permitted so long as the photo or article is not copyrighted and source credit is given to EPS, the author and this newsletter. Any other reproduction requires specific written permission from the editor.

Inquiries about, or submissions for *The Bellows* (deadline is the last week of the month for following month publication) send to Editor, c/o Emerald Photographic Society, 1236 Debrick Rd., Eugene, OR 97401, or by email <bittled70@gmail.com>

---

**FOR SALE**

- **Nikon D600 Full Frame Camera** – Upgraded by Nikon to D610 sensor (29,855 actuations). Body like new – $770.
- **Nikon AF Nikkor f/2.8 35-70mm** with a macro at 35mm – perfect condition, with case. ** Asking $225.**
- **Nikon Window Mount** with Quick Release Feature for Spotting Scopes, Binoculars, Cameras. **Ask – $30.**
- **Bausch & Lomb “The Discoverer” 15-60 power, 60mm zoom Telescope** with Telephoto Adapter. In original box – **New condition – $110. CALL Susan Starr - 541.525.2053**

---

**Got a show? We want to know!**

Have your photos been published?

- **Magazines**
- **Brochures**
- **Newspapers**
- **Scientific Journals**

Send complete details to: <bittled70@gmail.com>

“If you don’t blow your own horn, somebody else will use it for a spittoon.”

Ambrose Bierce
Show your membership card to these vendors for nice discounts. Be a good ambassador for EPS each time you receive these discounts by letting these folks know how much you appreciate their support.

**Dotson’s Camera Store**
1668 South Willamette Street
15% Discounts on in-house processing (including slide processing)

**Focal Point Photography**
161 West Ellendale, Dallas, OR
Equipment Rentals, Trade Ins, discounts on most items  Call Mike Lowery, 503.623.6300

**Oregon Gallery**
199 East Fifth Avenue, Eugene
15% discount on all matting and framing

**Red River Paper**
Professional quality papers of all types for much less than printer mfg. brands
10% rebate to EPS when ordered directly from our web site

**The Shutterbug Camera Stores**
Two Stores 207 Coburg Rd. & Valley River Center
10% discount on photo accessories and photo finishing

**Apple Mac Computer Technicians**
2125 W. 7th Ave (Big “Y” Center)
541•484•3603

**U of O Bookstore Art Department** ( Basement)
Corner of 13th Ave. & Alder St.
20% discount on all art supplies

**Web Mats & Frames / Vistra Gallery**
411 West 4th Street, Eugene
20% discount on printing, matting & framing, Up to 30% on orders over $500