



BELLOWS

Chris Baird Photo, 700,000+ Viewers



his is an EPS member photo record that will most likely stand for many years all because Chris Baird entered the AARP

(American Association of Retired Persons) annual calendar photo contest. Now her lighthouse photo can be seen by 700,000 AARP members for 30 days in July of 2020. Wow!

Chris is a relatively new EPS member and she knows our coast lighthouses well. Retiring soon from the Admin. Office in the Business School at the U of O, Chris is already ramping up in her next job of personal photography.

She did this last year when she entered three of her lighthouse photos for her first time in the EPS Courthouse June show. She sold all three.

Make no mistake folks, in a short time Chris has shown us to be friendly, dedicated, determined, successful and soon will be happily working her new job full time. Good going Chris. Congratulations!

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Light is your subject - Color is your partner

EPS Club News

But, Lady Luck can sometimes be your best buddy

South Coast Field Trip, September 20-23

Kevin Reilly & Rochelle Villanueva Official Organizers.

Where -- Harris Beach State Park. Just north of Brookings on the Southern Oregon Coast.

When -- Arriving Friday, September 20. Leaving Tuesday, September 24.

What -- There are lots of photographic opportunities in the area, and we'll have the chance to have several meals with old, and new, photo buddies.

You need to know

No campsites available unless someone cancels. Check with Reserve America.

If camping isn't your thing, there are plenty of close-by motels - • Brookings, Windward Inn Motel

Let me know - if you're planning on attending &, if you need more information, drop me an email, kevin.sonoraguy@gmail.com or give me a call. 209-770-7040.

Looking forward to having a great time.

Kevin Reilly, Trip Coordinator



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VICE PRES - Open
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(Alt) Sue Mehrwein

Tom Elder Update

Tom says he's recuperating nicely & will be back ASAP. Most of all he & Judy want to thank their EPS family for the thoughtful cards and wonderful basket of goodies.

Thank you all!

Three Club Support Positions Open

Challenge Night Chair - OPEN

A fun night once a month to challenge all members to shoot to a theme in just 30 days. Chair gets to choose a new theme for the following month's competition. Lots of creativity and fun.

Vice President - OPEN Volunteer gets to be President following year.

4Cs Club Representative - OPEN

Only four meetings each year. Report to EPS about other clubs in OR, WA, ID. Report info on 4Cs Fall Photo Convention and field trips.

You Can Do It!

Every EPS member is authorized

to organize a Field Trip at any time for any place or event.

•Pick a date •Make a map •Make it happen!

Future Photo Judge, "Emo," Set To End All Disputes

brain-inspired computer system sheds surprising new light on how images impact emotions.

Could a computer in a few milliseconds, tell the difference between a joyful image and a depressing one?

"Yes," according to research published this week by CU Boulder neuroscientists.

"Machine learning technology is getting really good at recognizing the content of images," said senior author Tor Wager, "We wanted to know: Could it do the same

Lead author Philip Kragel, a researcher at the Institute of Cognitive Science said, "We found that the visual cortex itself plays an important role in the processing and perception of emotion."

with emotions? The answer is yes."

Their research sheds a new, different light on what we see -- even briefly -- and can have a greater and more swift impact on our emotions than we might assume. This marks an important step forward in the application of "neural networks" -- computer systems modeled after the human brain -- to the study of emotion.

They "showed" a new neural net-

"EmoNet learned to represent emotions in a way that is biologically plausible, even though we did not explicitly train it to do so"

work, called EmoNet, 25,000 images ranging from erotic photos to nature scenes and asked it to categorize them into 20 categories. EmoNet could accurately and consistently categorize 11 of the emotion types. It was better at some than others. For instance, it identified photos evoking sexual desire with more than 95 percent accuracy, but it had a harder time with emotions like confusion, awe and surprise.

To refine EmoNet, the researchers then brought in 18 human subjects. Using a functional magnetic resonance

imaging (fMRI) machine, it measured their brain activity, when shown 4-second flashes of 112 images. EmoNet saw the same pictures, essentially serving as the 19th subject.

When EmoNet was compared to that in the subjects' brains, the patterns matched up.

This means that EmoNet learned to represent emotions in a way that is biologically plausible, even though we did not explicitly train it to do so," said Kragel.

Ultimately, the resesarchers say, neural networks like EmoNet could be used in technologies to help people digitally screen out negative images or find positive ones. It could also be applied to improve computer-human interactions and help advance visual emotion research.

The takeaway for now, says Kragel: "What you see and what your surroundings are can make a big difference in your emotional life."

Science Daily, July 26, 2019 Institute of Cognitive Science Univ. of Colorado at Boulder



New Discovery Clarifies How The Eye Sees Brightness

apanese scientists are shedding new light on cells in the retina that is ushering in a new understanding of the biology of the eye and how visual information is processed.

The findings could contribute to more effective therapies for complications that relate to the eye. They can also serve as the basis for developing lighting and display systems.

The back of the human eye is lined with two types of photoreceptors, that respond to different amounts

of light. Cells processing a lot of light are cones and those that process lower levels are rods.

Now researchers have discoveried entirely new type of cells, called intrinsically photosensitive retinal ganglion cells (ipRGCs) that contain melanopsin, a photopigment that is sensitive to light.

"Until now, the role of retinal melanopsin cells and how they contribute to the perception of the brightness of light has been unclear" said

Continues on next page



New light on the human eye

New Eye Discovery continued

Katsunori Okajima, a professor at the Faculty of Environment and Information Sciences, Yokohama National University and one of the authors of the study.

"These findings are redefining the conventional system of light detection that so far has only taken into consideration the two rod and cone variables. Our results suggest that brightness perception should rely on a third variable -- the intensity of a

stimulus that targets melanopsin."

In the study, the authors showed how cones and melanopsin combine to allow the perception of brightness. In order to better assess the contribution of melanopsin to the detection of light, the melanopsin's signals were isolated from cones and rods. This separation allowed for more accurate observation of the melanopsin signal alone.

The researchers were able to show that the varying brightness levels

of an image that was perceived is a sum of the melanopsin response and the response that is generated by the cones. The former is a linear readout and the latter is not. The results also show that melanopsin is not a minor contributor in brightness perception. Rather, it is a crucial player in brightness perception.

Science Daily, August 18, 2019 Yokohama National University



"Bye bye" Huge Tele's - "Hello" Tuneable Lenses

amera performance on mobile devices has proven to be a popular feature for most end-users. This pushes manufacturers to constantly provide phone cameras with better zoom, low-light exposure

and higher quality photo capability. But, this is not as easy as it seems at small scales in confined spaces.

What is required is the integration of an adjustable-dynamic zoom lens that can handle the full

optical spectrum and be reshaped electrically within milliseconds. A class of soft materials known as liquid crystal spatial light modulators have been the tool of choice for high-resolution light shaping. However, until now consumer level production using this material has proven to have limits in performance and cost.

In a study recently published in Nature Photonics, researchers demonstrate a liquid crystal adjustable technique to manipulate light without any mechanical movement.

This new approach, called

Smartlens, uses a small current passing through an optimized micrometerscale resistor, changing the optical properties of a transparent polymer plate holding the resistor. Similar to the way as a heat mirage bends light

"Remarkably, this technology is cost effective, scalable and has proven potential to be applied to high-end technological needs as well as simple end-user cameras."

passing through hot air to create an illusion of a lake.

Within milliseconds, a simple slab of polymer can be turned into a lens and back: small, micrometer-scale smartlenses heat up and cool down quickly using minimal power. They can even be fabricated in arrays, and the authors show that several objects located at very different distances can be brought into focus within the same image by activating the Smartlenses located in front of each of them.

By modeling the diffusion of heat and the propagation of light and

using algorithms inspired by the laws of natural selection the authors show they can go way beyond simple lenses: a properly engineered resistor can shape light with a very high level of control and achieve a wide variety of

optical functions. For instance, if the right resistor is imprinted on it, a piece of polymer could be activated or deactivated at will to generate a given "freeform" and correct specific defects in our eyesight, or the aberrations of an optical instrument.

Lead researcher, Prof. Romain Quidant, points out, "Remarkably, the Smartlens technology is cost effective and scalable, and has proven to have the potential to be applied to highend technological systems as well as simple end-user cameras." The results of this study open a new window for the development of low-cost dynamically tuneable devices that could have a high impact on current existing optical systems.

Science Daily, July 26, 2019 ICFO-The Institute of Photonic Sciences





A Message From The 4Cs 2019 Convention Chair

Hello Columbia Council of Camera Club members,

Our Columbia Council of Camera Clubs 2019 Convention in Vancouver, WA, Clark College - October 11-12 is ready to go.

We have 11 speakers covering Textures - Luminosity masks - Tips for Bird photography - Horse photography - Water drops - Many others.

Master Photographer **Seth Resnick** is our Keynote speaker and is being sponsored by B&H Photo.

Seth's speaker information is linked here: https://www.sethresnick.com/ Plan now to be in Vancouver for a weekend of photo fun and info. Thanks. See you all there.

John Craig

Chair, Columbia Council of Camera Clubs



4Cs 2019 Convention Information Online Registration is now open

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Home - Columbia Council of Camera Clubs

columbiacameraclubs.org

The objective **of** the **Council** is to coordinate and promote **camera clubs**, Photographic Society **of** America (PSA) and other photographic activities **of** interest to **camera clubs** and their members.

Seth Resnick

Keynote Speaker

2



TIPS - HOW TO'S

- Textures -
 - Luminosity masks -
 - Bird photography -
 - Horse photography -
 - Water drops
 - More -





Q & A With Tim Grey



GoodSync Saves Tim's Butt. Boy Is He Happy!

How would you recover from having your photos hard drive fail in a way

that caused photos to be lost from that drive?



fact, GoodSync may very well alert you to the fact that a hard drive is failing in the first place.

Today's question I wrote myself, because I experienced a hard drive failure that I was first alerted to by the GoodSync software I now recommend for backing up photos (http:// timgrey.me/greybackup).

After downloading photos into my Lightroom Classic catalog, I was backing up my photos drive to a backup drive using GoodSync software, when GoodSync presented an error message that photos could not be read from the source hard drive.

I browsed that hard drive, and found that most of the photos were missing from the folder I had just imported photos into. Fortunately, I had a backup created with GoodSync that I could recover from. I also had a backup of the photos most recently imported into my Lightroom catalog, since I had taken advantage of the option to "Make a Second Copy To" during the import process.

So, I purchased a replacement drive, then used GoodSync to copy all of my photos from the drive that had been used for the most recent

backup. I made sure the new drive had the same volume label (or drive letter if I had been using Windows) as the drive that had failed. When I launched Lightroom, everything was in perfect working order. The only photos that were missing were from the most recent import, which hadn't been backed up by GoodSync as my hard drive was in the process of failing. To recover those photos, I simply copied them to the applicable folder on the new hard drive, since those photos were reflected in my Lightroom catalog already, and were simply missing from the master hard drive at that point.

As a result, I didn't lose a single photo thanks to GoodSync, and in fact I was alerted to the impending hard drive failure by error messages presented by GoodSync. So now I'm an even bigger fan of this software than I was before!

Note that if you decide to also use GoodSync to back up your photos, I have a video course in the Grey-Learning library that will teach you the workflow I use with this software. You can find that course in the Grey-Learning library here:

https://www.greylearning.com/ courses/goodsync





The color label you can apply to photos in Lightroom is stored in the Label field that

is part of the XMP metadata standard part of the Extensible Metadata Platform (XMP) originally created by Adobe.

The Crop tool in [Photoshop and] PS Elements allows setting the desired

width and height in inches for an image to be printed. Also, there's a "Resolution" box. What should that resolution number be?

Simply cropping an image to keep the existing aspect ratio with no resizing and intended only for online output, leave the Resolution field blank.

For printing as the final output in most cases you'll get best results with a Resolution setting of 300 ppi. to 360 ppi. with no clear advantage to settings above that.

Resolution is not a factor for digital online output.

> Tim Grey publishes the monthly on-line magazine PIX-OLOGY, and is a top educator offering clear guidance on complex photo subjects. He is also a Photoshop World Dream Team member.

[Note: Tim's articles are reprinted with permission & abridged to fit available space.]



What To Know

September 2019

- 5 Challenge Night Theme TBA Jun 6 12 Ed Night, TBA
- 19 Digital Competition night
- 26 Photo Forum Night, Q & A, Demos

October 2019

- 3 Challenge Night Theme TBA Sept. 5

- 10 Ed. Night, TBA17 Digital Competition night24 Photo Forum Night, Q & A, Demos
- 31 Board Meeting 7 PM

November 2019

- 7 Challenge Night Theme TBA Oct. 3
- 14 Ed. Night, TBA
- 21 Digital Competition night
- 28 Photo Forum Night, Q & A, Demos

December 2019

- 5 Challenge Night Theme TBA Nov. 7
- 12 Digital Competition night

Only Two Meetings this month

January 2020

- 2 Challenge Night Theme TBA Dec. 59 Ed. Night, TBA
- 16 Digital Competition night
- 23 Photo Forum Night, Q & A, Demos
- 30 Board Meeting 7 PM

February 2020

- 6 Challenge Night Theme TBA Jan. 2
- 13 Ed. Night, TBA
- 20 Digital Competition night
- 27 Photo Forum Night, Q & A, Demos

March 2020

- 6 Challenge Night Theme TBA Feb 6
- 13 Ed. Night, TBA
- 20 Digital Competition night
- 27 Photo Forum Night, Q & A, Demos

Where To Go

• Chris Baird & Ron Seguin At the Courthouse in September

These two EPSers have a joint show for the month that may be seen during week days from 8 - 5 in the Harris Hall Lobby.

> **October 11-12** 4Cs Annual **Convention Clark College** Vancouver,WA

Got a show? We want to know! Have your photos been published?

- Magazines
- Brochures
- Calendars
- 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.'

Classified

Classifieds Free to **EPS** members



Classified Ads Free to all EPS members

EPS WHOLESALE

print show supplies Best prices in town Available only to EPS

\$17 FRAMES (16"x 20" OD) Aluminum, Black or Brushed Silver, Includes hardware & clean glass

\$7 MATS (Fit frames above) Double whites, 10"x15" or 12"x16" openings Whites / black core 10"x15" only Stiff backers included

\$5 TRANSPORT BOXES

for moving framed images (some assembly req.)

\$2 goes to EPS from each of the above purchases

Contact:

Bruce Bittle 541.343.2386 FREE Delivery to club meetings!

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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

dittled70@gmail.com>



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