





fter my photo workshop in Venice last month, my wife and I spent a few days in Copenhagen. We were walking down a very photogenic street when my eyes were diverted to a store front window display selling t-shirts with pithy quotations on them in English. The one that caught my attention was a brilliant insight by Einstein. 'Two things are infinite: the universe and human stupidity; and I'm not sure about the universe."

That cracked me up, and it made me think about some of the idiotic questions and comments I've had over the years regarding my photography. For example, when people see my images they often say, "Your camera takes really good pictures." I always respond by saying, "And I have it on good authority that Shakespeare's pen wrote really good plays."

One of my favorites happened when I was showing a lady some of my wildlife shots from Africa. Shockingly, she asked, "Did you really go there?" I had to hold my tongue from blurting out, "Well, no. I used a 25 million millimeter lens and took the pictures from the top of a tall building to overcome the curvature of the earth."

And then there was the man who showed me a photograph he'd taken of a lone, dead tree in a landscape devoid of anything else except empty grassland and sky. His memorable question was, "What should I have focused on?"

Sometimes you just have to laugh.

Jim Zuckerman photos@jimzuckerman.com www.jimzuckerman.com

How to Photograph a total solar eclipse

rare total solar eclipse will be visible from the contiguous United States on April 8, 2024. In Texas, the eclipse begins at 12:06pm, and it reaches totality at 1:27pm. Other locations along the path will experience the eclipse at later times. The path of totality – the track of the moon's shadow across the Earth's surface which is about 50 miles wide – goes from Mexico through Texas to New England. You can see the path in the map at the top of the next page. Positioning yourself in the middle

of the path means you will experience darkness for the maximum amount of time which is approximately 4 minutes, almost twice the length of time of the 2017 eclipse. Texas and Oklahoma are the best places for viewing the eclipse only because of the greater likelihood the sky will be clear. But people in the mid-West and New England may get lucky and have a clear view of it, too.

If you really want to see and photograph this celestial event, check the weather in cities all



Path of totality of the April 8 total solar eclipse.



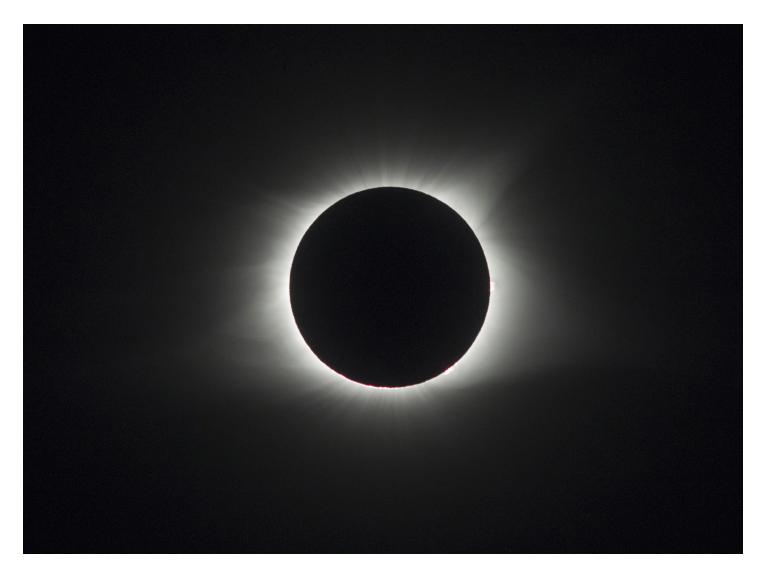
along the totality path as we get closer to April 8 to determine where you have the best chance of seeing and experiencing this remarkable occurrence. What you are looking for in a weather report is a clear, cloudless sky.

The next total solar eclipse in America's lower 48 states will be on August 23, 2044.

Personal experience

I witnessed the last total solar eclipse that crossed the United States in 2017, and I can





tell you it is breathtaking. I didn't expect to be so awed by the experience, but I was. Leading up to totality was interesting, but the moment the moon completely obscured the sun, day turned into night in the middle of the afternoon. Stars came out, birds stopped singing, and everyone around me seemed to hold their breath in amazement. It's a photographic challenge, but even if you don't take pictures, the experience of witnessing a celestial event like this at least once in your lifetime shouldn't be missed.

Protecting your eyes

The most important thing to remember when observing and photographing a solar eclipse is to protect your eyes. Looking at the sun for any length of time can cause serious damage to the retina in your eyes and can even cause blindness. You can buy inexpensive 'eclipse glasses' like the ones below I found on Amazon for less than \$10, or you can spend more money and indulge in a pair of more fashionable glasses. They both do the same thing -- diminish the sun's light significantly so you can look at it without endangering your vision.



The Birds of Costa Rica

May 13 - 23, 2024



Resplendent queztal



Keel-billed toucan

Alternatively, you could use a neutral density filter of 10 f/stops or more. Close one eye and look at the sun through the other one.

When photographing the 2017 eclipse, I discovered a good way to follow the progress of the moon's movement across the sun: watch the reflection in my car's windshield. I didn't have to use any glasses, and the reduced light allowed me to comfortably watch the celetial event without injury or pain.

If you want to see the eclipse magnified with a telephoto lens and you dont want to be annoyed by cheap eclipse glasses, switch to manual exposure mode (M) and put the shutter speed very fast, such as 1/8000, the lens aperture to f/32, and the ISO to 100. The sun will now be safe to look at directly through the camera because

you've significantly underexposed the image.

Once the moon completely covers the sun, you can then look at the eclipse directly and through your camera without danger. As soon as it reappears, precaution must again be taken.

As you can see in the picture below, in 2017 there were times when I had thin clouds to shoot through. That made some of the eclipse images unique. When the main event happened, though, the sky was fortunately clear. Remember even with thin clouds, the sun is too bright to look at directly.

Camera settings

No matter your camera settings, the disc of the sun -- whether seen totally or partially covered



-- is going to be solid white. In other words, it will be blown out with no detail or texture. This means you are really exposing for the sky during the partial eclipse and the sun's corona during the total eclipse.

I took all of the images in this article with a Canon 500mm lens plus a 1.4x teleconverter giving me 700mm of focal length. I wanted the sun to fill a significant part of the frame.

For the image on the previous page, my settings were 1/4000, f/13, and 100 ISO. With this kind of extreme contrast, I determined the settings from studying test exposures on the LCD monitor. The exposure for the image on page 4 was 1/1250, f/9, and 500 ISO. Your conditions may be different than mine, but these numbers will offer you a starting point

from which you'll be able to take perfect exposures.

I hand held the camera for these shots not because I wanted to, but because in 2017 the sun's position was almost direct overhead and the ballhead I use on my tripod isn't designed to angle a camera straight up. Even though there was a lot of movement in managing the heavy gear at an upward angle, the fast shutter speed mitigated any possibility of blur.

One more point. The issue of depth of field when it comes to shooting the sun is irrelevant. This assumes you don't include any foreground elements. The only reason you need to use a small lens aperture is simply dealing with the very bright sun and its corona. §



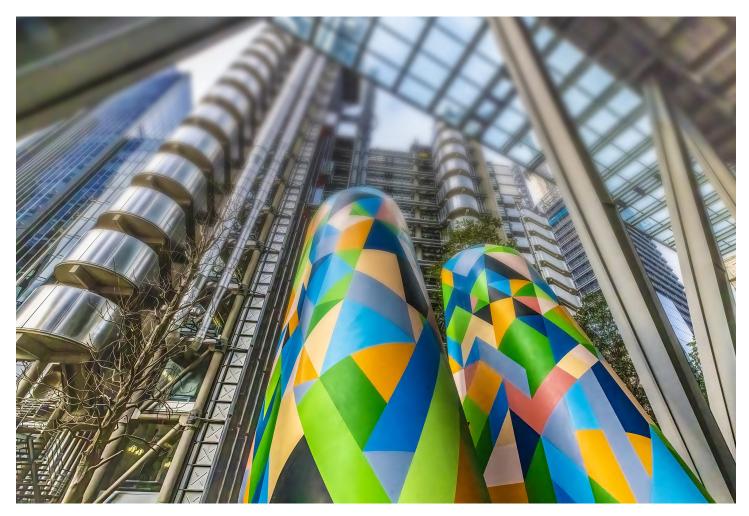
The New

DEPTH OF FIELD PREVIEW

ack in the day when we all shot film, photography was very different. I bought my first camera, a Canon FT QL, in 1968. The first great innovation just a few years later that created tremendous excitement in the photographic industry was stopped-down metering.

This revolutionary invention in the mid-1970s changed everything. Prior to this, when a photographer looked through the viewfinder of a TTL camera, the image appeared bright only when the aperture was wide open. As soon as

SIDE BAR: TTL, or through-the-lens, means a person looking through the view-finder is seeing exactly what the lens sees. We take this for granted now, but in the 1960's and before, many cameras such as rangefinders and twin lens reflex medium format cameras didn't offer this. You'd look through a viewfinder while the picture was being taken by a lens which was positioned somewhere else on the camera body. With this system, it was easy to 'cut someone's head off' in framing the shot because, in the viewfinder, the composition looked correct . . . but in actuality it wasn't.



the aperture ring was manually rotated to select a smaller lens opening (there was no such thing as auto focus at this time), the image in the viewfinder got darker and darker. At f/16 for example, it was hard to compose a picture with confidence because the subject or scene was so dark.

This was a challenge to deal with, but the camera's built-in exposure meter operated on the light it detected entering the camera. A small aperture allows less light into the camera -- i.e. the subject should appear darker -- thus the meter would produce an accurate reading based on this information.

Stopped-down metering

This new feature kept the viewfinder image bright as if the aperture setting was wide open even though the photographer had selected a small aperture. No longer did the viewfinder become annoyingly dark when choosing an aperture for increased depth of field. I remember all the national photo magazines publishingt articles applauding this new innovation.

Depth of field preview

The depth of field preview feature was, and is, a way to preview the depth of field you'll have when the picture is taken at a certain lens aperture. Because of stopped-down metering, you are always looking at the subject or scene through a large lens aperture even though you may have selected a small aperture for increased depth of field. That's why the viewfinder stays bright, but at the same time, you can't visually assess how much depth of field you will have because the you're viewing the scene through



the largest aperture on the lens.

This is where the DOF preview button comes in. By pushing this button (and pretty much all good cameras have this feature), the camara closes the lens down to your pre-selected lens aperture so you can see the actual DOF. So, because of stopped-down metering, you see a bright scene as if you've chosen, say, f/2.8, even though you wanted more depth of field with an aperture of f/22. The DOF preview button closes the lens down to f/22 so you can preview how much of the scene will be in focus.

However . . . the viewfinder gets very dark at f/22. In other words, using the DOF preview button *overrides the stopped-down metering*. When small apertures like f/16, f/22, and f/32 are selected, the viewfinder gets so dark when using the depth of field preview feature that, to be honest, it's hardly worth the effort. You can barely see the details in the composition.

This is why I never use the depth of field preview feature.

A game changer

When I was writing the article on photographing solar eclipses, I wanted to offer several ways of protecting your eyes from the bright light of the sun. I thought about the depth of field preview button and how it diminishes light when the camera is set to a small lens aperture.

But, to be honest, I had no idea where that feature was in my Canon R5 since I'd never used it. So, I found the button from a YouTube video, but it wasn't working. I called Canon's tech support, and the experienced agent I spoke

with didn't know how to set the camera to do what I wanted, either. After waiting 10 minutes on hold, I played around with the camera and then, Eureka!, I found it. When the agent came back on the line, I actually explained it to him.

It turns out that with the advancement of mirrorless cameras, the depth of field preview button has been updated and improved. I don't own a Nikon, Sony, or Olympus camera, but I'm sure it's the same with their mirrorless camera bodies.

When the depth of field preview button is now utilized, you can see how more of the elements in the composition come into focus, BUT . . . the viewfinder image doesn't get darker! The DOF preview doesn't override the stopped-down metering feature.

To set up the depth of field preview button in your camera model may take a bit of time researching on YouTube or plowing through the instruction manual, but once it's set up, this is a very useful tool. With every type of photographic situation from landscape photography to fashion shoots, you will be able to see how much will be in focus and what won't be. You can asssess depth of field after you've taken the picture on the LCD screen, of course, but this new approach gives you this information before you snap the shutter. Pictures like the flower field, below, are the perfect situation to use this newly designed preview feature. §



Ethiopia Photo Tour Jan, 21 - Feb. 3, 2025





a new

SHOOTING STYLE

or many years, I only used manual exposure mode for certain types of subjects. For example, when photographing lightning, fireworks, and the Milky Way, you can't use a light meter. That's when I'd use manual mode.

For all the rest of the subjects I photographed, I used aperture priority or shutter priority. Now my entire orientation to shooting has changed. Why? Because technology has changed.

Unlike dSLR's and all cameras before that, mirrorless cameras allow us to see exactly what our pictures are going to look like with respect to exposure. WYSI-WYG: What you see is what you get. If you increase the speed of the shutter, the viewfinder image gets darker because less light is reaching the sensor. If you open the lens aperture from, say, f/11 to f/5.6, the image you see in the viewfinder gets two f/stops brighter. This is revolutionary in photography.



The other change that has impacted how I take pictures has been the improvement of digital technology such that excessive noise is manageable now when using high ISO settings. Noise is less to begin with and with Topaz DeNoise we can mitigate or eliminate outright unwanted noise.

Therefore, I now shoot exclusively in manual mode. This allows me to specifically choose both a shutter speed and a lens aperture. In Av and Tv modes, it's easy to end up with a setting that isn't to your liking. For example, you've chosen f/16 on Av mode for increased depth of field, but because you're shooting in dim light conditions the shutter speed slows down to 1/30. You didn't notice this until it was too late and your images were blurred.

When shooting in M mode, I choose exactly

the settings I want. When I turn the ISO dial, the exposure becomes correct because I can see the results in the viewfinder before I take the shot. If I'm shooting in reduced light conditions and the ISO necessarily has to be high to produce a correct exposure, I have the confidence that Topaz DeNoise will effectively deal with that problem.

I haven't used Av or Tv in at least a year, and every photographic situation I've encountered has been effectively exposed by using this method. In addition, when I need a fast speed such as photographing a running mountain lion or needing enough depth of field -- like shooting a stone bridge and tea house in Wales -- I have the confidence that I've chosen the settings correctly and an automatic feature in the camera isn't going to override what I know is necessary to achieve my vision. §



PATAGONIA PHOTO TOUR

October 15 - 26, 2024





Photography Quiz

- 1. Which paper size fits exactly the 2 x 3 aspect ratio of our digital images and doesn't require cropping?
 - a. 8×10
 - b. 11 x 14
 - c. 5 x 7
 - d. 8 x 12
- 2. The complementary color of yellow is:
 - a. Blue
 - b. Cyan
 - c. Green
 - 4. Yellow
- 3. Focus stacking can be done without a tripod.
 - a. True
 - b. False
- 4. HDR can be done without a tripod.
 - a. True
 - b. False
- 5. A neutral density filter adversely affects the color of an image.
 - a. True
 - b. False
- 6. From f/1.4 to f/22 is how many f/stops?
 - b. Eightf/stops
 - c. Five f/stops
 - d. Six f/stops
- 7. "Negative space" in a photograph means:
 - a. A fairly large area with little or no detail
 - b. A scratched negative
 - c. When the positive and negative tonal values are reversed
 - d. A term that only applied to film photography
- 8. The closer a light source gets to a subject, the light becomes:
 - a. Warmer
 - b. Contrastv
 - c. Diffused
 - d. Cooler
- 9. What eliminates smog from a cityscape?
 - a. A polarizing filter
 - b. UV filter
 - c. Skylight filter
 - d. None of the above
- 10. White balance is the same thing as color temperature.
 - a. True
 - b. False

UPCOMING PHOTO WORKSHOPS



Snowy Owl Workshop

Close up encounters with these beautiful birds of the North. Capture bird in flight shots in a snowy environment. Jim guides you in camera settings and technique to take the best pictures possible.

January 9 - 13, 2025



Winter Wildlife Workshop

Photograph beautiful North American mammals plus a snow leopard in natural environments. Mountain lions, red foxes, arctic foxes, bobcats, lynx, wolves and more are in their full winter coats. This is a very special workshop.

February 6 - 11, 2025



Carnival in Venice

Photograph amazing costumes in a Medieval environment inside a 16th century palace and in an iconic gondola. The photography as well as the experience is amazing.

February 23 - March 1, 2025

Expand your photographic artistry with

eBooks

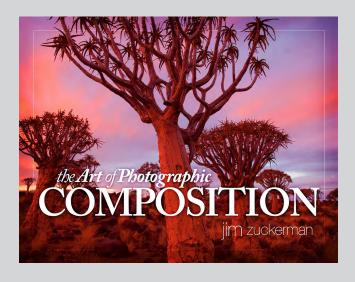
Click on any ebook to see inside













eBooks continued

Click on any ebook to see inside













ONLINE AI COURSE

Blow your mind with how creative you can really be!

Starts March 2, 2024





What's wrong with this picture?



hite skies are not always bad. Winter landscapes sometimes look great with a white sky. In fact, white on white is one of my favorite color themes in nature.

Usually, though, when you compare a picture with a white sky to one in which the sky has more detail, or perhaps even some drama, it's hard to make the case for the white sky.

I took this picture of a snow leopard during my recent Winter Wildlife Workshop in Montana. There was some subtle detail in the sky, but when I exposed for the cat, the sky went solid white. You can see on the next page what a powerful visual impact storm clouds have on this shot.

In choosing a sky, consider the lighting. The snow leopard was photographed



under a dense overcast, and this produced soft and diffused light. That means the replacement sky had to be one that would create the same type of lighting.

The sky replacement feature in Photoshop (Edit > sky replacement) makes it extremely easy to replace a white sky. If you haven't used it before, I recommend deleting the stock skies Adobe gives you. Those aren't your shots, and everyone has access to them. Once deleted, you can then upload your own skies. I suggest sunrises and sunsets, several storm cloud images, puffy white clouds on a blue sky, rainbows, and even cobalt blue skies typical of dawn and twilight. You'll find they all will come in handy at some point. As you can see with the two versions of the snow leopard, it makes a big difference. §

SHORT AND SWEET

1. All cities, large and small, look their best when photographed at twilight. The colors, the mixture of light and shadow, and the drama of night illumination all go into making great photography. Every time I shoot a city, my favorite images are from twilight. This is Garden by the Bay in Singapore.



2. When it comes to action photography, err on the side of a fast shutter. Even if this pushes the ISO higher than you'd like, if the subject isn't sharp, there's no point. Noise can be eliminated; a blurred animal can't be made sharp. This is a giant river otter in the Pantanal region of Brazil.



3. With so many places all over the world using non-traditional light bulbs, it's hard to know what white balance to use. Relying on auto white balance sometimes works and sometimes doesn't. Experiment when shooting an interior which WB you like. You can always change it in ACR or LR, of course.



4. Making the foreground disproportionately large compared to the background is one of the best ways of shooting landscapes and so many types of subjects and compositions. The formula for a picture like this is placing a wide angle lens close to the foreground and using the smallest aperture for maximum DOF. §



Coast of France and the Loire Valley

April 4-13, 2024



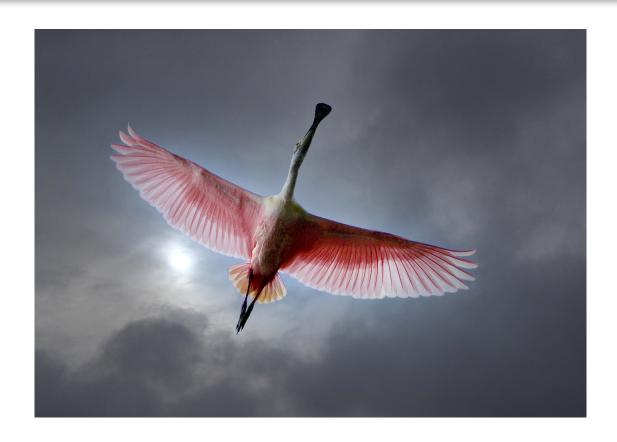


ASK JIM

Every month, Jim answers a question from his online students, from people who participate in his tours and workshops, or from subscribers to this magazine. If you have a question you'd like Jim to answer, please drop him a note at photos@jimzuckerman.com.

Q: Jim . . .I have the hardest time capturing birds in flight. It's hard to keep them in the frame, and it seems impossible to get them in focus and sharp. What is your secret? Fran Johannsen, Lewisburg, Tennessee

A: I've written many articles on this subject. In short, 1) use a fast shutter speed of 1/3200, 2) set up a central cluster of focus points, 3) zoom back so you are not so tight on the birds, 4) if your camera has eye-tracking, use it, and 5) try to anticipate the direction of flight. You will have a lot better chance at getting good pictures when the birds fly left to right to left as opposed to flying directly at you. §



Partial List of Photography Tours 2024 - 2025

COSTA RICA BIRDS

May 2024

HOLLAND & BELGIUM Apr/May 2024



COLORADO in AUTUMN Sept/Oct 2024



PATAGONIA Oct 2024



ICELAND DRONE TOUR

Aug/Sept 2024

LOUISIANA SWAMPS Oct/Nov 2024



AUTUMN in JAPAN Nov 2024



SNOWY OWLS, CANADA Jan 2025



WINTER WILDLIFE Feb 2025



GREAT GRAY OWLS, CANADA Feb 2025



FAROE ISLANDS April/May 2025



TEXAS BIRDS May 2025





Great Gray Owls, Canada

Februtary 16 - 21, 2025



Student Showcase

Each month, Jim features one student who took beautiful and inspiring images on one or more of his photography tours or workshops. It's really fascinating how photographers see and compose such different images even though we may go to the same places. Everyone takes great photographs on Jim's trips.

Sharon Wilson, Costa Mesa, California White horses of the Camargue, London/Paris photo tour.





© Sharon Wilson

Student Showcase, continued





© Sharon Wilson

Student Showcase, continued

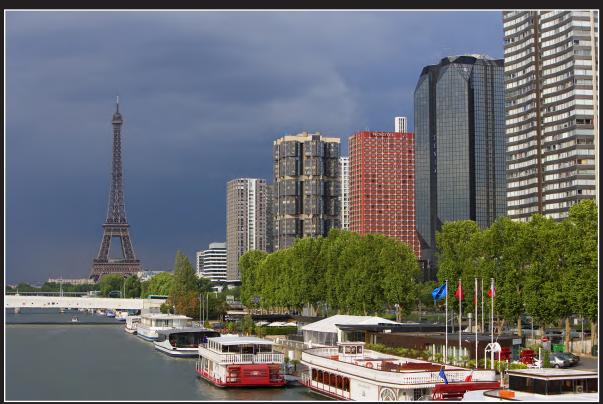




© Sharon Wilson

Student Showcase, continued





© Sharon Wilson

<u>Autumn in JAPAN</u>

November 20 -29, 2024





HOLLAND & BELGIUM

April 24 to May 2, 2024



PHOTO INSIGHTS

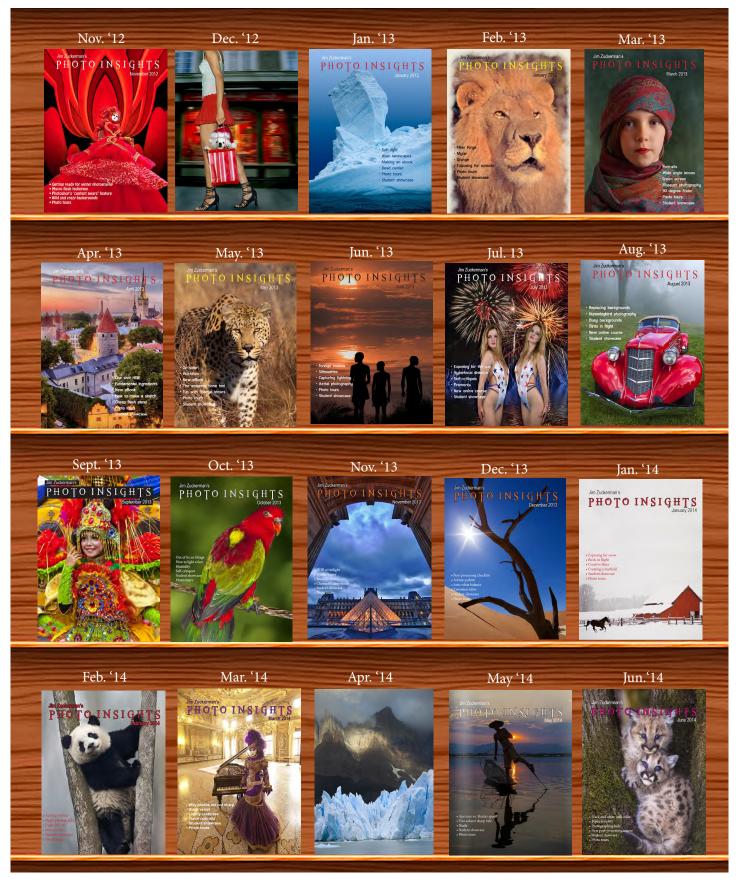


PHOTO INSIGHTS

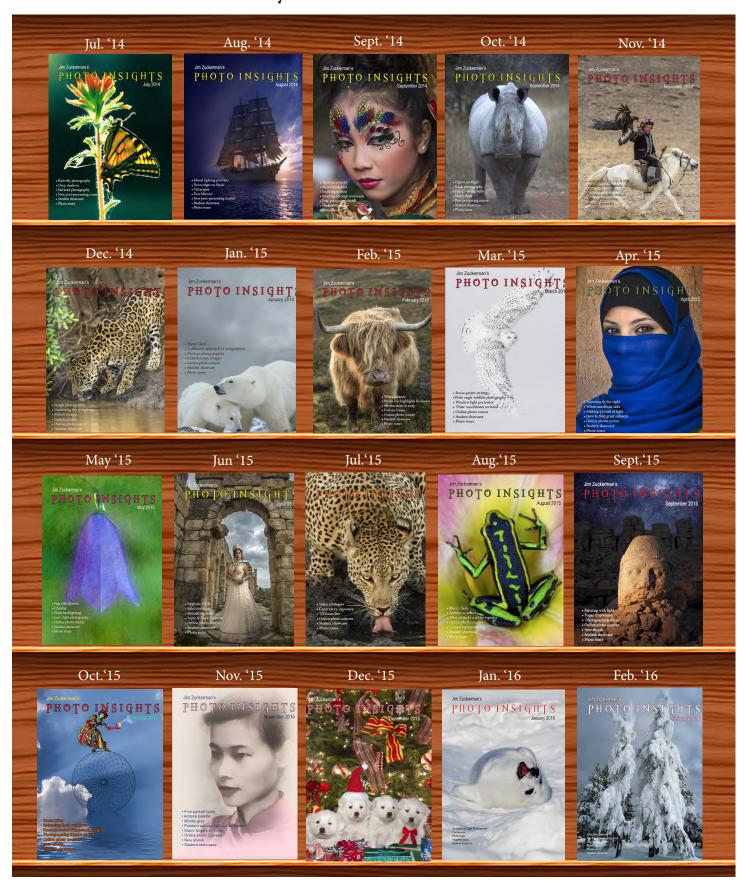


PHOTO INSIGHTS



PHOTO INSIGHTS

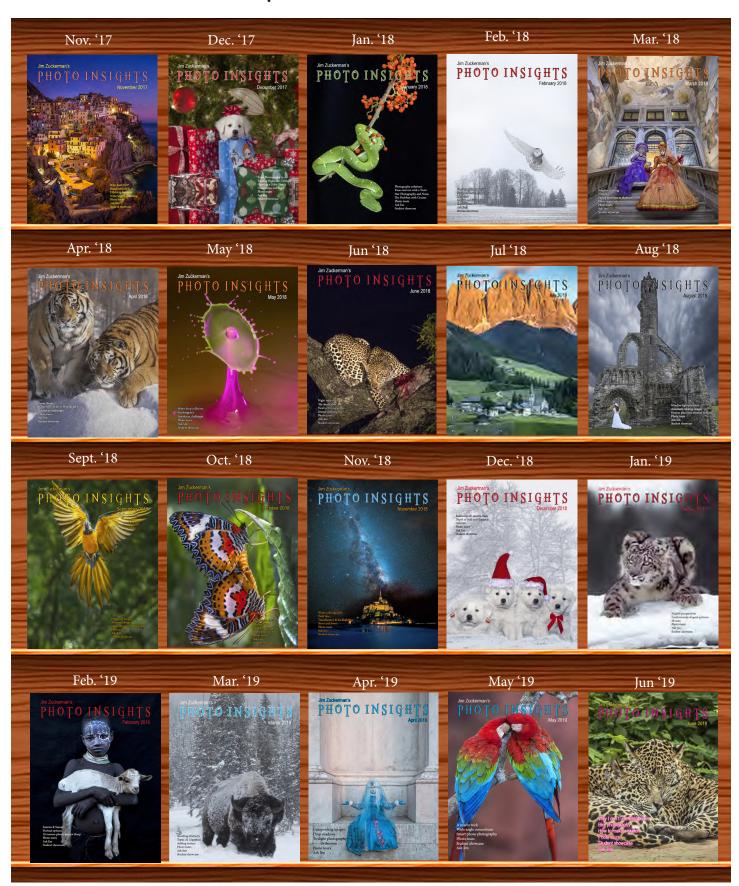
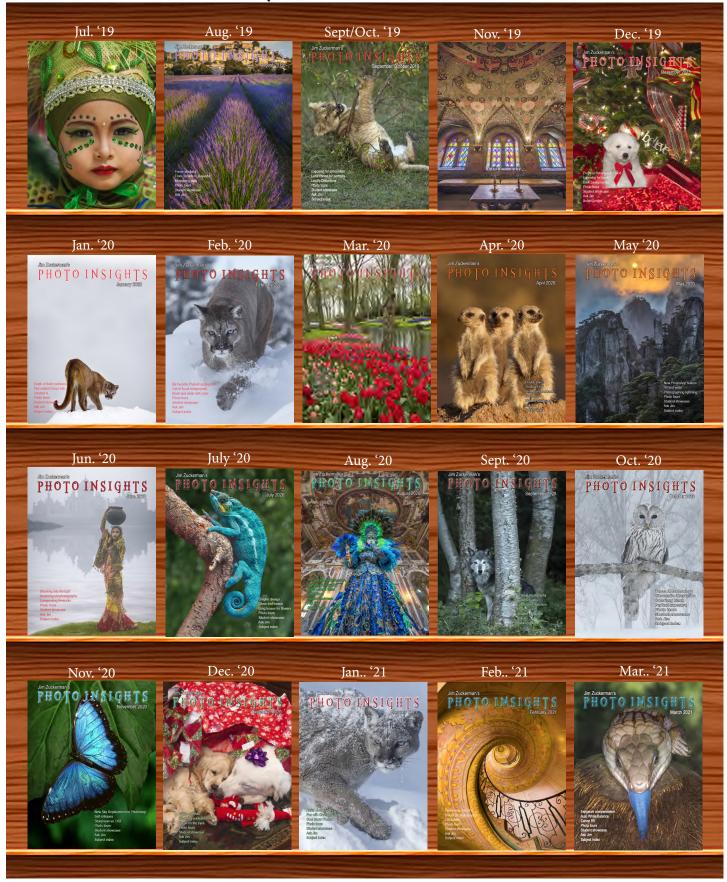
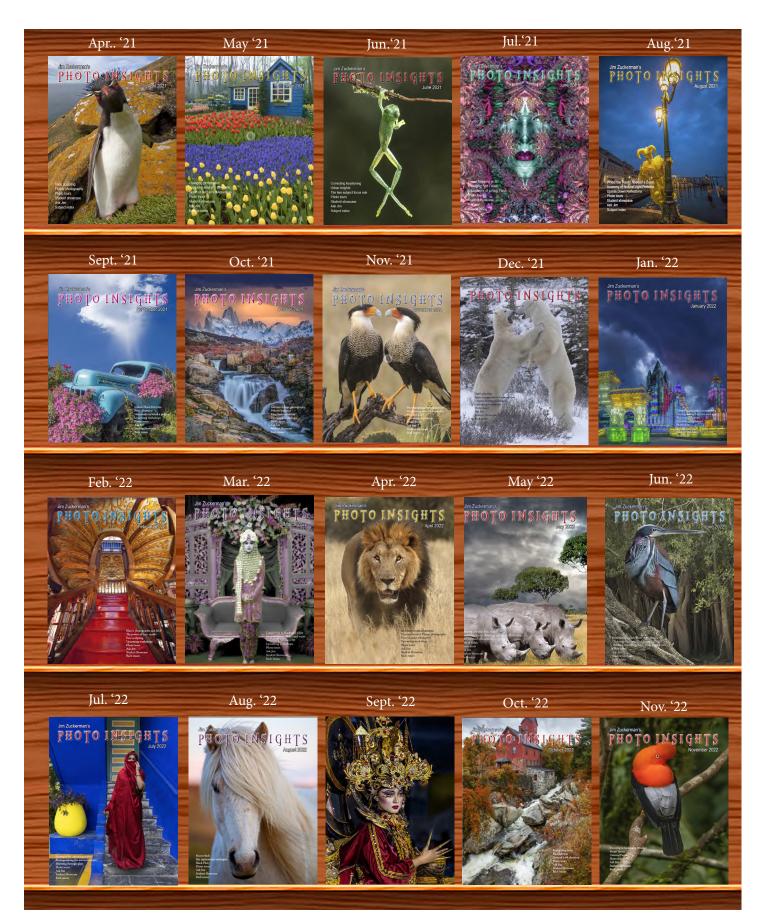
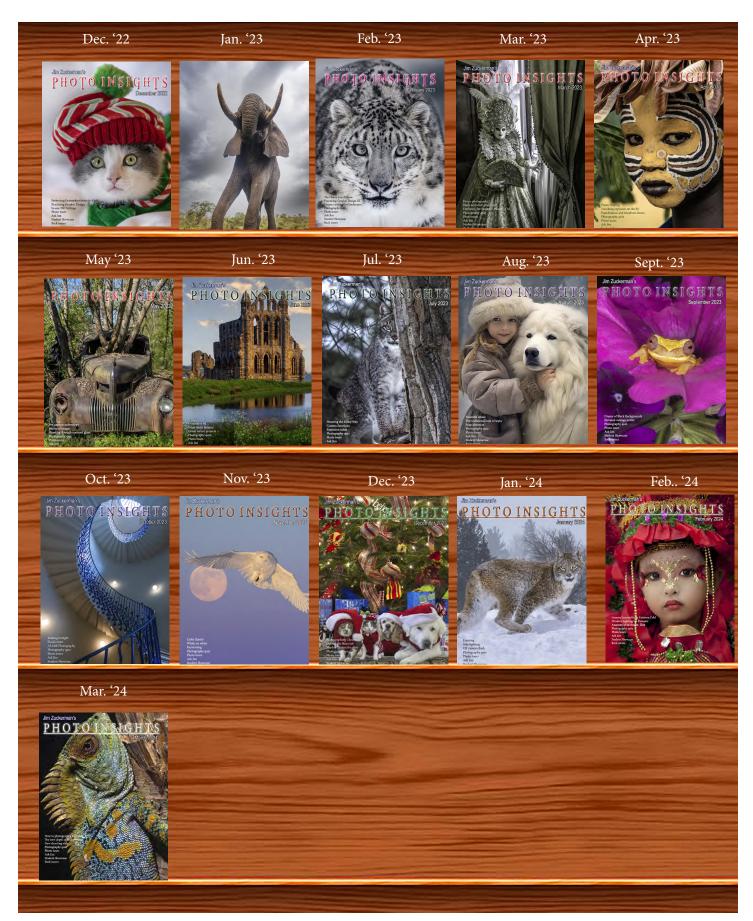


PHOTO INSIGHTS







Subject		11
1/3 focus law	Jul. '15	
3D sphere	Mar. '16	
90 degree finder	Mar. '13	
Abstracts in soap	Feb. '15	
Abstracts, Shooting	Mar '19	
Aerial photography	Jun. '13	
Aerial photography	Jan. ' 21	
African safari	May '16	
AI plus Photograpjhy	Oct. '23	
Airplane windows	Mar. '16	
Alien landscapes	Jan. '13	
Anatomy of 8 photographs	Jan. '16	
Anatomy of an Action Shot	Feb. '24	
Angled perspectives	Jan. '19	
Aperture vs. shutter speed	May '14	
Aperture priority	Sept. '14	
Aurora Borealis	Apr. '17	
Auto white balance	Dec. '13	
Autofocus, when it fails	Apr. '15	
Autofocus failure	Aug. '15	
Autofocus failure	Jan. '17	
Autofocus challenges	Apr. '18	
Auto ISO	Nov '17	
Auto White Balance	Mar' '21	
Autumn Foliage	Sep. '18	
Autumn Color	Sep. '20	
Autumn foliage photography	Oct. '21	
riatamin ionage photography	Oct. 21	
Back button focus	Oct. '18	
Backgrounds, wild	Nov. '12	
Backgrounds, busy	Apr. '13	
Backlighting	Apr. 13 Apr. 16	
Backlighting	Oct. '22	
Birds in flight	Aug. '13	
Birds in flight	Jan. '14	
Birefringence	May '18	
Birds in flight	Mar. '16	
Birds in flight, camera setting		
Bird Photography	Jun '19	
Black backgrounds	Aug. '23	
Blacklight photography	Feb. '21	
Black velvet	Mar. '14	
Black and white conversions	Mar. '17	
Black and white solarization	Sep. '17	
Black and white with color	Jan. '20	
Black and white plus color	Mar. '23	
Blown highlights	Feb. '18	
Blue monochromes	Jan. '22	
Black Plexy	λιια '22	
Blur, field	Aug. '22 Nov. '18	
Blur technique	Oct. '17	
Bokeh	Jun. '15	
Botanical gardens, shooting	Apr. '22	
Butterfly photography	Apr. 22 Jul. '14	
Butterny photography	Jul. 14	
Camera buying guidelines	Dec. 21	
Camera settings for landscape		
Camera setting priorities	Jun. '17	
Camera setting priorities Canon R5	Mar. '21	
Capturing lightning	Jun. '13	
Capturing lightning Capturing what you don't see		
Capturing what you don't see	Jul. '16	
Changing perspective		
Cheap flash stand	May '21 Apr. '13	
Cheap hash stand Children photography	Apr. 13 Jun. '14	
Choosing a telephoto lens	Dec. '20	
onousing a telephoto tens		

Chromatic aberration	May '13
Chrome	Dec. '18
Cityscapes	Aug. '14
Clarata al fiving an issue	May '16 Sep. '17
Clone tool, fixing an issue Clone tool technique	Sep. 17 Jul. '20
<u> </u>	Nov. '23
Color theory	
Composites and Light	Dec. '17
Compositing images	Apr. '19
Compositing, 7 steps	Jan. 22 Jan. '15
Composition, different approach	
Content-aware, New	Aug. '20
Content aware move tool	Jan. '23
Contrast vs. exposure	Jul. '15
Converting to black and white	Mar. '22
Correcting keystoning	Jun. '21
Creating a star field	Jan. '14
Creating Art out of Motion	May '22
Creating a Sketch	Dec. '17
Creative blurs	Jan. '14
Custom functions	Jul. '23t
Dark backgrounds	Nov. '19
Dawn photography	Jan. '17
Dawn photography	Feb. '17
Dead center	Jan. '13
Dead center	Oct. '23
Dealing with smog	Oct. '16
Decay photography	Sep. '15
Define Pattern	Sep. '18
Depth of field	Aug. '16
Depth of field confusion	Jan. '20
Depth of field and distance	Dec. '18
Depth of field and obliqueness	May '21
Depth of field, shallow	Apr. '20
Depth of field vs. sharpness	Nov. '20
Double takes	Apr. '20
Drone photography	Mar. '23
Drop shadows	Apr. '19
Dust, Minimizing	Aug. '19
Dust, Millimizing	riug. 19
eBook, how to make	Jan. '13
Elevated vantage points	Aug. '23
Eliminating people from photos	Jun. '22
Embedded in Ice	Oct. 17
Energy saving bulbs	Sep. '14
Equidistance and telephoto lenses	Apri. '23
Exploring the power visuals of AI	Mar. '23
Exposing for the sun	Sep. '16
Exposure, the sun	Jul. '13
_	Sep. '13
Exposure technique	Jan. '14
Exposure, snow	
Exposure triangle	Nov. '14
Exposure, to the right	Apr. '15
Exposure compensation	Sep. '16
Exposure compensation	Mar. '21
Extension tubes	Dec. '13
Extension tubes	Jul. '23
Face sculpting	Apr. '21
Face sculpting	Feb. '22
Festival photography	Sep. '20
Fill flash	Sep. 20 Sep. '13
Filter forge	Feb. '13
Fireworks	
	Jul. '13
Fireworks, Compositing	Jun '20

		<u>r</u>
	May '13	
Fisheye lenses	Feb. '15	
Fisheye fantasies	Oct. 21	
	May '15	
~ ·	Oct. '15	
, ,	Dec. '18	
	Sep. '16	
	Mar. '20	
	Nov. '19	
Floral Portraits, Indoors	Aug. '21	
	May '15	
Flower photography	Apr '21	
Flowers in harsh light	Jul. '16	
Focus on the eyes	Dec. '20	
Focus points	Mar. '15	
Focus points	Sep. '20	
Focus stacking	Mar. '17	
Focus stacking	Aug. '19	
Focusing in the dark	Oct. '16	
Foreign Dancers, Photographing	Nov' 17	
Foreign models	Jun. '13	
Fractals, generating	Sep. '13	
Fractals	Jul. '19	
Framing	May '17	
Framing	Jan. '24	
Freezing ultra action	May '17	
From Terrible to Beautiful	Aug. '19	
Fun with paint	Oct. '16	
Fundamental ingredients	Apr. '13	
Fundamentals That Make Great Photos	Jan. '19	
Fun With Christmas Lights	Jan. '21	
Fun with Food		
	Jul. '20	
	Dec. '15	
	Jun. '23	
	Jan.' 22	
E	Dec. '23	
Great subjects	Apr. '15	
_	Jul. '19	
Green screen	Mar. '13	
Ground level shooting	Oct. '22	
Grunge technique	Feb. '13	
Heavy Lens Debate, The	Feb. '23	
HDR, one photo	Apr. '13	
HDR at twilight	May '13	
	Jun. '15	
	Dec. '16	
	Nov '17	
HDR, hand held	Jul. '18	
HDR panoramas	Jun. '16	
HDR, choosing the number of frames	Jun. '22	
High wind	Apr. '17	
Highlights	Apr. '14	
Highlights, overexposed	Feb. '15	
	Jun '19	
	Apr. '20	
	Jun. '23	
	Mar. '20	
Humidity	Oct. '13	
Hummingbird photography	Apr. '13	
Hyperfocal distance	Jul. '13	
Image medicing	A ~ \$10	
Image resizing	Aug. '18	
Implying motion	Sept.'14	

11000 1110181	it ibbact
Impossible DOF	Feb. '16
Impossible DOF	Jan. '17
Indestructible camera bag	Dec. '14
Infrared photography	Jul. '14
Insane ISO settings	Dec. '22
Interiors	Oct. '15
iPad: Loading photos	Aug.'17
iPhone photography, pros and cons	Apr. '22
1 8 1 7/1	*
Jungle photography	Dec. '14
Kaleidoscopic images	Jan. '15
Kaleidoscopis images	Aug. '20
Keystoning	Nov. '23t
Keystoning, correcting	Aug. '15
T.D. 1.	D 1 (10
L Bracket	Feb. '18
L Bracket	Feb. '21
Landscape photography	Dec. '12
Landscape photography	Apr. '14
Landscape photography	Nov. '16
Layer Masks, The Power of	Feb. '22
Lessons Learned from Extreme Cold	Feb. '24
Light fall-off	Feb. '14 Dec. '21
Light painting	
Lighting a face	Oct. '13
Lightning photography	May '20
Liquify Liquify Distortions	Feb. '18 Sept/Oct. '19
Lenses, Essential	Aug. '23
Long lens portraits	Oct. '18
Long Lenses for Flowers	Jul. '20
Low light photography	
Low light photography Luminar 4	May '15 Jan. '20
Lummar 4	jan. 20
Macro flash	Nov. '12
Macro flash	Sep. '14
Macro flash	Aug. '15
Macro flash	Aug. '22
Macro photography and DOF	Feb. '22
Macro trick	May '19
Managing soft focus	Jul. '21
Mannequin heads	Apr. '16
Metering modes	Nov. '16
Meters, How They Work	Jul. '18
Meters, when they fail	Dec. '16
Metering situations, Impossible	Jul. '19
Middle gray	Nov. '15
Milky Way, Shooting thet	
Minimizing dust on the sensor	Nov. '21
Mirrors	Jan. '19
Mirror images	May '23
Model shoot	Jan. '17
Moon glow	Oct. '16
Mosaics	Jun. '17
Mundane to Ideal	Nov. '19
Museum photography	Mar. '13
Natural Light Portraits	Δ11α '21
Natural Light Portraits Negative space	Aug. '21 Jan. '16
Neon edges on black	Aug. '14
Neutral Density filters	Jun. '18
New depth of field preview	Mar. '24
New shooting style	Mar. '24

Neutral Density filters and water	Mar. '22
Night photography	Feb. '14
Night Safaris	Jun. '18
Night to Twilight	Dec. '17
Noise reduction	Feb. '17
Noise reduction	100. 17
Off-camera flash	Jan. '24
Oil and water	May '20
Organization of photos	Mar. '18
Out of focus foregrounds	Jan. '20
Paint abstracts	May '13
Paint abstracts	Aug. '21
Painting with light	Sep. '15
Panning motion	Dec. '16
Pano-Mirrors with a twist	Jan. '18
Parades	Sep. '13
Parallelism	Nov. '19
Parallelism and DOF	Feb. '21
Perspective, Super Exaggeration of	Dec. '21
Photo shsaring	Apr. '23
Photo terms	Nov. '22
Photographing Christmas	Dec. '23
Photography to Art	Dec. '17
Photography solutions	Jan. '18
Photoshop, content Aware	Nov. '12
Photoshop, sketch technique	Apr. '13
Photoshop, replace background	Apr. '13
Photoshop, actions palette	Dec. '13
Photoshop, layer masks	Feb. '13
Photoshop, the clone tool	May '13
Photoshop, soft foliage	Oct. '13
Photoshop, mixer brush tool	Sept. '14
Photoshop, b & w with color	Jun. '14
Photoshop, drop shadows	Jul. '14
Photoshop, creating texture	Feb. '14
Photoshop, face mirrors	Feb. '14
Photoshop, liquify	Mar. '14
Photoshop, face mirrors	Aug. '14
Photoshop, digital spotlight	Sep. '14
Photoshop, enlarge eyes	Nov. '14
Photoshop, darken the periphery	Dec. '14
Photoshop, mirror images	Dec. '14
Photoshop, beam of light	Apr. '15
Photoshop, polar coordinates	Mar. '15
Photoshop, chrome	May '15
Photoshop, actions palette	Nov. '15
Photoshop, cut and paste	Nov. '15
Photoshop, geometrics	Oct. '15 Oct. '15
Photoshop, plugins	Apr. '16
Photoshop, multiple selections	Apr. '16 Apr. '16
Photoshop, sharpening Photoshop, Flood plugin	Apr. '16
Photoshop, Desaturation	
Photoshop, making a composite	Aug. '16 Aug. '16
Photoshop new tool	May '20
Photoshop, place one element behind	Aug. '18
Photoshop, the pen tool	Feb. '16
Photoshop, canvas size	Jan. '16
Photoshop, using the earth	Jun. '16
Photoshop, define patterns	May '16
Photoshop, paste into	Nov. '16
171	

	F1 47
Photoshop, b & w with color Photoshop, open a closed door	Feb. '17
Photoshop, palettes	Apr. '17 May '17
Photoshop, My favorite plugins	Jan. '20
Portrait options	Jan. '19
Portrait techniques	Nov. '15
Portraits	Mar. '13
Portraits, mixed lighting	Aug. '14
Portrait Professional	Nov. '19
Portraits, Lens choice	Sept/Oct. '19
Portraits, side lighting	Sep. '17
Portraits, window light	Mar. '15
Portraits, outdoors	May '17
Post-processing checklist	Dec. '13
Post-processing: Contrast	Aug. '17
Practicing graphic design, Part I	Dec. '22
Practicing graphic design, Park II	Jan. '23
Practicing graphic design, Part III	Feb. '23
Pre-capturing technology Predictive Focus	May '23 Sep. '18
Problem/solution	Apr. '17
Problem Solving in Photoshop	May '22
Problem with cruises	Jan. '18
Protecting extremeities from the cold	Dec. '22
Protecting highlights	Dec. '12
Puppies	Jan. '15
Puppy photography	Feb. '18
Reflections	Feb. '13
Reshaping faces	Oct. '22
Restoring old photos	Jun '20
Ring flash, advantages	Jul. '21
Ring flash versatility	Oct. '21
Rule of Odds	May '22
0.6.	36 (12
Safari	May '13
Safari strategies	Jul. '15
Seeing as the lens does	Nov. '14
Seeking Cool Snow Photos Selective filtering	Jan. '21 Mar. '18
Selective intering Selective focus	Jun. '15
Self-critiques	Jul. '13
Self-critiques	Oct. '13
Self-critiques	Nov. '20
Sensor cleaning	Jun. '18
Sepia and dark contrast	Jun. '15
Sepia, Traditional look of	
Shade	May '14
Shady side	Jun. '18
Shadows define the shot	Dec. '23
Shadows, Paying Attention to	Mar. '18
Sharpness problems	Mar. '14
Shooting in Inclement Weather	Nov. '22
Shooting through textured glass	May '23
Shooting through wire mesh	Sept. '14
Shooting into the light	Jun '20
Side lighting Silhouettes	Jan. '24
Simouettes	Jun. '13

Silhouettes, How to make	Apr. '22
Silhouettes, Exposing for	Sept/Oct. '19
Silvered landscapes	Mar. '20
Sketch, How to Make	Jun '19
Skies make or break a picture	Aug. '21
Sky replacement	Nov. '20
Sky replacement strategies	Aug. '22
Snow exposure	Nov '17
Snow exposure	Nov. '19
Soap abstracts	Aug. '23
Soft light	Jan. '13
Smart phone photography	May '19
Stained glass	Mar. '17
Star photography	
Star photography and noise	Jan. '18
Stock photography	Sep. '14
Sunrise & sunset	Jan. '19
Tamron 150-600mm	Apr. '14
Ten reasons photos are not sharp	Jan. '19
Texture, Adding	Mar '19
Texture Mapping in 3D	Jul. '21
Topaz AI Gigapixel	Mar '19
Topaz glow	Jan. '15
Topaz glow	Sep. '17
Topaz Impression	Sep. '15
Topaz Remask 5	Oct. '17
Topaz Simplify 4	Dec. '12
Topaz simplify 4	Jun. '14
Topaz Studio	Apr. '18
Total solar eclipse, How to shoot	Mar. '24
Translucency & backlighting	Nov. '18
Travel photography	Feb. '13
Travel portraits	Mar. '14
Travel tips	Apr. '14
Travel photographer's guide	Jun. '17
Tweaking exposure on the fly	Apr. '23
Twilight photography in the rain	Apr. '19
Twilight, Creating	Oct. '23
Tripods	Mar. '18
Two subject sharp rule	May '14
Two subject focus rule	Jan. '20
Two subject focus rule	Jun. '21
**1 1 - 1 -	T (01
Urban heights	Jun. '21
Ultra distortion	May '18
Unusual Panos	Nov. '22w
Upside Down Reflections	Aug. '21
Warm fingers in winter	Nov. '15
Water drop collisions	May '18
What NOT to do in photography	Apr. '18
When You Needed a Zoom	Aug. '21
White on White	Dec. '20
White on White	Nov. '23
White vignette	Aug. '15
White balance	Feb. '15

Quiz answers

1. d a b b b b a c d a 5. 6. 7. 8. 9. 0 a

Your score

90% - 100%: You could have been a pro

80% - 89%: Your glasses probably need a new prescription

70% - 79%: Just don't quit your day job

< 70%: You should really be using an iPhone

•	•
White balance, custom	Mar. '16
White balance, What	Jun. '23
Wide angle conundrum	May '19
Wide angle lenses	Mar. '13
Wide angle portraits	Nov. '14
Wide angle lenses	Jun. '17
Wide angle lenses: Outside the Box	Jun. '22w
Wide angle keystoning	Nov '17
Wildlife photos with wide angles	Mar. '15
Window light	Dec. '15
Window light portraits	Aug. '18
Window light portraits	Feb. '24
Window frames	Feb. '16
Winter photography	Dec. '12
Winter bones	May '13
Winter photography	Dec. '15
Winter photography	Nov. '18
Wire Mesh, Shooting Through	Jul. '18
Workflow	May '13

