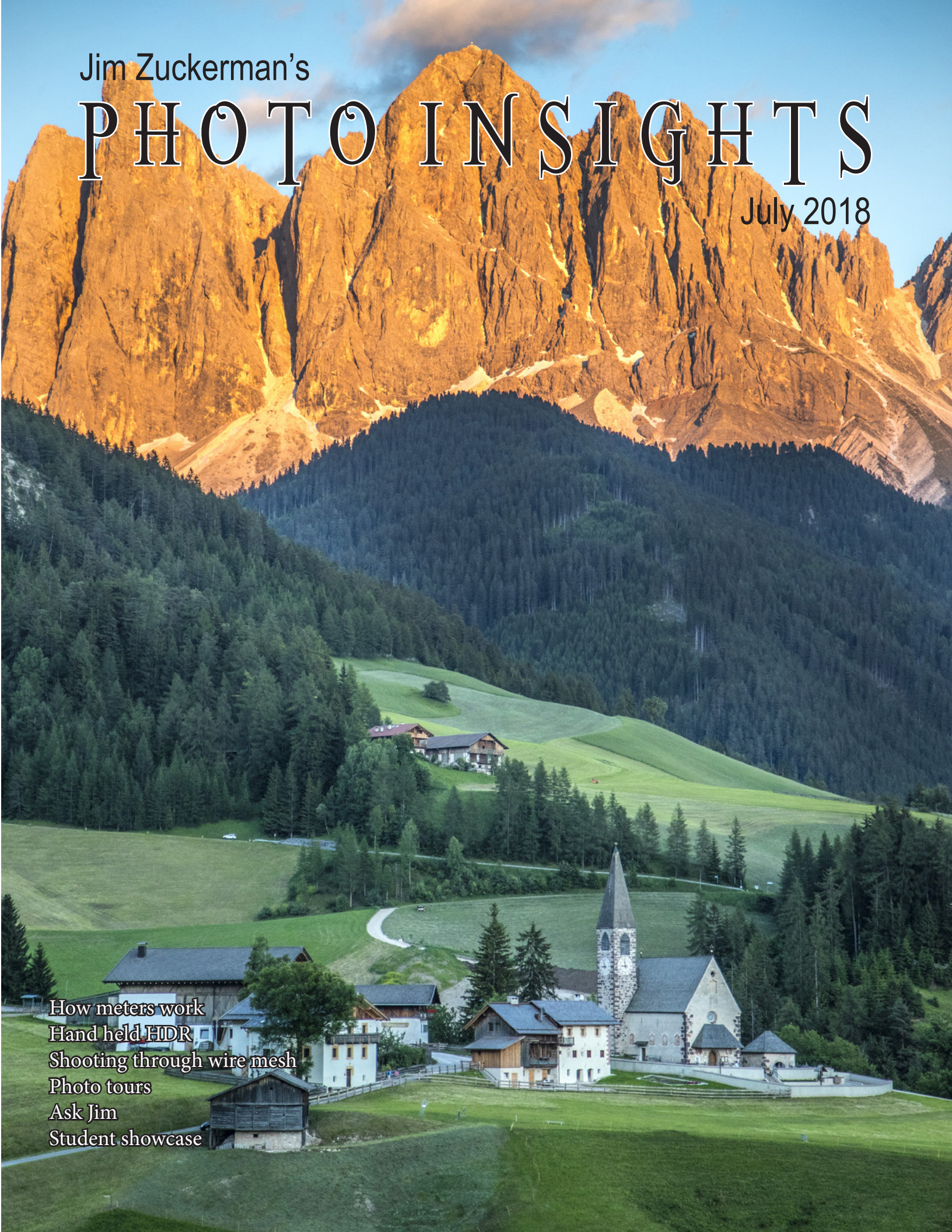


Jim Zuckerman's

PHOTO INSIGHTS

July 2018



How meters work
Hand held HDR
Shooting through wire mesh
Photo tours
Ask Jim
Student showcase



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On the cover: The village of St. Magdalena and the Dolomite Range at sunset, northern Italy.
This page: A wild jaguar in the Pantanal region of Brazil.



The prohibitions against photography, hence the restrictions placed on photographers, become more and more problematic as time goes on. It's very, very frustrating. A case in point is the world famous Duomo and Campanile in Florence, Italy. Literally millions of visitors from all over the world travel thousands of miles to visit these iconic works of medieval architecture, and every single tourist wants to take memorable pictures -- whether they use an iPhone or an expensive dSLR.

So what does the Italian government do? In the last year, it put a wire cage over the entire observation deck of the Campanile, making wide angle photography impossible. In this issue, I included an article about shooting through wire mesh, and although you can still take telephoto shots (in some cases), it's the wide angle perspectives that make the climb of 414 steps worth the effort. Now, there is no point in going up there. The classic pictures you've seen for years taken from this spectacular height can no longer be taken.

Inside the Duomo, there are tours you can pay for that take you up to the base of the interior of the dome, close to the exquisite paintings. Unfortunately, photography is now virtually impossible because there is a very high plexiglass barrier between the tourists and the paintings. Unless you are seven feet tall and raise your arms high, you can't shoot over the barrier. That means you'd have to photograph through the Plexiglas with all of its imperfections and reflections. It's just not doable with a wide angle lens, which is what's needed. After paying for the tour and being disappointed, I asked if I could stand directly beneath the dome on the main floor of the cathedral so I could shoot upwards. Nope, not possible. That area was roped off.

The ticket office and the private tour companies in Florence still show you pictures that were possible before the addition of these barriers, and they are happy to take your money. In my opinion, this is fraudulent. There should be a disclaimer that lets people know they won't be able to take decent pictures at all, but of course that will never happen.

Jim Zuckerman
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photos@jimzuckerman.com

HOW METERS WORK

In every photo tour I lead, I am always asked about exposure. Even after years of taking pictures, people are still not confident in getting it right. The truth is, metering is both simple and complicated at the same time. It's simple in many situations -- such as when the sun is at your back -- because front lit subjects or scenes with medium toned elements are easy for any meter to read. It's complicated because, when contrast is extreme and when you are faced with backlit and side lit scenes, detail you want to retain in the highlights and in the deep shadows is often lost.

Let me explain how meters work and why it's so easy to over- or underexpose your images. This will be review for many of you, but some of what I delve into here may be new for you.

Middle gray

The only way a meter can determine the correct exposure is if it's programmed to understand *middle gray* or, in other words, subjects that are *middle-toned*. They don't have to be gray in color, of course. They can be *middle blue*, *middle red*, or *middle yellow* as well.

The point is that the meter is programmed to assume every subject and scene is halfway between white and black, i.e. gray. The reading it gives you -- the shutter speed, f/stop, and ISO -- is based on the sum total of the elements in the scene. When those elements are, in fact, middle toned, the exposure will be accurate. Every element doesn't have to be middle toned as in the photo of the Masai



women on the previous page. Their skin is dark and the clouds are white. But the preponderance of tones averages out to be approximately in the middle.

Since meters see everything as middle gray, when you photograph a winter landscape such as the rare snowfall in Monument Valley, Utah (right), assuming all middle tones; therefore it gives you an exposure that is underexposed because it wants to make the white snow gray.

To address that issue, it is necessary to use the exposure compensation feature built into the camera to overexpose the reading. The question is, "By how much?" Some photo instructors say the exposure adjustment should be 1-1/3 f/stops. Others say 1-2/3 f/stops. What's the answer? I'll get to that in a moment.

For dark images, where most of the tones are below middle gray, the meter -- again -- assumes



the scene is middle gray and therefore makes the image lighter so it looks middle toned. Thus, it's overexposed. An adjustment using the exposure compensation feature is needed again to make the picture look correct. This time you would reduce the exposure, such as by 1 or 2 f/stops.

What the meter sees

How much you adjust the exposure depends



on what the meter is *seeing*. This is true for shooting snow, taking pictures at night, and every other scenario as well.

For example, look at the winter landscape at right of Delicate Arch in Arches National Park, Utah. Although there is quite a bit of snow on the ground, what the meter sees in this scene is mostly blue sky and red rock, the majority of which is in shadow. How can the exposure compensation adjustment be the same for this image as it is for the Monument Valley shot on the previous page where I took pictures in a complete whiteout? Both have snow, but what the meters saw in each composition was very different. Therefore, it is a mistake to assume that a 1-1/3 f/stop adjustment (or any specified exposure compensation) works for all winter shots.



Same landscape, two different exposures



Study the two landscape images, below and on the previous page. I shot these in Tuscany, Italy. They come from RAW files, and they are straight out of the camera without any manipulation at all. In the version on page 6, the tones are essentially in the middle which is why the exposure is good. This is the kind of scene, or tonality, that meters are designed to read. The picture is bluish, but that's because the sun hadn't risen yet and I was using daylight white balance.

In the version below, taken at the same time, I angled the camera to include the sky. Due to the contrast between the bright sky and the land, and because meters interpret everything as middle gray, the bright sky is toned down and the landscape is much too dark.

The discrepancy in exposure between the two versions is due solely to where the camera was

pointed. I didn't do any manual adjustments. When a client on a photo tour asks me how to expose for a certain scene or subject, I can't give a definitive answer until I know what's included in the frame. I need to know how much of the image is sky, or in dark shadows or mid-tones, etc. Only then can I give an answer that makes sense.

Unlike the past when film required developing time, today we can merely study the LCD monitor to assess the exposure instantly. Even if it takes two -- even three -- test shots, the fastest and most accurate way to determine the correct exposure setting is to simply look at the monitor, not the histogram. When the image appears too light or too dark, a quick exposure compensation adjustment will tweak the amount of light hitting the sensor. and give you a perfect picture. §



HAND HELD HDR

I wrote about hand holding a camera while shooting an HDR sequence last year, but I want to revisit it because I've been using this technique frequently now and I realize how important it is.

Ideally, a tripod should be used when creating a several-frame sequence of bracketed shots for the purpose of making an HDR composite. This will make it easy for the software to align each photograph, thus maintaining the sharpest results possible. Of course, the most frustrating problem for a photographer is that tripods are prohibited in the darkest of interiors, such as cathedrals, palaces, museums, his-

toric monuments and ruins, locations where a tripod matters most. Even in places of nature such as the slot canyons in Arizona, tripods are not allowed now. If HDR is required because a scene has extreme contrast, how can photographers take superior pictures?

The answer is to create an HDR sequence while hand holding the camera. This may seem impossible to do successfully, but look at the photo below. This is a stunning Serbian Orthodox church in Ljubljana, Slovenia. It is a 7-frame HDR sequence in which I hand held the camera . . . and it's tack sharp. So, if I can do it, you can do it, too.



OREGON COAST PHOTO TOUR

August 29 - September 3, 2019

Oceanscapes

Stunning waterfalls

Star photography

Rocky beaches



The technique

Here is what you need to know when making an HDR sequence without a tripod.

1. *Hand holding an HDR series can only be done when using a wide angle lens.* The wider the angle of the lens, the better, because there is less apparent movement during the multiple exposures when using this type of lens. A telephoto, on the other hand, shows significant movement as you are holding it. Even a medium telephoto in the 70-120mm range can't be held still enough so that the HDR software -- Photomatix, Aurora, Nik, or Photoshop -- can align the images without ghosting. You might be able to lean against a wall, a column, or a railing to steady yourself, but there is a good chance the composite will not be sharp when trying to do this technique with a telephoto.

2. *You increase the odds that the HDR composite will be sharp if your camera has a fast frame rate.* High pixel cameras that shoot 4 or 5 frames per second are not ideal for this technique. It takes too long to make the series of bracketed exposures, thus creating excessive camera movement. For example, a camera that can shoot at 12 to 14 frames per second can fire off a 5-frame HDR sequence of shots in about 1/3 second -- a definite advantage. With 8 to 10 fps cameras, you should make several attempts to guarantee perfect alignments in order to help the software produce perfect results.

3. *When composing the shot, use a central focus point in the viewfinder to align with some shape or design in the subject.* Keep the camera aimed at that one point, spread your legs apart for stability, hold your breath, and when you see a minimum of movement, gently hold



This is a 7-frame hand held HDR composite, Siena Cathedral, Italy

down the shutter button until all of the frames are exposed.

4. *Determine what the slowest shutter speed is going to be in the sequence of shots.* If it is too slow -- for example, 1/15 or 1/30 -- you must raise the ISO until the slowest shutter speed is at least 1/45 with a wide angle lens. With an extreme wide angle, like a 14mm, you can probably get away with 1/30 as the slowest speed.

You can determine this by looking at your HDR settings. For example, if you are shooting a 5-frame sequence in one f/stop increments (this is typical of what I do), this means there will be one shot exposed as the meter dictates, and then two shots darker (-1 and -2) and two shots lighter (+1 and +2). It's the lighter frames that are of concern. If the median exposure is, say, 1/60, then the slower shutter speeds will be

1/30 and 1/15. This is too slow for a hand held shot. So, if you are starting with an ISO of 1000, raise it to 2000 to reduce the slowest exposure time to 1/30. For extra insurance of creating a tack sharp HDR composite, raise the ISO to 3200 for a minimum shutter speed of 1/45.

5. *Study the exposure spread of the HDR frames on the LCD on the back of your camera.* If the lightest frame is completely blown out, use the exposure compensation feature to move the entire sequence to the left, i.e. toward under-exposure.

6. *The more frames you shoot in HDR, the less noise there should be when they are stacked.* This is because noise is random, and it can actually disappear with 5 or 7 frame sequences. If your picture still has too much noise, use one of the excellent noise reducing programs like Neat Image or Topaz DeNoise to eliminate it. §



This is a 5-frame hand held HDR composite, Vernazza, Cinque Terre, Italy

POST-PROCESSING

online course

by Jim Zuckerman



In this photo, Jim added the elephant on the left as well as the reflection. There was no water in the original shot. Wonders can be accomplished in post-processing.

Learn how to process your images to give them visual impact. You will be introduced to Photoshop techniques that go beyond what you see and even beyond what you can imagine. This four-week course is invaluable to making your pictures look as good as the photographs you envy!

The great thing about online courses is that they can fit into any schedule. Life gets in the way at times, and Jim puts no limit on the time you can submit your work for his critiques. [CLICK THIS PHOTO](#) to read more about this course.

SHOOTING THROUGH WIRE MESH

Too often photographers are confronted with a wire mesh that interferes with a view of a wonderful subject. It is a daunting task to get a decent picture through all that ugly wire. Caged birds are a typical example, but on my recent photo tour to Tuscany and Cinque Terre in Italy, I climbed the 414 steps to the top observation deck of the Campanile tower in Florence and found myself essentially in a wired cage. It wasn't like that the last time I was there, and I was profoundly disappointed that the Italian government would do this to tourists. The wire mesh wasn't photographer friendly at all. Each square opening was smaller than the

diameter of my lens. The photo below, taken with a 24mm wide angle lens, shows you exactly what I saw.

Making the problem worse was the fact that the wire gage was heavy-duty. This made it more difficult to eliminate.

Taking a wide angle shot of the city from this observation platform is now impossible. Unless you want to climb the tower for exercise, you'll waste \$12 as well as your time going here.

The only way to handle this kind of problem is to use a telephoto lens as well as its largest ap-



UPCOMING PHOTO WORKSHOPS



Carnival in Venice workshop

Outrageous costumes in a medieval environment! Venice is great to visit and photograph any time, but during carnival it's magical. There is nothing like it anywhere in the world. Exotic masks, stunning colors, classic images.

Feb. 23 - March 1, 2019



Frog & Reptile Workshop

Close-up encounters with poison dart frogs and exotic reptiles such as chameleons, geckos, snakes, and more in St. Louis, Missouri. This is a macro workshop in which everyone consistently gets amazing pictures.

Oct. 20 - 21, 2018



Photoshop workshop

The setting is in my home, and in this two day workshop you'll learn enough to be truly dangerous in Photoshop! How to replace a sky, how to fix all kinds of photographic problems in your pictures, how to handle blown highlights, how to be incredibly creative . . . and more.

November 16 - 17, 2018

erture on the lens. Additionally, place the lens against the mesh, physically touching it. The mesh must be in diffused light, too. Direct sunlight can't illuminate the wire. Taking these steps throws the mesh so out of focus it essentially disappears.

In the top photo below, I used my 24-105mm lens at the telephoto position, but I also shot this at $f/22$. You can see that even with a 105mm focal length, the mesh is defined enough to ruin the picture. In the version below right, the $f/4$ aperture essentially blurred the wire. Looking closely, in the upper right corner, notice the

somewhat darkened features along the right side and bottom portion of this photo. This is the blurred heavy-gauge wire revealing itself. I tried to put the lens in the middle of an opening in the fencing, but as I said, it was smaller than the diameter of the lens.

For the photo on the next page of the caged pink cockatoo in a bird park in Bali, Indonesia, I used a 100-400mm lens set to 330mm. The largest aperture was $f/5.6$, and I placed the lens up against the wire mesh. This completely eliminated any evidence of the wire. §

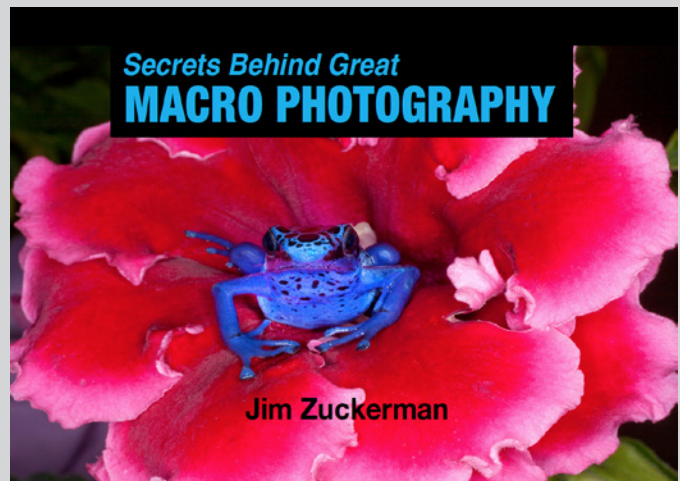


The settings for both photos were 105mm lens, 400 ISO, and I hand held the camera. The aperture for the image above was $f/22$, while the image at right was taken with $f/4$ to throw the wire mesh as out of focus as possible.



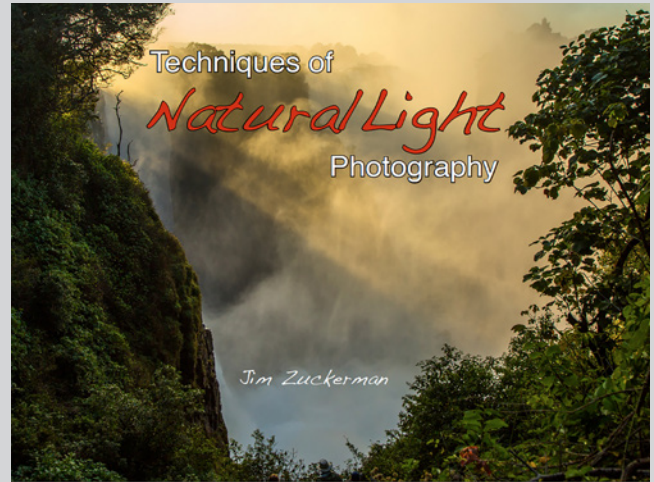
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eBooks continued

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Fantasy Nudes is in production and is coming soon

PHOTO TOUR to CHINA

Dec. 29, 2018 - Jan. 8, 2019

The incredible Harbin Snow & Ice Festival Siberian tigers Blue-faced monkeys Terra-cotta soldiers



What's wrong with this picture?



This is Lake Bled in Slovenia, and the Church of the Assumption built in 1655 makes a striking silhouette at sunrise. I photographed this from a boardwalk at the edge of the lake. When I made the shot and studied the LCD monitor to assess the exposure, I realized my mistake. The sun was off-center.

When you photograph symmetrical subjects or scenes, every element is important in contributing to the balance of the picture which, in turn, underscores the symmetry. In this example, the church and the island are dead center, the mountains on either side are approximately the same shape and density, therefore balancing each other; the horizon line is in the middle which balances the photograph from top to bottom. The one element out of place in this context is the sun and its reflection in the lake.



The version above is correct. When I saw the problem, I walked a few feet to the left on the boardwalk until the sun was positioned correctly and made the shot.

Regarding the flare, in both pictures I eliminated some of it using the spot healing brush in Photoshop. However, I left some traces of the flare in the picture because I felt it was appropriate, given the brilliance of the sun. Lens flare, in certain cases, helps convey the feeling that the sun is intensely bright.

My exposure was simply determined by the meter in aperture priority mode. I wanted a star burst, so I used a small lens aperture -- $f/20$ -- and at 200 ISO the camera chose $1/800$ th of a second. Had I wanted to tweak the exposure, I would have used the exposure compensation feature. I shot this with a 24-105mm lens set to 28mm. §

SHORT AND SWEET

1. Power lines ruined this beautiful composition of Montepulciano, Italy, but fortunately we can now remove them with the spot healing brush in Photoshop. Make the brush small (with the left bracket key on the keyboard) and simply drag the tool over the wires as well as the power and telephone poles.



2. When elements in a scene are beyond optical infinity -- the point in the lens where 'infinity' begins -- everything in the scene will be sharp *at any lens aperture*. With a wide angle lens such as a 24mm, like I used here, optical infinity begins at about 24 feet. That means you don't have to use f/16 or f/22 for DOF.



3. Animals with dark hair are best photographed in diffused light. The minimal contrast allows us to see all the detail in their dark coats much better than if they are lit by the direct sunlight of mid-day. Sunrise and sunset are also good times to photograph dark animals, but only if the sun is close to the horizon.



4. During a festival or in a place where there is a lot of people who make the background behind a subject unappealing, ask the person you are photographing to move over to a wall, a doorway, a hedge, or some other background where people can't congregate. This allows you to take a clean image with no distractions. §



ASK JIM

Every month, Jim will answer 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 . . . So often people ruin my shots that otherwise would be good. I took this in Antigua, and I like the composition. However, the other tourists are detracting. Is there a way to blur the people out so they essentially disappear?

Crystal Conner, Richmond, Virginia

A: With a long exposure, anyone or anything that moves will be blurred out. However, since the light here was very bright, a long exposure -- such as 30 seconds -- wouldn't be possible even at f/32 unless you also used a neutral density filter to reduce the light at least 8 f/stops. One challenge you'd have, though, are the wooden slats making up the surface on which the people are walking. If they are not completely rigid and there is even a small amount of vibration, you couldn't use a long exposure here because the picture wouldn't be sharp. §



© Crystal Conner 2018

Partial list of Photography Tours 2018 - 2020

THE PANTANAL, BRAZIL
Nov. 2018



BURMA
Nov. 2018



CHINA
Dec. 2018 - 2019



YELLOWSTONE IN WINTER
Jan. 2019



SNOWY OWLS
Feb. 2019



ICELAND
Mar. 2019



PATAGONIA
April 2019



SCOTLAND
May 2019



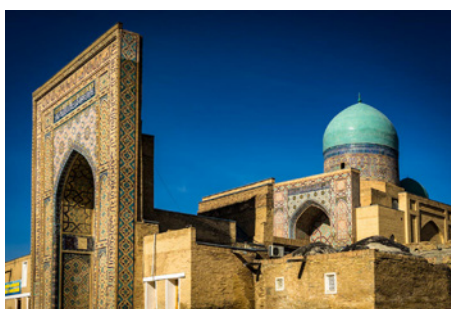
KENYA
Aug. 2019



OREGON COAST
Aug. 2019



UZBEKISTAN & KYRGYZSTAN
Sept. 2019



WINTER WILDLIFE
Jan. 2020



For a complete list of all the photo tours/workshops Jim conducts, go to his website: www.jimzuckerman.com.

Scotland Photo Tour

May 17 - May 28, 2019

Awesome landscapes Ancient ruins Great castles Adorable cows



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 gets great photographs on Jim's trips.

Rosemary Sheel, Camarillo, California *Mongolia Photo Tour, White Horses of the Camargue workshop.*



© 2018 Rosemary Sheel

Student Showcase, continued



Student Showcase, continued



© 2018 Rosemary Sheel

Student Showcase, continued



© 2018 Rosemary Sheel

KENYA PHOTO TOUR

August 1 - 11, 2019



Nursing baby elephant, Masai Mara National Reserve, Kenya

PHOTOSHOP WORKSHOP

IN MY HOME

Sat. & Sun., November 16 - 17, 2018



Photoshop is a photographer's best friend, and the creative possibilities are absolutely endless. In a personal and 'homey' environment (I have a very cool classroom setup in my home), I start at the beginning -- assuming you know nothing -- but I quickly get into layers, cutting and pasting, plug-ins, using 'grunge' textures, replacing backgrounds, using layer masks, blend modes, adding a moon, and a lot more. I promise to fill your head with so many great techniques that you won't believe what you'll be able to do. I go over each technique several times to make sure you understand and can remember it.

Photoshop instructors approach teaching this program from different points of view. My approach is to be as expansive in my thinking as possible in creating unique, artistic, and compelling images. In addition to showing you how to use the various tools, pulldown menus, layers, and so on, I spend a lot of time giving you

creative ideas that will inspire you to produce amazing images with the pictures you've already taken.

I live in the Nashville, Tennessee area, and if you fly into the airport (airport code BNA) I will pick you up. If you drive, I'll give you my address and you can find my home on Mapquest or with a GPS. For the \$450 fee, I include one dinner in my home (prepared by my wife who is an amazing cook and hostess) and two lunches, plus shuttling you back and forth from my home to your nearby hotel.

Contact me if you would like to participate in the workshop and I will tell you how to sign up (photos@jimzuckerman.com). All you need is a laptop and a lot of your pictures. If you don't have a laptop, I have two Mac Book Pro laptops I can loan out for the duration of the workshop. \$

Click on the past issues of PHOTO INSIGHTS you would like to read.

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Dec. '12



Jan. '13



Feb. '13



Mar. '13



Apr. '13



May. '13



Jun. '13



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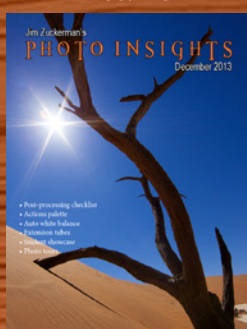
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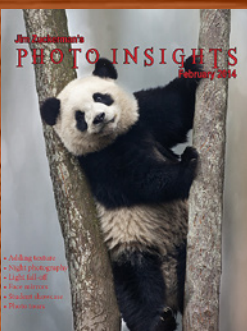
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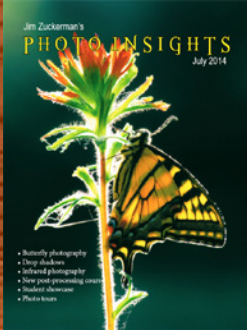


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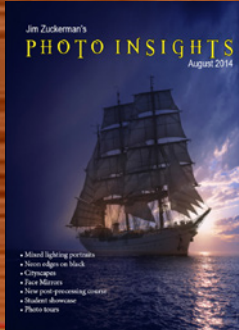


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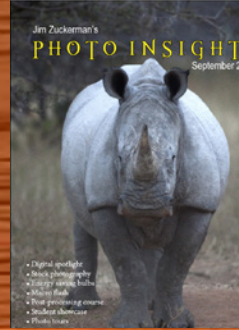
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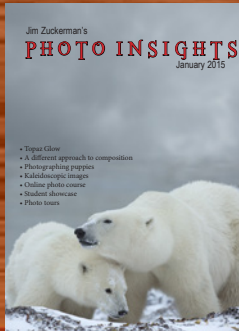
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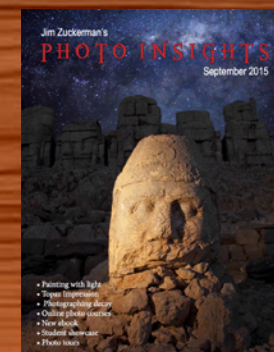
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Feb. '16



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Apr. '16



May '16



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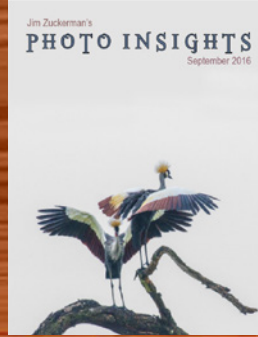
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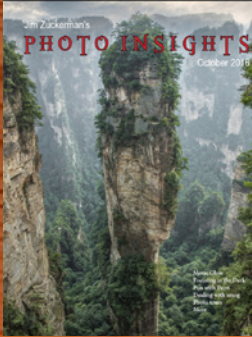
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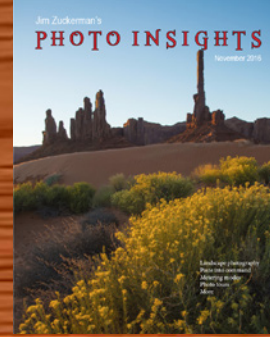
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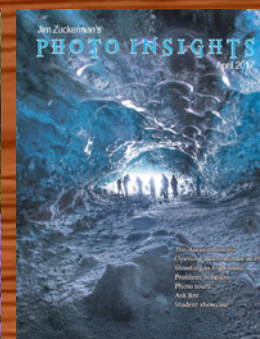
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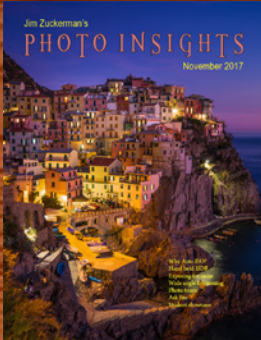


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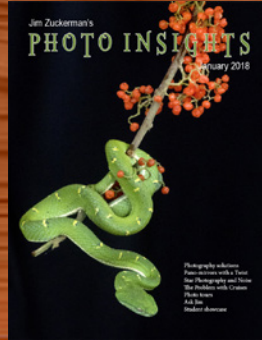
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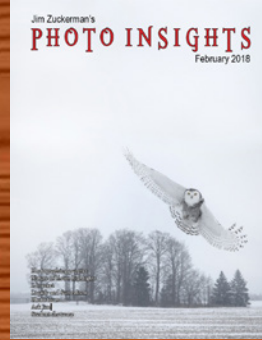
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Vitaleta Chapel, Tuscany

PHOTO INSIGHTS®
published by Jim Zuckerman,
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© Jim Zuckerman 2018
email: photos@jimzuckerman.com
snail mail address:
P.O. Box 7, Arrington, TN 37014