

Jim Zuckerman's

PHOTO INSIGHTS

May 2024



Correcting wide angle distortion

AWB versus Daylight WB

Shooting through glass

Photography quiz

Photo tours

Ask Jim

Student Showcase

Back issues



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On the cover: 18th century windmills in golden light at sunset, Kinderdijk, Holland. *This page:* Exotic species of tulips in Keukenhof Gardens, Lisse, Holland.



On my recent photo tour to Holland and Belgium, a client asked me why I was handholding the camera and not using a tripod when we were shooting twilight. My response had everything to do with noise. Current digital and mirrorless cameras are so good now that we can raise the ISO to dizzying heights and still get great pictures. Most of my twilight shooting was done between 3200 and 5000 ISO. Yes, there is still some noise, but after I apply Topaz DeNoise AI and then Topaz Sharpen AI, the pictures look great.

There are three other factors at play as well. At my age, I want to lighten the load I carry. For 40 years I carried a 45 pound backpack when I traveled. Over time, I developed lower back issues. So, I am trying to avoid back surgery in carrying less gear. In addition, I don't make large prints. All my photos now are for the website, the eBooks I send out to clients before a tour, and social media. I don't need a tripod for that. Finally, I am no longer making my primary income from stock photography. If I still were, I'd be using a tripod and shooting at 100 or 200 ISO.

I find that walking around without a tripod enables me to shoot more, and I can be much more mobile, flexible, and creative. If I want to use long exposures to blur traffic lights, etc., then a tripod is needed. And, once it gets dark, a tripod is essential. But there is still enough ambient light at dusk and twilight to handhold the camera and get perfectly acceptable images.

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Correcting WIDE ANGLE DISTORTION

Photographers are accustomed to *keystoning* -- the angling inward of vertical lines in our pictures. We see this all the time when shooting architecture, tall trees, and even people when captured from a low angle. We accept this as reality, as how our lenses record what we see, but it's not reality at all. Camera club judges get all bent out of shape when you replace a sky in Photoshop, but taking pictures of buildings that look like they are about to fall over is not a problem at all for them.

For me, most of the time keystoning looks terrible. A case in point is the fanciful and creative architecture, below, in Zaandam, Holland. The structure at the far left looks ridiculous in my opinion. On the other hand, I feel the shot of the Church of Our Lady in Bruges, Belgium on the next page looks dynamic, and the angled perspective adds to the striking visual impact of the medieval architecture.

I realize my interpretation of these images is subjective, and you may disagree. But if you want to correct severe keystoning, read on and

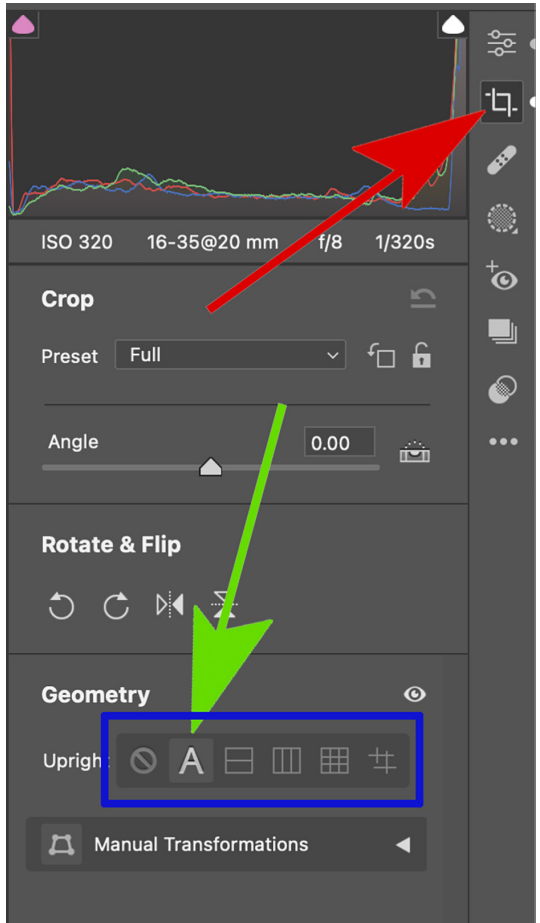




I'll explain how to do it.

If the keystone in an image isn't severe, you can correct it easily in Adobe Camera Raw or Lightroom. In the latest version of ACR, Adobe's 'Annoying Committee' moved the geometric correction from where it's been for decades to a new location ... just to annoy us, I'm sure. It now resides under the crop tool icon shown by the red arrow at right. When you click this icon, the 'Geometry' option opens as you can see in the blue box at right. Of the five choices (the far left icon restores the original image), I find the 'A', denoted by the green arrow, does the best job of correcting angled vertical and even horizontal lines.

However, if keystone in your image is significant, you have to use a method in Photoshop to make the corrections.



The command in Photoshop that addresses this issue is **Edit > transform > distort**. Before you can use this command, however, you have to select the entire photograph with **Select > all**. If you forget to do this, the **Edit > transform > distort** option will be grayed out.

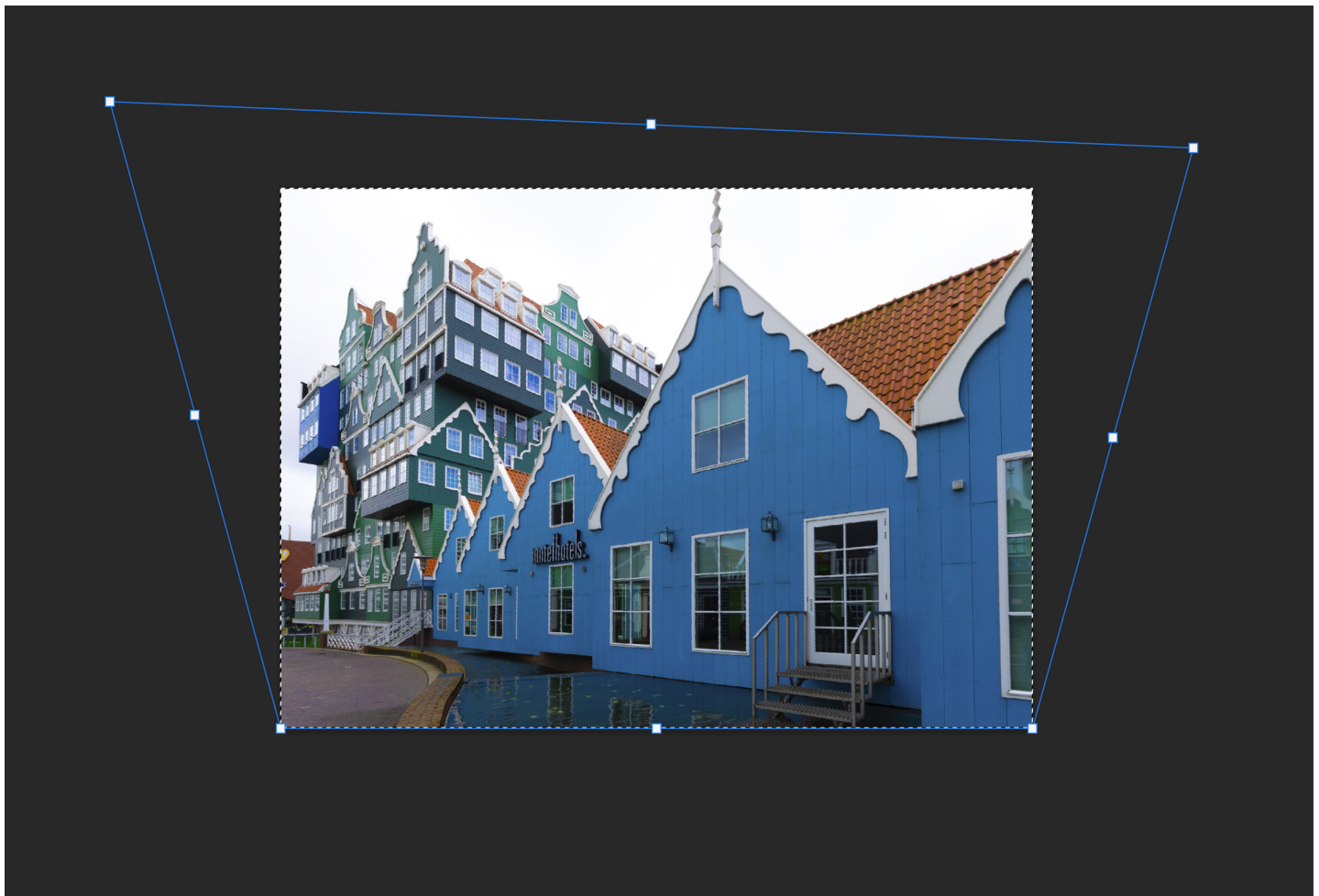
Once the distort command is chosen, small boxes appear in the corners of the image and midway between the four corners. You can drag these boxes in any direction. To correct vertical keystoneing, they have to be dragged to the left and to the right. Sometimes in doing this the building becomes disproportionately shorter. If this happens, you'd drag the left and/or right box not only to the left or right, respectively, but also upward.

If find it very helpful to show not only the

photograph within the Photoshop working area, but the background as well. This allows you to see the outer border of the distort tool as shown in the screen capture, below.

When stretching and distorting an image to correct keystoneing, some of the subject matter is lost at the left and right edge of the frame. You can see in the original picture on page 4 there was a small, red-roofed building at the far left, and at the far right more of the window could be seen. Those elements were cut off in large part due to the manipulation of the image with the distort tool. In this instance, the loss of that material wasn't a problem. Sometimes, though, important compositional elements can be lost if they are too close to the edges of the frame.

There are two things you can do to address that problem.



The Birds of Costa Rica

May 13 - 23, 2024



Boat-billed heron



Violetear hummingbird

First, you can compose the original photograph with extra space. This gives you expendable material on either side of the image.

Second, you can use generative fill to create extra space on the left and right sides of the frame.

Study the image at right. I shot this in Gent, Belgium. If I were to apply **Edit > transform > distort** to this facade, the statue at the far left would be so close to the edge of the frame it would look bad. In addition, the window on the far right, which is only partially seen, would be completely lost as the vertical lines were straightened.

To deal with this, I used the crop tool and expanded the canvas area around the image as shown below. Note the red arrow -- it points to a submenu that reads 'generative expand'. When you try this, make sure of the three options available when the crop tool is selected,



this is the option that is chosen.

Hit the return (or enter) key twice and the AI aspect of generative fill goes to work and creates more image area on both sides of the photo. The result in this example can be seen at the top of the next page. This gives you the ability to correct the vertical lines without worrying about losing image area. Even if the new parts of the image don't duplicate the subject exactly, it doesn't matter because these areas will be cropped out of the

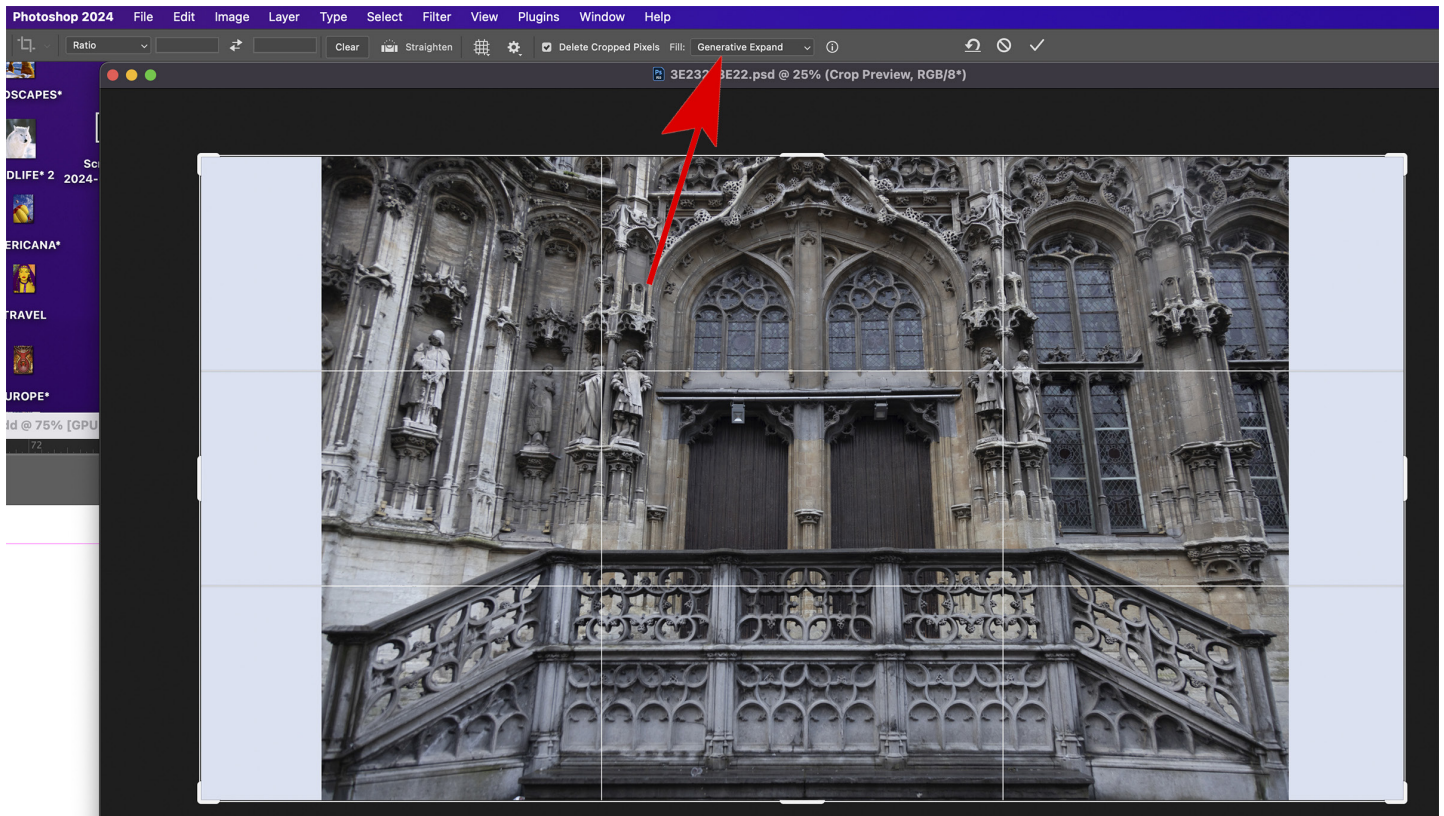




image when you use **Edit > transform > distort**.

The finished and corrected image is shown below. You can see how much more real and

attractive vertical lines are as opposed to angled lines. I do this with most, but not all, images of architecture especially when the subject is particularly impressive. §



AWB versus Daylight White Balance

There are so many things to think about when taking pictures that it's amazing any of us get good results. Shutter speed, aperture, ISO, focal length, composition, lighting, white balance, subject matter, focus point arrangement, frame rate, exposure, and more -- all of these decisions have to go through your mind quickly if a subject is moving or methodically if you have the luxury of time.

This is the reason I rarely change my white balance. It's one less thing to think about when

shooting fast. The question to ask, though, is what white balance setting should be used most of the time?

Most of the clients who travel with me on my photography tours use auto white balance, or AWB. It makes sense to assume this is the best choice, reasoning that this setting produces the best color in the most diverse situations.

I agree, with one caveat. When you shoot sunrises or sunsets, the AWB setting 'corrects' the golden tones to a more neutral color. In other



words, the golden tones we love to capture when the sun is close to the horizon are made to look like midday light. The long shadows are present and texture is pronounced due to the low angle of the sun, but the colors look bland and boring instead of red and yellow.

The shot of windmills in Holland, below, shows what I'm talking about. The photo on the previous page was taken with AWB, while the one below was shot with daylight WB. This is why I leave the white balance in my camera on daylight (some manufacturers use the word 'sunny') white balance for all of my outdoor shooting. This setting always reproduces the rich golden hues we love to see.

Can you correct color balance in post-processing? Yes, of course, but I like to see the accuracy of the colors I'm capturing on the LCD screen. Shooting in auto white balance means

when you are dealing with sunrise or sunset colors, you won't see the true beauty of the images until later, when you are on the computer.

In deep overcast and shade environments, daylight WB makes images look bluish. I could switch to 'cloudy', but again, that's one more thing to think about, and it takes time. In so many situations, time is of the essence and I don't want to waste it on changing the white balance. For these situations, I'm willing to adjust the color in Adobe Camera Raw or Lightroom to taste. Sometimes I like the blue cast, and sometimes I move the temperature slider to the right to produce warmer tones.

When shooting in the middle of the day, AWB and daylight WB produce the same color balance. It's only at sunrise and sunset, or when shooting indoors with artificial light, that you'll see a big difference between the two. §



Shooting Thru Glass

Given a choice, no photographer wants to shoot through glass if he or she can avoid it. Sometimes there is no choice, however, and it's good to know how to maximize image quality when the only option is to deal with glass.

A case in point is the aerial shot of the Tower Bridge in London, below. On my England and Wales photo tour, I shot this from a restaurant on the 31st floor of a highrise. Modern commercial buildings don't have balconies, so I was left with no option other than taking the pictures through glass.

The technique

1. The back of the camera, i.e. the plane of the digital sensor, should be as parallel as possible to the plane of the glass. This isn't always doable especially when you need to angle the camera for a particular composition. However, keep in mind that as the plane of the sensor becomes more and more oblique to the glass, image quality decreases.

In highrise buildings, sometimes the windows are exactly perpendicular to the ground and sometimes they are angled. The building from



Ethiopia Photo Tour

Jan. 21 - Feb. 3, 2025





which I took the picture of the Tower Bridge had vertical panes of glass, but to get this composition I had to angle the camera downward. There was simply no other way to get this shot.

I had a similar challenge in shooting Chicago at twilight from the Sears Tower, above. The windows on the side of the building were facing due east, but I wanted a composition that was northeast from the building. That meant I had to angle the lens about 45 degrees to the glass, and that hurt picture quality. This was not ideal, but I had no choice if I wanted that composition.

2. Make sure the glass is clean. In a situation like shooting from the Sears Tower, the only control you have is to clean the glass from the inside. However, when I captured the blue grosbeak at a feeder that was mounted

just outside my office window shown on the next page, I was able to clean both sides of the glass. I purposely photographed through the closed window so my presence wouldn't frighten the birds who came to feed.

3. Use a large lens aperture like $f/5.6$ or so. If there are any imperfections on the glass like dust, smudges, or scratches, they won't show up when using large lens apertures.

4. Use telephoto lenses when possible. Long lenses have a narrow coverage, and this means there is less chance of capturing reflections in the glass that interfere with and detract from the subject matter.

5. Place the camera and lens up against the glass when possible. This increases the shallowness of the depth of field, and it also largely

blocks unwanted reflections in the glass from elements behind you. If you are shooting in an interior room at night, artificial lights become very distracting when they reflect in the glass. By placing the lens up against the glass, these reflections are mostly eliminated.

If you have to angle the lens to get the composition you want, there will be a space between the lens and the glass. This will allow distracting reflections to interfere with the images. In those cases, use a scarf, old t-shirt, or even a baseball cap to wrap around the lens as it presses up against the glass. This will eliminate all reflections from light sources behind you.

6. Airplane windows are the worst. It's tempting to photograph through the windows of commercial jets when you see beautiful cloud formations or patterns on the ground like the river system I captured in the late afternoon



from 35,000 feet, above. Keep in mind,, though, that the windows in planes are not glass. Rather, they are optically inferior plastic, and there are two layers. Angling the camera even a little really degrades images. The only thing you can do to recover lost image quality is to use the Photoshop plugin, Topaz Sharpen AI. I would actually recommend this for all images taken through glass, but especially for shots from planes. §



Pantanal Photo Tour, Brazil

Jaguars in the wild, birds, caiman, otters and more

Nov. 9 - 17, 2025



Photography Quiz

1. In the late 1880's, before electronic flashes were invented, portrait and studio photographers often used _____ to illuminate their subjects:
 - a. firelight
 - b. gunpowder explosion
 - c. candle light
 - d. direct sunlight
2. The complementary color of yellow is:
 - a. Blue
 - b. Yellow
 - c. Green
 - d. Red
3. An example of transillumination is:
 - a. Light coming through leaves
 - b. Light coming through sheer fabric
 - c. Light coming through a seashell
 - d. All of the above
 - e. None of the above
4. A polarizing filter causes the loss of how many f/stops of light?
 - a. 2
 - b. 3
 - c. 4
5. The Inverse Square Law refers to:
 - a. Depth of field
 - b. Hyperfocal distance
 - c. Quadratic equations
 - d. Light falloff
6. From f/6.3 to f/4.5 is how many f/stops?
 - a. One f/stops
 - b. One and one third f/stops
 - c Two f/stops
7. What camera setting affects noise:
 - a. Shutter speed
 - b. Lens aperture
 - c. ISO
 - d. All of the above
8. If you move a light source away from an object from, say, 10 feet to 20 feet, the light's intensity is reduced by:
 - a. 1/3
 - b. 1/4
 - c. 1/5
9. Which temperature scale is used in photography to define white balance:
 - a. Celsius
 - b. Fahrenheit
 - c. Kelvin
10. Manual exposure mode is the best choice when shooting lightning:
 - 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



Frog & Reptile Workshop

Get upclose and personal with exotic and colorful dart frogs and primitive looking reptiles. This is a macro photography workshop. We use a ring flash or similar for outstanding nature images. This takes place in a hotel conference room with natural looking backgrounds. Held in Kansas City.

August 17 - 18, 2024



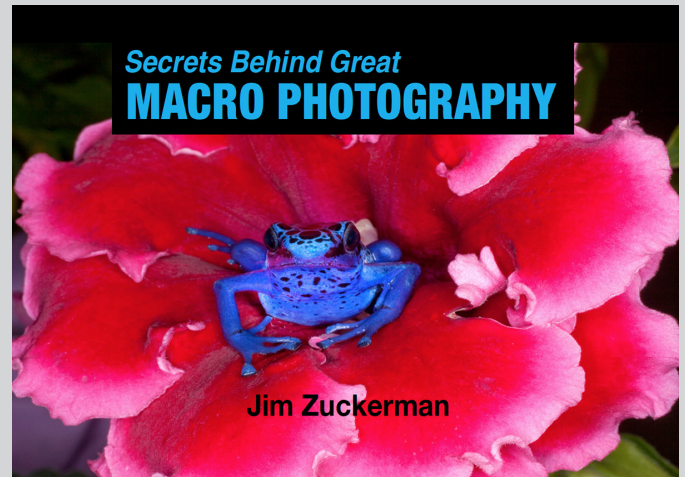
Carnival in Venice

Photograph amazing costumes in a Medieval environment. We shoot inside a 16th century palace, in an iconic gondola, in a stunning bedroom with traditional Venetian decor, and in other great locations. The photography as well as the experience is phenomenal.

February 23 - March 1, 2025

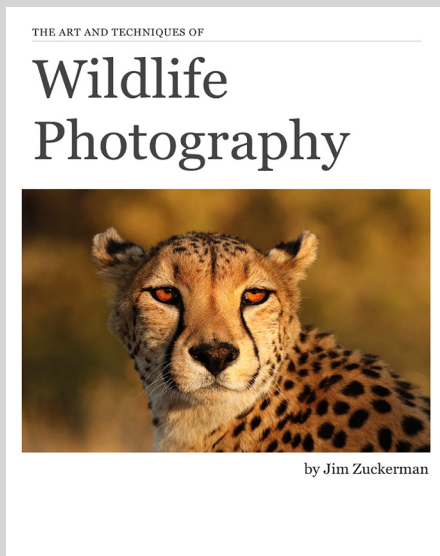
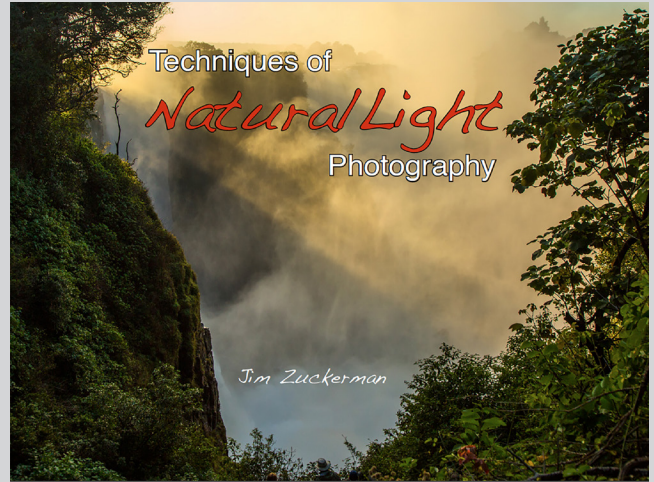
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eBooks continued

Click on any ebook to see inside



Mystical Swamps of Louisiana

October 29 - November 2, 2024



What's wrong with this picture?



The eye is drawn to the lightest part of a picture first, and it's hard not to keep noticing highlights again and again. Our eye just naturally wanders to the highlights. If the light area is not the subject, that means our attention is diverted away from the subject and toward a part of the picture that doesn't deserve attention as much as the subject does.

In this shot of a cobblestone walkway in Gent, Belgium, sunrise lighting backlit a tree in the top left portion of the image creating a brilliant highlight. The rest of the image is muted, illuminated by diffused ambient light. I tried different compositions to eliminate that highlight, but I didn't like any of them. The only solution in this case was to compose the picture as I wanted and then, in post-processing, clone out the offending highlights.



In this version, I cloned the dark silhouetted tree at the far upper left over the backlit tree, thus eliminating the distracting highlight.

It can be challenging to work in such a small space in which the element being cloned isn't very large. Repeating patterns can occur because you're forced to clone over areas that were already cloned. When this happens, sometimes I look elsewhere and find material from other images. I'll clone from one photo to another if I need to 'borrow' an element, like tree branches, to cover up distracting portions of an image.

For those of you who feel your Photoshop skills are not up to par, the solution in this case would have been to wait for a cloudy day or return to this spot before sunrise or after sunset. The backlit highlight would be gone. When traveling, though, this often isn't an option, thus Photoshop is an invaluable tool to make a less-than-ideal photograph into one that works. §

Switzerland Photo Tour

September 16 - 24, 2024

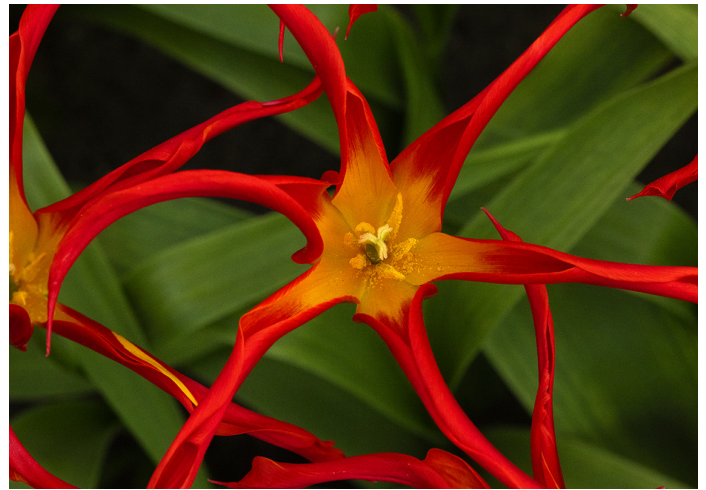


SHORT AND SWEET

1. Experiment with white balance settings when shooting twilight and night photography. Daylight WB produces golden colors on architecture lit by artificial lights, while tungsten WB produces more natural colors as seen here. Both are acceptable -- it's a subjective decision on your part.



2. Wind is the enemy of macro photographers, so if you can find a greenhouse with lots of flowers, take advantage of it because there isn't any wind at all. I shot this exotic tulip in Keukenhof Gardens, Holland, in their huge greenhouse.



3. Get up early and go out and shoot when there are very few people on the streets. This is a very good idea in high tourist areas like Europe. When the streets are choked with people and vehicles, it's hard to take good pictures. When streets are empty, like here in Gent, Belgium, the city looks beautiful.

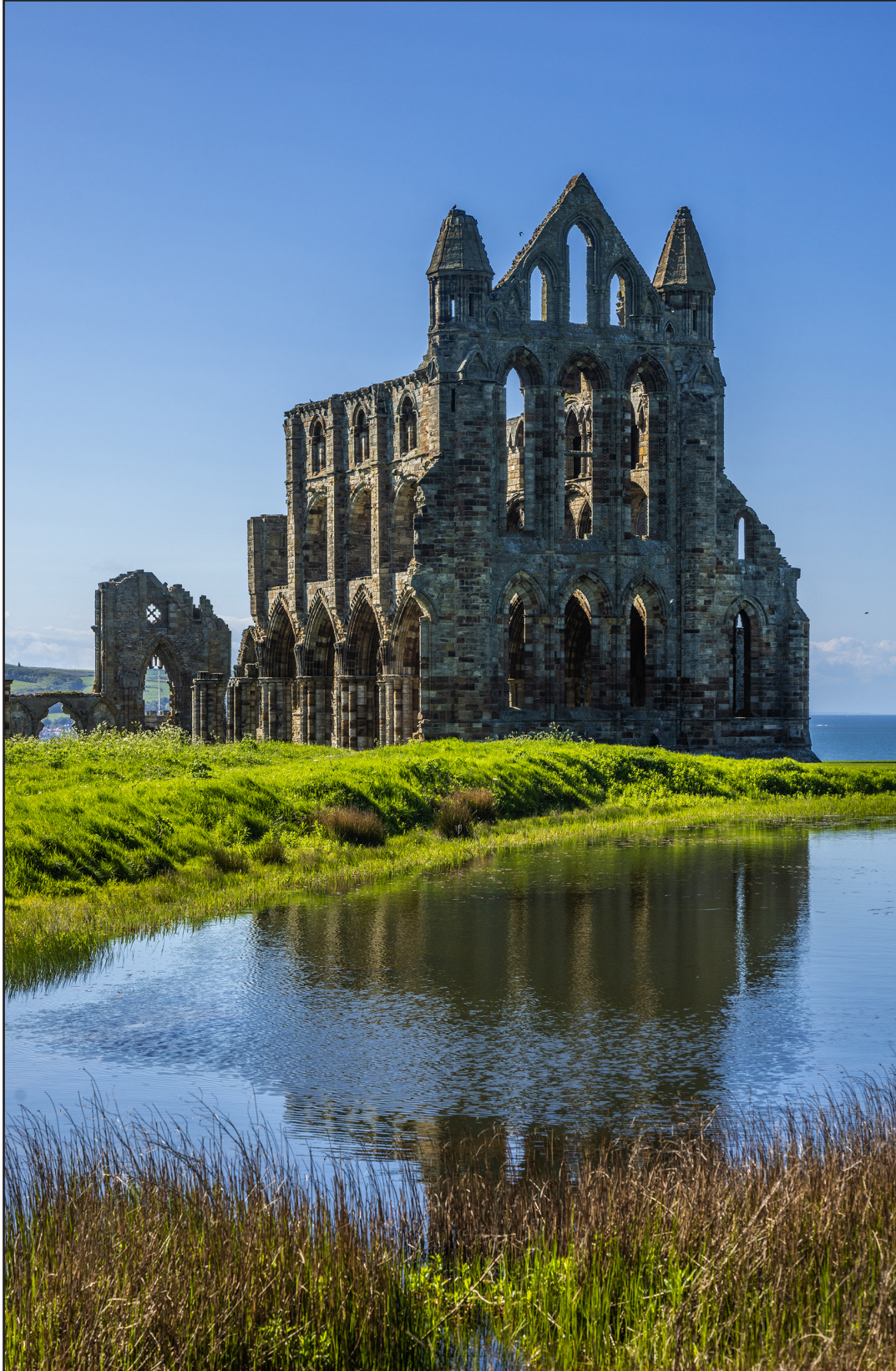


4. Combining a beautiful sunset sky with urban scenes taken at twilight produces visually arresting images. This is Zaandam, Holland, and the original sky was boring. Even though the architecture is unusual and eye-catching, without a great sky the image falls short of what it could be. §



England & Wales

September 4 - 14, 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 . . . Do you think flashes damage paintings and tapestries? I know the conventional wisdom says they do, but I'd like your opinion.
Luka Horvat, San Antonio, Texas

A: The average flash duration from portable flash units is about 1/1000th of a second. That means for one full second of light on a work of art, you'd need 1000 flashes. That's not very much light. And when you step back a few feet, the Inverse Square Law states that light is diminished 4 times when the distance between the object and a flash is only doubled. I am not a physicist, but in my opinion, more ultra violet light (the type of light that fades and damages artwork) comes from large windows in museums, cathedrals, and other places that display art. In some places like Egyptian tombs, flash is prohibited but there are fluorescent lights that emit UV radiation that are turned on all day, every day. In my opinion, people are not thinking clearly about this issue. §



Partial List of Photography Tours

2024 - 2025

BIRDS of COSTA RICA
May 2024



COLORADO in AUTUMN
Sept/Oct 2024



PATAGONIA
Oct 2024



SWAMPS of LOUISIANA
Oct/Nov 2024



AUTUMN in JAPAN
Nov 2024



SNOWY OWLS in CANADA
Jan 2025



WINTER WILDLIFE
Feb 2025



GREAT GRAY OWLS, CANADA
Feb 2025



FAROE ISLANDS
Apr/May 2025



BHUTAN
Apr 2025



PANTANALt
Nov 2025



SPAIN ECLIPSE
Mar/Apr 2025



Great Gray Owls, Canada

February 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.

Stephen Patterson, Stockton, California *Pantanal photo tour, Indonesia wildlife tour*



© Stephen Patterson



Student Showcase, continued



© Stephen Patterson

Student Showcase, continued



© Stephen Patterson

Student Showcase, continued



© Stephen Patterson

Autumn in JAPAN

November 20 -29, 2024



SPAIN ECLIPSE PHOTO TOUR

August 6 to 16, 2026



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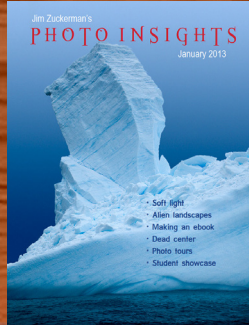
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Dec. '12



Jan. '13



Feb. '13



Mar. '13



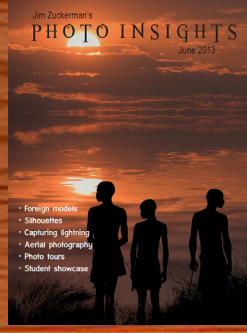
Apr. '13



May '13



Jun. '13



Jul. '13



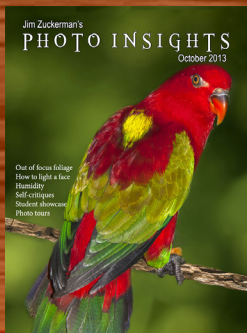
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Sept. '13



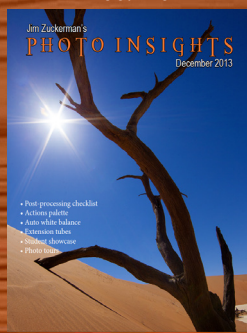
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Nov. '13



Dec. '13



Jan. '14



Feb. '14



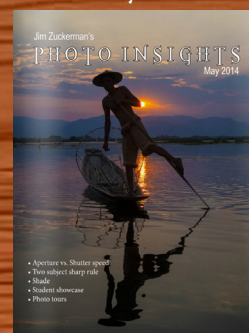
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Apr. '14



May '14

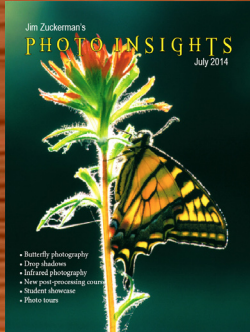


Jun. '14



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Jul. '14



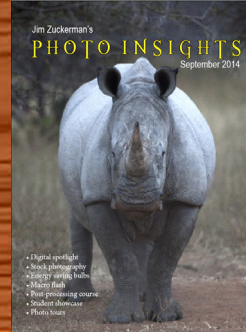
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Nov. '14



Dec. '14



Jan. '15



Feb. '15



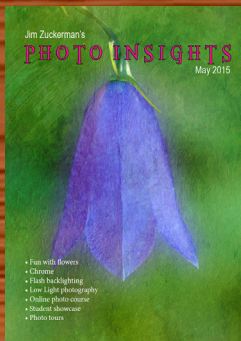
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May '15



Jun '15



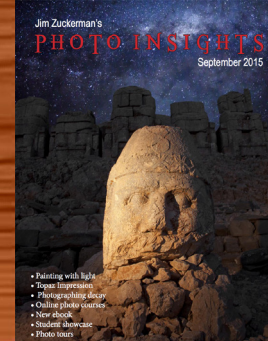
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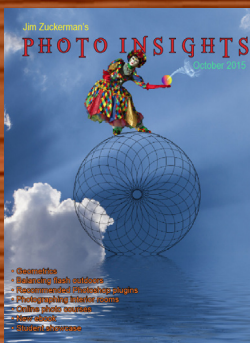
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Sept. '15



Oct. '15



Nov. '15



Dec. '15



Jan. '16



Feb. '16



Click on the past issues of
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Mar. '16



Apr. '16



May '16



Jun '16



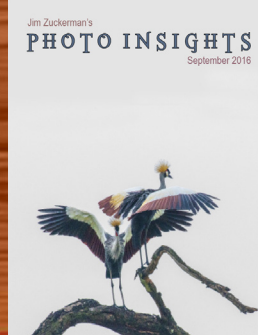
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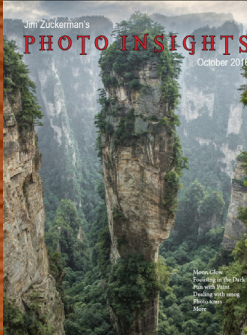
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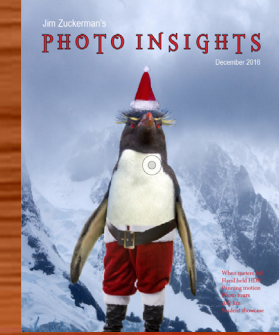
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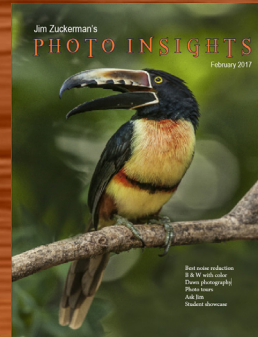
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Jan. '17



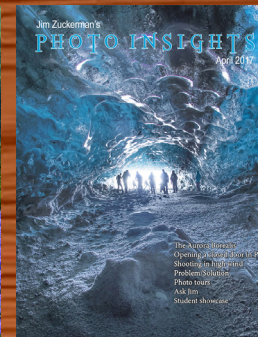
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Mar. '17



Apr. '17



May '17



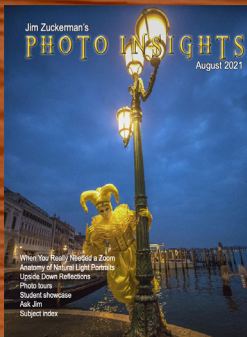
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Jul. '17



Aug. '17



Sept. '17

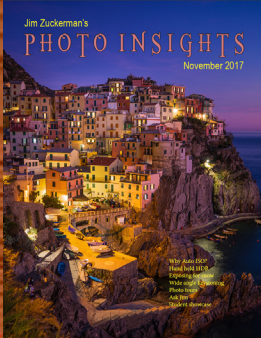


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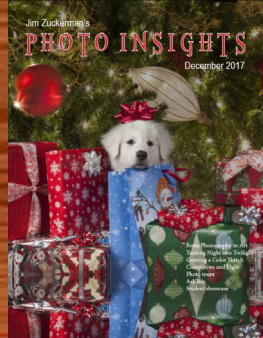


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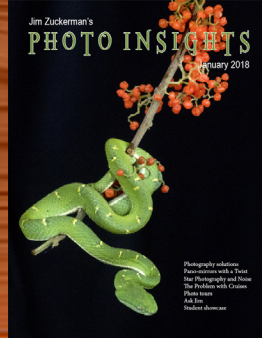
Nov. '17



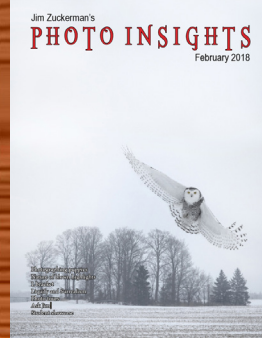
Dec. '17



Jan. '18



Feb. '18



Mar. '18



Apr. '18



May '18



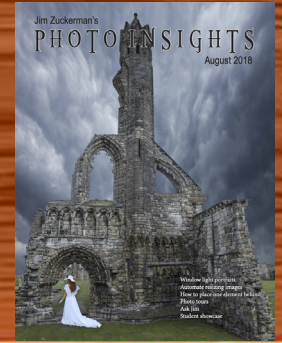
Jun '18



Jul '18



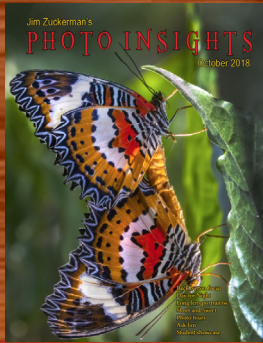
Aug '18



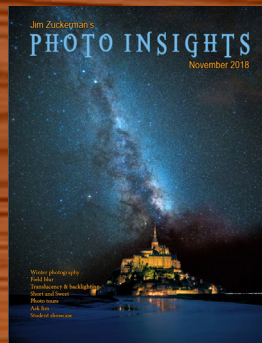
Sept. '18



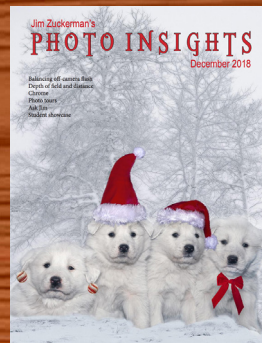
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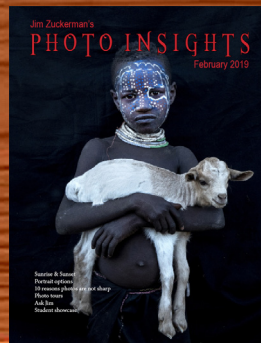
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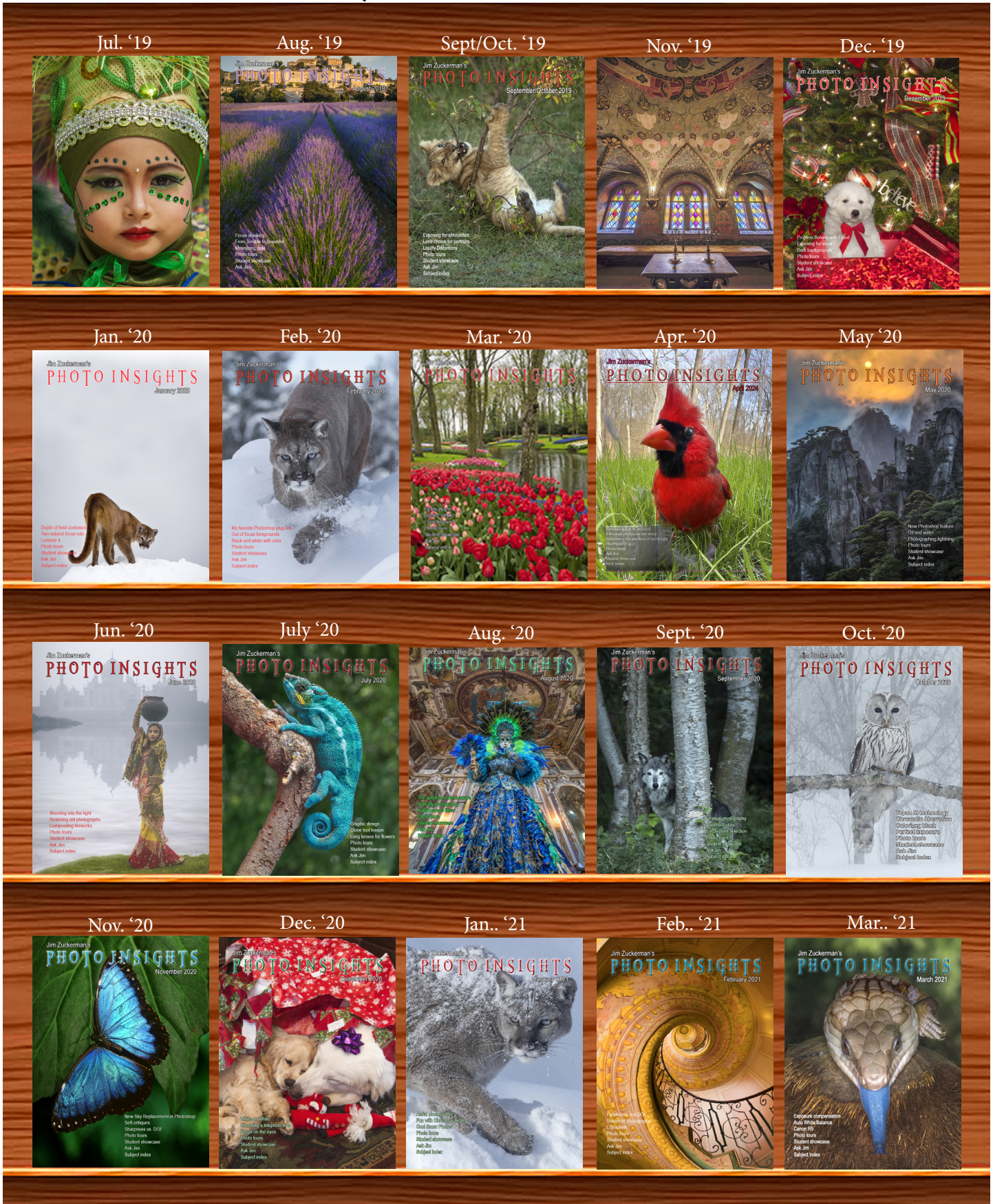
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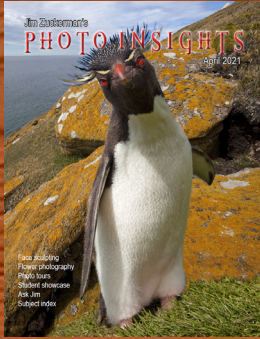
Jun '19



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Apr. '21



May '21



Jun. '21



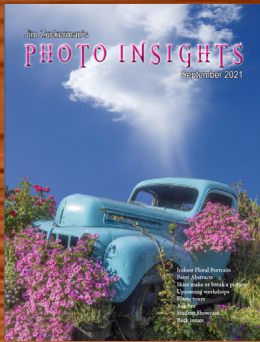
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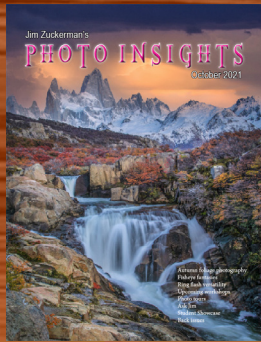
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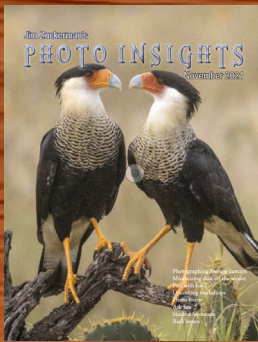
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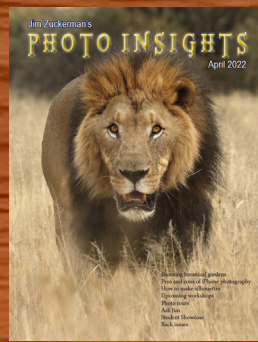
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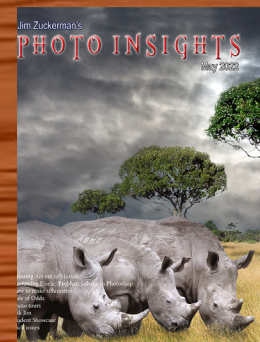
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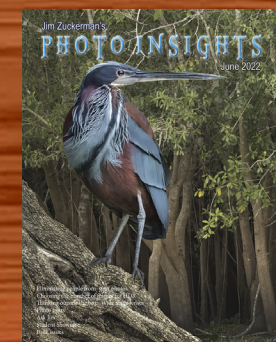
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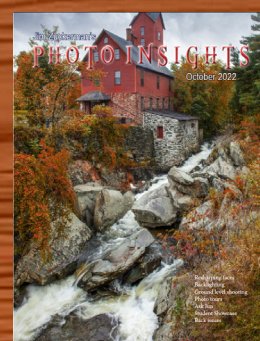
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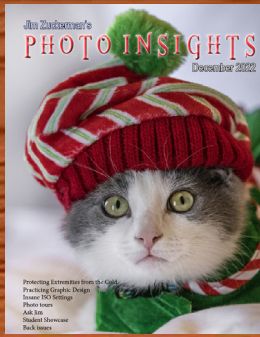
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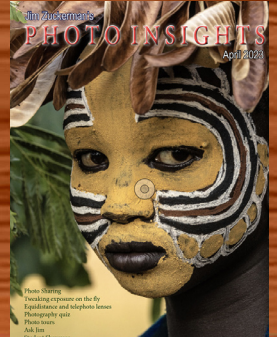
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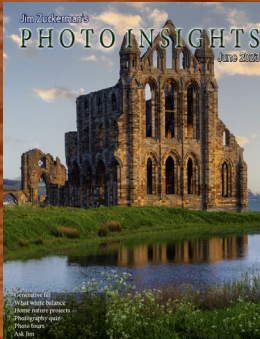
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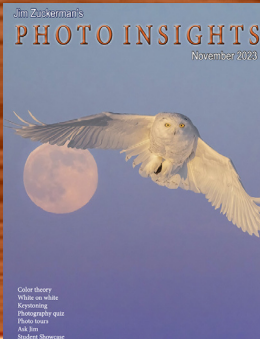
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Quiz answers

1. b
2. a
3. d
4. a
5. d
6. a
7. c
8. b
9. c
10. 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

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PHOTO INSIGHTS

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The Matterhorn reflecting in Riffelsee Lake.T.