



The Newsletter of E.J. Peiker - Nature Photographer

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Welcome to the 17th year of the quarterly newsletter from E.J. Peiker, Nature Photographer and [www.EJPhoto.com](http://www.EJPhoto.com). In this quarterly publication, I share with fellow photographers my photographic experiences, photo equipment reviews, photo and processing tips, and industry news. I also inform subscribers about upcoming workshops and products that I offer. All content is copyrighted by E.J. Peiker and may not be reproduced but it is permitted to forward this newsletter in its entirety only. If you would like to be added to the mailing list, unsubscribe, or access back issues, please visit:

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Shiprock, New Mexico (DJI Mavic Pro)

## A Walk Through The Woods

As nature photographers, we often find ourselves in an inclement weather predicament. Perhaps we have driven or even flown great distances to photograph a landscape that we have wanted to photograph for many years, but on one or more days Mother Nature serves up featureless cloudy skies or rain. While days like these can be very annoying, demoralizing and foul mood inducing, they can also result in some excellent photographic opportunities, just not the ones we envisioned when we decided to visit the location. In those situations, there are two types of landscape photography subjects that are much better to photograph in overcast than in sun - waterfalls and lush forests. This article will focus on forests.



When I wake up to bad weather, I put on my rain gear, grab some wet weather protection for my camera and lens, and head to the nearest woods or forest and just start exploring. The equipment requirements are minimal, perhaps just a camera body and a 16-35mm lens or 24-70mm lens or maybe both (although lens changes can be challenging in the rain), a tripod, and a polarizer. Without the harsh sun and deep shadows, something we refer to as dappled light, the true colors and textures reveal themselves that might otherwise be hidden. Mosses and lichen take on much richer colors, and, maybe best of all, you are much more likely to get some solitude from crowds and noise. Photographing in situations like this require you to really focus on making order out of chaos and looking over a scene carefully to find a good composition. Polarization is important to take wet sheen off of leaves and grasses to saturate the colors rather than getting lots of white and gray sky reflections bouncing off of the foliage.

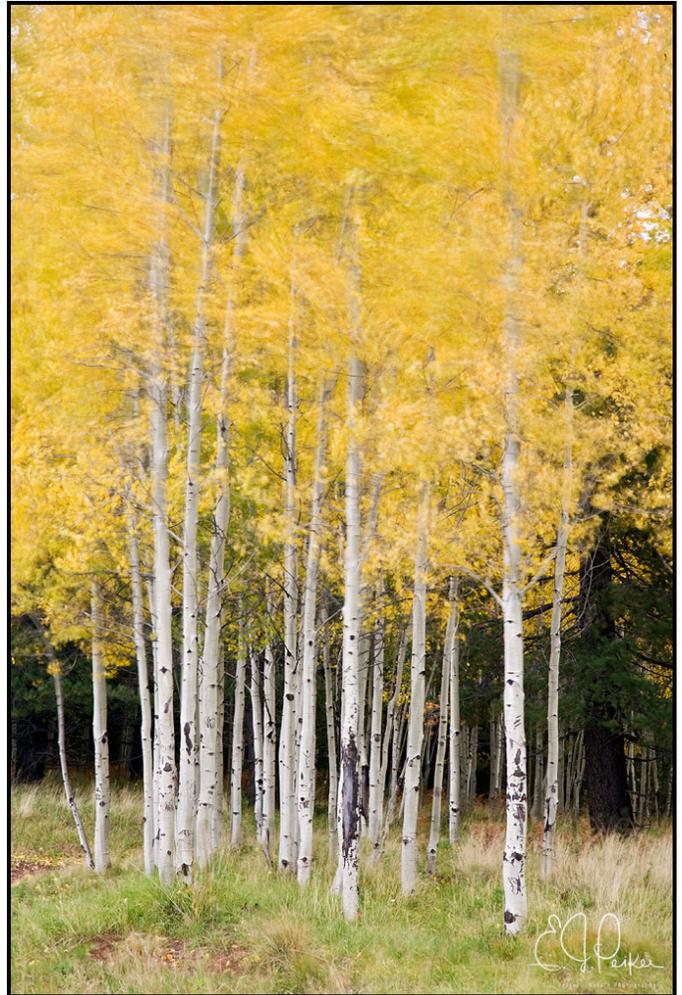
When it is windy and there is lots of leaf movement, things can get challenging. With the two stop light loss of the polarizer you may be faced with either having to take the ISO up to levels that produce more noise than you would like or to embrace the wind and use it to artistic advantage. Raising the ISO is not as big of a problem as it is with many other landscape subjects since you don't have large smooth areas of a single color like sky which tends to really make noise visible. The texture of the scene tends to hide the noise.

Alternately, you can opt to slow the shutter speed even more to really convey the sense of wind as in the Aspen photograph on the right.

When the weather is less than ideal, get out there, enjoy the solitude and work on those intimate landscapes.

## Nikon D850

While Nikon, as a company has struggled in the last few years with initial quality control problems, profitability, lack of a competitive mirrorless camera, and truly underwhelming consumer grade camera options, one must say that their recent pro grade options have been outstanding. While the D500 got off to a rocky start due to firmware and battery issues, now that those have been resolved it is simply the best APS-C DSLR on the market and by a considerable margin. The D5 is a true powerhouse and probably the best large sized, press type camera on the market right now. The D810 has been what many call the best all around DSLR camera for 3 years. Being the best for that long can almost be described as eons in this industry. Right up to the moment of the D850 introduction, the D810 was still considered the best all around DSLR. The D850 improves on every aspect of the D810 and in some cases considerably. With a 46 megapixel, Nikon designed and third-party manufactured sensor, the world's best AF system borrowed from the D5, full frame 4K video and 8K time-lapse, fully electronic shutter that allows silent and completely vibration free shooting, this is one serious camera. Add to all of that the capability of shooting at 9 frames per second with the optional battery grip and you have a camera that can do virtually anything and do it very well. It can shoot nearly the same 20 megapixel frame in DX mode as the D500 with an almost unlimited buffer if XQD cards are used. It can also shoot in a larger APS-H like file, or full frame, at 9 FPS. Even without the grip it can still shoot 45 megapixel files at 7 FPS. The D850 basically covers all the bases - an exceptional landscape camera, an excellent wildlife camera, a silent shooter for sound sensitive situations, and a camera that can tackle most video and time-lapse chores with ease. It is the first sub \$50K DSLR that offers automatic focus stacking.



Much of the above paragraph, I wrote in the previous newsletter after the D850's initial introduction. Now that I have had a chance to put it through its paces in a testing environment, here are my findings:

### Pros

- If you previously used a D500 or, to a slightly lesser extent, a D5, all of the controls, buttons, menu items are essentially identical - the learning curve is very short.
- Exceptional image quality that is bested only by medium format. By image quality I am referring to a combination of resolution, dynamic range, and noise.
- AF is exceptional and in DX mode covers almost the entire frame which is fantastic for wildlife shooting. The AF is also noticeably improved in dark situations compared to its predecessor.
- Like the D500 and D5, the D850 gains a focus point selection joystick.
- The camera now offers a silent fully electronic shutter in live view.
- It's great to see a tilt screen come to a Nikon professional camera. They are great for ground level or overhead shooting. You can use the screen for touch focus in live view mode as well as making menu selections.
- Nearly identical user interface, both physically via dials and buttons, and via the menus as the D500/D5.
- Built-in focus stacking works well but could have been smarter... (see cons)
- Focus peaking is now available in Live View which makes manual lens focusing a breeze. Nikon's implementation is very good compared to some focus peaking systems I have used.
- Video is by far the best of any Nikon to date and can output even better quality 4:2:2 video to an external recorder. Follow focus can be done via the touchscreen. Zebra pattern exposure warnings are now available.
- Intervalometer and Time lapse mode has been improved and supports 8K Time Lapse.
- Largest viewfinder image ever in a 135 format DSLR.
- The illuminated buttons and controls are very useful in low light situations and can be turned off
- Even without the vertical grip, the increase in frame rate to 7 frames per second makes it capable of many wildlife and sports scenarios. With the grip, 9FPS photography is possible in all resolution modes.
- Other than the loss of the pop-up flash, the D850 takes nothing away from the camera it replaces and does many things better. All of the pros of the D810 are still present here like the multiple frame formats (4:5, DX, APS-H, etc) and base ISO of 64,

### Cons

- To some this is actually considered a pro but the camera loses its built in flash compared to the D810
- SnapBridge, while improved, still doesn't really work all that well and this camera is still massively inferior to and smart phone for image sharing.
- Built in focus stacking is not as smart as it could have been - it does not recommend the number of steps required given the focal length and aperture to render the whole scene in focus. It also does not determine the optimal shift setting between exposures for you resulting in a bit of a trial and error process. After some testing, my recommendation for most focus stacks is to set the camera at f/7.1 and use, at minimum the focal length divided by 10 for the number of shots and round up if that's a fractional number. For example, if you are doing a landscape shot with a 55mm lens, make sure you are getting at least 6 shots, more if the front to back range is extreme. Stacking is not completed in camera and still requires external software. A better implementation would be to focus on and register the nearest point, focus on and register the farthest point and then the camera calculates the number of exposures required based on the aperture and focal length.
- Automatic focus fine tune is still a crap shoot varying wildly from test to test without moving anything. It is just not reliable and not ready for use where critical focus is needed.
- The buffer depth simply does not match Nikon's specs in my testing. I used the fastest XQD card on the market, no SD card in the camera, fast shutter speed, continuous AF with release priority, 9 frames per second and everything else needed to get the maximum performance out of the camera. At 14 bit uncompressed RAW I get 22 shots before the buffer fills; at 14 bit compressed RAW I get 36 shots, These

can be improved dramatically by going to 12 bit mode or utilizing one of the smaller frame sizes. Shooting at high ISO significantly reduces these values due to the lower compressibility of high ISO files. While these are good numbers, they are all significantly less than what Nikon specifies.

- While the camera has dual card slots, the two slots use different cards. The XQD cards give fantastic performance but if you put an SD card with the XQD card, the camera is limited by the slower write times of the SD cards. I continue to be amazed that manufacturers hinder their cameras by using two different slot types with two different speeds.

- To realize the full 9 frames per second, in addition to the vertical grip, you also need a D5 battery and charger. Unless you already have a D5, it will cost you nearly \$950 for the grip, battery, charger, and battery spacer insert to upgrade your camera from 7 frames per second to 9 frames per second.

- The silly Nikon bank system for storing settings is still hopelessly broken after all these years - basically if program a bank and then make a tweak to your settings while shooting, the settings for that bank are rewritten to the new settings so the next time you use it, it doesn't go back to what you had originally programmed but rather to whatever you tweaked it to the last time. Nikon cameras are the only cameras in all of photography that do this.

- Why give us function buttons when you can't put anything you want on those function buttons. The fn2 button is essentially a waste as the things that can be assigned to it are pretty much useless unless you like to star rate your photos while chimping or want to use that button to call up My Menu. It's a programmable button, so let us program it to do whatever we want!

- While the D850 offers a larger viewfinder image than the D810 and larger than any other DSLR, it has not increased the eyepoint so eye-glass wearers may not be able to see the entire frame without moving their head around slightly.

- If you are using the silent fully electronic shutter in Live View, beware of the rolling shutter phenomenon on fast moving areas of a photo. This is regardless of shutter speed since in this mode the camera scans each line individually and sequentially. Even though, at a fast shutter speed like 1/4000 second, each line may be getting just 1/4000 second of exposure but the time between the first line getting that exposure and the last line getting that exposure is dramatically longer. This can give you what is known the jello effect where things that are vertical are leaning or even wavy if the camera or subject is moving. In situations like this you are better off using electronic first curtain and then using the normal focal plane shutter to end the exposure. In the future, we will have global shutters that eliminate this rolling shutter phenomenon.

- While video gains zebra overexposure patterns, Nikon, as far as I can tell, did not extend this capability to still photography in Live View. I have shot a lot with Sony gear over the last few years and have found zebras in still photography can be very useful.

- Silent shooting is a great benefit in noise sensitive situations, but due to the fact that the D850 has an optical viewfinder that requires the mirror to be down, silent shooting is only available in Live View making it of very limited use in noise sensitive wildlife shooting situations since Nikon's active tracking in live view significantly lags Sony's on sensor phase detect AF and Canon's dual pixel live view AF. To accurately track an unpredictable moving subject, the normal TTL AF system must be used, not live view.

- There is still no built in GPS.

As is usually the case when I put a camera through its paces, the number of cons are bigger than the number of pros because we take so many features for granted but that doesn't mean it's a bad camera. In fact the D850 is easily the best DSLR ever made but it still has some areas of improvement and being silent about them, like so many reviews where reviewers are influenced by advertising, sponsorship or just fanboyism, just doesn't give my audience an accurate view! The D850 provides the best image quality of any camera in the 135 format ever made. Only the new Sony a7R Mk III competes and the Canon EOS 5DsR has much worse dynamic range and noise. In the DSLR realm, nothing else touches it right now. Any annoyances and features that aren't fully mature, like Nikon's focus stacking or automatic focus fine tuning features, do not take away from the fact that this camera is capable of incredibly high quality photographs and is easily the best 135 format DSLR on the market today.



## Neutral Density Filter Evaluation

I use Neutral Density (ND) filters a lot in my photography. They are very useful at lengthening shutter speed in order to smooth the water in a waterfall, to knock down rough seas, to show cloud movement, and to lengthen shutter speed in video and timelapse sequences so that the video looks smooth. Unfortunately when you get to high filter densities, in order to dramatically reduce the amount of light reaching the sensor, many filters will impart a strong color cast on the scene that can sometimes be very difficult to correct in post processing. This is usually due to a non linear transmission of the different wavelengths of light by the filter. By simply white balancing these filters, one might be able to reduce the cast in one part of the spectrum perfectly while either undercorrecting or overcorrecting in other parts of the spectrum. This can really become a color grading challenge quickly, especially when trying to match colors between a normal photograph and one taken with a significant amount of neutral density.

About two years ago, I started seeing online advertisements for a company called Breakthrough Photography touting that their new ND filters impart less of a color cast than other brands. I take virtually any product claim and advert I see on Facebook with a huge amount of skepticism and I ignored the ads. Then I started hearing and reading more and more good things about these filters so I dug into the company a bit more. Breakthrough Filters was started through a Kickstarter campaign in San Francisco and founded by former employees of some iconic Silicon Valley Companies. They are state of the art weather-sealed filters made with some of the highest grade nano-coated Schott glass available and are mounted in brass filter rings in a manner that minimizes color casts. Finally they have a 25 year guarantee. It was time to finally put their top-of-the-line X4 filters to the test.

To the left you can see the Gretag Macbeth Color Checker photographed in identical conditions without a filter and then with some of the best 10 stop neutral density filter brands on the market. Comparing them, it is clear that the Breakthrough Filter causes the least amount of color shift. All of the filters, except Lee, warm the scene to some degree with B&W and Singh-Ray causing the largest color shift. While the Cokin was similar to the Singh-Ray for color, it significantly reduced the sharpness of the image to the point where I thought there was something wrong with the filter. I had another Cokin filter in a different filter size and that one was better for sharpness and had the same color shift so for the purposes of this test, the lack of sharpness is not relevant. Unlike the others, the Lee filter imparts a decidedly cool blue-green color cast. In addition to the filters tested here (Singh-Ray, B&W, Lee, Cokin, and Breakthrough), I have also tested Hoya, Heliopan, and Tiffen in the past and found them all to impart significant warming when using a 10 stop filter.

Doing a similar comparison with 6 stop filters, the color shifts were much less dramatic but the general direction of the color shift was the same with B&W imparting the most color and Breakthrough the least.

Finally, I repeated the test with the various company's circular polarizers (neutral non-warming models) and while there was a slight difference in contrast between them, the color shifts were much less pronounced although Heliopan and Zeiss filters had a slightly cooler rendition than the rest. My conclusion was that I would not select one over the other based on color alone. They did vary quite a bit in density with the Breakthrough filter being the brightest and a Tiffen filter being the darkest - the difference between the two was 2/3 of a stop. All others fell in-between.

Based on these findings, I am joining the ranks of quite a few photographers in switching to Breakthrough Filters for my darker neutral density filters, specifically the 6 stop and 10 stop filters. For lower densities such as a 3 stop filter and polarizers, I have chosen not to replace my current filters for the time being.

### **High End 645 Medium Format vs. High End 135 Full Frame Format**

In light of incredible 135 format cameras like the D810/D850 and Sony a7R II/a7R III cameras, I recently published a comparison of high end medium format vs. high end 135 full frame format photography. To read the detailed comparison, please click here:

<http://www.ejphoto.com/Quack%20PDF/Medium%20Format%20vs%20135mm.pdf>

Here is just the introduction and a summary paragraph derived from the full length article...

Every time the traditional 36x24mm "full frame" camera world announces a camera with a new sensor, the internet photo forums go wild with claims that medium format is now officially dead. Sometimes these claims come from surprising sources that clearly know that their claim is just a headline used to generate clicks on their website and simply not true. In fact, with the recent introductions of new medium format cameras at prices that are at least a little more consumer friendly than in the past, medium format digital photography is one of the few segments in photography that is actually growing.

When I first started dabbling in digital medium format a few years ago for landscape photography, I performed a field comparison between a Phase One 645DF+ camera with IQ160 60 megapixel CCD digital back and Nikon D800E 36 megapixel camera. The lenses used were the original version of the Schneider Kreuznach 75-150mm lens with the Nikkor 24-70mm f/2.8G lens. The 75-150mm offers a field of view that is approximately equal to 48-96mm equivalent on a full frame 135 format camera so there was plenty of focal length overlap to do the comparison. I found that the medium format option was able to render significantly more fine detail, especially as you looked farther and farther into the scene but that the 1990's derived Mamiya 645 camera body hampered the capability of the format. While I completely stand by the results of that comparison, the two lenses used were quite different. Fast forward to today... the much more modern Phase One XF camera platform reduces or eliminates most of the medium format disadvantages. Cost and weight are of course still a consideration although the Fuji GFX 50 megapixel cropped sensor medium format camera has brought system costs and weight to the same neighborhood as the most expensive 135 format DSLRs like the Nikon D5 and Canon EOS 1Dx Mk II. Autofocus performance, specifically speed of focus acquisition and tracking, is still superior on 135 cameras compared to any current medium format offering but medium format has been modernized significantly so I felt that it was time to do the comparison again. This time I used the best sensors available at the time of the test in both formats - the 100 megapixel Sony 645 sized sensor and the 42 megapixel Sony 135 sized sensor. I have also chosen the finest lenses targeted at landscape photographers that are available for each system. The Schneider Kreuznach 35mm f/3.5 Blue Ring lens and the Zeiss Loxia 21mm f/2.8 lens have approximately equal fields of view on their respective systems. The test scene was the photo below:



Goldfield Mountains, Arizona (Phase One XF-IQ3100, 35mm)

The analysis in the full article shows that the populist claim that high megapixel full frame 135 format cameras render scenes with as much detail as medium format is false. While I don't currently have a 50 megapixel medium format back to show a comparison of a larger sensor with similar pixel count, in my experience shooting 50 and 60 megapixel medium format, there is still a very visible difference. Today's 135 format full frame sensors deliver incredible detail compared to just a few years ago but they are no match for current generation and even one to two generation old medium format sensors. The overall difference in dynamic range is not dramatic but definitely exists. There is perhaps a 1 stop difference in the test shots that is visible when looking around the darker parts of the image.

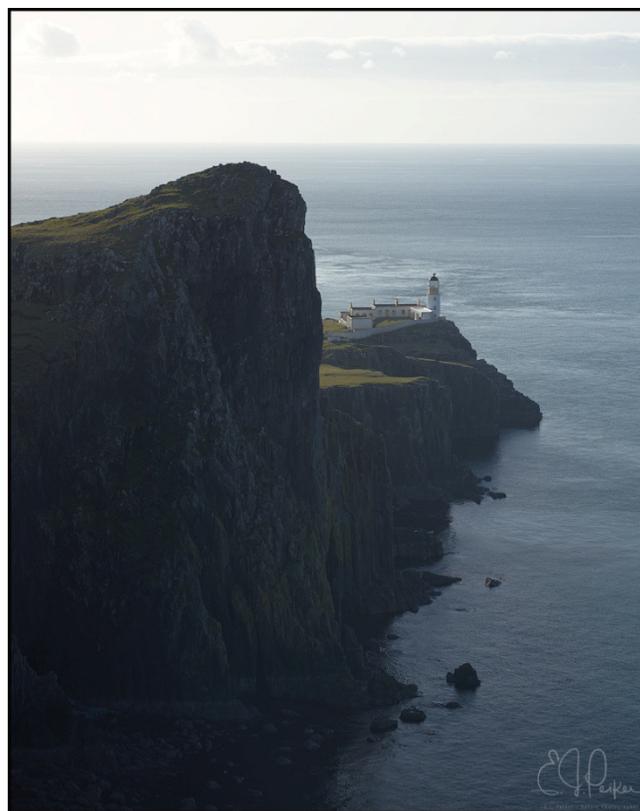
In summary, medium format still has a sizeable advantage in detail rendering ability making it the clear choice for large prints and beyond. At the larger common desktop print sizes, such as those in the 13x19 inch range, there is still a discernible, although much less dramatic difference. Of course this difference diminishes as you print at even smaller sizes to the point where it does not matter. For the person that prints the occasional 8x10 or 8x12 inch print or those that post their pictures online, even the a7R Mk II is total overkill but if your goal is to render large prints as well as possible, there is no substitute for high pixel count medium format photography.

## The Story Behind The Photo

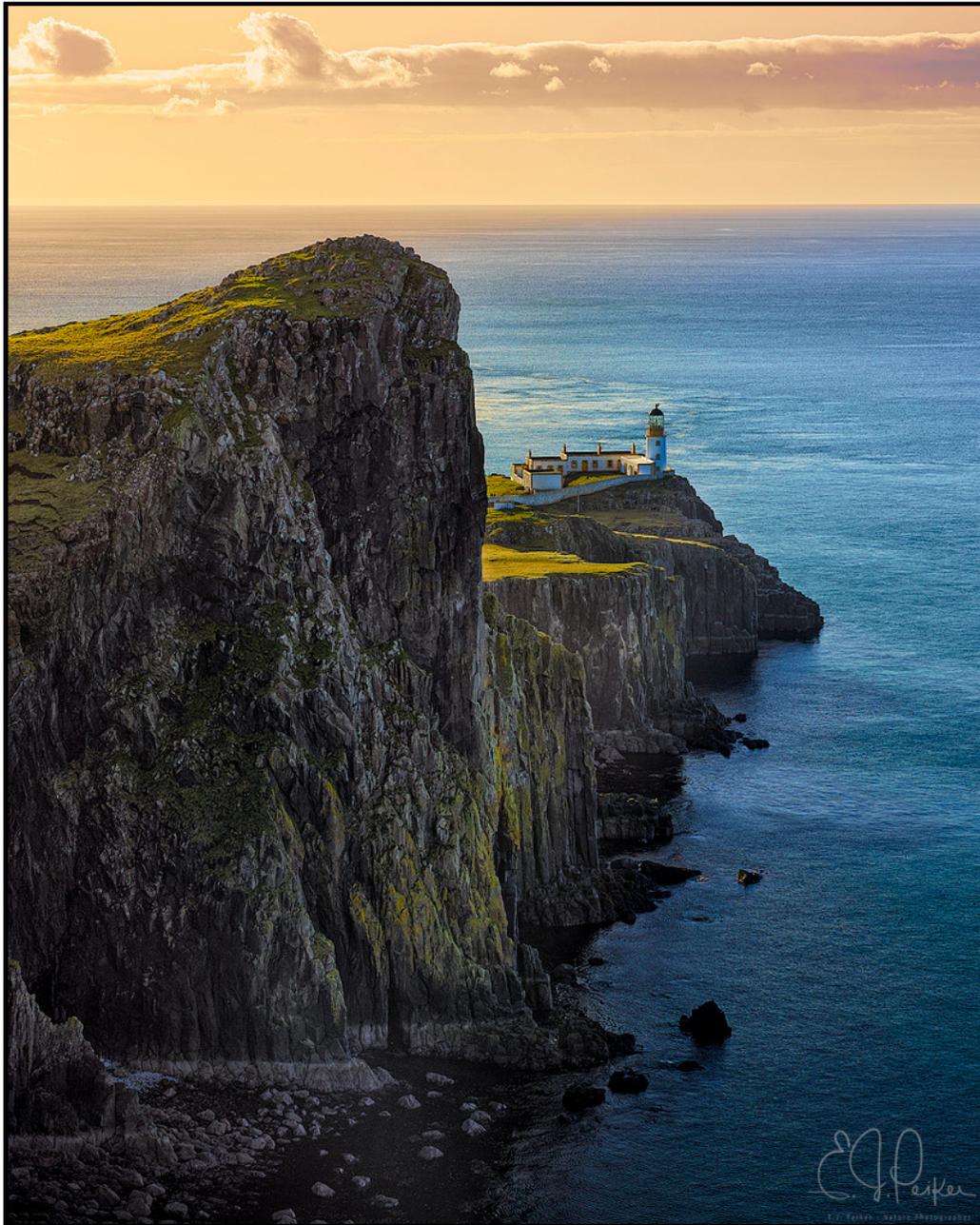
Earlier this year, I started a feature where I dive a bit deeper into photos that have a special story behind them...

In November 2014 I went on just my second trip photographing with Medium Format gear. At the time, The Mamiya/Phase One 645 DF+ was the camera and the older, pre blue-ring lens era, Schneider Kreuznach lenses were at hand. An early drive to the western-most point on Scotland's Isle of Skye at Neist Point was the plan and it was an unusually beautiful morning with a warm yellow-orange sunrise. I climbed to high ground to get a grand overview of the area and noticed there was a lot of humidity haze in the air. The sun coming up at a 45 degree backlit angle from the left complicated matters for getting a nice shot of the cliff with the lighthouse but even if we had come to this location in the afternoon, in November the light would still be quartering front-light with dappled light on the cliffs. I made the best exposure I could realizing that it would take a bit of post-processing to get to a photograph that resembled what I saw. When I started to work on this photo, I was disappointed that I just couldn't get the look that I wanted. The original untouched RAW file is shown on the right. Neither the colors nor the details in the cliff that my eyes saw were well represented. After several attempts and a couple of years using the tools in Capture One, Nik and Photoshop I came up with the second photo to the right. It was closer to what I saw but still not quite right. I proceeded to forget about it until I started playing around with Topaz Studio, a stand-alone image processing suite that can also be run as a plug-in inside Photoshop. As I was using Topaz to handle other difficult images and became more proficient, the thought of this photo re-entered my mind. I made several attempts at it but just couldn't quite get to where I wanted to go with the photo and still failed at illustrating what I experienced that glorious morning.

Finally I got the idea from an Infrared photography course that I took which taught to separate components of the photo into multiple different photographs in order to get each component to look the way you want and then to assemble these components and apply any finishing touches. I processed the same RAW file three times in Capture One; first to get the sky looking correct, then to get the water just right and finally to illustrate the cliff and lighthouse properly. I then put the three photographs together as layers in a single document,



and carefully masked each layer to expose just the parts that each layer was RAW processed for - basically reassembling the layered image. Now I was ready for the tools in Topaz Studio and after just a few tweaks to contrast and dehaze I finally arrived at an image that rekindles the love I had for the location - it only took three years to get there. The moral of the story: don't give up when you can't get the look that you remembered or are trying to reproduce; sometimes it may take some new tools or newly gained skills to get there. Revisiting photographs that disappointed you after exploring a location that excited you can yield some results that put a smile on your face and preserves the memory. Here is the final photograph that finally fulfilled the promise of the morning spent here:



## The Best Lenses For Your Nikon DSLR, Canon DSLR, and Sony (FE) Cameras

The table of best lenses for your camera is a living document that gets updated every quarter. Changes from previous tables can be seen in bold...

Lens Category	Canon EF Mount	Nikon F Mount	Sony (F)E Mount
Full-frame Fisheye	Canon 8-15mm f/4L Sigma 15mm f/2.8	Nikon 8-15mm f/3.5E Sigma 15mm f/2.8	N/A
Hyper Wide	Irix 11mm f/4 <b>Sigma 14mm f/1.8 Art</b>	Irix 11mm f/4 <b>Sigma 14mm f/1.8 Art</b>	Voigtländer 12mm f/5.6 Voigtländer 10mm f/5.6
Ultra Wide Prime	Zeiss 15mm f/2.8 ZE Canon TS-E 17mm f/4	Zeiss 15mm f/2.8 ZF.2 Nikon 19mm f/4 PC	Zeiss Batis 18mm f/2.8 Voigtländer 15mm f/4.5
Extra Wide Prime	Zeiss Milvus 21mm f/2.8 Sigma 20mm f/1.4 Art	Zeiss Milvus 21mm f/2.8 Sigma 20mm f/1.4 Art	Zeiss Loxia 21mm f/2.8 Tokina Firin 20mm f/2
Standard Wide Prime	Zeiss Otus 28mm f/1.4 <b>Zeiss Milvus 25mm f/1.4</b> Sigma 24mm f/1.4 Art	Zeiss Otus 28mm f/1.4 <b>Zeiss Milvus 25mm f/1.4</b> Sigma 24mm f/1.4 Art	Zeiss Batis 2/25 Sony 28mm f/2
Moderate Wide Prime	Sigma 35mm f/1.4 Canon 35mm f/1.4L II	Sigma 35mm f/1.4 Zeiss Milvus 35mm f/2	Sony-Zeiss 35mm f/1.4 Zeiss Loxia 2/35
Standard Prime	Zeiss 55mm f/1.4 Otus Sigma 50mm f/1.4 DG Art	Zeiss 55mm f/1.4 Otus Sigma 50mm f/1.4 DG Art	Sony-Zeiss 55mm f/1.8 Zeiss Loxia 2/50
Portrait Prime (short telephoto)	Zeiss 85mm f/1.4 Otus Canon 85mm f/1.2L II	Zeiss 85mm f/1.4 Otus Nikon 105mm f/1.4E	Sony 85mm f/1.4 GM Zeiss Batis 1.8/85
Medium Telephoto Prime	Canon 135mm f/2L <b>Sigma 135mm f/1.8 Art</b>	<b>Sigma 135mm f/1.8 Art</b>	Zeiss Batis 2.8/135
200mm Prime	Canon 200mm f/2L Canon 200mm f/2.8L II	Nikon 200mm f/2G Nikon Micro Nikkor 200mm f/4ED	N/A
300mm Prime	Canon 300mm f/2.8L IS II	Nikon 300mm f/2.8G VR Nikon 300mm f/4 PF	N/A
400mm Prime	Canon 400mm f/2.8L IS II Canon 400mm f/4 DO II	Nikon 400mm f/2.8E VR	N/A
500mm Prime	Canon 500mm f/4L IS II Sigma 500mm f/4 DG OS HSM	Nikon 500mm f/4E VR Sigma 500mm f/4 DG OS HSM	N/A
600mm Prime	Canon 600mm f/4L IS II	Nikon 600mm f/4E VR	N/A
800mm Prime	Canon 800mm f/5.6L IS Sigma 800mm f/5.6APO DG	Nikon 800mm f/5.6E VR Sigma 800mm f/5.6APO DG	N/A
Wide Angle Zoom	Canon 11-24mm f/4L Canon 16-35mm f/2.8L III	Nikon 14-24mm f/2.8G <b>Sigma 12-24mm f/4 Art</b>	Sony 16-35mm f/2.8 DM <b>Sony 12-24mm f/4 G</b>
Standard Zoom	Canon 24-70mm f/2.8L II Tamron 24-70mm f/2.8 Di VC	Tamron 24-70mm f/2.8 Di VC Nikon 24-70mm f/2.8E ED VR	Sony 24-70 f/2.8 GM Sony Zeiss 24-70 f/4
Telephoto Zoom	Canon 70-200mm f/2.8L IS II Tamron 70-200mm f/2.8 G2	Nikon 70-200mm f/2.8E FL VR Tamron 70-200mm f/2.8 G2	Sony 70-200 f/2.8 GM
Super Telephoto Zoom	Canon 200-400mm f/4L 1.4x Ext Canon 100-400 f/4.5-5.6 II	Sigma 150-600 f/4.5-6.3 Sport Nikon 200-500 f/5.6 VR	Sony 100-400 f/4.5-5.6 GM
Macro	Sigma 150mm f/2.8 Macro OS	<b>Sigma 150mm f/2.8 Macro OS</b>	Sony 90mm f/2.8 Macro

## Workshops

All of my group workshops are run through NatureScapes Certified Workshops. Please check out all of the great offerings from NSN here: <https://www.naturescapes.net/workshops/>

Private instruction in landscape and wildlife photography are also available as well as image processing training. To learn more click here: [http://www.ejphoto.com/duckshop\\_private.htm](http://www.ejphoto.com/duckshop_private.htm)

## Facebook Page

I routinely post new photos on my Professional Facebook page as well as links to my latest articles. If interested, please click below and then click on the Like button.

<http://www.facebook.com/pages/EJ-Peiker-Nature-Photographer/150804446733>

## Newsletter Info

This is the 17th year of my quarterly Newsletter. I try to cover the wide array of digital imaging and products from mirrorless to medium format and everything in between. Throughout the years, the information contained herein has always been free and will continue to be free despite the many hours it takes to put it together and significant equipment and travel expenses. Most of the products I have tested and reviewed, I have purchased myself; a small minority have been made available to me for review and evaluation by loyal readers and a by the manufacturers themselves. While the newsletter is free either via eMail subscription or via accessing it on my website at <http://www.ejphoto.com/newsletter.htm>, if you find the information useful to you and you do wish to donate for my continuing efforts, you may do so via PayPal and sending the funds to [ejpeiker@cox.net](mailto:ejpeiker@cox.net).

## Disclaimers

E.J. Peiker conducts consulting services and product design services for a number of photographic product companies. Those that know me know I would not endorse a product even for compensation if I did not feel it were a superior product.

E.J. Peiker is a co-founder of [www.Naturescapes.net](http://www.Naturescapes.net) and leads photographic workshops under the NatureScapes Certified Workshops banner

E.J. Peiker is a member of Nikon Professional Services and receives some services free of charge from Nikon USA [www.nikonpro.com](http://www.nikonpro.com)

E.J. Peiker is a Sony Digital Imaging Pro and receives some services at a reduced cost and free of charge from Sony USA <https://esupport.sony.com/info/1523/US/EN>

E.J. Peiker is a Wimberley Professional Services featured photographer and receives non-monetary compensation from Wimberley. Visit Wimberley at [www.tripodhead.com](http://www.tripodhead.com)

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Squaw Rock Falls, Ohio (a7R Mk II, 16-35mm)

*F. I. Peiker*  
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