Welcome to the 17th year of the quarterly newsletter from E.J. Peiker, Nature & Travel Photography and 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: http://www.ejphoto.com/newsletter.htm

Pu‘u Pehe - Sweetheart Rock, Lanai (a7R III, 16-35mm)
A Prolific Spring

Another quarter year has passed us by in the blink of an eye. This Spring I was fortunate to go on several photo trips that yielded many new photographs.

The Spring 2018 photo season began with a vacation in Grenada. This island nation in the southern Caribbean, just a stone's throw from Venezuela, was liberated from a communist takeover attempt backed by Cuba's Castro regime in 1983 by a coalition of US and Caribbean forces. Today Grenada is a beautiful, democratically governed, vacation spot and source for many of the world's finest spices. It's a bit farther from the USA than most of the more common Caribbean isles and, therefore, gets fewer American visitors but does get quite a few European visitors especially from the UK. Much of the interior of the island has been set aside as National Park and nature preserve land making this island more "wild" than many other islands in the West Indies. While vacationing there, we went on three photo-centric adventures. The first was a catamaran cruise along the western side of the island, the second was a dune buggy tour of the southern part of the island, and the third was hiring a private driver to take us to places that the organized tours don't go to or to go to some of the best photo locations during the early hours before the tour groups arrive. We visited several beautiful waterfalls and the inside of the caldera of the volcano that formed the island. See my Grenada photos here:
http://www.ejphoto.com/grenada_page.htm

Concord Falls - Grenada (a7R III, 16-35mm)
Almost immediately upon the return from Grenada I realized that conditions were perfect for a Milky Way photo that I had been planning since the first time I went to Chiricahua National Monument in southeastern Arizona over two years ago. I made the 3.5 hour midnight run to get there by 3:30AM in time for the waning crescent to be very low on the eastern horizon to light up the tops of the rock formations but not so high and bright to impact the visibility of the Milky Way’s core in the south. It was a brutally cold morning at 6500 feet above sea level but the shots were among my favorite Milky Way shots to date. The lighted area on the horizon are the twin cities of Douglas, AZ and Agua Prieta, Sonora, Mexico. Planning for this shot was done with a combination of the Stellarium, software that I find indispensable for astro shot planning, darksitefinder.com, and various weather sites. Processing included the use of an astro photography stacking program called Starry Landscape Stacker (Mac Only - about the only reason I still maintain an iMac). Of course I stayed for sunrise and got several very nice shots of the hoodoos in early light. All of my Chiricahua National Monument photos are here: [http://www.ejphoto.com/chiricahua_page.htm](http://www.ejphoto.com/chiricahua_page.htm)

In early May, I visited an area that had long been on my bucket list; the Finger Lakes region of New York and it's many glens and waterfalls. Getting there and getting back was quite an ordeal due to flight delays and cancellations but in the end, this turned out to be a very prolific trip. Despite some areas being closed due to recovery from an extremely harsh winter, I was blown away by the photographic opportunities in the area. The network of state parks including Buttermilk Falls, Watkins Glen, Fillmore Glen, Taughannock Falls, and Letchworth State Park a bit farther west in the Genesee River Valley are among the nation's best state parks and rival some National Parks. This was a week that was all about waterfall and forest photography which are two of my favorite landscape photography genres. In
addition, I found the downtown area of Corning to be a quaint village with too many excellent eateries to count. All of the pictures can be seen here: http://www.ejphoto.com/new_york_page.htm

Just two days after returning from New York it was off to Las Vegas for Elton John's final concert of his residency there just prior to departing on his final tour before retiring. I certainly took this opportunity to make the 50 minute drive to Valley of Fire State Park, the place where I almost met my demise last summer (see The Story Behind The Photo in last Autumn's Newsletter for details behind this harrowing experience: http://www.ejphoto.com/Quack%20PDF/Quack%20Autumn%202017.pdf)
While I did get some of the photos I targeted last summer, the totally clear skies and a huge windstorm killing the afternoon shooting situation still left me unsatisfied with this place. I plan on another visit in
December as part of a trip to Cathedral Gorge, Death Valley, and the Alabama Hills of Southern California.

As many of my readers know, I have been visiting Hawaii on an annual basis for the last 30 years and have photographed much of the islands. One island that I had not spent any significant time on and no time photographing is the small island of Lanai. This small island that was not much more than a giant Pineapple plantation for much of the last century no longer has much industry other than a tiny bit of tourism. It is a privately owned island but the Four Seasons Resorts group does have two properties and there is a small local hotel that is currently closed for renovation. The island has much less infrastructure than even Molokai and a high clearance four-wheel drive vehicle like a Jeep Wrangler and some real off-road driving experience is needed to get to most places of photographic interest safely. However, the southern tip of the island, which is accessible by paved roads is a treasure trove of tide pools, cliffs and a very photogenic off shore sea stack known as Sweetheart Rock or Pu'u Pehe. Best of all, like Molokai, most places you go you will be the only person there or at least the only photographer. There are a few places I would have liked to have gone but the jeep tracks have eroded to such a point that they are no longer passable even by a very experienced off road driver. I am very pleased with the photos I came away with and feel that my Hawaii portfolio is much more complete now. Upon my return from this, my 22nd visit to Hawaii, I completely rewrote my guide to Photographing the Islands of Hawaii.
Kaumalapau - Lanai (a7R III, 16-35mm)

Overall, the Spring 2018 photo season was a major success and I have a number of new and exciting things planned for the Summer shooting season as well. Stay tuned to my Facebook page: https://www.facebook.com/EJPeikerNaturePhotographer/

**Mirroless Auto-focus vs. DSLR Auto-focus**

Judging from the number of questions that I get about auto-focusing systems on DSLR and Mirrorless cameras, I feel a short description of how they differ is in order. Specifically, there seems to be a lot of confusion about why auto-focus fine tuning (AF Microadjust for Canon DSLR shooters) is necessary on DSLR cameras and not on Mirrorless cameras. Let's examine how they differ...

On a DSLR in reflex mode (meaning in normal through the viewfinder shooting mode, NOT in Live View mode), autofocus is achieved in the following way: Light enters the lens and is projected onto the mirror. Most of the light is reflected up into the viewfinder so that the photographer can compose the shot. A small fraction of the light is allowed to pass through the mirror which is actually semi-transparent. This light is then bounced off of a secondary mirror mounted behind the primary mirror onto an autofocus sensor array. This is usually located along the bottom of the camera. This Phase Detect AF array then
determines whether the image is in focus or not and commands, electronically, the lens to change focus position to get the image in focus, as seen by the AF sensor array in the bottom of the camera. Since the AF sensor is in a different location than the imaging sensor that records the photograph, small differences in manufacturing tolerances in the lens mounts, mirrors, imaging sensor position, and AF sensor position can result in the image being in focus at the AF sensor position but not on the imaging sensor. This is why DSLR’s need AF calibration to each lens for optimal focus performance. In general, Canon cameras and lenses are much closer to critical focus out of the box than Nikon cameras and lenses suggesting that Canon builds their equipment to tighter tolerances than Nikon does. Third party lenses invariably require focus calibration to the camera body to insure optimal focus. When using DSLR’s in Live View, the mirror is up and the normal AF sensor array is not used. Instead focus is done on the sensor via various methods depending on manufacturer and camera model. Since focus is done on the sensor, this is by definition accurate if focus on the desired spot can be achieved and the offsets programmed into the camera via the AF fine tuning (Microadjust) process are not used by the camera. A graphical display of a typical DSLR AF system, courtesy of Reikan, is shown below:

A mirrorless camera does not have a mirror so all focusing is done on the sensor plane therefore AF fine tuning is not necessary. The light path from the scene being photographed to the imaging sensor and to where the autofocus is done is identical so there are no manufacturing tolerances that need to be accounted for via a focus calibration. Mirrorless camera manufacturers have come up with clever ways
of using pixels to emulate a phase detect autofocus system which tends to be much faster than the older contrast detect AF systems used on previous generations of mirrorless cameras. Contrast Detect AF basically plays a game of high-low to ultimately zero in on accurate focus. This takes much more time than a phase detect system which knows the direction to drive the lens in. The best AF systems in mirrorless cameras today use on sensor phase detect autofocus and augment that with a contrast detect step in the final stage of the AF process for extremely accurate autofocus. Recently, these systems have gotten to the point where they are either on-par or nearly on par with the very best DSLR phase detect systems from a speed of focus and tracking accuracy standpoint.

Buttermilk Falls State Park - New York (a7R III, 24-70mm)

Nik Filter Set Relaunched

In 2017 the photographic community mourned the announcement by Google that they would stop supporting the Nik Suite of plug-in Photoshop filters. Many photographers relied on these tools to give their photos the look that they desired. As time went on and Adobe released updates to Photoshop, the filters became less and less stable. It was with great joy that DXO, a Danish company, announced early this year that they had acquired the Nik Suite from Google and would update and re-release the software. A couple of months after that, the photographic community that used these filters was again thrown into turmoil when DXO filed for the European equivalent of Chapter 11 (Reorganization) Bankruptcy. The company was split in two by regulators but development of the Nik filters did continue and was just re-released at an introductory discount of $50. Note that under the original ownership, Nik Software, the suite was nearly $500. After Google bought it as part of a package to get SnapSeed from Nik, they initially offered it for $130. Once Google stopped supporting it, they no longer charged for it but there also was no support or development. In testing the new DXO Nik suite, I have found virtually no
change in its operation but it is much more stable. There were certain operations that would crash the Google Nik suite every time which now work properly. The only downside I have found so far is that it still does not work properly with the Photoshop alternative software Affinity Photo.

The New King of Superzoom Lenses

About 5 years ago, in May 2013, Canon introduced a completely new kind of lens that took the market by storm. It was a 200-400mm f/4 fixed aperture internal zoom lens that had a built in 1.4x teleconverter which could be inserted into the optical path with the flick of a switch turning it into a 280-560mm f/5.6 fixed aperture lens. As a straight 200-400mm f/4 lens it literally blew the doors off of the Nikon 200-400 f/4 lens for sharpness, especially at longer focusing distances. With the 1.4x inserted, it was a good lens but did not rival a 500 or 600mm prime lens. This lens was, and continues to be, a workhorse for Canon sports and event shooters due to its versatility. It took 5 years, until early 2018, for Nikon to release a lens that competes with the Canon, the Nikon AF-S Nikkor 180-400mm f/4E TC1.4 FL ED VR lens. This lens expands the wide end to 180mm compared to Canon's 200mm while maintaining a 560mm f/5.6 long end making it an extremely versatile lens. The lens is constant aperture for a given teleconverter setting, has internal focusing, internal zoom (meaning the lens does not change size as it is zoomed), using fluorite coatings and sports Nikon's latest vibration reduction (VR) mechanism which reduces the effects of camera shake by approximately 5 stops. It is a hefty lens weighing in at 7.7 pounds, approximately what a modern 500mm f/4 prime lens weighs, but it is smaller since its maximum aperture on the long end, with the TC inserted is f/5.6 compared to f/4 for the prime lens. This is a complex lens employing 27 lens elements in 19 groups and has a maximum reproduction ration of 0.25x. A built in lens collar and mounting foot is included although it does not have an Arca-Swiss dovetail on the mounting foot (something all lenses with a lens foot should have) so most will need either a long Arca-Swiss mounting plate which adds weight or a third party lens foot with a built-in dovetail in order to mount the lens on a tripod head. The lens retails for a hefty sum of $12,400 USD.
I evaluated the 180-400 f/4E TC1.4 lens using test charts as well as test shots of real world subjects. In all aspects this lens performed flawlessly and it easily bests any and all competition in the super zoom arena including its most direct competitor, the Canon 200-400 f/4L 1.4x. While the Canon is very good and rivals the new Nikon lens without the TC inserted, with the built in 1.4x inserted on both lenses, there is simply no comparison. The Nikkor loses essentially nothing and continues to have the optical performance of a high end prime lens super-tele. The Canon, while good, does not compete against 500mm and 600mm primes for sharpness with its teleconverter inserted. I also tested the new Nikon lens for infinity sharpness and detail rendering. The predecessor Nikon 200-400 f/4G lens performed great at shorter focusing distances but was simply awful at longer shooting distances. This is also true, to a lesser extent, of the previous generation 500mm f/4G and 600mm f/4G lenses. The new lens has no problem whatsoever at long shooting distances. I photographed a pedestrian’s shirt at 300 feet and was able to see the texture in the fabric of the shirt! Similarly a textured wall at 500 feet was completely sharp with no loss of image acuity.

Below you will see some 100% clips if a lizard statue that I often use for lens comparisons since it has a ton of large, medium, and fine detail along with a nearly complete palette of colors. All images were taken with a D500 at f/8 and 1/640s at ISO 400 mounted on a tripod. The shooting distance is 25 feet which is approximately the distance that I shoot backyard birds from my set-up. We’ll start with 400mm comparisons:
Comparing the new 180-400mm f/4 TC1.4 lens to other lenses in my stable that can shoot at 400mm (Sigma 150-600 Sport and Nikkor 80-400G), it is clear that the new and much more expensive lens outpaces the others for sharpness by miles. Even in this PDF document with its associated compressions, the sharpness and texture of the lizard is significantly higher than its rivals. I have also previously tested the Nikon 200-500 f/5.6 and the Tamron 150-600mm lenses and both of those fall below the Sigma.

This test also shows that there is less focus breathing with the new Nikon lens than the others. Focus breathing is a phenomenon where the focal length of a lens gets shorter as the lens is focused more closely to its minimum focus distance. One can see in this comparison that the lizard shot with the 180-400 at 400mm is larger than with the others.

Contrast on both the Nikon 180-400 and the Sigma 150-600 Sport is better than the Nikon 80-400.
In this comparison we have the 180-400 f/4 TC1.4 at 560mm compared to the Sigma 150-600 Sport at 560mm and the excellent Sigma 500mm f/4 prime lens. Again one can see a higher acuity on the Nikon zoom compared to the Sigma zoom but the difference is less than in the 400mm crops. This is not surprising as the weakest range of the Sigma sport is in the 450 to 500mm range. The Sigma's focus calibration software calibrates the lens at 150mm, 250mm, 400mm and 600mm. There is often a big jump in calibration settings from 400mm to 600mm making the 450 to 500mm range an interpolated "guess". By 560mm one is getting back into the more accurately calibrated range set by the 600mm setting. The Sigma does very well here considering its $2000 price point but still is well shy of the $12,400 Nikon. For comparison I have also included the $6000 Sigma 500 f/4 prime both at 500mm and at 700mm with the Sigma dedicated 1.4x teleconverter. At half the price this lens is essentially equal to the Nikon but of course is nowhere as versatile. For a zoom lens, the Nikon 180-400 f/4 TC1.4 has no equals, not even close. It is incredibly sharp through the zoom range with and without the teleconverter and, surprisingly, even with the built in 1.4x inserted gives up nothing in sharpness.
The images above consist largely of the central area of the lens' image circle. While I won’t reproduce them here, the 180-400 f/4E TC1.4 lens out-resolved the limits of the test chart all the way into the corners on a full frame D850 camera. That means it is capable of rendering more than 4000 per frame, the limit of the chart, all the way into the corners. This is on par with high end primes such as the 500 f/4 and 600 f/4 class lenses and almost unheard of with zoom lenses in this range.

Nikon has hit a grand slam home-run with the Nikkor 180-400 f/4E TC1.4 lens in the optical department. There is simply nothing on the market from any manufacturer that compares for image quality through the zoom range and even with the built-in 1.4x teleconverter inserted. It is an exceptional lens in every regard and is on par with 400mm, 500mm and 600mm prime lenses. Unfortunately the price of the lens is also exceptional. Nikon nearly doubled the price from the 200-400mm f/4 lens ($7000 at introduction in 2010, now $3350) that it replaces but also doubled the performance and added a 1.4x teleconverter. I would think that would command a premium of about $2500 bringing the lens to $9500 at introduction not $12,400. However, if you want the very best super-tele zoom that money can buy, nothing else touches it. If I had a spare $12,000 sitting around, I would replace my Sigma 150-600 Sport lens with this lens without hesitation.

\textit{iQuick3pod - Funny Name, Serious Tripod!}

Several years ago the Hungarian company UniqBall made a splash with their UniqBall Tripod heads which combined the versatility of a ballhead for
smaller lens/camera combinations with the ease of use of a gimbal head for large super telephoto lens/camera combination in a single, relatively light, and easy to travel with package. The UniqBall quickly won over many customers that previously traveled with both a traditional ballhead and a large, heavy gimbal head. While it has some compromises for both usage models, once a photographer gets used to them, it performs very well and is very travel friendly from both a size and weight perspective. More recently the same company, UniqBall, introduced three new carbon fiber tripods; a short 3 leg section model with a 48" maximum extension, a slightly less short 4 leg section model with a 56" maximum extension and a taller 4 leg section model with a 60" maximum extension. They are called the iQuick3pod 36.3, iQuick3pod 36.4, and iQuick3pod 40.4 tripods respectively. Both tripods use the same Black and metallic red color scheme of the UniqBall giving the combination a coordinated look. The tripod, at least during its initial offering period, ships with a high quality padded tripod bag and tripod spikes that can be used in place of the rubber feet. The company indicates on their website that these extra items will be optional in the future and are included during an initial promotional period of unspecified length.

The three iQuick3pod tripod models are similar with the exception of the extra leg sections and height. In general the 60" iQuick3pod 40.4 will be much more useful to the vast majority of photographers as the others are too short for most people so the rest of the review will focus on that model. Basic specs are as follows:

- Load capacity: 99.2lb
- Maximum height: 59.8"
- Minimum height: 3.7"
- Folded length: 22.6"
- Weight: 5.7lb
- 10x Carbon Fiber Construction
- Integrated leveling base with bubble level
- 3 position leg locks
- non slip twist locks

When one first unpacks this tripod one is immediately impressed by the high quality feel of the tripod. It is hefty! The top legs are 1.5 inches in diameter and even on the taller
4 leg section model, the bottom legs are still 1.125 inches in diameter. They are constructed of very strong 10x carbon fiber for maximum stability. Leg extension is done with large rubber twist locks and the leg sections themselves do not rotate. One of the three legs is covered in neoprene for more comfortable carrying, especially in cold temperatures. The angle leg locks, often the bane of tripod design are friction slides that work very well. The hinges should require no maintenance other than tension adjustment with the provided Allen wrenches. The tripod base is basically designed as a cradle or frame for the red leveling base. It will remain to be seen how strong structurally this frame is to hard side impacts in extreme cold but the design looks like it should be highly crack resistant since the holes in the frame should act as a stress relief. The red leveling base has a built in bubble level and it's tilt angle is limited only by the tripod head's width. It will tilt up to the point where the head hits the frame that holds the leveling base. This could be as much as 60 degrees with a smaller head. Using UniqBall's own larger 45XC head or a ReallyRightStuff BH-55, the maximum leveling angle is approximately 20 degrees. With a smaller head such as a ReallyRightStuff BH-40, the maximum leveling angle is approximately 45 degrees. The top of the leveling base includes rubber rings that will hold a tripod head firmly in place without the need to overtighten it while maintaining the capability of easily removing the head. In addition to the standard 3/8" socket, there is also a set screw that can be used to more permanently secure a head to the base or to prevent any undesired twisting of the head on the base.

Overall the iQuick3pod tripods are very well thought out and a pleasure to use in the field with no major annoyances. They are extremely strong and stable for even the heaviest gear on the market. They isolate the camera system exceptionally well from environmental influences such as vibration or wind. The built-in ability to level the base at relatively high angles allows this tripod to be used in areas where normal tripods, even those with traditional leveling bases which are usually limited to about 15 degrees, simply cannot be leveled.

As with all products, there are some areas that could be improved. For a 6'1" photographer, a 60" high tripod is not tall enough. Even when adding a head and a large telephoto lens mounted on its lens foot, the tripod is still 4 to 5 inches shorter than desired. A peculiar engineering choice is the integrated bubble level as UniqBall's own 45XC ballhead covers the level when mounted. While the 45XC does have its own level in its base, it still seems like a minor product integration failure by the engineering teams. As mentioned, only one of the three legs has a neoprene covering on the top leg section for ease of carrying, it would be nice to have this extended to all three legs. There is no hook on the underside of the leveling base to add even more mass to the setup if needed. Finally, if one is not careful, without a tripod head attached and the leveling base lever loosened, it is possible to twist the leveling base right out of its cradle and it can be difficult to get it back into place once that happens without scratching the
red metal anodization on the base. This can't happen with a head attached or if the base is tightened down but if the base is shifted to an extreme angle without a head, it can pop out.

Overall, the iQuick3pod is an outstanding, strong, and user friendly tripod made for hefty loads. It is easily of the same quality as the major players in the super sturdy carbon fiber tripod market. It is currently available from LensCoat, B&H and will be available at the NatureScapes store within the next couple of weeks. Since my website is hosted by NatureScapes and I am a co-founder of that company, my recommendation is always to check with NatureScapes store first for your photographic needs: https://store.naturescapes.net/tripod-legs-kits/

The Story Behind The Photo

In early 2015, my friend Mark and I went on a nearly three week adventure to Chilean and Argentine Patagonia. I have previously reported on our trip and the many obstacles we faced in the Spring 2015 Newsletter (http://www.ejphoto.com/Quack%20PDF/Quack%20Spring%202015.pdf). After photographing the Chilean side for a week we made our way to Argentina. That's when it all went wrong...

The relationship between Chile and Argentina is not good due to several armed conflicts between them over the last 5 centuries. As a result, there is a demilitarized zone (DMZ) between the two countries so when you make a border crossing between them you actually have to emigrate out of Chile, exit through a guarded gate, then drive 7km across the DMZ and arrive at the Argentina gate where you again have to stop to immigrate into Argentina. We went through the emigration process on the Chile side without problems but we were at the tail end of a big group from a tour bus. As a result they never asked us about our car nor did anyone ever tell us that our rental car had to clear customs separately. We got back in our car and they waved us through to cross the DMZ and we drove to the Argentina outpost on the other side. We went through Argentina immigration with no problems but at the customs window they
asked us for the paperwork for our car. After several trips out to the car to get various pieces of paper, we were sent back to the Chile side of the DMZ because we didn't have the proper paperwork for our car to go into Argentina. The problem was that they failed to process us back out of Argentina through immigration. So now on paper and in our passports, we were officially immigrated into Argentina but physically back in Chile because our rental car didn't clear customs. Back on the Chile side, a lady explained to us what paperwork we need and then waived us back into Chile... without immigrating us back in! It turns out the rental car company didn't give us the proper documents and we had to drive an hour to Puerto Natales to the rental car outpost there to get them. But it was Sunday and the office was closed. Next we called the cell phone number for the person that rented us the car in Punta Arenas and he told us that he will process the paperwork and get a customs clearance form but the government office that needs to process the paperwork isn't open on the weekend. So we had to spend the night in Puerto Natales. Fortunately the same hotel we stayed at on our first night in Chile after arriving in the evening was able to accommodate us and also called our next hotel in El Chalten, Argentina that we would not be checking in that day and to be sure that our reservation for the rest of the week wasn’t cancelled due to showing up a day late. Monday morning came and we got the paperwork after an hour wait to get it processed in Punta Arenas and have it sent to Puerto Natales via eMail. Next we went back to the Chile side of the border. But... we weren't officially in Chile since we had emigrated out and immigrated into Argentina without ever immigrating back into Chile. So then we had to first officially re-enter Chile and then immediately, emigrate out again and cross the DMZ to get our car into Argentina. The immigration and customs people in Argentina were very confused since they thought we were already in the country because we had cleared immigration the day before. Finally, after several tense minutes, the customs officer just gave up and stamped us and our car in and we finally completed our 25 hour border crossing from Chile to Argentina. It was very weird and a bit scary being in a country without being documented to be there - it was an extremely stressful situation.
Our original itinerary did not include a stop at the Perito Moreno Glacier west of El Calafate where the above photograph was taken. I had been there before but since Mark had not had the opportunity to go there on his first trip to Patagonia, we made the 2 hour (one way) side trip to this spectacular glacier that cuts across Lago Argentino, Argentina’s largest lake. We kept our eye on the clock the whole time since, according to our paperwork, we could not check into our hotel after 11:00PM. But we needed fuel to get there and there was a large music festival in El Calafate and after being refused service at one gas station due to not having Argentina plates (remember these two countries are enemies) we were redirected to a Brazilian owned Petrobras station on the other side of town which had a mile long line to get gas. It took over an hour to make it to the front of the line. Once we had fuel we had to really hustle to make it to El Chalten before the 11:00PM check-in curfew. We got there about 5 minutes before 11:00 just to find out that the paperwork was wrong and that the front office was staffed 7x24 - more needless stress - but we got the Perito Moreno Glacier shots and now have a memory that we laugh about.

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. Sigma has recently announced their entire line of Art prime lenses for Sony FE so I expect to see a lot of changes in the future on the Sony FE front...

<table>
<thead>
<tr>
<th>Lens Category</th>
<th>Canon EF Mount</th>
<th>Nikon F Mount</th>
<th>Sony (FE) Mount</th>
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<td>Nikon 8-15mm f/3.5E Sigma 15mm f/2.8</td>
<td>Sony 28mm f/2 + 16mm Fisheye Conversion Lens</td>
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<td>Sigma 14mm f/1.8 Art Irix 11mm f/4</td>
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<td>Nikon 200mm f/2G Nikon Micro Nikkor 200mm f/4ED</td>
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</tr>
<tr>
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<td>Nikon 300mm f/2.8G VR Nikon 300mm f/4 PF</td>
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<td>Canon 400mm f/2.8L IS II Canon 400mm f/4 DO II</td>
<td>Nikon 400mm f/2.8E VR Nikon 400mm f/4 PF</td>
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<td>Canon 500mm f/4L IS II Sigma 500mm f/4 DG OS HSM</td>
<td>Nikon 500mm f/4E VR Sigma 500mm f/4 DG OS HSM</td>
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</tr>
<tr>
<td>600mm Prime</td>
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<td>Nikon 600mm f/4E VR</td>
<td>N/A</td>
</tr>
<tr>
<td>800mm Prime</td>
<td>Canon 800mm f/5.6L IS Sigma 800mm f/5.6APO DG</td>
<td>Nikon 800mm f/5.6E VR Sigma 800mm f/5.6APO DG</td>
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</tr>
<tr>
<td>Wide Angle Zoom</td>
<td>Canon 11-24mm f/4L</td>
<td>Nikon 14-24mm f/2.8G</td>
<td>Sony 16-35mm f/2.8 DM</td>
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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 camera operation, landscape and wildlife photography are also available as well as image processing training. Photo workstation consulting services are also available, To learn more click here: http://www.ejphoto.com/duckshop_private.htm

Facebook Page

I routinely post new photos, articles, etc 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.


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.

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 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.

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.


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Pu‘u Pehe and Hulopoe Bay - Lanai (DJI Mavic Pro)