

The Newsletter of E.J. Peiker - Nature and Travel Photography

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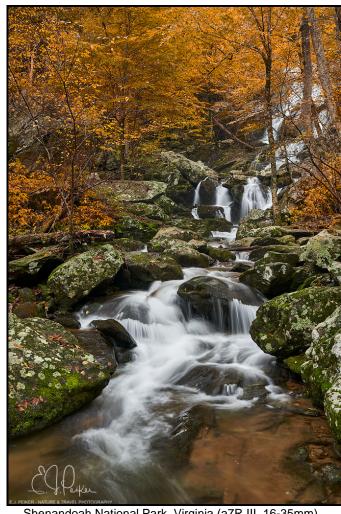
Welcome to the 18th year of the newsletter from E.J. Peiker, Nature & Travel Photography and www.EJPhoto.com. In this quarterly publication, I share with fellow photographers my photographic experiences, photo equipment reviews, photo and processing tips, and industry news. I also inform subscribers 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



Amicalola Falls - Georgia (GFX-50S, 32-64mm)

Autumn Photo Shoots

The Fall photo shooting season started off in the middle of October which is traditionally the peak Fall color time in the Blue Ridge Mountains and Shenandoah National Park of northern Virginia. Unfortunately, this year color throughout the United States was about two weeks late and in many parts, due to an extended summer drought, many leaves went from green and on the trees to brown and on the ground with almost no transition. To complicate matters my trip was scheduled during the time that Tropical Storm Michael, the same storm that destroyed parts of the Florida Gulf Coast, came ripping through Virginia with very high winds that stripped much of what little color there was. The storm drastically cut the amount of time I had to photograph in the area and also prevented me from going some places that I wanted to go due to down trees. Despite all of this, some hiking into the woods and lots research did result in a few very nice photos. I did abort the last day of shooting in Shenandoah due to 80 MPH winds along the Skyline Drive which is how you get around this National Park. Since my flight back home was out of Dulles Airport in the Virginia suburbs of Washington DC, I decided to go to Great Falls National Park on the last day and got some very nice shots of the cascading Potomac River. Photos from Shenandoah National Park can be viewed here:



Shenandoah National Park, Virginia (a7R III, 16-35mm)

http://www.ejphoto.com/shenandoah_page.htm Photos from Great Falls National Park can be viewed here: http://www.ejphoto.com/great_falls_page.htm

A couple of weeks after returning home from Virginia, in late October and early November, I was off again to the Blue Ridge Mountains but this time the southernmost part in Georgia and Alabama where I photographed the region for several days with a friend that lives in the area. Again, we were probably a week or so ahead of peak color but nice color was found and we were able to photograph some really exceptional waterfalls. In northeastern Alabama we photographed the canyons and waterfalls of Little River Canyon and DeSoto State Park and then went to many excellent spots along the northern border of Georgia. Weather was great during the entire visit although unseasonably cold which was a blessing as this accelerated the transition to more color later in the trip. Photos from this shoot can be found at the following links:

Alabama - http://www.ejphoto.com/alabama_page.htm Georgia - http://www.ejphoto.com/georgia page.htm



Cloudland Canyon, Georgia (GFX-50S, 32-64mm)

Our semi-annual vacation travels to the Caribbean took us to Jamaica for nothing more than rest and leisure with really no intention to photograph much of anything. But one morning while sleeping I had to get up to go to the bathroom and I usually check the time when I do that and I noticed a text message

had come in with some scary news from home that prevented me from going back to sleep (fortunately everything turned out fine). Rather than just lay in bed I got up for a pre-dawn hike and grabbed my Sony a7R III and 100-400mm lens and headed toward a wetland that I noticed during the drive into our resort that was relatively close. It ended up being about a three mile hike but I did get a few nice pictures of wading and water birds.



Tricolored Heron, Jamaica (a7R III, 100-400mm)

To close out the fall photography season, I had booked time with two photographers whose work I admire, Guy Tal (https://guytal.com/) and Michael Gordon (http://www.michael-gordon.com/) in Death Valley National Park. Guy's work is very different from mine but he produces some of the finest landscape details and abstracts in the world so I figured shooting with him would open my eyes to new ways of seeing the landscape and Michael knows Death Valley better than anyone in the photo business as well as being a highly accomplished photographer specializing in the Mojave Desert and Death Valley. I was definitely not disappointed and accomplished both goals, to see and photograph the landscape differently than I typically do and to finally photograph Death Valley. Enroute to Death Valley I made a stop at Valley of Fire State Park in southern Nevada to continue my photography in this area, an area that has presented me with several serious weather challenges over the last couple of years. This time it was clear and calm which allowed me to photograph two different areas in the park that I had not previously been able to photograph. I had also planned a side trip to Cathedral Gorge about 170 driving miles north of Las Vegas but when I was just two miles from the entrance to this area, I suffered a tire blowout. Run flat tires don't do you much good when you have a blowout and when you are more than 50 miles from the nearest place that can replace the tire. My only option was a tow back to Las Vegas which aborted the Cathedral Gorge shoot since I had to be in Death Valley the next day. Similarly, I had planned another shoot after the 6 days in Death Valley which went off without a hitch. I finally got to photograph in Eastern California's Alabama Hills and the tallest mountain in the 48 contiguous United States, Mount Whitney. I am still processing the photos from this trip and will be adding to these links:

Alabama Hills: http://www.ejphoto.com/alabama_hills_page.htm
Death Valley: http://www.ejphoto.com/death_valley_page.htm
Valley of Fire: http://www.ejphoto.com/valley_of_fire_page.htm



Zabriskie Point, Death Valley (GFX-50S. 250mm)

Nikon AF-S 500mm f/5.6E PF ED VR Lens Review

For many years, photographers have been asking for a super telephoto lens that has the same uncompromising image quality as the very large, heavy and unwieldy 500mm and 600mm f/4 prime lenses but in a smaller and lighter weight f/5.6 package that is optimized to be at peak sharpness when shot wide open at f/5.6. In a world of increasing restrictions on cabin baggage size and weight, this is especially important to the traveling photographer. Prior to



Photokina 2018, Nikon announced just such a lens - the 500mm f/5.6E PF ED VR. This lens employs all of the technologies found in the much larger and heavier 500mm f/4E lens including the latest Vibration Reduction module, Nano Crystal coatings to reduce flare and ghosting, super fast AF-S focusing mechanism, professional grade weather-sealing, and professional level construction. To lighten and shorten the package even more than what one would normally expect of a 500mm f/5.6 lens, Nikon employed the Phase Fresnel (PF) diffractive optics technology which allows a lens to be much shorter an lighter than it's focal length would normally dictate with standard optics. In early iterations of this

technology, originally found in the first generation Canon 400mm f/4 DO lens, the Phase Fresnel concept resulted in low contrast images with often very ugly out of focus specular highlights. Fifteen years of technological advances has made those shortcomings a distant memory and the technology is now mature enough for professional grade super-tele lenses. The result is a 500mm f/5.6 lens that is only 237mm or 9.3 inches long and just 1460 grams or 51.2 ounces heavy. Compare this to the current 500mm f/4 which is 387mm or 15.2 inches long and weighs in at 3090 grams or 109 ounces.

After extensive use for several weeks both in lab testing and in real field work, here are some of the pros and cons of this lens:

Pros:

- Excellent build quality with full weathersealing
- Extremely light weight for a 500mm lens, it weighs less and is much smaller than the 200-500mm f/5.6 and even the Nikon 80-400mm lens (@400mm) and is vastly superior to both optically and for autofocus.
- Very hand-holdable for long periods of time and well balanced even with a body that does not have a battery grip attached



- Exceptional image quality wide open, excellent image quality with the Nikon TC-14E III especially with VR off or in sport mode
- No sharpness falloff seen at long shooting distances like some Nikon long lenses
- In normal light there is absolutely no difference in focus speed or accuracy compared to the bigger, heavier and much more expensive f/4 lens.
- While expensive, \$3600 for a super telephoto prime of this caliber is less than what I expected when the lens was announced, especially when compared to the \$10,300 price of the f/4 lens
- The lens accepts standard 95mm front screw-on filters



Ringed Teal (D500 with 500mm f/5.6E PF)

Cons:

- The lens collar, while stable is designed poorly and is fraught with danger for dropping the lens. This lens uses the same click in foot used in the 70-200mm f/2.8E lens and has the same problem that if the lens is carried by the lens foot, it is easy to disengage the removable foot accidentally and the direction that the foot slides on and off makes it very easy for the lens to fall off the foot and straight to the ground. This is even worse for the larger 500 f/5.6 because it is more likely to be carried by the foot. Make absolutely sure the twist knob on the foot is tightened firmly to avoid this drop potential. The only replacement foot available at this writing, the Kirk Photo foot which incorporates an Arca Swiss double dovetail for quick tripod mounting, also has this problem as it just slides into the same coupling that the Nikon stock foot uses. Additionally, the lens collar does not have click stops every 90 degrees like the long f/4 lenses do. This makes it a bit more difficult to go quickly from a perfectly level horizontal shot to a perfectly level vertical shot.
- The minimum focus distance of 10 feet, while relatively close for a 500mm lens, feels a little far for a lens this compact

Optical Tests:

Both resolution chart testing and field testing for sharpness and other optical qualities were performed. Here is a summary of the resolution/sharpness tests shot wide open at f/5.6 without the teleconverter and f/8 with the teleconverter. There is little to no sharpness improvement by stopping down when just the lens (without TC) is used. With the TC, stopping down to f/9 or f/10 is a slight improvement but by f/11 we start seeing the first signs of diffraction on the higher pixel density cameras such as a D7200/7500 or D800/D810/D850 class. On a D4/D5, with much lower pixel density, f/11 is the sharpest aperture with a 1.4x teleconverter in place:

Configuration (at maximum aperture)	Center	Corner
500 f/5.6PF with VR off	Excellent	Excellent
500 f/5.6PF with VR Normal	Very Good	Good
500 f/5.6PF with VR Sport	Excellent	Very Good
500 f/5.6PF + TC-14E III with VR off	Very Good	Very Good
500 f/5.6PF + TC 14E III with VR	Good	Mediocre
Normal		
500 f/5.6PF + TC 14E III with VR Sport	Very Good	Very Good

I noticed right away, both in field testing and on the test charts that the most aggressive VR mode labeled as Normal, in every case degraded image quality noticeably. Specifically fine detail softened visibly. Fortunately the Sport mode, which is designed to be used in panning situations or other situations where the camera has to be moved while shooting, does not have this resolution reduction penalty. It must be stated that every IS or VR lens is sharper with stabilization turned off when shot in perfect conditions on a very solid tripod. In real world situations, however, the shooting scenario is often not up to this ideal standard and it is then when stabilization results in a sharper shot than if it was not present or on. On Nikon lenses, it is fairly well known that if the shutter speed is faster than 1/500 to 1/800 second, turning VR off results in sharper shots. On this lens, I found that VR Normal should not be used except in high vibration environments, like shooting from a car with the engine running or some other platform that has some vibration and the subject is stationary. In all other situations shooting with VR in Sport mode, up to about 1/800 sec is the preferred mode. For shutter speeds faster than that, turning it off gives the highest image acuity but the difference between VR in sport mode and off is minor. For most photographers permanently putting the VR switch to the Sport position is likely the best compromise for all situations.

Comparing these results with both the 500mm f/4 and the budget oriented, but generally highly regarded 200-500mm f/5.6 lenses, the new 500mm f/5.6 is essentially indistinguishable from the f/4 lens at f/5.6. The 500mm f/5.6 PF is very visibly sharper throughout the entire frame than the 200-500mm f/5.6 lens plus it is lighter and smaller than the zoom. Of course one gives up the versatility of a zoom but the image quality is on a different level which is to be expected of a lens that costs 3 times as much. Chromatic aberration is essentially nonexistent on the 500mm f/5.6PF without the teleconverter and only a very small amount that is unlikely to be seen in final photographs even without correcting in post processing is seen when the 1.4x teleconverter is attached. Again these results are far better than the 200-500mm chromatic aberration results. Autofocus:

Autofocus is on par with the 500mm f/4 lens and at least twice as fast as the 200-500mm for initial acquisition. Tracking is more accurate with less hunting on moving subjects than the 200-500mm lens and again on par with the 500mm f/4. The only time the 500mm f/4 has better AF performance is when the light gets low enough that the cameras negative Ev limit for AF is approached on the 500mm f/5.6

lens. Since the f/4 lens lets twice as much light to the AF sensor, it naturally will focus in lower light than the f/5.6 version can. With today's -3 Ev systems, this generally will not be an issue for the vast majority of photographers in real world photography.



Green Heron (D500 with 500mm f/5.6E PF)

In The Field:

The Nikon 500mm f/5.6 PF lens has put the joy back into bird photography for me. It is a lens that I can easily carry all day without hurting at the end of the day. It is perfectly stable on a lighter tripod with a lighter head and can easily be hand held for long periods of time compared to a 500 f/4 which can weigh more than two times as much and has a lot more weight on the front of the lens creating a bigger lever arm and making it feel even heavier than it is. Even though the same camera mounted on the 500 f4 weighs only about 4 pounds more, the much larger size and much more front heavy combination, makes it feel dramatically more than 4 pounds heavier and increases fatigue substantially. Additionally, the 500 f/4 really needs either an optional battery grip or a larger camera like a D5 to properly balance but the 500 f/5.6 feels well balanced without a larger heavier body and without a battery grip. It matches up perfectly with a D500 or D850 body with no battery grip attached. This further reduces the weight and fatigue. It also allows the photographer to be much more nimble making it more likely to get the shot of a quick fleeting subject.

My biggest complaint about the lens in the field is the lack of click stops in the collar resulting in more time to properly go from a horizontal to a vertical composition or vice versa and the risk of the lens falling to the ground due to the terrible design of the lens foot attachment. Always, always, always make sure that the tightening knob for the lens foot is very tight, not just sort of tight, but so tight that it is difficult to loosen.

In summary, Nikon has an absolute winner with this lens. It is sharp, lightweight and offers excellent performance as a wildlife lens and reduces photographer fatigue by orders of magnitude on long shoots or travel - anytime one must carry the lens for more than a few minutes. With the great success of the highly regarded 300mm f/4 PF and now the even better 500mm f/5.6 PF lens, I hope Nikon rounds out the lineup with a 600mm f/5.6 PF lens. While lenses such as this most definitely eat into sales of the bigger f/4 super telephoto lenses, I think this loss will be more than compensated by sales volume of the PF lenses. An indication of this is that wait times to get one of these lenses is long. Even for Nikon Professional Services priority customers, the wait time is about 4 weeks. Unless you are very lucky and stumble onto one at a smaller local retailer, the wait time for a non-NPS member could be as much as three months.



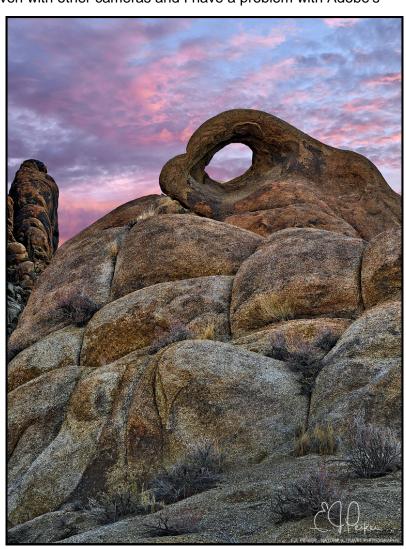
Wood Duck (D500 with 500mm f/5.6E PF)

Fujifilm Medium Format

It's been an interesting couple of years health wise for me! Among several other issues I developed a relatively serious shoulder condition that precluded me from lifting my left arm above the elbow. While dealing with deteriorating arm mobility for nearly a year before seeing a specialist that got me on the right track and on the path to a full recovery I did virtually everything with my right arm which has resulted in a reoccurrence of an issue I have dealt with a couple of times previously in my photographic career, severe tendonitis in my right arm and elbow. The result of these two issues is that I could no longer use my Phase One gear. Just the camera, digital back and 40-80mm lens (25-50mm full frame equivalent) weighed as much as my Nikon D500 and 500mm f/4 lens. Add other lenses to cover the full range from ultra wide to telephoto, even though I absolutely love the system, I simply could not manage it and heal

at the same time and likely make things worse to the point of not being able to recover. It probably played a role in inducing both injuries. I started using my Sony a7R III exclusively for virtually everything. While the Sony is a very capable camera, I miss the incredible resolution of medium format and the so called "medium format look"; something that is difficult to describe but there is a three dimensionality to it that smaller formats just don't seem to be able to produce. There might even be a psychological component to it. I have long admired the Fujifilm cameras for their design and tactile controls for everything but stayed away since my entire photography world is managed with Capture One Pro. Capture One Pro did not support Fuji's medium format and only supported those made by Phase One. Switching to Lightroom was not an option as the RAW conversions are not the same caliber, especially on photos taken with the Phase One, but even with other cameras and I have a problem with Adobe's

subscription model. Additionally, I hate the forced use of Adobe's noncustomizable user interface and the way it manages images in a proprietary catalog system. Photokina 2018 provided the answer for me. When Phase One exited the cropped medium format sensor market (44mm x 33mm sensor size) they started supporting the Fujifilm Medium Format cameras. Simultaneously, in the same press event, Fujifilm also announced the development of the 100 megapixel GFX camera. These two announcements in combination with my worsening shoulder and arm conditions prompted me to once again investigate this system. Some weight and size calculations indicated that the available GFX-50S and 32-64mm lens (25-50mm full frame equivalent) actually weighs a few ounces less than a Nikon D850 and Nikon 24-70mm. A plan hatched in my brain to immediately sell my Phase One camera, 100 megapixel digital back, and a number of really good but extremely heavy Schneider Kreuznach and Mamiya lenses. The digital back's value was dropping rapidly with the announcement of the 150 megapixel Phase One digital back which was about to flood the used



Alabama Hills Arch (GFX 50S, 32-64mm)

100 megapixel digital back market so I had to move fast. I would purchase a GFX 50S, a cadre of Fuji GF lenses and then use the GFX-50S until the GFX-100 ships in middle 2019 at which time the 50S would become my backup. A backup body and back at nearly \$50K was simply not financially viable in the Phase One world so in addition to carrying the Phase gear, I always had to carry a small Sony kit too on any photo shoot in case of failure compounding the weight problem even more.

I purchased a Fujifilm GFX-50S camera body (51.4 megapixel 44x33 sensor), a GF 23mm prime lens (18mm equivalent), a GF 32-64mm zoom (25-50mm equivalent), a 250mm prime lens (200mm equivalent, and the Fuji GF 1.4x teleconverter. Fuji also announced a 100-200mm lens which will be available around the same time as the 100 megapixel body. This left me with a big hole between 64mm and 250mm. Fuji has two lenses that fit in between those two focal lengths, a 110 mm portrait prime and a 120 macro lens. After some deliberation I opted for the 120mm macro lens. My reasoning was that once the 100-200mm zoom ships I would likely never use the 110mm lens and I would end up selling it in about 7 months. A macro lens, on the other hand, would still be useful to me in the future.

I have now extensively used the new system both in my home lab and on several extended shoots including my Alabama/Georgia trip, in Nevada, in Death Valley, and in the Alabama Hills of eastern California. While this is not intended to be a complete review since the GFX-50S has been on the market for two years, I will share some of my observations and plan on a more complete review of the GFX-100 after it ships and I have used it extensively.



Death Valley (GFX-50S, 250mm)

Below you will find my pros and cons, as usual the cons are more prolific than the Pros. The camera does most of the basics very well so I don't really mention them but, as in all my reviews, I always dig up a number of things that are not as good as they could be and sometimes just plain dumb. Most of the points on the GFX apply to other Fujifilm cameras as well including the XPro, XT and XH APS-C sensor cameras

Pros:

- The build quality of the GFX-50S is very good. I do feel that the on off switch feels a bit mushy but other buttons and controls are great.
- Having old school aperture rings, exposure dials, ISO dials, etc is fantastic. And if you would rather shoot with front and rear dials as is customary with most DSLR and mirrorless cameras, that is

- available too. I absolutely love the control layout on this camera (and the smaller XT cameras with APS-C sensors too)
- The lenses that I purchased are all exceptional from center to edge and are very sharp even wide open. They all have aperture rings but can also be controlled from the camera dials.
- The combination of an outstanding Sony 51.4 megapixel Bayer sensor with exceptional lenses results in incredible image quality, significantly better than anything available in the 35mm format.
- Many size formats are available from the full 4:3 sensor to square, to numerous rectangular formats, 35mm. Even the venerable Fuji 617 panorama format from the legendary panorama camera of the 1980's is available
- For a contrast detect only AF system, it is capable and very accurate for static subject plus the AF sensor area can be made large or very small and moved anywhere in the frame.
- Autofocus still works even in magnified view resulting in extremely accurate placement of the AF point.
- Even with the camera in manual focus, if one of the buttons is programmed for back-button focus, you can override manual focus with autofocus without first having to turn AF on. This has the added benefit of making focus peaking available with autofocus..
- Manual focus aids like focus peaking are extremely accurate - much more accurate than what I am used to in the Sony system. And, as mentioned, since you can still autofocus while in Manual focus mode you can get focus peaking even while using autofocus.
- The EVF is large and bright and highly customizable. Virtually anything can be displayed or not displayed – it is fully programmable. Even an RGB histogram based on the film simulation you are shooting with can be displayed prior to taking the shot.



Death Valley (GFX-50S, 32-64mm)

- A recent firmware update allows you to customize the colors of the rear LCD which allows one to get relatively accurate color on it but it will be influenced by the film simulation mode you choose.
- The number of drive modes cover everything a photographer could want. A super intuitive focus stacking mode has also been added via firmware update since the camera initially shipped
- Fuji film simulations for JPEGs allow the photographer to shoot RAW + JPEG and get a standard RAW file and apply one of approximately 10 different film profiles from super saturated Velvia to several different Black and White emulsions and everything in between from transparency or

- negative films. Even if you shoot RAW only, if using a RAW processor like Capture One 12, the same film simulations can be applied to the RAW files
- Shutter speeds can be selected up to an hour without having to use bulb mode and a locking cable release
- The remote control function available through WiFi via a smart phone work fairly well although initial set-up can be a bit finicky, largely due to a manual that has clearly been translated from Japanese in Japan rather than being rewritten by a native English speaker.
- Fujifilm is constantly releasing firmware updates that add new functionality. This shows foresight by the designers to include enough internal non volatile memory to add lots of functions over time.

Cons:

- As I mentioned, the manual at times is a bit unclear. At least a complete manual is included and updates to the manual necessitated by new firmware can be downloaded. In general though, Fuji and most other camera manufacturers should rewrite the manuals to be much clearer.
- I like to set my cameras up to immediately display an RGB histogram after the shot is taken. This is not possible on the GFX. One always has to hit the Play button to display it.
- My single biggest complaint is that the histograms displays what the image data looks like after the selected Fuji film simulation is applied which doesn't remotely match what is in the RAW file. Since a film simulation MUST be selected, there is no flat profile and all you can do is fudge some of the parameters in the film simulation to try to get something that is sort of close to the RAW file. It is however very inexact and I have often had a histogram that is exposed perfectly in both the pre and post shot RGB histograms but then is either slightly blown, especially in the blue channel, or I left exposure headroom on the table due to an inexact histogram. I implore Fuji to give us a flat profile or "film simulation" similar to what Nikon does a professional tool must be able to display an accurate histogram.
- My second biggest complaint is that the rear LCD dims too fast. This is regardless of the black-out time setting. I often compose with the flip out rear LCD, especially when shooting above my head or down low. It is very annoying when after just a few seconds the screen dims. It doesn't shut-off, that timing can be set in the menus, but the auto dimming is not adjustable and is annoying. The refresh rate also slows dramatically when it dims. This is clearly done to deal with the relatively poor battery life but I should have the option to turn this off.
- The third largest complaint is battery life. I am only getting about 250 shots per battery in normal shooting conditions. If I am doing a lot of focus bracketing this number can double or more since the amount of EVF/LCD time per shot is minimized when taking many frames in a short period of time. Like all mirrorless cameras, the number of shots you can get out of a single battery is highly dependent on how much LCD and EVF time is used per photo taken. The GFX-100S will address this but it will also result in a larger body.
- I have gotten very used to having programmable zebras in my Sony cameras to fine tune how highlights are exposed. The GFX-50S does not have them.
- Autofocus is contrast detect only making this camera useless for shooting any kind of action due to the Sony 51.4 megapixel medium format sensor not supporting Phase Detect AF. This too will be addressed in the GFX-100.
- The menu system isn't as bad as Sony's but it isn't as good as Canon or even Nikon. It is deeply nested meaning that sometimes you have to dive as much as three levels in to get to what you want. You can program a My Menu page but for some reason, not every function on the camera is

available to be put in the My Menu page. Furthermore, every time you hit the Menu button it takes you to My Menu rather than the last used Menu page. This would be fine if anything could be placed in the My Menu page but since you can't, this can really slow you down. There is also a quick menu button that brings up a user defined set of icons on the touch-sensitive LCD, but again, some functions I'd like to assign to that are not available to be displayed there. Dear Fuji, it's just a Programmable Logic Array (PLA), please allow any function to be applied anywhere, it's computer code and does not require a hardware change. (Note that I had exactly the same complaint in my review of the Sony a7R II and it was corrected in the a7R III)

- As mentioned in the Pro section, shutter speeds are selectable all the way out to 60 minutes but for some strange reason once you get past 30 seconds, the camera allows only full stop selection. If you need something between 2 minutes and 4 minutes, for example, you will still need to shoot in Bulb mode with a cable release. Again this is a simple programable function and it is silly to impose this limitation on the photographer.
- Image delete requires three button pushes rather than the traditional two button pushes.
- The EVF is definitely not up to the current state of the art which is not surprising given that it is getting the data off of a sensor that was originally not intended to be feeding an EVF (it was designed for medium format DSLRs) and that the camera was designed 3 to 4 years ago with a sensor that is 5 years old. I expect a major upgrade in EVF in the 100 megapixel camera. While it is very usable, it's dynamic range is too low and no matter how much tweaking you do to it's colors (it is fully color programmable) you simply can not make it look like the scene you are looking at. Only the most recent cameras have really great EVFs. However, as stated in the pros, the customizability of the information display in the EVF is excellent.
- All of the different crop modes are great as mentioned above, however one must shoot in RAW plus JPEG to have access to them. The camera still records a complete RAW file and the metadata is tagged with the crop. There is no space saving on the card using cropped modes since the entire RAW file is still written to the card.
- The dial direction is not customizable. Virtually every camera on the market lets you reverse the direction of the dials but not the GFX. You can change the function of the front and rear dial to taste but you can not change which direction increases or decreases aperture or shutter speed. This leaves my GFX operating in the opposite direction of every camera I have ever owned regardless of brand. Again, these cameras customize their controls via Programmable Logic Arrays so leaving this customization out is lazy coding.

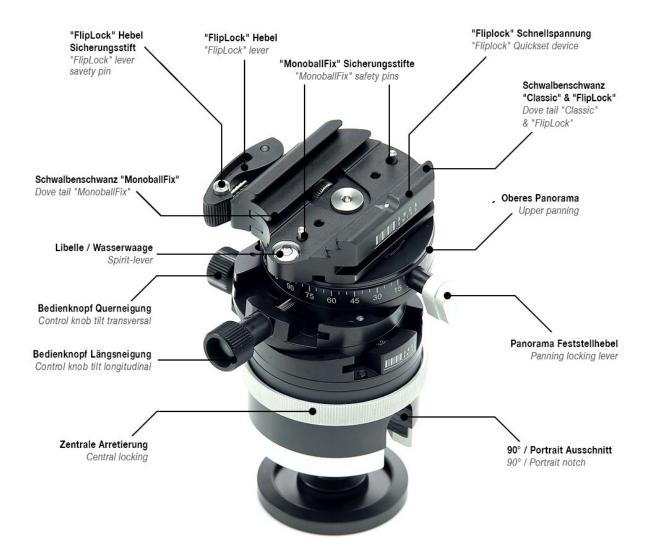
I am still exploring the Fuji GFX system and am enjoying it immensely. The image quality far exceeds my a7R III, which is no slouch, and the system is less than half the weight of an equivalent Phase One system. Yes the sensor is smaller than the Phase 645 sensor but it is still 68% larger than 35mm and the difference is very visible. I will have much more to say on the GFX system once the GFX-100 ships. A fair question that some will ask is why I decided on the GFX-50S rather than the newer GFX-50R which uses the same sensor and is largely the same camera in a rangefinder form factor but costs less. The main reason is that I am left eye dominant and suffer from some uncorrectable deterioration of vision in my right eye. The location of the viewfinder on a rangefinder style camera hides your entire face and unused eye behind the camera and your nose constantly drags on the rear LCD so for me, and most left eye shooter, the centrally located and higher pentaprism style viewfinder works better

New Camera System, New Tripod Head

About three years ago I wrote about my adoption of the KPS Research and Design T-5 Ballhead and how much I love having the convenience and range of motion of a ballhead combined with the precision of a geared head in a single tripod head. To this day, I find a head that combines the free motion of a ballhead to quickly position the camera and fine gears to precisely refine the composition to be the only way I want to photograph landscapes. The T-5 is a great head and is completely appropriate for the very large and extremely heavy Phase One system but is overkill with its large size and 2.5 pound weight for my two primary photo systems for landscape photography today; specifically the Fujifilm GFX system and the Sony a7R III system. After a lot of research I decided to give the unconventional Arca-swiss p-0 Hybrid head a try. The p-0 is a unique design which mounts the ball part on a stem with a large wide grip to make quick gross adjustments. Arca-swiss offers the p-0 with their excellent L60 geared leveler resulting in a hybrid head that has the convenience of a ballhead and the precision of a geared head.



The p-0 hybrid (and the L60) are available with either a traditional thumbscrew type clamp (pictured above) or a lever clamp (pictured below). I opted to order the more expensive lever clamp model and this turned out to be one of two issues with the p-0 hybrid in an otherwise excellent product. Immediately after receiving it, I realized right away that the lever clamp was not going to work for me. It employs a complex three step process that first has you pull on silver button, then open the clamp but this does not release the clamp. One must reach under the clamp and pull back on a rough textured stem under the lever with your fingernail to release the clamp. The space within which to do this is small precluding releasing the camera from the head with gloves on and also will tear up your finger tip and fingernail if doing a lot of mount/dismounts as one would do if switching between horizontal and vertical orientation with an L-bracket on the camera. I solved this problem by removing the Arca-swiss lever clamp and replacing it with a Really Right Stuff lever clamp. This is a delicate operation since it really wasn't designed to be taken apart by the user. There are Arca-swiss service centers that can do the modification for you but I was able to do it myself. First you have to break through some locktite and then you have to be very careful not to lose a small ball bearing that the lever clamp rotates over on the panning base which sits directly under the clamp. The hex wrenches required must be metric.



On my first really major shoot with the p-0 hybrid, I ran into the second issue, the knob that allows the adjustment of pitch came off somewhere in Portugal and was lost. Fortunately this happened on my last night so it wasn't too big of an inconvenience but it was disappointing on a new product costing nearly \$1000. Upon my return home I contacted the company in the US that does repair for Arca-swiss to get a new knob which simply attaches via two small hex screws. They wanted me to send in the head and charge me for the repair and also told me that the knob was not currently in stock. Finding this answer unacceptable I contacted the Arca-swiss USA rep who happens to live in the Phoenix metro like I do. We met for lunch, had a great talk and he repaired my head. The other knob, the one for tilt also was loose. Checking these for tightness occasionally is good practice. It requires a hard to find very small metric hex wrench. I was able to find one at Ace Hardware and it is the smallest one they sell.

Since getting everything squared away, I have really fallen in love with the p-0 hybrid. Adjusting the camera position on the tripod is extremely quick and very secure and fine tuning is very precise, much more precise than it was on the KPS T5. While weighing less than half of the T5, it provides an incredibly stable base for either the larger medium format Fujifilm GFX system and the lighter Sony a7R III system. That includes the largest lens in the Fuji lineup, the GF 250mm lens with 1.4x teleconverter or the Sony system with a polar alignment star tracker for astrophotography (pictured at right). The lighter weight, smaller size, and very high camera positioning precision makes this an outstanding head for landscape photography and it is now my primary ball/geared head.



The Story Behind The Photo



Jaguar - The Pantanal, Brazil (D500, 500mm)

The Jaguar image above was taken last year in the Pantanal, southwestern Brazil's huge wetland that is the home of many bird species and the apex predator of the region, the Jaguar. Jaguars are the world's third largest cat behind Tiger and Lion and about double the size and weight of the somewhat similarly patterned African Leopard. Photographing Jaguars in the Pantanal is done by boat. Every day, visitors to the region go out on chartered boats with experienced guides that are in radio communication with each other in search of Jaguars. Along the way many beautiful birds are seen and photographed but when a Jaguar is sighted, it is a mad dash to get to the location to give the clients on the boat the best possible views and photographic opportunities.

During our visit we had an excellent encounter with a mating pair within 20 minutes of the first boat ride. This included multiple mating sessions and lasted several hours from mid afternoon to sundown. Unfortunately for the next 5 days the Jaquar sightings were few and far between and often obscured by the thick vegetation that lines the waterways of the Pantanal. During this time we photographed many beautiful birds including three species of Kingfisher, often from close range as the birds are generally not threatened by people on boats. On the last morning and our last time out, the guide for the boat that I was on (with two other photographers) decided to head a bit farther north right from the beginning rather than working our way over several hours to this location. We arrived in the area around sunrise and our guide spotted a Jaguar in the brush on a long spit of land that has water on both sides. This encounter was very brief as the Jaguar went inland on the spit. Knowing that the landmass was very narrow we hightailed it around this peninsula to the other side. I was the first to spot the Jaguar getting into the water on the other side. The Jaguar swam downriver slowly, got out a number of times and got back in. I noticed a Caiman on a bank behind us as we slowly allowed the boat to drift downriver staying in front of the Jaguar as he was making his way downriver both in and out of the water. I even mentioned to the others on the boat that I wonder if the Jaguar is going to make an attempt on killing this Caiman but not really believing that we would witness this. I took the photograph above as he was approaching the Caiman just before witnessing the kill. For almost all of the float down the river we were the only boat

due to heading much farther out than the other boats that morning resulting in our having the best possible position in the river during this encounter. Just before the kill the masses arrived and I counted 21 boats but we were the closest and were not obstructed by other boats. This did not deter the Jaguar in the slightest as we watched the Jaguar first fight the Caiman, eventually inflict a fatal bite to the head and then drag it up a steep slope and into the woods. It was a thrilling end to the days on the Pantanal and all of the searching over many hours, as much as 12 hours a day, paid off.



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 and most have started shipping and are represented below:

Lens Category	Canon EF Mount	Nikon F Mount	Sony (F)E Mount
Full-frame Fisheye	Canon 8-15mm f/4L	Nikon 8-15mm f/3.5E	Sony 28mm f/2 + 16mm
,	Sigma 15mm f/2.8	Sigma 15mm f/2.8	Fisheye Conversion Lens
Hyper Wide Prime	Sigma 14mm f/1.8 Art	Sigma 14mm f/1.8 Art	Sigma 14mm f/1.8 Art
, ·	Irix 11mm f/4	Irix 11mm f/4	Voigtländer 12mm f/5.6
Ultra Wide Prime	Zeiss Milvus 15mm f/2.8	Zeiss Milvus 15mm f/2.8	Zeiss Batis 18mm f/2.8
	Canon TS-E 17mm f/4	Nikon 19mm f/4 PC	Voigtländer 15mm f/4.5
Extra Wide Prime	Zeiss Milvus 21mm f/2.8	Zeiss Milvus 21mm f/2.8	Zeiss Loxia 21mm f/2.8
	Sigma 20mm f/1.4 Art	Sigma 20mm f/1.4 Art	Tokina Firin 20mm f/2 AF
Standard Wide Prime	Zeiss Otus 28mm f/1.4	Zeiss Otus 28mm f/1.4	Sony 24mm f/1.4 GM
	Zeiss Milvus 25mm f/1.4	Zeiss Milvus 25mm f/1.4	Sigma 24mm f/1.4 Art
	Sigma 24mm f/1.4 Art	Sigma 24mm f/1.4 Art	
Moderate Wide Prime	Sigma 35mm f/1.4	Sigma 35mm f/1.4	Sigma 35mm f/1.4 Art
	Canon 35mm f/1.4L II	Zeiss Milvus 35mm f/2	Sony-Zeiss 35mm f/1.4
Standard Prime	Zeiss 55mm f/1.4 Otus	Zeiss 55mm f/1.4 Otus	Sony-Zeiss 55mm f/1.8
	Sigma 50mm f/1.4 DG Art	Sigma 50mm f/1.4 DG Art	Zeiss Loxia 2/50
Portrait Prime (short	Zeiss 85mm f/1.4 Otus	Zeiss 85mm f/1.4 Otus	Sigma 105mm f/1.4 Art
telephoto)	Canon 85mm f/1.2L II	Sigma 105mm f/1.4 Art	Sony 85mm f/1.4 GM
	Sigma 105mm f/1.4 Art	Nikon 105mm f/1.4E	Zeiss Batis 1.8/85
Medium Telephoto Prime	Canon 135mm f/2L	Sigma 135mm f/1.8 Art	Sigma 135mm f/1.8 Art
	Sigma 135mm f/1.8 Art		Zeiss Batis 2.8/135
200mm Prime	Canon 200mm f/2L	Nikon 200mm f/2G	N/A
	Canon 200mm f/2.8L II	Nikon Micro Nikkor 200mm	
		f/4ED	
300mm Prime	Canon 300mm f/2.8L IS II	Nikon 300mm f/2.8G VR	N/A
		Nikon 300mm f/4 PF	
400mm Prime	Canon 400mm f/2.8L IS II	Nikon 400mm f/2.8E VR	Sony 400mm f/2.8 GM
	Canon 400mm f/4 DO II		
500mm Prime	Canon 500mm f/4L IS II	Nikon 500mm f/4E VR	N/A
	Sigma 500mm f/4 DG OS HSM	Sigma 500mm f/4 DG OS HSM	
		Nikon 500mm f/5.6 PF	
600mm Prime	Canon 600mm f/4L IS II	Nikon 600mm f/4E VR	N/A
800mm Prime	Canon 800mm f/5.6L IS	Nikon 800mm f/5.6E VR	N/A
	Sigma 800mm f/5.6APO DG	Sigma 800mm f/5.6APO DG	
Wide Angle Zoom	Sigma 14-24 f/2.8 Art	Sigma 14-24mm f/2.8 Art	Sony 16-35mm f/2.8 GM
	Canon 11-24mm f/4L	Nikon 14-24mm f/2.8G	Sony 12-24mm f/4 G
	Canon 16-35mm f/2.8L III	Sigma 12-24mm f/4 Art	Sony 16-35 f/4 Z
Standard Zoom	Canon 24-70mm f/2.8L II	Nikon 24-70mm f/2.8E ED VR	Sony 24-70 f/2.8 GM
	Tamron 24-70mm f/2.8 G2 Di	Tamron 24-70mm f/2.8 G2 Di	Sony 24-105 f/4G
	VC	VC	Tamron 25-75mm f/2.8
Telephoto Zoom	Canon 70-200mm f/2.8L IS II	Nikon 70-200mm f/2.8E FL VR	Sony 70-200 f/2.8 GM
	Tamron 70-200mm f/2.8 G2	Tamron 70-200mm f/2.8 G2	Sony 70-200 f/4G
Super Telephoto Zoom	Canon 200-400mm f/4L 1.4x	Nikon 180-400 f/4E 1.4x	Sony 100-400 f/4.5-5.6
	Canon 100-400 f/4.5-5.6 II	Sigma 150-600 f/4.5-6.3 Sport	GM
			Sony 70-300 f/4.5-5.6G
Macro	Sigma 150mm f/2.8 Macro OS	Sigma 150mm f/2.8 Macro OS	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 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.

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

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.

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Mount Whitney (GFX-50S, 120mm)

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