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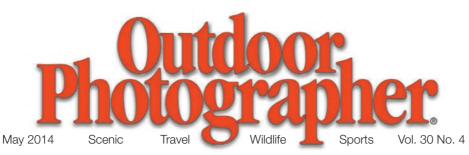




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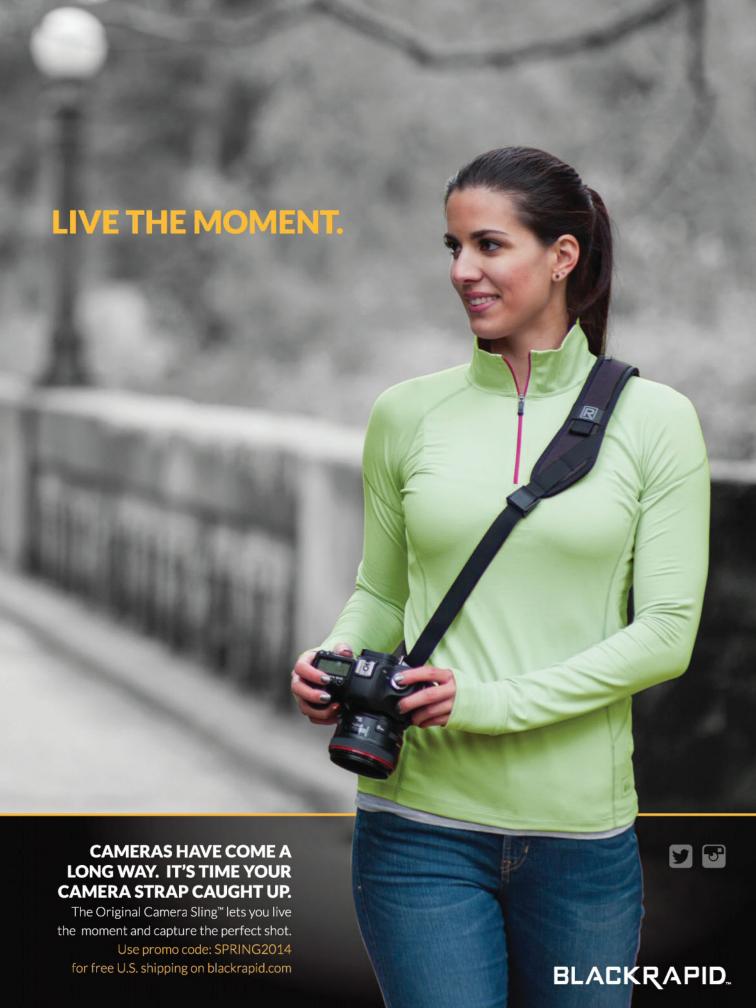
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Visit Your Favorite Places: Photographers from all over the world are sharing favorite nature photography locations. You can, too! Learn About New Products: Exciting new products featured in OP's In Focus section appear earlier on the website. In addition, you'll see the latest news releases from many different photo companies right away.

The OP Daily Blog: Posts from photographers Michael Clark, Jon Cornforth, Michael Frye, Jay Goodrich, George Lepp, Jerry Monkman, lan Plant, Christopher Robinson, Joseph Rossbach and Kevin Schafer. **OP Forums:** Connect with fellow readers and discuss your passion for nature photography and outdoor adventures in our Outdoor Photographer Forums.

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Maine is the first state to see the sunrise everyday. No wonder we're all about the outdoors. If you ask Bronwyn, she'll tell you there are one-of-a-kind adventures around every corner, including Tumbledown Mountain, which is blanketed by blueberry fields. Or Mount Megunticook, with its gorgeous views of the Penobscot Bay and Camden Hills. And Mount Katahdin, along the Appalachian Trail, is simply stunning. No big deal if you forget something. Out here, you might forget everything. Be inspired.

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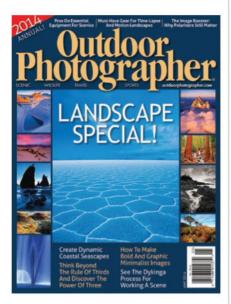
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cover shot



On The Cover: For the Annual Landscape Special Issue, we're showcasing some of the work from this issue on the cover. Clockwise from the central image:

Theo Allofs, the world's largest salt pan, Salar de Uyuni, Altiplano, Bolivia.

Tom Till, Grand Teton rising above the clouds at sunset, Grand Teton National Park, Wyoming.

Tom Till, waterfalls cascading through sequoias in spring snowmelt, Sequoia National Park, California

Kurt Budliger, the rocky coastline of Acadia National Park, Maine.

Tom Till, quiver trees and aloe, Goegap Nature Reserve, South Africa.

Theo Allofs, waterfall in the Otway Ranges, Victoria, Australia.

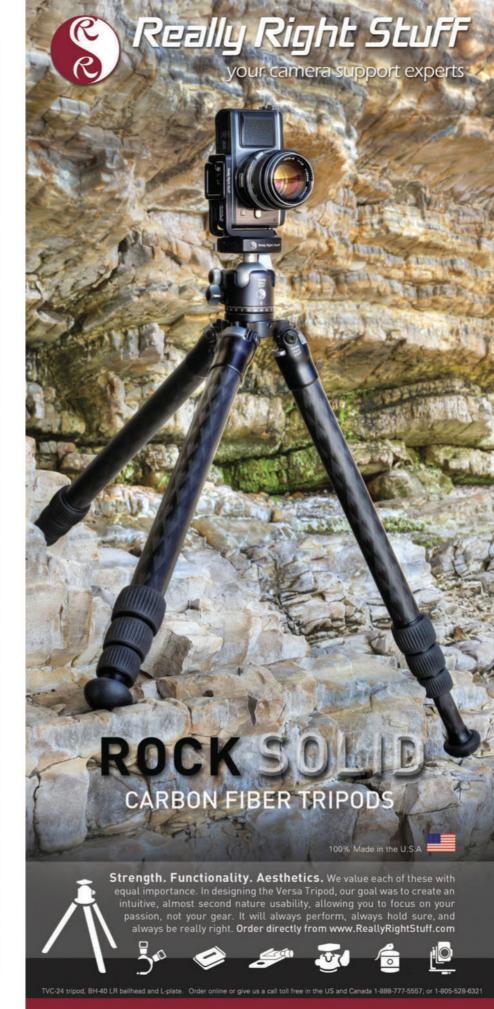
Michel Hersen, Painted Hills, John Day Fossil Beds National Monument, Oregon.

Kurt Budliger, twilight at Split Rocks, Rialto Beach, Olympic National Park, Washington.

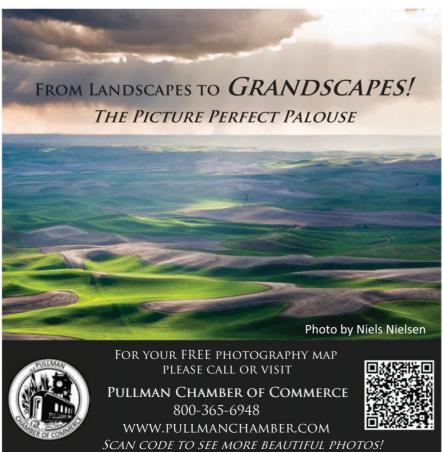
Edgar Callaert, the Grapevine Mountains, Death Valley National Park, California.

Tom Till, delta pool, near Moab, Utah.

As you plan your next photographic foray into the landscape, we hope the techniques and insights in this issue of *Outdoor Photographer* will help you to bring back your best photographs ever and you'll find the experience more rewarding. We're fortunate to have such an incredible pool of photographers who contribute to *OP*. We hope you enjoy this annual special issue.







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OP is about much more than just the printed magazine these days. On the OP website, the recently renamed OP Daily Blog is loaded with online-exclusive content. There are feature articles from our cadre of bloggers like Rafael Rojas, Ian Plant and Kevin Schafer, among others. You can also see Behind The Shot articles, where we discuss how a particular image was made with the photographer who made it.

he Annual Landscape Special is a perennial favorite among *OP* readers, with photography from some of the very best pros in the world, plus insight and techniques on how they create their inspiring images. From **Kurt Budliger**'s seascapes article and **Theo Allofs**' piece about the minimalist landscape, to the **Jack Dykinga** feature on working the composition in changing light and **Tom Till**'s article on "The Power Of Three," there's a broad range of work and tips in the issue.

On the equipment side, in the article "It's More Than The Camera," I reached out to a number of landscape photographers, asking them about their most important gear, and not just photo gear, but the other things they rely on for inspiration and to get their shots in the field. It's one thing to work with photographers on a particular technique or how they approach a location, but this article gives you a behind-the-scenes view on how they think and work. There were some anticipated replies; I expected to see that coffee looms large for many of our fellow landscape aficionados, considering the early wake-up calls that go along with catching dawn light, but there were plenty of surprises, too. Check out the article to find out who has Jerry Garcia playing on their iPod and who finds Marcel Proust's work to be a source of inspiration when looking

through their DSLR viewfinder.

From time-lapse to real-time movie clips, motion capture is continuing to grow in popularity. As you get up to speed on your DSLR's features and capabilities for motion, you'll want to add some more sophisticated elements to your clips. Adding camera movement is a simple way to make dynamic motion footage. It's especially powerful in time-lapse projects. Seeing a landscape timelapse with good use of camera movement always makes a strong impression. Check out the "Landscapes In Motion" article in this issue to learn about some of the tools for creating this kind of imagery.

Of course, *OP* is about much more than just the printed magazine these days. On the *OP* website, the recently renamed *OP* **Daily Blog** is

loaded with online-exclusive content. There are feature articles from our cadre of bloggers like Rafael Rojas, Ian Plant and Kevin Schafer, among others. You can also see Behind The Shot articles, where we discuss how a particular image was made with the photographer who made it. In fact, the full story of Brian Skerry's photo shown in this issue's Last Frame is in the Behind The Shot section in the *OP* Daily Blog. We also showcase the Weekly *OP* Assignments winners, Photo Of The Day and video content in the *OPTV* section.

As I write this, the *OP* Facebook page has just reached 218,000 Likes. We're pushing to reach 250,000 by the end of May. You can join the discussion with fellow nature photography enthusiasts and let us know what you think of articles in the magazine, as well as the *OP* Daily Blog. Like us on Facebook, follow us on Twitter (@outdoor photomag) and get in on the discussion with the *OP* editors and the *OP* community. And, lastly, let me know what you think of the magazine or if there's an article you'd like to see. You can email me at editors@outdoorphotographer.com or you can find me on Twitter @OPRobinson.

—Christopher Robinson, Editor outdoorphotographer.com May 2014 11





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not too big! The large screen LCD allows easy focusing and the high speed SSD recorder lets you record in ProRes®, DNxHD® and RAW file formats for Final Cut Pro X and DaVinci Resolve!



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time into the recorded file! This means you capture more of the scene than a regular video camera can so you get more freedom for color correction for a feature film look! You also get a full copy of DaVinci Resolve!



Film Industry Quality

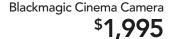
Every feature of the Blackmagic Cinema Camera has been designed for quality. With 2 separate models, you can choose from the world's most amazing EF or MFT lenses from crafters such as Canon™, Zeiss™ and more. For extreme high end work, you can shoot full 12 bit CinemaDNG RAW uncompressed files for incredible creative range in DaVinci Resolve color correction, as well as the world's best chroma keying!



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Includes DaVinci Resolve Software



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SHQWSE

The Death Valley Grapevine

Edgar Callaert took this image some 15 years ago at the dunes in Death Valley with the Grapevine Mountains in the background. "It was New Year's Eve 1999, the last light of the century," recounts Callaert, "and I found this scene in the afternoon. I stayed there to keep people's footprints out of the frame until the light was right. Fortunately, they were cooperative. I've returned to this spot a number of times, and the tree is sometimes under sand and sometimes not." Hasselblad film camera, Hasselblad 80mm lens, Kodak Ektachrome, Gitzo tripod, Linhof ballhead, no filters





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Pictured: "House of Savreda" by Werner Pawlok, from LUMAS.







NIKON D4S

The Nikon D4S has been designed to meet the needs of the modern-day multimedia photographer. With a 16.2-megapixel, FX-format CMOS sensor and EXPEED 4 processor, the camera excels at shooting in low light with an ISO range of 100-25,600, expandable to a full 409,600. For capturing quick-moving wildlife, shoot 11 fps at up to 200 shots at full resolution. The D4S has increased video quality with 1080p60 capabilities, as well as a 2.7x crop mode to extend the reach of the lens. With the possibility of shooting in a small RAW size, there's flexibility in storing more files while still maintaining full control in postprocessing. The 1000 Base-T wired LAN provides 10x faster transfer speeds. List Price: \$6,499. Contact: Nikon, www.nikonusa.com.





■ ALL-IN-ONE LENS

For photographers who want more flexibility with less gear, Tamron has announced the "All-In-One" 16-300mm F/3.5-6.3 Di II VC PZD macro lens, providing an 18.8x zoom ratio for DSLRs with an APS-C-sized sensor. Tamron has adopted a new design approach to make the lens particularly compact, using UXR glass, a 5-lens-group zoom design and precise mechanical engineering. The lens includes macro capabilities across the entire zoom range with a 15.3-inch focus distance and 1:2.9 magnification ratio. The Piezo Drive (PZD) ensures quick and quiet AF capabilities, and the Vibration Compensation (VC) enables handheld shooting at long focal lengths. List Price: TBA. Contact: Tamron, www.tamron-usa.com.

LENGTHEN YOUR LENS

Ricoh Imaging has designed the lightweight **HD PENTAX DA AF 1.4x AW Rear Converter** for Pentax K-mount lenses. With a low profile of 20mm in length, the converter increases the focal length of a lens by 40% and has been designed specifically to maintain the AF systems inherent in the camera body and the lens. Its four elements in three groups feature HD coating for optimizing light transmission while reducing internal reflections, flare and ghosting. Three airtight seals work with weather-resistant DSLR/lens systems to create a versatile kit ready for any weather. List Price: \$599. **Contact:** Ricoh Imaging, www.us.ricoh-imaging.com.



PANASONIC LUMIX GH4 V

The still camera and video camera continue to intertwine as **Panasonic** releases the **LUMIX GH4**, a DSLM (digital single-lens mirrorless) camera system that shoots both stills and 4K video. The 16.05-megapixel Live MOS sensor and Venus Engine image processor combine with an integrated noise-reduction system for detailed low-light shooting at ISO 25,600 and a quick 12 fps burst rate. Depth from Defocus technology increases the speed of the contrast AF system. The GH4 also shoots high-quality 4K and HD video without a recording time limit in MOV, MP4 and AVCHD at various frame rates. Video can be recorded to an external recorder in real time via HDMI. The DMW-YAGH Interface attachment unit provides four SDI outputs, two XLR inputs with LED-monitored audio levels, time code and an external power terminal. The GH4 also provides a 2,359K-dot OLED live viewfinder and 1,036K-dot rear monitor. The entire magnesium-alloy body is splash- and dustproof. List Price: TBA. **Contact:** Panasonic,





▲ BINOCULAR BRACKET

Cotton Carrier has created the Binocular Bracket to relieve shoulder and neck strain caused by binoculars swinging while you're hiking. One side of the L-shaped Binocular Bracket attaches directly to the binoculars, allowing them to slide and lock into the hub with a 90° rotation. When used with the StrapShot holster, the Bracket can be attached to backpack straps or pant belts. The Bracket is also compatible with the Cotton Carrier Camera Vest and Carry-Lite. List Price: \$39 (Binocular Bracket); \$79 (with StrapShot).

Contact: Cotton Carrier, www.cottoncarrier.com.

CANON EOS REBEL T5

The **Canon EOS Rebel T5** is loaded with an 18-megapixel CMOS sensor and DIGIC 4 image processor to provide sharp images at an ISO range of 100-6400 (extended to 12,800). The 9-point AF system includes AI servo AF and 3 fps continuous shooting mode. The Rebel T5 also provides high-quality 1080p full HD video with various frame rates and recording sizes, as well as in-camera editing capabilities. List Price: \$549 (with EF-S 18-55mm f/3.5-5.6 IS II). **Contact:** Canon, www.usa.canon.com.





FILTER HIVE V

MindShift Gear has created the Filter Hive for photographers who utilize a variety of filters in the field. The water-resistant Filter Hive contains an accordion-style insert with color-coded, padded, felt-lined slots for storing glass and resin filters. The Hive can carry up to six flat 4x6-inch filters and six round filters up to 82mm in diameter, including 1.5cm thick Variable ND filters. The Hive has a belt mount for attaching to the rotation180° Panorama and rotation180° Professional backpacks, as well as a grab handle with SR buckle for hanging from a tripod. List Price: \$54. Contact: MindShift Gear, www.mindshiftgear.com.



SMOOTH ZOOM LENS ▼

The M.Zuiko ED 14-42mm f/3.5-5.6 EZ by Olympus is a slim travel companion. Designed for PEN and OM-D camera bodies, it's less than one inch thick while providing a 24-48mm equivalent focal range. An Electronic Retraction system automatically extends and retracts the lens when the camera is powered on and off. The MSC (Movie and Still Compatible) focus system maintains a nearly silent focus mechanism. The Electronic Zoom gives you smooth and even control, which is particularly useful for video shooting. List Price: \$349. Contact: Olympus, www.getolympus.com.





▲ SONY a6000

The **a6000** by **Sony** is a 24.3-megapixel, interchangeable-lens camera with a BIONZ X processor, designed for speed and detail accuracy. With 179 focal points of phase detection AF, as well as contrast AF, the Hybrid AF system delivers continuous shooting at 11 fps. The OLED Tru-Finder provides a live preview of your shot. For instant sharing and camera control from your smartphone or tablet, the a6000 has built-in WiFi/Xperia/NFC connectability. The camera is compatible with the growing line of E-mount lenses. List Price: \$650. **Contact:** Sony, www.store.sony.com.

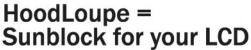


▲ SIGMA dp QUATTRO

Sigma has announced the dp Quattro, a trio of compact cameras with sleek, minimalist bodies using weight distribution for a comfortable-in-hand feel. Each camera has a different fixed focal length—the dp1 Quattro, a 19mm wide-angle, the dp2 Quattro, a 30mm standard, and the dp3 Quattro, a 55mm telephoto (28mm, 45mm and 75mm equivalents, respectively). Most notably, the redesigned Foveon APS-C 30-megapixel Quattro sensor in each camera provides 30% higher resolution than its predecessor utilizing the quick TRUE II image processor. The dp2 Quattro will be the first camera in the series to be released; pricing and availability have yet to be announced. Contact: Sigma, www.sigmaphoto.com.









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■ EXTREME SD

If you have your eye on the new Fujifilm X-T1, you'll also want to pay

attention to the SanDisk Extreme PRO SDHC/SDXC UHS-II card The X-T1 is the first digital camera to integrate UHS-II technology, and the card increases the data-writing speed twofold from a conventional card while in continuous mode. The Extreme PRO SDHC/SDXC UHS-II has a write speed of 250 MB/s and a transfer speed of 180 MB/s. Additionally, it's UHS speed Class 3 (U3)-enabled, making it ready to handle 4K and 3D video recording at 30 MB/s. List Price: \$119-\$299 (16 GB-64 GB). Contact: SanDisk, www.sandisk.com.



Nissin

▲ TRAVEL STROBE

For full flash power packed in a small and simple design, **Nissin** has introduced the new **i40**. The travel-sized strobe measures 3.5 inches high and weighs less than 8 ounces. With only two selector dials, one for function and one for power, it's easy to use at any skill level. Functions include wireless TTL and two optical slave modes, as well as a video light mode with nine steps of adjustment and high-speed sync up to 1/2000 sec. The i40 has a 180° horizontal rotation and 90° tilt, and is powered by four AA batteries. Estimated Street Price: \$269. **Contact:** Nissin, www.nissindigital.com.

▲ WHITE-BALANCE SYSTEM

The ClearWhite white-balance system is designed to simplify your workflow and help achieve clean and accurate colors in all lighting situations. The system includes a durable neutral-gray card and white-balance filter on a neck strap with a soft fabric bag. The durable gray card has a texture-free surface to provide a spot for checking your sensor. It's available in a 4x4-inch size for lenses up to a 95mm diameter or a 5x5-inch size for lenses larger than 95mm in diameter. List Price: \$59 (4x4); \$89 (5x5). Contact: ClearWhite White Balance System, www.digitalphotographykits.com.

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◀ SHOOT IN STYLE

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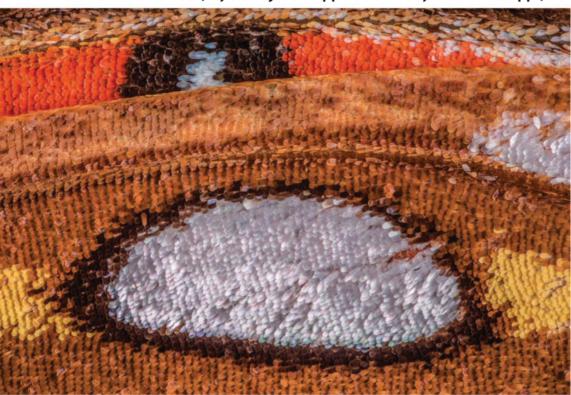
tech tips



What's In A Name?

Keeping Track • Essential Gear For Motion Capture

[By George D. Lepp With Kathryn Vincent Lepp]



Keeping track of image files is a challenge for every serious photographer. George Lepp's system employs file names containing a unique, descriptive code. As a particularly complicated example, the file name for this 5X image of a small section of the wing of a Gulf fritillary butterfly is I [for insect]-LP [Lepidoptera]-FR [fritillary]-0002 [#2 of this subject]-GC [digital stacked image].TIF [file type]. The EXIF data for the image adds that it's composed of 44 stacked images captured using the StackShot and a Canon EOS 5D Mark III with a Canon MP-E 65mm macro lens and Canon MT-24EX macro flash, 1/125 sec. at f/2.8, ISO 100, and copyrighted by George D. Lepp.

Keeping Track

Digital images are piling up on my hard drives, and I'd like to be able to find them in the future. How have you dealt with the masses of files on your drives?

J. Gordon Via email

While managing huge numbers of digital files is certainly a challenge, it helps to put the task into some historical perspective. I've been a professional photographer for more than 40 years, and I've accumulated mountains of slides and negatives. I've heard stories of film photographers with shelves of "yellow boxes," perhaps sorted by processing date. For me, that would be the equivalent of storing all your digital files in the simplest automated manner, by date alone. If you're serious about your images, whether hard files or digital files, you need to take the time to organize them in a way that's more descriptive than the

capture or processing date.

Early on, I developed a coding system for my photographs that provided essential information about subject and location. The coded slides and negatives were stored in hanging 26 Outdoor Photographer outdoorphotographer.com on ail is acetate sleeves; the sleeves were filed in alphanumerical sequence. If an image was sent out to an agency or a client, notes were made to that effect in the empty space and the shipped images were linked by their codes in a transmittal letter. Beginning in the early 1980s, my office was one of the first to incorporate computerized databases to keep track of images. While searchable file numbers and text descriptions were certainly helpful, I really wanted a visual reference, and that wasn't possible with the equipment I had then. Remember DOS?

File-coding systems are highly personal; what you choose depends on how you think and the range of photographic subjects you pursue. Some photographers use a capture date code cross-referenced to a calendar that provides the shoot location and subjects. Lightroom offers a storage system that's default-based to the capture date, but allows the user a great deal of

flexibility in terms of folders, file descriptions, keywording and systematic file renaming.

My coding system has had to work across the years of slides, scanned slides and digital captures. It's a good thing I like it because changing it now would be pretty much impossible. When

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tech tips

I save an edited image, I assign to it a new file name that consists of three sets of letters, a four-digit number and then a few more letters to designate whether the image is a scanned slide or a digital capture. EXIF notes provide additional information and image status. The files are organized in folders (and, in my latest Apple Mac Pro computer, in subfolders), as in virtual file cabinets.

Following are some examples that demonstrate how my system is structured; it might be the basis for a coding system that would work for you, as well.

Example 1: Anna's Hummingbird. In the file name B-HU-AN-0012-G.TIF, the first letter, "B," designates a major subject group, Birds. Sometimes my images in a particular subject area, such as this one, have become so numerous that I've had to expand the primary ID to two letters. In the bird category, I added "BR" to designate raptors and "BS" for shorebirds. This shows how the system can be expanded as you move forward. The second set of letters designates a type of bird. In this example, "HU" stands for Hummingbirds. The third set of letters indicates the species; "AN" stands for Anna's hummingbird. The code for a grizzly bear would be M-BR-GR.

The four-digit number identifies the specific image; I can have 9999 Anna's hummingbird images. But often I'll use a thousands designation to further classify the group of images. A 1000 grouping could mean the birds are on a nest, or 2000 might mean the images are in black-and-white. You can modify this in any way that suits you.

The single letter "G" after the number tells me that the image is a digital capture. An "S" designates that the image has been scanned from a slide or negative. A "C" shows that it was modified greatly in the computer, such as a stacked image, or a "P" to indicate a panorama. After this, I occasionally add an underline (_) and the letters "LR" if the image is a low-resolution version created for the web or a PowerPoint program.

Example 2: Oregon Landscape. If landscapes are your main interest, the system works well there, as well. The file name L-OR-BE-0002-G.TIF indicates the location of Oregon and the city of Bend. A 1000 series could mean all the images of downtown. Other

first letter sets can designate "AL" for Africa Location or "SL" for South America Location.

The EXIF data for each digital capture already includes the capture date and camera used. I add information about the specific location, people in the image, model releases and agency status (submitted, accepted, rejected) or any use permissions or restrictions that apply.

The hardest part is assigning the file names consistently. I'm aided in this by keeping the digital files on a separate drive in folders identified by the first letter(s) in the file name and their meaning, such as "L-OR, Oregon landscapes." You can rename and code the file names, and add EXIF data, for all the images in an edited shoot within Adobe Bridge > Tools > Batch Rename. The EXIF data can be distributed across the shoot by selecting all the images in Adobe Bridge or Photoshop and then right-clicking on one image and selecting File Info. What you fill in for that file will attach to them all. Don't forget to add your copyright info!

Trying The Movies

My DSLR has video capability, and I'd like to give it a go to add to my repertoire. But all the examples I see from camera manufacturers make it seem like a big deal, with lots of expensive-looking equipment and people involved. Are there accessories and software that a mere mortal can afford and master to make video capture a fun and creative endeavor?

> M. Johnson Via email

It doesn't really take a village to make a video, and in my seminars, I've been encouraging still photographers to give it a shot. In my opinion, you can have just as much fun capturing video as you do with stills, with results that entertain and inform your viewers in a whole new way. Today's DSLR video is very different in terms of quality and capture than your dad's old Super 8s and even recent camcorders. The ability to use an array of lenses increases the creativity factor in a big way. Editing software is easy to use, and the final product is quickly shared via social media, Vimeo and YouTube.

The challenges that confront new video enthusiasts are achieving stable capture, smooth transitions, maintain-







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tech tips

ing focus and editing the final product. It doesn't have to be expensive. Here's a list of basics:

LCD Loupe. The most essential tool is a loupe that attaches to your LCD so you can see what you're capturing. Most DSLRs don't have autofocus capability for video so the loupe is even more important for maintaining focus. If you have the new Canon EOS 70D, you'll have AF in video, but you still need to have a loupe to view and frame. LCD loupes are made by Hoodman, Varavon, GGS and Zacuto, among others, at a price from around \$75 to several hundred dollars. I've used the Hoodman loupes for years. I especially like the HoodCrane and the Custom Finder; both allow the loupe to be easily moved aside when the photographer wants to use the viewfinder for stills.

Fluid Head. Even the best ballheads won't pan smoothly enough for video capture. Approximately \$150 will buy you a reasonable beginner's head. Look at Manfrotto, Gitzo, Velbon, Really Right Stuff, Slik or Benro, to name a few.

Memory Cards. Upgrade to fast 16 GB or larger cards from known players; HD video capture takes up a lot of space.

Editing Software. It's important to clean up and finish your video with editing. This is, in many ways, as creative an enterprise as capture. Here's where the story comes together, and I actually find the process to be quite satisfying. Windows and Mac users can use Adobe Premiere Elements or the full professional suite, Premiere Pro; Mac users can also start with Apple iMovie or the professional-quality Final Cut Pro X. A faster computer will make video editing much more enjoyable because it's power-intensive with the large files.

Cat. Your video must feature a cat if you want it to go viral on YouTube. I'm sure you can find one somewhere. I prefer leopards.

Practice. If you belong to a camera club, encourage the group to adopt a video competition. Limit the videos to two minutes or everyone will dump the idea after the first showing, even if all the cats are really cute!

Follow George Lepp's exploits, see his latest photographs and be part of the discussion on his Facebook page at www.facebook.com/georgelepp.

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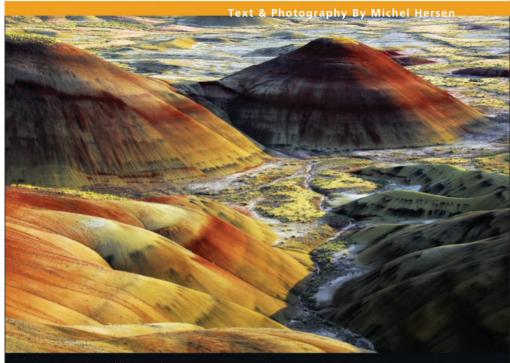
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FAVORITE PLACES



Painted Hills, John Day Fossil Beds National Monument

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Location

The Painted Hills are part of the John Day Fossil Beds in central Oregon. Located 75 miles east of Bend and nine miles northwest of Mitchell, the closest town to this national monument, the hills are dispersed over more than 3.000 acres with colorful geological strata that formed during cataclysmic events in ancient times when the region was a river floodplain. There's a multiplicity of color, with yellows, golds, blacks, reds, dark lilac, grays and magentas, related to different geological eras. Red indicates laterite soil forming when this site was warmer and more humid. Yellow tones are a combination of iron and magnesium, while gray tones are composed of shale, mud-



What's Your

Favorite Place?

inspection of the hills from the Painted Hills Overlook reveals signs of animals in the silt, including cougar, pronghorn, mule deer and coyote tracks. At present, this very arid area is a fragile environment, and visitors are only permitted in designated areas and paths. There are four basic venues for photographers. The Painted Hills Overlook can be reached by car, then by a quarter-mile trail. This is a superlative viewpoint at sunset, especially with clouds above the distant mountains. If the sky isn't cooperating, focus on the hills as a group or particular striations and undulations close up as abstractions. For panoramas, the three-quartermile Carroll Rim Trail is a more strenuous hike. The view from the top is spectacular, especially in late afternoon and early evening. A drive to the Painted Cove Trail leads to a quartermile path around a reddish hill, allowing for close proximity to the textured claystones. Finally,

there's a quarter-mile walk on

stone and siltstone. A closer

the Leaf Hill Trail around a small hill that has been the subject of recent scientific excavation.

Weather

The weather is relatively mild, ranging from a low of 24° F in January to a high of 86° F in July. Given the dry conditions, it's not surprising that precipitation is minimal throughout the year, but it can be cloudy. In January and February, there may be a dusting of snow.

Photo Experience

I routinely use a Hoya or Tiffen circular polarizer here, which helps to enhance contrast and highlight details in the hills. When there are cumulus clouds lit up orange, red or pink by the setting sun, I use Cokin grad ND filters (2- or 3-stop) to preserve detail in the foreground. Along with a Gitzo tripod and an Arca-Swiss head, I bring two Nikon D7100s and four lenses on all of my shoots, including those at the Painted Hills, a Nikkor 18-200mm zoom, 18-300mm zoom, 12-24mm wide-angle zoom and Sigma 150-500mm telephoto zoom. The latter lens is for capturing wildlife from a distance and close-up shots of the rising or setting moon. For landscapes and closeups of hills and mountains, I have greater flexibility with a zoom like the 18-200mm or 18-300mm. I do a fair amount of photography in desert environments, so it's advisable not to change lenses repeatedly in the field to prevent fine sand particles from working their way into the sensitive sensor.

Best Times

The best shots at the Painted Hills are taken when the setting sun illuminates the panorama. Generally, I arrive at least an hour before light is most ideal and scout the area for compositions. Given the temperate climate, successful photography is possible all year. In late spring, there's the added opportunity of including yellow blossoms of chaenactis and bee plants in landscapes. Given the eastern exposure, this venue is best photographed in late afternoon and early evening. If possible, photograph the Painted Hills after a rainfall when the colors in the hills are increasingly saturated. Contact: John Day Fossil Beds National Monument, www.nps. gov/joda.

Essential Gear...

When working in sensitive environments, it often makes more sense to extend the reach of your lens rather than getting too close to skittish wildlife or traversing dangerous terrain. Most often available in 1.4x or 2.0x magnifications, teleconverters and extension tubes enhance the

focal length of a lens at a minimal trade-off to light transmission. A 100mm lens, for example, would become the equivalent of a 140mm or 200mm lens. Teleconverters and extension tubes are also affordable, and adding a single teleconverter solution to your kit is like doubling the range of focal lengths available to you.

ABOVE: Kenko Extension Tubes

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photo adventure



Rediscovering The Grand Canyon A quest to find photographic depth in the remote

areas of this favorite national park

[Bv Bill Hatcher]



ABOVE: The Isis Temple in the Grand Canyon as seen from Shiva Saddle. For Bill Hatcher, a major part of the allure of this photo was in the experience of getting to the spot from which he made it.

ince moving back to Arizona from Australia, I've been spending a lot of time exploring remote locations in Grand Canyon National Park. Like many, I'm compelled by the staggering beauty of the Grand Canyon, but that's not its only appeal for me. Below the canyon rim lies the most rugged wilderness

in the lower 48 states. It's the sort of place you could spend several lifetimes exploring if your knees hold out. The Grand Canyon can be tough and the numbers are telling; hiking from the South Rim to the river is a pound-34 Outdoor Photographer outdoorphotographer.com

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ing 5,000-foot descent in just under 10 miles. In winter, the South Rim, situated at 7,000 feet, can have temperatures in the single digits, while in summer, the air in the canyon bottom, superheated by the black Precambrian rock lining the inner gorge, can rise above 120° F. It's 285 miles long—285! The Grand Canyon can be a vast, overwhelming space, especially

> to photographers. It is for me, and I found recently that even the pace of walking through the canyon is too fast to absorb all the details of the land I'm passing through.

In February of this year, I hiked out of the

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photo adventure

Grand Canyon with another memory card filled with images. Since I was there to scout a potential story, I enioved the rare freedom to shoot whatever I wanted to. The results were many snapshots—photos shot on the fly without considering more than the surface appeal of the scene I was looking at. Once I had a look at the images on my studio monitor. I had an edit of the best few photos from the week. That's when I started to see a trend. The best photos seemed tied in some way to the deeper, more intense experiences that occurred when I was exploring. The snapshots included many photos of rocks and pretty canyon views. This is to be expected since, when I'm in the Grand Canyon, I'm drawn to photographing the towering cliffs of rock bands like the Coconino sandstone, the overhanging rock of the Tapeats or the ghost hoodoos of the Supai rocks.

As a rock climber, my eye is always drawn to a spectacular climbing line, but sadly, it's rare that photos of cliffs are as dramatic as the emotions I felt at the time I made the photo. Careful composition and good light are important, but even rigid attention to these factors in the Grand Canyon may not prevent the photo from looking common.

What I discovered is that, to make the best photos, you really need to become immersed. Slow down, look, listen and remember the stories you know of this place-your own and others'. In this slowing down, you may discover new ideas about what the landscape is communicating as you move through the canyon. I think to capture rich depth in a photo, you need your own, often complex, experience with that place. The photo here was taken on my fourth morning in the canyon; a caption could read "Scenic of Isis Temple from Shiva Saddle." That's the simple caption, and a pretty boring one at that.

But to see this view, I first had to reach Shiva Saddle, and this was a bit of an expedition. The route required a couple of days of walking and nearly 10,000 feet of elevation change, first hiking to the canyon bottom and nearly back out to the North Rim. The saddle lies 1,000 feet above the head of Phantom Creek, at a place where the creek becomes a trickle, the canyon walls close in and the walking trail turns

vertical. The challenge was in negotiating several hundred feet of vertical rock called the red wall limestone, unroped. But here, in telling this story, I should back up some.

My hiking partner, Glenn Rink, had climbed this section 33 years ago when he and his climbing buddy George Bain climbed Isis Temple via a new route. Glenn didn't remember a thing about the rock wall we were about to ascend. but he did remember being chased down the route by a thunderstorm after ascending Isis. The two were in a hurry and were scared. Curious about what I was about to get myself into, I asked if this red wall route was easy. His reply was, "Oh, not easy, but spectacular." I groaned, since we carried no rope and my normally light pack was loaded with five liters of water, five days of food, plus four pounds or so of camera gear. And, of course, I would have to climb this route, with that heavy pack, in running shoes. A second groan. It was at this point of the "hike" that I really slowed down and took a look around. Prior to that I was goal-focused to get to Shiva Saddle and get to work. Glenn and I worked together very carefully to piece together the route up the cliff face and we managed to top out without mishap. In this photo from Shiva Saddle, taken the morning we were to retrace our vertical route, you can see the tricky red wall as the band of lightercolored rock that girdles the base of the alluring Isis Temple. The sunlight is illuminating the band of red rock very close to where we ascended our route. This image was taken handheld with a Nikon D800 and a Nikon AF-S VR 70-300mm at 80mm, ½60 sec., f/4.5, ISO 100.

I certainly had my eye on this photograph once I reached Shiva Saddle, partly because I had heard Glenn's tale of his wild ascent, as well as our own little epic of climbing up the base of the formation with heavy pack and sweating hands. But it was my experience, as well as the stories that really completed this composition, that made me slow down and see this composition for what it really was, not so much a pretty picture, but an intense landscape filled with challenges for anyone willing to explore them and return with the stories.

See more of **Bill Hatcher**'s work on his website at www.billhatcher.com.

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Featured photo by Vincent Sean Anzalone, landscape photographer.

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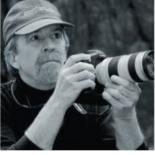








on landscape



Antarctic Dreams

The exhilaration of being out of the comfort zone

[By William Neill]



ABOVE: Iceberg Arch, Antarctic Peninsula, Antarctica. This photograph was taken on January 30, 2014. It was one of Neill's longest shooting days ever. Canon EOS 5D Mark III, Canon EF 24-105mm f/4L IS USM

eyond words. Beyond my imagination. Was I dreaming? Fortunately, as more of a photographer than a writer, when words fail to be adequate, my images will have to serve to reconnect me with the experience and, hopefully, others will get a small sense of the sights I saw. I recently returned from an amazing adventure to Antarctica with Michael Reichmann and Kevin Raber's Luminous Landscape photographic workshop.

Only three weeks before departure this past January, I was asked to replace an instructor who was unable to go. Lucky me!

The tour started in Chile, and from there, we flew to Antarctica rather than crossing the Drake Passage by ship. We photographed 38 Outdoor Photographer outdoorphotographer.com

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along the Antarctic Peninsula for five days, and I made 10,000 frames. I know this amount sounds ridiculous, but the days were very long, and the quality of the landscapes and wildlife was epic. The shooting conditions were difficult, as we often were photographing from our moving Zodiacs or ship, and I photographed all images without a tripod, with little time to deliberate on each composition. Handholding, with two cameras around my neck, one with a wide-angle zoom and another

with a telephoto zoom, was a constant struggle. I definitely was out of my slow-paced, "landscapes on a tripod" comfort zone.

While adapting to the flow of this type of photography, I learned to watch carefully, to see when the confluence of foreground

elements such as icebergs aligned dynamically with the mountains and glaciers in the background. When I photograph on land with a tripod, I'm always shuffling my feet, sideways, back and forth, to find the most interesting alignments. In Antarctica, I was dealing with one-way, steady, lateral motion so I was able to anticipate these alignments while looking ahead from the boats. When I found a stunning iceberg. I also would look for wildlife flying or swimming along to add an accent of scale. We were constantly seeing wildlife, including seals, penguins and whales. It took good timing, a burst of exposures and a good image-stabilization system to catch the action. The experience was sometimes frustrating, but mostly exhilarating!

I've been editing and postprocessing at a frenetic pace, eager to see, to begin to

of foreground, the shutter speed needed to ensure a sharp image on a moving boat with moving water ripples, and motion caused by six to eight photographers trying to photograph all at once! Even without wildlife in the photograph, setting the highest frame rate mode on our cameras was nearly essential to guarantee some sharp frames. Given the intensity of these situations, our group was extremely polite, considerate and patient with each other, united in our effort to capture the magic. Our Zodiac drivers/ guides were exceptional at helping us find great photographic opportunities.

After our early-morning Zodiac cruise, while we had breakfast, our ship relocated to the Yalour Islands. It felt like we'd had a full day already, but when we landed to see a colony of Adelie penguins there, it was only 9:00

While adapting to the flow of this type of photography, I learned to watch carefully, to see when the confluence of foreground elements such as icebergs aligned dynamically with the mountains and glaciers in the background.

absorb and interpret, all that I saw. Since returning, I pore through my Lightroom catalog daily as I recall the myriad images I created. I'm thrilled with the results, but I have a long way to go in my editing and processing. I plan to develop a portfolio of 40 to 50 images for a potential ebook, gallery prints and exhibits. It will take me weeks, maybe months, to absorb and organize the portfolio, a process that can't be rushed or forced.

In this On Landscape column, I'm showing a photograph from January 30. Our dawn photography along the Lemaire Channel began at 3:30 a.m., photographing from the ship as we cruised past volcanic peaks blanketed with glaciers cascading to the sea. After dropping anchor, our Zodiac cruise in Pleneau Bay began at 5:30 a.m. The bay is also known as the iceberg graveyard, where both large tabular icebergs and older, rolled icebergs have run aground. One of the highlights of this session was photographing this iceberg with its amazing shapes and arch. We floated slowly past, as our very excited group blazed away. Each inch of motion changed our camera positions, altering the relationship of each curve and line and arch opening.

Other factors needing rapid analysis were potential distractions in the foreground, such as bits of ice, depth of field, especially if including a large area

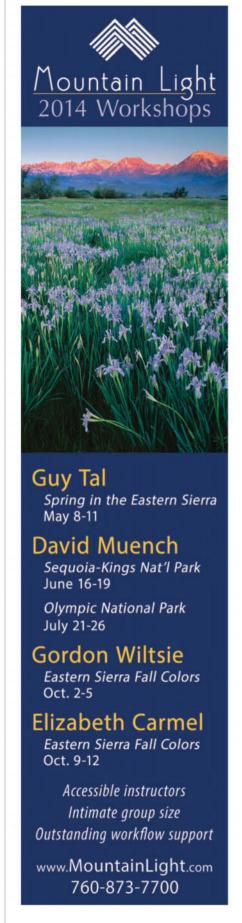
a.m. A short walk led us to grand views of the nearby mountains and glaciers, with penguins and their chicks in the foreground. The pace was leisurely now as we walked along a route laid out by our guides. While all of us kept the proper distance from the penguins, if we were still and patient, a few of these curious characters would approach within a few feet. Whether we photographed or not, this experience was priceless.

Since we had such an outstanding experience on our early-morning iceberg cruise, our leaders decided to return for a sunset session. We all boarded our Zodiacs for an epic evening of golden light and the surreal shapes of sculpted icebergs. The summer sunset of Antarctica lasted for two hours.

The day of January 30 started with the first image made at 3:45 a.m. and the last image made at 11:00 p.m. on the most spectacular day of photography I've ever experienced. A sweet Antarctic dream.

To see my full collection from the Antarctic Peninsula, go to my Facebook page, my Light On The Landscape photoblog or Google+, where I'll be uploading the images. OP

To learn about his one-on-one Yosemite workshops, ebooks and iPad app, and see his latest images, visit William Neill's website and photoblog at www.williamneill.com.



ASSIGNMENTS

The Best Of The Assignments Submissions From outdoorphotographer.com

Weather was on my mind in January and February of this year. I sent out several Assignments about the cold and the snow and ice, as well as one asking for submissions centered around the color blue. Congratulations to Devin Krinke, Carolyn Derstine, Suzanne Mathia and Hamid Rad for their winning images.

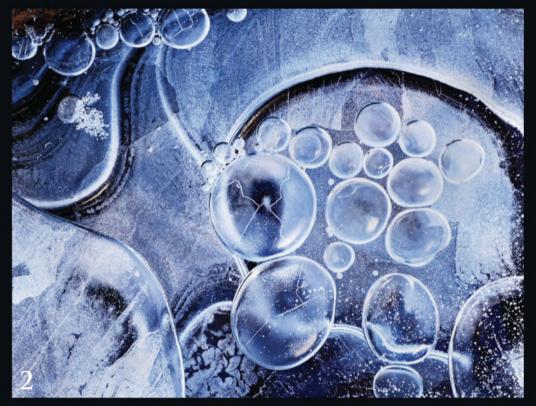
-Christopher Robinson, Editor



1) Snow & Ice Assignment Winner

PHOTOGRAPHER: Devin Krinke

EQUIPMENT: Canon EOS Rebel T2i, Canon EF-S 18-55mm *f*/3.5-5.6 IS II, lens-cleaning kit, snacks I was at the terminus of the Mendenhall Glacier on August 7, 2013, when I took this photo. Getting to this particular ice cavern required biking and hiking, so I carried very little gear. This photo was, without a doubt, previsualized. I photographed and inspected various parts of the glacier, then stumbled upon a very interesting ice cavern. The cavern was unique in that it was cone-shaped. The bluebird weather (sometimes rare in southeastern Alaska) lit up the cavern beautifully. I acted quickly because I knew I could lose that light, and because the cracking and shifting of the ice had me wondering if I should even be inside the cavern in the first place. I scrambled to the back of the cavern and used a large rock as a tripod, turned on the Live View mode, composed the frame and captured a few images. After reviewing the photos, I knew something was missing from them. That something was a human being, a person to give a sense of scale to the cavern. I set the camera's 10-second timer and began walking out of the entrance. Two attempts later, I had the image I desired.





2) Winter Macro Assignment Winner

PHOTOGRAPHER: Carolyn Derstine

EQUIPMENT: Canon EOS Rebel T1i, Tamron SP AF 90mm f/2.8 Di Macro, tripod

This photo was taken in January 2012, along a creek that runs behind our property in Telford, Pennsylvania. As I wandered along the creek, I'd look for interesting designs and compositions in the ice. That day the designs were fantastic, and I didn't previsualize, just looked for whatever ice treasures I could find. There was no snow on the ice and the ice was clean and clear. My biggest challenge was finding interesting compositions in these designs and staying ahead of some neighborhood kids who were having great fun stomping on and cracking the ice! Very little processing was needed, just the basics. The bluish color is from the shade.

3) Unexpected Weather Assignment Winner

PHOTOGRAPHER: Suzanne Mathia

EQUIPMENT: Canon EOS-1Ds Mark III, Canon EF 24-105mm f/4L IS USM

Grand Falls is located 30 miles northeast of Flagstaff, Arizona, in the Painted Desert on the Navajo Indian Reservation, often called "Chocolate Falls." At 185 feet tall, it's taller than Niagara Falls. It dumps snowmelt or monsoon rain into the Little Colorado River below. It's famous for its extremely muddy flow, which is a major contributor to the Little Colorado's opacity. Heavy rains or snowmelt produce spectacular viewing, photography and sound, whereas the scarcity of water produces trickles or no flow at all. There are many photo ops here, from the wide panorama to the up-close intimate patterns of the rocks and the water flow. Knowing the best bets for catching the falls at flood stage are in late spring and during monsoon season (roughly early to mid-July through late August/early September), I checked the water levels at the USGS website. With the water level at or above 11.5 feet, the water cascades over Grand Falls in spectacular fashion.



4) Blue Assignment Winner

PHOTOGRAPHER: Hamid Rad EQUIPMENT: Canon EOS 600D, Tokina AF 10-17mm f/3.5-4.5 AT-X, Nauticam underwater housing, Inon Z-240 external strobe This photo was taken in Baa Atoll, Maldives, in November 2012. I've been lucky enough to work in the Maldives for four years. Needless to say, the place is a gold mine of opportunities for underwater photographers. Jetties generally shelter a great variety of marine life and offer unique photo opportunities with great light contrasts, directional lines and perspectives. On this specific day, the water was crystal-clear. I started playing around with sun rays filtering through the jetty's planks and alongside the boat. The bigeye trevallies were around, but a bit deeper. I started making a clicking sound with my mouth, knowing it would trigger their curiosity, and it worked. I dived down to get a better angle, shooting upward to be able to frame the fish school coming at me, as well as the boat and sun rays fanning out. There's something mesmerizing and always very graphical about schooling fish, giving a still photograph a sense of movement and sheer wilderness.

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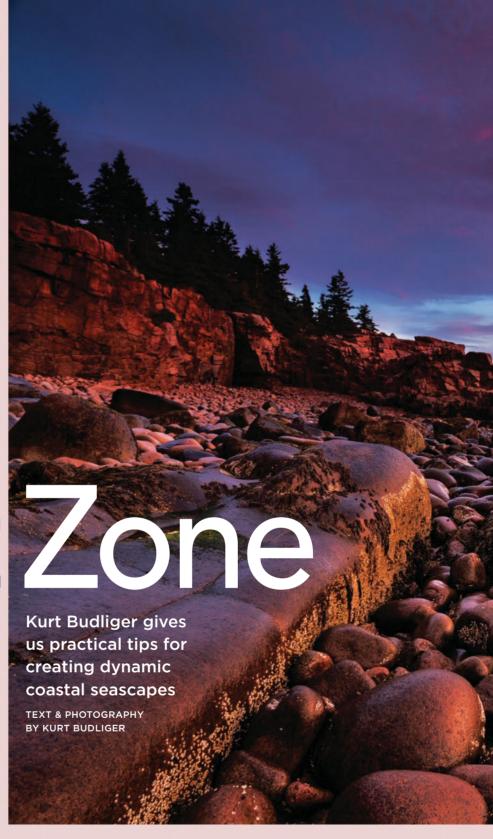


Our affinity for and connection to the sea has been deeply rooted in our art and culture for hundreds, if not thousands, of years. In the United States alone, there are more than 95,000 miles of coastline, with approximately 39% of the U.S. population living in a coastal county. And, of course, many millions more flock to the shore to recreate and vacation every year. It's no wonder coastal landscapes are some of the most published images in print media and extremely popular in contests and online photo-sharing sites. However, photographing in this dynamic and ever-changing environment can be tricky business. Fortunately, there are several tips and strategies that can get you well on your way to creating the stunning coastal

Get Into The Vet

landscapes you've always dreamed of.

Planning your shoot is of utmost importance, perhaps more so than any other type of landscape since there are myriad variables at play that can make or break your envisioned image, as well as impact your safety when working along the coast. The importance of consulting tide charts for any given location can't be overstated. If you're shooting in the Deep South, the Caribbean or close to the equator, the tide is much less of a variable since the difference between low and high often can be measured in inches and might not have a major impact on your subject or composition. But when you get further toward the poles, the tides can be very dramatic indeed. For example, in the Gulf of Maine around Acadia National Park, the tidal variance is typically 10 to 12 feet; further north and east in the Bay of Fundy, it can be



as much as 50 feet. An average high tide in Olympic National Park is typically 7 to 8 feet, and because of the region's topography, you're able to venture very far from shore in search of interesting compositional elements at low tide.

When the tide is low, the intertidal zone will be exposed, which can reveal intriguing tide pools, algae and

barnacle-encrusted rocks that make interesting foreground elements for your wide-angle shots or perhaps intimate landscapes in their own right. However, when photographing fishing harbors, low tide can leave boats stranded on the exposed bottom, and if you had planned to shoot intimate reflections, you'll be sadly disappointed. A low tide early



in the morning is a godsend for sandy beach shooters since the outgoing tide will have washed away unsightly footprints, leaving the sand in a pristine, untracked state. And shooting breaking waves along the rocky coast of Maine at high tide with a long lens can be tremendous fun. The bottom line is that whatever the tide is doing, the coast

will look different and unique, and you just might have to adjust your vision to match the prevailing conditions.

When scouting locations, it's a good idea to make note of the tide, especially if it's revealing or hiding something critical, so you can plan to return when it's at a similar level. It's also important to know if the tide is incoming or outgoing.

ABOVE: Sunrise light along the rocky coast of Acadia National Park, Maine, photographed with a 3-stop grad ND filter. NEXT PAGE: This sunset image is a combination of several exposures that were blended for increased dynamic range, Olympic National Park, Washington. NEXT PAGE, BOTTOM: This scene along the coast of Acadia National Park was made with a 2-stop grad ND filter.



There's nothing more frustrating than finding a great wide-angle composition only to have it flooded five minutes later by an incoming tide when you're finally ready to trip the shutter. From a safety standpoint, it's critical that if you've ventured into an area that's only exposed at low or extreme low tides, you leave yourself enough time to make the return trip before the incoming tide leaves you stranded, or worse.

Obviously, light and weather are extremely important variables in creating mood and atmosphere in our photographs, and they're no less important to the coastal landscape shooter. There's nothing quite like shooting sunrise along the rocky Atlantic coast in Acadia National Park or setting up to capture 46 Outdoor Photographer outdoorphotographer.com

the last rays of the setting sun along the Pacific. But don't rule out shooting sunrise along the Pacific Coast or sunset in the East just because the sun will be at your back. While shooting in the direction of a rising or setting sun often yields dramatic results, the opposite direction can be just as good. For example, on the West Coast, features like sea stacks and rock outcrops are often portrayed in near silhouette when photographed at sunset. By contrast, early morning can provide an opportunity to photograph these features with sidelight, which highlights more texture and detail on the facades of these great monoliths.

Sunrise and sunset scenes often present exposure challenges because of the extreme dynamic range inherent during the golden hour. I'm still a huge fan of using graduated neutral-density filters to tame dynamic range in the field and find I most often reach for a 3-stop reverse grad when shooting along the coast. Of course, you can also bracket your exposures and use photo-editing software like Photoshop to combine properly exposed highlights and shadows into an image that more closely resembles what we see in the field. Regardless of which technique you choose, it's important to maintain the relative luminosity values present in the scene to avoid garish and unrealistic results. Often, the most intense color arrives well before the sun rises and after it sets. Shadow areas in these low-light scenes tend to be very dark so don't be afraid to portray them as



they look. Black isn't necessarily a bad thing in a photograph.

I would argue that if sunrise and sunset are the only times you photograph along the coast, you're missing out on an awful lot. Although midday light tends to be cool and somewhat harsh, it can be a great time to shoot black-and-white landscapes, which often benefit from higher-contrast light. It's also a great time to photograph backlit waves breaking on shore or offshore, and the extra light will allow for faster shutter speeds at lower ISOs to capture the peak action. I personally love to shoot the coast on foggy days, especially the myriad fishing harbors and villages that dot the Maine coast around Acadia National Park. Fog has a profound effect on the mood of an image and allows for more simplified presentations of subjects

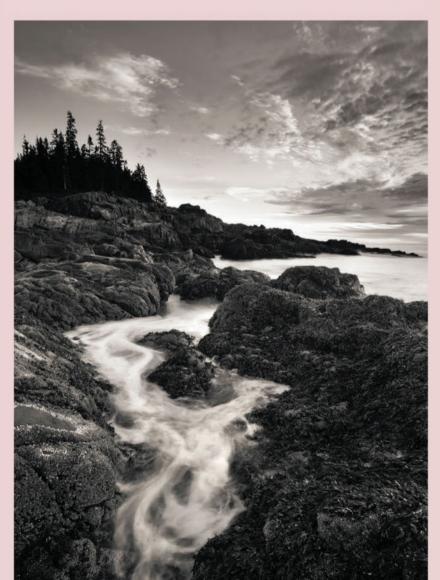
Weather Updates

egardless of what aesthetic you're trying to achieve, it pays to study the weather and plan your shooting accordingly. There are several go-to sources for up-to-date weather and cloud information that have drastically improved my rate of success over the years. The first is the NOAA website (www.noaa.gov). Beyond getting the basic long-range forecast with details on temperature, wind and precipitation, I use the hourly weather graph, which predicts

the percentage of sky that will be obscured by clouds at any given point in the day. If it's predicted to be 40% to 60% at the time of sunrise or sunset, I usually feel pretty optimistic about catching some nice sky color and drama. If, on the other hand, it looks to be 0% at sunset, I might opt to hit happy hour instead and enjoy a relaxing dinner before heading out for the blue hour. The hourly weather graph will also give you a sense for whether conditions are trending in a positive or negative direction when you'll be out in the field. I also like the **graphical forecast**, which provides a satellite image map overlay of the



cloud cover and even includes future-cast modeling. Another fantastic weather forecasting tool with an amazing free app for your smartphone is **Intellicast** (www.intellicast.com). The app provides real-time satellite imaging overlays of cloud cover and the option to run future models. This real-time data allows for changes in shooting itineraries that can increase your productivity in the field. For example, if there has been a low-pressure system in place for several days and its exit coincides with early morning or late day, you might be in store for a dramatic light show.





LEFT: Twilight at Split Rocks, Rialto Beach, Olympic National Park, Washington. The period when the sun is below the horizon, either at the beginning or the end of the day, is sometimes referred to as "blue hour" for reasons that are obvious in this photo.

that are often plagued by complexity and chaos. And, of course, don't forget about the blue hour (30 minutes before sunrise or after sunset) for otherworldly representations of the coastal landscape, often with very long exposures.

When it's time to shoot, we want to put all the pieces together in a dynamic and engaging composition. One of my goals in any seascape image is to present a scene that puts the viewer "there" and captures the soul and mystery of a place, and one of the best ways to accomplish this is to find and incorporate an interesting and/or dynamic foreground element. In most coastal environs, there's no shortage of interesting rock formations, tide pools, piers, docks, fishing boats, offshore sea stacks and the like to use as foreground elements. One element that many people overlook and can be used very creatively in the foreground is the water itself, more specifically, the shapes and patterns it makes as it moves through a scene. Here's where your choice of shutter speed becomes a much more important variable than simply controlling how much light reaches the sensor. When I'm composing seascapes, I spend a great deal of time working the scene while handholding the camera so that I'm free to experiment with a va-

riety of perspectives while being unencumbered by my tripod. Pay particularly close attention to the way waves and water currents move in, out and around elements in the scene, trying to anticipate how they could be rendered with moderate to slow shutter speeds. Wave foam, which admittedly is pretty unattractive stuff, can be used very effectively as a leading line or arcing curve extending into the frame when rendered in a soft blur.

Virtual Scouting

rior to making a trip to a new location, I spend a considerable amount of time scouting locations virtually using applications like **Google Earth**. When using Google Earth, you can zoom into a location until it switches to a street view, allowing you to get a sense for what it's actually like to be standing there. You can rotate the canvas, providing a view in all directions, and as an added bonus, if you click the sun icon in the upper-left portion of the toolbar, it will run a simulation of how the sun will track across the sky and interplay with the topography of your location. You can quickly determine the optimal direction for shooting, as well as see how shadows will track across the landscape throughout the day.



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Once you've found a good composition, set up your tripod and dialed in your aperture for depth of field, you'll want to think critically about shutter speed and how it affects the overall composition and mood in the image. Really long shutter speeds like 10, 20, 30 seconds or even upward of one minute will render successive waves and moving clouds as ghostly apparitions, which can be used to create otherworldly and ethereal images. In the low light before dawn or the blue hour after sunset, ultralong exposures are often necessary and unavoidable unless you crank up the ISO. But if you're seeking longer shutter speeds at other times of the day, try increasing your aperture (careful of diffraction), dialing down the ISO or perhaps using a neutral-density filter. If, however, retaining texture and structure in the water is critical to your composition, you'll need to adjust aperture, ISO or filter choices to gain faster shutter speeds. By simply removing a polarizer, for example, you can restore between one and two stops of light and increase a shutter speed from 1 to \frac{1}{4} sec... which may be just enough to hold texture in a powerful wave.

Kurt Budliger's Gear For Coastal Landscapes

Canon EOS 5D Mark III
Canon EF 16-35mm f/2.8L II USM
Canon EF 24-70mm f/2.8L II USM

Canon EF 70-200mm f/2.8L IS II USM

Singh-Ray graduated neutral-density filters (2 to 3 stops)

B+W circular polarizer

Feisol CT-3372 carbon-fiber tripod

Kirk BH-1 ballhead

Cable release
Apple iPhone 5

F-Stop Tilopa BC camera backpack

Patagonia breathable waders and wading boots

Petzl TIKKA headlamp

Absorbent cloth (usually from the hotel)



CLOCKWISE, FROM ABOVE RIGHT: Petzl TIKKA headlamp, Canon EOS 5D Mark III, Singh-Ray graduated ND filter, Canon EF 16-35mm f/2.8L II USM and EF 70-200mm f/2.8L IS II USM

Another variable critical to how the water action will be rendered is the timing of shutter release with wave position. By tripping the shutter in advance of a wave, you'll be able to capture interesting patterns and lines of water as they spill over a foreground rock or perhaps the leading arc of foam advancing onto a pristine sand beach. A split

second too late and that foreground rock can disappear in a massive blur of white. In contrast, if you time your shutter with a receding wave, you can capture some wonderful streaking lines as the foam retreats back to the sea. Regardless of your goal, you'll likely need to shoot a lot of frames in order to get one that pulls it all together in perfect

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harmony. Don't give up after your first several attempts; reevaluate your shutter speed and/or try hitting the shutter at a different interval to alter how the motion is rendered. I'm a big fan of Live View in these circumstances because I can actually see how the water will flow through my composition in real time and because the mirror is already in the lock position; all I have to do is hit the shutter release at the decisive moment. I also find that using a cable release or remote trigger is absolutely critical for success. It's hard enough to decide when to trip the shutter on a wave, but if you also have to account for the 2-second delay of a self-timer, then you're doomed.

One of my favorite photography adages is "If you want your photographs to look different, then you have to photograph differently." If most of your seascapes are made with a 70-200mm lens, then it may be time to get into the "wet zone." It can be a bit intimidating at first, but with the right approach and equipment and a little practice, you'll be rock-hopping your way to more dynamic images in no time. Admittedly, I'm a wide-angle junkie and enjoy get-

ting in close to my subjects, and when working along the coast, that means getting a little wet. During summer and in warm climates, a pair of quickdry shorts and sports sandals will do the trick. But when shooting along the rocky coast of Acadia National Park or during colder seasons, I wear a pair of fishing waders and a GORE-TEX® jacket with insulating layers underneath to keep me warm and dry. Since most of the rocks and algae exposed at low tide are extremely slippery. I use boots with studded or felt soles for extra traction. I also keep my camera slung around my neck and inside my jacket when getting into position, which frees up my tripod legs to be used as a walking staff. It's very common for the spray from breaking waves or windblown water to end up on your lens or filter setup. I keep an absorbent cloth towel tucked in my waders or jacket pocket to wipe

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away spray between exposures quickly.

Great care should be taken when working in the wet zone since one missed step or rogue wave can send you or your gear into the drink, and there's no shot that's worth risking your life. It's also a good idea to bring only what's essential into the wet zone. You'll want to leave your gear bag and extra equipment on higher ground well out of the way of crashing waves and the incoming tide. After shooting in the wet zone, it's important to give your equipment a thorough wipedown to remove corrosive salt residue.



See more of **Kurt Budliger**'s work at www.kurtbudligerphotography.com.





MINIMALIST LANDSCAPES

No matter the conditions, remove yourself from expectations and focus on what's there and not on what you wish was there

TEXT & PHOTOGRAPHY BY THEO ALLOFS

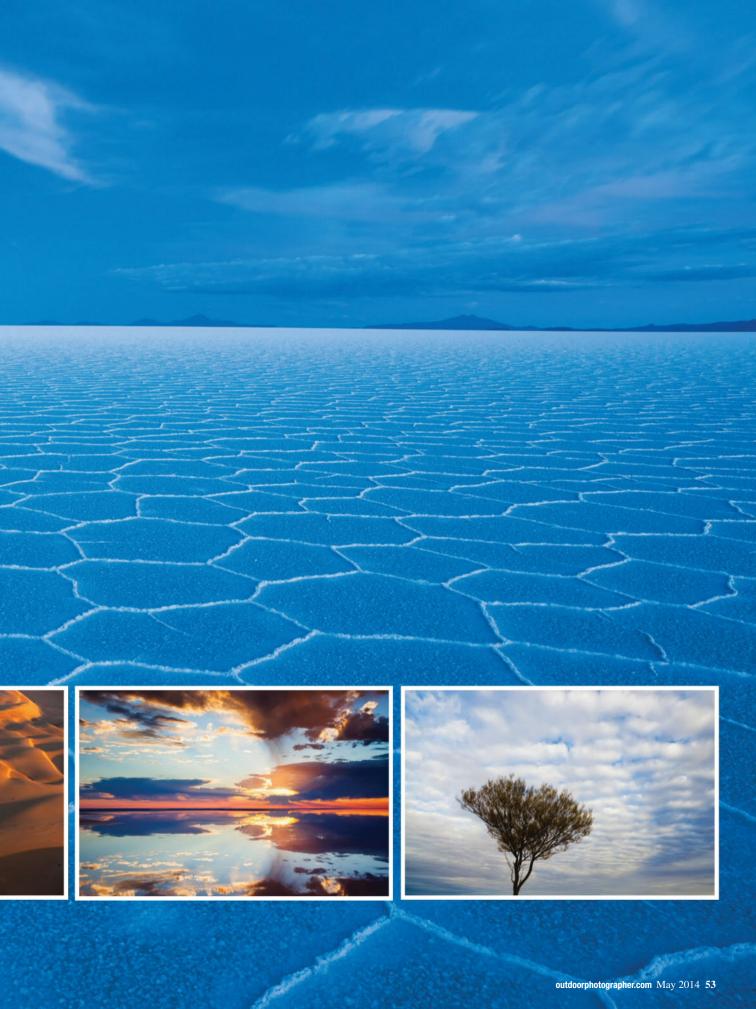
t's early morning; your camera gear packed. With a cup of steaming offee in your hand, you hike to the iewpoint you selected the previous vening. You're full of hope that this morning the sky finally will be filled with the dramatic clouds you've been waiting for. Without these clouds, the majestic landscape you've been exploring over the last few days will lack drama. You want this picture to be perfect, you want nature to cooperate. Twilight comes, and the first golden sun rays are breaking into a star at the top of a mountain ridge to your right. Above your head, the sky is as clear as the night before. Disappointment takes the place of anticipation. You lose interest and focus, dump the rest of your coffee, and hike back to your car.

I learned a long time ago not to expect nature to cooperate. Nature

does what she wants whenever she wants, not when you want. Expectations can destroy our ability to be creative. Instead of waiting for clouds to show up and getting frustrated if this doesn't happen, we should explore all our opportunities with open eyes. Use any kind of weather or light condition to your advantage. This is the challenge of nature photography. Instead of walking away, you should have explored your photographic options by excluding the sky and zooming in on landscape details.

Deserts usually lack clouds. If you're lucky enough to get a cloud-filled sky in the desert, shoot as much as you can, but don't expect that to happen on the day you'll be there. Instead of relying on a dramatic sky, use the strong contrast between the sunlit areas of the dunes







and the shadows to create dune abstracts. Sand dunes are among my favorite topics in nature for creative abstracts. It's amazing to see what the effect of the sun low at the horizon can do to a landscape that's a boring monotone without any contrast at midday.

The opposite scenario can also occur. You can have striking cloud formations, but no grand landscape to match it. I was driving along a very isolated road in Australia's Outback when small puffy white clouds started to form in the sky. The landscape was barren except for small bushes and drought-resistant trees. I found a tree near the road that somehow would make a nice silhouette. I first photographed the whole tree including some grass and bushes in the very lower part of the frame. Then, I decided there was too much distraction from the beautiful cloud formation. I turned the camera up and included only the top part of the small tree.

A similar situation is demonstrated in **54** Outdoor Photographer **outdoorphotographer.com**

the photo where I used a saguaro cactus in the foreground of a clear and moonless night sky with star trails caused by an exposure of about eight hours. The star trails accentuate the background without taking anything away from the cactus as the main subject.

As a general rule, I don't photograph during the hours when the sunlight is harsh because there's too much contrast and colors are washed out. However, there are exceptions. In mountainous areas, in canyons and under a dense forest canopy, we can always find spots that are hidden from the sun. Instead of trying to capture a larger scene and having to deal with highlights on leaves, rocks or tree trunks, start to isolate elements within the scene. Switch your vision from a wide-angle to a telephoto mode and look for interesting details in shadow areas. In the Otway Ranges in Victoria, Australia, I was photographing a fairy-tale waterfall that was surrounded by lush green vegetation,



OPENING SPREAD: This eerie white landscape posed a challenge for Theo Allofs. He used the salt flat as a reflector for the colors of the predawn sky to convey the mood of this desolate, but fascinating location. Salar de Uyuni, the Altiplano, Bolivia. INSET. LEFT TO RIGHT: The strong contrast between the lit and shadowed portions of sand dunes transforms a monochrome vista. Namih Desert, Namihia. The rare mirror-flat lake surface and a dramatic sky create a special opportunity. Lake Eyre, South Australia. When the landscape isn't interesting, but you have a good sky, look for an element that allows you to take advantage of what vou have. South Australia. LEFT: Star trails can be combined with a strong foreground subject like this saguaro cactus for an evocative image. Organ Pipe Cactus National Monument. Arizona. BELOW: A telephoto lens is an excellent tool for isolating and flattening the perspective on a scene. North Island. New Zealand. RIGHT: Using a long exposure, Allofs created this otherworldly image that distilled an idvllic. but cluttered scene to its essentials. Waterfall, Otway Ranges, Australia.

mostly, prehistoric-looking fern trees. Unfortunately, the fern trees were partly exposed to direct sunlight, causing disturbing highlights. My eyes then zoomed farther in onto the waterfall itself where they found two vertical tree trunks at the very bottom. I used a long exposure to frame the trunks with a soft blur of water that almost appears to be thin curtains. The unfavorable light conditions of this idyllic forest scene had forced me to focus on the bare essentials this particular landscape had to offer at the time I was there.

My favorite lens for landscape photography is a 20mm wide-angle lens on my full-frame camera. I use it almost exclusively for landscapes that contain any kind of small, pattern-like sand ripples, drought pat-

terns or snowdrifts. Getting low to the ground, the patterns become the main element in your image as they stretch all the way to the horizon. However, these images wouldn't be complete without some sort of an eye-catcher in the background. Although it's nature, using the power masts helped me solve this problem when photographing mud cracks in the Namib Desert. In the United States, landscape photography is often shunned if it shows anything man-made, but you can often make a high-impact image when you incorporate such unnatural elements in the frame. In the Namibia photograph, using the power masts enhances the visual story by creating a deeper sense of isolation.

When visiting the Salar de Uyuni on Bolivia's Altiplano, the largest





salt pan on earth, I was challenged with capturing this eerie white landscape the way I experienced it. It's a dead and silent landscape the size of Belgium, where the salt crust stretches all the way to the horizon. Yet, at the same time, this place holds beauty, magic and fascina-

the ocean. At high tide, they're partly submerged in the surf. I didn't want to freeze the wave action, as that would have distracted too much from the boulders. I needed a long exposure to blur the waves to an almost fog-like appearance that managed to match the sky. I

making minimalist landscapes is your telephoto lens. A longer lens naturally leads to a process of isolating the most critical elements in the frame. Don't be afraid of using your longest focal lengths for a landscape photo—I often use 600mm! Just looking through



ABOVE: Allofs used a slow shutter speed to prevent the water from distracting from the key elements in this scene, the Moeraki Boulders. Many coastal photographs benefit from this technique. South Island, New Zealand.

tion. I took this image during the dawn moments when the sky was a deep blue and before the sun was up.

To show the vastness and emptiness of the salt pan, I removed all distracting elements and only included the hexagon-covered salt crust and the sky. The monochrome emphasizes the eeriness of the place. Think about the sky just before sunup and just after sundown. When you have a reflective subject like a body of water, a sandy desert or, as in this case, a salt flat, you can bring the color of the sky into the foreground and create a stunning photo.

Shooting on the coast or along a stream or river can yield excellent results, but the images can be a cluttered mess if you're not careful. Try smoothing out moving water with a long exposure to reduce visual clutter. On the east coast of New Zealand's South Island, huge round boulders have been eroded out of a cliff and then rolled into 56 Outdoor Photographer outdoorphotographer.com

wanted to keep the image as simple as possible to emphasize the importance of the boulders. I had a special challenge for this photo: keeping the tripod from sinking into the sand while the shutter was open and the waves moved in!

Dead calm is a rarity in any body of water. When you have mirror-flat conditions, take advantage of them! After decades of drought, Lake Eyre, a large salt lake in South Australia, suddenly filled with water. I was flying with my powered paraglider to photograph the extent of the flood at Lake Eyre's southern shore. As sunset approached, dramatic clouds appeared seemingly from nowhere. There wasn't a ripple on the shallow water. I was about 3,000 feet in the air and risked flying above the lake to photograph the perfect reflection of the clouds in the water without any shoreline or island to disturb this magnificent display of colors.

One of the best tools in your bag for

a long lens while panning and tilting around a scene can lead to surprisingly unique photographic results.

OP



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In this excerpt from his book Capture the Magic, Jack
Dykinga guides us through the process of exploring a scene and a composition to create special images

TEXT & PHOTOGRAPHY BY JACK DYKINGA

Occasionally, strong images appear to suddenly jump into my camera, but that's not the norm. I usually spend a lot of time fussing about compositions. I circle the principal elements to imagine compositions, I change the camera angle, I shoot into the light or with the light, and I change lens focal lengths. I call this working the situation.

Of course, there's always something about a subject or scene that draws my initial attention. The challenge is to create an image that shows the viewer the aspect I found so interesting. After hiking all over the White Sands National Monument in New Mexico, I found a curved yucca emerging from a partially buried base in a pristine section of dunes. I loved the simplicity of the scene. The series of six images shown here demonstrates how I worked the situation.

The Landscape







My first image was made as the predawn Earth-shadow light began to illuminate the sky [Fig. 1]. I wanted to show the transition of color in the sky and composed accordingly. I left plenty of room at the top of the frame to illustrate the light known as the Belt of Venus and photographed the progression of the light's intensity and color until I felt I had what I was after. Ultimately, this occurred when the first light of dawn kissed the mountainous background.

Then my attention shifted to the mountains, which were becoming more important as they became illuminated. I had lost the gradation in the sky, so I deemphasized the sky by tilting the camera downward. The result is seen in the second image [Fig. 2].

While I felt the composition worked in the second image, it was not as strong as my initial image. I took a few remaining sips of coffee and watched and waited.

As the sun rose higher, new elements of design became apparent. Strong shadows extended across the dune field, creating new, but quickly changing opportunities. Where once I enjoyed the luxury of slow, deliberate and careful composing of photographs, I was now hurriedly reacting to shadows on the move to capture the third image [Fig. 3].

I watched the yucca fairly glow in the dawn light as shadows created form and design. In this next photo, I shifted position to emphasize the shadows of the yucca itself [Fig. 4]. But my own footprints were mucking up the composition so I carefully repositioned to avoid showing my missteps.

One of the things I learned from the publishing world is to make images in both vertical and horizontal orienta-

tions, so I oriented the camera to portrait position to photograph the fifth image [Fig. 5].

The placement of the yucca stalk against a dune-shadowed background afforded me a new way to frame. In the sixth image, using dark shadow bands at the top and bottom of the frame, I was taking advantage of natural landscape elements to concentrate interest on the curved vucca [Fig. 6]. But let's look at the distances around the frame. The base of the vucca nearly mirrors the distance of the top shadow line. The yucca blades at the left are set off, and are illuminated and framed against the background shadow. Finally, the direction that the yucca is leaning leads the eye into the frame.

Although I captured multiple images of the same scene, each photograph was still a product of careful composition. Nevertheless, they were created quickly with the rapidly changing light.

Many years ago, I photographed the Grand Prismatic geyser pool in Yellowstone National Park. More recently, I was teaching nearby and wanted to revisit the pool and photograph it again, this time using my new Nikon D800E digital camera.

I remember being instantly in love with this geyser, especially at sunset. The sinuous rivers of red algae seemingly run right into the setting sun. But as the saying goes, "You can't put your foot into the same river twice." Time and weather conspired to show me something different, and I captured this first dark, moody image [Fig. 7].

Before taking the second image, I concentrated on the details within the rivers of red. I worked the situation and









Working the landscape means making an effort to keep finding new compositions. In the series from White Sands National Monument in New Mexico (opening spread) and the series from Wyoming's Yellowstone National Park (this spread), Jack Dykinga continued to experiment with the scenes as the sun rose. He let his thinking evolve with the light.





LEFT: Dykinga wanted to show the slippage in ancient, petrified sand dunes. The obvious illustration is in Fig. 11. This image shows the up-and-down shift quite literally. Getting past the literal, Dykinga made the photo shown in Fig. 12, where the main interest goes from the fracture line to the blue striations.

achieved this very different result [Fig. 8].

As the algae painted the surface of the bacterial mats, they were juxtaposed against the turquoise geyser water. As the angle of the setting sun became pronounced, it highlighted the edges of the bacterial mats, creating bold diagonal lines that I was able to capture in the third image [Fig. 9].

The changing light shifted the emphasis, creating yet another design [Fig. 10]. So light creates shapes and forms, which, in turn, change compositions and design.

Working the situation is another way of thinking outside the box. My goal for these two photographs was to create an image for my German calendar, which celebrates the designs in stone 62 Outdoor Photographer outdoorphotographer.com

that are particularly visible here in the American Southwest [Fig. 11, Fig. 12].

I wanted to show the slippage that occurred eons ago in these petrified sand dune formations. The misalignment of rock layers along the fracture line was what piqued my interest and the contrasting subtle colors added to the composition. I felt satisfied with the design in the first image, but I wanted to try something different.

To create the second image, I shifted

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the principal subject from the fracture line to the striations of blue. These are two approaches to the same scene, but with a subtle shift in the center of interest.



You can see more of Jack Dykinga's photography at www.dykinga.com. Learn more about his book Capture The Magic at www.rockynook.com/book/0/288/capture-the-magic.html.





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The Power

Reaching beyond the basics of the Rule of Thirds for more dynamic landscape photos

OFIRE

TEXT & PHOTOGRAPHY BY TOM TILL

From the Greeks, who worshipped the amazing properties of triangles, to The Three Stooges, the number three has had a special relationship with human perception, art, music, science, religion and every other field. Pythagoras called it the perfect number. Landscape and nature photographers are also immersed in a world of threes. We spend a great deal of time wrestling with the three-legged support for our cameras. The most widely quoted photography compositional rule, the Rule of Thirds, exists because most of our brains seem to respond more favorably to works of art with subjects based on odd numbers and placement of important forms on a grid created by dividing the scene in segments of three.

What is it about three that we like so much? It could be that, like a tripod, the power of three gives our compositions stability, and as importantly, simplicity. This small, odd prime number is easy to identify and manipulate. It helps avoid three hobgoblins of aspiring photographers: too much bald, featureless sky, subjects that are bull's-eyed in the middle of the frame and compositions that include too much stuff.

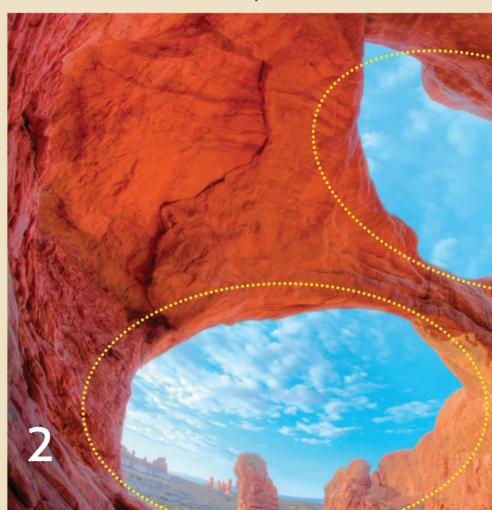
Most photographers are attuned to shapes and ideas that can help compositions like the Rule of Thirds: S-curves, diagonal lines, lead-in lines, framing, perspective and balance. Some time ago, I began to theorize that the number three could have a great more potential in photographic compositions than simply adhering to an elementary rule.

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Consciously and unconsciously, I now use the idea of three as much as I can. It doesn't solve all my compositional problems, but it often adds power to parts or the totality of my overall scene.

The trick comes in using the power of three strongly and literally sometimes, and at other times, in a more subtle and understated way. Bracketing compositions is one of the great benefits of digital photography and is a great way to experiment with this technique.

Once you get the idea of three and its power implanted in your head, you'll start to see it everywhere and figure out ways to use it.





1) TRIANGLE

Delta Pool, near Moab, Utah

Triangles are out there. You probably won't find one every day as shapely as this one, but there are lots of opportunities where more subtle shapes from several elements may come together as a triangle. This triangle also points and leads the eye up and along the line of cliffs. Other important elements in the image include sidelighting and some subtle, but interesting clouds, all compositional techniques I use constantly.

2) THREE SIMILAR SHAPES

Double Arch at dawn, Arches National Park, Utah

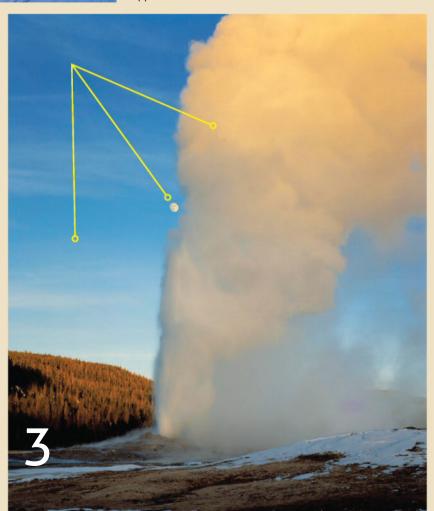
In this fish-eye view of Double Arch, I believe having three openings in the scene is more powerful than two or four. Why? It goes back to the enforced simplicity of three and the uncomfortable design of two. Balance is achieved by the use of three that wouldn't be as easily accomplished by another number. Actually writing down what you were trying to accomplish in a composition, as I'm doing now, can be a helpful aid. The very act of this kind of appraisal helps clarify your intentions and access your successes and failures.

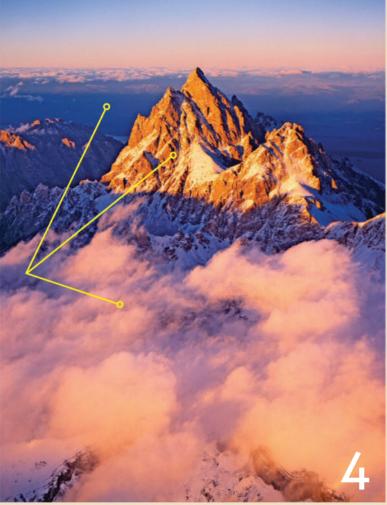
3) THREE LUCKY EVENTS

Old Faithful, Yellowstone National Park, Wyoming

Luck has played so much of a role in my photographic work. Capturing three iffy events at the same time in the same place is unusual, but another example of the power of three. Also, trying to get a new take on a classic and iconic subject is always a huge challenge. Though I did know I was going to have a photographer's full moon (usually the night before the astronomical full moon) and that it might somehow work with the eruption of Old Faithful and sunset, I couldn't be sure. Old Faithful isn't as faithful as it used to be, and much of the day was overcast. With clearing at sunset, all three events appeared on cue.







4) THREE LAYERS

The Grand Teton, Grand Teton National Park, Wyoming

Often, when shooting layer images, I feel that more is better. Six ridges of the Smokies, for example, might show three dimensions and the expansive nature of the landscape better than four ridges. Frankly, with that many, who's counting? Showing layers of differing content, however, is one of the prime ways to show three dimensions in a landscape with no foreground, especially in an image like this one where perspective doesn't work. Without the layers, the Grand Teton is too large a subject to recede into the background. Choosing three layers with this more complex material is a great way to simply and pleasingly portray depth and distance: clouds as foreground, the peak as the second placeholder, and the distant blue landscape and sky complete the scene.

5) ORDER OF THREE FROM CHAOS

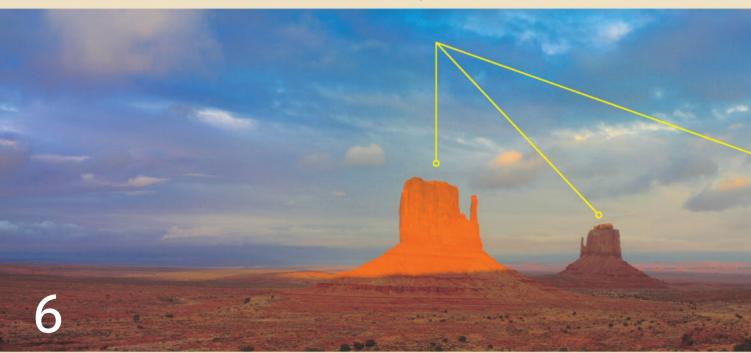
Goegap Nature Reserve, South Africa

The three kokerboom trees add a solid, firm structure to the chaotic forest of agaves surrounding them in this African desert image. Use the power of three as a way to add stability to an image with other complicated elements. The perspective of the trees also creates a diagonal line, which gives the three trees more power. Anytime you can arrange to have your three subjects create a diagonal line is a plus. As with most of the images included in this collection, I've also worked to use sidelighting and have some kind of cloud cover.

6) SPOTLIGHT ON ONE OF THREE

Monument Valley, Arizona

Nature provides lots of subjects in threes, like the three classic buttes of Monument Valley. The area also has the Three Sisters, three stunning spires, which carry the same name as three rock formations in Australia. Arches National Park has the Three Gossips, and the list goes on and on. Spotlighting, very common during stormy periods in the Western United States, is a favorite tool of mine. Having just one of the Mittens lit by the dying sun makes a stronger statement to me.



7) THREE LIGHT VALUES

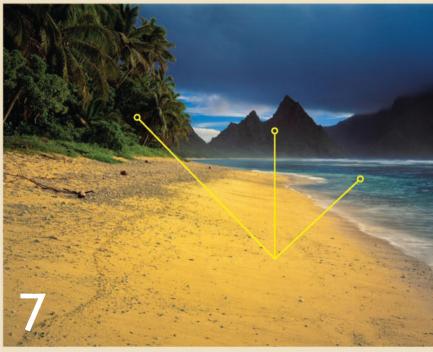
Ofu Beach, National Park of American Samoa

Just to show how every facet of an image can work in threes, this image contains deep blacks, bright highlights and midtones. Though deep black is often avoided now in digital photography, Ansel Adams was certainly a fan of it in his work. Also, I find that this wide range of tonal values gives the image a "film" look, which I sometimes want to return to, and, of course, the black subject wouldn't be as effective if it didn't have a strong shape. The combination of the strong lights and darks is another example of chiaroscuro lighting. Here, the third element, the medium-toned water and forest, balances the very strong light-dark effect.

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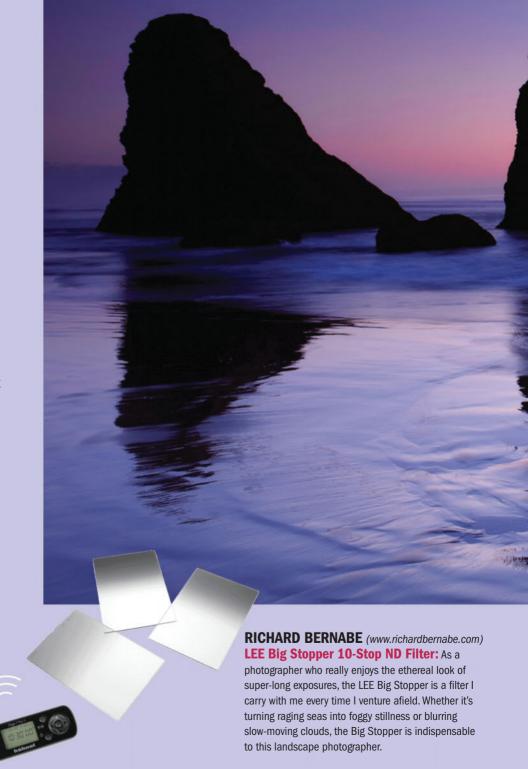
Go to www.tomtill photography.com to see more of Tom Till's landscape photography.



It's MORE Than

See what enables and inspires the best landscape photographers to stay out shooting and create their powerful photos

We asked a number of top landscape photographers about their essential gear—the equipment they always want to have with them—for doing their work. In addition to equipment like lenses and tripods, we were particularly interested to know what non-photo gear these talented photographers consider to be necessary for their photography, as well as their main sources of inspiration. The answers here give you a sense of what the very best rely on to get their incredibly evocative landscape photos.



The Camera



Timer Remote/Intervalometer: This is more than just a remote release cable to mitigate camera shake during exposures in the "danger zone" (0.5 to 2 seconds, when the camera is most vulnerable to camera shake). An intervalometer can be programed for specific shutter speed times in Bulb mode, as well as a precise number of consecutive exposures. For long exposures in low-light conditions and night photography, this is an invaluable piece of equipment for me.

Photoshop: Okay, I'll say it, even if nobody else dares to do so. Photoshop is absolutely essential when it comes to artistic interpretation of a photographic scene. This is particularly true for landscape photographers. Exposure blending has replaced graduated ND filters because the process does a better job of re-creating the dynamic range that the eye sees. Focus stacking allows us to attain extreme depth of field without incurring resolution-robbing diffraction at small apertures. And Photoshop can help re-create the color and drama of an outdoor experience that we, the photographer, saw and felt so that our viewers can vicariously experience it, as well.

It's MORE Than The Camera

SEAN BAGSHAW (www.OutdoorExposurePhoto.com)

16-35mm Zoom: I really like my current camera and assortment of lenses, but if I had to choose the single piece that has helped make some of my favorite images, it would be the Canon 16-35mm f/2.8L II lens. The lens is very sharp for a zoom and has a wonderful wide-angle range. I often compose my near-far perspective landscapes at the 16mm



focal length. The edges of the frame have more sharpness and less vignetting than other wide-angle zooms I've owned. I find I can use very small apertures for extreme depth of field while still maintaining good image clarity. The large 82mm diameter bezel allows me to use a regular-thickness polarizer without it showing up in the corners of images taken at 16mm; 16mm lenses with 77mm diameters require a special thin polarizer to avoid this problem. As a bonus, when stopped down to f/22, it gives one of the cleanest and most pleasing sunstars of any lens out there. In addition to creative wide-angle

landscapes and cool sunstars, at f/2.8 this lens also makes a very good lens for photographing the night sky. The 16-35mm is the one lens that has made it possible to capture some of my most creative and challenging compositions.

Coffee: Perhaps my biggest photography ritual is morning coffee. Like so many outdoor photographers, I'm often up at very dark, cold hours of the morning. Whether in my truck camper or in my tent, I arrange my bed so I can fire up the stove while still in my sleeping bag. By the time the water boils, my brain is coming out of the fog and anticipating the first sip. Holding a warm travel mug of coffee in my hand as I hike into the dark, looking forward to the sunrise, is a wonderful feeling. I've had my insulated stainless-steel travel mug for years. It's dented and scratched and fits my hand like a glove. It keeps my coffee hot as I hike and throughout the sunrise shoot. When empty, the mug fits neatly into a side pocket of my camera pack where it waits for a refill back at camp.

Pop-Up Camper And Tent: I do my best photography when I immerse myself in it for several days or weeks at a time. Having comfortable and reliable living quarters on multiple day trips is essential for being well rested and relaxed enough to focus on photography. When I can drive to locations, my pop-up camper, by All Terrain Campers, on the back of my truck is a minimal, but very comfortable home away from

home. Now that I'm in my 40s, having a bed, stove, sink, fridge, lights and solar panel, as well as being able to stand up, really beats those days when I'd just curl up in the backseat of my car.

When I go into the backcountry, I take a Big Agnes Copper

Spur UL1 tent.

Critical Apps: There are many apps for the iPhone that I use to help plan my photographs. Here are some that I find particularly helpful. The Photographer's Ephemeris and PhotoPills are both designed to help you plan where to be and when for the perfect conditions. They give real-time information on sun and moon location, twilight and rise and set times, and other useful information for any location on the planet, and at anytime, present or future. PhotoPills also has augmented reality sun- and star-tracking features, as well as calculators for hyperfocal distance, star-trail exposure times and time-lapse shooting. When I just need a simple augmented reality sun-tracking app, I use Sun Scout. Star Walk is an excellent resource for night sky photography.

GARY HART (www.EloquentImages.com)
L-Plate: Adding an L-plate to my DSLR
bodies was a game-changer—not only
does it make vertical compositions more
stable, they're closer to eye level and
just plain easier. In my workshops, I often
observe photographers without an L-plate resist
vertically oriented shots, either consciously or unconsciously, simply
because it's a hassle to crank their ballhead sideways, and when they do,
they need to stoop more. And some heads aren't strong enough to hold a
heavy, vertically oriented camera-lens combo. But since switching to the

GPS: My Garmin dash-top GPS is an essential travel mate. I visit many photo locations, far from home, that I'm not able to return to for a year or longer. So on each trip I save every potential photo spot in my dash-top GPS. For example, I get to Hawaii just once each year. Over the years, I've found so many spots to photograph—not only would it be easy to forget some, on each visit I would waste valuable time reacquainting myself. But with a GPS that travels with me, I don't have to refamiliarize myself with anything—I just pop it on my dash before driving away from the airport and instantly navigate to my locations like a native.

L-plate, my decision between a horizontal or vertical composition is based

JAMES KAY (www.jameskay.com)

entirely on the composition that works best.

24-105mm Lens: When I'm out in the field, I always travel fast and light. Whenever I need to pare down my gear to the basic essentials in order to save weight or bulk, this is the one lens I take with me; in fact, my Canon EF 24-105mm f/4L USM was the only lens I brought with me on a recent six-week trip to New Zealand. This focal range covers 90% of what I usually use in the field.

All-Wheel-Drive Vehicle: My Nissan Xterra, with its short wheel base and high clearance, allows me to get to locations that might otherwise be inaccessible without a long, long walk. With the seats folded down, it makes for a great car-camp and base of operations.



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It's MORE Than The Camera

JON CORNFORTH (cornforthimages.com)

Filters: I use Singh-Ray filters, and I always have them with me. From my beloved LB Warming Polarizer to my arsenal of graduated neutral-density filters in various strengths, I'm never caught without my filters when I'm shooting landscape images. Sure, there are lots of techniques to make an image these days, but nothing beats the satisfaction of getting it right in the camera.

Durable Ballheads: My Acratech Ultimate GP ballheads are the lightest that I've ever owned, while also being the sturdiest. I own several versions that I use on various tripods, but the oldest one I have is an original from over 10 years ago. I once knocked my tripod off of a high cliff in Utah. My tripod was pretty beat up,

but not my ballhead, which just had a few dents and scratches.

Good thing my camera wasn't attached.

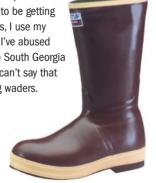
Energy Gels: I'm a big fan of Clif Gels when I need an energy pickup after a long hike or when I'm about to start one. If I'm tired and hungry, that can directly effect my motivation to use my camera if the conditions are less than ideal.

Cheap, Compact Umbrella: There's no way that I can keep my camera lens dry when a double rainbow appears during a downpour or

while standing too close to an ocean blowhole without it. Along with the umbrella, I also keep a plentiful supply of dry paper towels in order to quickly absorb water and spray.

Footwear For Standing In Water: If I'm in Hawaii, this means my Teva sandals, but in southeastern Alaska, I'll be wearing my XTRATUFs. These brown rubber boots come up to my knees. You don't want to step

in water deep enough to go over the top. Believe me, that's no fun. If I'm really going to be getting wet and crossing cold-water streams, I use my Patagonia chest waders and boots. I've abused these rugged waders from Alaska to South Georgia Island and have never gotten wet. I can't say that for my companions who didn't bring waders.



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Go to outdoorphotographer.com/blog to see our web-exclusive articles on gear. Best Of Assignments, Assignment Winners, feature stories by the OP Bloggers and more.

ROBIN BLACK (www.robinblackphotography.com) **Tripod:** Beyond the obvious mention of camera or lenses, which can and do change and evolve over time, what doesn't change is the following gear. A sturdy, dependable tripod is vital. Wind will kill sharpness in an image, especially with the heavier bodies and lenses most of us use. I use an Induro carbon-fiber tripod, and not only is it rock-solid for keeping my camera steady, it also survives a lot of abuse. I'm not gentle with mine. It gets banged against rocks and dragged through ice, mud and salt water-and this is generally true for anybody who shoots landscapes, so that investment is important.

Filters: I always keep a circular polarizer on my lenses when shooting outdoors, and for the last couple of years, I've come to depend almost entirely on the Singh-Ray Vari-N-Duo. It's a bit of an investment for a filter, but it combines their outstanding warming polarizer—which is ideal whether I'm shooting water or the red rock of Utah-and a variable ND filter with a range of 2 to 8 stops so I can get very creative with exposure. It does vignette

at the super-wide range, but I can account for that bit of lost frame when composing my shot. The benefits far outweigh that one headache, and I almost never shoot without it.

Spare Cable Release: I learned this lesson the hard way a few years ago when I was setting up to do some "blue hour" shots of the Golden Gate Bridge and discovered that my cable release had fallen out of my camera pack at some point earlier in the afternoon. I was able to get the shots I wanted, mostly by using the timer settings on my camera, but it was beyond frustrating. I've kept a spare (or two) cable release in my pack ever since. They're inexpensive-about five bucks or so on Amazon or eBay-so just buy a few and keep them handy.

LED Flashlight: My keychain-sized LED flashlight has saved me more times than I can count-it's my third-level backup in case my headlamp or flashlight (or both) die on me in the dark. Just a week or two

after purchasing my first one, I ended up using it on the hike down from Delicate Arch after sunset (not a stroll you want to take in the dark!). My headlamp battery died just steps down the trail when I started the hike out, and I'd left my flashlight in the car. The little LED light I'd tucked into a side pocket on my camera bag was all I had to see my way down the unmarked slickrock, and I'd have been lost-perhaps literally-without it.





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It's MORE Than The Camera

CHUCK KIMMERLE (chuckkimmerle.com) Tilt-Shift Lenses: I shoot a lot in areas that are quite flat, such as the Plains, therefore maximizing depth of field is very important. I shoot Nikon and have the 24mm, 45mm and 85mm lenses. Also, as these are manual-focus lenses, they force me to slow down a bit. Autofocus makes it all too easy to rush.

> Loupe: I may consider my Hoodman loupe my second most important piece of gear, after the camera. It not only allows me to check critical focus, which is important when using tilt-shift lenses, but also to study the composition, tonality and potential problem areas in my photos.

Proust: I live by Marcel Proust's quote "The real voyage of discovery consists not in seeking new landscapes, but in having new eyes." I've made some of my strongest images in North Dakota and the Plains states, places not usually thought of as photographic destinations. While it has become a bit of a cliché, I firmly believe that amazing

images can be found in the most reticent and quiet of landscapes. It has become popular for photographers to do destination photography-Zion, Arches, Antarctica, the Oregon Coast. etc.-but doing so actually inhibits creativity.

Microfiber Cloths: I carry four or five small microfiber cloths. They're great for cleaning lenses or camera eyepieces, and

work very well absorbing errant water and raindrops that may get on the lens. Having many different ones allows me to always keep one that's clean and dry.



JIM SHOEMAKER (www.jimshoemakerphotography.com) Tripod: I use a Gitzo GT5561SGT carbon-fiber tripod. Doing landscape work requires a rock-solid platform to mount my camera on, and this tripod can support everything from my 35mm camera mounted with a 600mm f/4 lens to my large-format view camera. It doesn't have a center column so I can collapse it to seven inches above the ground or extend it to nearly nine feet tall, which comes in handy not only in the studio, but in the field, as well. It seems like I'm always shooting on some ridiculously uneven ground or steep incline, and those long legs can extend to compensate for just about every type of terrain. The best part is, if I get lost in the wilderness, I can extend it to its full height, tie some pine branches to it and have a shelter for the night!



My iPod: My broad-brimmed Tilley hat and Asolo hiking boots are essential, of course, but it's my iPod that keeps me going. It goes everywhere with me. It keeps me awake on long drives through the middle of the night and gives me inspiration while I'm shooting. I have my ear buds in a lot when I'm shooting. When I first arrive on location, I like to listen to the natural sounds of the area, whether it's birds, insects, the wind through the trees,

whatever. It helps give me a sense of the place, and after I feel comfortable with it, it's time to put on the music and select something appropriate for the subject. It could be rock 'n' roll, it could be classical. It's like adding a soundtrack to a movie. Plus, the ear buds act as a deterrent to the people who are constantly asking, "What lens is that?" I dislike talking about gear while I'm photographing.

Mountain Dew: It may kill me in the long run, but in the short term, it keeps my eyes open when I'm doing marathon drives. Last summer. I covered nine states, plus parts of Alberta, Canada, in just over three weeks. I put just shy of 11,000 miles on my truck. Considering that I'm shooting during sunrise, sunset and anytime the light is good, that leaves only the middle of the day or night to drive, and that leaves even less time for sleep. The sugar and caffeine prevent me from waking up with my truck upside down in a ditch.



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It's MORE Than The Camera

IAN PLANT (www.ianplant.com)

Neutral-Density Filters: Long exposures are a great way of showing the world to people in a way that they don't typically see. During long exposures, moving elements of the scene, such as water, clouds or wind-blown foliage, take on abstract forms, and the result can be a dreamy look. I always carry 3-, 5- and 10-stop ND filters with me, depending on how much I need to slow down time. These give me the option of exposure times ranging from several seconds to several minutes.

Remote Control: My Canon Remote Switch RS-80N3 is critical for my landscape work. It allows me to trigger the shutter without creating vibrations and to perfectly time an exposure for an incoming or outgoing wave when working on the shoreline. The remote lock, used in conjunction with the camera's Bulb setting, allows me to take exposures longer than 30 seconds (the camera's maximum). The Remote Switch is absolutely necessary when I'm trying to capture a fleeting

moment or make images with a dreamy look.

Watch Alarm: Believe it or not, my ultimate (and only) inspiration is the alarm feature on my watch.

Even when I'm exhausted from long days of travel and shooting, and I don't feel like dragging myself out of bed early in the morning, my watch is always there to remind me—in the most shrill way possible—that life is short, and I had better get my ass out there so I don't miss something amazing!

Sat Phone: Safety is a concern when working alone in wilderness areas.

That's why I always carry an Iridium

Extreme 9575 satellite phone in case of

emergencies. No matter where I am, with Iridium's global network, I can always stay in touch with friends, family and professional colleagues so I can keep my business running even when spending a week or two in the wild.

Folding Kayak: I like to go places other people don't, and my Feathercraft K1 Expedition folding kayak is perfect for literally getting off the beaten path. My K1 can handle just about anything, and I can pack it to the gills with photo and camping gear for long expeditions. And, because it folds, I can take it with me to exotic locations by commercial airliner. My Feathercraft was essential to photographing sandstone sea caves on Lake Superior, over 10 miles from the mainland. It helped me get deep into the caves, into places people with larger boats just couldn't reach.

BRET EDGE (bretedge.photoshelter.com)

Camera Pack: I spend a lot of time hiking to the locations I photograph and I don't pack light. I need a backpack that carries all of my photography gear, plus all the necessary hiking equipment—food, extra clothing, 10 essentials, etc.—comfortably all day long. My f-stop Tilopa BC is the most comfortable pack I've ever worn. The suspension is built to transfer the load to your hips and it works beautifully, allowing me to carry 30 to 35 pounds in total comfort. The f-stop packs are designed for photographers so they have a padded compartment for camera gear and extra room to carry hiking gear. They're well built with tough materials and stand up to the abuse dished out by working pros.



Jerry Garcia: One of my favorite quotes comes from the Grateful Dead's Jerry Garcia who said, "Some times you get shown the light in the strangest of places if you look at it right." That quote is always in the back of my mind when I'm out photographing, and it reminds me that I should never discount any location in any light. Some of my favorite

photographs were created because I ignored my initial reaction to give up and move on when at first I didn't think there was any potential.

Youth: My 5-year-old son inspires me in so many ways. I take him out with me as often as possible. Watching him get excited about exploring the natural world and finding something interesting about every rock, stick, leaf, flower and bug inspires me to discover beauty in ordinary, everyday things. He's a budding photographer and has his own little Pentax camera. He's so incredibly passionate when he shows me an image on the LCD screen and describes to me what he loves about the photo. All of his good energy rubs off on me, energizing me to keep looking and keep making photographs!

The Right Footwear: Where the 4x4 road ends, the trail begins, and that's when my hiking boots become an important piece of gear. I'm not loyal to any one brand, though. For a while I wore Vasque, then Oboz, and now I have a pair of Adidas. I buy whatever hiking boots offer the best fit and the features I need, which always includes a sticky rubber sole that provides great traction for scrambling around on rocks.







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Although landscapes are fundamentally static, many nature photographers are discovering that you can use today's sophisticated DSLR technology to create breathtaking motion projects. A few years ago, time-lapse projects began showing up on YouTube and Vimeo, and intrepid engineers popped up on forums and eBay selling intervalometers that allowed a photographer to set up a shot and program the camera to take a prescribed sequence. Major

Take your movie clips and time-lapse projects using these professional techniques and tools manufacturers also made remotes with intervalometer capabilities, and several DSLRs came out with the function built in, which further simplified the process of image capture and automatic timelapse creation. Like so many aspects of photography and filmmaking, what started as a niche endeavor developed by dedicated enthusiasts in the quiet confines of little-known Internet forums quickly went mainstream.

Simultaneously, DSLRs with HD video capture functionality came on with a rush. Certainly, video cameras had been around for decades, and anyone who wanted to embark on motion projects had access to tools that could do the job. But with HD video DSLRs (HDSLRs), a couple of things changed.









First, still and motion capability was in a single camera. Second, the image quality was incredibly good. Consumer-level camcorders were good, but the look of footage coming off a Canon EOS 5D Mark II was a revelation. And, third, the process of getting the motion footage into the computer for editing was relatively familiar to most photographers and it didn't require any additional hardware. Once in the computer, there was a considerable learning curve in getting to know the editing process, but if you were interested, it was certainly something you could learn,

with plenty of resources to help.

So that brings us to where we are today.

At first blush, landscape photography seems like a poor fit for motion, but when you look a little deeper, you begin to sense the extraordinary opportunities for showing a landscape. How many times have you set up a camera in predawn quiet and watched patiently as the sky slowly changed, ultimately revealing the scene that you previsualized? You take the photo, then pack up and move along. What's less

FAR LEFT: Cinetics is a young company that recently had an enormously successful Kickstarter campaign for the Axis 360, which is shown here. It was available fully motorized for \$795 at Kickstarter. The expected retail price is \$900.

BOTTOM LEFT: Shawn Reeder's "Magical New Zealand" shows some incredible camera movement footage. You can see it at OPTV in the OP Daily Blog section of outdoorphotographer.com.

THIS PAGE, ABOVE LEFT: The heavy-duty Libec Swift Jib50 is incredibly capable as long as you're not trying to carry it into the backcountry.

THIS PAGE, TOP: This frame from "Magical New Zealand" is taken from the middle of a camera move. The slow rise of the camera contrasts beautifully with the fast-moving clouds.



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In Motion

obvious is how that entire exercise was really a perfect motion project. Motion capture doesn't have to be limited to a sprinting gazelle or a surfer catching a tube. Motion capture is ideal for recording the way light changes a landscape. A multi-hour time-lapse that reduces a day of cloud formation into a few dramatic seconds of wild skies or a

real-time clip of a waterfall tumbling over a cliff are examples of scenes that single still frames can't adequately capture. But modern HDSLRs give vou a much more powerful tool for telling those stories.

As you get into motion, whether it's time-lapse or standard movie shooting, your first projects are probably going to be pretty static. You'll be dealing with enough technology just getting the camera settings dialed in and learning how to handle focus and exposure properly. At this stage, keeping the camera anchored to a sturdy tripod is fine. You can try doing some simple pans (side to side) or tilts (up and down), but don't go too crazy until you're feeling com-



Kessler Crane offers a huge range of sliders, jibs and controller systems. Their CineDrive system gives heavy-duty motion and time-lapse shooters an incredible amount of automated control.

fortable with all of your camera settings and handling the files in the computer. Motion capture can be frustrating when it doesn't go right, so take your time to increase your chances for success.

Once you're comfortable with the fundamentals of motion capture, it's time to kick things up a notch. That's where we add motion to the motion.

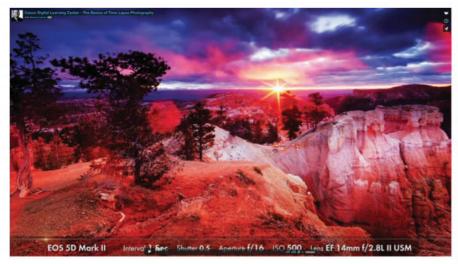
If you've spent anytime watching the time-lapse films on OPTV (www.outdoorphotographer.com/blog), you've probably noticed that the camera is seldom stationary. Unlike regular pans and tilts where the camera is pivoting from its anchor point on a tripod, the sophisticated moves you see in the work of Shawn Reeder, Tom Lowe and

Simulating Moves In The Computer

ou can add some movement to your motion footage and time-lapse without having to invest in hardware like a slider or a jib by using software. Programs like Panolapse let you pan and zoom, among other things. The overall range of motion you can simulate is limited, but you can create some beautiful effects, and it's this kind of effect that can really make a project stand out from the crowd.



Panolapse software simulates camera pans, tilts and zooms. The software lets you get into camera movement without having to invest in hardware.



You can see a particularly good tutorial on time-lapse by Vincent Laforet on his blog: blog.vincentlaforet.com.

others isn't a pivot; it's an actual slide or lift. These moves are achieved with a slider or a jib.

Sliders

Like the name implies, sliders are essentially simple rail systems that allow the camera to slide from one end to the other. They're sometimes called slider dollies. Sliders come in a variety of lengths. If you've never used one, you're likely to think that longer is better, but in reality, most landscape shooters will never need anything more than 3 to 4 feet in length to pull off a stunning effect. These smaller sliders are incredibly useful and easily transported. You can use a slider at an angle to set up a more vertical move or just keep it level for simple moves from side to side.

One key element for a slider, if you're planning on doing any kind of time-lapse, is a motor system. Any decent slider can move the camera smoothly, but to move it at a steady pace, particularly at a speed of 3 feet per hour or slower, requires a motor system.

If you're not planning on doing time-lapse, with a little practice you can probably do a lot of work by hand. Obviously, the key is to keep the rate of movement steady.

Jibs

Jibs are primarily used for vertical camera movement although they can also do some fantastic horizontal moves. For time-lapse, pros have been making use of heavy-duty jibs for some time, but they have only recently become useful for enthusiasts, as costs of the units as well as motorized motion-control sys-

tems have come into a reasonable range. As with sliders, if you're inexperienced, you may think you need to have a big jib with a lot of vertical rise, but that's really not the case. Small travel jibs that disassemble into compact packages are plenty adequate.

The real hassle with a jib isn't the unit itself as much as the heavy counterweight you need to make the system work. Recall your elementary-school science classes about levers, and you'll grasp the problem immediately. A jib is essentially a lever with the fulcrum point at the tripod. If you have an 8-foot jib with 2 feet on the effort side of the fulcrum point and 6 feet on the load side, and you have a 2-pound HDSLR on the end of the jib, you need about 6 pounds of counterweight. (Force of effort = Force of load x distance of load/distance of effort, or Fe = 2 lbs. x 6 ft./2 ft.)

If you're looking at this figure and thinking, "That's not how a lever should work; it's supposed to make moving a heavy object easier, not harder," you'd be right. The problem here is that you're using the lever backward, and you can see that if you use a heavier HDSLR and lens on a longer jib arm, your counterweight starts to get pretty heavy. It's not the sort of thing you want to carry for any kind of distance along with the rest of your photo gear. So the key with any jib system is to keep things small and lightweight.

MORE On The Web

Go to **outdoorphotographer.com/blog** to see our web-exclusive articles on gear, Best Of Assignments, Assignments Winners, feature stories by the OP Bloggers and more.







Extraordinary Photo Workshops 2014

Photography must be a source of pleasure. Gary Hart understands that, for serious photographers, photographic pleasure requires more than simply visiting beautiful locations. He knows you won't enjoy a workshop unless you consistently find yourself at the perfect location, photographing the perfect light. That's why Gary Hart only schedules workshops at locations he knows well and only for the times he would be there himself. In addition to his location knowledge, Gary Hart is an experienced, enthusiastic trainer who enjoys sharing insights and techniques that will make you a better photographer. Each workshop includes private lodging, small groups, a second qualified instructor, night photography, expert training and constructive image reviews. Regardless of your skill, not only will you come home with great images, you'll also return a better photographer. Upcoming workshops include Yosemite winter, spring and fall; the Grand Canyon; Death Valley; Hawaii's Big Island; Maui: and the Eastern Sierra.

For more information, contact: Gary Hart Photography, (916) 283-6362, gary@garyhartphotography.com, www.EloquentImages.com.

The Wildlife Of Brazil's Pantanal 2015

Perhaps the hottest subject and destination for wildlife photography these days is the jaguars in Brazil's Pantanal! Joseph Van Os Photo Safaris has offered 82 Outdoor Photographer outdoorphotographer.com Pantanal photo tours for 20 years, and its 2015 Jaguars and Wildlife of Brazil's Pantanal is the perfect way to photograph these big cats—and a whole lot more. Jaguars are photographed along a riverbank from comfortable, nimble boats-each boat limited to three photographers. Pantanal jaguars are the world's largest jaguar subspecies, and big, photogenic males can weigh over 300 pounds. You may see these cats stalk capybaras and caimans during the coolest hours of the day. When not photographing jaguars, travel in a comfortable air-conditioned minibus to photograph a wide variety of the Pantanal's wildlife: jabirus, caimans, capybaras, hyacinth macaws, tapirs, giant river otters and much more. Five departures available in August and September, and led by Joe Van Os and John Shaw.

For more information, contact: Joseph Van Os Photo Safaris, (206) 463-5383, info@photosafaris.com, www. photosafaris.com.

Cape Cod Workshops 2014

Take your photography to the next level while exploring beautiful landscapes and seascapes with the Photography Center of Cape Cod. Visually rich and diverse, Cape Cod offers photographers extraordinary light, empty beaches, tidal flats, salt marshes, fishing harbors, whales, seals, birds and much more. The Center's staff of professional photography instructors will guide you to the most scenic locations and share tips, tricks and techniques to

produce stunning images. Small groups ensure individual attention. Upcoming workshops include Art of Landscape Photography with Ron Wilson; Night Photography with Mark Bowie; Whales and Wildlife with Bob Singer and Jim Pennypacker; and the Nature of Cape Cod with John Tunney. For international adventure, travel to Iceland this June for Iceland In Spring, a six-day all-inclusive workshop photographing western and southern Iceland. The Photography Center of Cape Cod is a program of Cape Cod Art Association.

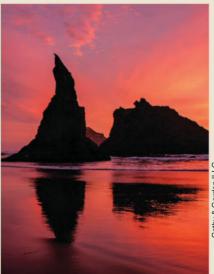
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For more information, contact: Cathy/ Gordon ILLG, (303) 237-7086, gordon@ advenphoto.com, www.advenphoto.com.



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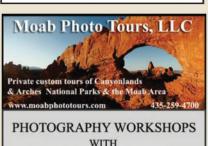
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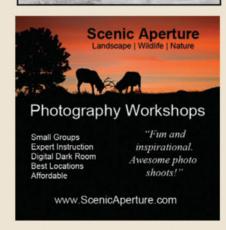
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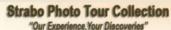


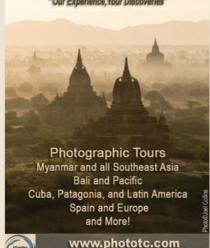
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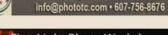
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Don Smith Photography

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If you're looking for a fall workshop that offers more than just colorful leaves, then please consider Don Smith's Arches/Canvonlands and Full Moonrise at Monument Valley Photo Workshop. Instead of concentrating on just one National Park, Smith will offer two extraordinary National Parks and a special location shoot = at incredible Monument & Valley of a full moonrise & through the famed Mittens.

There's also a location shoot scheduled for Dead Horse Point State Park. The workshop will be based in Moab. Utah. There will be four location shoots (including one night shoot) per day along with class training in workflow and vision improvement techniques. There will also be two image review sessions. Smith has been teaching workshops for the past 10 years and has been a full-time professional for the past 39 years. His work is represented by Getty Images. This workshop sells out quickly, so don't delay. Smith also offers fall workshops at Grand Teton, Bryce Canyon, and Zion National Parks.

For more information, contact: (831) 630-3778, don@donsmithphotography. com, www.donsmithphotography.com.

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In conjunction with the Buffalo Bill Center of the West, travel with Palm Beach Photographic Centre and its world-class photographers to capture the inexplicable spirit of Yellowstone National Park: May 12-18 with Raymond Gehman, June 20-26 with Vincent Versace and September 14-20 with Lewis Kemper. Travel through this land of fire and brimstone with its 10,000 geothermal features, ancient forests, tranquil lakes and wild, raging rivers. Photograph grizzly, bison, elk and eagles. Shoot the colorful attire, painted faces, elaborate headdresses and beads amid the circle of drummers at a Plains Indian Powwow. Learn from the photog-



raphers who have created the great picture books on Yellowstone. Workshops limited to 10 for hands-on instruction.

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2014

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developing camaraderie with others sharing your passion. Their workshops feed not only the mind, but the spirit and body. As a photographer, if you're not in the moment, you won't see the most obvious image, much less a creative one. Until one learns to see past the obvious, unique images will escape one's viewfinder. Not to worry. It's a skill that can be developed. Their workshops focus heavily, not exclusively, on the creative art of seeing a picture within a picture, great images without guesswork or uncontrolled bracketing, putting the bells and

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whistles on your cameras to work, using natural light and fill flash, managing tones and balance. Allow the Lanes to help you achieve your next level of photography.

For more information, contact: (804) 883-7740, billlindaphoto@mindspring. com, www.lanephotoworkshops.com.

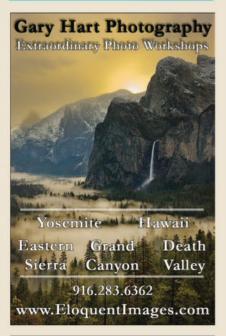


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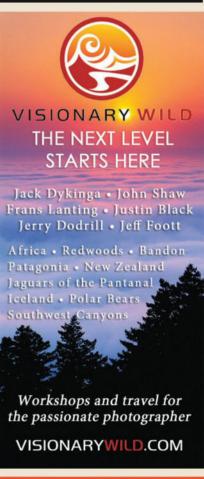


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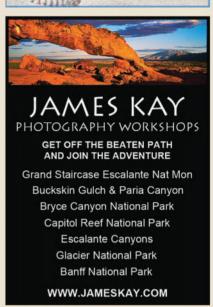


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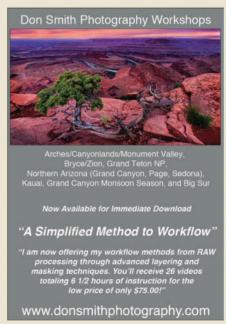


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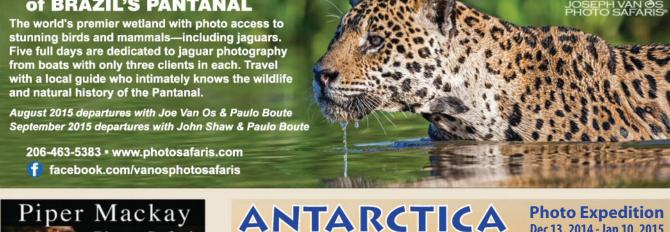
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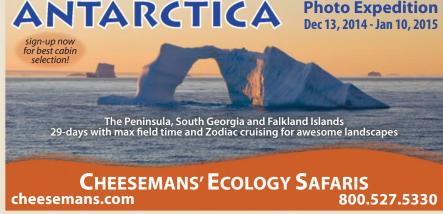


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Solutions...

Tracking The

How to use a tracking mount to get phenomenal starry night photos with your DSLR



The cooler winter months yield the best skies for pure astrophotography, but for most of us, long, cold nights spent sitting next to a camera with an open shutter really isn't all that appealing. Summer is the time when most of us are out in the places where our thoughts turn to photographing a starry sky. There are two fundamental kinds of "starscapes": star trails

and photos that show stationary stars, usually with the long shape of the Milky Way stretching across the sky. We'll look at how you can do both, plus how you can take your stationary sky photography to the next level with a tracking mount.

Capturing star streaks is actually pretty easy. The most important things to have are a sturdy tripod and good technique. Star trails that rotate around a single point are aimed at polar north. This is the point around which the sky rotates. Note, when your goal is a big circle of star trails, you have to be pointed north if you're in the Northern hemisphere. Choose a wide-angle lens to capture a good amount of sky, as well as some of the Earth. You should be doing this on a night with little, if any, moon and no artificial light. You'll be shooting one very long exposure (or combining several long exposures), and your foreground will get blown out if

the moon is up or artificial lights are on.

With the composition set, open your lens to its maximum aperture. If you need to stop down for depth of field, do so, but shoot at the maximum aperture you can. With

a wide-angle lens, you really should be able to shoot wide open unless you're trying to include something quite close to the camera in the frame. Set the ISO at 100 and the shutter speed at B (Bulb). You need more than an hour to get the full effect of polar star trails. If your camera can't do a single exposure that long or if it creates excessive noise, you need to shoot a series of shorter exposures and combine them with software (DeepSkyStacker is a popular freeware option). You'll find that you probably need to experiment with ISO and aperture settings to get the stars to the brightness you want.

Photographing the Milky Way without any blurring is much easier with modern digital cameras than it ever has been before. The trick for showing stars

sharply always has been to keep the exposure to less than 30 seconds. By boosting ISO to 6400 and shooting at a large aperture, you can get a good Milky Way image with some foreground. You need to experiment to see how your camera handles the noise at higher ISOs.

If you want to try to "see deeper" into the night sky, try working with a tracking mount. Motorized mounts for large telescopes are expensive, but you can use a much smaller and less

costly model for a DSLR. With this kind of setup, you can get a beautiful wide-field image. You won't be shooting with any terrestrial foreground when you're working this way. It's true astrophotography. What you will be able to do is shoot for longer than 30-second exposures while maintaining pinpoint stars. This allows you to use longer exposures that will, in turn, reveal fainter stars and other celestial objects.



TOP: You can attach your DSLR to a tracking mount like the Vixen GP2 to get you into the possibilities of full-blown astrophotography. MIDDLE: A high ISO and open aperture can yield a beautiful Milky Way and landscape photo. ABOVE: Aim north, anchor the camera firmly, and set an exposure around an hour at a low ISO to get star trails like this.

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TS-E "L" MF Lenses



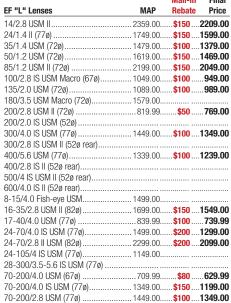












100-400/4.5-5.6 IS USM (77ø) 1699.00..... \$200 1499.00 **EF "L" Teleconverters**

70-300/4.0-5.6 IS USM (67ø) 1599.00...... \$200 1399.00

1.4x III	499.99
2x III	499.99





D3300 DSLR

- EXPEED 4 Image Processor
- Full HD 1080p Video Recording
- 3.0" LCD 5 fps Shooting
- . Uses Nikon AF Lenses (1.5x factor)
- SD/SDHC/SDXC Card Slot
- Expandable ISO 25600
- · Easy Panorama Mode and Guide Mode
- Nikon Inc. limited warranty included

			Pixel
D3300 is available in Black, Grey or Red	Price	Rebate	Final Cos
Kit with 18-55mm VR II #NID33001855*	646.95		
D3200 Kit Black w/18-55mm VR #NID32001855*.	599.95	\$100	499.9
D3100 Kit with 18-55mm VR #NID31001855	429.95		

MIXOM. D5300 DSLR

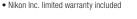
- EXPEED 4 Image Processor
- Full HD 1080p Video at 60 fps
- 3.2" Vari-Angle LCD ISO 100-25600
- Uses Nikon AF Lenses (1.5x factor)
- SD/SDHC/SDXC Card Slot
- . Built-In Wi-Fi and GPS Connectivity



Nikon. D7100 DSLR

- . Magnesium Allov Body
- Moisture Resistant
- EXPEED 3 Image Processor 1080p Full HD Video Capture
- · Accepts Nikon AF Lenses (1.5x factor) • 3.2" LCD

- Dual SD/SDHC/SDXC Card Slots
- Built-In Flash with Commander Function



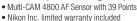


RERATE

	Price	Rebate	Final Cost
Body Only #NID7100	1199.95.	\$50	1149.95
Kit with 18-105mm VR #NID710018105	1599.95.	\$300	1299.95
D7000 Body Only #NID7000 B&H SPECIAL!	899.00.	\$200	699.00

MIMOR D610 DSLR

- . FX-Format (Full-Frame) CMOS Sensor
- Uses Nikon AF Lenses 3.2" LCD
- EXPEED 3 Image Processor
- SD/SDHC/SDXC Card Slot
- 6 fps Continuous Shooting
- Expandable Sensitivity to ISO 25600
- . Full HD 1080p Video Recording at 30 fps





Rebates Expire 3 29 14		Price	Rebate	Final Cost
Body Only #NID610		1996.95	\$100	.1896.95
Kit with 24-85mm VR Lens	#NID6102485	2596.95	\$300	.2296.95

Million D800 DSLR

- 35.9x24mm CMOS FX Format Sensor Nikon.
- 3.2" LCD Monitor
- Optical Low-Pass Filter
- . CF & SD Dual Card Slots
- · Nikon F Mount Lens Mount
- · Eye-Level Pentaprism Viewfinder
- 1920 x 1080/30/25/24p HD Video
- Matrix/Center-Weighted/Spot Metering
- · Nikon Inc. limited warranty included



Rebates Expire 3 29 14	Price	Rebate	Final Cost
Body Only #NID800	2996.95	\$200	2796.95
D800E Body Only #NID800E			
,,,			

Million D4s DSLR

- FX-format (full-frame) CMOS Sensor
- 14-Bit RAW Files & 12-Bit RAW S Format • 3.2" LCD
- . Full HD 1080p Video at 60 fps
- · EXPEED 4 Image Processor
- . Compatible with Most Nikkor Optics
- . 11 fps Shooting for 200 Shots with AF/AF . ISO 50-409600
- CF Type 1 & XQD Compatible
- 1000 Base-T Gigabit Wired LAN Support
- · Nikon Inc. limited warranty included





Price

16 Mega

Rebates Expire 3-29-14 — Call for Current Rebates & Promotions

Nikon. SLR Lenses and Flashes

AF Flashes

Nikon. Instant Savings on Lenses D-Type AF Lenses

AF Flas			
SB-300	SB-910		546.9
SB-700 326.95	R1 Wireless	Twin Flash.	
R1C1 Wireless Twin Flash System			
DX ED-IF Lenses for Digital Only	Price	Rebate	Fina
10.5/2.8 Fish-Eve			
35/1.8 G AF-S (52ø)	196.95		
40/2.8 G AF-S Micro (52ø)	276.95	\$30	246.9
85/3.5 G ED VR Micro	526.95	\$100	426.9
10-24/3.5-4.5 G AF-S (77ø)	899.95	\$150	749.9
12-24/4 G AF-S (77ø)			
16-85/3.5-5.6 G AF-S VR (67ø)	699.95	\$100	599.9
17-55/2.8 G AF-S (77ø)			
18-55/3.5-5.6 G AF-S ÍI (52ø)			
18-55/3.5-5.6 G AF-S VR (52ø)	196.95		
18-55/3.5-5.6 G AF-S VR ÌI (52ø)	246.95		
18-105/3.5-5.6 G AF-S VR *			
18-140/3.5-5.6 G AF-S VR **	596.95	\$300 **	296.9
8-200/3.5-5.6 G AF-S VR II	846.95	\$250	596.9
8-300/3.5-5.6 G AF-S ED VR (77ø)			
55-200/4-5.6 G AF-S (52ø)			
55-200/4-5.6 G AF-S VR 4	246.95	\$100 4	146.9
55-300/4.5-5.6 G AF-S VR ^Δ	396.95	\$150 ⁴	246.9
D-Type AF Lenses	Price	Rebate	Fina
4/2.8 D ED			
4/2.8 D ED. 6/2.8 D (39ø) with Hood. 20/2.8 D (62ø)			
4/2.8 D ED. 6/2.8 D (39ø) with Hood. 20/2.8 D (62ø)			
4/2.8 D ED. 6/2.8 D (399) with Hood	696.95	\$100	596.9
4/2.8 D ED. 6/2.8 D (390) with Hood	696.95	\$100	596.9
(14/2.8 D ED. (6/2.8 D (390) with Hood	696.95	\$100	596.9
14/2.8 D ED. 16/2.8 D (590) with Hood	696.95	\$100	596.9
14/2.8 D ED 16/2.8 D (390) with Hood	696.95	\$100	596.9
14/2.8 D ED 16/2.8 D (390) with Hood	696.95	\$100	596.9
14/2.8 D ED 16/2.8 D (390) with Hood	696.95	\$100	596.9
14/2.8 D ED 16/2.8 D (390) with Hood	696.95.	\$100 \$20	
14/2.8 D ED 16/2.8 D (390) with Hood		\$100 \$20 \$100	196.9 384.9
14/2.8 D ED		\$100 \$20 \$100	



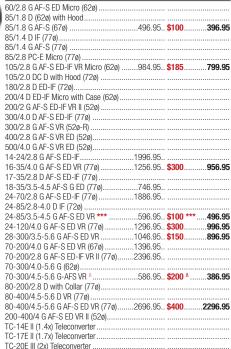














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TAMEON AF LENSES Six-Year Warranty

Di for both digital and film SLR cameras • Di-II for Digital SLRs Only • Di III for mirror-less cameras Only

C =	Canon N = Nikon	P = Pentax	SM = Sony/Minolta	a SE = Sony E Mour	nt ** Price After	Rebate	Expires 3 31 14
				SKU#	Available for	Rebate	Price
Di-II	60mm f/2.0 LD IF	Macro (55ø)		#TA602DI*	C, N, SM	_	524.00
Di	90mm f/2.8 Macro	(55ø)		#TA9028M*	C, N, P, SM	_	499.00
Di	90mm f/2.8 SP M	acro VC USD	(58ø)	#TA9028VC*	C, N, SM	_	749.00
Di	180mm f/3.5 LD I	F Macro (72¢	5)	#TA18035*	C, N, SM	_	739.00
Di-II	10-24mm f/3.5-4	1.5 (77ø)		#TA102435*	C, N, P, SM	_	499.00
Di-II	17-50mm f/2.8 XI	R LD IF Asphe	erical (67ø)	#TA175028*	C, N, P, SM	_	499.00
Di-II	17-50mm f/2.8 XI	R VC LD IF AS	sph. (67ø)	#TA175028*Q	C, N	_	649.00
Di-II	18-200mm f/3.5-	6.3 (62ø)		#TA1820035*	C, N, P, SM	\$20	179.00**
Di-III	18-200mm f/3.5-	6.3 VC (62ø)	Black or Silver	#TA1820035S*	SE	_	739.00
Di-II	18-270mm f/3.5-	6.3 VC PZD (62ø)	#TA18270*	C, N, SM	\$50	399.00**
Di	24-70mm f/2.8 V	C USD (82ø)		#TA247028*	C, N, SM	\$100	1199.00**
Di	28-75mm f/2.8 XI	R (67ø)		#TA287528*	C, N, P, SM	_	499.00
Di	28-300mm f/3.5-	6.3 XR LD (62ø)	#TA2830035XD*	C, P, SM	_	419.00
Di	28-300mm f/3.5-	6.3 XR VC (62ø)	#TA2830035*	C, N	_	629.00
Di	70-200mm f/2.8	SP VC USD	(77ø)	#TA7020028*	C, N, SM	\$100	1399.00**
Di	70-300mm f/4.0-	5.6 VC USD	(62ø)	#TA70300*	C, N, SM	\$100	349.00**
Di	200-500mm f/5-6	3.3 LD IF (86)	Cø)	#TA2005005*	C, N, SM	_	949.00
	1.4x SP AF Pro Tel	econverter		#TA14XP*	C, N	_	224.00
	2x SP AF Pro Telec	onverter		#TA2XP*	C. N	_	254.00

► **Tokina** AF LENSES

	DX — for Digital SLRs Only	FX – Designed for f	ull frame DSLRs	
		Canon EOS	Nikon AF	Price
FX	100mm f/2.8 Pro D Macro (52ø)	#T010028PCAF	#T010028PNAF	489.00
DX	10-17mm f/3.5-4.5 ATX Fisheye	#T0101735CAF	#T0101735NAF	669.00
DX	11-16mm f/2.8 Pro II (77ø)	#T0111628PCII	#T0111628PNII	599.00
DX	12-24mm f/4.0 Pro II (77ø)	#T012244DXC	_	399.00
DX	12-28mm f/4.0 Pro (77ø)	#T012284DXC	#T012284DXN	549.00
FX	16-28mm f/2.8 Pro	#T01628FXC	#T01628FXN	699.00
FX	17-35mm f/4 Pro (82ø)	#T01735F4FXC	#T01735F4FXN	549.00

► FLASHES

Battery 1

Turbo SC

28 CS-2 Digital Slave Shoe Mount Flash	39.99
36 AF-5 Digital	29.99
44 AF-1 Digital Shoe Mount Flash1	99.99
52 AF-1 TTL Touchscreen3	300.00
58 AF-2 TTL Digital Shoe Mount Flash	399.99
45 CL-4 TTL Digital Handle Mount Flash5	19.99
45 CL-4 TTL Digital Handle Mount Flash Kit 6	99.99
76 MZ-5 TTL Digital Handle Mount Flash10	39.99
CLIANTUM (1)	
Q-flash TRIO	375.00
Q-flash T5D-R	706.00
Q-flash T5D-R with Turbo SC Battery & Charger 11	72.00

.... 466.00 Turbo 3

224.00

Batteries

Turbo Blade ...

466.00

624.00

E-Flash Flat Panel Kit #SUFP38	58.95
PF20XD Digital Slave Shoe Mount Flash	44.95
RD-2000 Shoe Mount Flash	64.95
DF3000 Digital for Canon, Nikon, Sony	69.95
PZ-4000 AF TTL Shoe Mount	84.95
PZ-40x II AF TTL Shoe Mount f/Nikon (Silver)	69.95
PZ-42x AF TTL Shoe Mount for Canon, Nikon	139.00
622 Super Pro TTL Handle Mount Flash	179.95

Vivitar

285HV Professional Auto	9.95
Pearstone SB-4 AC Adapter for 285HV #PESB4 1	4.95

SIGMA AF LENSES & FLASHES

DC – for Digital SLRs Only • **DG** – Optimized for Digital SLRs

New! Instant Rebates	s up to ^{\$} 200 Price After Rebat
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	H – HSM Model with Canon, Nikon, Sigma R – Rear Slip-in Gelatin Filter Slot	Canon	Nikon	Pentax	Sigma	Sony	Rebate	Price
	4.5mm f/2.8 EX Circular Fisheye HSM R	#SI4528EXDCC	#SI4528EXDCN	#SI4528EXDCP	#SI4528EXDCSI	#SI4528EXDSO	_	899.00
OG	8mm f/3.5 EX Circular Fisheye R	#SI835CA	#SI835NA	_	#SI835SI	#SI835SO	_	899.0
OC	10mm f/2.8 EX Fisheye HSM R	#SI1028EXDCC	#SI1028EXDCN	#SI1028EXDCP	#SI1028EXDCSI	#SI1028EXDCSO	_	649.0
)G	15mm f/2.8 EX Diagonal Fisheye R	#SI1528DGCAF	#SI1528DGNAF	#SI1528DGPAF	#SI1528DGSA	#SI1528DGMAF	_	609.0
)G	20mm f/1.8 EX DF RF Aspherical (82ø)	#SI2018CAF	#SI2018NAF	#SI2018PAF	#SI2018SA	#SI2018MAF	_	629.0
G	24mm f/1.8 EX DF Aspherical Macro (77ø)	#SI2418MCAF	#SI2418MNAF	#SI2418MPAF	#SI2418MSA	#SI2418MMAF	_	549.0
)G	28mm f/1.8 EX DF Aspherical Macro (77ø)	#SI2818MCAF	#SI2818MNAF	#SI2818MPAF	#SI2818MSA	#SI2818MMAF	_	449.0
C	30mm f/1.4 HSM (62ø)	#SI3014DCHSMC	#SI3014DCHSMN	_	#SI3014DCHSMS	_	_	499.0
OG	35mm f/1.4 HSM (67ø)	#SI3514C	#SI3514N	#SI3514P	#SI3514SI	#SI3514S	_	899.0
OG	50mm f/1.4 EX (77ø) ^H	#SI5014C	#SI5014N	#SI5014PE	#SI5014SI	#SI5014SOM	\$100	399.00*
G	50mm f/2.8 EX Macro (55ø)	#SI5028MDGCAF	#SI5028MDGNAF	#SI5028MDGPAF	#SI5028MDGSA	#SI5028MDGMAF	_	369.0
G	70mm f/2.8 EX Macro (62ø)	#SI7028MDGCA	#SI7028MDGNA	#SI7028MDGPA	#SI7028MDGSA	#SI7028MDGSAQ	_	499.0
G	85mm f/1.4 EX HSM (77ø)	#SI8514C	#SI8514N	#SI8514P	#SI8514SI	#SI8514S	\$75	894.00*
G	105mm f/2.8 EX Macro OS HSM (62ø)	#SI10528MDGCE	#SI10528MDGNQ	_	#SI10528MDGS	#SI10528MDGSM	\$300	669.00*
G	150mm f/2.8 EX APO Macro OS HSM (72ø)	#SI15028AM0C	#SI15028AMON	_	#SI15028AMOSI	#SI15028AMOS	_	1,099.0
G	180mm f/2.8 EX APO Macro OS HSM (86ø)	#SI18028AMEOC	#SI18028AMEON	_	#SI18028AMEOQ	#SI18028AMEOS	\$150	1549.00*
G	300mm f/2.8 APO EX HSM (46ø Rear)	#SI30028DGCAF	#SI30028DGNAF	#SI30028DGPAF	#SI30028DGSA	#SI30028DGMAF	_	3,399.0
OG	500mm f/4.5 APO EX HSM (46ø Rear)	#SI50045DGCAF	#SI50045DGNAF	#SI50045DGPAF	#SI50045DGSA	_	_	4,999.0
C	8-16mm f/4.5-5.6 HSM	#SI8164556CA	#SI8164556NI	#SI8164556PE	#SI8164556SI	#SI8164556SO	_	699.0
C	10-20mm f/4-5.6 EX HSM (77ø)	#SI102045DCAF	#SI102045DNAF	#SI102045DPAF	#SI102045DSA	#SI102045DMAF	\$50	429.00*
C	10-20mm f/3.5 EX HSM (82ø)	#SI102035C	#SI102035SN	#SI102035P	#SI102035SG	#SI102035S	_	649.0
G	12-24mm f/4.5-5.6 EX Aspherical HSM II	#SI122445C	#SI122445N		#SI122445SI	#SI122445S	_	949.0
	17-50mm f/2.8 EX OS HSM (77ø)	#SI175028CA	#SI175028NI	#SI175028PE	#SI175028SI	#SI175028S0	\$100	569.00*
	17-70mm f/2.8-4.0 OS Macro HSM TSC (72ø)	#SI1770284DCC	#SI1770284DCN	#SI1770284DCP	#SI1770284SI	#SI1770284DCS	\$50	449.00*
C	18-35mm f/1.8 HSM (72ø)	#SI183518DCC	#SI183518DCN	#SI183518DCP	#SI183518DCS	#SI183518DCS0	_	799.0
C	18-200mm f/3.5-6.3 OS II HSM (72ø)	#SI1820035CQ	#SI1820035NQ	#SI1820035P	#SI1820035SAQ	#SI1820035SQ	_	499.0
C	18-250mm f/3.5-6.3 OS Macro HSM (62ø)	#SI1825035MC	#SI1825035MN	#SI1825035MP	#SI1825035MS	#SI1825035MS0	\$200	349.00*
G	24-70mm f/2.8 EX IF HSM (82ø)	#SI247028C	#SI247028NF	#SI247028PS	#SI247028S	#SI247028SM	_	899.0
G	24-105mm f/4.0 OS HSM (82ø)	#SI24105C	#SI24105N		#SI24105SI	#SI24105S0	_	899.0
C	50-150mm f/2.8 EX APO OS HSM (77ø)	#SI5015028CA	#SI5015028NA		#SI5015028SAF	_	\$150	949.00*
G	50-500mm f/4.5-6.3 APO OS HSM (95ø)	#SI505004563C	#SI505004563N	#SI505004563P	#SI505004563	#SI505004563S	\$150	1509.00*
	70-200mm f/2.8 EX APO OS HSM (77ø)	#SI7020028CQ	#SI7020028NI	—	SI7020028SIQ	#SI7020028S0Q	\$150	1249.00*
	70-300mm f/4-5.6 Macro (58ø)	#SI703004SCAF	#SI70300456N	#SI703004PAF	#SI703004SA	#SI703004MAF	\$25	144.00*
	70-300mm f/4-5.6 APO Macro (58ø)	#SI703004DGCA	#SI70300456AN	#SI703004DGPA	#SI703004DGSA	#SI703004DGMA	_	189.0
G	70-300mm f/4-5.6 OS (62ø)	#SI7030045C	#SI7030045N				_	359.0
	120-300mm f/2.8 OS HSM (105ø)	#SI120300C	#SI120300N		#SI120300SIQ	_	_	3599.0
OG	120-400mm f/4.5-5.6 APO OS HSM (77ø Rear)	#SI120400C	#SI120400N	#SI120400P	#SI120400S	#SI120400SQ	_	999.0
	150-500mm f/5-6.3 APO OS HSM (86ø)	#SI150500C	#SI150500N	#SI150500P	#SI150500S	#SI150500M	\$170	899.00*
OG	1.4x EX APO Tele-Converter	#SI1.4XDGCAF	#SI1.4XDGNAF	—	#SI1.4XDGSA		-	249.0
OG	2x EX APO Tele-Converter	#SI2XDGCAF	#SI2XDGNAF		#SI2XDGSA	#SI2XDGMAF	\$50	249.00*
OG	FF-610 ST	#SIEF610STC	#SIEF610STN	#SIEF610STP	#SIEF610STSI		\$30	135.00*
OG	EF-610 Super Flash	#SIEF610C	#SIEF610N	#SIEF610P		#SIEF610S	\$30	225.00*
OG	EM-140 TTL Ringlight	#SIEM140DGC	#SIEM140DGN	#SIEM140DGP	#SIEM140DGS	#SIEM140DGM	_	379.00

18-200mm f/3.5-6.3 DC II OS HSM Digital Lens

- Designed exclusively for Digital SLRs
- Focus 1.5' to Infinity Mag. ratio:
- 1:3.8 • 72mm filter diameter
- Weight: 17.3 oz



SIGMA

70-200mm f/2.8 EX APO OS HSM DG Lens

- Desirable for Digital SLRs
- Minimum
- focus: 4.59' • 34-12.3°
- angle of view • 77mm filter diameter
- · Tripod collar • Weight: 50.4 oz
- REBATE!

17-50mm f/2.8 XR VC

- LD-IF Di II Digital Lens Designed exclusively for Digital SLRs
- Focus 11.4" to Infinity
- · Mag. ratio: 1:4.8
- 72mm filter diameter
- Weight: 1.25 lb

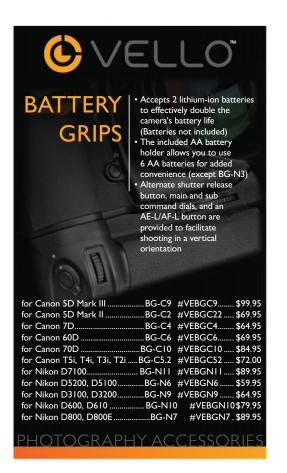


Tokina

11-16mm f/2.8 Pro DX AT-X II Wide-Angle Digital Lens

- Designed exclusively for Digital SLRs
- WR (Water Repellent) coating
- Minimum
- Focus 1' Magnification ratio 1:11.6
- Weight 1.2 lb







LiteTrek 4.0 (LT) Series

Whether it's fashion, wedding or portrait photography, the best way to achieve professional-looking results in the field is by adding flash to the ambient light. The Impact Mini LiteTrek Battery Pack provides DC juice to your Impact LiteTrek 4.0 portable flash or select Nikon & Canon flashes with optional power cords as well as Quantum flashes without adaptation.

LiteTrek 4.0 DC Monolight Flash Head #IMLTFH..\$499.95

LiteTrek 4.0 DC Monolight Kits

on LiteTrek 4.0 Monolight Kits (Expires 3-31-14)

with Mini LiteTrek Battery Pack 1-Light Kit #IMMLTBK\$799.95 Instant Rebate -\$150 \$649.95 2-Light Kit #IMMLTBK2\$1199.90 Instant Rebate -\$150 \$1049.90

Mini LiteTrek (LT) Battery #IMMLTB. Mini LiteTrek (LT) Battery Pack #IMMLTPBP \$549.95 Mini LiteTrek (LT) Pack & Charger Kit with CKE Nikon Cable #IMMLTPBPK1 ... \$573.95 Mini LiteTrek (LT) Pack & Charger Kit with CZ Canon Cable #IMMLTPBPK2.....\$577.95

LiteTrek Accessories

Charger for Mini LiteTrek #IMCBP...\$49.95 IM CZ Canon Flash Cable #IMCZ....\$39.95 LiteTrek 4.0 Flash Tube #IMFTFH....\$79.95 Reflector Adapter (Bowens Adapter) #IMBAFH.

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	52mm	58mm	67mm	72mm	77mm
UV, Skylight (1B) HMC	16.50	21.50	27.50	29.95	36.20
UV, Skylight (1B) Super HMC	27.89	26.49	33.00	52.95	44.99
Linear Polarizer	16.99	25.00	38.85	36.85	44.90
Circular Polarizer	23.95	29.95	34.95	42.95	38.90
Circular Polarizer HMC	39.95	49.00	55.90	69.00	104.90
"Moose" Warm Circular Polarizer	35.75	39.55	53.90	55.65	91.50
K2 Yel, X0 Yel/Grn, Grn X1, Or G, Red 25A HMC	23.95	28.35	41.95	46.35	60.90
Close Up Set (+1, +2, +4)	39.99	47.35	53.00	63.00	68.00
Close-Up Set HMC (+1, +2, +4)	52.68	64.88	73.00	100.68	145.35
Intensifier - Blue, Green Field, Enhancement (Red)	34.68	39.95	55.08	60.00	71.50
Neutral Density 2x, 4x, 8x HMC	23.88	19.95	36.95	30.99	34.80
Star 6, Star 8	16.89	22.50	43.35	49.90	46.68

▶ heliopan	Made exclusively with glass from Schott (Zeiss the world's finest optical glass supplier.				
	55mm	58mm	67mm	72mm	77mm
Skylight (1B), UV	39.99	41.99	62.99	77.99	89.99
Skylight (1B), UV SH-PMC	72.99	78.99	103.99	131.99	157.99
Circular Polarizer, Slim Circular Polarizer	115.99	121.99	151.99	180.99	195.99
Circular Polarizer SH-PMC, Slim Circ. Pol. SH-PMC	161.99	171.99	214.99	242.99	275.99
#5, #8, #11, #13, #15, #22, 81A, 81B, 81C	49.99	51.99	78.99	96.99	108.99
Digital Filter	176.99	180.99	222.99	261.99	301.99

▶ ●B+W		В	&H SPE B+W Fil	CIAL! Buters & G		
	55mm	58mm	62mm	67mm	72mm	77mm
UV Haze SC	18.50	24.95	28.99	31.95	34.00	39.99
UV Haze MRC 010M	35.50	31.50	36.30	42.90	49.89	71.75
Circular Polarizer SC	83.95	85.95	83.50	80.00	73.95	99.00
Circular Polarizer MRC	78.00	87.53	82.50	109.99	89.99	119.99
Circular Polarizer Slim	56.95	49.99	68.00	69.99	59.99	80.00
Skylight KR1.5 (1A)	24.50	25.95	31.95	38.95	42.00	53.95
Digital Pro UV MC	41.95	41.95	44.00	_	_	_
Graduated (N.D. & Colors)	99.95	106.95	99.50	109.50	142.50	152.95
Neutral Density 106	56.00	60.95	97.95	105.95	121.95	137.95
Close-Up Lenses 1, 2, 3, 4, 5	25.95	25.95	31.95	38.95	45.95	53.95

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Digital Essentials Kits In Stock	DIGITAL HT FILTERS 52mm 58mm 62mm 72mm 77				77mm
812 Warming	48.95	74.95	99.95	109.95	129.95
Grad ND 0.6	74.95	63.95	82.90	119.95	139.95
Circular Polarizer	74.10	89.95	119.90	129.95	199.99
Ultra Clear	34.95	38.95	45.95	54.95	54.95
Haze 86	38.95	47.95	56.90	64.95	99.95
ND 1.2	41.50	56.95	74.90	109.95	129.95
ND 0.6	48.95	50.95	69.95	99.95	119.95
Soft FX3	56.95	63.95	82.90	119.95	139.95
Star 4 pt 2	64.95	56.95	74.90	109.95	129.95

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400 135-36...

400 120 Roll

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CA 200 135-36	3.50	100 120 Roll	4.70		
CH 400 135-24	2.25	Portra			
CH 400 135-36	3.99	160 135-36	6.99		
CZ 800 135-24	3.49	160 120 Roll	5.19		
Pro		160 220 Roll	14.70		
400H 135-36	8.99	160 220 PP (5)	73.50		
400H 120 Roll	7.95	400 135-36			
		400 120 Roll	5.85		
Kodak		400 220 Roll	15.19		
Gold Max		400 220 PP (5)	75.95		
GC 400 135-24	2.09	800 135-36	9.99		
GC 400 135-36	2.99	800 120 Roll	8.98		

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RDP 100F 120 Roll7.19	100 135-36 10.6
135-36PP (5) 35.95	100 120 Roll7.69

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FUJIFILM	ASI
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Exposures	Print C41 120 Roll 15.4
35mm) 9.99	Print C41 220 Roll30.9

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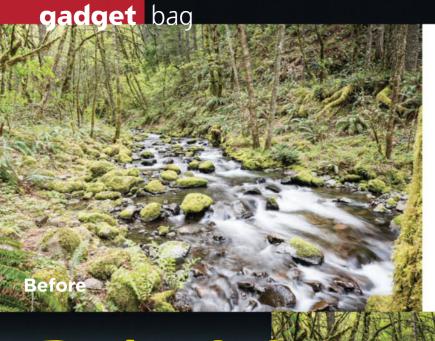
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For landscape photographers, a polarizer is a must-have accessory you should carry at all times. It does much more than simply darken the sky.

BY ASHLEY MYERS-TURNER





ABOVE: A polarizer should be in every photographer's bag. For landscapes, in particular, the filter is indispensable. The effect on blue skies is well known, but even a scene like this can dramatically benefit from a polarizer, as you can see in these comparison images by Kevin McNeal.

The term "filter" has become ubiquitous, as the ability to transform the color palette, texture and grain of an image now can be done with one touch using a Photoshop plug-in or an iPhone app. While we can take advantage of this technology by personalizing and perfecting postprocess filters, devoted nature photographers know that not all filter effects can be re-created in the computer accurately. In particular, the special look created by a polarizer only can be achieved by shooting with the physical glass filter attached to your lens.

When light is reflected from nonmetallic surfaces in nature, it becomes polarized.

This is seen in the glare of water reflections, wet surfaces from dewy mornings and details lost on overcast days. Additionally, the sky experiences polarization from scattered sunlight, creating lighter, washed-out blues. Cameras don't record polarized light information, so it's impossible to change specific polarization in post, making it important to do desired adjustments in the field.

A basic circular polarizer is a neutral gray-colored filter, with a mount threading to the end of your lens while the filter remains free to turn fluidly. As you turn the polarizer, it changes the degree

of effect. For instance, when dealing with reflection bouncing from a body of water, as you turn the polarizer, the reflection may reduce to the point where you can see directly through the water's surface to the rocky, muddy or lively undercurrent. You're then able to make a compositional decision about where on the spectrum you'd like the amount of reflection to fall.

Similarly, a polarizer adds saturation to a sky. The placement of the saturation is dependent on the location of the sun, as well as where you situate yourself. The sky is most affected by the polarizer at a 90° angle from the direction of sunlight,

ABOVE: Heliopan High-Transmission Circular Polarizing Multi-Coated Filter, Slim Mount

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gadget bag

so if the sun is overhead, the sky near the horizon has more depth. Playing around with timing provides experience for previsualization. Another fun moment to pull out the polarizer is for rainbows, as the filter can enhance (or remove) colors.

One important note: When using a polarizer, you often lose 1 to 2 stops, so you need to compensate when you add it to your lens. Because of this, you also may prefer to use the polarizer when you're capturing still scenes or using slow shutter speeds as opposed to quick wildlife shots.

In the world of polarizers, there are many options with different types of mounts, coatings and even additional color blends.

The Heliopan High-Transmission
Circular Polarizing Multi-Coated Filter
uses a combination of high-quality Schott
glass and a black brass ring mount to
provide a well-sealed and well-constructed
filter. The brass ring includes index marks,
providing a way to achieve precise and
replicable settings. The polarizer includes

sealed around the edges to protect against humidity. This is of particular note if you enjoy shooting in swamplands, rain forests or wet thunderstorm weather.

The XS-PRO Digital mount is B+W's latest mount design, providing a thin brass mount to avoid vignettes with wide-angle lenses, while maintaining front threads for lens caps and hoods. All XS-PRO Digital filters feature both MRC and nano coating technology with an improved water-beading effect for simple cleaning, as well as the Kasemann polarizing foil.

B+W's Extra-Wide (EW) Circular Polarizer features an oversized mount with larger filter glass to avoid vignetting with extreme wide-angle lenses. EW mounts are available in 67mm-112mm sizes. www.schneideroptics.com

Singh-Ray offers neutral polarizers, plus some color blends and combinations. The **LB Polarizer** is made from highly polished proprietary glass, and the "lighter, brighter" density of the filter adds only 11/4

One important note: When using a polarizer, you often lose 1 to 2 stops, so you need to compensate when you add it to your lens. Because of this, you also may prefer to use the polarizer when you're capturing still scenes or using slow shutter speeds as opposed to quick wildlife shots.

the Heliopan SH-PMC 8-layer color neutral multicoating on each side (16 layers in total), ensuring durability and flare reduction, as well as dust and moisture resistance. Despite the multicoating, high-transmission technology allows 99.8% of light to pass through the filter, making it only a 1-stop loss of light, compared to other filters that have 2- or 3-stop losses. This filter also comes in a Slim mount version, reducing the depth of the mount and possible vignettes. The Slim mount has no front threads for filter layering. www.hpmarketingcorp.com

B+W's long history of filter innovation includes the development of several different coatings and mounts. All of their filters provide a neutral color and use high-quality optical glass. The Standard F-Pro mount is made of brass, providing front threads for additional filters, lens caps and hoods. The F-Pro Circular Polarizer is available with the Multi-Resistant Coating (MRC), which creates a surface harder than glass, protecting the filter from scratches, as well as making the filter water- and dirt-resistant. Another option is the Standard F-Pro MRC with Kasemann polarizing foil. This high-efficiency foil is cemented between the optical glass, then 100 Outdoor Photographer outdoorphotographer.com stops to exposures. The basic LB polarizer is available in Neutral, as well as Warming, which provides the ability to adjust the red/yellowish tones. Both are available in slim mounts, which remove the front threads.

Similar in design, Singh-Ray's **LB ColorCombo filter** combines the LB Warming Polarizer with the LB Color Intensifier, enhancing reds, browns and greens in one ring. Because you're not stacking filters, you only lose about 2 stops. This polarizer is also available in a thin mount for 72mm, 77mm and 82mm.

The **Gold-N-Blue Polarizer** provides a tool particularly useful for landscape photographers. Just as the name implies, it allows you to adjust the amount of blue and golden hues in your image by rotating the filter. www.singh-ray.com

Cokin's circular polarizer is part of the PURE Harmonie line, featuring a slim 4.5mm design. Its thin profile is ideal for avoiding vignettes with wide-angle lenses, even when stacked with 3.3mm thick PURE Harmonie UV filters. The mount has kept external filter threads to allow use of additional filters or accessories. The filter itself is made from tempered Corning glass with high transmittance using EVERCLEAR 5

Coating Technology, providing a multilayer coating to resist oil, water, dust, soil and scratches. Cokin also makes Cokin Creative Filters for the A Series, P Series and X-Pro Series systems. www.omegabrandess.com

The Hoya HD Circular Polarizing filter uses highly durable, UV-absorbing film to provide 25% greater light transparency than standard polarizing film. An 8-layer HD coating has an antireflective surface that repels water and oil, and is scratch- and stain-resistant. The polarizer mounts the glass to the thin frame using high-pressure technology, and the low-profile frame is designed for wide-angle lenses.

Hoya's **PRO 1D Circular Polarizer** uses black-rimmed glass within a black matte almite frame to reduce the chance of reflections and glare. A knurling edge along the thin frame provides a sturdy grip for attachment and removal. The polarizer has a digital multicoating to reduce lens flare and ghosting; it's UV-protected for longevity.

The EX in **Kenko**'s **Zeta EX Circular Polarizer** stands for extra—extra-thin,
extra-light and extra-bright. Using four
layers of nano glass technology provides
a smooth stain- and scratch-resistant
surface while keeping a 0.8mm thin glass
profile. High-transparency film allows 25%
more light through the filter compared to a
traditional polarizer, equal to about 1 stop.
The Zero Reflection Super Multi-Coating
eliminates reflections without changing
colors. kenkotokinausa.com

Tiffen provides reliable and inexpensive options for basic circular polarizers, but the price increases as you add additional features such as the Wide Angle Low Profile Design or Digital High Transmission Multi-Coating. The Wide Angle polarizers are 4mm thick without front threads and designed for wide-angle lenses. The High Transmission Circular Polarizing

Multi-Coated Filter combines optical glass with a titanium coating and ColorCore technology, making it durable and scratch-resistant. The polarizer also features an antireflective black titanium ring. www.tiffen.com

Pro-Optic offers a basic, low-cost Pro Circular Polarizer. With a multicoating, the filter provides resistance against water, making it easy to clean. It's available in 52mm-77mm sizes, with thin mounts for the larger sizes to reduce vignettes.

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Photographing With Sharks

Most commercial photographers would like to have a burly, intimidating assistant with them from time to time, but how many have thought they would like a real shark to help get a shot? Brian Skerry went searching for oceanic whitetip sharks in the Bahamas in 2005. With the species' numbers in freefall around the world, Skerry wasn't overly optimistic when he made his speculative journey to Cat Island. His perseverance paid off when this curious female whitetip came cruising. You can see the full story of this dramatic photo in the Behind The Shot section of the OP Daily Blog (www.outdoorphotographer.com/blog). See more of Brian Skerry's photography and buy prints of this image and others at www.brianskerry.com.

Nikon D2X, AF Fisheye-Nikkor 16mm f/2.8D, Subal underwater housing, $\frac{1}{100}$ sec. at f/8, ISO 100





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