

The Digital Photography

PART 2 • Second Edition

The step-by-step secrets for how to make your photos look like the pros! **Book**



Scott Kelby



Chapter One	1
Using Flash Like a Pro	
<i>If You Hate the Way Photos Look with Flash, You're Not Alone</i>	
10 Things You'll Wish You Had Known...	2
...Before Reading This Book!	3
Here Are Those Last Three Things	4
Pop-Up Flash: Use It as a Weapon	5
The Advantages of a Dedicated Flash	6
If You Don't Already Own a Dedicated Flash	7
The Pro Look: Get It Off-Camera & Soften It	8
Get Your Flash Off Your Camera, Method #1	9
Using Pop-Up Flash Wirelessly (#2)	10
Using a Wireless Triggering System (#3)	11
Going Wireless (Nikon), Part I	12
Going Wireless (Nikon), Part II	13
Going Wireless (Canon), Part I	14
Going Wireless (Canon), Part II	15
"Drag the Shutter" to See More Background	16
How to Soften the Light from Your Flash	17
Make It Softer Light by Bouncing It	18
Putting That Nice Twinkle of Light in the Eyes	19
Softbox-Quality Softening from Your Flash	20
Tip for Shooting Through a Diffuser	21
Why You Might Want a Stand for Your Flash	22
Mounting Flashes Anywhere	23
Rear Sync Rocks (& Why You Should Use It)	24
The Fourth Secret to Pro Flash Results	25
Using Gels (& Why You Need Them)	26
Using Gels to Get That S/ Look	27
If You Have to Use Pop-Up Flash, Do This	28
Using a Second Flash	29
Controlling a Second Flash (Nikon)	30
Controlling a Second Flash (Canon)	31
How Far Back Can You Stand Using Flash?	32
How to Stand Back Even Farther	33
Controlling Your Light to Add Drama	34
Shooting Sunset Portraits with Flash	35

Chapter Two**37****Building a Studio from Scratch***It's Much Easier and Less Expensive
Than You'd Think*

Studio Backgrounds	38
Using Studio Flash (Called Strobes)	39
Softening Harsh Studio Strobes	40
Why I Prefer Softboxes to Umbrellas	41
What a Speed Ring Does (& Why You Need It)	42
Using a Modeling Light	43
Firing Your Studio Strobe	44
Firing Your Studio Strobe Wirelessly	45
Using Continuous Light Instead	46
Choosing the Size for Your Softbox	47
How a Light Meter Makes Your Studio Life Easier	48
How to Use a Light Meter	49
How Many Lights Should You Use?	50
The Least Expensive Extra Light	51
Adding a Hair Light	52
Where to Position Your Hair Light	53
Testing Your Hair Light's Position	54
Keeping Your Hair Light from Spilling	55
Which Mode Should You Shoot In?	56
Where to Position Your Main Light	57
How High to Position Your Main Light	58
How Close to Position Your Light	59
Using a Fan for Windblown Effects	60
Want Softer, More Even Light? Feather It!	61
What That Extra Panel in Your Softbox Does	62
Using a Pop-Up Collapsible Background	63
Keep Light from Hitting the Background	64
Three Backgrounds for the Price of One	65
Using Off-Camera Flash to Light Backgrounds	66
The Advantage of Shooting Tethered	67
Getting Super-Saturated Background Color	68
Lighting a White Background	69
Which Color Reflector to Use	70
Where to Position a Reflector	71
Reflectors Without an Assistant	72
Seeing the Light from Your Reflector	73



**Chapter Three****75****Shooting Portraits Like a Pro*****More Tips to Make People Look Their Very Best***

Don't Leave Too Much Headroom	76
Great f-Stop for On-Location Portraits	77
Shoot in Portrait Orientation	78
Shooting Portraits? Get a Battery Grip!	79
The "Sun Over Your Shoulder" Rule Is Bogus	80
Shoot Wide and Push in Tight	81
Shoot Profile Shots in Horizontal	82
Shoot Long for More Flattering Portraits	83
Why Diffusers Rock for Outdoor Portraits	84
Making a Better Background for Portraits	85
Cropping Off the Top of Their Head	86
Trendy Composition Tip	87
Group Photos Are Easier Outdoors	88
Tip for Posing Group Portraits	89
Great Tip for Casual Group Shots	90
Get Couples Really, Really Close	91
Want Better Portraits? Don't Count Down!	92
Shoot Before & Between Shoots for More Natural-Looking Portraits	93
Don't Light Your Entire Subject Evenly	94
Window Light: Where to Position the Subject	95
Window Light: Where You Should Shoot From	96
Window Light: Where to Position the Reflector	97
Six Quick Tips for Fixing Facial Challenges	98
Don't Shoot with Their Shoulders Straight On	99
Making Your Subject Look Slimmer	100
Using a Posing Chair	101
Keeping Your Subject "In the Zone"	102
Avoid Dappled Light	103
Gold Reflectors Are for Outdoors	104
Minimizing Shadows Under the Eyes	105

Chapter Four**107****Shooting Landscapes Like a Pro*****More Tips for Creating Stunning Scenic Images***

The Secret to Shooting Sunsets	108
Cutting Reflections in Water	109
For Landscapes, You Need a Clear Subject	110

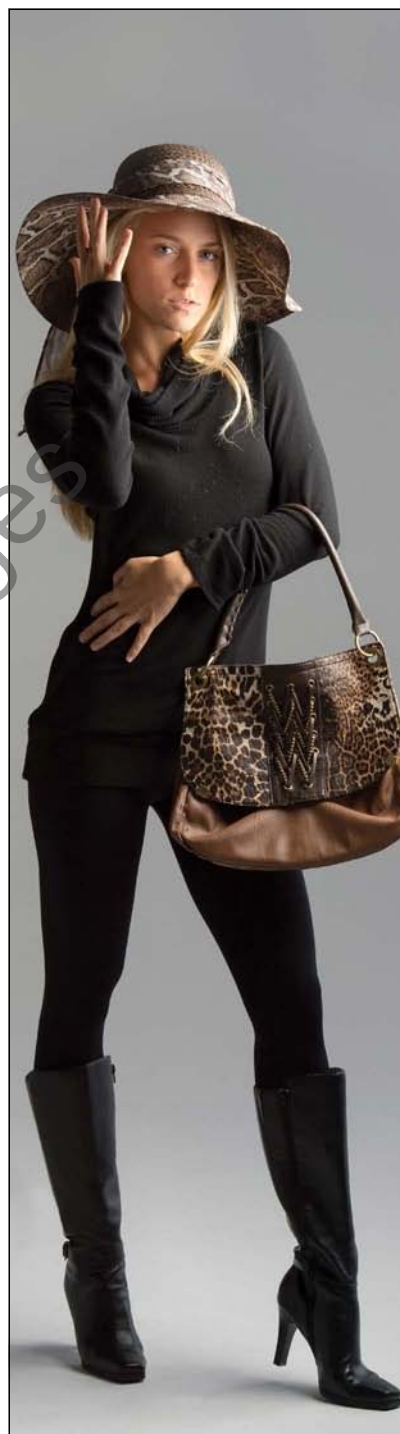
Using Your LCD Monitor Outdoors	111
A Trick for Shooting Great Rainbows	112
A Timesaving Pano Trick	113
The Trick for Using a Fisheye Lens	114
When to Shoot Streams	115
Don't Stop Shooting at Sunset	116
How to Shoot Fog	117
Getting Shots of Lightning (Manually)	118
Getting Shots of Lightning (Automatically)	119
Where to Focus for Landscape Shots	120
Find the Great Light First	121
How to Shoot on a Gray, Overcast Day	122
A Trick for Great-Looking Flower Shots	123
The Full-Frame Camera Advantage	124
The Seven Deadly Sins of Landscape Photography	125
Landscape Sin #1: Choppy Water	126
Landscape Sin #2: Frozen Water in Waterfalls	127
Landscape Sin #3: Bald, Cloudless Skies	128
Landscape Sin #4: Harsh, Midday Sun	129
Landscape Sin #5: A Crooked Horizon Line	130
Landscape Sin #6: Distracting Junk Near Edge	131
Landscape Sin #7: No Foreground Object	132
And...Dead Trees and Tree Stumps...And...	133

Chapter Five 135

Shooting Weddings Like a Pro

How to Get Professional Results from Your Next Shoot

Create a Shot List	136
Have Backups for Everything!	137
Silencing Your Camera's Beep	138
Backlighting Your Bride	139
Don't Change Lenses, Change Cameras	140
Bring a Stepladder for a Higher Vantage Point	141
Why You Want a Second Shooter	142
When to Shoot in RAW	143
Where to Aim Your Flash	144
Shoot in Lower Light Without Raising Your ISO	145
A Recipe for Balanced Flash in Church	146
Compose to Include the Church	147
Tip for Posing the Bride	148





Keeping Detail in the Bridal Gown	149
Getting More Flashes Per Wedding	150
How to Lessen Noise in Your Photos	151
Tips for Shooting the Bride's Profile	152
Wedding Zoom Effect Made Easy	153
Add B&W to the Album	154
Read David Ziser's <i>Digital ProTalk</i> Blog Daily	155

Chapter Six 157

Shooting Travel Like a Pro

How to Bring Back Photos That Really Make Them Wish They Were There

In This Case, Less Gear Is More	158
Working People into Your Travel Shots	159
Getting People to Pose	160
What to Shoot on Overcast Days	161
Shooting from Your Hotel Room	162
The Magic Time for Cityscapes	163
Get These Shots Out of the Way First	164
One Landscape Rule Kinda Applies to Travel	165
Air Travel with Camera Gear	166
Shoot the Food	167
Get a GPS for Your Digital Camera	168
Shooting Where They Don't Allow Flash	169
Look for High Vantage Points	170
Give Yourself a Theme	171

Chapter Seven 173

Shooting Macro Like a Pro

How to Take Really Captivating Close-Up Photos

Maximize Your Depth of Field	174
Why You Should Turn Autofocus Off	175
Don't Touch That Shutter Button!	176
Which f-Stop Works Best	177
Point-and-Shoot Macro Photography	178
A Trick for Visualizing Macro	179
Why You Might Want to Shoot Indoors	180
Buying a Macro Lens	181
Perfect, Even Light for Macro Shots	182
Making Your Lens into a Macro Lens	183

Chapter Eight

185

Pro Tips for Getting Better Photos*Tricks of the Trade for Making All Your Shots Look Better*

Which Mode to Shoot In	186
Choosing the Right ISO	187
Which Format to Shoot In (RAW, JPEG, or TIFF)	188
Which JPEG Size to Shoot In	189
WHIMS Will Keep You Out of Trouble	190
How to Lock Focus	191
Moving Your Point of Focus	192
Zooming in Close? Fast Shutter Speeds Help	193
When It's Okay to Erase Your Memory Card	194
Why You Need to Get in Really Close	195
What to Use Your Histogram For	196
Leave Your Lens Cap Off	197
Removing Spots and Specks After the Fact	198
What Looks Good in Black & White	199
Recompose, Don't "Fix It" in Photoshop	200
Want to Be Taken Seriously? Start Editing	201
Label Your Memory Cards	202
Go Square	203
Tip for Shooting at Night (Long Exposure Noise)	204
The Very Next Book You Should Get	205

Chapter Nine

207

Photo Recipes to Help You Get "The Shot"*The Simple Ingredients That Make It All Come Together*

Index	225
-------	-----



Chapter Four

Shooting Landscapes Like a Pro

More Tips for Creating Stunning Scenic Images



In part 1 of this book, I had a chapter on shooting landscapes, and it turned out to be one of the most popular chapters in the book. So, when I started on part 2, I knew right then I would have to include another chapter with even more landscape techniques. And the only way to come up with new landscape techniques is to (you guessed it) shoot more landscapes, and what better place to shoot landscapes than at a landscape photography workshop? So, since I published the last edition of this book, I've taught at photography workshops in beautiful locations like Yosemite National Park, Cape Cod, Great Smoky Mountains National Park, and Glacier National Park, and then I just did some shooting in Maine this summer, and some other amazing places like Utah's Monument Valley, and the Grand Canyon, and a half-dozen other incredibly scenic spots. But when it's all said and done, do you know what all these places really meant to me? Tax deductions. That's right, because I went to these locations on business (the images will be used by me to teach photography), I get some really juicy write-offs for these trips. For example, you see that photo on the facing page? That's The Wave, which is just outside Page, Arizona, and not only is access to The Wave tightly restricted by the Bureau of Land Management, it was a grueling two-hour hike in scorching 112° desert heat over rocky mountains and hot desert sand, lugging all my camera gear, tripod (and bottles of water), and I have to be honest with you—there were times when I almost gave up, but you know what kept me going? It was the fact that if I didn't get there, and get a decent enough shot to make it into this book, I couldn't write my trip off as a tax deduction. See, I really do care.

The Secret to Shooting Sunsets



LOCATION: KAUAI, HAWAII

Because you're shooting into the sun, it can really throw your camera's built-in light meter way off, and what looked so beautiful when you were standing there comes out... well... pretty lame. Luckily, there's a simple trick to getting perfect sunset shots every time. The trick is to aim just above the setting sun itself (but make sure you can't see the sun itself through your viewfinder), then hold your shutter button halfway down, which tells the camera to set the exposure for just what it sees in the viewfinder right now. This gives you a perfect sunset exposure, but don't let go of that shutter button quite yet (keep it held down), then you can move your camera and recompose the shot as you'd like it to look. By keeping that button held down, you've locked in that perfect exposure, and once everything looks good to you, just press the shutter button down the rest of the way and take the shot. You will have nailed the exposure and captured the scene perfectly.

Cutting Reflections in Water



If you're shooting streams or lakes, or really anything with water, there's a filter you're going to want to use that does something very important—it removes the reflection of the sky from the water and lets you see through the water. That way, things like rocks below the shore or in a stream, fish in a koi pond, etc., all suddenly appear crystal clear, and that can make for some very compelling images. The thing that surprises most folks is that it's a filter that most photographers use to get bluer skies—a circular polarizer. As I mentioned in part 1 of this book, a polarizer is indispensable for getting those blue skies, but it's just as important for this overlooked double-duty of cutting reflections. Here's how it works: screw the filter onto your lens, aim at the water in front of you, and then rotate the circular ring at the end of the filter, and as you do, you'll almost magically cut through the reflections and see right through the water, as seen on the right here. It's one of those things you really just have to try to appreciate it, but believe me—you'll love it.

For Landscapes, You Need a Clear Subject



LOCATION: BIG SUR, CALIFORNIA

One of the things that kills a lot of landscape shots is that there's no clear subject, and for a landscape shot to really work, you have to be able to look at it and explain what you shot in one simple sentence. It's a lighthouse. It's that seagull on the rocks. It's that old barn. It's the palm trees on the beach. If you can't explain your landscape shot in a short sentence like that, you don't know what the subject is, and if you don't know, people viewing your image won't know either, and if that happens, the photo just isn't working. Keep this in mind when you're composing your landscape shots, and ask yourself the question, "What's my subject?" If you can't come up with a solid answer immediately, it's time to recompose your shot and find a clear subject. It makes all the difference in the world.

Using Your LCD Monitor Outdoors



If it's bright outside, you're going to quickly run into one of the biggest challenges of shooting outdoors, and that is you can't see anything on your LCD monitor—the sunlight washes everything out. In fact, it's often so hard to see anything that you might as well turn off your monitor and save your battery, but then your LCD monitor becomes about useless. That's why I've fallen in love with the Hoodman HoodLoupe Professional. You wear this around your neck (when you're shooting outdoors), then you simply hold it up over your LCD monitor and its soft rubber enclosure blocks out the sun and gives you a crystal clear view of your monitor. I carry this with me to all my outdoor shoots, and after you use it even once, you won't want to be without it. (Note: Even though it's called a "loupe," it doesn't really magnify your image like a traditional loupe—it just blocks the sun out, but really, that's all we need.) It sells for around \$80 at B&H Photo.

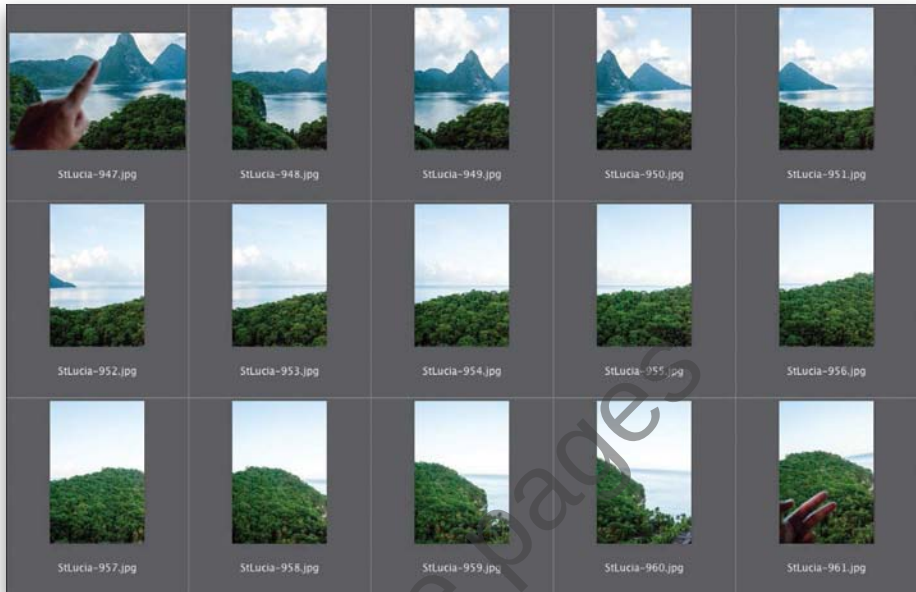
A Trick for Shooting Great Rainbows



©ISTOCKPHOTO/PAUL GIAMOU

Want to really bring out the vibrance and color of your shots that have a rainbow in them? Then use a circular polarizer (now we've got three reasons to have a polarizer: [1] bluer skies, [2] cutting the reflections in water, and [3] making your rainbows "pop!"). Just turn the circular end of the filter while you're aimed at the rainbow and stop when the colors look their most vibrant. Easy enough to do, and the results are worth it. Now, beyond that, there's a wonderful tip I learned from my buddy, and renowned landscape photographer, Bill Fortney. Bill says, "If you see a rainbow, drive like the devil until you find something interesting for the rainbow to come down in." He doesn't mean drive until you come to the end of the rainbow, or all you'll get is a shot of that pot of gold. Just drive until you can find a gorge, or a water source, or something—anything interesting—for it to end with. Do those two things and you'll wind up with a remarkable shot.

A Timesaving Pano Trick



When you come back in from your shoot, if your shoot included some panos, you're going to quickly find out one of the hidden challenges of shooting panos: finding them. For example, when you open your images in Adobe Photoshop Lightroom, or Adobe Bridge, or in iPhoto, etc., you're looking at thumbnails of perhaps hundreds of images from your shoot, and it's a bit of a challenge to figure out where your panos start and end. In fact, numerous times I've been looking through thumbnails from a shoot, and I look at a shot and think, "What was I thinking when I took this one?" Only to find out later it was one frame from a 10-frame pano. Worse yet, if I'm shooting on vacation, it might be a week or more before I get home to look at the images, and I completely forget that there's even a pano included in a particular shoot, because they just don't jump out at you. Luckily, there's a simple trick that makes finding your panos a two-second job: Before you shoot the first frame of your pano, hold your finger up in front of your lens and take a shot (as you see in the first frame above). Now start shooting your pano. Once you finish shooting the last shot of your pano, hold two fingers in front of the camera and take another shot (as seen in the last frame). Now, when you're looking at your photos in a photo browser and you see one finger in your shot, you know there's a pano starting there. So, select all the photos that appear between your one-finger shot and your two-finger shot—that's your pano. Open those in Photoshop and let it stitch them together for you (we looked at this in Part 1 of this book series).

The Trick for Using a Fisheye Lens



Fisheye lenses are making a big comeback, and they actually can be very cool for a variety of landscape shots—you just don't want your final image to look rounded and distorted, like many fisheye shots you see. You only want a very wide field of view. The trick to doing that is to simply keep the horizon line in the center of your image. This limits the amount of fisheye-like distortion and makes a huge difference in the final look. The best way to test this is to actually tip your camera downward, then back up toward the sky, all while looking through the viewfinder. You'll see the edges of your image distort as you move up and down (as seen in the top image), but you'll notice that as your horizon line gets centered in the image, the fisheye distortion is at its very minimum (like in the bottom image), and it just looks like a really, really wide-angle lens. Give it a try—you'll see what I mean (by the way, this is the only time you really want the horizon line in the center of your image, as you learned in part 1 of this book).

When to Shoot Streams



LOCATION: GLACIER NATIONAL PARK, MONTANA

If it's a gray, cloudy, rainy day (I don't mean pouring rain—a light drizzle or soft rain), then head to a local stream, because you're about to make some magic. The overcast, cloudy, rainy sky does two things that make it ideal for shooting streams: (1) it makes the rocks, leaves, and everything sticking out of the stream nice and wet, which looks great in stream photographs, and (2) it makes the scene much darker (and the darker it is while still daylight, the better), which lets you use long shutter speeds, and it's those longer shutter speeds that give the stream that wonderful silky-water effect. Try shooting in aperture priority mode, and set your aperture (f-stop) to $f/22$ (or a higher number if your lens has it). With this darker sky, $f/22$ will leave your shutter open long enough to give you that silky-water look. The shot above was taken on a drizzly afternoon where there was literally nothing else to shoot, and shooting at $f/22$ in the forest, under that dark, cloudy sky, left my shutter open for 13 seconds (in aperture priority mode, you pick the f-stop and then your camera will leave the shutter open for however long it takes to get the right exposure—in this case, I stood there in the gentle rain for 13 seconds. How do you like the way that phrase “gentle rain” made the experience sound? Actually, I was cold and wet, but cold, annoying rain just doesn't paint a pretty picture—but the camera sure captured one).

Don't Stop Shooting at Sunset



LOCATION: SAND HARBOR STATE PARK, LAKE TAHOE, NEVADA

More and more people have totally embraced the golden rule of landscape photography, which is to only shoot when that wonderful, magical light is available, and that only happens just before and during dawn, and just before and during sunset. However, a lot of folks pack up their gear just a few minutes after the sun has gone down, and the sad part is, they're about to miss what is often the most magical light of all. Around 20 to 30 minutes after sunset, sometimes the clouds turn bright orange, or deep red, or purple, or if you're lucky, a combination of all three, and some of my all-time best shots have been taken after everyone else has gone to dinner. Wait even longer (30 to 45 minutes or more after sunset), and the sky will often turn a vibrant, deep blue (not black, like the night—I'm talking blue—and it happens right before night). It only lasts for a few minutes (10 or 12 minutes usually), but what wonderful twilight photos you can get then. Try this blue twilight-hour shooting when you have a cityscape, or bridge, or other lit object in the background—it makes for a wonderful scene.

REMEMBER, YOUR CAMERA HAS SIMILAR SETTINGS

If I'm talking about white balance, and I'm showing the Canon white balance menu, but you're not shooting with a Canon, simply breathe deeply and say to yourself, "It's okay, my [insert your camera name here] also has a white balance setting and it works pretty much like this one." Remember, it's about choosing the right white balance, not exactly which buttons to push on your camera.

How to Shoot Fog



LOCATION: GREAT SMOKY MOUNTAINS NATIONAL PARK, TENNESSEE

I love the look of fog or mist in images. To me, it adds mystery and intrigue to the scene, but one unfortunate side effect is that it also is very hard for your camera's built-in light meter to read properly, so you get what you're seeing with your naked eye. Of course, like so many things, there's a trick of the trade that helps you get a good exposure that keeps that foggy look. Start by aiming at the fog itself, and then hold your shutter button halfway down (which tells your camera to take a reading of that area). Now, go to your camera's exposure compensation control and increase the amount of exposure by one stop (basically, what you're doing is disagreeing with what the camera read for the fog, and overriding it by increasing the exposure by one stop). On Nikon cameras, you do this by holding down the exposure compensation button on the top right of the camera (just behind the shutter button), and while you're holding that button down, turn the command dial on the top back of the camera to the right until you see +1 in your camera's viewfinder. On Canon cameras, you'll set the shooting mode to anything but manual, and then you'll spin the quick control dial (the big one on the back of the camera) to the right until you see +1 in the camera's viewfinder. Just one reminder: when you're done shooting your fog shots, set your exposure compensation back to zero, or you'll be shooting the rest of the day with every shot overexposed by one stop.

Getting Shots of Lightning (Manually)



©ISTOCKPHOTO/CLINT SPENCER

Shots of lightning can be very dramatic, because usually we only see lightning for a fraction of a second. If you can freeze that moment, it makes for a fascinating photo, but like many landscape shots, it requires a certain amount of timing (and luck). Now, before I share how to capture lightning with your camera, I want to make sure you don't capture lightning with your body. Don't stand in the rain, or under a tree, etc. Shoot from a very safe distance (because lightning will see you as a portable lightning rod) and exercise the same caution you would if you weren't a distracted photographer. Now, on to the technique. First, put your camera on a tripod (this is a must). Then, set your mode to bulb (the B setting on some cameras), which leaves the camera's shutter open for as long as you hold down the shutter button. Now, you can't actually press the button on your camera—for this to work properly you need to use either a shutter release cable (a cable that attaches to your camera with a shutter button you hold in your hand) or a wireless shutter release (you can find these for most camera makes and models at B&H Photo). The reason is: any minor vibration while your shutter is open, and the shot will be so blurry, it will be unusable. So, set up on a tripod, compose your shot (aim your camera in an area where you've been seeing lightning), use $f/8$ as a starting place, make sure your camera is set to bulb mode, then when you see a strike of lightning, press-and-hold the shutter release cable (or wireless) shutter button down and when you see a second strike, wait just a moment and then release the shutter button. It may take you a few tries at first, but you'll get it (hopefully the shot, not the lightning itself).

Getting Shots of Lightning (Automatically)



©ISTOCKPHOTO/CLINT SPENCER

If you try some lightning shots and fall in love with this type of photography, you might want to consider buying a Lightning Trigger (they're not cheap—so make sure you're truly "in love" first). This unit sits on your camera and it has a sensor that detects the bright flash of light from lightning, so it opens the shutter at exactly the right moment and gets the shot for you. In fact, you can pretty much set up your camera, set your camera to shutter priority mode (with your shutter speed anywhere from $\frac{1}{8}$ to $\frac{1}{4}$ of a second), aim in the right direction, sit back with a cool drink, and wait for the magic to happen, knowing that your camera is doing all the hard work for you. Later, when you're showing off your amazing work, there is no obligation (from the manufacturer's point of view) for you to tell the people viewing your work that you used a Lightning Trigger. Hey, it's just another tool in your bag of tricks. Go to www.lightningtrigger.com for a model that works with most cameras (it runs around \$329 direct from the manufacturer. Hey, I told you it wasn't cheap).

Where to Focus for Landscape Shots



LOCATION: LAKE LOUISE, BANFF NATIONAL PARK, ALBERTA, CANADA

When you're taking a landscape shot, where do you focus your camera's focal point (that red dot in the center of your viewfinder. Well, its default spot is in the center, but you can move that spot, so if you moved yours, get it back to the middle for this)? With landscape shots, the rule is: you want to focus about one-third of the way into the image. This gives you the widest possible range of focus throughout the image. Also, another trick you can use is to shoot big, sweeping landscape shots at $f/22$, which gives you the most focus from front to back in your shot.

GETTING THE CLEAREST LANDSCAPES POSSIBLE

Have you ever seen a landscape photo that just has incredible clarity throughout the image? I'm not talking about sharpness—I'm talking clarity (like a total lack of haze, or fog, or any other atmospheric effect). Well, there's a technique for getting that amazing clarity, and it's simple: shoot in winter. The air is the clearest during winter time, and it's the perfect time of year to get those amazingly clear shots that you just can't get any other time of year.

Find the Great Light First



LOCATION: SAND HARBOR STATE PARK, LAKE TAHOE, NEVADA

A few years ago, my friend, and landscape photography hero, Bill Fortney said something that really had an impact on my photography and I'm going to pass it on to you. Bill feels that the single most important thing in a shot of any kind is the quality of light, and that the quality of light is so important that he'll search for great light first, and then once he finds that great light, he'll find a subject—something or somebody to shoot in that wonderful light. Essentially, if the light is great, you'll find a subject, but if you've found a great subject, you have to be very, very lucky for great light to just magically appear. In short: "It's all about the light." Once you get that, everything else falls into place. It's deeper than it sounds.