THE VISUAL TOOLBOX

60 LESSONS FOR STRONGER PHOTOGRAPHS

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The Visual Toolbox: 60 Lessons for Stronger Photographs
David duChemin

To Cynthia Brooke.
Walk through this world with me.

Acknowledgments

About the Author

Photo by Yves Perrault

David duChemin is a humanitarian and world photographer. He has photographed on all seven continents, looking for adventure and beauty along the way. He is the author of several books about the craft and art of photography, including the best-selling *Within the Frame: The Journey of Photographic Vision.* He is also the author and publisher of a growing library of eBooks, which can be found at CraftAndVision.com

David's work can be found at DavidDuChemin.com, as can his blog and the growing community of kind and talented people who read it.

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Introduction

If I were to begin a school of photography right now, it would send the geeks screaming for the hills. Or at least avoiding my school in droves. Every student would spend one year with one camera—a fully manual 35mm camera like the Pentax Spotmatic or the Canon AE-1. It would have one prime lens and a light meter. Students would be restricted to black and white film. And they'd be restricted from using anything digital except an iPhone. There'd be no magazines and no how-to books. Students would spend a year making photographs, talking about them, studying the work of photographers—past and present—who had something to say, those who made their mark in some way. They'd study stories, and painting, and some art history beyond merely the annals of photographic history. For some people it would be a long, long year.

Leica M (240), 21mm, 1/500 @ f/4, ISO 200
Fogo Island, Newfoundland, 2014.

A friend asked me recently if I felt photographic educators were these days too strongly biased toward the technical, that they did not pay enough attention to the aesthetic. I do. But it isn't just a problem today. It was the same almost 30 years ago when I first picked up a camera. And that was when there was little more to learn technically than how to

focus and expose. Easily mastered with some time and a hundred rolls of film. I know, I'm painting with a broad brush, but really, what more is there in terms of how the camera itself works? The rest is making a photograph that comes alive in some way—for us, or for others.

So, because it's not likely that anyone is signing up soon for my sadistic school of photography—despite the likelihood that grads would have a better chance at making more powerful images in less time—this is my short-form curriculum. It contains some compromises because I know my own brand of idealism doesn't appeal to all, nor does it work for all. I've written it to be somewhat nonlinear, so you can pick any point and begin reading. But the lessons are all interconnected, so starting at the front isn't the worst idea. I've also written it with what Scott Belsky, author of *Making Ideas Happen*, calls a "strong bias towards action." In other words, we learn best by doing and there's a minimum of handholding in these pages. I've given you as much as I feel you need to know in that beautiful brain of yours, the one none of us gives enough credit to. The rest you will learn, as you learn everything in life—by repetition, failure, and trying again until it becomes yours.

You will notice here an absence of rules, because there are none. We will not be exploring the Rule of Thirds, because there is no such rule, and I want to encourage a healthy anarchy among my students. I want to introduce you to a handful of photographers who changed this art form and taught their generation, and later us, to see in new ways. I want to show you principles and invite you to play with them, turn them on their heads and try new things until you prove me wrong. I won't be marking your assignments, so there's no one to please and there's no exam to cram for only to regurgitate the contents the next day and forget about them. There is no right way—only ways that will give you the tools you need to create new and beautiful, honest things with your camera.

It's tempting to tell you there is no magic wand. I've been telling students that for years. But I was wrong. There is a magic wand: it's making photographs. Thousands and thousands of photographs. It's being honest with ourselves and not trying to be someone else. It's giving the craft time to grow and not expecting to master something overnight that others have taken a lifetime to do. It's studying photographs and knowing what they provoke in you, and why. It's looking to painters and designers and others who work in two dimensions and learning from them. It's relentlessly looking for light, lines, and moments. Some of us can do astonishing things with 12 strobes or can HDR the crap out of 16 frames taken on a $40,000 Hasselblad but still can't make a photograph anyone truly gives a damn about. The Internet is full of those kinds of images: technically perfect, frequently lauded with "Nice capture, man," and utterly forgettable. I think I'd weep if the best you could say about my photographs is that they're tack sharp or perfectly exposed.

> "There is a magic wand: it's making photographs. Thousands and thousands of photographs."

We're all looking for the perfect little box with a hole in it, and they're sexy little things, I'll give you that. The best ones feel good in the hands, and I'm the first one to tell you I love the tactility of this craft. But Leica's red dot isn't going to make my photographs any better if they're not already good. Thinking differently will do that. Wrestling with new

ideas and compositions will do that. Replacing the gear catalogs and popular magazines that are packed with ads—voices telling you, "You can shoot like a pro" with the newest camera—with books of actual photographs will help you do that. Putting down your fancy D4 and picking up a completely manual 35mm camera for a while might do that, too. And yes, a small mirrorless camera might do that for you. Or it won't. If you aren't making beautiful, honest photographs with the camera you have now, you won't do it with the one you're lusting for. I promise.

I know I've preached this sermon before. I know it gets old. I also know it might get read as a rant, but it's truly not. The camera collectors will collect, with no interest in making something that moves hearts or opens eyes, and God bless 'em if that's what makes them happy. But most of you, at least the ones reading this, want that. So do I. We want it so badly it hurts, and the long years ahead to mastery feel like a joy on the rare days they don't feel so damn frustrating. But things get cloudy sometimes, and it doesn't help that people like me once in a while tell you how great this new camera or that new lens is. And those people—including me sometimes—need also to be reminded that none of it really matters. Just get a camera that feels good in your hands and does what you need it do without getting in the way, and then go make photographs. How new, shiny, sexy, small, large, or European your camera is doesn't make a hill of beans' worth of difference to how it moves the human heart. Astonishing work is created on old lenses, Polaroids, Holgas, old Digital Rebels, and the venerable AE-1. You won't impress anyone (other than other photographers) with your list of Canon L lenses. The only thing most of us truly care about are the photographs. The rest is irrelevant. Don't let it sidetrack you. Envy, gear lust, and the lie that better gear will make more compelling photographs just pull your mind and heart away from making art. Beauty can be made with the simplest of means.

> "Head knowledge will not get you any closer to mastery. It is in *doing* these things—the basics—over and over that you will find they become intuitive."

And just as you will become no better an artist or craftsperson merely by the purchase or use of a new tool, neither will you become so with new knowledge. You will read nothing in this book that proves itself to be a secret formula of any kind. Some of the lessons will seem basic. They are. But don't dismiss them. You will not get better at this craft with merely a passing familiarity with the basics. Head knowledge will not get you any closer to mastery. It is in *doing* these things—the basics—over and over that you will find they become intuitive, that suddenly you're speaking this language fluently and creating not just dry prose, but poetry that moves the heart—visually speaking. Mastery doesn't come quickly, and after nearly 30 years I see it more as a journey than a destination—it comes incrementally with practice. There is no secret thing you will learn here or anywhere else, except this: study, practice, and don't forget that your most important assets as an artist are imagination, passion, patience, receptivity, curiosity, and a dogged refusal to follow the rules.

Let's get started.
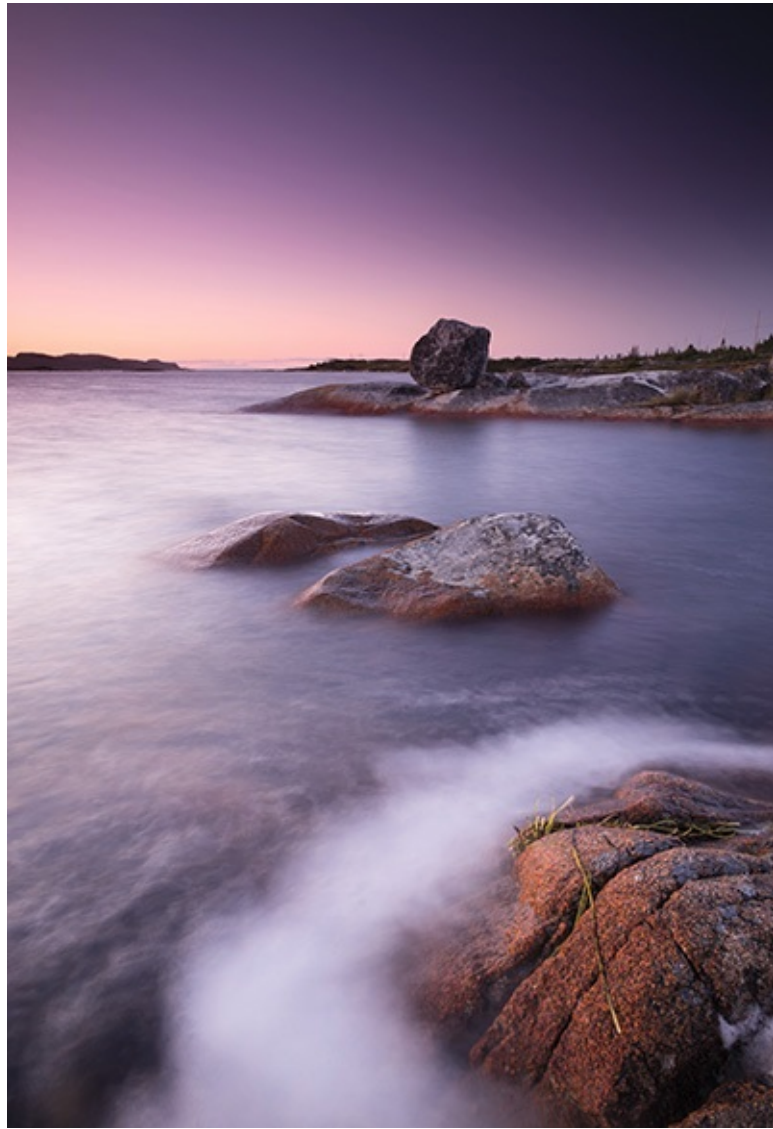
Leica M(240), 21mm, 8s @ f/4.0, ISO 100
Fogo Island, Newfoundland, Canada. 2014.

Lesson 1. Consider Your Vision

We all make photographs for different reasons. Some make them purely as a technical pursuit, a *good* photograph being one that is in focus and well exposed. That's sufficient for some, but not for me, and I suspect not for you, either, or you'd have read your camera manual or put the camera on one Auto mode or another and been done with it. I suspect you, like me, pick up a camera to see the world differently, to express something about what you see in this world, for yourself and for others. In that case, what makes a *good* photograph is much harder to pin down. A photograph can be a lot of things, and not always does it have to be perfectly focused or exposed. In the end—and at the beginning —it comes down to vision.

Fuji XE-1, 18mm, 1/400 @ f/5.6, ISO 400
On any photograph, like this one taken in Oaxaca, Mexico, vision is where it begins. Or use the word "intent" if you prefer. It determines your settings, optics, point of view, and choice of moment. It informs your edit and your post-processing. This is where we start.

In other books, I've written at great lengths about vision, so I'll spare you the longest of my sermons and give you the bare bones: how you see the world will be different from how others see the world. It's only partly a matter of the things you see and more a matter of the way you see them. In a later lesson I'll encourage you to study the masters. You need not wait until that lesson to begin looking at the work of other photographers. Ask yourself, of all the decisions they might have made to create the images you're looking at, why did they make the particular choices they did? In most cases, the answer is vision. They saw that scene, and in a bigger way they see the whole world, through a particular set of filters, mental and emotional. Some, like me, see the world optimistically, bright, and as an astonishing adventure, and we photograph it to look that way. Others, like Elliott

Erwitt, see things with a strong sense of humor, and their work shows it. Still others are darker, or more fantastic, and you'll see that in the work of someone like Brooke Shaden.

> "This is not a journey to a destination, but a journey of ongoing discovery."

I'm telling you this at the beginning, because it is the prime mover. The way we see the world is what makes us say, "Hey, look at that!" and pick up the camera to photograph it. How we photograph it depends on what we're trying to say about that. So, here at the very start, there is one question I want to encourage you to banish from use, replacing it with another. That question, the one I want you to disavow, is this: "How should I photograph this?" There is no should. The more interesting question is, "How do I want to photograph this?" or even, "What decisions about my lens, my angle of view, shutter speed, aperture, etc. can I make that will show this scene in the way I see it, or think and feel about it?" The way you answer that question now and tomorrow and in 20 years will change. So will the way you see the world. That's the way it should be. This is not a journey to a destination, but a journey of ongoing discovery.

From the moment you pick up the camera, put the rest of the world out of your mind, including those photographers you admire—even the ones whose photographs made you want to become a photographer. Especially them. They've shown us the world the way they see it. We've seen that. What we have not seen, and most desperately need to see, is the world the way you see it. Show us that.

Your Assignment

Sit down with your favorite photographs. Not the ones everyone else likes, and not the "perfect" ones (though they might be the same). Your own favorite images. What do they have in common? You're looking for hints about the way you see the world and intuitively try to express that. For as long as you hold a camera, that will evolve and your ability to express it with power and nuance will improve. It's enough now that you begin to see—or become comfortable looking for—hints of your vision in your work. Try not to look too hard or overthink it. Perhaps you notice that all your favorite images are of horses, or children, or perhaps they're all bright, primary colors, or maybe they're all black and white. Perhaps they're backlit and lens-flared. Don't ignore these clues. Don't be restricted by them. Just let them give you clues. You're beginning to recognize your vision, and slowly that awareness will creep into the process of making photographs when you've got the camera to your eye.

What is important now is that you begin to recognize your vision, and own it as yours. You are obligated to no one but yourself to make the photographs you do, so make them your way. And when you get overwhelmed by all the buttons and dials, and—God help you—the voices of other photographers, come back to this as your North Star. Find your vision and learn to express it with the tool in your hands. That's the beautiful task of the photographer, not merely using to learn to use the camera. Perfect photographs are overrated. The images that will always captivate others, and mean the most to you, are the ones made in that tension of learning to express your vision.

Lesson 2. Ask Better Questions

Beginners are full of questions. If we're wise, we never lose that sense of always being a beginner with a willingness to ask questions. It's natural in the beginning to see the photographs of others and ask questions:

- What lens did you use?

- What camera did you use?

- What were your settings?

Overall, they aren't bad questions when you're looking to understand this craft that's first, before it's anything else, accomplished through technical means.

Leica M (240), 21mm, 1/90 @ f/6.8, ISO 200
Lake Louise, Canada, 2014.

The primary problem is that the questions aren't as interesting or helpful as other questions would be. They simplify what is, ultimately, not at all simple. I don't want to overwhelm you, but I want to encourage you to see photography not as a technical craft but as an aesthetic one accomplished through technical means. That means every decision that affects the look of the photograph is in your hands, and every decision matters. Some

of the more interesting questions follow, though I've worded them in the first person because I'm hoping you'll start asking them of yourself:

- What thought or feeling am I trying to express in this photograph?

- What role does color play?

- What would this scene look like with a wider or tighter lens?

- What is it about this specific moment that made me choose it instead of waiting a moment or two longer, or making the photograph a moment sooner?

- Are my chosen settings (aperture, shutter speed, focal length) going to change the look of certain elements, and do so in a way that helps me tell my story? For example, what elements will be less focused because of a shallow depth of field, or blurred because of a slower shutter? That blur or lack of focus will change the shape of things and change the way we compose the image.

- What devices can I use to exclude the unnecessary without diminishing the necessary? For example, should I use a longer lens to isolate my subject or keep the wide angle but move closer, perhaps shifting my position and changing the image's perspective?

- What are the relationships between the elements, and can a shift in my position, or change in my lens, make those relationships stronger?

- Where are the lines in this photograph, and would a change in framing (vertical or horizontal), aspect ratio (square frame, 16:9, etc.), or lens make them stronger or weaker?

- Do those lines lead the eye into the frame or out of the frame, and could I change them to better direct the eye?

- What is the light doing? Light contributes to composition, creating shadows, depth, and mood. Ignoring that shadow means missing a chance to allow it to make the image stronger.

- Is there depth in my image? Could there be more? Would it benefit from less?

- Are there repeated elements in the scene that provide a visual echo or rhythm to the photograph? Could I pull out a little and include more of them, or tighten up a little and include fewer?

"There is no right answer, only possibilities, some of which will work better than others. Forget practice; learn to play."

We'll explore all of these in the coming lessons, and you'll continue to explore them as long as you're a photographer. Use these questions to get you thinking creatively about expressing your vision or intent. Do not let them paralyze you. There is no right answer, only possibilities, some of which will work better than others. Forget practice; learn to play. You'll learn better that way. Don't fear failure. Experiment. When you don't know the answers to these questions, try every option and learn from the results. And when you have the chance to ask a photographer about her craft, and to learn from her, try asking *why* instead of *what*. You'll find the answer much more helpful.

Your Assignment

Look at the same images you used for the last assignment and ask yourself the questions I listed. You won't have answers for all of them. In some cases, you might not have answers for any of them. You'll learn. For now it's enough that the questions become part of your vocabulary and that the options and possibilities don't scare you. Remember, there's no right way to do this. My answers will not be your answers. What matters is that you learn, as we all do, to become intentional about using every tool at your disposal.

Lesson 3. Manual

Read your manual. Yes, really. Download it if you have to, and read it. Chances are, it comes in several languages. Read it in yours. Then file it away in case you need it. You're doing this so you'll know what amazing things this glorified box with a hole in it can do. You're doing it because creativity is about possibilities, and you never know what possibilities will leap out at you when you discover that this camera can create in-camera multiple exposures or show you your previews in high-contrast black and white. I'm not saying you need to use even a fraction of the tools that the camera offers—or even remember them. Just read the manual. Trust me.

Now I want you to put your camera on Manual mode and leave it there. Really.

"But I'll miss shots!"

Yes, you will. (And stop calling them "shots.")

My father's Pentax Spotmatic and the book *The Pentax Way*, which was not the original manual but an expanded manual for SLR photography.

"But I don't understand exposure. I'll screw up."

You'll learn, and your screw-ups will be your best teacher.

"This is hard!"

Try painting.

Again, trust me. One day you can go back to Aperture Priority or whatever your preference is, but this is about learning your craft. You'll do that faster and deeper if you stop letting your camera think for you, and you build this into your memory via manual exposure. While you go through this book—and I hope for longer than that—make your exposures manually. You can still let the camera focus for you.

Lesson 4. Exposure: The Zone System

I've already asked you to consider using your camera on Manual mode for your exposures. Trust me when I tell you that it will make you better at what you do. Now make the best exposures possible. There are two different approaches to this, and I think it helps to understand both. The first applies to the digital photographer shooting JPG or to the film photographer. This is an older way of doing things but the longer I photograph, the more I refer back to it. There are times when knowing how to expose in this way is just the simplest and most accurate.

Canon 1Ds Mk III, 16mm, 4 seconds @ f/20, ISO 100, Iceland, 2010.

Once upon a time we didn't have histograms, the flexibility of RAW files, and Lightroom. You understood how your camera's light meter saw the world, made your exposure based on that understanding, and bracketed—making an exposure or two in either, or both, directions, just in case. There are excellent reasons for learning to shoot in RAW formats, which I'll discuss in the next lesson, and I recommend you consider shooting in RAW, but it's not always necessary. Shooting RAW requires faster cameras, faster computers, larger

hard drives, and more time in post-processing. And the chief benefits of shooting RAW for most photographers, which are flexibility and file depth, become less of a need if you learn to expose well. I'm not saying you *should* shoot in either RAW or JPG, but that understanding them both is helpful.

In the next lesson I'll introduce the histogram, a powerful means of looking at exposure. For now, let's talk about how your meter works. In general, the meter in your camera has no idea what you're photographing. So it reads the light and assumes the scene is an average gray. Not all white, not all black. Gray. And if you do as the meter says you'll get an average gray photograph. Which is fine if you've got an even mix of black and white, or gray. But what do you do if you've got a mostly white scene? Just live with it being rendered gray?

Ansel Adams is known for many things, one of his most important contributions was an exposure model known as the Zone System. It had wide application for exposing negatives as well as for darkroom work. I just want to look at one application. The Zone System divides the spectrum from white to black into 11 zones, Zone 0 being black with no detail, Zone X (10) being white with no detail, and Zone V being gray. Each zone is one full f-stop apart. What we do with this information is simple, and probably easiest explained with a couple of examples. First, let's assume I'm photographing a coastal scene on a foggy day. The scene is gray. I meter and make the shot in JPG mode or with my favorite film. When I look at the resulting photograph, it will be gray. Perfect. The scene was gray, and the resulting exposure is faithful. But let's assume I'm photographing a snowy hillside. If I make the exposure as my meter tells me to, I'll get a gray (underexposed) photograph because the camera assumes the scene is gray. But I want my whites to be white, so I need to second-guess the meter and give the exposure extra light. But how much? Well, the Zone System shows me that middle gray and white with meaningful detail are three or four stops apart. I'd bet on three to be safe. So I give it three extra stops of light. Easy, right? Well, not so quick.

THE ZONE SYSTEM

| 0 | I | II | III | IV | V | VI | VII | VIII | IX | X |
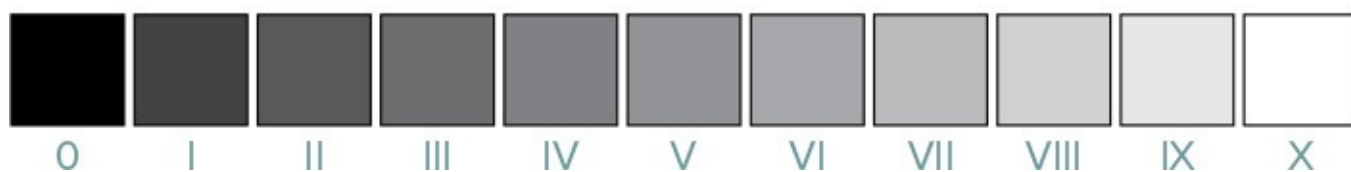
This is the Zone System, represented graphically. Zero is pure black, with no details. Zone I is near black but without texture. II is textured black, the darkest part of an image in which detail is recorded. III is dark showing adequate texture. At the other end is X, pure white, with no detail, like specular highlights or light sources. IX, like glaring snow, is slight tone without texture, and VIII is the lightest tones with texture. In between are five shades of gray.

Because meters are becoming more and more sophisticated, it can be hard to know where, from within the scene, the meter is reading. But most cameras still have, among several metering modes, the ability to spot meter, which is not very clever but is quite precise. Place the middle of the frame on the area in the scene that's the brightest white that still has detail (not, for example, the sun, which has no detail). Set your exposure as the camera tells you. Then add three stops of light (by adjusting your shutter speed, aperture, or ISO

—or a combination of the three). Your whites will be white.

Look at the image of the waterfall. I've called out three easy-to-spot zones. If you metered off the waterfall—the process I suggest in the previous paragraph—approximately Zone VIII, you'd want to add three more stops of light to get the best exposure for the scene. If, however, you metered instead from the foreground rock, very close to Zone V, you could leave your settings exactly as the camera suggests. Finally, metering from the darker background, which is about Zone III, you'd want to underexpose by about two stops, the difference between Zone III, which is the area you're metering, and Zone V, which is where the camera *thinks* you're metering.

Get it right and you might not need the flexibility of RAW files at all. Or shoot in both RAW and JPG, which most cameras can do, and you'll have a RAW file with extra flexibility and depth, as well as a perfectly exposed JPG image you can use straight out of

camera.

> "Knowing how to expose the old-fashioned way can get you to perfect exposures in average conditions right away."

Here's the other way you can do it: carry a gray card. Or find something in the scene that is average, boring, middle, 18 percent gray, and meter off that, giving the camera what it thinks it's looking at in the first place (such as the foreground rock in the waterfall image). No adjustments are needed because the camera sees the light it is calibrated to see and reads it perfectly, as long as both the card and your scene are in the same light. If you knew the palm of your hand was in Zone VI, you could meter off your hand, then add one stop (gray is Zone V, your hand is Zone VI—one stop lighter, so you add one stop). If you get confused, ask yourself: The camera sees the spot I am metering as gray; is it gray? No? If it's lighter, add stops. If it's darker, remove them.

So why do this? Well, first, a lot of beginners are told to shoot RAW, and then told, as I'll tell you in the next lesson, to expose to favor the right side of the histogram. All good advice. Except that it assumes you'll be working on the images later in Lightroom or Photoshop, because straight-out-of-the-camera RAW files can be pretty gross, and if you're not quite there yet (in terms of post-processing) you'll be seeing a lot of very boring, washed-out frames, and wondering what you're doing wrong. You're doing nothing wrong, but no one told you the files would look so gross and need extra work. So knowing how to expose the old-fashioned way can get you to perfect exposures in average conditions right away. Even if I'm shooting RAW I'll often do a couple old-school exposures just to show me later, when I'm in Lightroom, the potential for the image. For example, if I'm making photographs at sunset I might slightly underexpose for deeper saturation of colors and shoot a JPG as a reference frame. Or—and I like the confidence this gives me—if I know I've nailed the exposure, I'll bracket my exposures, giving me a stop or two in either direction. No histogram, no "expose to the right." Just meter well and shoot. That stuff will make more sense in the next lesson, but listen: if you're just starting out and you want to make photographs without the fuss of Lightroom or Photoshop, there's no shame in making JPG files. There's no need to make a religion of RAW formats. As good as they are, they aren't the only option. You'll have less flexibility with JPG, and one day you might wish you had those larger files, but we never used to hedge our bets like this when we shot film. We made the negatives we made and they're still beautiful all these years later. If it's all confusing to you, set your digital camera to shoot both RAW and large, fine, JPG files.

Your Assignment

First, print out a Zone System scale or take a photograph of the diagram here with your iPhone and refer to it as you need to. Second, get a gray card. Your local camera store should have one. If you can't find one, get a sense for what 18–20 percent gray is, find something of similar tone, and—as long as it's in the same light as your scene—take your reading off that. You're still in Manual mode, right? I know this all seems so unnecessary, especially with the fancy cameras we all have. But you want to learn photography, and understanding how to read and expose the light you've got is so important I'm not sure the word *fundamental* quite does it justice. If you've got a newer camera with fancy metering modes, switch to spot metering for a while. Find a scene you want to photograph. Meter off something gray. Note the exposure. Now meter off something white, but still with details. Add three stops. Or two. Consult your Zone System scale. How many stops apart is your metered area from Zone V (middle gray)? That resulting exposure, and the one taken from the gray area, should be the same, or within a stop of each other. If the area of white isn't really, really white, then you'll only want to add two stops. The same applies in reverse when spot-metering off darker areas that need you to remove one to four stops of exposure. If it's closer to middle gray but not quite that dark, you'll add one stop. Put the time in now, get solid on this ability, and you can skip all the articles about exposure modes and models and just go make photographs, because you'll understand how your camera sees the light in a scene and how to make the best exposure with its best guesses.

The next thing I want you to do is keep reading. The next lesson will explain shooting in RAW format, and I think you should understand both approaches so you know how each technique can benefit you, and what each requires of you.

Lesson 5. Exposure: Optimize Your RAW Exposures

Photographers, instructed by well-meaning pros to shoot in RAW format, are often not told why this matters or what it requires of them. RAW formats are powerful, but they assume you plan to refine these images in the digital darkroom later, which is a must if you're in RAW mode; otherwise, the files can look low in contrast, and often too bright and uninspiring. So let's talk about the best digital (RAW) file.

The digital negative is really just information, a series of ones and zeroes. The *best* digital negative (RAW, not JPG) is the one with the most amount of data. Why? Because we need to refine that image in the digital darkroom, and more data means greater flexibility and ability to do more with the image before the quality deteriorates. You can do two things to get the best quality digital file. The first is use the lowest ISO you can. Sensors are getting really, really good at higher ISO, but you still generally want to use the lowest possible ISO if less noise is important to you. Second, understand your histogram and expose to the right of it.

The histogram shows this image at least one stop underexposed.

Adjusted in Lightroom, the histogram shows this image much closer to the way I should have shot it.

The Histogram
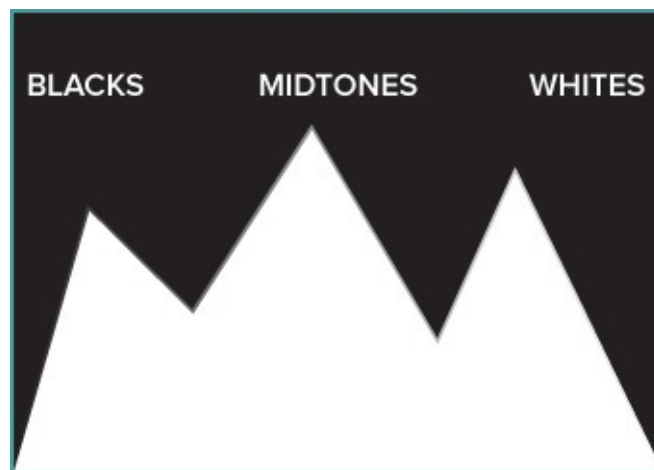
The histogram is a graphic representation of how much light, from blacks to whites, has been captured by the sensor to represent the scene. It'll look a little like a mountain range. The exact shape of the mountain range will vary from scene to scene because each scene is different, and there's nothing you can do about the shape of the histogram (unless you're using a flash or working in a studio where you have control over this kind of thing), so forget about the shape right now. What you need to pay attention to is *where* the mountains sit, from left to right, within the frame of the histogram graph.

Remember, the best digital negative for anyone who plans to work on it in the digital darkroom is the one with the most information. The histogram can tell you whether you're getting more or less data. Here's the short version: A histogram that sits more to the left of the graph has less data than the same histogram sitting to the right. Why? Because the

amount of potential information contained on the right is exponentially more than what is contained on the left. There is way more data in that first stop, on the right of the histogram, and therefore way more flexibility for post-processing because the histogram indicates a more robust file. The left represents the blacks and shadows in the image, and the right represents the white and highlights. Without going into the math, there is much, much more information in a histogram sitting to the right—as long as it doesn't go off the right side of the graph—than there is in the same histogram sitting to the left.
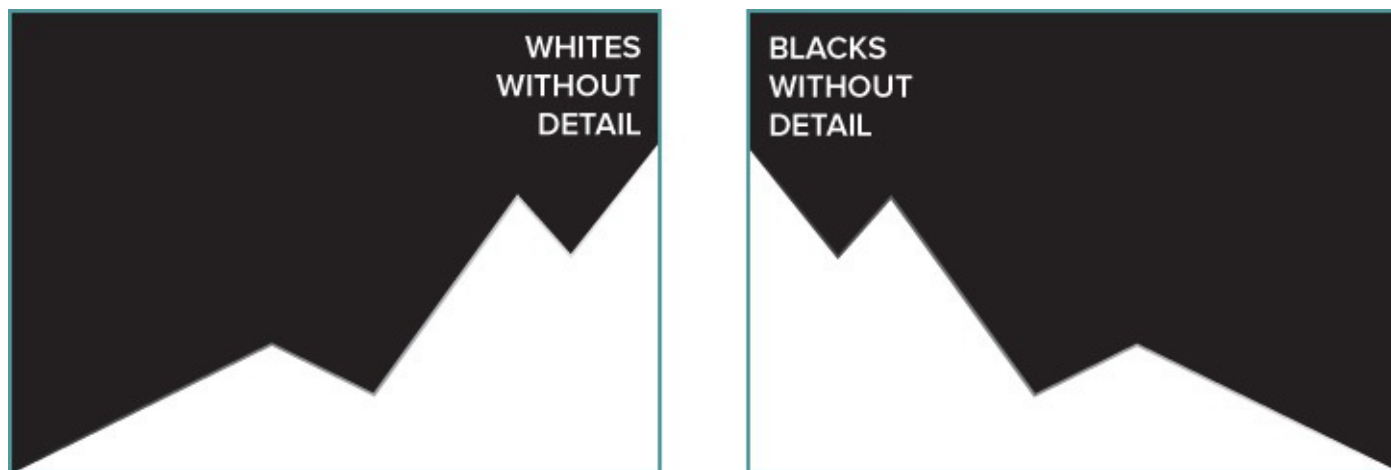
The reason this trips us up is because often the ideal digital negative doesn't look great in the back-of-camera preview. It looks too bright, washed out—which is why I use my LCD only for looking at the histogram, checking focus, and being critical about my composition. I never use it to judge the exposure without the histogram. Histograms don't lie. So the principle is this: Expose to give yourself the most amount of information, easily made possible by exposing to push the histogram to the right without allowing it to run off the right side. The exception is when there are bright elements in the frame without details, and they're meant to be without detail. The sun would be one of these. So would glints of sun off reflective surfaces. So it's not so much a question of never allowing the histogram to run off to the right, but when it does so, in *which* highlights are you losing detail? For this reason my highlight warnings, or "blinkies," are always on. Highlight warnings can be set in your camera. You know where to find them; you just read your manual, right? Go turn them on. Now when you preview your image you'll see blinkies (you'll know them when you see them) where the highlights are blown out, and you can make a decision about which ones you want to let blow out and which ones you need detail in.

Sometimes your scene will exceed the limits of what your sensor can capture. In those cases you just have to make a choice. My own choice is almost always to expose as far right as I can without letting important highlight details get lost, and let the shadows fall where they may. I like shadows and I don't always need details there, but exposing to the right and getting the most amount of data will give me the best shot at recovering some of those shadow details later if I want to. You could also choose to do a couple of different exposures with different exposure values and blend them together later; I don't often do this. Sometimes a flash will solve this difference between the light in the scene and what the camera can capture, and yes, sometimes a filter such as a split neutral density filter will also help, but I want to give you the broadest strokes and not get lost in the minutiae.
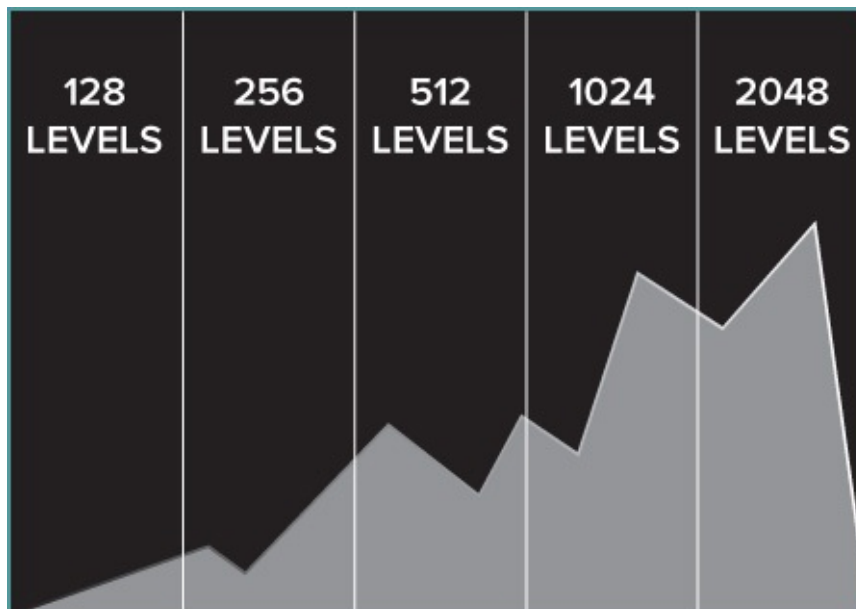
The vast majority of a RAW file's available data sits on the right side of the histogram.

Your Assignment

Turn the blinkies on. (In your camera menu, you're looking for something called Highlight Warnings or a similar name.) Stop using the LCD to judge exposure and color (you're not shooting JPG right now, so let that go). And use that histogram. Now go make some photographs, and keep the exposure as far right as you can. Tweak exposure and color later in your preferred post-processing program. If you're new to that, consider checking out my book *Vision & Voice: Refining Your Vision in Adobe Photoshop Lightroom* (New Riders, 2010).

Nikon D800, 200mm, 1/500 @ f/8.0, ISO 800
Exposures like this don't have to be challenging, but with all that snow in the background, you might worry when you see the histogram go off the right side. Don't worry so much that you're losing detail in the highlights, worry about which details you're losing. In this case, it's not a concern.

Lesson 6. Master the Triangle

When I began to study photography, I learned it first as a technical craft, many years before ever truly beginning to learn it as an aesthetic one. Though the technical is important and forms the spine of our craft, what I should have been taught all along is that every decision I made also has aesthetic results and that those results are my choice. That choice gets easier when you're comfortable with the give-and-take of the exposure triangle, because you'll understand what you're choosing and what you're giving up with that choice in terms of the aesthetic of the image, regardless of whether you're making JPG files or shooting in RAW. So, first, a basic lesson.

Light enters the camera, hits the film or sensor for a certain amount of time, and makes an image. Too much light and the resulting image is overexposed, if there's an image at all on that white print. See? There really is too much of a good thing. Not enough light and your photograph will be underexposed, or completely black. Sometimes less is just less.

There are three basic ways to control how much light gets in. The first is to control the sensitivity of the sensor or film itself. With either medium you will choose an ISO, which is an international standard for light sensitivity. ISO 100 is "slow," meaning much less light sensitive. ISO 3200 is "fast," or much more light sensitive. The slower the ISO, the more light you'll need to let in through the lens or shutter. The faster the ISO, the less light you'll need, but the image will often get grainier, or noisier in digital capture, as a result. There's a little give and take here, as there is with the other two points on the exposure triangle.

The second way to control the light is with the aperture in the lens, which is a diaphragm that opens and closes to control the light. It's measured in cryptic little numbers that only mathematicians and practitioners of the occult understand. An aperture of f/1.8 is a very large opening despite its small number, whereas f/22 is a very small opening despite its large number. A large opening lets in more light, and a small opening lets in less. The side effect of this is that the tighter hole focuses the light much more than the larger hole. So letting in more light gives you much less focus from foreground to background. Letting in less light gives you more focus. Remember how I said there's a give and take? This is part of it. Not only are we tasked with making a good exposure, but we also have to choose how we make that exposure because each choice has an aesthetic consequence. In this case, how we control the light with the aperture also controls the quality of focus.

SHUTTER SPEED   **APERTURE**

+ FREEZE ACTION
-BLURS ACTION

+ GREATER DEPTH OF FOCUS
-SHALLOWER DEPTH OF FOCUS

- LESS NOISE, LESS SENSITIVE
+ MORE NOISE, MORE SENSITIVE

ISO
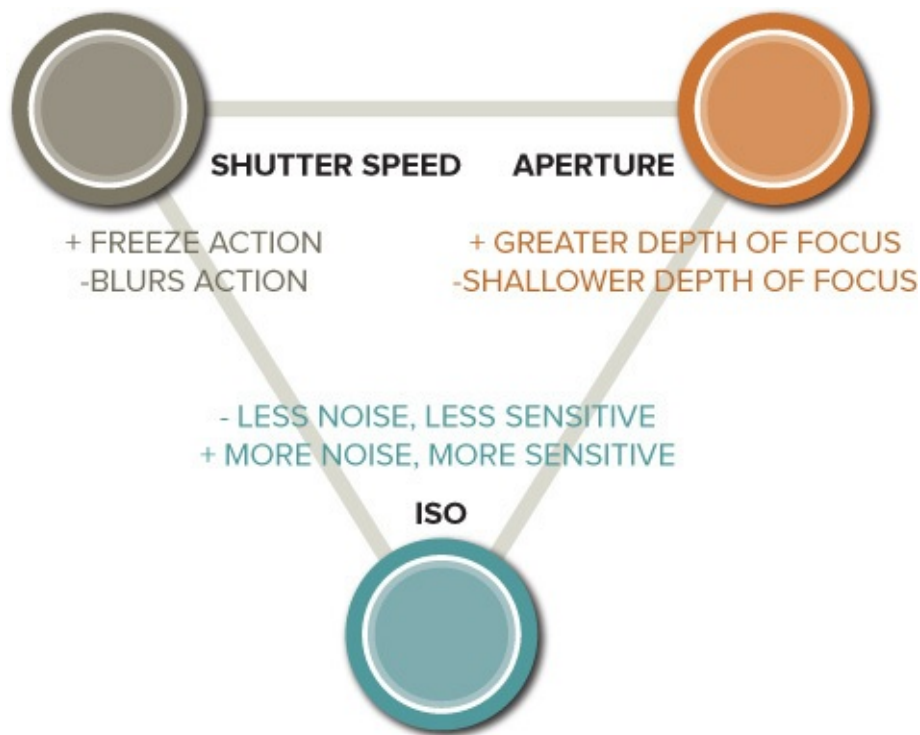
Each setting has an aesthetic effect on the image. You can pick two; the third is where you compromise.

> "The more natural this is to you, the easier it will be to make decisions when it matters. Few of us do our best creative work when we're frustrated."

The third way we can control light is with the shutter itself. In most cameras the shutter is like a curtain hiding the sensor from light until we press the shutter button. The shutter opens across the sensor for a specified amount of time, exposing the sensor to the light coming through the aperture in the lens. The give and take? Fast shutter speeds will freeze action because the sensor sees that action for such a brief fraction of time. 1/1000 of a second is pretty quick. Slower shutter speeds, like 1/15 of a second, can blur action because the shutter is open longer and sees more movement in that time, recording it as a blur.

That's the exposure triangle. All three points on the triangle work together, and where you push the camera in one way, it will demand a little pull in another. If your first priority—because of what you want the photograph to look like—is a fast shutter speed (1/1000) to freeze action, then you will have to use either a much larger aperture (f/1.8) or, if you also want more depth of focus that using, say, f/8 would give you, then you'll also need a higher ISO. It's give and take. If numbers confuse you, as they do me, it'll take a while before you're comfortable, but you'll get it.

Your Assignment

Pick a scene with a strong foreground, and focus on that. Get comfortable, you're going to be here a while. I assume you're on Manual exposure mode. Make the best exposure you can, allowing the camera's meter to guide you, and then adjust it so your histogram is well to the right. Begin with the highest shutter speed and widest aperture. ISO at something like 400. Now slow the shutter down a stop, and close the aperture a stop. Make another frame. Check the histogram. Now do it again, and again, until you're at the tightest aperture. Now keep going by raising your ISO. Pull the images all into your digital darkroom and study the progression. Do the exercise again until you're comfortable with the give and take and you have a sense, with each adjustment, of what's going on. I know it's basic, but even professional musicians do the scales as practice. The more natural this is to you, the easier it will be to make decisions when it matters. Few of us do our best creative work when we're frustrated.

Lesson 7. Use a Slower Shutter Speed

From the beginning of our photography education we are taught to freeze motion. The fastest shutter speeds get all the glory. I think, in part, it's our weird addiction to perfect sharpness in all areas of the image. But the sense of motion created by a slower shutter speed can bring energy and life to a photograph. The longer I photograph, the more comfortable I become at the slower end of the shutter dial. I've already got nearly 30 years of usually sharp photographs under my belt. I'm no longer asking, "Are they sharp?" I'm asking, "Are they alive?"

Fuji XE-1, 18mm, 1/15 @ f/14, ISO 1600
The waiters at one of the oldest coffee shops in the world, The Florian in Venice, Italy, are in constant motion. 1/15 of a second seemed the most appropriate shutter speed to convey this hustle.

You don't need a fast shutter speed to get a sharp image. As long as there are *parts* of an image that are sharp, we're not bothered with other areas that are blurred due to motion. It's not a question of sharpness; it's a question of which part of the image is sharp—or intentionally choosing to make none of the image sharp, and we'll get to that too. For now I want you to spend some time getting comfortable with slower shutter speeds; they're a powerful way of communicating life and action, and they can bring life to an otherwise static photograph.

Fuji XE-1, 18mm, 1/15 @ f/13, ISO 1600

Fuji XE-1, 18mm, 1/15 @ f/9, ISO 1600

Your Assignment

You pick the amount of time, but I'll suggest a week. No shutter speeds over 1/60 of a second. Bonus points if you give me a full week, with one day on 1/60, the next day on 1/30, then 1/15, and so on. All day, one shutter speed. You might have to seek out lower light situations to do this, or put a polarizing filter on to knock back the light a little. Your ISO will be low. Don't just put the time in. That's not the point. Look at what subjects work better on which shutter speeds. Study your results. At what point does a moving person look graceful, and at what point does that same person blur so entirely he or she almost disappears? At what point does your camera begin to shake so much that you might do better with a tripod? What speeds give you results you respond to in some way? Each shutter speed you get comfortable with will add a new tool to your visual toolbox, a new way to communicate with greater intent.

Lesson 8. Learn to Pan

Once you've started playing with slower shutter speeds, it's time to harness some of the possibilities. If the open shutter allows elements moving in relation to the camera to blur, then moving the camera at the same speed as a moving object will cause the moving subject to remain sharp while blurring the background. Getting good at panning isn't easy, but it's a great technique to have in your toolbox, as it lends greater energy to a scene.

Fuji XE-1, 18mm, 1/15 @ f/8, ISO 1600
Like the images in the previous lesson, these were made at 1/15 of a second, but this time the camera moved with the waiters, giving a sense of motion through a subtly different aesthetic.

Fuji XE-1, 18mm, 1/15 @ f/11, ISO 1600

Pulling it off consistently takes practice, but the basics are easy to understand:

- You want to choose a shutter speed appropriate to the speed of the moving subject. Panning with a walking person will require a much slower shutter, like 1/15 of a second, than panning with a moving car, which might be done best at 1/60 or 1/100 of a second.

- Brace your camera as securely as you can, holding it close to the body and tight to the eye.

- To pan, you move the camera with the subject, and though the natural inclination is to begin panning from a natural standing position, you end up a little twisted and unstable. If you know where your subject will be headed, it's better to start facing that direction, then twist *into* the direction from which they will come. As you pan, moving at the hips, you will unwind into the most stable position.

"If you know where your subject will be headed, it's better to start facing that direction, then twist *into* the direction from which they will come."

- Focusing is usually pretty easy. The slower shutter speed will require a lower ISO and a tighter aperture. The tighter aperture will give you greater depth of field, which will help if you don't quite nail the focus. And though you might not normally want that much depth of field, here it's okay because all that background

will be blurred into a streak of motion.

• Use high-speed burst mode. It'll take more than one frame to get this right.

• Don't get so caught up in this technique that you forget to compose. You're creating an image about motion—it's dynamic, so use a dynamic composition. Placing the subject almost anywhere other than in the middle is a good start.

• Practice, and don't get discouraged. It takes a lot of work to find the right shutter speed, and even more to get the speed of your own motion to match the speed of your subject.

Lesson 9. Use Intentional Camera Movement

Almost as soon as we pick up a camera we are told to hold it still, but intentionally moving the camera can create dramatic results and is a powerful tool in creating impressionist or abstract photographs. Panning is one type of intentional camera movement, but the direction and speed of that movement is dictated by the moving subject itself. To use intentional camera movement more expressively, the movement of the camera and the speed of the shutter are determined by your imagination. Trees become more vertical if the movement is vertical, streaked by a slow shutter and a rapid up-and-down movement of the camera. Pinpoints of light become brush strokes and take the shape of the path of the moving camera. Colors blend and blur. This technique has the potential to create unpredictable, beautiful photographs.
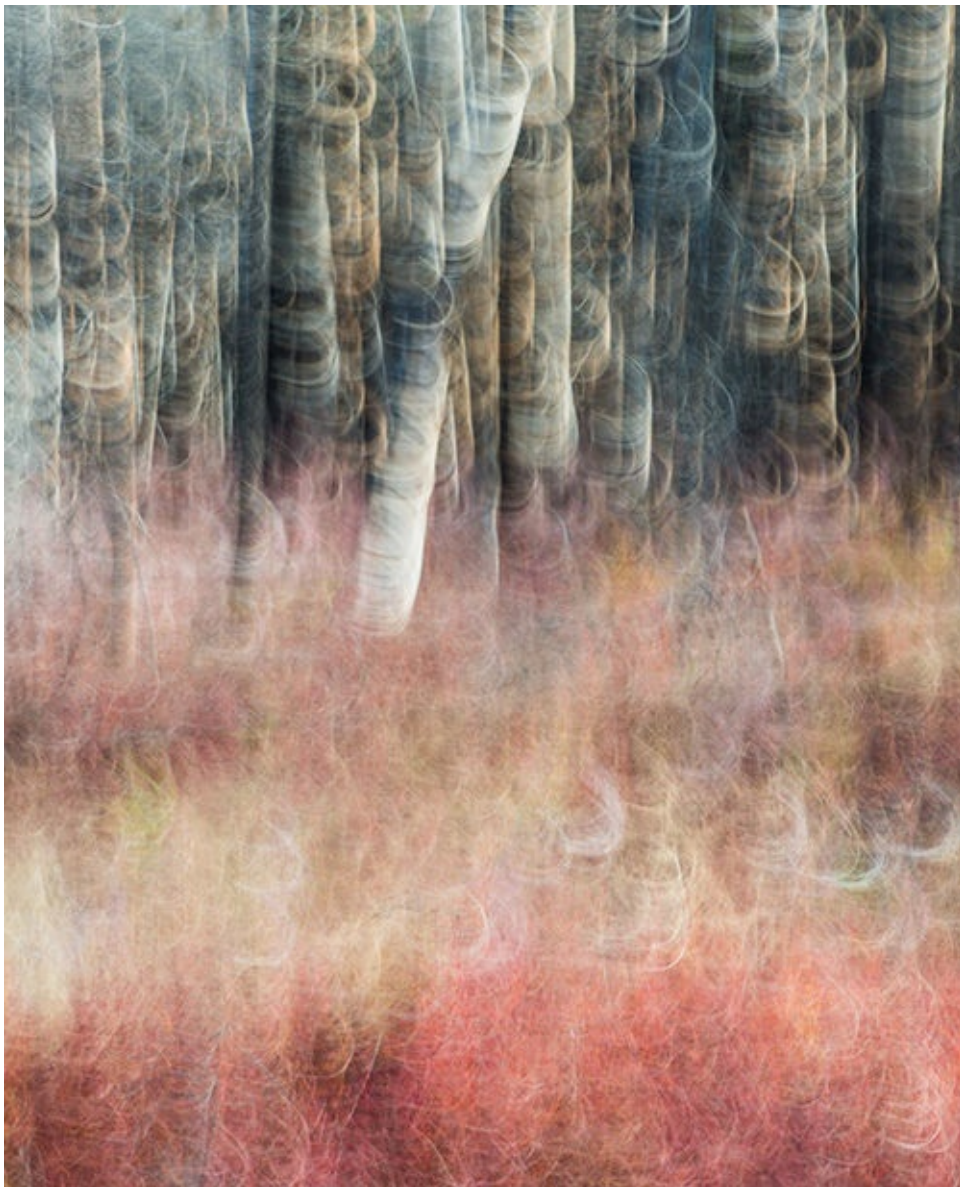
Nikon D800, 190mm, 1/6 @ f/22, ISO 100
From my *Yukon Impressions* series, Yukon, Canada. Birches and fireweed become soft abstractions with an intentionally slow shutter speed and carefully chosen camera movement. I can only imagine what people thought as they drove by and saw me flailing around with my camera on the roadside.

- Consider using this technique with a moving subject. Don't pan, but move in a similar or contrasting direction. Stationary subjects are fine too, but movement along different planes adds another visual element.

- Experiment with shutter speeds. To get them lower you'll need a tighter aperture and a lower ISO. Want them lower still? A polarizer or a three- or four-stop neutral density filter will help.

Nikon D800, 100mm, 1/4 @ f/16, ISO 100

- Experiment with motion, moving the camera up and down, left and right, in and out, diagonally, even spinning it.

"This technique has the potential to create unpredictable, beautiful photographs."

- Pay attention to the lines and color. Remember this is not a literal image, so the specific details of your subject are less important than the feeling evoked.

- Be conscious that although you know what your subject is, others may not. If it's important to communicate something about this subject—a cat, for instance—then be sure the readers of your image get this sense without having been there.

- The unpredictability of this process is one of the best things about it. Be aware of your expectations.

Your Assignment

Head out with your camera, and for a while see if you can stop thinking so literally about the scenes in front of you. Look for color and shape. If you're not exposing manually, set your camera to Shutter Priority mode (this may be labeled Tv mode on your camera), and set it to something really slow. Try 1/2 of a second initially. Your aperture will have to be pretty tight and your ISO as low as it can go. Find some trees, and while moving the camera up and down, press the shutter. It'll take a while to get the timing right. Now slow the shutter a little more, and do it again. Move on. Find something colorful and do the same exercise, but move the camera in a circle or back and forth. Find a high-key scene, one with lots of contrast, and do the same. Experiment with slightly faster shutters. Now find something that's already moving and combine intentional camera movement with the motion of your subject.

If you enjoy this and want to play with it more often on your iPhone, try the app Slow Shutter. Even if the resulting work doesn't thrill you, it can help open your eyes to lines and energy already in a scene and give you new ideas for more static compositions.

Lesson 10. Use Wide-Angle Lenses to Create a Sense of Inclusion

One of the best lessons I ever learned was to look at our lenses in terms of their behaviors more than simply how wide they are or how big they make things in the frame. Our lenses play a huge part in what we say in the photographs we make. In some case they magnify, and for the photographer making photographs of lions on the Serengeti, that can be an important behavior, but it's not the *only* behavior. It drives me crazy when I hear photographers telling each other that this lens is a "portrait lens" and that lens is a "landscape lens" or when you go to such and such a place you won't need one lens or another.

Nikon D3s, 35mm, 1/320 @ f/8, ISO 400
An eye-level view and a wide lens allow readers of this image to feel a part of this scene in a way that would be impossible with a longer lens. Wider lenses more closely mimic our peripheral vision.

Lenses are about aesthetics, not applications, and unless you tell me exactly the kind of aesthetic you want, it would be extremely presumptuous of me to tell you what tool you should have to make your photograph. My best photographs of grizzly bears, like the one here, and despite the logic that longer lenses are the "right" lens for wildlife, were made with my shorter telephoto lens and my 16–35mm. It's purely a question of aesthetics, and these days I know my aesthetic preferences well enough to know that, hands down, I prefer the intimacy, energy, and inclusive feeling I can create with a shorter, wider lens to the compressed, isolated, flatter feeling of a long lens. But they each have their place.

> "It drives me crazy when I hear photographers telling each other that this lens is a 'portrait lens' and that lens is a 'landscape lens.'"

In this lesson, and the next, we're going to look at the extremes of our lens choices—the wide angle and the telephoto—and how the two can be used to say different things, and create different visual experiences. And then you're going to go out and become familiar with these tools.

- Wide-angle lenses, as the name implies, have a wider-than-normal angle of view. They have the exact opposite effect of a telephoto lens, which has the appearance of compressing elements. Wide-angle lenses appear to push those elements apart.

- Because a wide-angle lens more closely approximates the peripheral vision of normal life (if not the magnification), it is capable of creating photographs that yield a much more immersive or inclusive feeling for the reader of the photograph.

- Because they diminish the size of elements in the frame relative to normal life, wide-angle lenses must be pushed in closer to a subject to keep the subject larger in the frame, thus exaggerating the lines. These exaggerated lines, and the need to get so much closer to the subject, have the potential to create images with greater energy.

- Wide-angle lenses are harder to use because they allow so much to be included in the frame, which means greater intention and care are needed to choose a point of view that controls the foreground and the background.

- Wider lenses are prone to distortion, which is an aesthetic effect all its own and can give a comic look to people placed too close, but they can have the same effect on lines, bending them in ways that need to be chosen carefully. The more the lens is tilted off-axis (pointed up at a building instead of straight on, for example), the greater the effect.

- Remember, a lens can't change your perspective. A wider lens can exaggerate the lines that result from a change in perspective, but the only thing that can change perspective is the position of the camera itself. There's no substitute for moving the camera.

Your Assignment

Spend a week exclusively with a lens that is the full-frame equivalent of 16–35mm. The wider, the better, but not wider than 14mm, and not a fish-eye lens.

Notice how much closer you have to get to fill the frame. If you don't get closer, the elements in the frame will most likely lose impact because they don't fill the frame.

Notice how much more energy the photograph gains when you get closer, especially from diagonal lines.

Notice how much more difficult it is to control the elements in the wider frame and to isolate those elements.

What scenes did the wide lens work particularly well with, and what scenes would you choose a different lens for next time?

Lesson 11. Forget the Camera

It is easy, in a craft where we rely as heavily as we do upon the cameras in our hands, to get a little too attached to our gear. So maybe now is a good time to ask you to—no, to beg you to—forget the camera. Photography, the way I practice and teach it (which is not the only way, not by a long shot, but I assume it's a way that resonates with you because you've chosen to read this book and not another) is about you and the world around you. It's about stories, and life, and photographs that say something about those things. It is not about cameras. It is not about impressing people with the brand of camera you carry or the length of the lens you use. Very few people care about those things.

Nikon D3s, 23mm, 1/25 @ f/4, ISO 1600
I could have made this photograph with any camera I own. Sure, some might handle the low light a little better, but software helps with that, and when's the last time someone was deeply moved by how good your sensor is?

The best craftspeople and artists get so good that their tools become an extension of them, a mere afterthought. They choose the tool that works for them, the tool that gets out of the

way as quickly as possible and allows them to do their work with as few frustrations as possible. And they know, in the case of photography, that the real work of making a photograph relies on skills you won't read about in the camera manuals, important as those little books are.

Of course, we need the camera to make photographs. But once you have learned to use the camera, the most important photographic skills are these: receptivity and an openness to see things as they are, curiosity, patience, and a willingness to fail and try again. In the case of photographing people, the key skill is an ability to empathize and connect. In the case of travel photography, it's an ability and willingness to engage a place, and a people, on its own terms. Whatever the genre, there is a skill, or a list of skills, that is more important than just knowing how to use a camera. And I'm not saying that to downplay technical expertise, but to elevate the role of the man, woman, or child (because many of us pick up a camera for the first time as kids) behind the black box. Give me, any day, a low-resolution photograph made with cheap optics and printed on recycled paper but made by someone with something to say and the courage to say it, over a perfectly sharp, 40-megapixel image made with the best lenses and no vision or creativity.

Too many photographers get sidetracked early on by the unimportant. Their lives become an endless obsession with the latest camera, lens, or software, and the hunt to acquire them, and that's okay if that's what you want to do with your too few days on this earth. Truly. But it won't make your photographs any more compelling, any more interesting, any more beautiful, or any more human. Those things take something more.

A photograph will only be as interesting, human, beautiful, creative, insightful, or motivating as the person behind the camera. So learn to use the camera. Learn it so well that you can forget it, and move on to making photographs that transcend their humble, technological origins. I know this doesn't sound like photographic advice, but if you can fall more in love with life, and the possibility of expressing something amazing through the humble photograph, than you do with the camera and the gear, you'll make stronger photographs than you ever imagined. Some of us took far too long to learn that.

Nikon D800, 85mm, 1/320 @ f/8.0, ISO 400
It's the relationships, the light, the moments, and how you deal with them, with the camera in your hand, that will make your photographs stand out. This is Gabriel, a man I met in Kenya. After our time together he gave me a camel. It happens all the time (though not usually with a camel) and it has everything to do with connection. Don't get sidetracked by the gear.

Lesson 12. Learn to Isolate

It's been said that photography is the art of exclusion. It's as important, in making a compelling photograph, to exclude what we do not want within the frame of our image as it is to include what we want. In fact, when we include what we want without carefully excluding the rest we introduce too much to the image, and we dilute the impact of the elements we were hoping would make the photograph what it is. Honing this art of exclusion is a significant step forward on the photographic journey, and learning to isolate your subject is an important part of that. Here are a couple of significant ways you can begin to isolate your subject and give it greater power within the frame, undiluted by the noise of elements that do nothing to help you tell the story.

Nikon D800, 600mm, 1/800 @ f/8. ISO 400
This red-crowned crane was among many at the scene, but isolated with a longer lens it creates more impact within the frame than it might have surrounded by its context.

We'll look at two other ways—the use of shallow depth of field and longer lenses—in the next two lessons.

Point of View

The first and most obvious way to isolate elements within the frame is the intentional use of point of view (POV). What appears and does not appear, in front of, around, and behind your subject has everything to do with where you stand and put your camera. Yes, there are plenty of situations in which moving around will do nothing to get rid of background chaos or unwanted elements, but often a simple change of position can successfully move that unwanted element in relation to your subject. A little movement to the left or right, standing on a ladder or lying on your belly, can push those elements from the frame. Just playing with our point of view can improve an image with no other changes. Next time you're photographing something, take a little extra time to be aware of what is in, and out, of the frame, and try moving—do a complete circle around your subject if you have to— and see if you can't strengthen your image that way.

Optics

Of course there are plenty of times that moving in relation to the subject isn't preferable. Moving changes the perspective, and with it, the lines. Moving changes what the light is doing and if you've got your heart set on a backlit photograph, then moving 180 degrees will change the photograph completely. When that happens, it's time to explore other options. The first one I try is a change of angle of view. Where a change of POV means a change of position of the photographer relative to her subject, a change of angle of view is all about which lens you choose. A wide-angle lens, as the name implies, has an angle of view that is extremely inclusive—it pulls a lot into the frame. A telephoto, by definition, is a much tighter angle of view. The most obvious move in pursuing a more isolated subject is to use the longer telephoto lens, and that often leads to beautifully simple images, free from extraneous elements. Next time you're trying to really isolate something, try backing up and using a longer lens. But that's the next lesson, so I'm getting ahead of myself. It's also not the only way to use optics to make a subject stand out.

Nikon D800, 16mm, 1/1000 @ f/11, ISO 200
Using a wider lens forced me to push in tighter, making the foreground larger relative to the rest of the elements, isolating it in a way a longer lens would not have done.

Nikon D800, 70mm, 1/80 @ f/9, ISO 500
Panning with this whooper swan in Hokkaido, Japan, allowed me to create both a sense of motion and a sense of isolation against a background that would otherwise have had more visual pull.

A wide-angle lens can also be used to isolate, though it'll involve both a change of optics (put that wide-angle lens on!) and a change in position (get as close as you dare!). A wide-angle lens pushed in close will still be a wide-angle lens and will still include more elements than a tighter, longer lens. So how can that be used to isolate? Isolating an element is about making it more prominent than others, giving it greater visual mass, and diminishing distractions. When you push a wider lens much closer to your subject, in the right circumstances it does two things simultaneously: it enlarges the subject and diminishes the rest. When a longer lens doesn't give you the look you're hoping for, or excludes too much of the context, try going much wider and much closer.

Motion

Sometimes the use of depth of field doesn't help. And sometimes it just doesn't give you the aesthetic you're looking for. Motion can be a great isolator. When the subject is moving, you can use a slower shutter speed and pan the camera to create a sharp subject against a blurred background. When the subject is stationary but its surroundings are in motion, you can use the reverse technique—keeping the subject sharp while the moving surroundings blur around them. Both techniques require practice and a slow shutter speed. In the case of allowing the surroundings to blur around a sharp subject, you'll also need a means to stabilize the camera, such as using a tripod. A friend of mine uses her handbag; others use beanbags or parts of buildings. However you do it, the longer shutter speed creates blur of the once distinct and distracting elements and simplifies them, allowing you to isolate—or more clearly point to—your desired subject. If you're skipping around this book, now would be a good time to review Lessons 7 and 8.

These aren't the only techniques. You can use a shallow depth of field too, but we'll talk about that in . Consider too, for example, the role of light and the ability to blow out a background or plunge areas into shadow. However you do it, the most important part of this lesson for some will simply be the awareness that intentionally isolated elements can dramatically strengthen a photograph, giving the main subject greater visual mass and allowing other elements to remain outside the frame, gain reduced visual mass, or fade into blur.

Your Assignment

Look at a few of the images you love best from other photographers, and for each image ask yourself one question: What role does isolation play in this image? You might also ask yourself what choices the photographer made to simplify this image and make it as strong as it is. Are there extraneous elements that distract? Isolation is all about simplifying an image of unnecessary elements so the most important elements have the best shot at pulling your eye, your attention, and your emotions.

Lesson 13. Isolation: Use a Longer Lens

Telephoto lenses, anything over a 35mm equivalent of 50–60mm, have the opposite effect of a wide angle, and the longer they get (200, 300, 600mm) the greater the difference. As telephoto lenses get longer in focal length, they have tighter and tighter angles of view and greater and greater magnification. They excel at pulling far things near, compressing elements, and really isolating—not just to get that great shot of a duck, but to set that duck (or tree, or child on a swing) against its context and exclude all else. Photography is as much about what we exclude from the frame as it is about what we include. Every element in the frame exerts some visual mass, a subject we'll talk more about later, and the more elements exerting that pull on the eye, the less impact each of those elements has. Sometimes the best tool for achieving impact is isolation, and the shallow angle of view and illusion of compression that's created by telephoto lenses creates a sense of isolation really well.

Nikon D800, 300mm, 1/400 @ f/11, ISO 800
This whooper swan was tightly photographed with a 300mm lens.
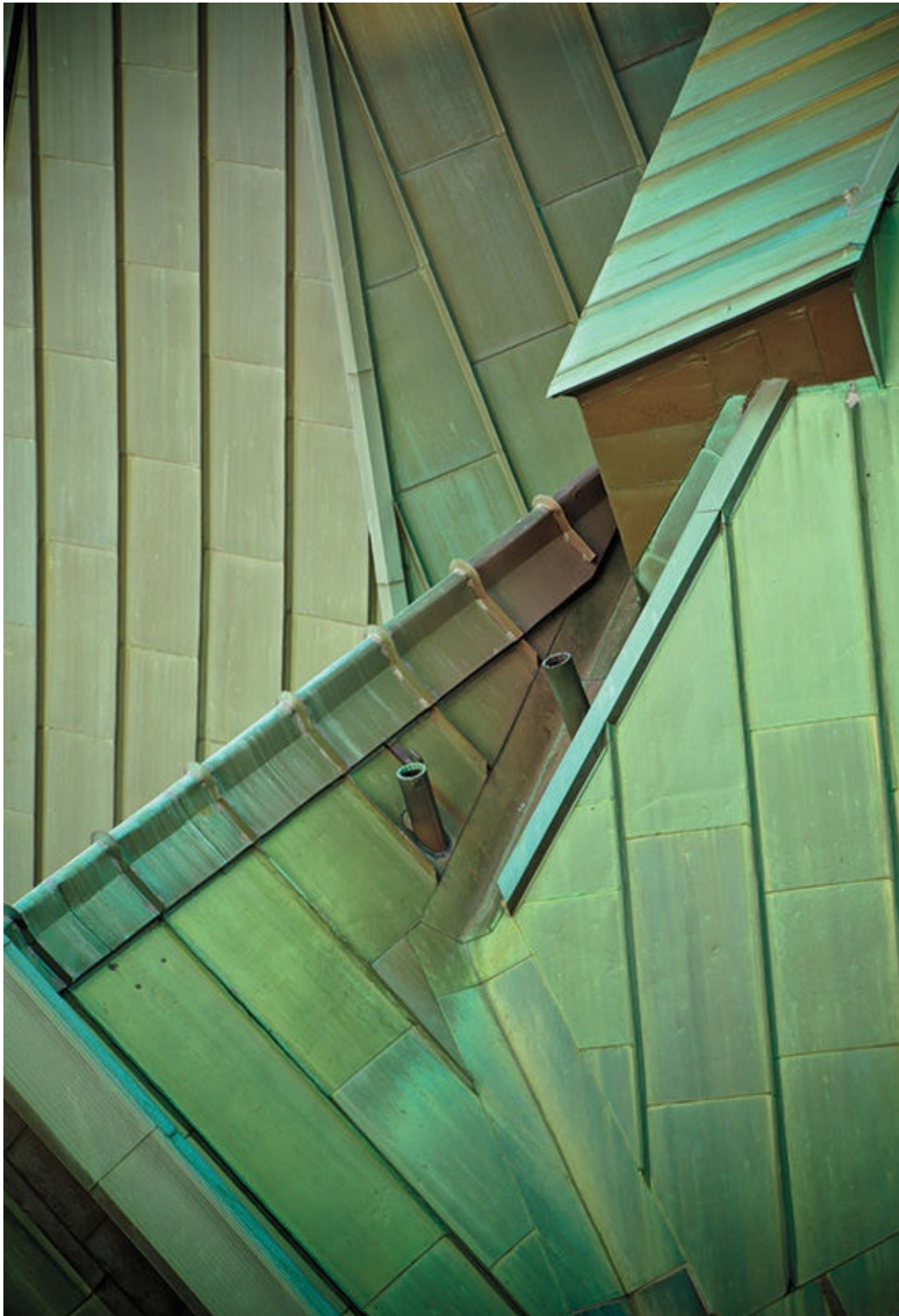
Nikon D3s, 200mm, 1/80 @ f/6.3, ISO 200
Only the longest lens I had with me, the far end of my 70-200mm zoom, would allow me to isolate the great lines on the roof of the Chateau Frontenac in Quebec City without other clutter spoiling the purity of the lines and colour in this image.

The other advantage of using a longer lens is that the depth of field at a given aperture appears much shallower than with a wider lens. In my humanitarian work I've often put a 200mm f/2.8 lens on my camera, and backed up a little, giving me a little more context, but still powerfully isolating my subject. Shallow depth of field and a tight angle of view make background control much easier.

Your Assignment

Beg, borrow, or steal a 200mm lens and, resisting the urge to use it merely to bring far stuff a little closer, pay close attention to three behaviors:

- How tight is the angle of view? What are you able to exclude from the frame? You might not want the main subject to fill the frame, so back up a little. I know, it's as counterintuitive as getting close with a wide lens, but back up and use that telephoto. When I use a wide-angle lens, I think, "Wide lens close," and when I use a long lens, I think, "Long lens distant."

- How do foreground and background elements appear compressed? Could that change what you're trying to say with your photograph? Could it create a more graphic look than a wide or standard lens in the same scene?

- How does the combination of a long lens and a shallow depth of field (wide aperture) allow you to isolate elements in ways you couldn't do with a wide or standard lens?

Lesson 14. Isolation: Use a Wider Aperture

We've already touched on the ability of a longer lens to isolate subjects and give them greater visual mass, or pull on the eye, than they might have otherwise. A shallow depth of field can strengthen that, but it doesn't have to be used in conjunction with a long lens. In fact, photographs made with a wider lens can often benefit because the wide lens makes background control difficult, simply by virtue of there being so much more background to wrestle into place. A softer focus on the background can diminish the pull on the eye, which in turn strengthens the impact of the elements in focus. Here's what you need to know about depth of field.

Nikon D800, 300mm, 1/1250 @ f/7.1, ISO 400
The f/7.1 setting at the 300mm focal length, along with the extreme proximity of my subject, is a relatively wide aperture and blurs the background beautifully.

"A softer focus on the background can diminish the pull on the eye, which in turn strengthens the impact of the elements in focus."

- Depth of field at any given aperture is narrower if your subject is closer than if your subject is further away. Camera-to-subject distance matters, so if you want way less depth of field, and you've opened your aperture as wide as you can, get closer. Vice versa—if you want more depth of field at a given aperture, step back a little.

- Depth of field can be seen through the lens, but only if you tell the camera to stop the lens down for you. Remember when you read the manual? That was the button

called the Depth of Field Preview button. Using it will cause the viewfinder to get dark, which makes things harder to see, but I find the DOF Preview to be very helpful.

- It's helpful to know that the in-focus zone in front of, and behind, the subject are not the same. The in-focus subject does not evenly split the in-focus zone, but cuts it in thirds: one-third in focus in front of the subject, two-thirds behind the subject. Knowing this allows you to pull the focus back toward you if you're finding the background too sharp and you've already opened the aperture as far as you can. Or you can get closer.

Your Assignment

Spend a day or two making three sets of photographs, all of them of the same subject, focused at the same point, but changing the aperture. First try f/1.8, or as wide as you can go, then f/6.3, then f/16. The more you get a sense for the difference between shallow focus, deep focus, and the middle-ground in between, the more able you'll be to comfortably make choices without the mystery. Now do the same with a subject quite close to you—perhaps within three feet—and notice how much shallower the shallow zone of focus is, and how much deeper, by comparison, the deep zone (f/16) is.

Nikon D3s, 600mm, 1/1250 @ f/8.0, ISO 400
With a 600mm lens focused this close, f/8.0 provides very shallow depth of field, allowing me to keep most of this Stellar Sea Eagle in focus while keeping the background, cluttered with sea ice to form soft bands of blue instead of a sharply detailed background that would compete for my attention.

Lesson 15. Use Tighter Apertures to Deepen Focus

I'm not sure how it happened that we became so obsessed with wide apertures and thin-as-a-leaf planes of focus, but there is something we seem to like about shallow depth of field. Perhaps it's the way it simplifies the image and softens the details into color and shape, allowing us to subtly guide the eye of the reader where we want it to go. But while dreamy bokeh (a Japanese word used to describe what, without this word, I'd just call the blurry-out-of-focus bits) gets all the glory, it's not the only tool in the box. I spent years shooting wide open, happy as can be with my shallow depth of field, until I began making photographs with greater depth, and I wanted my photographs to have sharpness beyond the first few feet of foreground.

Nikon D800, 23mm, 1/400 @ f/11, ISO 200
A scene from Deception Island in Antarctica. With this wide lens at f/11, it's sharp from front to back.

> "While dreamy bokeh gets all the glory, it's not the only tool in the box."

Photographs are about light, lines, and moments. What those lines look like, and the kind of information or impact they are allowed to carry in an image, will depend, in part, on how focused they are. And what is in or out of focus can significantly change how the story is told. A bride, for instance, may look stunning in her gown, the background allowed to fall off into fuzzy oblivion, but if the groom is in that background, blurring him doesn't just render him a soft, tuxedoed man, but a detail about which you are saying, "The particular identity of this man doesn't really matter." You might not need him

perfectly sharp, but don't get so seduced by the look of shallow depth of field that you let your storytelling skills go dull.

First, the same things you needed to know about wider apertures are things you still need to know about tighter ones, so if you skipped , head back there and read up. But now we're talking about tighter apertures and deeper depth of field, so here are a few things you need to know specifically about this:

- If you're going for maximum sharpness, the initial temptation is to crank the aperture as tight as it'll go. Dial it down to f/22 and leave it there. But although this seems right in theory, in practice lenses get a little softer at the tightest apertures, so you're not likely to gain much in going too tight. I usually stop around f/16 these days, focus a third into my scene (remember the 1/3-in-front,-2/3-in-back rule about depth of focus?), and leave it there.

- The tighter your aperture, the deeper the focus. This extends even to things like dust on your sensor. If you've got dust there—and most of us do—then you might not have noticed it while making photographs at f/1.2. You're going to notice it now if you're at f/16. Don't panic. Get the sensor cleaned and be a little more diligent about keeping it clean.

- A tighter aperture has another curious effect, one I use often. At around f/16 small pinpoints of light become starbursts. You may not specifically need your plane of focus to be that deep, but choosing the tighter aperture is the only way to render this effect without digging through bins of used filters from the 1980s.

Your Assignment

Spend a few days shooting at f/10. It's tight enough to give you good depth of field, and not so tight that it'll restrict you to low shutter speed. Bump your ISO up a little if you have to. What I'm hoping you'll notice is that your images, particularly if you tend to shoot wide open, will look sharper. Sharper elements have greater visual mass, or pull on the eye. That's neither good nor bad, but a reality you need to be aware of because your job as a photographer is to manage or manipulate that visual mass. You may need to choose your moments more carefully, change your point of view to give you a cleaner background, or use a longer lens, all of which will allow you to keep the benefit you've gained from sharper, deeper focus, while still controlling how the reader looks at the photograph, and what she thinks or feels about it.

Lesson 16. Use Focus to Abstract

We most often notice *bokeh*, a word I feel self-conscious writing, much less speaking aloud, as the shape of out-of-focus highlights in the background of an image. It can be beautiful, but we often relegate it to a happy byproduct of the photograph we're making of something else, some other element in the foreground, instead of the very point of the image. Using the aesthetic possibilities of out-of-focus elements, we're able to reduce sharp line and form to something less specific, something more abstract. There are other ways to do it, but using a lack of focus can be as powerful a way to abstract as any other.
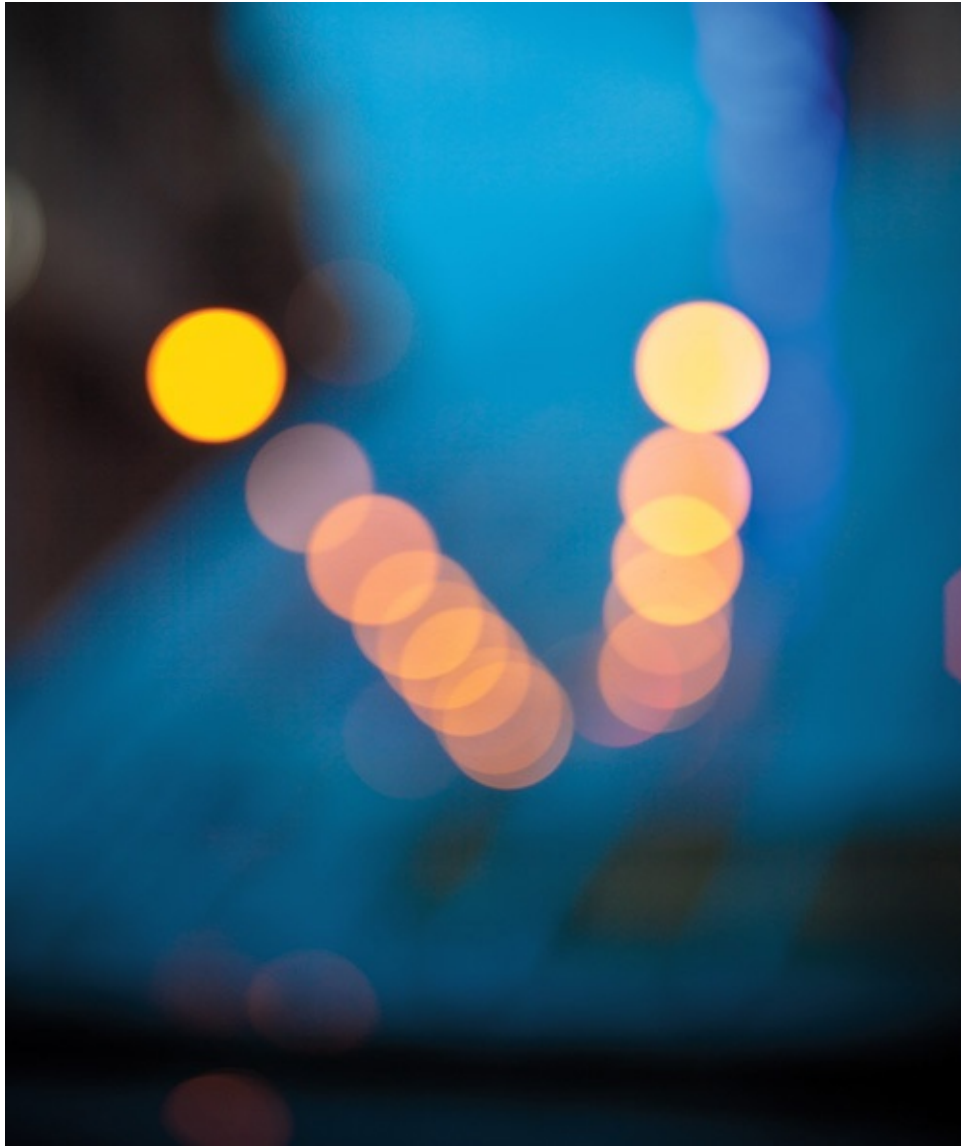
Canon 5D Mk II, 90–200mm, 1/60 @ f/2.8, ISO 100
Shot wide open (f/2.8) and out of focus, the elements in this scene are reduced from the particular to the abstract, allowing the reader to focus on the colors and shapes.
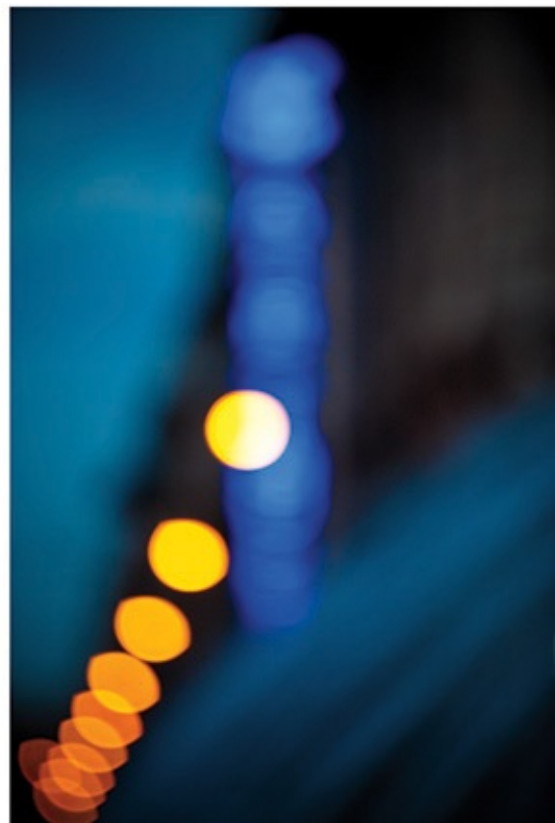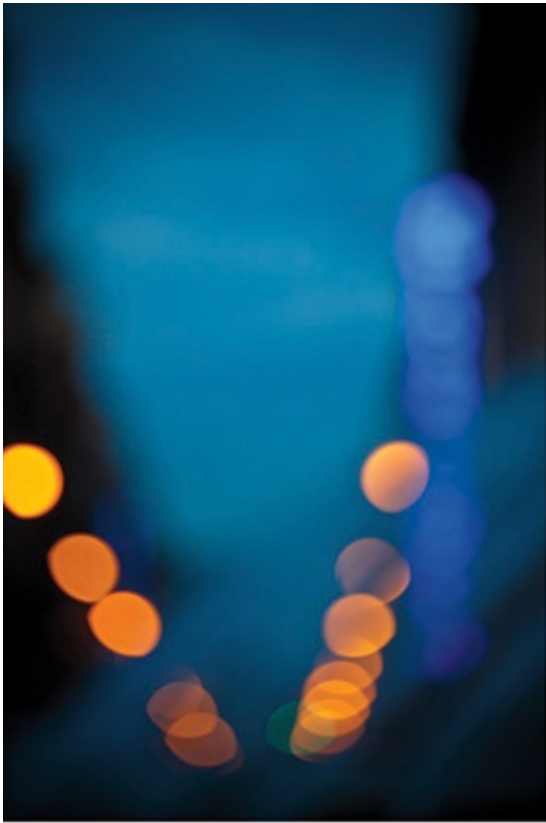
Canon 5D Mk II, 90–200mm, 1/60 @ f/2.8, ISO 100

Since the birth of photography, we've been striving for greater focus and creating sharper optics, but that should only create possibilities for us, not tie us down, and there's no reason every image we create should be focused. Sharpness of focus creates one aesthetic, lack of focus another, and both can be used to say different things, to create very different photographic experiences.

In the assignment for this lesson I'm going to suggest you work with out-of-focus lights, but don't let it stop you from trying with other elements, understanding that your lack of focus can bring a mood and mystery to any element in a frame, or the entire frame itself, not just highlights.

Your Assignment

Spend a day getting over your need for sharp focus. Try different subjects, at different times of day. Backlit dew on the grass in the early morning. Street lights in the evening. Combine techniques—add some slower shutter speeds and street lights become halos; car lights become streaks of diamond and ruby. Add some intentional camera movement and see what happens. The point is never to "do it right." The point is to add as many different visual effects to your vocabulary, to light your imagination on fire. This is a chance to play with light and shape in new ways without the need to be literal.

Technically the easiest way to accomplish this is to throw your lens and body to manual focus. To abstract close elements, focus to the extreme distance until the amount of de-focus matches your intent. To abstract distant elements, focus on the extreme foreground. Keep your aperture wide open, but using your depth of field preview, experiment with different apertures—in what way does the look of the bokeh change?

I'm going to add one additional element to this assignment because I've seen how well this works with my students: I want you not only to go play with this, but to create a small body of work, to begin thinking not in single images, but in series. In this case my suggestion is to think in terms of six to eight images that work together in some way. They might complement each other or contrast with one another; they might be variations on a theme or an exploration of the full color spectrum. What matters is that you begin to explore things laterally and start to get familiar with the idea of creating bodies of work.

"Using a lack of focus can be as powerful a way to abstract as any other."

Lesson 17. Consider Your Color Palette

One of the things you'll consistently notice about the bodies of work of photographers who've been doing this a while is that many of them, though not all, seem to work very intentionally to create a consistency within a body of work—some kind of unifying element. Often that element revolves around a theme, so it'd be a body of work about the female nude figure, for example. That theme alone can create a visual unity. Another way of doing the same thing is with consistency in other constraints, like a shared crop ratio, such as every image being square or 4:5, for example.

Nikon D3s, 140mm, 1/8000 @ f/5.6, ISO 800

Nikon D3s, 600mm, 1/100 @ f/5.6, ISO 1600

Nikon D3s, 30mm, 1/125 @ f/11, ISO 200

Nikon D3s, 16mm, 1/50 @ f/11, ISO 200

Nikon D3s, 600mm, 1/400 @ f/5.6, ISO 800

Nikon D800, 16mm, 1/320 @ f/13, ISO 200

Nikon D800, 200mm, 1/500 @ f/8, ISO 200

Nikon D800, 70mm, 1/8 @ f/16, ISO 100

Nikon D800, 300mm, 1/800 @ f/10, ISO 800

Nikon D3s, 23mm, 1/400 @ f/9, ISO 400

Nikon D800, 175mm, 1/100 @ f/7.1, ISO 400

A consistent color palette also does this powerfully, with every image sharing a common

set of hues and tones. This creates a flow when the images are presented together, creating a common mood or emotion through the work, even when the gesture within the images changes dramatically. You can choose this palette while you photograph, and refine it as you become more and more aware of what the body of work is becoming. Not all of us begin a body of work to find it becomes the thing we imagined it. There's often an evolution that leads to stronger, more unexpected, work than if we'd not allowed ourselves to divert in a new direction. You can also choose, or refine, this palette in the digital darkroom. In the case of my Hokkaido series I was very intentional while I photographed and needed very few adjustments in Lightroom. The grizzly series from the Khutzeymateen all shared a consistent palette when I photographed it, but not the one I wanted, so I worked hard to subdue some of the hyper-saturated greens and bring a common warmth to the images, which, shot over seven days in very different weather, needed some help with the tones to bring them all a little closer to being cohesive.

> "You can choose this palette while you photograph, and refine it as you become more and more aware of what the body of work is becoming."

Intentionally chosen color palettes are not only for unifying bodies of work. A painter sitting at his easel and wanting to create a certain mood will choose a color palette. It's a little easier for painters, but photographers work with an existing reality. Although we can do anything we want with Photoshop or Lightroom, it's not my style to be so heavy-handed. But you can be selective while you still have the camera in your hand. Being intentional while you look at the scene, choosing weather or a time of day that contributes to what you're trying to accomplish, or lighting the studio and dressing the set—none of these happen accidentally, and if you go into your work remembering that a well-chosen color palette is a powerful tool, you can at least begin to exclude elements that do not conform to your vision.

Your Assignment

Fashion photographers and commercial photographers do this very well. If you can get your hands on either *Applied Arts* or *Communication Arts*, both magazines produce photography and illustration annuals. Take some time to look through them and examine the way both photographers and illustrators choose their palettes. You'll notice it in both single pieces and bodies of work. Often you can identify a photographer simply by her consistent use of color. My friend Dave Delnea —DaveDelnea.com—does this really well, and as of this writing his website has some excellent examples of this. Do a Google image search for Erik Almas—you'll notice an amazing intentionality and consistency. Same thing with Brooke Shaden. Spend some time looking at all three of these photographers' work. I like Google's image search because it shows the images well together and allows easy comparing and contrasting. Note that when I talk about consistency—and you'll see it in the work I've suggested you look at—that I do not mean homogeny or uniformity.

Lesson 18. Explore Color Contrast

While we're on the subject of intentional use of color, consider the role of contrasting colors in your compositions. Contrasting colors—at least the way I will refer to them—are not colors that clash and work against each other, but colors that are considered complementary. When you look at the color wheel, it's the colors lying across from each other that are considered complementary, and it's there you'll find ideas about using color contrast. But why consider this at all?

Stronger color contrast introduces stronger visual mass to the contrasting element, pulling the eye with greater strength. It can also give the image a greater sense of depth, because color contrast creates separation—the principle, in general terms, is that brighter/warmer colors leap forward whereas cooler colors fall back. The brighter and more saturated these colors, the greater the contrast and depth. This addition of depth will be experienced differently than a flatter image that, by virtue of its more uniform color palette, might seem more serene. Again, as with so many of these visual tools, it's not a matter of one tool being better than another; it's a matter of one tool creating a different aesthetic and giving us the choice between those aesthetics as we look to create photographs that express certain things, or create certain experiences.

There's another effect of using complementary colors we need to be aware of—the presence of other colors affects the way we see a color. In the case of complementary colors, the presence of one will make the other appear more intense. Not unlike using scale—when we put something large in the presence of something small, the larger thing appears, by contrast, even larger. Green will look green enough, but put something magenta into the scene and the green will look even greener. Just one more tool to be aware of. Every effect can be useful if we're aware of it.
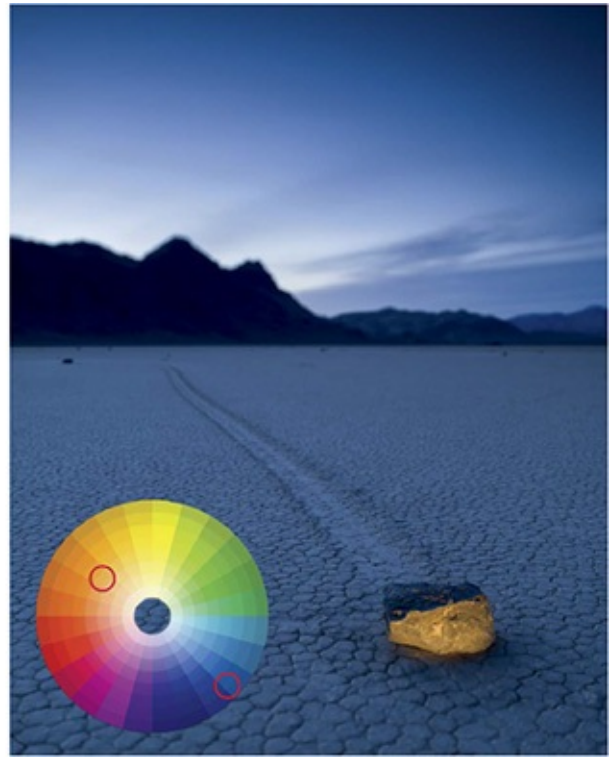
Nikon D3s, 24mm, 1 second @ f/4.5, ISO 200
Two nearly identical images, but adding the light from a warm-gelled flashlight increased the color contrast and the depth in the second. Look at the color wheel and you'll notice that immediately opposite from the blue of the scene is the warm yellow of the rock.

Your Assignment

Using color contrast begins with awareness of it. Look through your recent work and identify contrasting/complementary colors where they are present. Could they be made stronger? What would the effect become if that color contrast were reduced? How would the eye read the image differently if the hue were changed slightly? Next time you're out making photographs, look for opportunities to introduce an element of color contrast. Would a yellow cab pop against that background better than a green car? Is that what you want, or do you prefer a blue car that blends in? One image says, "Hey, look at this yellow cab!" The other says, "Look at the way the car and the background almost become one." What you are pointing at, visually, will determine how you use color contrast. You can also use this understanding to refine your work later in the digital darkroom. With the control we have over hue, saturation, and luminance of different elements, you can more intentionally guide the eye by adding or removing saturation, or shifting the hue to make elements more or less complementary.

Canon EOS 20D, 29mm, 1/125 @ f/4.0, ISO 800
Keeping your eye open for color combinations that make use of contrasting colors might be no harder than just knowing what your eye is already drawn to. I don't need to know my color-wheel to know that these blue phones pop out against this pink wall in Harar, Ethiopia, and draw more attention to both the phones and the wall.

Lesson 19. Try It in Black and White

Color is extremely seductive; it has an enormous pull on both our eyes and our emotions. In broad strokes, the brighter and more saturated the color, the greater the pull on the eye, and as there can only be so much impact in a photograph, it is often those elements of brighter color that get all our attention, pulling the eye of the viewer away from other significant elements. Lines and moments often get overpowered by color, and there are times when the colors and how we respond emotionally to them conflict with the story in the photograph. If, for example, you're creating a photograph about a tragic event, the presence of happy colors like bright yellow can pull our emotions in the opposite direction, creating a photograph that creates a cognitive or emotional dissonance in the reader.

Leica M(240), 21mm, 1/3s @ f/13, ISO 400
The colours in this scene were striking, and in the end the photograph I printed is a colour image, but what I gained in mood I lost a little in the power of the lines. Everything is a give and take in photography, and in this case the mood was more important to me. But man, look at those lines!
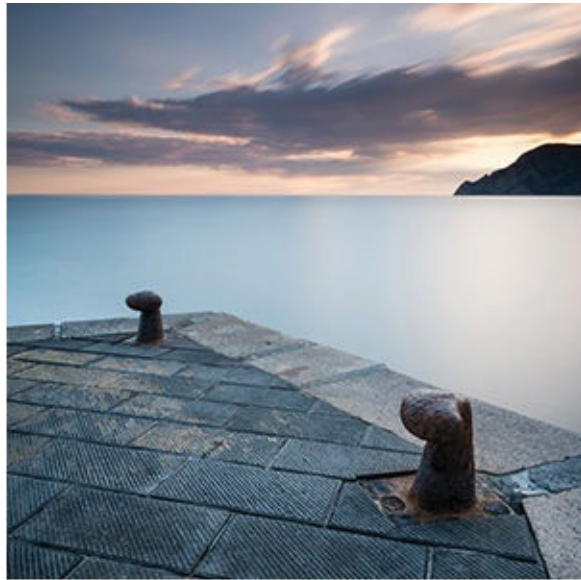
Fuji XE-1, 14mm, 125 seconds @ f/16, ISO 200
Pulling the color from this scene in Italy allows the texture and tones to play in a stronger way than they do with the color present. Sure, you lose some of the mood but there's a give and take in each decision. Knowing which to use, and when, comes as we learn to see in both color and black and white.

There are a lot of reasons to keep the color in a photograph, and just as many to render it in black and white, not the least of which is personal preference or in keeping with the

visual cohesiveness of a series. I am not suggesting that you pull the color from an image that fails on other counts in order to fix it. My suggestion is to use a conversion to monochrome as a way of helping you see your own work with greater clarity, free of the pull of color.

I use Lightroom exclusively and it's an easy matter to apply one of several black and white presets to my work, evaluate it, and then return it to color if that's my intent for the image. Looking at the black and white rendering, I'm asking myself questions like these:

- What does the image gain without color?

- Is my eye now drawn toward, or away from, my subject?

- Are there lines, textures, or the gesture of a moment that are now stronger for the lack of color?

- How does the mood of the image change?

- How does the balance change?

- What changes does this suggest when I return the color to the photograph?

Your Assignment

Spend some time with a dozen of your favorite color photographs and, using your favored digital darkroom software, look at them in black and white, asking yourself the questions I've just suggested. My intention is not to convince you to convert them all, but for you to become aware of the pull of color, how the visual mass can change without it, and consider adding a minute or two to your creative process in the digital darkroom to look at your work in black and white. Remember, too, that not all black and white conversions are the same. Changes in tonal values (for example, making the reds darker and the blues lighter) and overall contrast can also change the visual mass of the photograph—sometimes significantly—so don't just "throw it into black and white." Take your time to do a good conversion.

Lesson 20. Point of View: Control Your Lines

A couple years ago I tried to answer, for myself, this simple question: What makes a great photograph? My own reply was contained in three elements—lines, light, and moments. What we do with those three is everything in a photograph. If every student of photography learned to ask three general questions before they pressed the shutter button, their work would improve faster than any new piece of gear could ever do in a lifetime. Those three questions for me are: What is the light doing? What are my lines doing? Is this moment the most powerful?

You take a significant step forward in your ability to create strong photographs when you understand that you wield a great deal of control over the lines in your photographs. That matters because our photographs are two-dimensional, so in a sense all we have are lines. Lines are formed by contrasts in tone or hue, and they connect to form shapes—people, buildings, shadows, trees, the representation of emotion on the face of a portrait subject— all of them created in the photograph by lines. Lines can direct the eye into, or lead it out of, the frame. They can connect elements and tell a story. The thinnest lines can reveal details; the thickest ones can conceal details. They can, through the laws of perspective, create the illusion of depth.
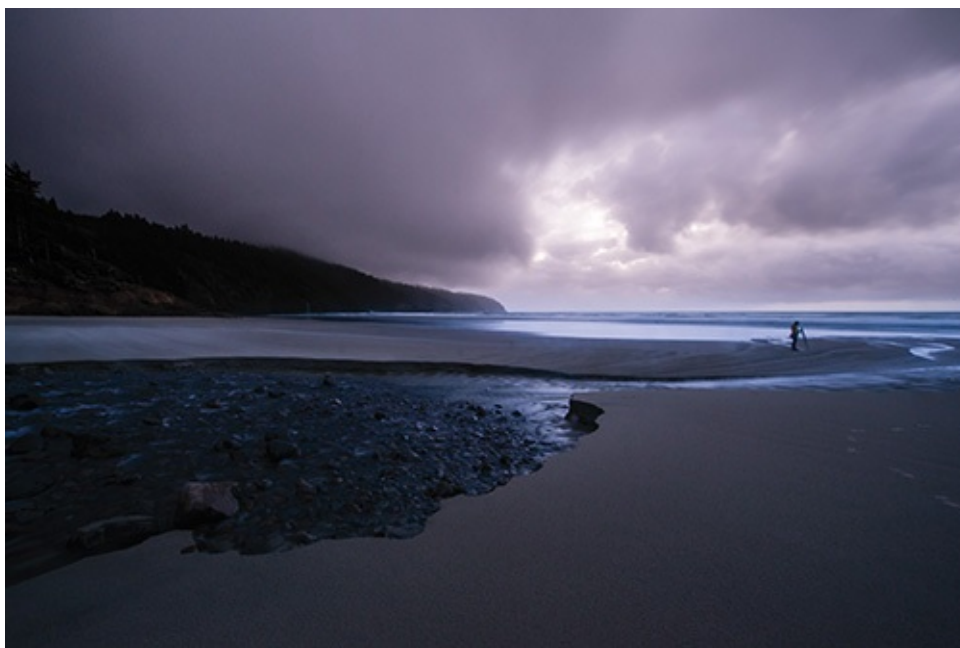
Nikon D3s, 14mm, 4 seconds @ f/22, ISO 800

Nikon D3s, 14mm, 0.6 seconds @ f/9, ISO 800

Nikon D3s, 14mm, 1.6 seconds @ f/11, ISO 400

Nikon D3s, 14mm, 5 seconds @ f/11, ISO 400


Nikon D3s, 14mm, 13 seconds @ f/10, ISO 400

Nikon D3s, 14mm, 15 seconds @ f/14, ISO 800

**The same scene looks very different with six different points of view.**

During the Renaissance, painters began to perfect our understanding of perspective. How we represented depth had never been very precise, but we began to get the math right in the Renaissance. Our cameras automatically reproduce perspective, so unlike painters we don't need to learn the math and draw vanishing points. But we need to *understand* perspective in order to be able to manipulate it. This allows us to reintroduce an experience of depth, as well as control, and more carefully place our lines and shapes, and thereby shape our content—the message—of our photographs more intentionally.

What you need to know about perspective as a photographer is different from that of a painter, and it boils down to this in relation to lines: your point of view (POV), or position with the camera, determines the direction and energy of lines in a photograph, and because the eye experiences different lines in different ways, it has a dramatic effect on the photograph.

Let's look at an example in simple line drawings. Imagine a bar suspended in front of you. Your position relative to that bar could give you endless possibilities of how that bar appears in your photograph. Here are four possibilities: facing the end (**1**), the side (**2**), and the end from a sideward angle both left and right (**3**, **4**). Same physical object, very different shapes.
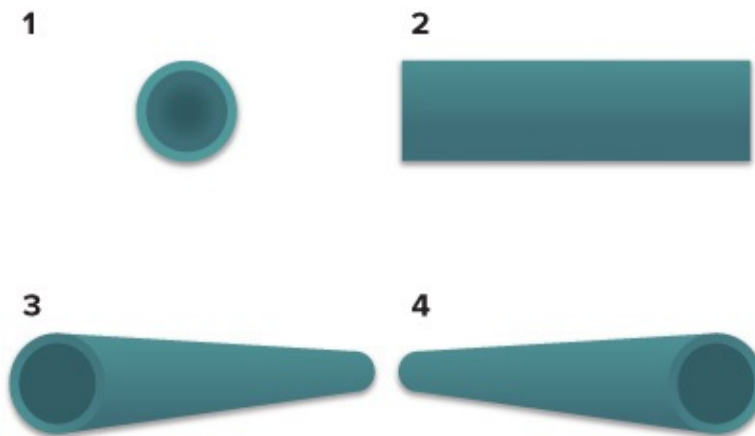
What this one bar looks like in your photograph has everything to do with your choices. Taken another step, a change in perspective will also change the perceived relationship between elements. Imagine a sphere placed near a triangle. Again, your position relative to the two elements will change how those two objects look in relation to each other. Your change in position can make them look closer to each other, can force their shapes to bisect each other, or can distance them from each other. Here are four more possible interpretations of that scene, the differences made by only one change: your position. The shapes begin distant, side by side (**1**); then you move closer and to the left and the sphere gets larger, partly eclipsing the now-smaller pyramid (**2**); moving further, the sphere completely eclipses the pyramid (**3**); and if you keep moving, you can place the pyramid in front of the sphere, blocking it (**4**). And it would all change more if you moved up and down relative to these objects.
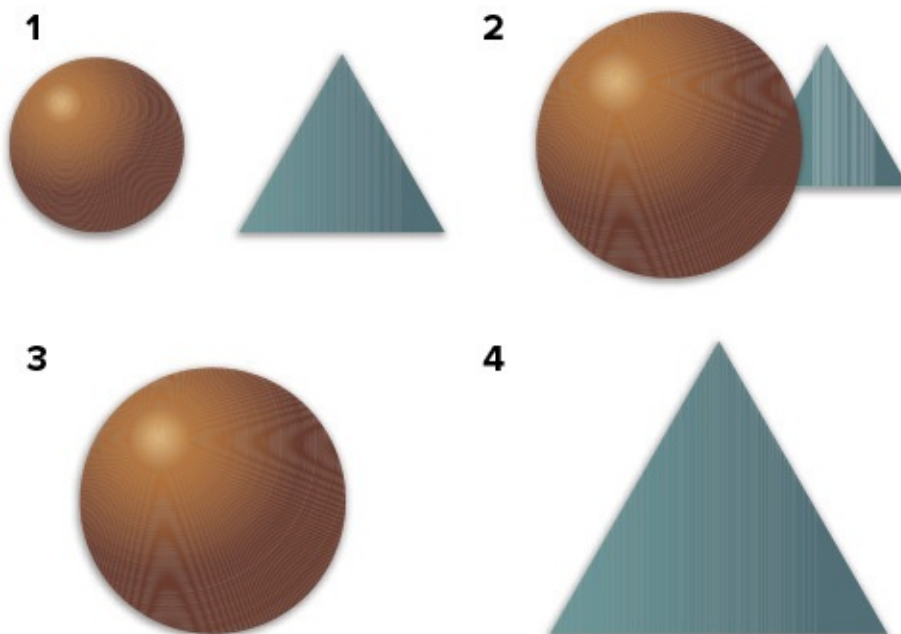
Your Assignment

Paying attention to your position can keep lines straight or give them greater energy. Your position is rarely unchangeable. Find a scene and camp out for a while.

- Concentrate on one element. The simpler the scene, the better. Now make six to eight different photographs, changing only the position of the camera relative to your subject. Get higher. Get lower. Move left. Move right. Walk around it. The element might not move in a hundred years, but you have astonishing control over its shape relative to the frame.

- Study those six to eight frames. How do the energy and balance change? How does the shape of that primary element change as your position changed?

- Now find a scene with two prominent elements and make another six to eight frames, concentrating this time on moving the camera in ways that change the relationship between elements. Can you, simply by moving, position the one on top of the other, then beside it to both left and right?

- Now move your position to reverse the elements; make the foremost object the background object. How does moving closer to one make it larger relative to the other?

It's a simple assignment, but understanding the control you can exercise over lines and shapes relative to the frame will give you more control over your photographs.

Lesson 21. Lines: Use Diagonals to Create Energy

Really all we have in a photograph are lines and shapes to re-create what we see out there in the world. They're created by shadows and reflections, trees, buildings, the woman in our photograph, and the smile on her face—all of them made into two dimensions, formed by light, represented by lines that, in turn, create shape. There is no woman in the photograph itself, only lines to represent her, and so it's the lines we choose and manipulate within the frame that give us the control over what that woman looks like. And it's the moment we choose. And the lens we use. It is the photographer who puts the lines on the print, and it's on the photographer that responsibility falls when it fails to move us, or others.

Nikon D3s, 16mm, 1/160 @ f/22, ISO 200
The strong diagonal line of the river gives this scene direction, energy, and depth.

> "If you want depth in your image, you have to put it there, and lines leading diagonally to a vanishing point are one way of doing that."

So if lines are such building blocks, it's important to know how to control them and how people read them in our photographs. That discussion is a larger one than the scope of this book allows, but you can read up on the way we read horizontal and vertical lines with a simple Google search, or by reading another of my books, *Photographically Speaking* (New Riders, 2011). The discussion of diagonal lines, however, is much more interesting to me because the effect within the frame is more exciting. In the simplest terms, diagonal lines give energy to the frame. In some cases they are there because of the laws of perspective, and as they lead to a vanishing point they introduce depth to the image, which in turn draws viewers in, inviting them to look longer and deeper, and hopefully paying off with a richer experience. If you want depth in your image, you have to put it there, and

lines leading diagonally to a vanishing point are one way of doing that. Of course, your position determines where those lines go, how symmetrical they are, and with how much energy they take the eye into the frame. Though it won't change the perspective, using a wide-angle lens will also exaggerate that perspective and increase the visual momentum created by those lines.

We read diagonal lines as though they exist in the real world. We also read frames, generally speaking, from left to right, and from top to bottom. I've been asked if this is because we read the written word this way in much of the west and if other cultures read images differently, and I don't think that's the case. I think it might have started that way but that it's more related to the conventions of the movie industry; we've derived much of our visual literacy from films—the most popular storytelling medium of our time—and they too get read, generally, from left to right. So because we read from left to right, there's a natural momentum already there. And because we infer the effect of gravity into our images, we feel its pull on elements toward the bottom of the frame. So if there's already momentum, moving left to right, and there's pull from the bottom, a line that runs from top left to bottom right has the greatest potential energy in an image. We can use this in two significant ways—the first is to harness it to increase the energy in a photograph, and the second is to work against it to slow the pace in an image. Both have their places. Look at the images of the mountain slope—the first (**Figure A**) is generally read as a downhill image, because that's the direction of the energy. The second (**Figure B**) is generally read as an uphill image.

A
Nikon D3s, 200mm, 1/2500 @ f/10, ISO 100

B
Nikon D3s, 200mm, 1/2500 @ f/10, ISO 100

Leica M(240), 21mm, 1/250 @ f/13, ISO 400
Newfoundland, Canada. The diagonals in this scene, formed by the lines on the boats and the lines of the clouds, provide energy, and depth and pull the reader into the image.

As with other lessons in this book, the point is not to give you an exhaustive, comprehensive understanding, but to awaken you to the possibility that diagonal lines give your images, and encourage you to begin intentionally experimenting, hoping that if

you're like most of us, you'll learn faster that way and make this information your own. We read different lines differently. They are among the most basic building blocks of our art, and that's the task of the much bigger topic of composition—answering the question, "Where do I put my lines in this image?" But it really begins with a different question: "What do I want my image to say or feel like?" Being aware of the influence of diagonal lines, you can place the lines with greater intent.

Your Assignment

Look through the last year of your own work and look for lines, specifically diagonals. Spend some time with them, asking yourself the following questions:

- Would you feel differently about the photograph if I had made the lines more diagonal? Less diagonal?

- What could I have done to make the lines more or less diagonal? A change in my position? Adjusting the framing?

- Would you feel differently about the photograph if I flipped the image horizontally? Would the resulting change in the diagonal give the image more or less dynamism?

The point is not to change the images you've already made but to get you thinking about possibilities and the strong role of diagonal lines in creating, or changing, the energy in a photograph. That way, you're already thinking and seeing differently the next time you put the camera to your eye.

Lesson 22. Lines: Patterns

One of the tools graphic designers use so well is the repeated element. They create a visual echo and draw greater attention to the shape itself. Patterns are lines or shapes that repeat themselves more than just a couple times, and they're important as a visual tool because our eyes are drawn to them. We like rhythm, and patterns can create that in a photograph. Because patterns draw our eye, we find them interesting, and that can be reason enough to learn to see them. But rarely is pattern enough to create a compelling photograph. Without something more, our images of patterns aren't interesting photographs, just photographs of interesting patterns.

Fuji XE-1, 155mm, 1/4000 @ f/4.5, ISO 800
These antelope on Kenya's Maasai Mara create a rhythm, like a visual echo, that draws the eye both to them and into the frame, to the Land Rover and two more antelope in the background.

Canon 5D, 32mm, 1/30 @ f/5.6, ISO 200
The broken pattern here, using contrast, is a way of isolating one element while drawing our attention to the pattern itself.

But if you add a juxtaposition or break the pattern in some way, that pattern is not only interesting but serves a visual purpose as well, not unlike the setup to a joke, which is little more than verbally creating a pattern or expectation, then zigging when people think you're going to zag. The more certain the audience is that you're going to zag, the funnier

the zig is likely to be. I'm not suggesting we use patterns to make our photographs funny, though there's no reason not to. I'm just saying that the stronger the pattern, the stronger the expectation that the pattern will continue to repeat, and when it doesn't, that contrast has greater visual mass and will captivate our attention. If that break in the pattern is a living thing, or a human element, we're bound to care even more.

Looking for patterns is not so much the point as looking for breaks in the pattern.

Your Assignment

Spend a day looking for patterns and for breaks in those patterns. It's a little like looking for leopards in Africa—you don't so much look for leopards as you look for the places you know you're likely to find them. Look for that parking lot of black cars and see if there's not a red one in there, or a little red scooter in a line of Harley Davidsons. Look for crowds of people and that one guy going the other way, or holding an umbrella when no one else is. Go to the fruit market and look for the one apple in the display of oranges. A row of parking meters, the pattern broken by a sudden tree. Whether or not you have your camera, this is an exercise in perception, which is more fundamentally the job of the photographer than anything else. See how many times you think, "Hey, look at that!"

Lesson 23. Lines: Lead My Eye

The eye will follow a line. Whether that's a power line, the shadow of a tree, or the line created by several sheep standing on a hillside, the eye will follow it. It'll even follow a line that doesn't really exist, like when a boy looks across the frame at something on the other side of the image—we'll always follow that eye-line. Here are some questions to consider when you're choosing to include or exclude lines, and deciding how to place them once they're in your frame:

- Is this line leading somewhere? In other words, is there a payoff? If you allow that line there, and you let me follow it, please let it take me somewhere.

Nikon D3s, 32mm, 1/500 @ f/14, ISO 200
The line formed by this river not only pulls the eye into the frame, but with its elegant, winding path it allows the reader to experience the image differently, and with less visual momentum, than if that same line went straight to the middle.

- Is that line leading where you *want* it to go? If the reader of your photograph is going to follow that line, is it, for example, staying inside the frame or leading out? Both can be interesting, but does it help you tell the story or create the experience

you want it to?

- Does the line have the energy you want it to? How would making it more diagonal make it more interesting and give the frame more energy? How would changing your position flatten that line out and give it less energy? More is not always better. If the line really isn't the point of the photograph, and you can't exclude it, you *can* give it less visual mass by making it more perfectly horizontal. Can you get higher or lower to make the line even thinner?

- How does that line balance against other lines in the frame? If it's a tree, how does the placement of that tree allow it to balance off the line of the horizon, for example?

- How does the placement of that line in the frame, in the case of the horizon, change the balance or message of the whole photograph? For more on that, read the next lesson.

I worry sometimes that my students think I'm obsessed with lines. Wow, look at that great line! But when you realize you've got so much control over what lines do and how much they accomplish in a photograph, it changes everything. You still have to wrestle with your vision, or intent, for the photograph. That never gets easier. And ultimately you still have to make decisions. You still have to risk and try new things. You still have to ask a lot of questions that are purely speculative; those are the kind of questions that are most helpful, because they don't lead you to answers so much as they lead you to possibilities.

Your Assignment

In the next lesson you're going to do an exercise with your camera in your hand. If you're really gung-ho, do that for this one too. Pick up your camera, go find some lines, and play. And while you play, ask yourself the questions I listed here. In one way or another I am always asking these questions of myself, and my scene, while I photograph.

But here's what I want you to do first. Go get a magazine of photographs, a red marker, and tear out 20 pages of photographs: ads, editorial, whatever. With the red marker, trace the most prominent lines. Straight lines, curves, lines that form shapes. Implied lines. Horizons. Then ask the questions from my list. Add arrows that indicate the lines that draw your eye from here to there. Just think about the lines. Pour a cup of coffee and do it again. The point is to get you looking for lines and thinking about them. The next time you put the camera to your eye you'll be more sensitive to the presence and impact of the lines, and you'll be more able to make decisions about them in your photograph. Take a look at the images on the next two pages to see the kind of markup I think might be helpful to you for this exercise.

"If you allow that line there, and you let me follow it, please let it take me somewhere."

Nikon D800, 16mm, 1/80 @ f/13, ISO 200
Don't be afraid to mark up a few images to get more comfortable with the way the eye follows lines. Lines, like those in this scene from Antarctica, that pull the eye to center, as opposed to drawing the eye out of the frame, create a longer visual experience for the reader of the image.
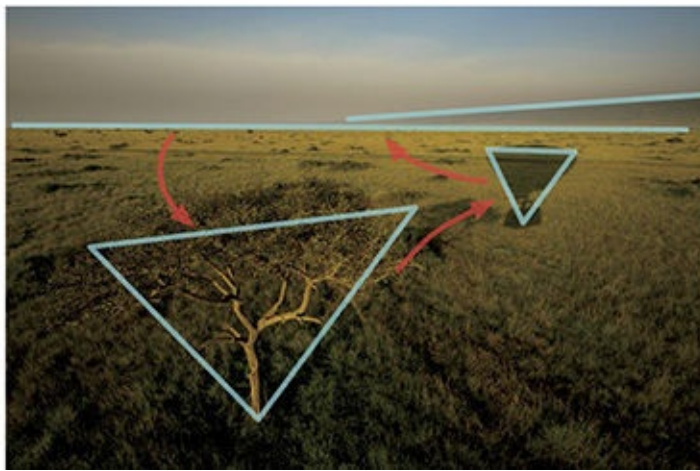
Nikon D3s, 16mm, 1/200 @ f/10, ISO 400
In this scene from Kenya, the eye follows from one large triangle to a smaller one,
then back along the line of the horizon, and finally returns down to the larger
triangle.

Lesson 24. Lines: Horizons

As with so much photographic advice, well-meaning but muddle-headed, the best place for the horizon is not only always at the top third or bottom third of the frame. Those are two of so many options, including the option not to include the horizon at all. When we ask, "Where *should* I put my horizon?" we're abdicating the responsibility that is the artist's alone to decide what we're trying to say and how we want to say it. Yes, putting it on a third might be more interesting. But is that the greatest good we can hope for in our photographs, that they're simply less boring? If that's the case, I'm not sure placing the horizon a little higher or lower is going to help much. A boring photograph starts long before we get to "Where do I put my horizon?" But there was a reason you put the camera to your eye and asked the question in the first place, right? Here are some more questions to consider:

Canon 5D Mk II, 25mm, 1.3 seconds @ f/22, ISO 50

Canon 5D Mk II, 24mm, 10 seconds @ f/22, ISO 50

Canon 5D Mk II, 32mm, 4 seconds @ f/22, ISO 50

Canon 5D Mk II, 43mm, 4 seconds @ f/22, ISO 50

The same scene framed four different ways, with the horizon at extreme bottom, extreme top, exact middle, and top third. Which one's "right"?

"Is that the greatest good we can hope for in our photographs, that they're simply less boring? If that's the case, I'm not sure placing the horizon a little higher or lower is going to help much."

• Does placing your horizon on the bottom third of the frame give prominence to the sky? Is the sky interesting enough to give it a full two-thirds of the frame?

• What is it about the sky that draws your attention so much that you'd give it two-thirds of the frame? Should you give it more? Is including the horizon at all necessary?

• Likewise, is your foreground interesting enough to merit two-thirds of the frame if you place your horizon high on the top third?

• Are there other lines in this scene that merit inclusion, like a waterline on the ocean's edge? That gives you three zones to work with—sky, water, land? Do you assign each a third again, because that can be really beautiful, but you're back to being static and symmetrical? How can you change your position to place those elements differently—for example, by lying down and giving your viewers less foreground, or getting higher and giving them more?

• Have you considered playing with the extremes of scale and balance, pulling out really wide and placing the horizon on, say, the bottom sixth of the frame, or pushing in much tighter and playing with a more symmetrical frame, putting the

horizon unapologetically in the middle?

Your Assignment

Find a horizon and, with camera in hand, ask the questions I listed here. A simple horizon, like the one on the open ocean, gives you the most elegant canvas with which to experiment. Make a photograph that's as purely about color and symmetry as possible. Now make one that's more about the ocean, and then one that's more about the sky. Now find an object of interest in the frame, like a lighthouse or sailboat—for those on the prairies, find a tree or a grain silo—and incorporate that. Put the tree in the vertical middle and the horizon in the horizontal middle. Now put both on thirds—the tree on the leftmost and the horizon on the bottom. Now reverse it: tree central and horizon high.

The point in this exercise is not to create a new body of work for you, and you won't get better at this if all you do is follow my instructions. I want you to play, and then *critically study your resulting work.* Sit down with a cup of coffee and the prints from this exercise and ask yourself which ones you prefer. Which ones feel more interesting, or dynamic? Which ones feel more serene, or even abstract? You're not trying to dial in on your preferences here; you're trying to become familiar with which tool does what, so the next time you're asking yourself where you should put your horizon, ask yourself better questions to arrive at a better answer. Better questions lead to better art.

Lesson 25. Learn to Sketch

No artist just gets it right the first time. The process of expressing the intent of our imaginations (unlimited as they are by the constraints of the real world) with any craft, let alone one so necessarily limited by technology as photography, is not an easy one. The idea that this craft is easy gets unfairly promoted from all kinds of corners, not the least of which are the camera companies themselves. But it's not easy. No new camera will help you "shoot like a pro" even if that were a goal worth aspiring to. And because this craft doesn't come instantly, it's probably a good idea to pay more attention to our own creative process and stop expecting instant gold from ourselves.

Nikon D3s, 26mm, 1/50 @ f/18, ISO 100
My final photograph, Arctic Circles, after working the scene and creating sketch images over about 12 hours. The next day the circles were gone.

Because we so often see only the final work of the photographers we respect, I think we miss what would be an otherwise eye-opening chance to see that all of them have a process of their own—most of them, if their contact sheets are to be believed, have some kind of sketching process.

I call it sketching because it's the closest thing to a visual rough draft that I can think of. Painters sketch out their images, and even have a process in painting that often involves scraping the canvas clean and starting again. Writers do the same. I suspect most creative people do, and it's because the very act of creating something allows our initial vision or idea to get worked out by contact with real-world forces, and that brings about new ideas, new directions, and stronger ways of executing those ideas. But you have to be open to the process of not getting it *right* the first time. You have to be open to playing, to experimenting, and not holding the final work too tightly. Which is one of the reasons I can't get on board with this idea of pre-visualizing an image, at least not the way I understand people to generally mean it. I have no idea what the final image is going to look like. I usually know what it's going to *feel* like, and that's much more helpful to me. But if I know what it's going to look like, I am going to be much less open to change or evolution.

So I don't look at my failed images as failures. I look at them as a necessary part of the process of getting to the images that *do* work. They are my rough drafts, and I make hundreds of them. I shoot variations and explore possibilities and I ask myself, "What if I…?" Sometimes those sketch images result in a final photograph several minutes or several hours later. Sometimes it's several days or months. Years even. I keep most of them, looking through old hard drives like old sketchbooks or notebooks of ideas, which I also keep and look through. And they lead me to new places. They remind me not to get discouraged, because doing so only kills me creatively. And getting discouraged only encourages me to give up, stopping me from making those few more sketch images that might lead to the moment that things click and get me to the heart of what I'm trying to create.

Here are my thoughts on making sketch images:

- Make many of them. If you're shooting digitally, they cost nothing.

- Make them intentionally, as visual responses to variations on the question, "Hey, what if I did this or that?"

- Study them and react. Don't just hope 100 sketches will get you somewhere new. Look at them. What's working? What's not working? How could you keep what's working and run in a completely different direction?

"You have to be open to playing, to experimenting, and not holding the final work too tightly."

- Creativity is the connection of previously unconnected ideas, and the more divergent the better. So take the thing you love about earlier sketches and see if you can combine it with the thing you love about the latest one. Sure, it might result in something equally unworkable, but that one unworkable idea might lead to the very one you needed to realize the final image. Only the process will get you there.

- Be open to having a completely different way of doing this than the way I do it. I don't see crappy photographs, only sketch images that haven't gotten me where I'm going yet, but without which I'll never get there. Find your own process. Allow it to be messy. No one will see these if you don't want them to. All they will see is the

final work.

Stop being so hard on yourself. Stop deleting images while you're shooting. Not only is it likely to be the cause of a card corruption, it won't do your creative process any good. Stay in the zone, and keep sketching. Look at the images, correct course, find the good, and keep moving. If you use Lightroom or some other cataloging program that lets you make collections, consider creating a collection called "Sketches" or "Incomplete Ideas" and adding to it images that *almost* worked but for some reason just didn't. They're top-tier sketches, and when you go back and look at them every month you'll bring new ideas with you the next time you're out with your camera. Your brain will keep these failure indexes and work on them in the background, and one day you'll be looking at them and suddenly the solution you missed a few months ago will seem so clear. Trust me.

Lesson 26. See the Direction of Light

There are several ways to see light, and I think it's important to be aware of it, understand it, and use it to create the strongest photographs you can. So I won't try to create categories and labels as much as I will describe the ways of seeing light and begin a conversation that I hope will continue to resonate with you long after you're done with this book.

Nikon D3s, 145mm, 1/400 @ f/13, ISO 200
What the light is doing in this scene is what makes the scene—and the photograph. Being able to see the light and know what it is doing is fundamental to making compelling photographs.

Nikon D3s, 122mm, 1/100 @ f/14, ISO 200
Dempster HIghway, Yukon Territory, Canda, 2013.

My focus in this book is natural light. If you can learn to see the light that nature provides, you can re-create it, modify it, and add to it in the studio with all the latest artificial lights. But let's assume it begins with one light—because it does—and from that one light there are more than enough lighting scenarios to inspire even the most attention-deficient studio photographers.

I'll begin with the direction of light, because that will open more immediate topics to us than other conversations like, for example, the color of light. Understanding the effect of the directionality of light matters when you photograph in the middle of a field as much as it does if you're positioning lights in a studio. Although it's easy to think that we simply take what we're given, it's not so simple. Imagine this: You walk into a field of tall, green grass. It's late afternoon and the sun is halfway between its zenith at high noon and the

horizon, where it will set. The sun is behind you. In front of you is a maple tree. It's October in the Northern Hemisphere, so the leaves are turning. Beautiful.

In the scenario I've just described, you can't do a thing about the position of the sun. But you can move yourself and your camera in a circle around the tree. As you do, the light, relative to you and the scene, changes. As it does, the look and feel of the resulting photograph changes as well. Keep reading.

Lesson 27. Light: Front Light

You're still standing there, in front of that tree in the middle of the field, with the sun at your back. This is where too many well-meaning but boring instruction manuals will suggest you make your photographs.

When the sun comes from behind you, it hits your subject straight on, and the light bounces back and brings with it the picture of a tree in a field. The sun is not in the scene, so it's easier to meter and expose. The shadows that are cast fall away from the sun, blocked by the very thing casting them, so there are no dark shadows to fool the meter, either. You raise the camera and make the photograph. It's probably very well exposed due to the evenness of the scene. It's just likely that it's also boring. There are no shadows to create texture, and where there are no shadows there is less depth. The light is reflected and the colors are fine, but they could be much more alive.

Canon 5D, 146mm, 1/200 @ f/10, ISO 100
A front-lit portrait from several years ago. I'd do things differently now and wait for more interesting light.

It is here that most of us begin our photography, and rightly so. It's good to become familiar with a baseline and get used to exposure fundamentals before things get more complicated by issues of dynamic ranges and exposure compensation. But if this is as far as we go, we'll miss the chance to capture light from other directions, which is more challenging, to be sure, but also creates the possibility of more compelling photographs. Does this mean front light can't be used, or is somehow "bad light"? Not at all. It just means the photograph needs to be carried by something else—some stronger gesture or amazing moment, perhaps.

Lesson 28. Light: Side Light

Back to our imagined scenario. Now imagine that you're walking around the tree, to the right. As you do, the sun comes into your peripheral vision on the left, over your shoulder, and as you move more and more to the right, the sun moves more and more to the left until it's halfway between your left side and the tree. Like the Peggys Cove lighthouse, the tree is now lit, according to your own position, from the side. The light streams through the leaves and creates many small shadows in on the surface of the canopy. Here and there a leaf flickers, and the light comes back to you, not because it bounced off the surface of the red maple leaf but because it shone through. For a moment there is a blaze of brighter, more saturated red. The shadow of the tree, minutes ago hidden by the tree itself, now thrusts itself sideways to the right, along the grass, creating not only a darker area created by the shade of the tree, but a strong, dark, tree-shaped compositional element that moments ago wasn't present. The light hits the round surface of the tree trunk and feathers off from one side to another, falling off from light to dark, revealing the texture of the bark which before seemed smooth, and giving greater depth to the tree itself. You raise the camera to your eye and make a photograph.

Nikon D3s, 16mm, 0.4 seconds @ f/22, ISO 100
The strong sidelight of sunset hits the lighthouse in Peggys Cove, Nova Scotia, casting shadows, which creates greater depth and interest in the scene.

Leica M(240), 21mm, 18s @ f/13, ISO 400
Cavendish, Prince Edward Island, Canada, 2014.

"Sidelight takes strong advantage of shadow because, unlike front-lit subjects, the shadows become visible to the camera."

Sidelight takes strong advantage of shadow because, unlike front-lit subjects, the shadows become visible to the camera. Shadows model a subject, revealing the textures and dimensions we don't see as well when that subject is front-lit. Those shadows form lines and shapes. They give us a little more to work with, especially if we're trying to create depth and detail in our work.

Your Assignment

Most of us have more experience than we ever needed photographing front-lit subjects. It never occurred to some of us to move around our subjects until, relative to our own position, the subject was lit from the side, or to wait until the sun was in a different part of the sky. That's going to change. Spend a week within this constraint: make no photograph with the sun behind you. And because we haven't talked about backlight yet, let's not get ahead of ourselves—so nothing with the sun directly in front of you. Photograph a week's worth of subject matter that is lit only from the side. Then sit down with that work and study it:

- Do you like the increase in mood and depth?

- What new challenges does this introduce to your work?

- How did you deal with the new lines and compositional elements created by shadows?

Lesson 29. Light: Backlight

Back one last time to our imagined scenario in the field. Now keep walking to the right, and walk until the sun is directly in front of you, though it's partly obscured by the leaves of the tree. The tree is now completely backlit. Standing in the shadow of the tree itself now, you look up to see the red leaves of the tree ablaze with the light as it streams through the leaves instead of bouncing off them. The grass in the field around you is the same—an impossible green, like it's lit from within. Dust motes dance on the wind, more visible than you remember them before, lit, like the grass, with transmitted light. The trunk of the tree is dark, almost black, without depth or texture, but if you look carefully you'll see the last licks of light as they form a halo of rim light around the tree, outlining its inky black silhouette. You make another photograph.

Nikon D3s, 26mm, 1/1000 @ f/11, ISO 400
This fisherman in Northern Kenya is backlit by the setting sun, creating mood and mystery that side or front light would not have done.

If I could photograph only one kind of light for the rest of my life, it would be low natural backlight. Low in the sky, the sun's light is warm, the shadows are long, and it's harder to avoid lens flare, which to many is a liability but to me often adds to the magic. Backlight is harder to work with, and it usually takes me a couple of guesses to get my exposure right. But I've gone from avoiding it to wrestling with it, to seeking it out for the mood and emotion it creates. It's not remotely appropriate for every subject, and there are stories aplenty out there that should be told with other light, but the stories I seem to resonate the most with all seem best told with backlight. There's nothing to know about light—backlight or otherwise—that you yourself can't learn from observation and experimentation—so get out there and play with it. Here are a few thoughts about technique:

- Choosing a wide aperture will create a look consistent with the dreamy mood that backlight can give. It'll also exaggerate lens flare, if you like that kind of thing.

- I know you still have your camera in Manual exposure mode, but just in case you slipped it back to a Program mode, it'll be easier to work in Manual.

- If you're shooting portraits, you probably don't want the faces to be too dark, so it's going to be easier to shoot with the histogram to the right, but you should pay attention to which highlights blow out. Shooting toward a background other than the open sky will give you more drama.

- Moving around will help. You've got three choices with the sun—to hide it behind something like your subject, to allow it to peak out or be visible entirely in the frame, or to keep it out of the frame. All three will create different aesthetics. Behind your subject the sun is likely to create a beautiful rim light. Peeking out slightly, you can create an edge-cut sun effect—crank your aperture down to f/16 and you can make a starburst of it.

- Autofocus systems work on contrast, and backlit situations are usually quite low contrast and harder to focus. They can be hard to see in, too, which makes switching to manual a little harder. Try moving slightly so the sun is obscured, find focus, and then reframe. Or have someone flag your lens, blocking the light, while you focus. However you do it, a little patience is helpful. There's nothing wrong with your camera; it just struggles with this kind of light.

- Look for scenarios with dew, haze, rain, dust, high grass, or anything else that will pick up the light, transmit or diffuse it, and add mood to your work.

Your Assignment

Like your homework for becoming familiar with sidelight, spend a week photographing nothing but backlight and backlit subjects. Then, again, sit down and study the work and think about these questions:

- Did you find exposure harder? Why? How did you solve it?

- With subjects plunging deeper into shadow, did you find it hard to deal with the absence of detail? Did you find yourself paying more or less attention to the subjects as silhouettes, and to the moments that gave you the strongest silhouettes?

- Look for areas where the light is transmitted through the subject instead of simply reflected off it. How does the inclusion of these elements change the look and feel of the photograph?

Lesson 30. Quality of Light: Further Considerations

If you read the previous lessons' imagined scenario all the way through without stopping to do your homework, you'd have made three photographs in a couple of minutes, much less time than it took for me to write it or for you to read it. The sun wouldn't have changed enough to notice it. The tree was the same tree. The field, too, remained the same. And yet in those brief moments you'd have created three very different photographs. You'd likely have composed those photographs differently, as each new scenario gave you new possibilities and drew your eye in new directions, placing the side-lit tree to the left of the frame, for example, to give room for the pull of that great shadow.

Nikon D3s, 24mm, 20 seconds @ f/10, ISO 400
This boat on Lake Turkana in Northern Kenya would be pretty unattractive under midday sun, but in the soft light of twilight it's a very different scene with a very different feel. It's all about light.

You might have chosen to close your aperture to f/16 when you photographed that backlit tree, knowing the tighter aperture might make a starburst of the points of light shining through the canopy. You might have shot the first scene much wider and given more importance to the clouds, since the light on the tree itself lacked drama.

Such is the effect of the direction of light, and where the light remains unchangeable, there's often the possibility of moving the camera. There are a few other things to consider, and they too change the look and feel of the photograph considerably.

Nikon D800, 300mm, 1/1600 @ f/7.1, ISO 400
Light passing through the feathers of this whooper swan creates a very different mood than if the light had simply reflected off them. I'll shoot transmitted light any chance I get!

The first is this: The position of the sun relative to you and your subject will create shadows. These shadows are more than merely the "areas where the sun don't shine." They're powerful indicators to us about how to read a photograph, helping us to establish the logic of the scene and place ourselves within its reality. It's one of the reasons (you knew I'd go off on a tangent about this!) that high dynamic range tools—when in the hands of overly enthusiastic novices—make surreal images that photographers like me react to so strongly (and negatively). It's not the fault of the tool, but the removal of strong blacks, the mystery of the unseen, and the visual clues we rely on shadows to provide that makes us feel uneasy. We'll revisit the discussion about shadows later, because they're important and they can be used to create depth, shape, line, and mood. For now, just learn to observe them, and see how the presence of shadows can help you guess where the light might be coming from.

Reflected and Transmitted Light

The second consideration is whether the light is shining on a subject, creating reflected light, or shining *through* a subject, creating transmitted light. Neither is better than the other, per se—they are what they are—but they both contribute a different aesthetic. As does a combination of the two. Reflected light is responsible, of course, for reflections and specular highlights, the texture created by shadow on a rough surface, or the catchlight in the eye of a child. If the subject is opaque, and even dimly lit, it's reflected light. Light does not, as a rule, shine through stones. But with less opaque subjects, like a leaf, and depending on the direction of the light, the light can go from bouncing off the surface to shining through it. The difference is not unlike looking at a small printed photograph and then looking at a transparency or slide on a light table. On the backlit slide, the colors can be richer and more vibrant, and seem to glow from within. How we experience the two photographs can be quite different.

Nikon D800, 135mm, 1/1600 @ f/4, ISO 400

Nikon D800, 145mm, 1/100 @ f/5, ISO 1000
Look at the shadows: which light is soft and which is hard? How does that affect how you feel about each portrait?

Intensity of Light

Regardless of direction, not all light is the same. There are subtle nuances of difference, and so much depends on what the light is bouncing off, or through, or what combination of the two is happening. One of the further distinctions that's so important to be able to recognize, and play with, is whether the light is hard or soft.

Hard light, coming from any direction, is undiffused; it comes straight from the source and hits the subject head on. The easiest way to distinguish hard light from soft is in its effect, notably in the shadows it creates. Their edges are harder, the contrast greater; these shadows add more drama but can be hard to control in portraits. Softer light—light found on the shady side of the street or on a cloudy day—will lack these hard-edged shadows, and the colors will be less washed out. Neither is good nor bad. They're just different, and learning to see them and make use of them according to your intent for the photograph is important.

Your Assignment

The next time you're out photographing, ask yourself this question: What is the light doing? What's it doing to colors and shadows? What textures and depth is it creating? What mood? Is there a way you can change it? With so much of this, it's just a matter of approaching your subject from a different angle, circling around that flower until you've gone from front-lit to side-lit, and finally to backlit. Now you've got some transmitted light, and the look and feel is totally different. It might not always create the mood you're looking for, but you can't know until you've explored the possibilities. It's the same as being told to turn around and see what's behind you, except when you do that your subject changes. Walk around and look at your subject, and the light, from all angles. "What is the light doing?" is one of my favorite questions in my own creative process. Another is, "What am I doing about the light?"

Lesson 31. White Balance for Mood

Although there's a lot of talk about achieving accuracy in our white balance, I think the whole conversation misses a larger opportunity, specifically the ability to use color balance to achieve a greater emotional response to an image. If you do catalog work or something else that requires faithful and exact reproduction of color, it's worth going the extra mile to do color balance as accurately as possible. But for most of us, we're making photographs for other reasons, and accuracy can be a moving target that distracts us from the bigger issue.

Fuji XE-1, 24mm, 1/150 @ f/5.6, ISO 200

Fuji XE-1, 14mm, 1/140 @ f/5, ISO 200

Two different images, both treated with different white balances. Which is right? The only answer I have to that is, "Which one feels right?" The answer will be different for all of us, depending on what we felt at the time.

Given how powerfully we respond to color, it should be no surprise that we respond

emotionally to the color of light. We will *feel* differently about a photograph with apparently cool light than we will about one with apparently warm light—that is to say, our experience will change from one to the other.

> "Given how powerfully we respond to color, it should be no surprise that we respond emotionally to the color of light."

When people talk about making color accurate in their image, they generally mean the neutral tones in the scene are rendered neutrally in the photograph, without a color cast. It's generally worth taking magenta or green tints out of our images, because light doesn't typically take on these hues. But the yellows and blues? Color temperature is a great creative tool, and experimenting with your white balance will help you understand that, either in-camera or later in the darkroom when you've got a little more control over it.

Let's go back for a moment to the issue of neutrality. If I place a perfectly neutral target, like a gray card, into a scene during the golden hour before sunset, that neutral target will be naturally contaminated with warm light. Removing the warmth of that light—which is, ironically, a *cooler* color temperature on the Kelvin scale, where blue is hot and red is cold; go figure—would be anything but accurate. Likewise, with a gray card placed in the blue shade of a tree in winter, removing the blue would warm up the scene and make it feel very much the opposite of how it truly felt to us. If anything, you might want to cool it down even more.

Dealing with people in these kinds of scenes introduces a complication, because though we can forgive—even desire—a change in color temperature in landscapes and other scenarios, we know quite well what skin tones look like, and a change in color temperature is not only noticed but also creates an even stronger reaction, not always positive. So mind how creative you get. But, ignoring the issue of skin tone for now, my suggestion is that you look at white balance in-camera as a creative tool as much as, or more than, a tool to achieve accuracy. And even more so when you refine things later in Lightroom or Photoshop.

Your Assignment

Pick up your camera and make a photograph on the Auto White Balance (AWB) setting; if you're like me, that's your starting point most of the time. I know I'm going to work on my images later, so I let the camera do its best and that's usually good enough for me. Or I'll put it on Cloudy, or Shady, because I like warmth in my photographs. Still on AWB? Good. Make the photograph. Now try all the others settings, and react to them. If nothing else, this assignment will give you a sense of the full range of possible temperatures of light—from very warm to very cool. How do you feel about them? That feeling can be controlled, even exaggerated, in your photographs.

Now open one of your favorite images in Lightroom or Photoshop. This time we're going for subtlety—move the color temperature slider a little to the cool side of things, and a little to the warm side. How do you feel about those changes? All I want to do is open you to the possibility that this is your decision—not the camera's —and the mood present in your work is up to you.

Lesson 32. Light: Reflections

The next four lessons are less about how we accomplish one particular effect or the other; they are better considered as exercises in awareness. Because we see the world three dimensionally (until the camera flattens a scene), and because we take these effects for granted, we sometimes neglect to truly see them. In so doing, we miss an opportunity to incorporate them into our compositions, realizing too late that, for example, we were looking at the subject so intently that we didn't notice his shadow, and so we cut it off prematurely so that the lines in the image now don't resolve as powerfully as they could have if they hadn't been cut off by the frame.

Nikon D800, 26mm, 1/1000 @ f/10, ISO 200
Lemaire Channel, Antarctica, 2012.

Nikon D800, 16mm, 1/200 @ f/10, ISO 200
Lemaire Channel, Antarctica, 2012.

If you spend any time photographing near shiny surfaces like glass, water, or wet pavement, you'll run into reflections. With any luck you'll learn to recognize them, incorporate them into your photographs, and seek out the conditions that make them happen. In Venice I recently spent an evening chasing reflections in a flooded Piazza San Marco and the glass storefronts of the shops and bistros that surround the square. Playing with my position relative to the windows allowed me to photograph the dual worlds of Venice and her reflection, creating some beautiful symmetry and mood. You'll find the same in places with still water. During my last trip to Antarctica, when I made the images that accompany this lesson, I had a lot of opportunities to play with reflections of land and cloud elements in the water, creating a kind of rhythm and symmetry that's not often possible otherwise.

There is no magic in photographing reflections. The hardest part is just paying attention to them—learning to really see them—and then treating them as you would other lines and shapes, and making conscious choices about them. Among those choices are how much to include or exclude, seeing beyond the reflection into the surface of the reflective thing itself (it's easy to shoot a reflection in a shop window only to see later that you can also see *into* the shop, which can either help or hinder the image, but you have to be aware of it), and playing with different reflective surfaces, all of which will give you different effects. Spend some time playing with reflections and you'll be more aware of them when they present themselves, and more able to control them when they're part of the scene.

Your Assignment

Go find some reflections. Look for them in shiny streets, and crouch down low to look across the surface of puddles. See them in the surfaces of marble buildings and the silverware on tables. Play with creating symmetrical frames, as well as some images that include only the reflection and not the thing that is being reflected. See how the reflections create their own compositional challenges and opportunities. Take note of what the light is doing and what conditions are causing these reflections, because the next time you see that light and those conditions, it'll trigger you to more quickly recognize the presence of these reflections.

Lesson 33. Light: Shadows

It is so easy to overlook shadows. We take them so much for granted that when they appear we see them more as a shadow than as a graphic element to be incorporated into our composition. Galen Rowell talks about this as pattern recognition; we see something familiar and our brain, from a lifetime of dismissing that thing as irrelevant, continues to dismiss it, and in the end we don't really see it at all. Before we picked up a camera, how many of us ever had much cause to consider shadows important? It takes some retraining for our brain to begin seeing them, but retraining's not hard. We see/perceive what is important to us, and the more important shadows are to you, the more you'll see them. It's the classic Red Car Effect (that's what I call it)—you don't see many red cars until you fall in love with one and buy one, and then you see them everywhere.

Fuji XE-1, 14mm, 1/1000 @ f/11, ISO 400
End-of-day shadows in Camogli, Italy.

What's important about shadows is that when they're present they can create a significant amount of impact in a photograph. Why? Because what we do not see in real life due to pattern recognition, we see very clearly in a photograph. Pattern recognition works in real life—that is, in three dimensions—but not as often in two-dimensional representations. It's why we don't notice the lamp-shade growing out of our subject's head until we see the photograph. And so because we notice them in the photograph, like reflections, it's important we control them. Shadows appear as dark lines and shapes in photographs; once they're in the frame, they're like any other real-world material element. As such, they can lead the eye around the frame and have visual mass that pulls the eye. They can clutter an

otherwise beautiful image, or they can be the subject of the image itself. What matters is that you *see* them. When you ask yourself, "What is the light doing?" make sure part of the answer includes an awareness of where the shadows are, because the one causes the other.

Fuji XE-1, 14mm, 1/1000 @ f/11, ISO 400

Fuji XE-1, 14mm, 1/1000 @ f/11, ISO 400

Your Assignment

As you did with reflections, go find some shadows. Pay attention to their length and their density. Some will be softer than others; some will be quite sharp. What kind of light causes which kind of shadows? How can you use these shadows in your photograph? Can you use the lines they create to give energy to the image? Can you use what those shadows hide to create mystery?

Lesson 34. Light: Silhouettes

Silhouettes are an underused way to isolate, turning otherwise chaotic scenes and blown-out skies into pure shape, gesture, and light. When other attempts to work with a high-key scene fail because colors aren't working well, or that one dude's got a funny look on his face, or the sky isn't doing it for you, try exposing for the sky and letting the rest of the frame go to shape and form. Whereas others are trying to eliminate the shadows with HDR techniques, try taking advantage of them. Silhouettes simplify and abstract. They turn individuals, recognized by their features, into anyone. They turn buildings into nothing more than their iconic outlines.

Nikon D3s, 22mm, 1/2500 @ f/18, ISO 200
A pilgrim is silhouetted against the setting sun in Lalibela, Ethiopia.

Making silhouettes is nothing more than exposing for your sky. If you're shooting RAW you'll still want to keep the histogram over to the right, but for this to work you need a high-key scene anyway, one where the dynamic range of the scene is close to, or more than, what your camera can handle. Set the spot meter to read the values in the sky, and use that as a starting point. You can always darken the shadows further in Lightroom later. Compositionally, remember that not all silhouettes are equally powerful. Look for the shapes, not the details. We're so used to looking for smiles and the light in a person's eyes, but in silhouette these things all but disappear, so look for the best possible outline: strong gestures, the climax of an action, recognizable profiles.

Nikon D3s, 16mm, 1/8000 @ f/6.3, ISO 800
Maasai warriors dance, silhouetted to focus on their form, simplifying what would otherwise be a washed-out and cluttered scene.

While shooting in Kenya last year I visited the village of a friend to introduce some students of mine to the villagers and make photographs while they danced under the hot mid-afternoon sun. We were in a tight village, surrounded by huts. Colors were contrasty, faces were in and out of shadow, and the whole scene was very chaotic. The Maasai dance involves a lot of jumping and vertical movement, and I knew I could exaggerate that by getting really low, so I lay down in the dirt and shot up. I chose a wide lens to capture the action and exaggerate the verticality of the dance. And I cranked the exposure down, shooting toward the sun.

Using silhouette, even as an occasional exercise, is beneficial because it helps us see. For some reason there's greater visual mass in the details of things than there is in the shape of them, probably a lot like how we'd rather look at what's in the frame of the photograph than the frame itself. But with a silhouette in the photograph, that shape is there whether or not we like it. As a line in the frame, the more we perceive, the greater our ability to control it and make stronger images.

"Look for the best possible outline: strong gestures, the climax of an action, recognizable profiles."

Your Assignment

Spend a day or two forcing yourself to make silhouettes of subjects you would otherwise photograph with greater detail. Find ways to isolate them against brighter backgrounds, and expose for that background, underexposing your subject and making it nothing but outline. See how a silhouette allows you to simplify the scene. Now lacking the details that otherwise would be there—for example, a face —see how important the shape and gesture become. Pay attention to that, wait for the strongest moments, or, in the case of something like a flower, watch how your choice of point of view and perspective gives you some silhouettes that form stronger shapes than others.

Lesson 35. Light: Lens Flare

I read something recently on a list of "Here's a bunch of things that make a photograph weak"—which always amuses me because the moment you tell me, "Don't do it," I want very badly to do it. The article explained how lens flare was a weakness in an image, a result of either cheap optics or lazy photography. Which made me laugh because I try very hard to achieve lens flare with some of my very best lenses. In fact, lens flare is an effect that motion picture animators go to great lengths to re-create in order to strengthen a sequence by adding realism and drama. The Director of Photography (DOP) for my favorite sci-fi series, *Firefly*, had such a hard time achieving the lens flare he wanted with the expensive cinematic lenses they were using that he took them back and bought cheaper ones. I assume it had something to do with the coatings, but either way, it seems funny that cinematographers—the primary visual storytellers of our generation—are using lens flare to strengthen their imagery while still photographers are telling each other to eliminate it. It's an aesthetic. Sometimes it works, sometimes it doesn't.
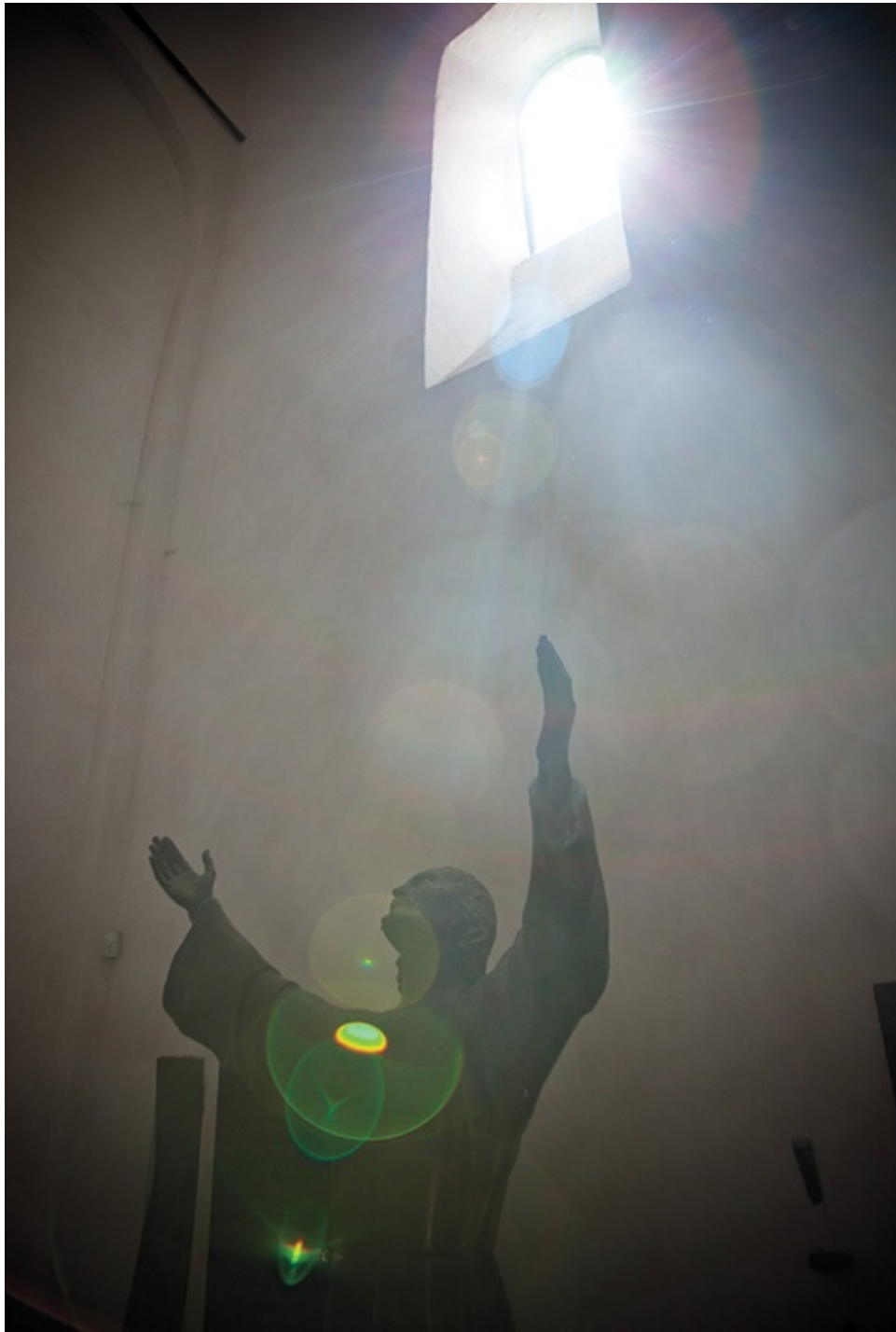
Canon 5D Mk II, 25mm, 1/400 @ f/2.8, ISO 400
Sun flares against the lens, pointing more clearly to the light itself, and reinforcing the spiritual theme of the image.

Nikon D800, 16mm, 1/250 @ f/13, ISO 200
Sun flare over an ice shelf in the Lemaire Channel, Antarctica.

Lens flare is created when direct light hits the front element of the lens, enters the lens and, in nontechnical language, bounces around and stuff, creating artifacts like rays and rainbows, and usually lowering the contrast of the image. The more elements in the lens, like a longer zoom—and, as I mentioned, the cheaper the lens—the more prone to flare it is likely to be. Stopping the light from hitting the front element, with a lens hood or by having someone block the light (off camera, preferably), can prevent lens flare. Opening the aperture wider and making *sure* the light hits the front element is a good way to ensure it.

But why lens flare? It makes us more aware of the sun, and the media we're using to photograph it. It points it out. And, since *Easy Rider* came out in 1969, cinematographers have been incorporating it into our visual vocabulary. We associate it with an increase in drama and an increased feeling of luminosity. But more than that, it can be beautiful. The haze it creates in a scene can be soft and warm, lending romance to the scene. Or it can complement the presence of the sun in the frame, creating a connection between foreground and background.

Whether or not you like lens flare, you need to be aware of it if you're going to prevent it or seek it out. And sometimes a backlit scene, especially when the sun is low, can't be shot without it, so you might as well learn to control it, finding a camera angle that allows you to place the sun, and other elements, exactly where you want them. In other words, move

around until the sun is blocked by something.

Your Assignment

Go find the light and point your camera at it. A lightbulb in the house might not do it, so get outside. The more directly you point the camera into the sun, the better, so wait until it's low. See that lens flare? Some lenses will do it really well—often the cheapest ones do it the best, so try different lenses. Make sure you don't have a lens hood on, since they're made to stop this very thing. Now watch how the lens flare moves in the frame as you move the camera around. Lens flare can be controlled. As you move, notice at what point the flare is greatest, and at what point it disappears. Now make some photographs that use the flare to give mood. Place it carefully because flare too is about lines and shapes. It's not enough that there is or isn't flare; it's what you do with it that makes the difference.

Lesson 36. Moments: Timing

Timing is everything. Every photographer knows that and wrestles with that very constraint. It's one thing to know it and entirely another thing to be able to anticipate it, recognize the moment when it arrives, and react to it before it's over. What cripples us a little, I think, is that we're taught quite early to pay a great deal of attention to the length of the moment we capture (is it 10 seconds, 1/10 of a second, or 1/1000 of a second?) but less on *which* moment we capture. And moments, at least in the eye of the camera, are not all created equal.

Nikon D3s, 24mm, 1/250 @ f/11, ISO 200
Four frames made within seconds of each other, but only the fourth in the sequence had the energy and balance that I wanted. The third comes close, but to me it's the final frame that best captures the strongest moment, the apex of the action.

"Not only is Cartier-Bresson asking us to carefully choose our moment, but he's also asking us to take care in where we put that moment."

One of the gifts of photography is the way it elevates mundane things. Moments we'd never notice in real life get observed and suspended in time when we make a photograph. We say, "Look at this!" and for as long as that photograph remains, so too does our chance to experience in some way the moment it represents. To the camera a mundane moment between unknown people can be as universal, even iconic, as the great moments in history.

It doesn't take Martin Luther King Jr., Winston Churchill, or JFK within our frame to make the photograph iconic. Henri Cartier-Bresson's photograph "Behind the Gare St. Lazare" is a good example of this. Who is the man jumping the puddle—does anyone know? For that matter, do we care any less because he's unknown? We don't. He's Everyman. What makes the photograph great is not the subject but the universality of the moment, and the way it creates such an engaging composition. And that's a matter of timing.

While we're talking about Henri Cartier-Bresson, it was he who first coined the term "the decisive moment" and it's a critical one for photographers. What Cartier-Bresson was pointing out was the significance of timing, and when he described this decisive moment he defined it as the moment when the apex of the action in the scene corresponded with the best possible composition in the camera. It's an important way to look at it. What he was not saying was that it was the best possible moment or the hardest one to capture, but the one that was best represented in the camera. And that's what makes some timing good and some timing less than ideal. Not only is Cartier-Bresson asking us to carefully choose our moment, but he's also asking us to take care in where we put that moment. As if it wasn't hard enough already. But if we wanted something easy, we'd have been better off taking up finger-painting.

The photographs that accompany this lesson were made seconds apart in Northern Kenya. The final select from the sequence is only fractions of a second different than the others, but that difference in timing means he's running, one foot off the ground, his staff in the right place, just at the horizon, and he doesn't yet obscure any of the figures on the horizon, which would break the rhythm.

The key with timing is not merely waiting for it, though that's important. The key is anticipating it and recognizing it when it arrives, and for that there's no substitute for knowing your subject intimately. A wildlife photographer who knows well the kind of birds he photographs will know to anticipate behavior that someone else might never be able to do. In the same way, a portrait photographer who pays attention to the people he photographs will know when a smile is coming, and what might happen after that smile breaks. The seasoned wedding photographer will know the commonalities that she's seen in a thousand weddings, and anticipate moments that are much more symbolic, universal, or emotionally charged, and she'll know which part of that moment will be the strongest compositionally. You can guess at this stuff, or you can become more familiar with your subject. It's a strong argument for not photographing absolutely everything, but choosing certain subjects and staying with them. The familiarity you develop over time will allow you to anticipate moments, and be ready for them, not just hope for something to happen.

Your Assignment

Find a dozen of your favorite photographs, preferably by another photographer so you can look at them a little more dispassionately. For each of them, ask yourself this one question: How might this photograph be different if the photographer had chosen a different moment—perhaps a few seconds, minutes, or even hours, before or after? In the case of photojournalism that story might be completely different, or long over. In the case of a wedding, it's the difference between a stolen glance, a kiss, the caressing hand of the groom on the small of the bride's back. Landscape photographers might not miss the light by a couple seconds, but in minutes it can be gone, and that light can be what makes the photograph spectacular or dooms it to be unexceptional. Now look at your own work, and ask yourself the same kinds of questions. How might this image be stronger if I'd chosen a different moment? What should I have been paying attention to in order to anticipate a stronger moment? Did I miss it because I wasn't present in the moment? Was I chimping? (*Chimping* is the almost compulsive need to look at your images on the back of the camera the moment you create them.) Was I unfamiliar with my gear?

Lesson 37. Moments: Patience

"Why is patience so important?"
"Because it makes us pay attention."

–Paulo Coelho

I am not the most patient man on the planet. In fact I'm known for the opposite. My belief that life is short, coupled with a sense of urgency to cram it all in, and the knowledge that if I don't do the things I want, no one will do them for me, makes me deeply impatient. So when I tell you patience is more important to a photographer than half the nonsense we spend our time on, it's not because I find it easy or have a particular knack for it. It's because, pragmatically, I've found it to be true. On safari in Kenya I've watched time and time again as people have become impatient, put their cameras away, and given up. I tell them not to. I tell them to wait it out. They don't. And that, inevitably, is when the magic happens. It's the same thing with portraits. Unless you're patient and wait for the moment, you'll have given up before it comes. The smile, the unexpected gesture, the one look that reveals your subject in a way that all the clever posing guides can never anticipate.

Your need to make a photograph and life's need for certain things to happen in sequence are notorious for lining up a little out of sync, and the sooner you get used to it the better. We all need to slow down a little, and I'll talk about that toward the end of this book. But that's just part of it; slowing down is not the same as being patient. Slowing down is about the pace of what we do, whereas being patient is about how long we're willing to pace ourselves. It's about waiting.

Nikon D3s, 70mm, 1/250 @ f/5.6, ISO 400
Grizzlies in the Khutzeymateen, British Columbia, 2013. I waited a long time for the bears to get comfortable with us but was eventually rewarded with this scene. Had we pulled out and moved on, we'd never have seen scenes like this.

We like the spontaneity of photography, and when the moment finally happens we need to be ready for it. I'm all for being spontaneous. But these moments do not come at our bidding. Without waiting we will see fewer and fewer of them, unwilling to put in the time, unaware that the waiting is what it takes because these moments are rarer than we like to think—at least the truly great ones are.

> "Being patient is about how long we're willing to pace ourselves. It's about waiting."

Patience is needed not only as we wait longer than we thought we'd have to for a great moment, but in bigger ways. We need patience as we work toward that moment when we finally stop thinking so consciously about exposure or composition and it all begins to feel a little more natural—that moment when, for the first time, we feel we might be getting somewhere with this craft and art. For that moment when our work begins to truly feel like our own and not just exercises in imitation of others, helpful as they've been. For the dry period to be over. For that moment when you move beyond the plateau. If you thought waiting for the UPS driver to come with your B&H order was tough, then, baby, you're in for a shock. But patience is what will keep you from giving up, from chasing shortcuts, from getting so paralyzed by your disappointment or fear that you can't do anything but make the same photograph over and over again. Patience with your scene, the light, the people you work with, and most of all yourself and the creative process that's uniquely yours, imperfect, and tormentingly slow. Do what you can to seek it out, grab it by the tail, and hang on tenaciously. Don't be passive. But don't for a moment think that your tenacity

means things will just roll over and play nice. You'll still have to wait it out. But do. Patience, said Aristotle, is bitter, but the fruit is sweet.

Nikon D3s, 140mm, 1/60 @ f/7.1, ISO 1600
Khutzeymateen, British Columbia, Canada.

Nikon D3s, 140mm, 1/80 @ f/7.1, ISO 1600
Khutzeymateen, British Columbia, Canada.

Lesson 38. Moments: Await Your Foreground

If I could encourage you to wait for one thing—beyond the sweeping generalization that all you have to do is wait for the light, the lines, and the moment to appear—it would be await your foreground. Over the last few years, as I've taken students around the world and we've sat talking about their photographs, I've noticed my observations beginning to fall into a few repeating patterns. One of those observations is this: You've got a really beautiful/interesting background. It's gorgeous. But I feel like it's an empty (though beautiful) stage awaiting the character, and the story can't begin until the character shows up. Now, if your story is about the absence of that character and you want to express that absence, or vastness of space or something, then great, but then you need to compose it that way. Most often the photograph is composed as though the photographer were hoping something would show up. And I tell them this, and you know what they say, to their credit? Nine times out of ten they say that's what they were hoping for—for that character to show up. I say "to their credit" because it thrills me they recognized the image was missing something, and they knew what that something was. That's important.

Nikon D800, 19mm, 1/500 @ f/13, ISO 400
**Antarctica, 2012. Neither the seal nor the penguin was there when I arrived. You
never know what will show up, but if you don't wait around, it's a sure bet you
won't see it.**

"We were waiting so hard for something *specific* that we didn't see the possibilities in what presented themselves."

Only two things are missing now. The first is the discretion not to show others your work when you know it's lacking, but in a teaching environment I applaud that courage. The second missing thing, and here's the point I'm getting to, is this: the patience to wait for that character, or missing element, to appear. Sometimes it never happens, but most of the time that's because we didn't wait long enough. Or we did, and some amazing things came through our scene but we never saw them because we were waiting so hard for something

specific that we didn't see the possibilities in what presented themselves.

Not unlike the wisdom that says if you find beautiful light, go find something in which to photograph it, if you find a great background, it's worth finding, or waiting for, a great foreground. Life doesn't stand still. Some places have more movement than others, for sure, and in them it's worth the waiting, or the going back for. In the others, when no great specific moment is likely to appear, then tap into what it is you love about the empty stage in front of you and make that the star. Get in closer; do studies in color, line, or texture. Do an abstract. Or find a way, as I mentioned earlier, to make the photograph about that absence or emptiness. But my dollar's betting on something happening if you wait long enough—either the missing element will appear, or you'll see what you didn't before. It was probably there all along, and you just needed time to perceive it.

Your Assignment

Just wait a little longer. You've got another assignment later that's more specific to waiting out a scene, and Lord knows most of us find this kind of thing hard enough to do once, so I won't ask you to do it twice. What I do want you to do is consider that waiting time as time spent thinking about possibilities. If you could make anything in the world appear as your foreground, what would it be? Why? Is there a more likely alternative that might accomplish a similar thing in this scene while also having the advantage of being remotely possible? If nothing appeared, what compositional choices could you explore to make a different photograph? Use your camera, or just your iPhone, which makes a great tool for making sketch images, to make a series of "what if…" photographs. Consider doing the exercises in Lesson 50, "Explore Possibilities."

Lesson 39. People

Photographing people is a subject that can take, and has taken, whole books. If there were three things, and only three things, I could teach about photographing people, it would be these. First, making photographs of people is not primarily a technical pursuit, but a relational one. Second, photographing people is no different than photographing everything else—a photograph of an interesting person is not the same as an interesting photograph. Third, almost everyone I know is nervous, or downright frightened, by the prospect of photographing people, and the ones who aren't are a little weird and probably to be avoided.

Let's go back to the first idea. The best portraiture is not done by people who are profoundly technically proficient. In fact, the geeks who know their camera specs inside and out are probably the ones that'll make really, really sharp and perfectly exposed photographs of cats. To them I can only say, it might be time to turn off the *Star Trek* reruns, take William Shatner's advice and get a life, and in that life include some social interaction. Come back to this lesson when you've done that. The others among you just need to make the relationship the first priority. Why? Because it's within the context of the relationship, however brief, that you will truly see the subject, and you can't photograph what you don't see. Great portraiture is about revelation, and you can't portray that until something about the subject has been revealed to you. That happens when the subject is relaxed, when they trust you, and when you are genuinely interested in and curious about them. It's about trust, even on the most basic level. If they trust you, they will open up to you, follow your lead, and in some way reveal themselves to you.

Nikon D3s, 85mm, 1/1000 @ f/5.6, ISO 400
The difference between these photographs and the ones that didn't make the cut was time, curiosity, patience, and kindness. All the gear and technique in the world is nothing without those.

The second idea adds to the first. You want your subjects to trust you because when they relax they act more like themselves, which leads to a genuine laugh, an authentic gaze, or the removal of the masks most of us wear in some form. A truly interesting-looking man is no guarantee of an interesting or engaging photograph. What interests us is the gesture, the lines, the representation of connection, and that won't be there in the photograph if they're not there with you. I'm talking specifically about portraits here, but the same logic applies to candid photography. We respond most to photographs of people where there is some recognizable (what we can recognize, we can feel) emotion. Even boredom, if shown strongly, can work, but make it something. If photographing a couple in a fight, choose your moment so the fight can be *felt.* A couple in love? Show that love by some gesture. It doesn't have to be passion. It can be tenderness. But the gesture has to be there, and it has to be obvious to those of us who weren't there at the time. If, in order to truly feel this moment, we need to have seen the moments on either side of the one you photographed, it's not going to work.

> "Great portraiture is about revelation, and you can't portray that until something about the subject has been revealed to you."

The third idea is the one most photographers find hardest, and it sends them in droves to photographing landscapes. Working with people can be scary. We are no longer completely in control. If they are strangers, they could say no to our request to photograph them. Despite our best efforts we might never click with them, and the moment when they reveal something of themselves to us might never come. So I'll tell you what I tell any of

my students who ask me about this, hoping I have the secret: there is no secret. Courage is not the absence of fear; it's the act of the will to act in the presence of fear. So, to be blunt, either work up the courage to do it, or don't. For most of us our fear is strongest where we have the most to lose, so hold it lightly. So what if a stranger says no? So what if the photograph isn't amazing? If you can relax about it and lean into the relationship, it can be much easier. Get to know them. Laugh with them. Ask them about their children. Make the photograph the record of that time together, not the only experience of it.

The rest is easy. Anyone can move a subject or a light to create a catchlight in the eye. And everything else is in this book already. Pay attention to your background. Be attentive. Choose your lens and the orientation of your frame based on the story you want to tell and the feelings you want to evoke based on the situation, not because one lens or framing is considered more appropriate. There's no place for what is proper or appropriate in art. Lastly, consider again the advice of Robert Capa: if your photographs aren't good enough, you aren't close enough. Get closer. Spend more time. Find a level of intimacy that creates trust. Spend even more time. And at a certain point the camera (you think you're scared of your subject—some of them are terrified of that camera) stops being so present, stops being a barrier, and then (and only then) will your photographs become something more universal and compelling. No posing guide or clever "Secret to Better Portraits" article online is going to get you there. This has much more to do with your heart than it does with your eye. Connect with the heart first, and let the eye take over later.

Your Assignment

This one's for the fearful. Give yourself a personal project that puts you in a place where you can make more portraits. I have a friend who photographs everyone who visits his house. Utility guys, friends, UPS driver, whoever. Why not? It doesn't get much easier. Why not ask one stranger a day to make his or her portrait? Need to start easier? One coworker a day? Why not ask the person who serves you coffee? You have to start somewhere. Just start.

And for the less-than-fearful, my experience with people for whom this comes a little too easily is that it's easy to make one or two photographs, then move on. For you I suggest an ongoing project. Don't make it a run-and-gun affair. Find someone you can photograph over a month, a season, a year. Ask your mother, your grandfather in his final years, or your children in their first. There really is nothing better than making photographs of people to learn how to make photographs of people.

Now pick up a book or two by people who made photographs of people. Look at people like Vivian Maier who photographed strangers, and Yousuf Karsh, who photographed notables, and Annie Leibovitz's early work when she shot for *Rolling Stone*. What is it about their work that engages their subjects? Do you see commonalities? Do you think it was easy for them? The best creative work happens on the ragged edge, just past the point where our comfort would ask us to stop and head the other way.

Lesson 40. Understand Visual Mass

Every element in the frame exerts a certain amount of pull on the eye of the reader. Our eyes, and by that I really mean our brains, our attention, are drawn to some things over other things. Elements that pull the eye are said to have visual weight, or mass. Understanding this, and playing with it, is key to almost any further conversation about composition. You can't, for example, talk about balance without talking about the relative visual pull of the elements in the frame. Of all the concepts I ever wrapped my mind around in photography, this one has made the greatest difference to me.

Some things pull at our attention more than others. As an example, generally speaking our eyes are pulled by larger objects before small ones, moving objects before stationary ones, bright before dark, sharp before blurred, human or organic before inorganic, and so on. There's no definitive list because it all changes with context. A white pebble in a sea of black sand will potentially draw the eye as much as a black pebble in a sea of white sand. In this case it's not about whether the pebble is black or white, but the contrast. Similarly, a man blurred by motion in an otherwise static scene might exert great pull on our eyes, but no more than, say, a stationary man in crowd of moving, blurred people.

Nikon D800, 600mm, 1/400 @ f/8, ISO 400

Nikon D800, 600mm, 1/2500 @ f/5.6, ISO 400

Every element in the frame pulls the eye with greater or lesser force. Where does your eye go? What path does it follow? Why? How does the first image differ from the second?

It is this ever-changing context that makes it hard to be definitive, but the principle is what matters, not a memorized list. Photographers are observers, and you should be able to come up with your own. It is understanding and noticing visual mass that makes the difference.

How can you use this understanding? If you have a sense of what will pull the eye you can more intentionally choose what you include or exclude from the frame. If you know that the eye finds diagonal lines more dynamic than parallel lines, you can shift your

perspective to make those parallel lines diagonal, changing the potential energy in the frame. If you know the eye tries to balance one element against another, and won't stop moving around the frame until it does, you can play one visually massive element against another and extend the experience of the viewer. Or conversely, you can eliminate that tension, make a composition that's more static, and thus create a more serene experience.

Photographs are not taken. They are made. And we are the makers. We have the ability through our optics and our choice of perspective and proximity to exert control over the way elements relate both to each other and to the frame. Being conscious of visual mass will help us make those decisions, giving us a greater sense of how the final photograph will be experienced by others.

Here are the short notes on visual mass:

- Every element in the frame will exert a measure of pull on the eye. Elements with greater pull are said to have greater mass or weight.

- Balance is an issue of weight, as is tension, so understanding visual mass will help you fine-tune the balance in your image.

- Tension is created when we create competition between elements by assigning similar visual weight to them, creating a dynamic viewing experience.

- Visual weight is not only about composition but about message. Making a significant element larger, brighter, sharper, and so forth will make it dominant. Is that what you want? Is there a way to tone that down or exaggerate it? We point with our photographs, saying, in essence, "Look at this." Giving elements greater weight is a way of saying "Look at this," more specifically.

- Visual mass can be used in the digital darkroom as well. Subtly sharpening or blurring elements creates either a push or a pull on the eye. The same goes for dodging and burning, or even changes in the crop.

Your Assignment

Set aside a couple hours, and put the coffee on. Find a magazine that's full of photographs. Grab a marker, preferably red. Now go from image to image and circle the elements with the greatest visual pull. Put a square around the element with the second greatest visual pull. Notice how your eye moves in the frame from one to another. Ask yourself the following questions:

- Why is my eye drawn to this instead of other elements? Is it larger, brighter, sharper? What gives it its weight?

- What is the relationship of primary and secondary, even tertiary, elements to each other?

- How are they positioned relative to each other and to the frame?

- How do they contribute to the balance or tension in the frame?

- Is there anything in the frame that pulls my eye that might not be part of the story the photographer seems to be telling? What could you, if you were the photographer, have done to reduce this? Change in position? Change in lens choice? Less depth of focus?

- How would the visual mass of the whole photograph change if it were in black and white?

"Of all the concepts I ever wrapped my mind around in photography, understanding visual mass has made the greatest difference to me."

Lesson 41. Experiment with Balance and Tension

Like so many things not directly related to the mechanics of photography, it took me a long time to wrap my brain around the issue of balance, much less the need for it in the first place. But balance is, ultimately, not something we can opt out of. Our photographs will be balanced—statically or dynamically—or they'll be imbalanced, but the balance in an image will affect how people experience your photograph. It is a key consideration in composing your photographs, so the sooner you pay attention to your own sense of balance and learn to play with it, the better.

Nikon D800, 200mm, 1/200 @ f/7.1, ISO 400
I could have photographed these cranes much closer, but placing them where I did in the much wider scene allowed me to balance them against the negative space formed by so much of the rest of the image. This is a great example of dynamic balance. A closer crop, with the cranes at the center of the frame, would be a static balance.

Balance in a photograph is much the same as it is in the so-called real world. Visual balance takes its cues from physical balance. It's all about mass. Physically, if you have an object on one side of a seesaw and a heavier object on the other, with the fulcrum in the middle, it will not be balanced. Replace the lighter object with one of the same weight as the heavier object, and the seesaw balances out again. That's static balance. But there's another way to balance it if you insist on keeping the objects of different weights: change the placement of the fulcrum, moving it toward the heavier object, which makes a lever of the seesaw and allows you to regain balance. That's dynamic balance.

It's helpful to get a sense of this because it's not often that we'll be able to, or even want to, change the visual mass in our images to find perfect static balance. Complicating it even further, there's truly no way to objectively weigh the visual mass of the elements in a frame. Remember, visual mass is not about the *size* of the elements, though that plays into

it, but the pull on the eye. A large black rock can have the same mass as a small child, and depending on how large the rock is and how adorable the child is, the mass of each will change. How do you assign a value to how much my eye is drawn to a red raincoat, the laugh of a child, or the shape of a lone tree on a hill? You can't. But you can play with it until it *feels* right, and that's one of the things that allows us to put our own stamp on our work—we'll all treat balance and tension a little differently, and in so doing we'll create different photographs that create different experiences for each of the readers of our photograph.
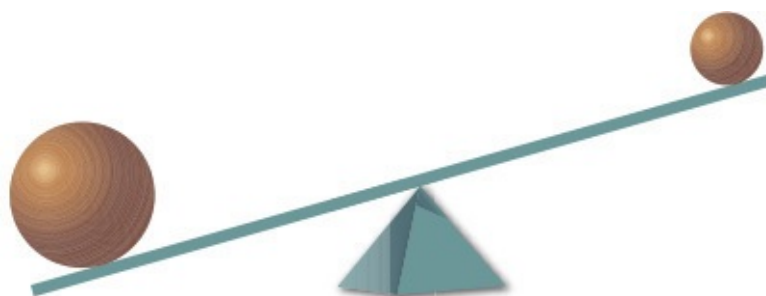
Imbalanced
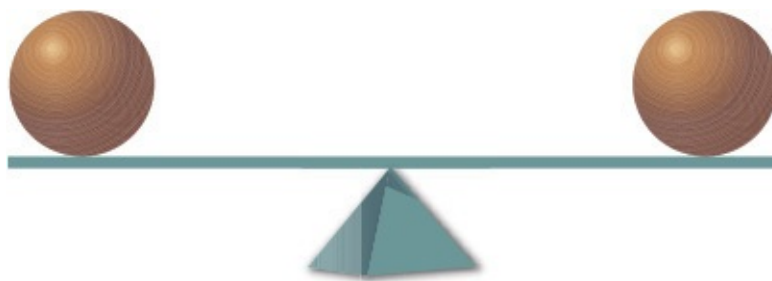
Static Balance

Dynamic Balance

"We'll all treat balance and tension a little differently, and in so doing we'll create different photographs that create different experiences."

This is why the so-called rule of thirds is so slavishly followed—because it so often works. The rule says put your main subject on one of the thirds of your frame, not in the middle. Why? Placing it in the middle is static. Symmetrical. Potentially boring. Putting the subject on the leftmost third, for example, is like shifting the fulcrum. Now the visual mass of the main subject on the first horizontal third of the frame balances against the two-thirds of negative space. Balanced but in tension. Dynamic. More interesting. But will one-third always do it? Not necessarily. It depends on the subject. And the negative space. And the feeling you intend to create. And it depends on all kinds of other decisions and constraints, like what you've chosen to do with scale in your image. There's no reason it

shouldn't sometimes be the "rule of fifths or sixths." And when what you want is symmetry and static balance to create serenity, then the right place—rule of thirds be damned—might be right smack in the middle. Understand *why* the rule of thirds works sometimes, and that will help you know when to use it, when not to use it, or when to modify it.

Your Assignment

Spend an hour with a magazine and your red marker. You know where this headed, so make sure it's a magazine you're okay with destroying. Pull out 20 photographs, and do the following:

1. Outline the frame of the photograph.

2. Outline the element that represents the primary subject.

3. Ask yourself: Is this image balanced? If yes, is it balanced statically or dynamically? If dynamically, against what is it balanced? Another element? Negative space? If it is not balanced, why not? What creates this imbalance? Is it intentional? What might the photographer have done to restore that balance?

4. Repeat.

Lesson 42. Use Your Negative Space

Negative space is the space in a photograph that is not your main subject. In the case of a portrait made with a very shallow depth of field, the negative space would be the blurred background that contrasts with your subject, better defining her and giving you something with which to create balance and/or tension. What you do with that negative space is important because, contrary to what the name implies, it is not the absence of space; it's a compositional element that determines how freely the eye moves about the image, and whether the eye is given a place to rest. It's important as well to remember that this space isn't necessarily "empty"—it can be textured or colored, or contain details, but not so many that they distract and become subjects of their own.

Nikon D800, 200mm, 1/160 @ f/7.1, ISO 400
**The crane in the foreground is the subject of this image. Almost everything else is
negative space, making a simple, elegant photograph.**

"Learn to anticipate the blur of a wide aperture or the compression of a long lens, and imagine how you might play with this negative space to frame your subjects."

What can make negative space so hard to grasp is that we don't see it naturally. When we look around the three-dimensional world, we naturally see first what we're looking at and disregard the context a little. But when you learn to see the way the camera does—which is in two dimensions—the context gets flattened against the subject, making the relationship between them impossible to ignore. Forcing yourself to see negative space, to look through the camera—and later at scenes without the camera at all—and see it in two dimensions, or flattened, is a great first step. Patches of open sky in the background can

become squares of blue in the photograph, so learn to see them that way. Learn to anticipate the blur of a wide aperture or the compression of a long lens, and imagine how you might play with this negative space to frame your subjects.

The well-meaning advice that encourages photographers to "fill the frame" often gets misapplied, and new photographers get in so close that they all but eliminate the negative space. A frame can be filled with negative space, and some of the most elegant compositions have a bold amount of negative space. It is not, however, a simple matter of whether or not you have a lot of negative space—it's how you use it and why.

Look at some of the images that accompany this book and consider the following questions:

- Can you readily identify the negative space in each image?

- Does the negative space distract from the main subject or serve to draw your eye toward it?

- How does the negative space balance against the positive space (the main subject)?

- Imagine two alternate versions of the particular image you're studying. What would it look and feel like with twice as much negative space? What would it look and feel like with less?

- Notice the way your eye reads these images and the path it takes. Does it feel rushed, or does the negative space give you a little breathing room before returning to the main subject?

Your Assignment

The next time you head out to make images, play with your composition and intentionally make three frames of each scene you choose to photograph. Make the first the way your eye naturally wants to see it. Now create two alternate images, as you did earlier with your imagination, but this time with your camera: one with a much more expanded use of negative space, and one with much less. Then study them. Not all photographs require expansive negative space. Some benefit from a constricted use of space. It all depends on what you want your photograph to say, to feel like. And in those images with more negative space, how your readers experience the photograph can depend very much on where you put that space. Negative space has visual mass, and the more you include, the more mass your positive space will need, and in the right place, in order to create balance.

Lesson 43. Know Your Subject

It's easy to mistake the thing we photograph for the photograph itself. It's easy to get so seduced by the thing we are photographing that we forget that a photograph of a beautiful thing is not necessarily the same thing as a beautiful photograph. It's important to understand what you are really photographing. Let me give you a couple examples. I photograph in Kenya almost every year. Each time I am there I photograph the big cats. I adore them. They are truly beautiful. But not every image captures what they truly are, or what I am trying to say about them. Some images will communicate their power, some their beauty, and others their speed. In each case, it is not only the cat that is the subject but power. Beauty. Speed. The question is, how do I photograph speed? It will be different than if I am photographing beauty. And different again if I am photographing power. Those things, those ideas I am trying to place within the photograph, are the true subjects of the image. They will all demand different decisions from me behind the camera. But it begins with me acknowledging that just making a photograph of a beautiful cat is not enough.

iPhone 5s
St. John's, Newfoundland.

It is the same when you photograph your children in the backyard. Yes, you're photographing children—your children—and as a parent nearly any photograph of the fruit of your loins will be valuable to you. But to make it appeal to a wider audience, you'll want to point toward some other idea. Like play. Or laughter. What can you do—

which angles can you choose, which lenses, which moments—that more powerfully communicate laughter or play? Understanding your true subject will help you get there.

And if that subject really *is* your child, as it should be with a portrait, then know that too. Not every photograph will reveal something true or authentic about the child. Some moments will be better than others to communicate their quietness or their curiosity. Understanding that, knowing *which* part of their complex personality you want to reveal— even if it's an instinctive recognition within the moment—will help you press the shutter at the best moment, or choose a different angle to imply, say, a relationship between the boy and his Tonka truck, that you might not have seen from the angle you first started with.

I have an exercise I do while traveling that I call my *visual inventory*. I list the things that pull my eye, and I become conscious of the ways I feel about the place I am in. I might love, for example, the yellow taxis of New York, but knowing not every photograph of these iconic cabs is going to be a compelling photograph, I simply jot it down in my notebook, on my iPhone, or just mentally. I consciously take note of it. Then when I see the right cab, at the right moment, in the right light, juxtaposed with the right elements I never dreamed of, I'm more receptive to seeing it and more ready to photograph it. It comes from the awareness that not every image of a thing I love will result in a photograph I love. But knowing what the true subject is, and not being seduced by the first appearance of it, gets me closer to making photographs I care about long after the novelty has worn off.

Your Assignment

Your assignment for this lesson is simple, and it's ongoing. Next time you're making photographs, don't change a thing. Keep doing what you do. But as you do it, ask yourself, "What is the heart of this photograph, and am I expressing it?" In other words, what are you *really* trying to show? Is it a mood, an idea, a juxtaposition? On a recent trip to Newfoundland, I was enjoying a beer on a patio listening to a street performer. I enjoyed his way of relating to the people he played for. He seemed to laugh a lot. But how could I capture this spirit in one frame? When a policeman came around the corner on his horse, the musician turned, sang to the horse, and then turned back to us, laughing, with the policeman doing the same. The resulting photograph captured the subject of the scene—community, laughter, camaraderie—better than the images I'd been making up to that point. There are all kinds of lessons in there, but for now just ask yourself what the heart of the image really is, and then play with the possibilities and do it long enough to be surprised by what happens.

"A photograph of a beautiful thing is not necessarily the same thing as a beautiful photograph."

Lesson 44. Juxtaposition: Find Conceptual Contrasts

One of my favorite photographers is Elliott Erwitt. There's a humor about his images that I've never been able to create in my own, despite 12 years as a professional comedian. That humor comes from an impeccable sense of timing and an eye for juxtapositions. Juxtaposition is the long word for the putting-together of elements that contrast with one another conceptually. An old man holding a young child is a juxtaposition of two different ideas: old and young. A portrait of a comedian not laughing but crying: comedy and tragedy. The images that accompany this lesson contain juxtapositions: a full boat next to an empty one, modern next to ancient, Asian rice paddies next to North American–style teepees.

Canon 5D, 85mm, 1/100 @ f/8, ISO 400
Delhi, India. A man prays at the Sufi shrine of Nizamuddin, the ancient text of the Koran contrasted with the modern cell phones. Either way, hoping to hear from Someone.

Although not every photograph contains a juxtaposition of concepts, and there are some—like abstracts—that generally don't use them, I'd bet you could find contrasting elements in the best of them. Like stories, which move forward only through conflict of some kind, photographic stories, or images that imply a sense of story, do so because of contrast. And the stronger that contrast, the stronger the sense of story. Two similar people (unless they're twins) next to each other is less interesting to us than two people who differ in some way from each other. Small next to tall is a story. So is boy next to girl. Priest next to clown. I'm making stuff up now, but you get the point. You can of course imply story in other ways, but beginning with the question, "Where is the contrast?" helps tremendously.

Canon 5D, 33mm, 1/320 @ f/10, ISO 200
Varanasi, India. A single man sits on an empty boat. What better contrast could there be than the boat behind him, crowded and spilling over?

Canon 5D Mk II, 24mm, 1/100 @ f/10, ISO 100
Chiang Mia, Thailand. I'm still not sure what these teepees are doing in Southeast Asia, but it struck me as enough of a juxtaposition to get off my scooter and join these Thai farmers in their rice paddy.

In landscapes, that contrast can come on the edges of things. Land meets water. Wind meets tree. Put a person in the landscape and it's man meets nature, one of the classic

themes in literature as man struggles to come back to harmony with the natural world. You don't have to tell the whole story, just hint at it. Provide the characters or the contrasts, and the imagination can do the rest. And that's really the point—the engagement of the imagination. The piquing of curiosity. The raising of questions. The creation of an experience for the readers of your photographs that gives them a role in interpretation.

Just like in a written story there can be devices like irony, surprise, or comedy, our photographs can make use of similar tools—all of them by paying attention to placing elements in the frame that play off each other. And just as you can do this in one image, you can pair images together to create this same hook on our attention. In 2012 I attended an Elliott Erwitt exhibit in Venice, where I noticed two photographs, side by side. One, titled "Segregated Water Fountains," was a black and white photograph, taken in 1950, of an African-American man drinking from one of two fountains, one signed "White," the other signed "Colored." The photograph beside it was the only color photograph in the exhibit, of Michelle and Barack Obama, celebrating Obama's first presidential win, the first ever for an African-American. It was a stunning juxtaposition, and it brought tears to my eyes. Such is the power of creating tension through ideas and conceptual contrasts.

Your Assignment

Spend some time looking at the photographs of Elliott Erwitt. You'd be hard-pressed to find a photographer with a keener eye for juxtaposition in his compositions. For every image, ask yourself:

- What are the contrasting ideas in this image?

- From where does the humor or wit come?

- Could this contrast be stronger? How?

- How can I employ contrasts of concept or idea into my work?

Lesson 45. Telling Stories

Not every photograph tells, or even implies, a story, nor should they have to do so, any more than every book must be a novel. Some photographs are pure poetry, meant more to be experienced and felt than understood as a narrative. In English literature, both poetry and prose can be powerful, just differently so. So too do we make photographs for different reasons and in different ways. But story is powerful in a photograph, and learning to tell or imply a great story is as important in photography as it is in literature. However, being able to use the camera well no more guarantees an ability to tell a story with it than being able to write well means you can write a great story. In the next lesson I'll walk you through the idea of thinking cinematically to tell a story with multiple images, but in this lesson I want to introduce you to the elements of story that can be incorporated in just one photograph.

Sony RX-100 Mk II, 10.4mm, 1/1000 @ f/8, ISO 800
You can't always tell a whole story, but you sure can imply one. Relationships between elements, conceptual contrasts, and a little mystery go a long way in creating the possibility of story. What story do you see in this image?

First, I think it's helpful to understand that telling a story in one frame isn't easy. In fact, I'd go so far as to say it's next to impossible. But we can *imply* a story. We can, with the photograph, complete a story if our audience already has a piece of the puzzle. But tell a complete story? Very difficult, because story is about change. Something happens. And communicating that change in one image is a challenge. But we can suggest or imply that change has happened or will happen. And we can place into our images the other elements that make stories so powerful.

One of those elements is relationships, and all the things they can imply. You can imply a

relationship of power based on where you place one element in a photograph over another. Similarly, you can imply intimacy or distance by your choice of camera angle and optics. Two people sitting beside each other a few feet apart can, by your choice of position and optics, be seen to be sitting either very far apart (implying distance) or very close to each other (implying intimacy through proximity). And then your choice of moment takes it even further, waiting for one to turn away from the other (communicating distance, separation) or turn toward the other and laugh or smile (communicating connection). These relationships, and what you choose to say about them, will help tell one story or another.

Another of those elements is contrast of ideas or, if you prefer, the relationship of one idea to another. In photojournalism, a story about race tensions might be shown by including a white police officer and a black citizen in the same frame. The right moment could show either solidarity or antagonism. But there are stories that are less obvious: the erosion of rock by water (a contrast of liquid and solid), the love of a grandfather for a grandchild (a contrast of old and young), or the love of a man for a woman (a contrast of gender). It is the contrast between apparently different elements that suggests the possibility of change, and therefore implies story.

A final element is mystery. The best storytellers supply just enough detail to allow your imagination to fill in the gaps. Your imagination is powerful and can do things the storyteller cannot. It is that collaboration between artist and reader, for example, that explains why the book is often (always?) so much better than the movie. A movie fills in gaps that your imagination had to fill when you read the book, and your version was inevitably more engaging than what the very limited tools of the cinematographer could accomplish. In the photograph, that means leaving room for ambiguity. Raising questions that the viewer must answer from within their own imagination. I don't mean to suggest that every photograph that has a sense of story about it has to be full of mystery. Some will be mildly ambiguous, some deeply so, and others not at all. But the more mystery you put into the frame—as long as you don't completely alienate me by giving me no clues at all as to what's going on—the more engaged I will be. Leave some room for the imagination. Maybe choose an angle or a moment that leaves me guessing.

> "The best storytellers supply just enough detail to allow your imagination to fill in the gaps."

Here's an example: Say you're photographing an engagement. One photograph shows the man on his knee with a ring, and she's got her hands on her mouth in the moment before she breaks into a smile and says yes, yes, a million times yes. The ambiguity comes in not knowing. Will she say yes? She's shocked, but is it good shock, or but-we-only-met-last-week shock? There's story in that. If you photograph them the moment she throws her arms around him, move in close and catch the warm, backlit, happy faces and tears, with her hands around his neck and the sun glinting off the ring—you've got poetry. And a bit of story, too. Now put several of those images together and you've got real storytelling potential.

Sony RX-100 Mk II, 10.4mm, 1/640 @ f/4, ISO 800
A good example of relationships between elements contributing to a sense of story.
What story does the one photograph tell that the other does not?

Your Assignment

For now, I want you to be thinking about relationships, because if you did the assignment from the previous lesson, you've already been thinking about contrast. This is a different way of looking at a similar idea. Go make some photographs, and for every photograph you make, identify first the relationships between the main two elements. There could be more elements, but keep it simple. In each frame, what are the main two elements? Now how can you make different images to exaggerate or downplay that relationship? Even if it's two colors—blue and yellow, which contrast—that's a relationship. Can you separate them physically? Can you imply the dominance of one over the other? Or are they side by side, each filling an equal portion of the frame? That too is a relationship, one of symmetry and equality. What could you do to change that? The purpose here is not to make brilliant photographs, but to get you thinking about contrast and relationship. It's when that carries over to your landscapes, wedding photographs, or street photography that the magic will happen.

Lesson 46. Think Cinematically

If you're looking to tell fuller stories than one frame alone can tell, then a series of photographs that work together is the next logical step. Of course, these days the lines are blurring between still photographs, mixed media, and video, but I know something about making the former and very little about the latter, so this lesson will focus on still photographs in sequence. Still, I ask you to think cinematically, because the way we approach a photo essay is very similar to the way a cinematographer tells a story. Specifically, in this context, I encourage you to think in terms of a consistent style, an intentional sequence, and the use of establishing, wide, and detail photographs to give both information and impact.

Canon 1Ds Mk III, 85mm, 1/100 @ f/1.2, ISO 800

Nikon D3s, 20mm, 1/40 @ f/8, ISO 800

Nikon D3s, 17mm, 1/800 @ f/8, ISO 200

Canon 1Ds Mk III, 16mm, 1/8000 @ f/5, ISO 400

Canon 1Ds Mk III, 85mm, 1/320 @ f/1.2, ISO 800

Nikon D3s, 20mm, 1/400 @ f/8, ISO 200

Canon 1Ds Mk III, 85mm, 1/60 @ f/1.2, ISO 800

Photographed in Kathmandu, Nepal, over a couple years, these images span different times of day, show us different characters, and reveal different parts of the same context, as well as different ways of expressing the same devotion. Together they give a fuller picture and tell a more complete story than one photograph alone could.

"I encourage you to think in terms of a consistent style, an intentional sequence, and the use of establishing, wide, and detail photographs to give both information and impact."

Consistency of style matters because it gives a story visual unity. There's no rule that says all your images should be either black and white or color, but doing so makes one image connect to another. It's a visual clue that says they belong together. You could do the same with color palettes, aspect ratios, or frame orientations. Within those constraints, there can be a great deal of variety, but the images will all work together. Considering how each

frame connects, or relates, to the next, will prevent the readers of your images from dropping the thread of the story or losing the mood you're trying to establish.

In the case of a story where the unfolding of events is important, an intentional sequence allows you to convey necessary information in the right order. Placing the climax of the story before the introduction of the main characters won't make sense and will be confusing to the viewer. Ask yourself, "Does this make sense to someone who doesn't already know the story?"

But not all photo stories are about a specific event. They can be about places or ideas or people. An intentional sequence is still important, though you've got more freedom to choose that sequence based on other considerations. One of the strongest of those considerations is rhythm, or pace.

People like rhythm. Being hit by intense image after intense image, for example, makes us numb. Placing a softer image between two intense images can give us a mental break but can also increase the impact of the next intense image. The same is true with other types of images. Six portraits next to each other will generally have less impact than if you create a rhythm with them, placing other images throughout, such as details of hands, or wide shots of the land in which they live, or candid images of a couple of them talking and laughing or working together. Rhythm carries us through a story. Watch or listen to master storytellers and see how they allow their voice to rise and fall, alternating between comic and tragic moments to make each stronger. Or a watch a comedian who allows us to catch our breaths between punchlines, and you'll get a sense of what can be done with your photographic stories.

Most discussions of the photo essay tell you to focus on establishing frames that set the scene, wide frames that show action, and closer details and portraits. I have little to add to this except that I think the content is more important than how wide the frame is, or how much you include. It's not *how much* you include—it's *how deep*. Stories move us, or have the capacity to, only as much as the storyteller is willing to make us care. So do include a variety of frames that show the elements of the story in wider to tighter photographs, and include action and relationships, portraits, and details. But most of all, make me care. Put the time in. Wait for great light, light that complements the mood of your story. Wait for great moments—moments that make me laugh or cry. If the story includes people, build enough rapport with them to build trust and gain access to deeper moments. And most of all, tell the truth. We've stopped believing the idea that the camera never lies and are beginning to move on to the idea that the camera says whatever the storyteller asks it to. So it's not to the camera we'll look to place our trust, but to the storyteller. If you manipulate us, or misrepresent the heart of the story, or aren't open with us yourself, you'll lose our trust, and if you do that you'll lose your connection with your audience and the story will lose its potential power. Make it consistent. Give it a sequence and a rhythm, and a mix of information and impact. But most of all, make it human.

Your Assignment

I'll start you off easy. Find something you care about. Your son preparing and presenting something for show-and-tell. Your daughter learning piano and performing her first recital. A friend getting married. A dog's trip to the vet. A Saturday morning at your house. Pick something. Now photograph it. Tell the story. Show me where it happens. Show me the characters. Show me the highlights of what happens, and give me a great shot of the climax. If it's your daughter's recital, show me what the audience looks like when they're applauding. Show me details on her dress or shoes. Show me how she feels before it starts and show me the relief on her face when it's over. Show me real emotion. Now pick your 8–10 best shots. Put them in a sequence. Make them work together. Put the sequence in a book, or print and frame the sequence, hanging the work along your hallways. What are your favorite images? Why? Did you miss anything? If you did it again, what might you also include? Now do it again. For more inspiration, subscribe to *National Geographic* and study how the photographers and editors string the stories together.

Lesson 47. Orientation of Frame

Somewhere along the line someone got the goofy idea that a vertical orientation of the rectangular frame should be called a "portrait" orientation and the horizontal orientation should be called "landscape." And so thousands of new photographers are given yet another ridiculous guideline that will hinder their creativity for years to come unless they stop thinking in these terms. If you search for tips on landscape photography you'll find, over and over again, the helpful advice to "try landscapes in portrait orientation," and conversely, a similar search for portrait tips will tell you to "try it in landscape orientation!" Great. The orientation of your frame should have nothing to do with the category of subject matter that you are photographing per se, and everything to do with what you are trying to say with each particular photograph. What do you want this photograph to look and feel like? Then do what you have to with the orientation of the frame. The first question is not "What shape is my subject?" There are plenty of great photographs who horizontally frame a vertical subject, and vice versa. The more interesting, and more helpful, question is, "Is the story to be read vertically or horizontally?"

Canon 5D, 17mm, 1/500 @ f/10, ISO 200
This is the same image, just cropped in Lightroom, showing the same scene in different orientations. The direction of the frame will make certain lines stronger than others and create a different sense of balance. In this case, one frame emphasizes the strong verticality of the scene, whereas the horizontal orientation allows the context to become much more important.

Nikon D3s, 20mm, 1/125 @ f/4.5, ISO 800

When we frame a photograph one way or the other we provide the first clues to readers about how you intend it to be read. You are saying not just "look here," but "look in this direction." It's not that the reader usually needs to be told, but part of our job is to make decisions that put the fewest barriers possible between the audience and the thing we are trying to express or the experience we're trying to create. A horizontal framing of an essentially vertical story is likely to require that we include much more in the frame than we need to, which means the reader has to sift through more, and her eyes will explore the image less directly, trying to sort out the heart of the story from the extraneous. And with every extraneous element, the impact of the necessary ones is diminished, resulting in a diluted photograph that's not as strong as it could be.

Nikon D3s, 20mm, 1/320 @ f/2.5, ISO 400
**Different orientations force new compositions and there is rarely one right answer.
They express different things, and in this case provide slightly different
information about the scene. I prefer the vertical frame for its energy and
simplicity, but love the graceful arc of the well in the horizontal frame. You can
rarely have it all in one frame.**

Your Assignment

When you look through the viewfinder, take a moment to identify the heart of your story:

• Is it vertical or horizontal? What kind of energy do the lines in the scene have?

• Will one framing or another give you more energy or stop that energy from gaining momentum?

• What about implied lines, like the way a person in the frame is looking? Would there be greater mystery if you framed one way over another and excluded the thing they are looking at?

• What about negative space? Will one orientation give you more room for the eye to move?

• What about balance? Frame orientation affects all these things.

• Try both orientations. Which one *feels* right?

Lesson 48. Choose Your Aspect Ratio

The aspect ratio of your frame is the proportion of one side (the vertical edge of the frame) to the other (the horizontal edge of the frame). Although the 3:2 aspect ratio of the 35mm frame has become the standard, it's not because it's a "better" ratio as much as it is that the 35mm film camera simply became the most affordable and therefore popular. I have cameras on my shelf that create a 1:1 frame, a 3:2 frame, and a 3:4 frame. In my portfolio I have images with 1:1, 3:2, 3:4, 4:5, 16:9, and a few that don't seem easily measured because I cropped them until they felt right, not according to a conventional ratio. The aspect ratio of our frame is not set in stone, and recognizing this gives us a chance to tell our visual stories the way we want to, not the way our camera tells us to. If your choice of frame orientation tells your readers to read the story one way or another, it's the aspect ratio that exaggerates that sense of verticality or horizontality.

16:9

5:4

7:5

1:1

3:2

Nikon D3s, 1/160 @ f/5.6, ISO 1250
Cropped in Lightroom, this scene in Northern Kenya takes on different compositions with each aspect ratio choice, each of which feels different, some more subtle than others. I prefer the 16:9 for this image.

Lately I'm framing much of my work in a 16:9 frame. In part this is because I thrive on new constraints, and forcing myself to compose within a different frame forces me to make different decisions about relationships one to another, and in relation to the frame itself. And I'm doing it in part because the extreme horizontal bias of the 16:9 frame feels like a beautiful storytelling frame to me.

> "If your choice of frame orientation tells your readers to read the story one way or another, it's the aspect ratio that exaggerates that sense of verticality or horizontality."

But on a recent trip to Italy I set my Fuji XE-1 to allow me to see and photograph my scenes through a square (1:1) frame, again because it felt right to me. And for a while before that—particularly with vertically framed landscapes—it was rare that I didn't set my Nikon D3s to frame my scenes as a 4:5 ratio, which seems really elegant to me and less vertical than the usual 3:2 frame. In part this choice is purely my own preference, and in part it's a decision I make based on what allows me to play with the elements the way I want to. What's important is not that there is magic to one frame or another (despite any talk you might have heard about the golden ratio, which is beautiful, but not the *only* beautiful ratio), but that you understand the effect of the frame on your scene and the people reading your images.

A change in aspect ratio changes the way you frame your work. It determines which elements you fit into the frame, and if you're determined to have them all, then it determines which lenses you use, and where you stand when you make the image. It

forces, or allows, different choices that you might not have had with a different frame. A scene framed 16:9 allows so much focus on the horizontal elements. If you decide to photograph the same scene at 1:1, you force yourself to give the vertical elements greater play, weakening the relationship between horizontal elements.

Your Assignment

Open Lightroom or your favorite darkroom program and choose six of your favorite photographs. Crop each of them as a 1:1, 3:2, 4:5, and 16:9. Now study those changes and interact with them, asking yourself questions like these:

- Which images work best with which crop?

- Do any of these work better with one of the alternate crops? Why?

- Why didn't I think of that crop while I was making the photograph?

- Do I naturally prefer one aspect ratio over another? Do I particularly dislike one over another? Why?

- Is there room in my work to experiment with different aspect ratios a little more?

I'm not suggesting you make cropping to different ratios a habit, though if that works for you, fine. You can crop your images to different ratios later, but for me it's almost always too late. You have much more control over your composition if you make your aspect ratio decisions while you photograph. My Nikons don't allow me to set an in-camera crop of 16:9, but I make the decision to crop this way while I have the camera in my hand, not later. It's not the only way, but I find I make better decisions this way rather than sitting at the computer later and wondering what kind of crop I should use.

Lesson 49. Use Scale

Scale is a powerful compositional tool and can be thought of in two ways. The first defines scale as a relationship between elements in the frame, and the second defines it in terms of the relationship of elements in the frame to the frame itself.

When we look at a photograph, we're looking at a two-dimensional scene pulled from its context. Normally that context, out in the real world, gives us clues about the size of things. You know how tall a dog is because it's standing beside a human being and you just *know* how big humans are. In other words, you have a frame of reference for comparison. To make that dog seem smaller, put him next to a really tall man, or to make him seem gigantic put him next to a really short one. The same is true in landscapes, and careful use of how we read scale, and how you manipulate elements within the frame, can allow you to more intentionally control what you express through your photograph.
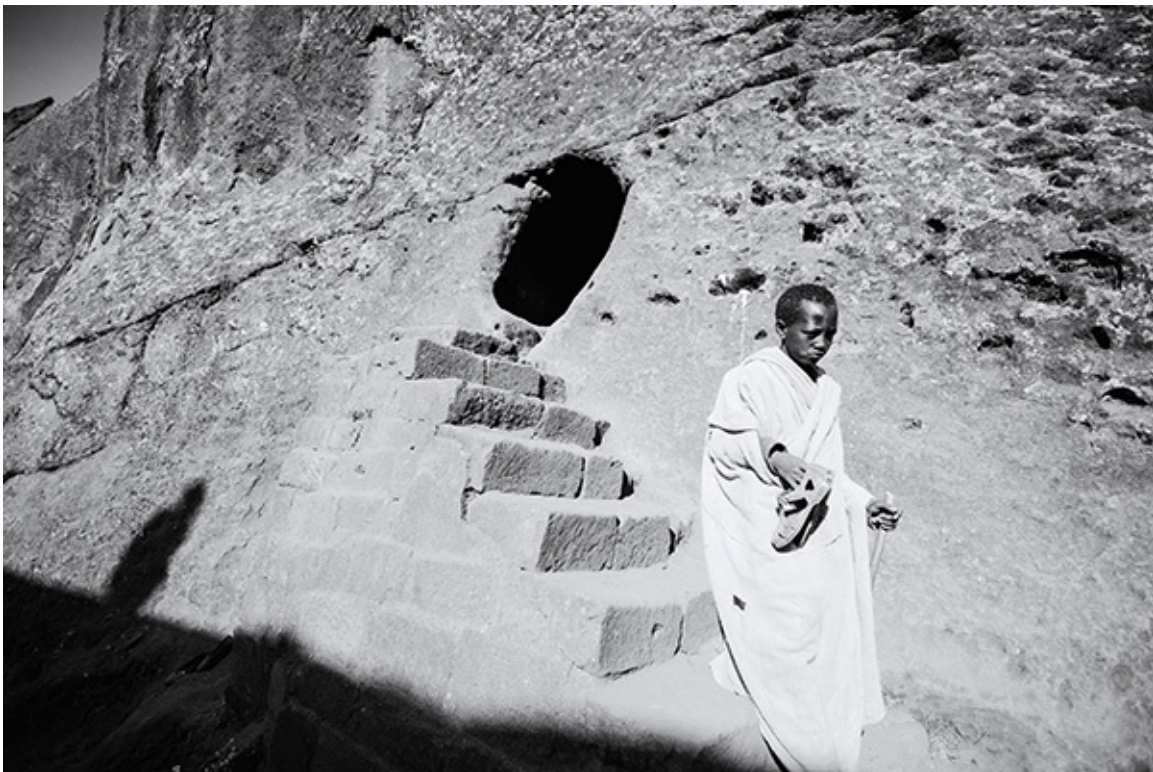
Nikon D3s, 17mm, 1/8000 @ f/4, ISO 1250
Three different photographs of the same scene in Ethiopia. How does the different use of scale change your experience, or how you see the place?

Nikon D3s, 20mm, 1/500 @ f/8, ISO 200
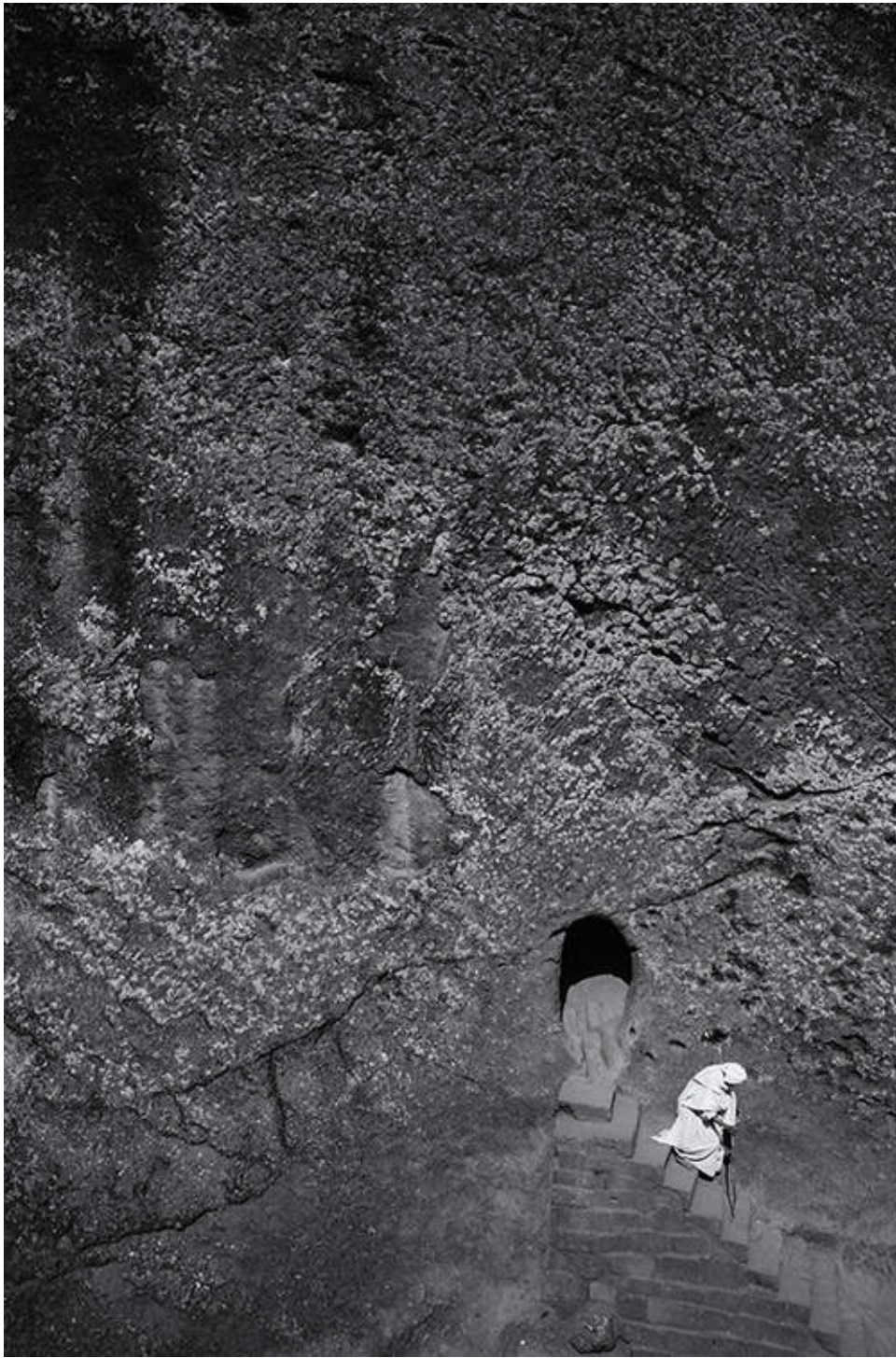
Nikon D3s, 28mm, 1/1000 @ f/5.6, ISO 200

"How much negative space can you create before the image stops feeling right?"

In Antarctica, for example, I wanted to give a sense of just how large the icebergs were. Without a known point of reference—there was sea and ice, that's all—it would have been very hard to create that sense. But put a zodiac inflatable boat, or even the larger ship we were traveling on, near that iceberg and suddenly others know exactly how big the ice is.

Furthermore, knowing what we know about perspective—specifically that closer objects appear larger and distant objects appear smaller—we can use that to exaggerate the appearance of scale. You would not, for example, put the ship in the foreground and the iceberg in the background, and use a wide-angle lens. In fact, if you did that you'd be

creating the reverse effect, so if that's what you're going for, well, go for it. But if you backed up a ways, made sure the boat and the iceberg were close to each other, and used a longer lens to further compress the feeling of distance between them, you'd exaggerate the scale, creating the sense of just how big the iceberg is. Now put a small inflatable boat in the scene next to the ship and the iceberg, and the sense of scale has changed again; you've made the ship look massive and the iceberg look truly gigantic. In reference to the images that accompany this lesson, the effect is the same—the smaller I allow the human elements to become, the more space the other elements occupy, making them larger, compared to the humans, and the humans smaller compared to the frame itself.

Sometimes it is not elements in relation to each other but in relation to the frame that conveys a sense of size or space. Look at the final image in this lesson: the small huddled figure of a woman emerging from the hole in the cliff wall. Sure, she's small relative to the cliff, but she's also tiny relative to the frame. The more exaggerated you make this, the smaller she or any element will feel. She looks lonely, too, because we can see from the vastness of space around her, devoid of other human elements, that she's alone. In a sense we're still reacting to her size in relation to another element in the frame, but that element is negative space itself—in this case, the cliff wall.

Playing with this will change the way readers of your photographs experience the space within it, and that will affect their feelings and thoughts. A large elephant placed small in the frame can say," Look how vast the savannah is." That same elephant completely filling the frame with the tiniest of birds on its head can say, "Look how huge this elephant is (or, how tiny the bird is)."

Your Assignment

Every photograph you make, unless it's an abstract study, has a sense of scale. In some it's subtle, hardly noticed, whereas in others it's the subject of the photograph. And in others too, how you play with scale is less in the image itself and more in the size of the print. Some photographs look best big, and others look best small. Regardless, scale will play a role. So for now, let that roll around in your brain. Look at photographs and consider the size of elements in relation to each other and in relation to the frame. Now go out and make some photographs that play with scale. Find something to photograph and juxtapose it with something that gives it scale. If the subjects aren't moving, make several photographs and play with the scale of both elements next to each other and in relation to the frame. How much negative space can you create before the image stops feeling right?

There's a lot to think about, I know, and by the time we've considered all these 60 lessons our heads will be spinning. But you don't learn a language overnight—you learn it by practicing each element until it's comfortable and can be used with less conscious intent and accessed a little more subconsciously. You'll get there. For now don't focus on speaking the whole language and just wrap your brain around a few words at a time.

Lesson 50. Explore Possibilities

Photography is an act of creativity, and two of the most useful words in the vocabulary of the creative soul are "What if…?" What if I photographed this from a different angle? What if I got into the water? What if I lay on my stomach, shot through a wine glass, moved the camera, got a cheap lens and scratched it up? "What if…" opens possibilities and paves the way for the essential task of creative thinking, which is the combination of previously divergent elements. What if I used a fisheye lens for portraits? What if I photographed rainbows in black and white? What if I use a tilt-shift lens for sports photography? What if I used a wide-angle lens for wildlife? That's one way of pursuing possibilities.

Nikon D3s, 140mm, 1/160 @ f/8, ISO 400

Nikon D3s, 35mm, 1/160 @ f/8, ISO 400

Nikon D3s, 160mm, 1/50 @ f/8, ISO 400

Nikon D3s, 26mm, 1/200 @ f/5, ISO 400

Nikon D3s, 18mm, 1/500 @ f/5, ISO 400

Nikon D3s, 200mm, 1/50 @ f/9, ISO 400

Photographed within 15 minutes of each other, these images from Deception Island, Antarctica, were a result of visual exploration. It helps to keep expectations low and curiosity high, and be willing to try new things.

Another is simply being open and allowing possibilities to come to you, which is not so simple, but that kind of receptivity is key to learning to see as a photographer—not only to see possibilities but to recognize them when they show up. The most important step toward this is abandoning, or holding loosely, your expectations. Our expectations—that the final photograph will be this or that—can prevent us from seeing what actually is. When we focus too tightly, anticipation of a moment that might happen can prevent us from seeing the moment that is actually happening.

In 1999, at Harvard University, Daniel J. Simons and Christopher F. Chabris conducted a sociology experiment in which subjects were asked to watch a video of six people passing basketballs around. The subjects were asked to count the number of passes by the three people in white shirts. Halfway through the short video, a kid in a gorilla costume walked slowly through the frame. At the end of the video subjects were asked if they noticed the gorilla, and half of them didn't see it. A gorilla. We see what we're looking for, and more important, what we're looking for blinds us to what's really there—an important lesson in perception for photographers. Being open to possibilities means being careful not to look so hard for things that we miss others. Active looking is important but mustn't prevent passive perception as well.

Your Assignment

Break this assignment into two parts. The first is to find a scene and photograph it 12 different ways. Significantly different ways. Mine the scene. Work it. The first four will be easy. The next four will be harder. The last four should begin to get creative, if not beautiful. You aren't looking for *good* ideas, but for *more* ideas. Once you've got them you can play with them and test how good they are in the real world. Bad ideas that lead to better ideas, and then to better work, are not bad ideas—they're just the grease that gets you there. So if you censor yourself too quickly, you'll never let the bad ideas out to play.

For the second part of the assignment, find something to photograph, but before you pick up the camera, make a list—on paper or your smartphone, or in your brain— about what you see. Mentally make the obvious photographs. Don't use the camera. Trust me. Make a dozen photographs. In your brain. Now pick up the camera and make 12 more. None of them can be the same as the mental images you made. The only way to do this is to take your time, make some bad ones to get to the good ones, and be receptive. You've shot what you've expected to; now ask yourself, "What if…?" Twelve more photographs. Go.

Lesson 51. Get Closer, See Differently

When I was younger I took photography a lot less seriously. That playfulness allowed me to learn without pressure, and most important, it helped me learn to see. And that's what this is all about, isn't it? I mean, if you can use a camera but can't see things differently or recognize something interesting or beautiful when it comes your way, your photographs will be technically perfect and perfectly forgettable.

When Robert Capa famously said, "If your photographs aren't good enough, you aren't close enough," I don't think he ever imagined I'd suggest you get on your knees once in a while and crawl around in the grass. Still, it's not a bad idea. Once in a while I buy a bunch of interesting flowers, put them near some window light, and pull out my macro lens and tripod and spend a couple hours, or a whole afternoon, looking through whole new universes. Recently I got a macro lens for my iPhone and spent an early morning on my knees photographing the dew on the grass, shooting straight into the light, completely lost in the color and the lines and the wonder. I've done the same with a glass of whisky, the lens pushed as close as I could get, exploring the swirls of amber, the highlights on the glass, and the contours of an ice cube.

Nikon D800, 105mm, 1/60 @ f/11, ISO 1600
A glass of whisky and natural light seen through my macro lens on a day when inspiration seemed low. In the end, I created an ongoing personal project, Whisky Shots, from this spontaneous time at the camera.

Nikon D800, 105mm, 1/200 @ f/7.1, ISO 200
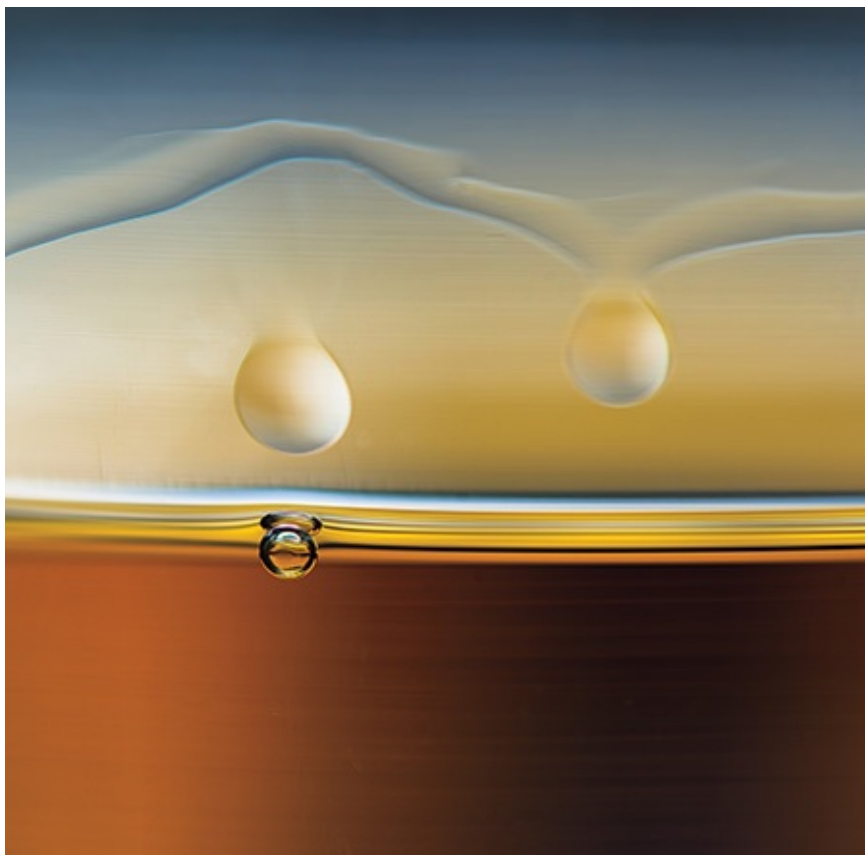
Nikon D800, 105mm, 1/200 @ f/7.1, ISO 200

One of the characteristics of macro lenses, even the cheapest ones you can find, is the very, very shallow depth of field it creates. So very little of your subject is in focus, allowing you to concentrate on abstractions and impressions, isolating lines and shapes, and giving priority to color. It doesn't matter whether you have any intention of adding

macro photographs to your portfolio; the point of the exercise is to see differently, even to see less literally. Learning to see lines and shapes, and to play with their place in composition, is some of the most important work you can do as you learn to make photographs. There are no rules, no regulations about what should or should not be in focus. Follow your curiosity, play, and make a lot of photographs. One day you may decide to work with macro techniques more seriously, and then you can pursue it through books dedicated to the subject. For now, the point is to play, experiment, and open your eyes to new possibilities.
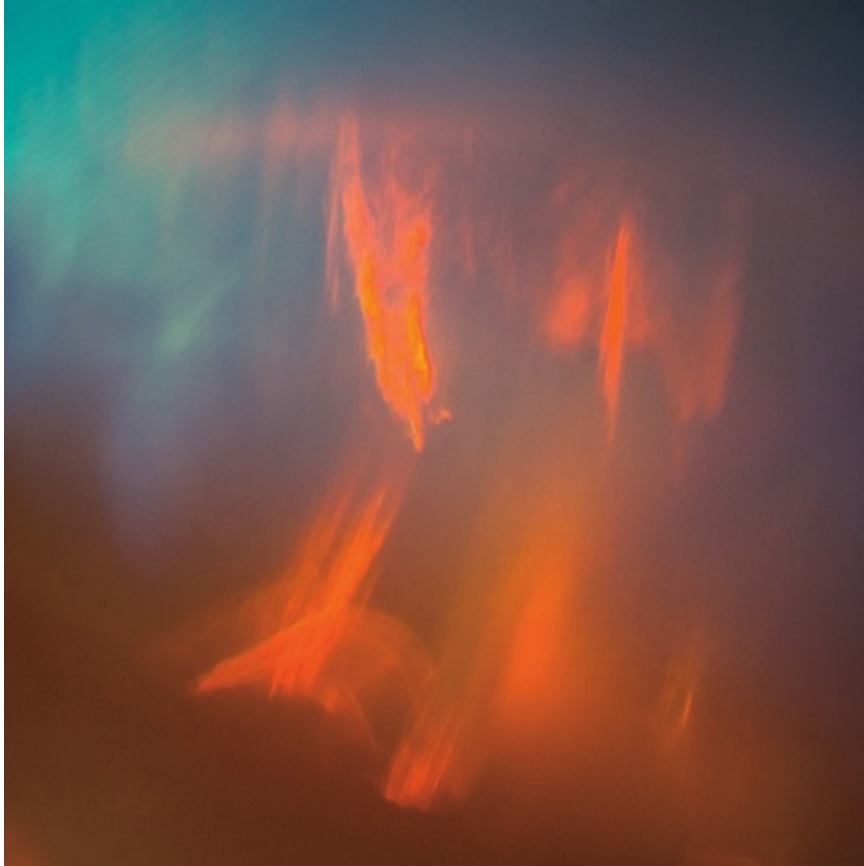
Nikon D800, 105mm, 1/40 @ f/4.8, ISO 1600

Nikon D800, 105mm, 1/125 @ f/5.0, ISO 1600

Your Assignment

Get as close as you can. If you want to go buy or rent a macro lens or a zoom lens with macro capability, do so. Or get a screw-on macro filter. Or see if your compact camera has this ability. The gear isn't the point. Now get a vase of flowers, or one flower, or head into the garden, or pull a purple cabbage from the fridge, and spend an hour making photographs. Don't stop until you've made 25, 50, or 100 different photographs. Play with your angles to manipulate the lines; experiment with color, balance, and negative space. Play with the focus, or ignore it completely. Just play. The more comfortable you get with exploration and experimentation, the less important perfection will be. Perfection is overrated, especially in the creative process. The point is to see differently, and that'll come only as you get past the first few frames, the obvious ones, and have to try new things to get new perspectives. Do this for as long as you're a photographer and you'll never lack for ideas and new directions.

Lesson 52. Slow Down

When I started writing this book, I got onto Twitter and Facebook and asked my own circle of friends, fans, and followers about the most significant lesson they ever learned about photography. I was surprised how many of them, given a chance to talk about some great visual revelation, said that lesson was simply to slow down.

Fear of Missing The Shot is a pandemic among photographers, as though there are only so many photographs out there—potential photographs that have grown to this perfect point and must be harvested now before someone else gets them or they die, unseen, on the vine. How many photographs do we need to make? No one will ever see the photographs you do not make, and worse—being so wound up and frantic to "get the shot" will probably blind you to what's going on. You don't know the photograph's there until you've made it, and that's something you can see only in hindsight. No amount of previsualization will guarantee the creative process or that the light will do what you hope or that the moment you anticipate will unfold in front of you. So calm down.

Taking a break and soaking it in. Khutzeymateen, BC, 2013. Photograph by Jon McCormack.

"Rushing through our work is only self-defeating."

Rushing through our work is only self-defeating, and it sabotages what might otherwise happen if we linger. Lingering helps us see possibilities and alternate angles we might not have considered in our rush. It allows for the ramp-up period most creative people need in

order to move into that space most beautifully called *flow*.

I notice this anxiety in students when I travel. In that location for only a week or two, they're terrified they'll miss out and they run helter-skelter, hoping they'll see it all. But you can't. Seeing, in photographic terms, is not about what passes before the eyes, but about perception, and we perceive better that which we've really experienced. What do you long for: 200 half-baked images of an Italy you think is out there—fast copies of photographs you saw when you did a Google image search or in the pages of the Lonely Planet guide—or a dozen photographs that thrill you, that move you? I don't know why you photograph, but today's cameras are so good that if all you want is a record of "I was there," then put this book down. You don't need it. Just point and shoot and move on. But if you want something more, then you need to take your time. It is this way with travel, and it's this way with portraits or landscapes.

Slowing down helps you see better, and it will put you in a better creative space. It'll help you avoid obvious mistakes. Even just taking the time to scan your frame and check your corners before you press the shutter button will improve your work. But the best reason to slow down is this: You'll be more aware of the moment itself. Listen, how we live our moments is how we live our lives. All we have is this too-brief time on earth, and rushing through it only gets you to the end faster. Photography is about life—life is not about photography. You can't photograph what you haven't experienced, and to experience life, people, and locations, you first have to put the camera down, have a glass of wine, and open not only your eyes but your mind and your heart.

Your Assignment

Would it surprise you if I told you your assignment is just to slow down? Pick up your camera, one lens, and a tripod if that's your thing, and go find one place to make photographs. Give yourself the smallest place you can stand. Fifty square feet near the ocean. A street corner. Stay there—and only there—for an hour. Make it two. Linger. Have coffee. Be present. Make photographs if something moves you. Don't get discouraged if nothing does. You didn't come here to make photographs —you came here to be receptive, to see what was here, to notice. Forcing yourself to make photographs of things that haven't moved you in some way is no way to be in the moment. And if something does really move you, then mine the scene. Look at it with different frame orientations, create slower exposures, change your perspective, zoom with your feet. Giving yourself time means you can do this stuff intentionally and with a clear mind.

Lesson 53. Use a Tripod

No one likes tripods…not even photographers who say they love tripods. And no, tripods aren't for everyone. A street photographer who relies heavily on spontaneity and serendipity is the last person in the world I can imagine using a tripod. But until you declare a major and decide you're only going to wander the streets of Paris with your Leica and your ennui, I strongly suggest you learn to use a tripod and to consider it a valuable tool in the toolbox, one that opens possibilities that you won't have without it. Even in street photography I've used my tripod. I've traveled the world several times over, and on almost every trip my tripod has accompanied me.

I'm not going to tell you how to use a tripod. That will become obvious after playing with it yourself for an hour. It's a simple device that keeps the camera stable and in one place. What I will tell you is how I've used it in the past, and why I believe it's more valuable than it is a cumbersome hindrance.

> "Using a tripod has helped me become more aware of what's in my frame and given me greater patience."

My tripod allows me to create multiple exposures. In Newfoundland recently I was photographing landscapes. The filters I was using were causing the writing on the front of the lens to reflect on the backside of the filter and into the image itself, leaving me with weird backward, semi-circular lettering in my images. So I took off my three-stop graduated neutral density filter, made two images that were three stops apart on the tripod, and blended them together in Photoshop.

My tripod allows me to create long exposures. From 2-second exposures of people on the street, allowing me to blur and imply motion, to longer 30-second exposures of landscapes, the tripod allows me to keep certain things sharp and others, like clouds or water, become a blur. Without a tripod, the best I might get is 1/15 of a second handheld. Even then, especially with macro photography, a steadier camera is preferred.

My tripod allows me to lock down a shot and be prepared for something to happen within a carefully composed frame. The moment doesn't always happen when I want it to, but if the camera is framed and focused and has a remote release, I can get photographs I might not otherwise get.

Most important, however, the tripod has helped teach me to slow down. It has helped me become more considered and patient—bringing a level of meticulousness to my compositions that wasn't there before. I don't always photograph with a tripod. In fact, most often I do not. But using a tripod has helped me become more aware of what's in my frame and given me greater patience, even when the camera is in my hands and the tripod is back in the Jeep.

This isn't the place to discuss what kind of tripod you should get. It's a tool, and like all tools, so much depends on what is important to you—especially where size, weight, and cost are concerned. But let me encourage you to buy the best one you can afford. Good tripods that will hold the weight of your camera and do their job for years without needing to be replaced are not cheap. Do it right and you'll replace several camera bodies and lenses before you even think about replacing your tripod.

Fuji X-T1, 18mm, 58s @ f/16, ISO 250
Hokkaido, Japan, 2015. Without a sturdy tripod I couldn't achieve the simplicity in this image that my exposure, almost one minute long, gave me here, but it's more than that. The tripod slows me down and makes my compositional choices much more considered.

Your Assignment

Get your hands on a tripod with a ball head. Not a pan head; those are for video and they frustrate most still photographers. Use it in your next studio session, or your next photowalk. Force yourself to use it, to play with it. I say *force yourself* because you won't like it at first. That's fine. I'm not asking you to like it—I'm asking you to let it teach you. Do some long exposures. Take your time. Don't get frustrated that it's slowing you down. That's part of the point. When it comes to getting your own tripod you'll get one with a good quick release on the head so you can pull the camera off at any moment and become a little more flexible and spontaneous. Look, you don't have to use a tripod all the time, but it pays to be familiar enough with this tool that you know the possibilities that can come only from its use.

Lesson 54. Understand Optical Filters

A lot of tools are available that can change the way you make photographs and the way your photographs look. Flash is one of them, but you won't find me teaching about it for two reasons. The first is that I don't use flash myself. It's just a preference, so teaching how to use it would be hypocritical of me. The second reason is that others can, and do, teach about flash lighting—Joe McNally and Syl Arena being among the most qualified I can think of—and I'd rather defer to them. So if portraits and artificial lighting are your thing, then consider this your permission to go on a field trip. I think understanding this lesson about optical filters is still important, but it does apply most specifically to photographers working with landscapes and outdoor scenes. So if that doesn't do it for you, take your flash out and play. Pick up one of Joe's books (especially *The Hot Shoe Diaries*) if you use Nikon, and Syl's book *Speedliter's Handbook* if you use Canon. They use flash for their work for the same reason I use optical filters for mine—different tools change the way we work, open new possibilities, and do things for the photograph that Photoshop, for all its wonders, can't easily do, or do at all.

My Nikon with the Lee filter holder and a graduated filter slid in place.

In the case of optical filters, the argument that they're no longer needed doesn't fly with me. The effect of *some* optical filters can, absolutely, be replaced with digital darkroom work. There are times I will use a three-stop graduated ND (neutral density) filter for landscape work, even though I know I could do the same in Lightroom, and with greater control. Why? Because I don't just make one image, then move on. I look at my sketches, react to them, and make changes to my composition or exposure based on what I see. I

don't visualize the final image very well, and filters help my process. And I can still make several frames without the filter so I've got an unfiltered, blank-slate image to work with later in Lightroom if I desire. So that's one reason. Filters help my process even when I don't need them.

The other reason is that not all filters can be reproduced later with software. There are three optical filters that create effects that can't always be reproduced, and you'll benefit from being familiar with them: the circular polarizer; the neutral density filter; and the graduated, or split, neutral density filter. Look at the work of some of your favorite landscape photographers and you'll see images they couldn't have made without one of these—or all of these—filters. Like any of photography's tools, they are no substitute for vision, moment, light, and creative composition, but if you've got those, these filters can mean the difference between a good image and one that goes up to 11.

The circular polarizing filter acts like polarizing lenses on a good pair of sunglasses—the lens, when rotated, filters out polarized light. Depending on conditions, practically this means darker skies, less reflections, and deeper, more saturated colors. Used well, it can turn a shimmering river from a ribbon of silver into a ribbon of darker tone, which can entirely change the way the eye reads the photograph. You could use Photoshop to make skies more dramatic or colors more saturated, but not to pull the shine off wet leaves.

In use there's not much to it. They work best when aimed perpendicular to the sun, but can do wonders even under overcast skies. Turn the circular polarizer on the front of the lens to gain maximum effect. Be careful with ultra-wide lenses, since they can capture such a broad expanse of sky that some of the sky is filtered more than other parts (the less perpendicular the sky is to you, the less the effect), and weird banding can occur. With my polarizer, as with my other filters, I make a practice of creating a safety frame or two without the use of the filter, just in case I prefer the scene without its effects. Options keep possibilities open, and it's very hard to un-polarize a weird patch of sky that went too dark because I wasn't paying attention.

Leica M (240), 21mm, 31 seconds @ f/4, ISO 400, no polarizer

Leica M (240), 21mm, 31 seconds @ f/4, ISO 400, polarizer

Taken only a couple minutes apart, both with a full and graduated ND filter, the only difference is that one uses a polarizer and the other doesn't. Conventional wisdom says to use a polarizer on water, but in this case doing so removes the very reflections I love about the scene. Make filter choices based on what you want the photograph to look like, not what others tell you.

Leica M (240), 21mm, 15 seconds @ f/4, ISO 640, 10-stop ND filter

Leica M (240), 21mm, 0.7 seconds @ f/11, ISO 100, no ND filter

Neither is better than the other. Each interpretation of this scene in Newfoundland says different things. Both are beautiful, I think, but one is much more about the relationship between the rock and the cliff, and the other is about the rock, cliff, and pounding surf.

The neutral density (ND) filter has two characteristics. The first is that it's neutral—without a color cast. In reality, few are perfect, and many add a slight magenta hue to images, though that's easily corrected. The second is that they are, well, dense. They cut light. When you can't drop your ISO any further, close your aperture any tighter, or make the shutter any faster, a neutral density filter cuts the light. I have filters that can cut the light by up to 11 stops in my bag. That's enough to turn a 1/30-of-a-second exposure into a 30-second exposure. Why would I want to do this? To compound the effects of time. You

might want a photograph of a scene without people in it. At 1/30 of a second, it'll be a while before you get one clean shot. At 30 seconds, assuming everyone is moving, they turn into invisible blurs, and at 3 or 5 minutes, you won't see a thing. The same is true of clouds, turning them into long wisps that blend into each other, or water, churning it into placid lakes or even ghostly vapor. A 10-stop ND filter is hard to use for portraits, but a 3-stop ND might be just enough for you to open that 85mm f/1.2 lens up in bright sunlight and make use of that dreamy shallow depth of field.

Leica M (240), 21mm, 1/3 @ f/13, ISO 400
I shot this with a three-stop graduated ND filter, and simulated, in Lightroom, what it would have looked like without filtering out those three stops of light. The filter allows me to balance the exposure and keep the foreground bright, while not losing the detail and impact of the sky to overexposure.

The graduated ND filter is a neutral density filter that fades from full strength, usually 1–3 stops, to clear, in either a smooth slow transition or a hard transition. The advantage here is that the filter blocks light in one part of the scene while allowing full exposure in another. So if you're photographing a golden prairie under a bright sky, you might find it hard to expose for the sky without the prairie being too dark to see the color and detail, or to expose for the prairie without the sky becoming too bright and losing all detail and mood. But if you put a graduated ND filter in front of your lens and place the transition on the horizon, you can expose for the prairie, keeping it bright and full of detail, while also keeping the sky moody. You could, of course, use the filter at any angle, or upside down, to darken a foreground and keep a background light, as long as your scene has a relatively straight, uninterrupted horizon. You can still use these graduated filters when the horizon is interrupted, for example, with a mountain or tree, but you'll probably want to work on that later with software, selectively brightening that element to match the rest of the foreground.

One final word about the graduated filters. I don't find one-stop filters to be of much use. Even two-stop filters rarely make it into my bag. But I carry both a hard-transition three-stop and a soft-transition three-stop. When the horizon is really irregular, I use the soft transition. But your choice of aperture also has an effect on how hard the transition is, in both cases, though more noticeably in the case of the hard transition. If you close your aperture, deepening the depth of field, the transition will become more noticeable. Sometimes you might want this, but if you don't, keep the aperture wider and it'll keep the transition softer and less noticeable. The same applies if you have light scratches on the filters, which will happen over time. A deeper depth of field will make those scratches more noticeable.

You can find a lot of different filters out there, and it's a little tough to get your mind around all the options. My recommendation as I write this is to look into the Lee Filter System with either Lee or Singh-Ray filters. You buy different rings to fit the thread on different lenses, onto which a larger, plastic filter folder fits. Into this you can stack a couple square or rectangular filters—I often stack a graduated ND filter with a full ND filter, allowing me to knock the sky back as well as increase the length of my overall exposure, deepening twilight blues, ghosting clouds, or smoothing ocean. On top of that, a ring is available, which screws onto the front of the filter holder, onto which you can place a large polarizer. The advantage to this system is that you buy one filter—the most expensive part—only once, instead of one for every lens with a different thread size. The filters aren't cheap—quality usually isn't—but if you take care of them and don't scratch or drop them, you'll have them for a while.

Your Assignment

If you photograph outside at all, consider getting a circular polarizer and learn to use it. Sometimes you'll want it, sometimes you won't, but mine is always in my bag. See if you can borrow one from a friend for now. The same goes for the ND filters. You can't know if they're for you until you try them and see their effect on your process and your images. Some people are fine without them, but you should at least be aware of them, and the possibilities they create, as potential tools in the box.

Lesson 55. Stay Present

It's a good time to talk about *staying* present. Stop chimping. I understand the desire for the feedback, and when you're new at this you're going to want to check your histogram or your composition. But the sooner you trust your technique and stop looking at the LCD, the sooner you'll stop popping in and out of the moment.

Fuji XE-1, 14mm, 1/350 @ f/10, ISO 800
Great moments are everywhere, and they happen when you least expect it. The more time you spend looking at your gear, the less time you spend being open to the moment.

I've seen it too many times to count, and I never know whether to laugh or cry. Students will put the time in to make a beautiful photograph—they'll start making their sketch images, then stop and look at the LCD. And it's in the distraction, when they retreat from the moment, that the subject they were working with relaxes and laughs, and they don't notice because their portrait session suddenly became about the camera and not about the human being in front of them. This back and forth between moments and non-moments (what I call "the time spent fiddling, looking at screens, and doubting ourselves") kills spontaneity and confidence, and you won't make better photographs until you tame it. Set your exposure, then connect to the moment and stay in it until it's over. As Kenny Rogers so wisely sang:

> *You got to know when to hold 'em, know when to fold 'em,*

Know when to walk away, and know when to run.

You never count your money when you're sitting at the table,

There'll be time enough for counting, when the dealing's done.

Lesson 56. Simplify

Antoine de Saint-Exupéry said, "A designer knows he has achieved perfection not when there is nothing left to add, but when there is nothing left to take away." The same applies beautifully to the photograph. Elegance is about simplicity, about the removal of everything unnecessary to the telling of the story or the expression of emotion. Pulling everything extraneous from the frame, or forbidding it to go there in the first place, allows the necessary elements to play their strongest.

Fuji XE-1, 14mm, 240 seconds @ f/11, ISO 250
Twilight over the sea in Liguria, Italy, is reduced to its simplest elements with careful composition and a long exposure.

Fuji X-T1, 56mm, 1/4s @ f/16, ISO 200
Hokkaido, Japan, 2015. Compositions don't get much simpler than this, though that doesn't mean you just point and shoot. I visited this spot over three days and only once did I get this kind of isolation due to the weather and the fresh snow.

Trying to include more in the frame, which can ask more of the photograph than it's able to communicate, only weakens it. It's better to create three powerful, elegant frames than one that is cluttered and suffers from so much dilution that the reader of the photograph doesn't know what you're pointing at.

I'm not suggesting you make your photographs so clear that they suggest no mystery. On the contrary, mystery is best created by what you do not show—another argument for simpler images. Consider these questions:

- How much can you take out of the frame with the isolation techniques you learned earlier?

- Can you further simplify the background, giving a little less information and a little more impact?

- Can you change your point of view in order to shift some strong lines and give them less energy in order to let other elements play more powerfully?

- Does pulling color out, or diminishing the saturation a little, simplify the frame in a way that gives you a stronger image?

- How can you break this one scene into three or four photographs, each a little

stronger than the scene as a whole because each speaks to something different, in a different way?

Your Assignment

Find a scene that pulls at you and make a photograph the way you normally might. Don't think too much about it. Now find the "photographs within a photograph" and make six simpler photographs. They don't have to tell the whole story; in fact, that's the point. It doesn't have to be a large scene either. Pick a vase of flowers, make a photograph of that vase of flowers, and then simplify—find six photographs within that scene that are less busy, more about line and color and pattern. Make the simplest photographs you can. Exclude everything that is unnecessary. Can you make one photograph of only a stem, or an abstract of defocused petals, eliminating even the need for sharp focus? Can you reduce the color palette to only different shades of red or green? Can you find a way to remove the color entirely? How much can you remove before you no longer have a photograph?

Lesson 57. Shoot from the Heart

In case you haven't heard me preach this sermon before, keep this one thing before you: life is short. We've no idea how short it really is for each of us, and if we live to a so-called ripe old age, there's a good chance we'll look back and think, "My God, it all went so fast." And in that brief time, we've got only so many experiences, only so many photographs to make and share with the world. From what I've read, those people who have gotten toward the end of their lives, with the time and inclination to express regret, do not regret things they did and the mistakes they made—they usually see them as necessary steps in becoming the people they did. What they regret, instead, is what they did not do. Sadly, it is the things we do that take up all our time, leaving no room for the things we might otherwise have done. So what's my point? Life is too beautiful, and too short, to be making photographs of things that you don't want to. And it's barely long enough, if we really knuckle down on it, to become fully ourselves, let alone someone else, so it's too short to spend our days in imitation, too.

Nikon D800, 125mm, 1/100 @ f/5, ISO 1000
Made among people I love dearly in Northern Kenya, I think this image and the others in this series work well because they came from my heart. We do best the things we love most. That love affects our process, and it shows.

Imitate, if you must, as a way of learning. Artists trace the great works to become familiar with their forms. Singers play cover tunes, and new guitar players cut their teeth (and set ours on edge) playing "Stairway to Heaven." But it's the artists who adapt that knowledge into their own growing way of doing things and absorb them into their own voice as soon as they are able. Imitators merely adopt—artists adapt. There's got to be a reason you

resonate with one artist over another, something about what they do and how they do it, that pulls you toward them. What is it? How do they do it? Figure it out. Try it on. And as soon as you can, move on.

I read too often that you've got to know the rules before you break them, and I know what people mean, though it still begs the question: Why? Why acknowledge the rules at all? There are principles, sure. But rules? It's this kind of thinking that leads students to ask, "How *should* I do this?" and it's not until they stop asking that question and look to their heart and their will, and ask, "How do I *want* to do this?" that their work becomes their own and they create not from obligation but from their most honest, unique places. Color outside the lines, and use any color you choose. Photography is as much about expression as anything else, and it's hard enough to find the courage to express ourselves so vulnerably without also feeling the need to do it the way someone else wants us to. Follow your heart first. Life is too short, and your art too important, to do anything else. Find what you love to photograph—it could be a subject, like children, or birds, or love itself—or it could be amazing light and lines, present in all kinds of subjects. Whatever it is, do that. Your passion, as well as your disinterest, will show in your art. Leave everything else that doesn't make you say, "Oh my God, look at that!" to others.

Nikon D3s, 85mm, 1/1000 @ f/5.6, ISO 400.
Northern Kenya, 2013. This little girl stole my heart. At the age of eight she's been promised in marriage, which is what the many rows of beads represent. The most meaningful photographs for me always begin with the most meaningful experiences, moments that move my heart before they move me to photograph.

Lesson 58. Print Your Work and Live with It

Almost nothing in the last year has impacted my own work and made me a better craftsman than beginning to print my work myself again. I'd been traveling for a while, with no real address, and for a couple years most of my photographs went into books. They were seldom printed, and when they were printed, they were printed by someone else. Returning to printing feels like coming back to a fuller photography, as though I'd been missing something for a couple years.
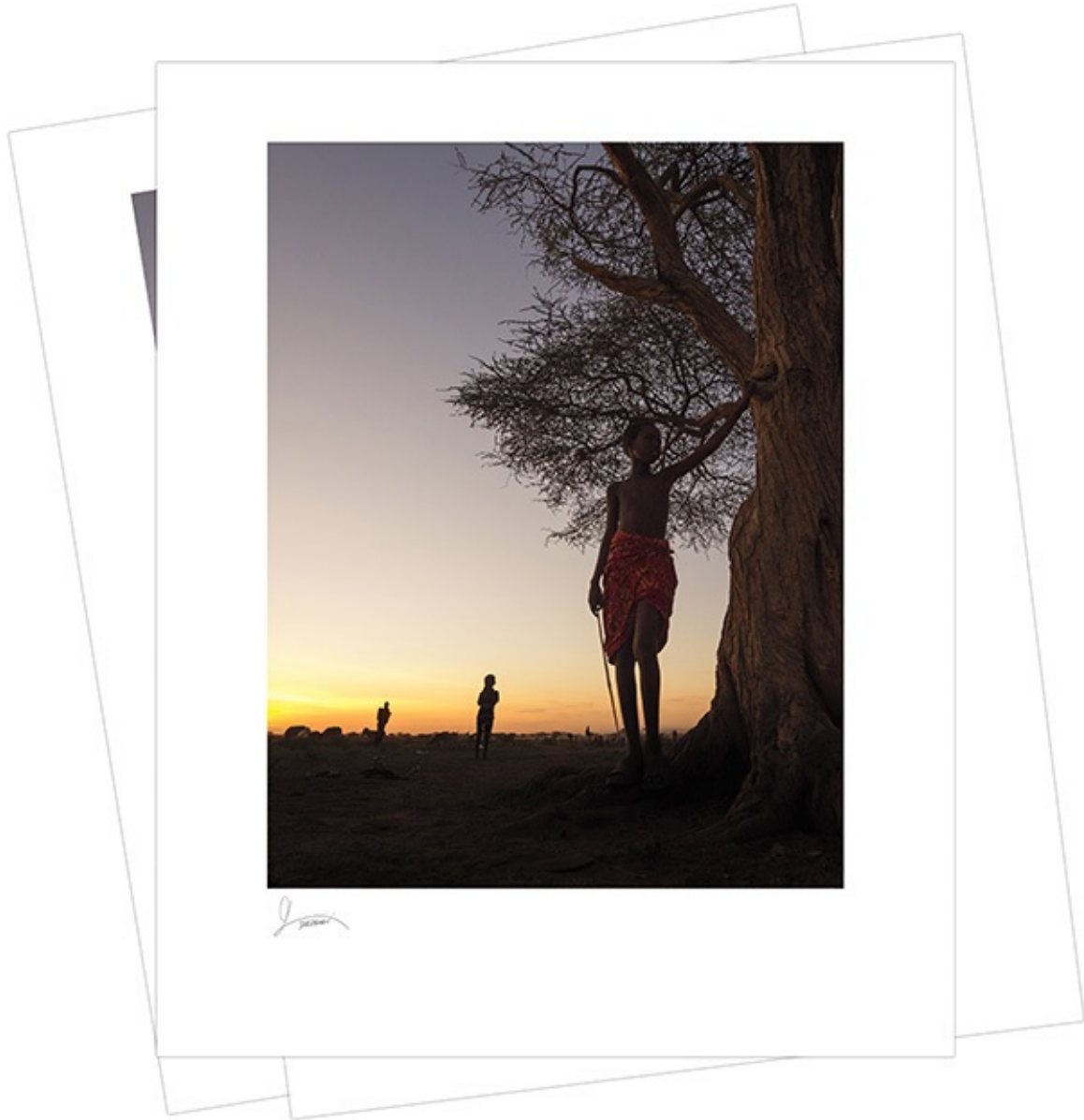
Printing our photographs, holding them in our hands, and living with them is one of the strongest ways to experience and learn from our work.

"Living with our work gives us time to get over the novelty of it. Often we think our work is great when it is merely new."

Look into a printer that'll allow you to print as large as you can afford to. If that's nothing more than gorgeous 8×10 prints, so be it. Printing's not cheap. But I'm not sure that's a liability. A commitment to print the best of our work, and the fact that each print costs something, means that most of us will be more selective about the images we print and

we'll take greater care in our development of that image into a final photograph. It doesn't take long before you tire of spending $5 or $10 on each work print only to find you missed a dust spot or you forgot to check for noise or chromatic aberration. You'll quickly start paying more attention both while you edit and while you're behind the camera. The benefit is that you'll pay more attention while making the photographs, and that will result in better photographs.

Putting our images online, without cost, means more people can see them, and I love that reality. More people can see our work today than ever before. But the downside is that the signal-to-noise ratio suffers. Quantity goes up, quality goes down. The "good enough for Flickr" mentality cripples us as craftspeople and robs us of the chance to give greater care to our work.

I don't want to be prescriptive about this; we all do this work for different reasons, and there is no "should" in art. But I think photography is incomplete until that photograph becomes tangible, which gives us a chance to complete the process. I also believe we need to live with our work a while. We're often very quick to declare a photograph done and then move on. I think time gives us a little more objectivity, gives us the luxury of letting go of the need for this image or that image to be great, when in fact it could be stronger. Living with our work gives us time to get over the novelty of it. Often we think our work is great when it is merely new. Spending time with our work gives us that time to reconsider our edit, our processing, or the sequence of images in a series. I hang new work on a long cable wire hung in the entry of my loft, which means I have to look at my photographs each time I enter or leave home or use the washroom, which is down the same hall and ensures I see the work often. If we do not print our work and live with it, I think we rob ourselves of a chance to make stronger decisions about it.

Your Assignment

Give yourself a deliverable on your next personal project. Be more specific about the final output. For example: "After editing I will print a sequence of 12 photographs, which will work together to tell the story." Or maybe it will be 20 images that you'll print and bind into an 11×14 portfolio. Or perhaps you're doing something that plays with scale and the work would look great really large, then your output might be two or three images printed 20×30 or larger. If you can afford it, consider setting up a printer. I have two right now, an Epson 3880 and 7900. They're getting more and more affordable, or at least less and less inaccessible, and the quality is out of this world. If buying a printer doesn't make sense for you, then look into the many print services online, like Mpix.com, or even go to your local Costco. There are few aspects of creating photographs that I like more than finally holding and touching my work as a large print.

Lesson 59. Listen to Other Voices (Very Carefully)

If you're serious about your craft and your art, then consider getting off the online forums as fast as you can. Stop hoping for "likes" and atta-boys and the unhelpful, but enthusiastic, "Nice capture, man!" Anyone in the world can find hundreds of people to affirm them and tell them their work is the best work ever. That's your mom's job; let her do it and cut the others loose. All of us need voices in our lives telling us to keep at it, encouraging us. Most of us can use a little more confidence and a little less fear as we take greater risks and create our work. So find a couple of those. But don't let those be the only voices you listen to. In fact, there are four different voices most of us hear, and I'm going to suggest you cut half of them out of your life entirely—at least as far as the voices you allow to influence you.

Fuji XE-1, 14mm, 1/75 @ f/16, ISO 200
Not everyone will understand what you create. Not everyone will love it the way you do. And some will tell you so. Be careful which voices you listen to—both the fans and the critics can derail you.

The four voices are these: the Critic, the Mentor, the Friend, and the Sycophant. Consider them the four archetypal voices in the artist's life.

The Critic we have no use for, not in this sense. The Critic comes a dime-a-dozen with opinions aplenty. The Critic comes uninvited into our lives but for some reason doesn't seem to leave until we insist. The Critic has less interest in your art than in his own voice. He doesn't want to make you better; he wants you to see how much better he is.

The Mentor tells you the truth—unvarnished and raw—and she tells you the truth from both sides, the positive and the negative. And she does not come into your life uninvited.

You choose her or find her, but her voice comes because you ask, and you ask because you respect her and see something in her life and work that can help you take next steps.

The Friend tells you how much he loves your work. He doesn't understand it, and he might not be qualified to comment on it, but what he knows and understands is you, the artist. The Friend is your cheerleader and you need him because all but the most arrogant have times we need to be reminded to keep pushing on and that our recent failures don't define us. The Friend too comes invited into our lives, and we should listen to him on matters for which he is qualified, by his love for us, to comment on.

The Sycophant just spews praise, and before you get to thinking there's no harm in that, remember praise can be as toxic to us as anything good taken in greater measure than we're capable of absorbing. We can be as paralyzed by unearned praise as we can by undeserved criticism. The latter threatens the confidence we need to move forward and take risks, and the former threatens the humility we need to be open to new directions and keep moving beyond our ruts and comfortable places.

Your Assignment

Take stock of the voices you listen to and the reasons you listen to them. Salvage the time you spend in online forums and put it toward your craft. Go make art. Even the best voices will only help us so much. The one voice we must always listen to, with both confidence and humility, is our own. The clamor of voices on the forums will make it difficult to hear that most important voice. You'll hear it louder the closer you are to your work. Your ego can handle the separation anxiety. It *needs* to be able to do so. For some of us it's an addiction, and the sooner you wean yourself from it the sooner you'll make honest art that you want to make, the way you want to make it, without the need to please another person. Eject the critics—if they know so much let them go make their own damn photographs. And eject the sycophants—making art to please others will only ensure we create mediocrity.

"We can be as paralyzed by unearned praise as we can by undeserved criticism."

Lesson 60. Study the Masters

We all stand, consciously or not, on the shoulders of giants. Men and woman have gone before us, experimenting, creating the so-called rules we will go on to break, and earning our reverence or criticism, probably caring about neither if they're still among us. But whatever we feel about their work, whether we love it or are indifferent to it, we can learn a great deal from it. After all the words in this book, I still maintain that the best way to learn photography is to make a great many photographs and to look at—and study—a great many photographs. To find for ourselves what we love and what we don't—and how others have achieved what they have. The beauty of course is that it's all there to learn. There are no secrets in photography—almost every effect you see can be deduced. It's still nothing more than lines, light, and moments, and if you put your mind to it you can figure out how they did it, if that's the lesson you really want to learn. It's why the young and brazen can look at the work of a master and say, "I could do that." Of course you could. It's likely that most of us could. But we didn't. And if we're smart, we won't. We'll do our own thing. We'll do our own work, and then, 30 years from now, some kid will look at our images and say, "Phhhh, I could have done that." The circle of life.

A selection of some of the many books of photographs you'll find on my bookshelves. These books are my prized possessions. The photographers whose work they represent are my mentors and teachers, though I've never met them except through their work.

If you're serious about growing as a photographer, cut back on the budget you've given yourself for shiny gear and buy a book of photography—not a book *about* photography—once a month. Or once every two or three months. Or go to the library. But better if you buy it, because the first people to patronize photography and declare its value by *paying for it* should be photographers themselves. As a starting point, here are the photographers —past and present—who are on my own shelves, or will be soon. You'll see my own biases here, but that's okay, we all have them. I don't think my list is remotely authoritative; these are just the photographers I've learned from. Make your own list, but spend time soaking in photographs. To do so is to spend time with the photographers themselves as they show you how they saw the world. These masters, past and present, will open your heart, your mind, and your eyes—and that's the starting place and the foundation for everyone who wants to make stronger photographs.

- Bill Brandt
- Robert Capa
- Henri Cartier-Bresson
- Alfred Eisenstaedt
- Elliott Erwitt
- Walker Evans
- Robert Frank
- Ernst Haas
- Fred Herzog
- Yousef Karsh
- Michael Kenna
- Annie Leibovitz
- Vivian Maier
- Steve McCurry
- Irving Penn
- Man Ray
- Galen Rowell
- Sebastião Salgado
- Edward Weston
- Art Wolfe

Fuji X-T1, 29mm, 1/250 @ f/11, ISO 800

Fuji X-T1, 55mm, 1/15 @ f/20, ISO 400

Fuji X-T1, 20mm, 1/15 @ f/10, ISO 1250

Fuji X-T1, 20mm, 2s @ f/20, ISO 200

Hokkaido, Japan, 2015. These images are very much my own, but we are all a result of our many influences and Michael Kenna's influence is easily seen in these photographs.

I also strongly recommend *Magnum Contact Sheets* (Thames & Hudson, 2011), edited by Kristen Lubben. The book is large (massive) and not cheap, but it's a photography course all by itself with the number of photographs in it, all of them appearing in context of the ones that never made the cut. With any of these books, don't just flip through them. By all means, enjoy them, but then study them. Interact with them. Why did he make that decision? What was she trying to show me? Why color? Why black and white? Why did he stand here and not there? How does this photograph make me feel? What unifies the work of each artist? How would I describe their work? What might have happened if…?

In any creative field, if not in all fields of life, the questions are more important, and more interesting, than any answer you might come up with.

Conclusion

I hope you made it this far. I hope that you've seen this less as a book to be quickly skimmed, pulling out bits of information here and there. I didn't write it to be a repository of information, but a suggestion for further, constant study. Fodder for thought. A source of questions that make great starting points for your own journey. I hope it's opened your eyes to new ideas and given you the courage to keep learning, knowing it's a journey we're all on, that none of us has arrived. In fact, it's the masters I know, the ones I really adore and respect, who seem most likely to be humble about all this, and it's the ones striving so hard to master this so quickly who seem most likely to crash and burn. Pace yourself. Anyone can master a camera; that just comes with time. It's the other stuff—learning to *think* like a photographer—that takes so much work and allows this craft to become the means by which you create art. At a certain point you're going to stop caring how others would do it or think you *should* do it, and you're going to realize it's all too important to take so damn seriously, and you're going to begin to play and create photographs the way you once did, purely for the joy of seeing how things look when the camera sees them. And *that* is when you'll fall in love again with photographs themselves instead of these ever-changing black boxes. Sure, these camera bodies seem miraculous at times but, technical wonders though they are, they're nothing compared to the miracle of opening the eyes and heart of another when the photograph you made connects with them in some way.

Leica M (240), 21mm, 4 seconds @ f/4, ISO 200
The sun rises over Vermillion Lakes, Banff, Canada.

"The magic wand is not in reading about this stuff, but in doing it—
working it out over months and years."

At whatever point you are on this journey, you're learning a new language. As I write this
conclusion I am teaching at a photography conference in New Brunswick, and I've been
sitting in on the sessions with Freeman Patterson, a long-time hero and mentor, and I'm
still learning. My head today is swimming with new ideas. But you won't learn a new
language only by reading books on grammar or vocabulary. You've got to do the
homework and practice speaking that language. So although I hope that this book is a
source of ideas and questions for you, I hope even more that you'll seriously consider
actually doing some version of the assignments I've suggested. No one speaks a new
language without wrapping their mouths many, many times around the new words,
experimenting with the sounds and meanings until they come naturally. For photographers
that act is largely a matter of making photographs often and trying these new tools until
they fit in our hands more comfortably, until we can weave them into our photographs a
little more unconsciously. To loop back to the beginning of this book, the magic wand is
not in reading about this stuff, but in doing it—working it out over months and years.

It's a long, beautiful journey. These lessons and assignments can be waypoints on that

journey, but the real lessons are the ones you learn yourself in the margins and in the time you spend with the camera in your hand and your prints laid out before you on the coffee table, fueled by the thrill we all get when we hold those photographs and think, I made this!

I want to leave you with something I wrote in reply to a young photographer, and to everyone who's asked me a similar question.

Dear David,

I'm a second-year photography student. Would you look at my work and offer me any advice?

Jennifer

Dear Jennifer,

Thank you for the invitation to spend some time with your work. I know you meant for me to look at your work and give you advice based on that, but I only know how to struggle with the making of my own art, not yours. I could make suggestions about color or composition, but they'd only bring you closer to making your work look like mine, and no one needs that. Only you can discover what your art will look like. So here's what I've got. It's what I wish I'd heard sooner:

You're young. I still think I am too, but it's relative. You're at the very beginning of this process, and much as you think you are beginning to know who you are now, well, life has a way of changing that person, and with it her art. You ain't seen nothing yet.

So since you're at the beginning, spend more time working on the artist than the art. Be patient with her. Allow her to express her wants and desires and chase hard after them. They're likely to change along the way. Chase them wherever they lead. Learn to listen to, and trust, that voice.

Take risks. Take more risks.

Be heartbreakingly vulnerable with the world and your art.

Don't take yourself too seriously.

Be curious.

Call bullshit on safety and face your fears daily. Don't be afraid of the unknown. Discovery only happens in the unknown.

Do your work. Always do your work. Even when it's shit. Keep doing it. Because making lots of bad art is the only way to get to a place where you'll one day make great art. Failure is a much more faithful teacher than immediate success (which usually isn't what it seems).

Look at, and study, the work of the masters. Form strong opinions about that work, and be willing to change them.

Look at the world with all your senses; seeing is about perception and that's a whole-being kind of thing. Experience life—don't just shoot it. You can't photograph well what you haven't experienced.

Color outside the lines and ignore the so-called rules. Look for principles instead; they last longer and serve us better.

Lastly, through all that, learn your craft, and be so good at it that no one can ignore you. But never confuse craft for art. One is a means, the other an end.

Your work is beautiful. It's a great start. But right now, the harder, more interesting task ahead of you is to tend the garden from which the better fruit will one day come: you. Obsess about the work—we all do—but remember that in five years you'll look back and see this work—as it is for all of us—as only a starting point. Don't get too hung up on it. Your best work will always be ahead of you. It's true now, and it'll be true in 25 years. We never "arrive." There is only the winding, beautiful journey as we chase our changing vision and the muse that's always a few steps ahead, just disappearing around unexpected corners.

I wish you winding lines, beautiful light, and unexpected moments.

David duChemin
Vancouver, 2015

P.S. Want to touch base directly or ask me a question? You can get me on Twitter (@david_duchemin), Facebook (David duChemin), or Instagram (@davidduchemin). If you're on Twitter, use the #visualtoolbox hashtag on your questions and I'll do my best to answer them. We're all in this together! Just be patient. If I'm on the other side of the planet without Internet access, it might take a little while. But that's not a bad thing. We often learn best when we're forced to muddle through something on our own. Still, I'd love to help if I can.

If you've enjoyed this book, please join me on my blog at DavidduChemin.com, and you can find more from me through my five previous Peachpit books at Peachpit.com, and through my own eBooks and bi-monthly magazine at CraftandVision.com.

One last thing: If you found this book helpful, would you take a moment to write a review at your favorite bookseller's website or even your own blog? All the marketing in the world isn't worth what your experience and honest reviews are worth. I'd be so grateful if you took a moment to tell others or endorse this book. Readers like you allow me to keep doing what I love, and I never lose sight of that. Thank you.

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weight, visual. *See* visual mass