Now that you’ve bought the amazing Sony A7 / A7R, you need a book that goes beyond a tour of the camera’s features to show you exactly how to use the camera to take great pictures. With Sony A7 / A7R: From Snapshots to Great Shots, you get the perfect blend of photography instruction and camera reference that will take your images to the next level! Beautifully illustrated with large, vibrant photos, this book teaches you how to take control of your photography to get the image you want every time you pick up the camera.

Follow along with your friendly and knowledgeable guide, Pulitzer Prize–winning photographer Brian Smith, and you will:

- Learn the top ten things you need to know about shooting with the Sony A7 / A7R
- Use the Sony A7 / A7R’s advanced camera settings to gain full control over the look and feel of your images
- Master the photographic basics of composition, focus, depth of field, and much more
- Learn all the best tricks and techniques for getting great action shots, landscapes, and portraits
- Find out how to get great shots in low light
- Learn the basics behind shooting video with your Sony A7 / A7R and start making movies of your own
- Fully grasp all the concepts and techniques as you go, with assignments at the end of every chapter

And once you’ve got the shot, show it off! Join the book’s Flickr group, share your photos, and discuss how you use your A7 / A7R to get great shots at flickr.com/groups/sonya7-a7rfromsnapshotstogreatshots.
From Snapshots to Great Shots
Sony A7 / A7R: From Snapshots to Great Shots

Brian Smith
Dedication
To my lovely wife, Fazia, thanks for your love, laughter, and support!
To the innovators and dreamers who imagine a better future.
And to everyone who has ever stood in front of my lens...
Acknowledgments

Thanks to all my wonderful friends at Sony. My deepest thanks to Rosie Sandoval, Mark Weir, El-Deane Naude, Kenta Honjo, and Mike Kahn, who helped get these amazing cameras in my hands, and to Matt Parnell, Val Motis, Mike Fasulo, Phil Molyneux, and Kazuo Hirai for the opportunity to showcase the images I shot with them! To Sony's engineers, thanks for thinking outside the box! Thanks to Sony AOI's Kayla Lindquist and my fellow Sony Artisans, who always inspire me with their amazing work.

A project like this does not come together with just one person at the helm, and I’m glad to have worked with many fine folks throughout its duration. To Jeff Revell, thanks for creating the foundation for what has resulted in a fantastic series of books and learning resources for many camera owners. And thanks to Jerod Foster for his fabulous book on the NEX-6, which kicked off Peachpit's Sony series. Their contribution to this text is invaluable.

A huge thanks to everyone at Peachpit Press who was instrumental in this project: my wonderful editors, Valerie Witte and Scout Festa, for their extreme patience with all the projects I had on my plate while writing this; Wolfson Design for beautiful design; David Van Ness; Bethany Stough; Susan Rimerman; Sara Jane Todd; and my BFFs Scott Cowlin and Ted Waitt. All of you made this an enjoyable experience that produced another great-looking book. Thank you.

And finally, to the love of my life, my creative collaborator, my muse, my lovely wife, Fazia, I love you dearly...
## Contents

**INTRODUCTION**  
XIII

**CHAPTER 1: THE A7/A7R TOP TEN LIST**  
1  
Ten Tips to Make Your Shooting More Productive Right Out of the Box

- Poring Over the Camera 2
- Poring Over the Camera 4
- 1. Charge Your Battery 6
- 2. Turn Off the Auto ISO Setting 7
- 3. Set Your JPEG Image Quality 8
- 4. Configure Your LCD and Viewfinder 10
- 5. Set Your Autofocus Area and Mode 14
- 6. Set the Correct White Balance 15
- 7. Set Your Color Space 18
- 8. Know How to Override Autofocus 20
- 9. Review Your Shots 22
- 10. Hold Your Camera for Proper Shooting 26
- 11. Bonus Tip for Spinal Tap Fans 27

Chapter 1 Assignments 28

**CHAPTER 2: FIRST THINGS FIRST**  
31  
A Few Things to Know and Do Before You Begin Taking Pictures

- Poring Over the Picture 32
- Poring Over the Picture 34
- Choosing the Right Memory Card 36
- Formatting Your Memory Card 36
- Updating the A7/A7R’s Firmware 38
- Cleaning the Sensor 39
- Using the Right Format: RAW vs. JPEG 41
- Lenses and Focal Lengths 44
- Understanding Exposure 50
- Motion and Depth of Field 53

Chapter 2 Assignments 57
## CHAPTER 6: MOVING TARGET

**Tricks to Shooting Sports and Action**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poring Over the Picture</td>
<td>132</td>
</tr>
<tr>
<td>Stop Right There!</td>
<td>136</td>
</tr>
<tr>
<td>Using Shutter Priority (S) Mode to Stop Motion</td>
<td>140</td>
</tr>
<tr>
<td>Using Aperture Priority (A) Mode to Isolate Your Subject</td>
<td>142</td>
</tr>
<tr>
<td>Keeping Them in Focus with Continuous AF and</td>
<td>144</td>
</tr>
<tr>
<td>Autofocus Area Selection</td>
<td></td>
</tr>
<tr>
<td>Keeping Up with Continuous Shooting Mode</td>
<td>146</td>
</tr>
<tr>
<td>Manual Focus for Anticipated Action</td>
<td>148</td>
</tr>
<tr>
<td>A Sense of Motion</td>
<td>150</td>
</tr>
<tr>
<td>Tips for Shooting Action</td>
<td>151</td>
</tr>
<tr>
<td>Chapter 6 Assignments</td>
<td>154</td>
</tr>
</tbody>
</table>

## CHAPTER 7: LANDSCAPE AND STREETSCAPE PHOTOGRAPHY

**Tips, Tools, and Techniques to Get the Best Landscapes and Streetscapes**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poring Over the Picture</td>
<td>158</td>
</tr>
<tr>
<td>Sharp and In Focus: Using Tripods</td>
<td>162</td>
</tr>
<tr>
<td>Selecting the Proper ISO</td>
<td>164</td>
</tr>
<tr>
<td>Using Noise Reduction</td>
<td>165</td>
</tr>
<tr>
<td>Selecting a White Balance</td>
<td>166</td>
</tr>
<tr>
<td>Using the Landscape Creative Style</td>
<td>168</td>
</tr>
<tr>
<td>Shooting Beautiful Black and White Landscapes</td>
<td>170</td>
</tr>
<tr>
<td>Golden Light</td>
<td>172</td>
</tr>
<tr>
<td>Shooting Compelling Sunrises and Sunsets</td>
<td>173</td>
</tr>
<tr>
<td>Making Water Fluid</td>
<td>174</td>
</tr>
<tr>
<td>Composing Landscapes and Streetscapes</td>
<td>176</td>
</tr>
<tr>
<td>Where to Focus</td>
<td>180</td>
</tr>
<tr>
<td>Easier Focusing</td>
<td>182</td>
</tr>
<tr>
<td>Using Manual Focus Assist</td>
<td>182</td>
</tr>
<tr>
<td>Using DMF Focus Mode</td>
<td>183</td>
</tr>
<tr>
<td>Shooting Panoramas</td>
<td>183</td>
</tr>
<tr>
<td>Looking for the Unexpected</td>
<td>187</td>
</tr>
<tr>
<td>Chapter 7 Assignments</td>
<td>188</td>
</tr>
</tbody>
</table>
CHAPTER 8: MOOD LIGHTING  191
Shooting When the Lights Get Low
Poring Over the Picture  192
Poring Over the Picture  194
Raising the ISO:
The Simple Solution  196
High ISO Noise Reduction  197
Using Fast Glass  198
Stabilizing the Situation  199
Focusing in Low Light  200
Shooting Long Exposures  203
Using Flash  204
Compensating for the Flash Exposure  206
Flash Modes  207
Using an External Flash  211
Taming Flash Reflections  214
Chapter 8 Assignments  215

CHAPTER 9: CREATIVE COMPOSITIONS  219
Improve Your Pictures with Strong
Compositional Elements
Poring Over the Picture  220
Poring Over the Picture  222
Depth of Field  224
Working the Angles  226
Point of View  227
Patterns  228
Color  228
Contrast  231
Light and Shadow  231
Leading Lines  232
Frames within Frames  233
The Simplicity of Black and White  234
Chapter 9 Assignments  235
CHAPTER 10: ADVANCED TECHNIQUES  237
Take Your Images to the Next Level
Poring Over the Picture 238
Poring Over the Picture 240
Spot Meter for More Exposure Control 242
Manual Mode 245
Avoiding Lens Flare 248
Using the Sun Creatively 249
Macro Photography 251
High Dynamic Range Photography 252
Using Dynamic Range Optimizer 255
Wireless and the A7/A7R 258
Tethering Your A7/A7R 260
Chapter 10 Assignments 262

CHAPTER 11: LIGHTS, CAMERA, ACTION!  265
Getting Professional-looking Video from Your A7/A7R
Poring Over the Camera 266
It’s All about the Lenses 272
Accessories for Video 274
Getting a Shallow Depth of Field 276
Giving a Different Look to Your Videos 277
Tips for Better Video 278
Watching and Editing Your Video 281
Chapter 11 Assignments 283

CHAPTER 12: ADAPT MY A7/A7R  285
Lens Mount Adapters to Expand Your Camera’s Lens Choices
Sony Alpha Lens Mount Adapters 286
Canon EOS Lens Mount Adapters 288
Activating Focus Peaking and Manual Focus Assist 288
Leica M Lens Mount Adapters 290
Nikon Lens Mount Adapters 294
Pentax K Lens Mount Adapters 298
Legacy Lens Mount Adapters 298
Chapter 12 Assignments 302
CHAPTER 13: PIMP MY A7/A7R

Accessories to Expand Your Camera’s Creative Potential

External Chargers and Batteries
Vertical Grips
Filters
Tripods
Remote Commanders
Macro Photography Accessories
Hot-Shoe Flashes
Flash Triggers
Reflectors and Diffusers
Camera Straps
Camera Bags
Video Accessories
The Small Stuff

INDEX
Introduction

I first became involved with Sony in early 2008, when they approached me for feedback as they were developing their first full-frame camera, the A900. I sent off a list of 20 things that users would expect from a high-end camera, never really expecting to hear back from them.

But I was delighted to open a box that fall containing a pre-production A900, which addressed virtually every suggestion that I had made. Soon after that, I sat down with one of Sony’s engineers. I clearly remember his words to me: “Tell me what we did wrong, what we did right, and what we need to do next.”

Those words sum up Sony’s approach to digital imaging: Always look for innovative ways to advance technology.
Since their introduction, mirrorless cameras have held great appeal because of their compact size and reduced weight, yet they offer image quality that rivals that of beefier DSLRs. I was immediately attracted to the vast array of lenses I could mount on the Sony NEX due to its thin body design.

Yet a small, compact, interchangeable-lens full-frame camera still seemed to be just out of reach. My fellow pros hit me up with their wish list, which I forwarded to Sony: “full-frame,” “digital Contax G2,” “Minolta CLE,” “I want to use my old Leica M glass,” “built-in EVF with Live View when shooting video,” “I’d like interchangeable lenses,” and “RX1 gets close.”

I wasn’t sure what Sony had in the works last year. I just knew that all my friends in Digital Imaging had really, really big smiles on their faces when I saw them.

When Peachpit approached me about writing a book about the Sony A7/A7R for this great series, I jumped at the chance after having worked with them on Secrets of Great Portrait Photography (Peachpit Press, 2013). This book is not a rehash of the owner’s manual, but rather a resource that teaches photography with the specific technology present in the camera that you now own.

Here’s a short Q&A to help you get a better understanding of just what it is that you can expect from this book.

Q: Is every camera feature going to be covered?
A: Nope, just the ones I felt you need to know about in order to start taking great photos. Believe it or not, you already own a great resource that covers every feature of your camera: the owner’s manual. Writing a book that just repeats this information would have been a waste of my time and your money. Instead, I wanted to write about how to harness certain camera features to improve your photography. As you read through the book, you will also see callouts that point you to specific pages in your owner’s manual that are related to the topic being discussed. These are meant to expand upon the feature or function that I cover as it applies to our specific needs.

Q: So if I already own the manual, why do I need this book?
A: The manual does a pretty good job of telling you how to use a feature or turn it on in the menus, but it doesn’t necessarily tell you why and when you should use it. If you really want to improve your photography, you need to know the whys and whens to put all of those great camera features to use at the right time. To that extent, the manual just isn’t going to cut it. It is, however, a great resource on the camera’s features, and it is for that reason that I treat it like a companion to this book. You already own it, so why not get something of value from it?
Q: What's the aim of this book?

There has been much said about the current trend in photography technology to make gear smaller and lighter without sacrificing image quality. Yet when I looked around, I did not come across any good resources that married this new camera platform with practical photography instruction. The aim of this book is to go beyond technical jargon to assist you in making better photographs.

Q: What can I expect to learn from this book?

A: Hopefully, you will learn how to make great photographs. My goal, and the reason the book is laid out the way it is, is to guide you through the basics of photography as they relate to different situations and scenarios. By using the features of your A7/A7R and this book, you will learn about aperture, shutter speed, ISO, lens selection, depth of field, and many other photographic concepts. You will also find plenty of full-page photos that include captions, shooting data, and callouts so you can see how all the photography fundamentals come together to make great images. All the while, you will be learning how your camera works and how to apply its functions and features to your photography.

Q: What's the big deal about the full-frame sensor used in the A7/A7R vs. other mirrorless cameras?

A: As the first full-frame mirrorless cameras ever made, the A7 and A7R are the first cameras that match the angle of view that full-frame lenses were designed for. Full-frame sensors are 2.33 times larger than APS-C, nearly four times the size of a micro 4/3 sensor, and nearly eight times the size of the tiny 1-inch CX sensor that’s a great size for point-and-shoots but completely undersized for mirrorless interchangeable-lens cameras.

Q: Can I use my Canon, Leica, and Nikon lenses on the A7/A7R? How do I do it?

A: One of the most exciting features of the A7/A7R is the ability to mount virtually any brand of lens on these cameras by using lens mount adapters. I’ve included an entire chapter on just how to do so, filled with lots of tips and recommendations. Turn to Chapter 12 to read all about it.

Q: I can’t decide between the A7 and the A7R. Will this book tell me which is better?

A: Honestly, you’ll be happy with whichever you choose. Many of the differences are minor. For instance, the A7 has slightly less noise at high ISOs than the A7R—by about half a stop. The flash sync speed on the A7 is 1/250, whereas the A7R syncs at 1/160. The A7R performs slightly better with extreme wide-angle rangefinder lenses—emphasis on slightly. The biggest difference is in resolution. The A7R has more megapixels—36 as opposed to 24—but more importantly, the A7R’s lack of a low-pass anti-aliasing filter yields resolution of fine detail that’s normally only found when using much larger, heavier, and more expensive medium-format digital cameras.
Q: What the heck is an anti-aliasing filter and why did Sony remove it from the A7R?
A: Anti-aliasing filters are designed to reduce aliasing, which most commonly takes the form of rainbow-like moiré patterning in areas of very fine detail. This is created when the frequency of the subject approaches the frequency of the photodiodes on the camera’s sensor. Most digital cameras’ sensors are fitted with low-pass anti-aliasing filters, which reduce the effect by very slightly blurring the image before it hits the light-gathering photodiodes. Generally speaking, anti-aliasing filters are a good thing, but removing them does provide the potential for higher detail resolution, although with the risk of increased moiré in areas of fine detail.

Q: What are all those little icons at the top of the menu?
A: Those icons are your key to navigating through the menu. Right to left, they are: Camera Settings, Custom Settings, Wireless, Application, Playback, and Setup. To toggle between them quickly, press the top of the Control wheel so they are highlighted, and press the sides of the Control wheel to jump from one to the next. Press the bottom of the Control wheel to access their sub-menus.

Q: What happened to the menu from the NEX?
A: Good question. The A7/A7R menu is much closer to the menu found in the A77 and the A99 than the menu used in the NEX. If you wish to go back to a tiled menu like you used in the NEX, press Menu > Setup 2 > Tile Menu. Then press the center of the Control wheel to select On.

Q: Can I use the A7 or A7R in the studio with strobes without the viewfinder getting dark?
A: Absolutely. Whenever the strobe is overpowering the ambient exposure and you don’t want the EVF and LCD to reflect that, you just need to turn off Live View. First, press Menu > Custom Settings 2 > Live View Display; then press the center of the Control wheel to select Setting Effect OFF.

Q: Will the multi-interface shoe work with my PocketWizards or RadioPoppers?
A: You bet. The multi-interface shoe functions just like a universal hot shoe for flash triggers. Just be sure that flash exposure is active. First press Menu > Camera Settings 2 > Flash Mode; then press the center of the Control wheel to select Fill-flash or Rear Sync. (Wireless mode refers to Sony’s Speedlight system, not to third-party remote triggers.)
Q: What are the assignments all about?

A: At the end of most of the chapters, you will find shooting assignments, where I give you some suggestions as to how you can apply the lessons of the chapter to help reinforce everything you just learned. Let’s face it—using the camera is much more fun than reading about it, so the assignments are a way of taking a little break after each chapter and having some fun.

Q: Do I need to read the book straight through or can I skip around from chapter to chapter?

A: New users may find that the first four chapters give you the basic information that you need to know about your camera. These are the building blocks for using the camera. After that, feel free to move around the book as you see fit, because the later chapters are written to stand on their own as guides to specific types of photography or shooting situations. You can bounce from portraits to shooting landscapes and then maybe to a little action photography. It’s all about your needs and how you want to address them. Or, you can read it straight through. The choice is up to you.

Q: Is there anything else I should know before getting started?

A: My goal in writing this book has been to give you a resource that you can turn to for creating great photographs with your Sony A7/A7R. Take some time to learn the basics and then put them to use. Photography, like most things, takes time to master and requires practice. One of the most important things about photography is to never stop learning. Always remember that it’s not the camera that makes beautiful photographs—it’s the person using it. Photography is one of those activities that let you explore, no matter if you are traveling or shooting your child’s birthday party. So enjoy the experience, learn from your mistakes (which I encourage you to make), and take your snapshots to another level—to great shots.
Advanced Modes

Taking Your Photography to the Next Level

Creativity comes through in your images when you can control your camera, and advanced exposure modes allow you such control. If you’ve been shooting for a while, you’re probably already familiar with these modes. They allow you to influence two of the most important factors for taking great photographs: aperture and shutter speed. Accessing these modes is as simple as turning the Mode dial to P, A, S, or M. But wouldn’t it be nice to know exactly what those letters and corresponding modes control and how to make them do our bidding? Well, if you really want to take that next step in controlling your photography, it is essential that you understand not only how to control these modes, but why and when to adjust them so that you get the results you want. These modes also open up a range of options not possible in full auto modes, including shooting in RAW and applying creative styles and picture effects.
Combining colors like green and yellow conveys a sense of movement and energy.
Aperture priority mode is the perfect choice for capturing eye-catching street photography. Set your aperture for the depth of field you desire, then concentrate on capturing the decisive moment.

Once you find a great background, wait for someone to step into the frame. Learn to anticipate the decisive moment.

A wide-angle lens with a moderate aperture provided good depth of field.

This diagonal element creates a feeling of movement.
Manual mode is perfect when you want total control over your exposure, such as when shooting outdoors with studio strobes.

Manual exposure mode allowed me to easily balance the background ambient exposure with the strobe.

ISO 200 • 1/50 sec. • f/5.6 • 70–200mm lens at 70mm
The machete is turned so that it reflects the light from the strobe.

The subject is lit from the side—where I wish the sun had been—by a large battery-powered strobe.

Moving water gives the photo a sense of motion.
Picture Effects

If you love the filters found on popular smartphone photography apps, you might find the picture effect function in the A7/A7R appealing. This feature allows you to choose a predetermined “filter” for your image. These filters include Toy Camera, Pop Color, Color Posterization, Retro Photo, Soft High Key, High Contrast Mono, Miniature (Figure 4.1), and several partial color filters. Each has its own look and feel, and it’s best to simply experiment with each of them in different environments to see if you find them appealing.

Figure 4.1 The Miniature picture effect was applied to this photo, creating a JPEG that simulates the look of a tilt/shift lens.

ISO 100 • 1/2500 sec. • f/2.8 • 35mm lens
Setting up picture effects

1. Put the camera in JPEG mode: Menu > Camera Settings 1 > Quality > Extra Fine.
2. Choose Menu > Camera Settings 4 > Picture Effect (A).
3. Select the picture effect you want (B).
4. If the picture effect you select has an arrow beside it, that means there are multiple options you can select for that effect. Press the right or left side of the Control wheel to scroll between them.

Picture effects require a bit of in-camera processing, so these modes are available only when shooting in JPEG mode. However, there’s a similar group of settings called creative styles, which you can apply to RAW images. We’ll get into creative styles in Chapter 5.

P: Program Auto Mode

There’s a reason that Program Auto (P) mode is only one click away from Intelligent Auto mode. In terms of aperture and shutter speed, the camera is doing most of the thinking for you. So, if that is the case, why even bother with Program Auto mode? While I rarely use this mode, there are occasions it comes in handy, like when I am shooting in quickly changing lighting conditions and don’t have the time to think through all of my options, or when I’m not very concerned with having ultimate control of the scene—I want great-looking pictures, but I’m not looking for anything to hang in a museum. For example, I might choose Program Auto if I’m quickly following someone from indoors into bright sun, because it gives me choices and control that none of the full auto modes can deliver.

Manual Callout

To see a comparison of all of the different shooting modes for the A7/A7R, check out the list on pages 67–68 of your owner’s manual.
When to use Program Auto (P) mode instead of full auto modes

- When shooting in a casual environment where quick adjustments are needed
- When you want control over the ISO
- If you want or need to shoot in the Adobe RGB color space
- If you want to make corrections to the white balance

Let’s go back to our scenario. As I said, the light is moving from deep shadow to bright sunlight, which means that the camera is trying to balance our three photo factors (ISO, aperture, and shutter speed) to make a good exposure. From Chapter 1, we know that Auto ISO is just not a consideration, so we have already turned that feature off (you did change it, didn’t you?). Well, in Program Auto mode, you can choose which ISO you would like the camera to base its exposure on. The lower the ISO number, the better the quality of our photographs, but the less light-sensitive the camera becomes. It’s a balancing act, with the main goal always being to keep the ISO as low as possible—too low an ISO, and we will get camera shake in our images from a long shutter speed; too high an ISO means we will have an unacceptable amount of digital noise. For our purposes, let’s go ahead and select ISO 400 so that we provide enough sensitivity for those shadows while allowing the camera to use shutter speeds that are fast enough to stop motion.

With the ISO selected, we can now make use of the other controls built into Program Auto mode. By rotating the Control dial, we have the ability to shift the program settings. Remember, your camera is using the internal light meter to pick what it believes are suitable exposure values, but sometimes it doesn’t know what it’s looking at and how you want those values applied. With the program shift, you can influence what the shot will look like. Do you need faster shutter speeds in order to stop the action? Just turn the Control dial counterclockwise. Do you want a smaller aperture so that you get a narrow depth of field? Then turn the dial clockwise until you get the desired aperture. The camera shifts the shutter speed and aperture accordingly in order to get a proper exposure, and you will get the benefit of your choice as a result.

Let’s set up the camera for Program Auto mode and see how we can make all of this come together.

Setting up and shooting in Program Auto mode

1. Turn your camera on, and then turn the Mode dial to align the P with the indicator line.

2. To select your ISO, press the right side of the Control wheel (next to where it reads ISO), rotate the Control wheel to the desired setting, and press the middle of the wheel to select (the ISO selection will appear in the electronic viewfinder and the rear LCD panel).
3. Point the camera at your subject, and then activate the camera meter by depressing the shutter button halfway.

4. View the exposure information in the electronic viewfinder or on the display panel on the back of the camera.

5. While the meter is activated, use your thumb to roll the Control dial left and right to see the changed exposure values.

6. Select the exposure that is right for you and start shooting. (Don’t worry if you aren’t sure what the right exposure is. We will start working on making the right choices for those great shots beginning with the next chapter.)

---

### Starting points for ISO selection

There is a lot of discussion concerning ISO in this and other chapters, but it might be helpful if you know where your starting points should be for your ISO settings. The first thing you should always try to do is use the lowest possible ISO setting. That being said, here are some good starting points for your ISO settings:

- **100**: Bright, sunny day
- **200**: Hazy, or outdoor shade on a sunny day
- **400**: Indoor lighting at night or cloudy conditions outside
- **800**: Late night, low-light conditions or sporting arenas at night

These are just suggestions, and your ISO selection will depend on a number of factors that will be discussed later in the book. You might have to push your ISO even higher as needed, but at least now you know where to start.

---

### S: Shutter Priority Mode

S mode is what we photographers commonly refer to as Shutter Priority mode. The nomenclature can vary between cameras—some manufacturers use the initial T (for Time) to indicate you are shooting in Shutter Priority mode. Luckily, the A7/A7R makes it easy on us. S stands for **shutter;** hence, Shutter Priority. It can’t be any more practical than that, right?

Like Program Auto mode, S mode gives us more freedom to control certain aspects of our photography. In this case, we are talking about shutter speed. The selected shutter speed determines just how long you expose your camera’s sensor to light. The longer it remains open, the more time your sensor has to gather light. The shutter speed also, to a large degree, determines how sharp your photographs are. This is different from the
image being sharply in focus. Two of the major influences on the sharpness of an image are camera shake and the subject’s movement. Because a slower shutter speed means that light from your subject is hitting the sensor for a longer period of time, any movement by you or your subject will show up in your photos as blur.

**Shutter speeds**

Slow shutter speeds refer to leaving the shutter open for a longer period of time—like 1/30 of a second or longer. Fast shutter speeds are when the shutter is open for a very short period of time—like 1/250 of a second or less. Of course there’s absolutely nothing wrong with the “middle children” of shutter speeds, 1/60 and 1/125, even if they don’t get the attention of their flashier siblings.

**When to use Shutter Priority (S) mode**

- When working with fast-moving subjects where you want to freeze the action ([Figure 4.2](#)); much more on this in Chapter 6
- When you want to emphasize movement in your subject with panning or with motion blur ([Figure 4.3](#))
- When you want to use a long exposure to gather light over a long period of time ([Figure 4.4](#)); more on this in Chapter 8
- When you want to create smooth, flowing patterns in moving objects ([Figure 4.5](#))

![Figure 4.2](#)  
Fast-moving subjects in proximity to the camera can be frozen with the right shutter speed.  
ISO 200 • 1/1250 sec. • f/5.6 • 70–400mm lens at 400mm
Figure 4.3
Slowing down the shutter speed allows your photographs to convey a sense of movement, indicated by the lateral blurring of the background in this pan.
ISO 100 • 1/100 sec. • f/8 • 16–35mm lens at 16mm

Figure 4.4
Dusk is the perfect time to balance house lights with the color of the sky. Lock the camera down on a steady tripod to keep everything sharp.
ISO 100 • 15 sec. • f/8 • 55mm lens
As you can see, the subject of your photo usually determines whether or not you will use S mode. It is important that you be able to visualize the result of using a particular shutter speed. The great thing about shooting with digital cameras is that you get instant feedback by checking your shot on the LCD screen. But what if your subject won’t give you a do-over? Such is often the case when shooting sporting events. It’s not like you can ask the quarterback to throw that touchdown pass again because your last shot was blurry from a slow shutter speed. This is why it’s important to know what those speeds represent in terms of their ability to stop the action and deliver a blur-free shot.

Figure 4.5 A long exposure creates a flowing pattern out of car taillights.
ISO 100 • 2 sec. • f/9 • 24–70mm lens at 24mm
First, let’s examine just how much control you have over the shutter speeds. The A7/A7R has a shutter speed range from 1/8000 of a second all the way down to 30 seconds. With that much latitude, you should have enough control to capture almost any subject. The other thing to think about is that S mode is considered a “semiautomatic” mode. This means that you are taking control over one aspect of the total exposure while the camera handles the other. In this instance, you are controlling the shutter speed and the camera is controlling the aperture. This is important to know because there will be times that you want to use a particular shutter speed but your lens won’t be able to accommodate your request.

For example, you might encounter this problem when shooting in low-light situations: If you are shooting a fast-moving subject that will blur at a shutter speed slower than 1/125 of a second but your lens’s largest aperture is f/3.5, you might see your aperture display in the electronic viewfinder and the rear LCD panel begin to blink. This is your warning that there won’t be enough light available for the shot—due to the limitations of the lens—so your picture will be underexposed (too dark).

Another case where you might run into this situation is when you are shooting moving water. To get that look of silky, flowing water, it’s usually necessary to use a shutter speed of at least 1/15 of a second, if not longer. If your waterfall is in full sunlight, you may get that blinking aperture display once again because the lens you are using only closes down to f/22 at its smallest opening. In this instance, your camera is warning you that you will be overexposing your image (too light). There are workarounds for these problems, which we will discuss later (see Chapter 7), but it is important to know that there can be limitations when using S mode.

Setting up and shooting in S mode

1. Turn your camera on, and then turn the Mode dial to align the S with the indicator line.
2. To select your ISO, press the right side of the Control wheel (next to where it reads ISO), rotate the Control wheel to the desired setting, and press the middle of the wheel to select (the ISO selection will appear in the electronic viewfinder and the rear LCD panel).
3. Point the camera at your subject, and then activate the camera meter by depressing the shutter button halfway.
4. View the exposure information in the electronic viewfinder or on the rear LCD panel.
5. While the meter is activated, use your thumb to roll the Control dial left and right to see the changed exposure values. Roll the dial to the right for faster shutter speeds and to the left for slower speeds.
A: Aperture Priority Mode

You wouldn’t know it from its name, but A mode is one of the most useful and popular of the advanced modes. It is one of my favorites, and I believe that it will quickly become one of yours as well. A mode, more commonly referred to as Aperture Priority mode, is also deemed a semiautomatic mode because it allows you to once again control one factor of exposure while the camera adjusts for the other.

Why, you may ask, is this one of my favorite modes? It’s because the aperture of your lens dictates depth of field. Depth of field, along with composition, is a major factor in how you direct attention to what is important in your image. It is the factor that controls how much of your image is in focus. If you want to isolate a subject from the background, such as when shooting a portrait, you can use a large aperture to keep the focus on your subject and make both the foreground and background blurry. If you want to keep the entire scene sharply focused, such as with a landscape, then using a small aperture will render the greatest possible depth of field.

When to use Aperture Priority (A) mode

• When shooting portraits or wildlife (Figure 4.6)
• When shooting architectural photography, which often benefits from a large depth of field (Figure 4.7)
• When shooting macro, or close-up, photography (Figure 4.8)
• When shooting landscape photography (Figure 4.9)

We have established that Aperture Priority (A) mode is highly useful in controlling the depth of field in your image. It’s also pivotal in determining the limits of available light that you can shoot in. Different lenses have different maximum apertures. The larger the maximum aperture, the less light you need in order to achieve a properly exposed image. You will recall that, when in S mode, there is a limit at which you can handhold your camera without introducing movement or hand shake, which causes blurriness in the final picture. If your lens has a larger aperture, you can let in more light all at once, which means that you can use faster shutter speeds. This is why lenses with large maximum apertures, such as f/1.4, are called “fast” lenses.

On the other hand, bright scenes require the use of a small aperture (such as f/16 or f/22), especially if you want to use a slower shutter speed. That small opening reduces the amount of incoming light, and this reduction of light requires that the shutter stay open longer.
As discussed earlier, when referring to the numeric value of your lens aperture, you will find it described as an f-stop. The f-stop is one of those old photography terms that, technically, relates to the focal length of the lens (e.g., 200mm) divided by the effective aperture diameter. These measurements are defined as “stops” and work incrementally with your shutter speed to create proper exposure. Older camera lenses used one-stop increments to assist in exposure adjustments, such as 1.4, 2, 2.8, 4, 5.6, 8, 11, 16, and 22. Each stop represents half the amount of light entering the lens iris as the larger stop before it. Today, most lenses don’t have f-stop markings, since all adjustments to this setting are performed via the camera’s electronics. The stops are also now typically divided into 1/3-stop increments to allow much finer adjustments to exposures, as well as to match the incremental values of your camera’s ISO settings, which are also adjusted in 1/3-stop increments.
Figure 4.8
Small apertures give more sharpness in macro detail shots.
ISO 100 • 1/20 sec. • f/8 • 100mm lens

Figure 4.9
The smaller aperture setting brings sharpness to near and far objects.
ISO 100 • 1/40 sec. • f/14 • 16–35mm lens at 20mm
Setting up and shooting in A mode

1. Turn your camera on and then turn the Mode dial to align the A with the indicator line.

2. Select your ISO by pressing the right side of the Control wheel (next to where it reads ISO), rotating the Control wheel to the desired setting, and pressing the middle of the wheel to select (the ISO selection will appear in the electronic viewfinder and the rear LCD panel).

3. Point the camera at your subject, and then activate the camera meter by depressing the shutter button halfway.

4. View the exposure information in the electronic viewfinder or on the rear display.

5. While the meter is activated, use your thumb to roll the Control dial left and right to see the changed exposure values. Roll the dial to the right for a smaller aperture (higher f-stop number) and to the left for a larger aperture (smaller f-stop number).

Zoom lenses and maximum apertures

Some zoom lenses (like the 28–70mm kit lens) have a variable maximum aperture. This means that the largest opening will change depending on the zoom setting. In the example of the 16–50mm zoom, the lens has a maximum aperture of f/3.5 at 28mm and only f/5.6 when the lens is zoomed out to 70mm. Fixed-aperture zoom lenses like the FE 24–70mm/ f/4 ZA maintain the same maximum aperture throughout the zoom range. They are typically much more expensive than their variable maximum aperture counterparts.

M: Manual Mode

Once upon a time, long before digital cameras and programmed modes, there was manual mode. In those days it wasn’t called “manual mode,” because there were no other modes. It was just photography. In fact, many photographers, including me, cut their teeth on completely manual cameras. Let’s face it—if you want to learn the effects of aperture and shutter speed on your photography, there is no better way to learn than by setting these adjustments yourself. But today, with the advancement of camera technology, many new photographers never give this mode a second thought. That’s truly a shame, as not only is it an excellent way to learn your photography basics, it’s also an essential tool to have in your photographic bag of tricks.
When you have your camera set to Manual (M) mode, the camera meter will give you a reading of the scene you are photographing. It’s your job, though, to set both the f-stop (aperture) and the shutter speed to achieve a correct exposure. If you need a faster shutter speed, you will have to make the reciprocal change to your f-stop. Using any other mode, such as S or A, would mean that you just have to worry about one of these changes, but Manual mode means you have to do it all yourself. This can be a little challenging at first, but after a while you will have a complete understanding of how each change affects your exposure, which will, in turn, improve the way that you use the other modes.

**When to use Manual (M) mode**

- When you need to maintain consistent exposure when stitching together multiple frames into a panorama; more on this in Chapter 7
- When you are shooting into the sun and need to maintain a certain exposure setting as you recompose (Figure 4.10)
- When shooting silhouetted objects, which requires overriding the camera’s meter readings (Figure 4.11)
- When shooting a bright or dark background that could fool your camera’s meter (Figure 4.12)
- When shooting with a light source with consistent output, such as studio strobes

**Figure 4.10**

Manual is the perfect mode in lighting situations that can present a challenge to your light meter, such as shooting into the sun. Plus, it maintains a consistent exposure across every frame if you recompose.

ISO 200 • 1/160 sec. • f/14 • 24–70mm lens at 70mm
Silhouetted subjects can wreak havoc when metering, so just set your camera to Manual and use Live View to lock in the proper exposure.
ISO 100 • 1/1000 sec. • f/6.3 • 35mm lens

Extremely bright or dark backgrounds can fool your camera’s meter, but spot metering your subject and applying those readings in Manual mode ensures consistent proper exposure.
ISO 100 • 1/2000 sec. • f/4 • 35mm lens
Setting up and shooting in Manual mode

1. Turn the Mode dial to align the M with the indicator line.

2. Select your ISO by pressing the right side of the Control wheel (next to where it reads ISO), rotating the Control wheel to the desired setting, and pressing the middle of the wheel to select (the ISO selection will appear in the electronic viewfinder and the rear LCD panel).

3. Point the camera at your subject, and then activate the camera meter by depressing the shutter button halfway.

4. View the exposure information in the electronic viewfinder or on the rear display.

5. While the meter is activated, use your thumb to roll the Control wheel left and right to change your shutter speed value until the exposure mark is lined up with the zero mark. The exposure information is displayed by a scale with marks that run from –2 to +2 stops. (You’ll note that –3 and +3 are grayed out. They represent the range of exposure compensation available for S and A modes. In M mode, you can forget about –3 and +3.) A “proper” exposure will line up with the arrow mark in the middle. As the indicator moves to the left, it is a sign that you will be underexposing (there is not enough light hitting the sensor to provide adequate exposure). Move the indicator to the right and you will be providing more exposure than the camera meter calls for; this is overexposure.

6. To set your exposure using the aperture, depress the shutter release button until the meter is activated. Then, using your thumb, turn the Control dial right for a smaller aperture (large f-stop number) or left for a larger aperture (small f-stop number).

How I Shoot: A Closer Look at the Camera Settings I Use

One of the advantages of using a mirrorless camera system is that it operates just like a DSLR but without the size and noise. I’m attracted to the A7/A7R because I can approach it much like I would any larger rig that I use on a day-to-day basis. Personally, I am drawn to shooting in both Aperture Priority (A) and Manual (M) modes. I identify myself as an editorial and advertising photographer, which means I’m shooting anything from news to travel, from wildlife to sports, and from environmental portraits to landscapes. Working in these areas means that I am almost always going to be concerned with my depth of field—hence, my affinity for Aperture Priority mode. Whether it’s isolating my subject with a large aperture or trying to maximize the overall sharpness of a sweeping landscape, I always keep an eye on my aperture setting.

And I always keep an eye on what shutter speed that aperture setting will allow me. If I’m shooting sports or a subject matter that includes a lot of action, I open up my
aperture to its maximum to gain as much shutter speed as possible. If I need to shoot faster, only then do I raise my ISO. Raising the ISO is the last part of the exposure formula I want to change, because I want to introduce the least possible amount of digital noise to the image. If I must raise my ISO, I make sure to set the camera’s High ISO NR (noise reduction) to Normal (see Chapter 7).

To make quick changes while I shoot, I often use the exposure compensation feature (Figure 4.13) so that I can make small over- and underexposure changes. This is different from changing the aperture or shutter; it is more like fooling the camera meter into thinking the scene is brighter or darker than it actually is.

I am also aware of the potential for areas in my frame to be over- or underexposed. I use the Histogram display on the A7/A7R to see whether I am indeed blowing out the highlights (overexposure) or “muddying up” the shadows (underexposure) (Figure 4.14). These exposure alerts come in the form of what are informally known as “blinkies”: areas of the image that blink at you on the LCD or EVF. Blinkies are the warning signal that part of my image has been either overexposed or underexposed to the point that there is no longer any detail in the highlights or shadows. Although it is unfortunate that you can only see these alerts using the Histogram display mode, they are very valuable. If you see any area of the thumbnail blinking black, you are probably overexposing that part of the image. If you see any area blinking white, you are risking underexposure.

For the majority of my shooting, I am in Aperture Priority (A) mode. It is an efficient mode in which to work, and it frees up mental resources for focusing on what I am actually shooting. When I want complete control over the imagery, or when I’m shooting difficult-to-meter subjects, I work in Manual (M). For example, if I am shooting along a row of river rapids and want to create that silky look to the water, I will often switch to Manual, since water is rarely a good value to meter for exposure. While the other camera modes have their place, I think you will find that, like me and many other working pros, you will use the A and M modes for 90 percent of your shooting.

As you work your way through the coming chapters, you will see other tips and tricks I use in my daily photography, but the most important tip I can give is that you take the time to understand the features of your camera so you can leverage the technology in a knowledgeable way. This will result in better photographs.
The information covered in this chapter will define how you work with your camera from this point on. Granted, there may be times that you just want to grab some quick pictures and will resort to the automatic modes, but to get serious with your photography, you should learn the advanced modes.

**Starting off with Program Auto mode**

Set your camera on Program Auto (P) mode and start shooting. Become familiar with the adjustments you can make to your exposure by turning the Control dial. While you’re shooting, make sure that you keep an eye on your ISO.

**Learning to control time with S mode**

Find some moving subjects and then set your camera to S mode. Have someone ride a bike back and forth, or even just photograph cars as they go by. Start with a slow shutter speed of around 1/30 of a second, and then start shooting with faster and faster shutter speeds. Keep shooting until you can freeze the action. Now find something that isn’t moving, like a flower. Start with your shutter speed at something fast, like 1/500 of a second, and then work your way down to about 1/4 of a second. The point is to see how well you can handhold your camera before you start introducing hand shake into the image.

**Controlling depth of field with A mode**

The name of the game with A mode is depth of field. Set up three items at different distances from you. I would use chess pieces or something similar. Now focus on the middle item, and set your camera to the largest aperture that your lens allows (remember that large aperture means a small number, like f/3.5). Now, while still focusing on the middle subject, start shooting with ever-smaller apertures until you are at the smallest f-stop for your lens. If you have a zoom lens, try doing this exercise with the lens at the widest and then the most telephoto settings. Now move up to subjects that are farther away, like telephone poles, and shoot them in the same way. The idea is to get a feel for how each aperture setting affects your depth of field.
Giving and taking with Manual mode

Go outside on a sunny day, and with the camera in Manual (M) mode, set your ISO to 100, your shutter speed to 1/125 of a second, and your aperture to f/16. Now press your shutter release button to get a meter reading. You should be pretty close to that zero mark. If not, make small adjustments to one of your settings until it hits that mark. Now is where the fun begins. Start moving your shutter speed slower, to 1/60, and then set your aperture to f/22. Now go the other way. Set your aperture to f/8 and your shutter speed to 1/500. Now review your images. If all went well, all the exposures should look the same. This is because you balanced the light with reciprocal changes to the aperture and shutter speed. Now go back to our original setting of 1/125 at f/16 and try just moving the shutter speed without changing the aperture. Just make 1/3-stop changes (1/125 to 1/100 to 1/80 to 1/60), and then review your images to see what 1/3 stop of overexposure looks like. Then do the same thing going in the opposite way. It’s hard to know if you want to over- or underexpose a scene until you have actually done it and seen the results.

Share your results with the book’s Flickr group!
Join the group here: flickr.com/groups/sonya7-a7rfromsnapshotstogreatshots
Index

16mm movie cameras, 265
35mm lenses, 285
640x480 resolution, 268
1080p resolution, 268
1440x1080 resolution, 268
1920x1080 resolution, 268, 269

A
A mode. See Aperture Priority (A) mode
accessories, xvii, 6, 274–276
action photography, 131, 151–153
action portraits, 120
adapters
   lens mount, 48, 107, 285–301
   microphone, 271
Adobe
   Photoshop, 184, 255, 256, 258
   Photoshop Lightroom, 42, 116, 197, 260
   Premiere Elements 12, 282
RGB color space, 18–19
advanced exposure modes, 77–99. See also specific modes
   accessing, 77
   benefits of using, 77, 97
   descriptions of specific
      Aperture Priority (A) mode, 90–93
      Manual (M) mode, 93–96
      picture effects, 82–83
      Program Auto (P) mode, 83–85
      Shutter Priority (S) mode, 85–89
   shooting assignments, 98–99
advanced techniques, 237–262
   avoiding lens flare, 248–249
   creating starburst effect, 249–250
   HDR photography, 252–255
   macro photography, 251
   shooting assignments, 262
   shooting in Manual mode, 245–248
   Smart Remote Control shooting, 258–259
   Spot metering, 242–245
   tethering camera, 260–261
   using Dynamic Range Optimizer, 255–258
   using sun creatively, 249–250
AE Lock feature, 111–112, 129, 243
AEL button, 3, 112. See also AE Lock feature
AF Illuminator, 202–203
air blowers, 41
Airplane Mode setting, 6
aliasing, xv, xvi
Alpha lens mount adapters, 286
alphabet exercise, 235
A-Mount lenses, 48, 107, 286
Anti Motion Blur mode, 72
anti-aliasing filters, xv, xvi
anti-dust vibration technology, 39
aperture
   and depth of field, 55, 96, 224–225, 235
   and fast-moving subjects, 133, 135
   focusing attention with, 235
   and f-stops, 91
   purpose of, 50
   and starburst effect, 249–250
   and zoom lenses, 93
Aperture image-processing software, 42, 116
Aperture Priority (A) mode, 90–93
   benefits of using, 90
   and depth of field, 224
   isolating subject with, 142–143
   and lens adapters, 288
   and macro photography, 251
   and portrait photography, 107–108
   setting up/shooting in, 93
   shooting assignment, 98
for shooting video, 276
Aperture Priority (A) mode (continued)
  shutter speed for, 205
  and street photography, 79
  vs. Shutter Priority (S) mode, 142–143
  when to use, 90, 97
Apple
  QuickTime for Windows, 282
  QuickTime Player, 281
APS-C crop mode, 48
architectural photography, 35, 46
assignments. See shooting assignments
audio recorders, 271–272
Audio Recording feature, 270–272, 280, 283
Auto Exposure Lock feature, 111–112. See also AE Lock
  feature
Auto HDR function, 23, 255, 258
Auto ISO setting, 7, 50, 74, 277
Auto Review setting, 6, 22
Auto white balance, 16, 74
Auto Focus Area options, 14–15, 145–146
Auto Focus Illuminator, 202–203
autofocus modes, 14–15, 74, 148–149, 182, 279
autofocus motor, 44
autofocus technology, 20, 144
automatic camera modes, 59–75
  accessing, 59
  descriptions of
    Anti Motion Blur mode, 72
    Intelligent Auto mode, 62
    Landscape mode, 65
    Macro mode, 66
    Night Portrait mode, 69
    Night Scene mode, 70
    Portrait mode, 63–64, 106
    Scene Selection mode, 63–72
    Sports Action mode, 67, 74
    Sunset mode, 68
    Sweep Panorama mode, 73, 74
drawbacks to using, 74
  shooting assignments, 75
automatic focus features, 182, 288. See also autofocus
  modes
AVCHD video, 269, 281, 282

B
  backlit subjects, 243
  batteries, camera, 6, 272
  battery charger, 6
  battery icon, 6
  BC-TRW battery charger, 6
  Black & White creative style, 114–117, 170–171, 277
  black-and-white photography
    emphasizing patterns/lines with, 234
    landscapes, 170–171, 222
    portraits, 114–117
  blowers, 41
  blown-out highlights, 279
  blurry images, 53, 56
  bonus chapter, xvii
  Bower cine lenses, 274
  Bracket drive mode, 254
  bracketing exposures, 255, 262
  Bulb setting, 245–248, 262
  burst mode, 146. See also Continuous Shooting mode
  buttons/controls, camera, 2–5, 266

C
  C. Temp/Filter white balance, 17
  C2 button, 139
  camcorders, video, 272
  camera
    accessories, 6
    battery considerations, 6, 272
    buttons/controls, 2–5, 266
    deleting images from, 26
    holding for proper shooting, 26–27
    icons list, 10
    LCD display, 3, 267 (See also LCD display)
    learning to use, xvii
    lenses (See lenses)
    manual (See owner’s manual)
    microphone, 270, 271–272
    models, 39
    modes (See automatic camera modes)
    noise, xv, 271
    recording sound with, 270–272
resetting factory defaults for, 27
reviewing images in, 22–26
sensors, 39–41
settings, author’s preferred, 96–97
shake, 26, 162, 199, 215, 248
stabilization, 199–200, 275 (See also tripods)
Top Ten list, 1–27
updating firmware for, 39
video-recording feature, 268 (See also video)
watching video on, 281–282
candid portraits, 128
Canon
  lens mount adapters, 288
  lenses, xv, 107, 198, 285, 289, 301
capture frame rate, 269. See also frame rate
Capture One, 42, 116
card readers, 281
cards, memory. See memory cards
Carl Zeiss lenses, 299. See also Zeiss lenses
cat’s-eye view, 227
Center focus area, 145
Center metering mode, 109, 110, 111
children, photographing, 127, 131
Chinese lens mount adapters, 290
cine lenses, 273–274
cityscapes, 54, 183, 191, 239, 240–241. See also street photography
Class ratings, memory card, 36, 280
Cleaning Mode function, 39–41
Clear creative style, 277
close-up filters, 274
close-up photography, 251
clouds
  adding definition to, 175
  adding visual interest to sky with, 33
  in black-and-white shots, 222–223
  contrasting strong angular lines against, 226
  in sunrise/sunset shots, 61, 173, 193
Cloudy white balance, 16, 166
CMYK color space, 19
color correction, 15, 166. See also white balance
color filters, 82
color histograms, 24
color information, 42
color noise, 197
Color Posterization filter, 82
color space, 18–19
color temperature, 15, 18, 230
colors
  combining, 78, 231
  complementary, 228–229
  as composition tool, 228–231
  contrasting, 231
  stripping away, 234
complementary colors, 228–229
composition principles, 219–235
  color, 228–230
  contrast, 231
  depth of field, 224–225
  frames within frames, 233
  for landscapes/streetscapes, 176–179
  leading lines, 232
  light and shadow, 231
  patterns, 228
  point of view, 227
  for portraits, 120–121
  shooting assignments, 235
  simplicity of black and white, 234
  strong angular lines, 226
compression
  distance, 48, 49
  lossless, 42
  lossy, 8
  standards, 41, 42
  video, 269
computer, watching video on, 281–282
Contax lenses, 285, 299
Contax/Yashica Zeiss lenses, 299
Continuous AF mode, 74, 144–146, 150, 272
Continuous modes, 148
Continuous Shooting mode, 36, 135, 146–148, 150
contrast-detection AF points, 14
Control wheel, xvi, 3, 8
colors/controls/buttons, camera, 2–5, 266
Cool White Fluorescent white balance, 16
Creating DSLR Video (Harrington), 282
Creative Style menu, 117
creative styles
and automatic camera modes, 74
customizing, 117
using specific
Black & White, 114–116, 170–171, 277
Landscape, 168–170, 277
Portrait, 117
for video, 277–278
Custom Setup white balance, 17
Custom white balance, 17

D
Day White Fluorescent white balance, 16
Daylight Fluorescent white balance, 16
Daylight white balance, 16, 166, 167, 239
Death Valley landscape, 222–223
default settings, resetting, 27
deleting images, 26
Deo Tech lens mount adapter, 299
depth of field
and aperture setting, 55, 96, 224–225, 235
focus considerations, 224–225
and image sharpness, 224–225
and landscape photography, 180–181
and motion, 53–56
and normal lenses, 46
in portraits, 129
and reflections, 225
for shooting video, 276
and telephoto lenses, 48, 224
and wide-angle lenses, 44, 224
and zoom lenses, 48
diagonal elements, 79, 220, 222
diffusion panels, 125, 211, 251
digital imaging, xiii. See also DSLR cameras
digital noise. See also noise reduction
defined, 7
and high ISO settings, 74, 84, 97, 196, 197
and Macro mode, 66
and Program Auto (P) mode, 84
and Sports Action mode, 67
Direct Manual Focus (DMF) mode, 20–21
direction of travel, 136
DISP button, 10–12, 22–24
display. See LCD display
display modes, 10, 12, 23, 24, 97, 268
distance compression, 48, 49
DMF focus mode, 20, 183
drive modes, 74, 148
DRO mode, 255–258
DSLR cameras
external microphones for, 271
filmmaking with, 265, 282
viewfinder for, 10
vs. mirrorless cameras, xiv
dust particles, 39–41
DxO, 42, 286
dynamic range, 42, 240. See also HDR photography
Dynamic Range Optimizer, 255–258

E
ECM-XYST1M microphone, 271
editing video, 282
El Mariachi, 265
electronic viewfinder (EVF), 6, 10–14, 22–26, 276
E-Mount lenses, 20, 48, 107, 183, 298–301
Empire State Building, 192
environmental portraits, 108
EOS lens mount adapters, 288
EV (exposure value), 50
EVF (electronic viewfinder), 6, 10–14, 22–26, 276
exposure, 50–52
bracketing, 255, 262
compensation, 74, 97, 244
defined, 50
equivalents, 52
how it works, 50–51
how it’s calculated, 51–52
shooting long, 203–204, 215, 245, 248
triangle, 50
Exposure Compensation dial, 97
exposure value (EV), 50
extension tubes, 251
external flash, 211–213, 245
external microphones, 271, 280
Extra Fine quality setting, 9
Eye Detection AF option, 118
eyes, 102, 112–114, 118

F
Face Detection focusing, 117–119
Face Registration option, 118
Facebook, 282
factory settings, resetting, 27
fast glass, 198
fast-action photography, 36, 53, 96–97, 120, 140. See also moving target
FE lenses, 48, 107
field of view, 44–46
Fill-flash mode, xvi, 207, 208
film photography, 16, 168
filmmaking, 273, 274, 282. See also video
filters, xv, xvi, xvii, 82, 175, 274–275. See also picture effects
Fine compression, 41
Fine quality setting, 9
fireworks, 245–246
firmware
checking current version, 38–39
purpose of, 38
updating, 39
flash, external, 211–213, 245
flash compensation feature, 206
flash metering system, 206
flash modes, xvi, 207–210
flash reflections, 214
flash synchronization speeds, 205
flash triggers, xvi, 213
flash units, 204, 211–213
Flash white balance, 17
Flexible Spot focus area, 14, 112, 114, 145, 146, 279
Flickr group, 29
focal length, 44–49, 108, 123. See also depth of field
focus assist function. See Manual Focus Assist function
focus extension, 292
focus modes, 20–21, 74, 144–146, 180–183
focus peaking, 20–21, 202, 216, 279, 288, 302
focusing
for landscapes, 200–203
in low light, 200–203
on moving targets, 144–146
for portraits, 112–114
for video, 272, 279
follow focus units, 274
formats
image, 41–43 (See also specific formats)
video, 268, 269
formatting memory cards, 36–37
FotodioX lens mount adapters, 286, 299, 301
fps, 269, 280
frame rate, 269, 280
frames per second, 269, 280
framing
images, 220, 233, 235
portraits, 124, 125, 127
freezing action, 152
f-stops, 50, 51, 91. See also aperture
Fuji Velvia film, 168
full-frame sensors, xv, 48
Function menu, 13
G
geometric patterns, 228. See also patterns
gesture, 219
Giotto’s Rocket Air Blower, 41
Glidecam HD1000, 275
golden light, 158, 159, 172, 192–193, 231
Grid Line submenu, 121
H
H1 audio recorder, 271
H4n audio recorder, 271–272
Hand-held Twilight mode, 71, 72
Harrington, Rich, 282
Hasselblad lenses, 301
HD video, 36, 265, 273, 280. See also video
HDMI cable/port, 281
HDR Efex Pro, 255
HDR photography, 240, 252–255
headlights, 247
HFD (hyper focal distance), 180–181, 188
High Capacity memory cards, 36
High Contrast Mono filter, 82
high dynamic range. See HDR photography
High ISO noise reduction, 97, 165, 196, 197, 215
high-definition video. See HD video
highlight alert screen, 97
highlights, 34, 35, 279
Histogram display, 97
histograms, 24–25, 97
hot-shoe flash, xvi, 212, 213
HVL-F43M flash, 204, 212, 213
HVL-F60M flash, 204
hyper focal distance (HFD), 180–181, 188
icons, xvi, 10
ILCE-7, 39
ILCE-7R, 39
image compression, 8–9, 41
Image Data Converter software, 42, 116, 168, 197, 260
image formats, 41–43
image quality, 8–10, 18, 43
image resolution, 43
Image Size settings, 9
image stabilization, 44, 48, 199–200
image-processing software, 114, 184, 186. See also specific programs
images
  adding rhythm/balance to, 228
  capturing full range of tonal values in, 252
  combining with Dynamic Range Optimizer, 255–258
  combining/tone mapping, 252–253
deleting, 26
displaying information about, 23
exposure-bracketing, 255, 262
framing/composing, 220, 233 (See also composition principles)
pulling viewers into, 232
reviewing in LCD, 22–26
shooting HDR, 254–255
zooming in on, 139
iMovie, 281, 282
Incandescent white balance, 16, 167
Intelligent Auto mode, 62, 63, 74, 75
interchangeable lenses, xv, 44
interlaced video, 269
International Organization for Standardization, 50. See also ISO
Iridient Developer, 42
iSkysoft Video Converter, 282
ISO
  and action shots, 140–142
  adjusting on the fly, 8, 142
  auto vs. manual, 50–51, 74, 140
  choosing full vs. 1/3-stop increments, 198
  and image quality, 7
  and landscape photography, 164–165
  and low-light photography, 196
  meaning of acronym, 50
  and noise reduction, 8, 97, 165–166, 196, 197, 215
  purpose of, 7, 50
  setting, 7–8, 85
  for shooting video, 277
Joint Photographic Experts Group, 8
JPEG images
  and creative styles, 116
  quality settings for, 9–10
  image size settings for, 9
  and lossy compression, 8
  meaning of acronym, 8
  sending to smartphone, 260
  vs. RAW images, 9, 41–43
JPEG mode, 36, 42, 83, 166
K
Kelvin (K) temperature scale, 18
Kenko extension tubes, 251
Korean lenses, 274

L
LA lens adapters, 107, 286–287
Landscape creative style, 168–170, 277
Landscape mode, 65, 75
landscape photography, 157–188
and auto vs. manual focus, 182–183
black-and-white, 170–171
composition principles, 176–179
creating depth in, 178
and depth of field, 180–181
focus considerations, 180–183
and golden light, 158, 159, 172
including the unexpected in, 187
lense considerations, 44
and noise reduction, 165–166
panoramas, 183–186
and rule of thirds, 176–178
selecting proper ISO for, 164–165
selecting white balance for, 166–168
setting up water shots, 174–175
shooting assignments, 188
and sunrise/sunset shots, 173
and tripods, 162–163, 180
LCD display
battery icon, 6
configuring, 10–14
magnifying scene in, 21
modes, 10, 12, 23, 24, 97, 268
reviewing shots in, 22–26, 139
settings/indicators, 267
leading lines, 232, 235
Leica
lens mount adapters, 107, 290–293
lenses, xv, 285, 291, 298
lens flare, 248–249
lens mount adapters, 285–301
advice on buying, 286, 298
and auto functions, 288
Canon, 288
Chinese, 290
Deo Tech, 299
EOS, 288
and focus peaking, 288
FotodioX, 286, 299, 301
legacy, 298–301
Leica, 107, 290–293
Metabones, 286, 288, 290, 294, 298
Nikon, 107, 294–297
Pentax K, 298
purpose of, xv, 285
Sony, 107, 286
Voigtlander, 292, 293
Lensbaby Tilt Transformer, 296–297
lenses. See also specific types
adapters for (See lens mount adapters)
checking firmware version for, 39
cine, 273–274
extension tubes for, 251
fast, 198
and focal length, 44–49
focusing, 20
and hyper focal distance (HFD), 180–181
importance of, 44
interchangeable, xv, 44
for low-light photography, 198
for macro photography, 251
and maximum apertures, 93
for portraits, 47, 63, 105, 106, 108, 122
for recording video, 272–274
removing/changing, 41
telephoto, 48, 143, 153, 194, 224
wide-angle (See wide-angle lenses)
zoom, 48, 93, 251
light, golden, 158, 159, 172, 192–193, 231
light meters, 109
lighting
challenges, 191 (See also low-light photography)
dealing with uneven, 238
enhancing compositions with, 231
lighting (continued)
and fast-moving subjects, 133
modifiers, 211
mood (See mood lighting)
for portrait photography, 125, 129
Lightroom, 42, 116, 197, 260
Live View Display setting, 14
Long Exposure noise reduction, 166, 203, 216
long exposures, 203–204, 215, 245
lossless compression, 42
lossy compression, 8
low-light photography. See also mood lighting
and Anti Motion Blur mode, 72
and fast glass, 198
and flash, 204–214
and flash reflections, 214
and Hand-held Twilight mode, 71
and ISO setting, 196
shooting assignments, 215–216
luminance histograms, 24
luminance noise, 197

M
M mode. See Manual (M) mode
Mac, viewing/editing video on, 281–282
Macro mode, 66, 75
macro photography, 251
Maisel, Jay, 219
Mamiya lenses, 301
Manfrotto, 275
manual. See owner’s manual
Manual (M) mode, 93–96
and lens adapters, 288
and macro photography, 251
setting up/shooting in, 96
shooting assignment, 99
for shooting video, 276
shutter speed for, 94, 205
when to use, 80, 245–248
manual focus, 20, 148–149, 200, 288, 302
Manual Focus Assist function, 20–21, 182–183, 288, 302
Maxxum lenses, Minolta, 286
Media Player Codec Pack, 282
megapixels (MP), xv, 9, 43
memory cards
choosing, 36
Class ratings for, 36, 280
erasing, 37
formatting, 36–37
and HD video, 280
and image quality, 10
protecting images on, 37
purpose of, 36
menu icons, xvi
Metabones lens mount adapters, 286, 288, 290, 294, 298
metering modes
Center metering, 109, 110, 111
Multi metering, 109, 110, 119, 242
and portrait photography, 102, 109–111, 129
shooting assignment, 262
Spot metering, 242–245, 262
MF Assist function, 21, 182–183, 288. See also Manual Focus Assist function
microphone adapters, 271
microphones, 270, 271–272, 280
Microsoft Windows, 282
Miniature picture effect, 82, 278
Mini-HDMI-to-HDMI cable, 281
minimum sustaining shutter speed, 162
Minolta lenses, 198, 285, 286, 299
mirrorless cameras
A7 vs. A7R, xv
advantages of using, xiv, xv, 96, 285
external microphones for, 271
and full-frame sensors, xv, 48
how exposure works for, 50
lenses for, xv, 44, 285
and moviemaking, 265
and video recording, 272
M-Mount lenses, 290
Mode dial, 59, 63
models, camera, 39
Modo Steady, Manfrotto, 275
monochromatic photos, 34
mood lighting, 191–216
and camera shake, 199–200
and fast glass, 198
and flash, 204–214
and flash reflections, 214
focus considerations, 200–203
and High ISO Noise Reduction, 197–198
and long exposures, 203–204
raising ISO, 196
shooting assignments, 215–216
and SteadyShot feature, 199–200
motion. See also moving target
carrying sense of, 150
and depth of field, 53–56
stopping, 140–142
Movie button, 268
movie cameras, 265
Movie Maker, Windows, 282
moviemaking, 265, 282. See also video
moving target, 131–155
and aperture setting, 133, 135
challenges of capturing, 132
and Continuous Shooting mode, 135, 146–148
and direction of travel, 136
isolating subject, 142–143
keeping in focus, 144–146
lighting considerations, 133
shooting assignments, 154–155
and shutter speed, 131, 136–139
stopping motion of, 140–142
and subject-to-camera distance, 138–139
tips for shooting, 151–153
using manual focus for, 148–149
MP (megapixels), xv, 9, 43
MP4 video, 269, 281, 282
Multi focus area, 145
Multi metering mode, 109, 110, 119, 242
multi-image panoramas, 184–186
multi-interface shoe, xvi, 4, 17, 75, 213, 271
N
neutral density filters, 274–275
New York skyline, 192–193
NEX
cameras, xvi, 48, 290
Lensbaby Tilt Transformer, 296–297
lenses, 48
Night Portrait mode, 69, 75
Night Scene mode, 70
Nikon
lens mount adapters, 107, 294–297
lenses, xv, 198, 285, 294
Nik’s HDR Efex Pro, 255
noise
camera, xv, 271
color, 197
digital (See digital noise)
luminance, 197
noise reduction, 97, 165–166, 196, 197, 215
normal lenses, 46–47
Novoflex lens mount adapters, 286, 290, 299, 301
O
ocean shots, 174–175
off-camera flash, 211–213
OLED viewfinder, 3, 266, 276
onOne Perfect Layers, 258
Optical SteadyShot (OSS) lenses, 48, 163, 199–200, 215
owner’s manual
chart showing image quality/number of shots, 10
how this book complements, xiv
image-deletion instructions, 26
information on downloading/installing apps, 260
information on wireless connection to smartphone, 260
list of camera icons, 10
list of shooting modes, 83
P
P mode. See Program Auto (P) mode
panning, 150, 155, 275, 280
panoramas, 73, 94, 183–186
patterns, 223, 228, 232, 234
Peachpit.com, xvii
peaking, focus, 20–21, 202, 216, 279, 288, 302
Peaking Color setting, 288
Peaking Level setting, 288. See also focus peaking
Pentax K lens mount adapters, 298
Perfect Layers, 258
perspective, 227, 232
Phase One lenses, 301
phase-detection AF points, 14, 144, 286
photo accessories, xvii. See also accessories
photography
  action, 131, 151–153
  advanced techniques, 237–262
  architectural, 35, 46
  close-up, 251
  high dynamic range, 252–255 (See also HDR photography)
  macro, 251
  mastering, xvii
  portrait, 101–129 (See also portrait photography)
  sports, 48, 131
  stop-action, 140–142
  street (See street photography)
  this book’s approach to, xvii
  Top Ten list, 1–27
Photomatix Pro, 255
Photoshop, 42, 184, 255, 256, 258
Photoshop Lightroom, 42, 116, 197, 260
picture effects, 82–83, 278
pixel resolution, 43
PlayMemories Mobile app, 259
PocketWizards, xvi, 213
point of view, 227
polarizing filters, 175, 274
Pop Color filter, 82
Portrait creative style, 117
Portrait mode, 63–64, 75, 106
portrait orientation, 124
portrait photography, 101–129
  action in, 105, 120
  and AE Lock feature, 111–112
  aperture setting for, 103, 106, 107, 129
  approaching subjects for, 103
  backgrounds for, 104, 105
  black-and-white portraits, 114–117
  book about, xiv
  candid vs. posed shots, 128
  capturing details in, 127
  cropping considerations, 124
  essence of, 101
  and face detection, 117–119
  and focal length, 123
  focusing on eyes in, 112–114
  lense considerations, 47, 63, 105, 106, 108, 122
  lighting for, 125, 129
  and metering modes, 102, 109–111, 129
  night portraits, 69
  positioning subjects for, 104
  and rule of thirds, 120–121
  shooting assignments, 75, 129
  and skin tones, 117
  softening shadows in, 125
  and storytelling, 108
  tips for shooting better, 122–128
  and Wireless flash mode, 213
Portrait Photography, Secrets of Great (Smith), xiv
Premiere Elements 12, 282
prime lenses, 48
Pro Optic cine lenses, 274
Program Auto (P) mode, 83–85, 98, 205
progressive scan, 268, 269

Q
Quality setting, 8–10, 43
Quick Navi screen, 12
QuickTime for Windows, 282
QuickTime Player, 281

R
RadioPoppers, xvi, 213
rangefinder lenses, xv, 292
RAW images
and creative styles, 116, 168
software for working with, 42
vs. JPEG, 9, 41–43
RAW mode, 36, 42–43. See also RAW images
RAW+JPEG mode, 36, 43, 148, 259
Rear Sync mode, xvi, 207, 209–210, 216
REC icon, 268
reciprocal change, 51
reciprocal exposures, 52
recording video. See video
reflections
adding interest to scene with, 239
flash, 214
photographing, 225
reflector kits, 125
registering book, xvii
Release w/o Lens setting, 288
Remote Camera Control application, 260–261
remote control, xvi, 247, 248, 258–259, 260–261
resolution
image, 43
video, 268
viewfinder, 12
Retro Photo filter, 82
reviewing images, 22–26
RGB color space, 18–19
river shots, 174–175
RM-VPR1 remote control, 247, 248
Rocket Air Blower, 41
Rodriguez, Robert, 265, 275
Rokinon cine lenses, 274
rolling shutter, 280
rule of thirds, 120–121, 176–178, 181, 188

S
S mode. See Shutter Priority (S) mode
Samyang cine lenses, 274
saturation, 117
SCN setting, 63
SD card readers, 281
SD cards, 36–37, 57, 259, 280, 281. See also memory cards
SDHC cards, 36
SDHC Class 10 memory card, 280
SDHC UHS-1 cards, 36
Secrets of Great Portrait Photography (Smith), xiv
Secure Digital memory cards, 36. See also SD cards
self-timer mode, 62, 164, 204
sensors
    cleaning, 39–41
    full-frame, xv, 48
Setting Effect, Live View display, 14
Setting Reset option, 27
Shade white balance, 16
shadows, 34, 35, 231, 232
sharpening, 42, 55
shooting assignments
    advanced techniques, 262
    camera setup, 28
    checking firmware versions, 57
    cleaning sensor, 57
    compositional elements, 235
    evaluating images, 29
    exploring image formats, 57
    exposure bracketing, 262
    focus peaking, 302
    formatting SD cards, 57
    holding camera, 29, 215
    landscape photography, 188
    long exposures, 215
    low-light photography, 215
    manual focus assist, 302
    noise reduction, 215
    portrait photography, 129
    purpose of, xvii
    pushing ISO to extreme, 215
    rule-of-thirds grid, 188
    shooting video, 283
    sports/action shots, 154–155
    using different lenses, 57, 188
    using full auto modes, 75
shooting modes, 73, 83. See also automatic
camera modes
shooting RAW, 42–43
Shutter Priority (S) mode, 85–89
  and action portraits, 120
  shooting assignment, 98
  shutter speed for, 205
  stopping motion with, 140–142
  vs. Aperture Priority (A) mode, 142–143
shutter speed
  and exposure triangle, 50
  for fireworks, 245–246
  and flash photography, 205
  for freezing action, 53
  and ISO setting, 52
  and low-light photography, 199–200, 203
  minimum sustaining, 162
  and moving targets, 131, 136–139
  and subject speed, 137
  and subject-to-camera distance, 138–139
  and tripods, 162
  and water shots, 175
silhouetted subjects, 94, 95, 173
Silkypix, 42
Single shooting mode, 148
Single-shot AF mode, 15, 74, 112, 114, 144, 145
skin tones, 117, 125
sky. See also sunrise/sunset shots
  accentuating contrast between clouds and, 222
  adding visual interest to, 33, 173
  and color temperature, 230
  photographing evening, 191
Slow Sync mode, 207, 208
Smart Remote Control application, 258–259
smartphone, controlling camera via, 258–259
Smile Shutter option, 119
Smile/Face Detection mode, 119
Soft High Key filter, 82
softwareboxes, 211
Sony
  A7/A7R focusing system, 14
  approach to digital imaging, xiii–xiv
  battery charger, 6
  cine lenses, 274
Entertainment Network website, 259
flash units, 204, 212
Image Data Converter software, 42, 116, 168, 197, 260
lens mount adapters, 107, 286
lenses, 48, 107
NEX cameras, 48, 290
Remote Camera Control application, 260–261
RM-VPR1 remote control, 247, 248
Speedlight system, xvi
stereo microphone, 271
Support website, 38, 39
Translucent Mirror Technology, 286
XLR-K1M Adapter and Microphone Kit, 271
sound, recording, 270–272, 280
Speed Priority Continuous Shooting mode, 148
Speed-booster adapters, 286
Speedlight system, xvi
Sports Action mode, 67, 74, 75
sports photography, 48, 131
Spot metering mode, 109, 238, 242–245, 262
spotlights, 243
sRGB color space, 18, 19
stabilization
  camera, 163, 275 (See also tripods)
  image, 44, 48
Standard compression, 41
Standard creative style, 169
Standard quality setting, 9
starburst effect, 249–250
Steadicam Merlin, 275
SteadyShot feature, 163, 199–200, 215. See also Optical SteadyShot (OSS) lenses
stop-action photography, 140–142
stops, 51, 198, 273. See also f-stops
street photography
  and Aperture Priority mode, 79
  capturing candid portraits, 128
  and golden light, 160, 161
  lense considerations, 35, 45, 46
  and rule of thirds, 176–178
  and shutter speed, 53
streetscapes, 160–161, 176–178. See also street photography
studio strobes, xvi, 14, 80, 94, 245
subject speed, 137
subject-to-camera distance, 138–139
sun. See also sunrise/sunset shots
  avoiding lens flare when shooting, 248–249
  hiding behind object, 248–249
  shooting into, 94
  using creatively, 249–250
“sunny 16” rule, 52
sunset shots. See sunrise/sunset shots
  adding depth to, 60, 158, 192
  adding excitement to, 173
  capturing golden light in, 159, 193
  emphasizing colors in, 68
  metering for, 244–245, 262
  positioning horizon line in, 61
  silhouetting objects in, 173, 193
Sunset mode, 68
sunrise shots. See sunrise/sunset shots
Superior Auto mode, 74
Sweep Panorama mode, 73, 74, 183
sync speeds, flash, 205

T
  tack sharp, 181
telephoto lenses, 48, 143, 153, 194, 224
tethering camera, 260–261
thirds, rule of, 120–121, 176–178, 181, 188
Tiffen neutral density filter, 275
Tile Menu setting, xvi
Tilt Transformer, Lensbaby, 296–297
time exposure, 240
tone mapping, 252
Top Ten list, 1–27
Toy Camera filter, 82, 278
Translucent Mirror Technology, 286
Trash button, 26
triangular lines, 223, 226

tripods
  advice on choosing, xvii, 163
  and auto vs. manual focus, 182
  benefits of using, 162
and Bulb setting, 247
and HDR photography, 252
and landscape photography, 162–163, 180, 182
and multi-image panoramas, 185–186
and OSS lenses, 163
and self-timer release, 164
for shooting long exposures, 203, 215, 248
for shooting video, 275
and shutter speed, 162
stability of, 163
and water shots, 174
t-stops, 273
Tufnel, Nigel, 27
Turbo adapters, 286
TV, watching video on, 281–282
Twilight mode, Hand-held, 71, 72
twilight time exposures, 240

U
  umbrellas, 211
  updates, firmware, 38–39
  USB cables, 260

V
  vanishing point, 232
  Versace, Vincent, 235
  VG-C1EM vertical grip, 272
  video, 265–283. See also HD video
    accessories, 274–276
    battery considerations, 272
    camera buttons/controls, 266
    compression formats, 269
    and depth of field, 276
    editing, 282
    expanding knowledge of, 282
    focusing camera for, 272, 279
    LCD monitor, 267
    lenses for recording, 272–274
    panning shots, 275
    progressive vs. interlaced, 269
    quality considerations, 268–269
    recording formats, 268
video (continued)
  recording sound for, 270–272
  setting movie format/quality, 269–270
  shooting assignments, 283
  staging shots for, 278
  storage considerations, 268
  taming highlights in, 279
  tips for shooting better, 278–280
  using creative styles for, 277–278
  viewing options, 276
  watching, 281–282
video capture, memory cards for, 36
video-editing applications, 282
viewfinder, 6, 10–14, 22–26, 276
Voigtlander
  lens mount adapters, 292, 293
  lenses, 290, 292, 293

W
Warm White Fluorescent white balance, 16
waterfall shots, 174
waves, 228
WB setting. See white balance
white balance
  Auto setting for, 16, 74
  and color temperature, 18
  defined, 15
  and landscape photography, 166–168
  and midday sun, 125
  previewing, 168
  setting correct, 15–18
  for video, 278
wide-angle lenses
  and A7 vs. A7R, xv
  accentuating details with, 221
  creating depth with, 32, 33
  and depth of field, 44, 108, 224
  field of view for, 44
  and image sharpness, 221
  and portraits, 105, 108
  when to use, 44–45
Windows Media Player, 282
Windows Movie Maker, 282
Windows systems, viewing/editing
  video on, 282
Wireless flash mode, 207, 211–213
wireless network, connecting camera to, 258–259

X
XLR inputs, 271, 272
XLR-K1M Adapter and Microphone Kit, 271

Y
YouTube, 282

Z
Zebra, 279
Zeiss lenses, 274, 290, 299
Zoom audio recorders, 271–272
zoom feature, 139
zoom lenses, 48, 93, 251