Now that you’ve bought the amazing Sony a7 series camera, 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 Series: 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 and author Brian Smith, and you will:

• Learn the top ten things you need to know about shooting with the Sony a7 series cameras
• Learn to use the camera’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 photos in low light
• Learn the basics behind shooting video with your a7 series camera and start making movies of your own
• Understand the nuances of your menu settings and how to customize your camera
• 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 camera to get great shots at flickr.com/groups/sonya7-a7fromsnapshotstogreatshots.
Sony a7 Series:
From
Snapshots to
Great Shots
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Sony a7 Series: 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...
Sony President and CEO Kazuo Hirai with author Brian Smith in Las Vegas, January 2014
**Acknowledgments**

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A project like this is really a team effort, and I’m very fortunate to have worked with many fine folks throughout its duration. Thanks to Jeff Revell for creating the foundation for what has resulted in a fantastic series of books and learning resources for many camera owners and to Jerod Foster for his fabulous book on the Sony NEX-6, which kicked off Peachpit’s Sony series. Their contribution to this text is invaluable.

Huge thanks to the great team at Peachpit Press: Valerie Witte, Scout Festa, Lisa Brazieal, Bethany Stough, Aren Straiger, Mimi Heft, WolfsonDesign, Karin Arrigoni, and Sara Jane Todd. 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…
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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 six months later 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, until the release of the ground-breaking Sony a7 and a7R.

When Peachpit approached me about writing a book about Sony a7-series cameras for this great series, I jumped at the chance after having worked with them on *Secrets of Great Portrait Photography* (Peachpit Press, 2013). Little did I expect that within 18 months the Sony a7 lineup would grow to five models. 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 and any future cameras.

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?

A: 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-series camera 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 a7-series cameras vs. other mirrorless cameras?

A: As full-frame mirrorless cameras, a7-series cameras 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 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 a7-series cameras? How do I do it?

A: One of the most exciting features of a7-series cameras 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. Refer to Bonus Chapter 12 to read all about it.

Q: I can’t decide between the different a7-series cameras; will this book tell me which is best?

A: Honestly, you’ll be happy with whichever you choose. Sony a7S cameras have the least noise at high ISOs. The a7R offers the highest resolution, and its 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. And Mark II cameras offer 5-axis image stabilization for steady handheld images at low shutter speeds.
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, Applications, 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-series camera menus are much closer to the menus found in the a99 and the a77II than to the menus used in NEX cameras. If you wish to go back to a tiled menu like you used in the NEX, press Menu > Setup 2 > Tile Menu > On. Then press the Center button to lock-in that selection.

Q: Can I use the a7-series cameras 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 Radio Poppers?

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 button to select Fill-Flash or Rear Sync. (Wireless mode refers to Sony’s Speedlight system, not to third-party flash 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-series camera. 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.

Q: Is that it?

A: In order to keep the book short and focused, I had to be selective about what I included in each chapter. This, however, leaves out a little more information that might come in handy after you’ve gone through all the chapters. So as an added value for you, I’ve written three bonus chapters—Chapter 12, “Lens Mount Adapters,” Chapter 13, “Creative Compositions,” and Chapter 14, “Pimp My a7”—to assist you in making better photographs. To access links to the bonus chapters, just log in to or join Peachpit.com (it’s free), then enter the book’s ISBN: 013418548X. After you register the book, a link to the bonus chapter will be listed on your Account page under Registered Products.
Portrait Photography

Settings and Features to Make Great Portraits

Taking pictures of people is one of the great joys of photography. The essence of portrait photography is to capture the spirit and personality of someone in a photograph. Making someone look good in a photograph is largely about making them feel good. The first step in looking beautiful is feeling beautiful, so make sure you treat them like a star. In this chapter, we will explore some camera features and techniques that can help you create great portraits.
Automatic Portrait Mode

When we reviewed automatic modes in Chapter 5, you learned that one of the scene selections, called Portrait, is dedicated to shooting portraits. While this is not my preferred camera setting, it’s not a bad jumping-off point for those who are just starting out. The key to using this mode is to understand what is going on with the camera so that when you venture further into portrait photography, you can expand on the settings and get the most from your camera and, more importantly, your subject.

Whether you are photographing an individual or a group, the emphasis should always be on the subject. The Portrait scene selection utilizes a larger aperture setting to keep the depth of field very narrow, which means that the background will appear slightly blurred or out of focus. To take full advantage of this effect, use a normal or telephoto lens (Figure 6.1). Also, shoot from a relatively close distance to your subject. If you shoot from too far away, the narrow depth of field will not be as effective.

Figure 6.1
Portrait mode works best when combined with a normal or telephoto lens.

ISO 100 • 1/250 sec. • f/6.3 • 24–70mm lens at 45mm
Using Aperture Priority Mode

If you took a poll of portrait photographers to see which shooting mode was most often used for portraits, the answer would certainly be Aperture Priority (A) mode. Selecting the right aperture is important for placing the most critically sharp area of the photo on your subject, while simultaneously blurring all the distracting background clutter (Figure 6.2). Not only will a large aperture give the narrowest depth of field, it will also allow you to shoot in lower light levels at lower ISO settings. Fortunately, in addition to Sony full-frame FE lenses, you can use the Sony LA-EA3 and LA-EA4 adapters to take advantage of Sony A-Mount lenses as well. And since Sony’s E-Mount is about the closest thing there is to a universal lens mount, adapters are available for virtually any lens mount, from Leica M to Nikon and Canon. This opens up an entire world of lens choices, many with extremely large maximum apertures.

This isn’t to say that you have to use the largest aperture on your lens. A good place to begin is f/5.6. This will give you enough depth of field to keep the entire face in focus, while providing enough blur to eliminate distractions in the background. This isn’t a hard-and-fast setting; it’s just a good all-around number to start with. Your aperture might change depending on the focal length of the lens you are using and on the amount of blur that you want for your foreground and background elements.

Figure 6.2
Using a wide aperture, especially with a longer lens, blurs distracting background details.

ISO 100 • 1/2000 sec. • f/2.2 • 55mm lens
Go wide for environmental portraits

There will be times when your subject’s environment is of great significance to the story you want to tell. This might mean using a smaller aperture to get more detail in the background or foreground. Once again, by using A mode you can set your aperture to a smaller f-stop, such as f/8 or f/11, and include the important details of the scene that surrounds your subject.

Using a wider-than-normal lens can also assist in getting more depth of field as well as showing the surrounding area. A wide-angle lens requires less stopping down of the aperture to achieve an acceptable depth of field. This is because wide-angle lenses cover a greater area, so the depth of field appears to cover a greater percentage of the scene.

A wider lens might also be necessary to relay more information about the subject’s environment (Figure 6.3). Select a lens length that is wide enough to tell the story but not so wide that you distort the subject. There’s nothing quite as unflattering as giving someone a big, distorted nose (unless you are going for that sort of look). When shooting a portrait with a wide-angle lens, keep the subject away from the edge of the frame and the camera perpendicular to the ground, not tilted up or down. This will reduce the distortion, especially in very wide focal lengths. As the lens length increases, distortion will be reduced.

Figure 6.3 A wide-angle lens allows you to capture more of the environment without having to increase the distance between you and the subject.

ISO 200 • 1/100 sec. • f/6.3 • 16–35mm lens at 21mm
Metering Basics

There are multiple metering modes in your camera, but the way they work is very similar. A light meter measures the amount of light being reflected off your subject and then renders a suggested exposure value based on the brightness of the subject and the ISO setting of the sensor. To establish this value, the meter averages all of the brightness values to come up with a middle tone, sometimes referred to as 18 percent gray. The exposure value is then rendered based on this middle gray value. This means that a white wall would be underexposed and a black wall would be overexposed in an effort to make each one appear gray. To assist with special lighting situations, Sony a7-series cameras have three metering modes: Multi (Figure 6.4), which evaluates the entire frame in segments before establishing an exposure; Center (Figure 6.5), which looks at the entire frame but places most of the exposure emphasis on the center of the frame; and Spot (Figure 6.6), which takes specific readings from a small area outlined in the center of the frame (often used with a gray card).

Metering Modes for Portraits

For most portrait situations, the Multi metering mode is ideal. (For more on how metering works, see the “Metering Basics” sidebar.) This mode measures light values from all portions of the viewfinder and then establishes a proper exposure for the scene. The only time you might encounter a problem when using this metering mode is when you have very light or very dark backgrounds in your portrait shots.

In these instances, the meter might be fooled into using the wrong exposure information because it will be trying to lighten or darken the entire scene based on the prominence of dark or light areas (Figure 6.7). You can deal with this in one of two ways. You can use the Exposure Compensation feature to dial in adjustments for over- and underexposure. Or you can change the metering mode from Multi to Center. The Center metering mode assesses the entire frame, but it places more emphasis on the center of the frame. This is the best way to achieve proper exposure for many portraits; metering off of skin tones, averaged with hair and clothing, will often give a more accurate exposure (Figure 6.8). The Center metering mode is also great to use when the subject is strongly backlit.
Figure 6.7
The dark background fooled the Multi metering mode into choosing a slightly overexposed setting.

ISO 200 • 1/160 sec. • f/6.3 • 35mm lens

Figure 6.8
With the Center metering mode, the camera shortens the exposure time based on the brighter values of the subjects’ skin and clothing.

ISO 200 • 1/250 sec. • f/6.3 • 35mm lens
Setting your metering mode to Center metering

1. Press the Fn button on the camera back.
2. Use the Control Wheel to highlight and select Metering Mode (A).
3. Rotate the Control Wheel to select Center (B).
4. Press the shutter button or the Center button of the Control Wheel return to shooting mode.

Using the AE Lock Feature

There will often be times when your subject is not in the center of the frame but you still want to use the Center or Spot metering modes. So how can you get an accurate reading if the subject isn’t in the center? Try using the AE (Auto Exposure) Lock feature to hold the exposure setting while you recompose.

AE Lock lets you use the exposure setting from any portion of the scene that you think is appropriate, and then lock that setting in regardless of how the scene looks when you recompose. An example of this would be when you’re shooting a photograph of someone and a large amount of blue sky appears in the picture. Normally, the meter might be fooled by all that bright sky and try to reduce the exposure. Using AE Lock, you can establish the correct metering by zooming in on the subject (or even pointing the camera toward the ground), taking the meter reading and locking it in with AE Lock, and then recomposing and taking your photo with the locked-in exposure.
Shooting with the AE Lock feature

1. Find the AEL button on the back of the camera and place your thumb on it.
2. While looking through the viewfinder, place the center focus point on your subject.
3. Press and hold the AEL button to get a meter reading. A star will appear in the bottom right of your viewfinder or LCD, letting you know that the exposure has been locked. Continue to hold the AEL button.
4. Recompose your shot, and then take the photo.
5. To take more than one photo without having to take another meter reading, just hold down the AEL button until you are done using the meter setting.

AEL with Shutter

If you would rather not have to use the AEL button at all, you can set up your a7-series camera to lock the exposure each time you press the shutter button halfway. All you need to do is select Menu > Custom Settings 4 > AEL w/shutter > On. Turning this function on is like having AEL enabled each time you focus in the frame. But if you wish to refocus after getting an exposure reading, the camera will lock in a new exposure reading based on those values. Fortunately, you can use the AEL button in conjunction with this setup.

Focusing: The Eyes Have It

It has been said that the eyes are the windows to the soul, and nothing could be truer when you are taking a photograph of someone (Figure 6.9). You could have the perfect composition and exposure, but if the eyes aren’t sharp the entire image suffers. Although there are three different focusing modes to choose from on your a7-series camera, as well as two different autofocus modes, for portrait work you can’t beat Single-shot AF mode and Flexible Spot. Single-shot automatic focusing will establish a single focus for the lens and then hold it until you take the photograph; the other autofocusing mode, Continuous AF, continues focusing until the photograph is taken. Flexible Spot lets you place the focusing point right on your subject’s eye and set that spot as the critical focus point. Using Single-shot AF mode lets you get that focus and recompose all in one motion.
Figure 6.9
When photographing people, you'll almost always want to place the emphasis on the eyes.
ISO 100 • 1/1000 sec. • f/2.2 • 85mm lens
Setting up for Single-shot AF focusing mode

1. Ensure that you are in autofocus mode. By default the AF/MF button toggles between these settings. When Autofocus (AF) is selected, a focus point will be illuminated when you lightly press the shutter button.

2. Choose Single-shot AF mode Menu > Camera Settings > Focus Mode > Single-shot AF.

Quickly selecting the Flexible Spot AF point

By default, the Center button of the Control Wheel is assigned to eye focus, but I find it much more useful to use the Center button to adjust the Flexible Spot AF point.

1. Select Menu > Custom Settings 6 > Custom Key Settings > Center Button > Standard. In this setting, you simply press the Center button to make the focus point active.

2. Rotate the Control Wheel to choose the size of the flexible spot: Small, Medium, or Large (I prefer Medium).

3. A small rectangle appears onscreen; press the sides, top, or bottom of the Control Wheel to place the rectangle where you want to autofocus. When you’ve positioned the autofocus point, press the center of the Control Wheel to make your selection.

4. To change your selection during shooting, press the center of the Control Wheel to activate the focus point, and select your new focus area by pressing the sides, top, or bottom of the Control Wheel.

To shoot using this flexible spot, place it on your subject’s eye and press the shutter button halfway until the focus point turns green and the camera beeps. While still holding the shutter button down halfway, recompose and take your shot.

Classic Black-and-White Portraits

There is something timeless about a black-and-white portrait. It eliminates the distraction of color and puts all the emphasis on the subject. To get great black and whites without having to resort to any image-processing software, set your creative style to Black & White (Figure 6.10).
Figure 6.10
Getting high-quality black and white portraits can be as simple as setting the creative style to Black & White.

ISO 100 • 1/200 sec. • f/11 • 24–70mm lens at 70mm
You should know that the creative styles are automatically applied when shooting with the JPEG file format. If you are shooting in RAW, the picture that shows up on your rear LCD display will look black and white, but it will only appear that way in post-processing software if you are using Sony’s Image Data Converter software, which reads that you shot the image in the Black & White creative style. If you are using Adobe Photoshop, Lightroom, or Capture One to edit and process your images, the RAW image will appear as an unaltered, color image; you will have to convert it to black and white using the software. You can change the creative style of a raw photo in Sony Image Data Converter software, so if you decide that black and white isn’t the route you want to go, just change the RAW file’s creative style in the software.

The real key to using the Black & White creative style is to customize it for your portrait subject. The style can be changed to alter the contrast and sharpness. For children or anyone else who should look somewhat soft, set the Sharpness setting to –1 or 0. For dramatic portraits that you want to look bold and detailed, try a Contrast setting of +2 or +3. For a softer look, use a Contrast setting of –1 or 0 for a nice range of tones throughout the image.

**Setting your creative style to Black & White**

1. Press Menu > Camera Menu 4 > Creative Style (A).
2. Press the Control Wheel up or down to highlight and select the Black & White (B/W) style (B). Lock it in by pressing the center of the Control Wheel.

Your camera will continue to shoot with the Black & White creative style until you change it to another setting.
Customizing the Creative Style settings

1. When you’re in the section of the Creative Style menu where you have Black & White selected, press the center of the Control Wheel to select sub-settings.

2. Use the right and left side of the Control Wheel to move between Contrast, Saturation, and Sharpness, highlighting the setting you would like to change.

3. Now click up or down on the Control Wheel (or rotate it) to select a corresponding value for the highlighted setting.

4. Perform the same process for the other options, then press the Menu button to return to the regular menu screen. You can now start shooting with your new settings.

The Portrait Creative Style for Better Skin Tones

As long as we’re talking about creative styles for portraits, there is another style on your a7-series cameras that has been tuned specifically for this type of shooting, which appropriately enough is called Portrait. To set this style on your camera, simply follow the same directions as earlier, except this time, select the Portrait style instead of Black & White. There are also individual options for the Portrait style that, like the Black & White style, include sharpness and contrast. You can also change the saturation (how intense the colors will be). I’m cautious not to over-saturate my images, particularly skin tones, so if I boost the saturation, I only push it to +1, leaving everything else at the defaults. You won’t be able to use the same adjustments for everyone, so do some experimenting to see what works best.

Using Face Detection and Registration

Face detection in digital cameras has been around for a few years, and although it might not be the professional portrait photographer’s go-to function, it does present a nice technology for those who want to bypass some of the more technical approaches to focusing. Your a7-series camera has two face detection modes: one for general face detection, and another for faces that you register with the camera. Both modes adjust
focus and exposure for the detected face, but with Face Registration, you can program eight faces for the camera to prioritize.

When you turn on Face Detection focusing, the camera does an amazing thing: It zeroes in on any face appearing on the LCD and places a box around it (Figure 6.11). I'm not sure how it works; it just does. Another great thing about Face Detection is that it doesn't slow down the autofocus function.

![Figure 6.11](image)

**Figure 6.11**
Face Detection can lock in on your subject's face for easy focusing.

ISO 200 • 1/80 sec. • f/8 • 35mm lens

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**Eye Detection AF**

Sony a7-series cameras take face detection technology a step further with Eye Detection AF. When this option is selected, the camera tracks focus on the subject’s eye instead of the entire face. When Face Detection AF is on, you can enable Eye Detection AF, by pressing the center of the Control Wheel as you focus (assuming the Center button has not been assigned to another function).
Setting up and shooting with Face Detection focusing

1. Before turning on Face Detection, you must first ensure that your camera's autofocus area is in Multi mode. And since Face Detection determines exposure based on your subject’s face, you must also have Multi metering enabled (see “Metering Modes for Portraits,” earlier in this chapter, for how to change metering modes).

2. Press the Menu button and use the Control Wheel to highlight and select the Camera submenu, and navigate to the fifth tab.

3. Use the Control Wheel to navigate to the Smile/Face Detection function, and select it by pressing the center of the Control Wheel (A).

4. In the Smile/Face Detection mode options, press up or down on the Control Wheel until you highlight Face Detection On (B). Select this option by pressing the center of the Control Wheel, and return to shooting.

5. Point your camera at a person, and watch as a frame appears over the face in the LCD or in the electronic viewfinder.

6. Press and hold the shutter release button halfway to focus on the face, and wait until you hear the confirmation chirp.

7. Press the shutter button fully to take the photograph.

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**The Smile Shutter**

One of the more fun face detection technologies you can enable with a7-series cameras is the Smile Shutter. It does exactly what it sounds like: When the camera detects your subject’s smile, it automatically snaps a picture. It’s not perfect, but neither is face detection in general. But when the Smile Shutter is turned on, it is relatively responsive to the pearly whites, even in low light. To enable the Smile Shutter, go to Menu > Camera Settings 5 > Smile/Face Detect > Smile Shutter > On. You even have the option of choosing whether the Smile Shutter will respond to a slight, normal, or big smile. Talk about relaxing behind the lens!
Portraits on the Move

Not all portraits are shot with the subject sitting in a chair, posed and ready for the picture. Sometimes you might want to get an action shot that says something about the person, similar to an environmental portrait. Children, especially, just like to move. Why fight it? Set up an action portrait instead.

For the photo in Figure 6.12, I set my camera to Shutter Priority (S) mode and my shutter speed to a relatively high shutter speed of 1/500 of a second to freeze the action. I followed the subject as he approached the camera and fired off a single frame as he passed directly in front of me.

Figure 6.12
Although the subject was not moving very fast, the key to this shot was tracking with him and pressing the shutter as he passed directly in front of me to freeze his movement.

ISO 200 • 1/500 sec. • f/6.3 • 35mm lens

The Rule of Thirds

One of the basic rules of composition is the “rule of thirds.” Using this principle, you simply imagine two horizontal and two vertical lines dividing your frame equally. Place your subject to the side of the frame (Figure 6.13)—it just looks more interesting than plunking them smack dab in the middle.
Setting up the Grid Display

1. Start by pressing the Menu button.
2. Use the Control Wheel to scroll to the first tab of the Custom Menu.
3. Press the Control Wheel to highlight and select Grid Line (A).
4. In the Grid Line submenu, rotate the Control Wheel to highlight Rule of 3rds Grid (B). Select this option by pressing the center of the Control Wheel, and return to shooting.

---

**Figure 6.13**
Placing the subject off to one side allows the lines from her arms to lead the viewer’s eye to her face.

ISO 200 • 1/100 sec. • f/5.6 • 35mm lens
Landscape and Cityscape Photography

Tips, Tools, and Techniques to Get the Best Landscapes and Cityscapes

Who can resist shooting a beautiful landscape or cityscape when they see one? Landscapes are a great learning ground for photographers, particularly in the areas of light and composition, and for those of us who enjoy spending time outdoors, there are few better ways to do so.

This chapter explores the functions of a7-series cameras that make landscape photography not only a possibility but also an exciting and enjoyable venture. It also covers techniques that will improve your landscape and cityscape photography.
Composing Landscapes and Streetscapes

As a photographer, it’s your job to lead the viewer through your image. You accomplish this by utilizing the principles of composition, which is the arrangement of elements in the scene that draws the viewer’s eye through your image and holds their attention. As the director of this viewing, you need to understand how people see, and then use that information to focus their attention on the most important elements in your image.

There is a general order in which we look at elements in a photograph. The first is brightness. The eye wants to travel to the brightest object within a scene. So if you have a bright sky, it’s probably the first place the eye will travel to. The second order of attention is sharpness. Sharp, detailed elements will get more attention than soft, blurry areas. Finally, the eye will move to vivid colors while leaving the dull, flat colors for last. It is important to know these essentials in order to grab—and keep—the viewer’s attention and then direct them through the frame.

In Figure 8.16, the eye is drawn from the road to the mountain peak and into the sky. The leaves framing the top of the image redirect the viewer back to the mountain. The elements within the image help keep the eye moving without leaving the frame.

Rule of thirds

There are, in fact, quite a few philosophies concerning composition. The easiest one to begin with is known as the “rule of thirds.” Using this principle, you simply divide your viewfinder into thirds by imagining two horizontal and two vertical lines that divide the frame equally.

The key to using this method of composition is to locate your main subject at or near one of the intersecting points.

By placing your subject near these intersecting lines, you are giving the viewer space to move within the frame. The one thing you don’t want to do is place your subject smack dab in the middle of the frame. This is sometimes referred to as “bull’s-eye” composition, and it requires the right subject matter for it to work. It’s not always wrong, but it will usually be less appealing and may not hold the viewer’s focus.

Speaking of the middle of the frame, the other rule of thirds deals with horizon lines. Generally speaking, you should position the horizon one-third of the way up or down in the frame. Splitting the frame in half by placing your horizon in the middle of the picture is akin to placing the subject in the middle of the frame—it doesn’t lend a sense of importance to either the sky or the ground, creating two equally competing areas of the image.
The composition of the elements pulls the viewer's eye around the image, leading from one element to the next in a triangular pattern but never out of the frame.

ISO 200 • 1/125 sec. • f/8 • 35mm
**Figure 8.17**

With the rule-of-thirds grid atop this image, you can see that I composed the shot so that the horizon line and road meet in the lower-right intersection.

ISO 100 • 1/125 sec. • f/10 • 24–70mm lens at 24mm

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**Creating depth**

Because a photograph is a flat, two-dimensional space, you need to create a sense of depth by using the elements in the scene to create a three-dimensional feel. This is accomplished by including different and distinct spaces for the eye to travel: foreground, middle ground, and background. By using these three spaces, you draw the viewer in and render depth to your image.

Landscape images need not always have everything in focus. **Figure 8.18** illustrates that as the eye travels around the frame, the focus on the foreground draws the eye to the stacked stones.
Where to Focus

As with any type of photography, you can use various depths of field to shoot landscapes. But if you are interested in those big, encompassing shots (as most landscape shooters are), you more than likely want everything in your shot to be in focus. From the foreground to points way off in the distance, all the details of the grand scene in front of you are tack sharp! But where do you focus in order to achieve this?

First you need to make sure you are set up to shoot the large landscape. To gain maximum depth of field and focus, it is typical to use your smallest aperture. For most wide and standard lenses, this is f/22, though some stop down to f/32 or f/45. Since a smaller aperture
forces you to shoot with a slower shutter speed, you’ll need to be set up on a sturdy tripod. The tripod allows you to concentrate on the other part of the formula: where to focus to achieve maximum depth of field. For this, you must utilize something called the “hyper focal distance” of your lens.

Hyper focal distance, also referred to as HFD, is the point of focus that will give you the greatest acceptable sharpness from a point near your camera all the way out to infinity. If you combine good HFD practice with a small aperture, you will get images that are sharp to infinity.

After you have composed your shot, focus on an object that is about one-third of the distance into your frame (Figure 8.19). That’s pretty much it. You’ll most easily achieve this by focusing manually, which will allow you to be more exact with where you place the focus.

Figure 8.19
To get maximum focus from near to far using the hyper focal distance (HFD) one-third rule, I focused one-third of the way up the hillside. You can either select a focus point for that area or use the center focus point and recompose before taking the picture. This kept everything in focus.

ISO 200 • 1/60 sec. • f/6.3 • 24–70mm lens at 35mm
When Live View is on, a7-series cameras’ EVF and LCD will display depth of field in real time as you adjust your aperture. This is a handy feature when you want to preview the amount of depth of field you will achieve.

Additionally, depth of field is inherently (more like physically) different for different types of lenses. Practically speaking, wider-angle lenses achieve greater depth of field compared to longer lenses. This, among other reasons, is why wide-angle lenses are a part of most landscape photographer’s kits. It is also why some photographers choose not to attempt hyper focal distance with telephoto lenses. At stopped-down apertures, longer lenses (even on a tripod) can sometimes render an image soft.

**Tack Sharp**

Here’s one of those terms that photographers like to throw around. *Tack sharp* refers not only to the focus of an image but also to the overall sharpness of the image. This usually means that there is excellent depth of field in terms of sharp focus for all elements in the image. It also means that there is no sign of camera shake, which can give soft edges to subjects that should look nice and crisp. To get your images tack sharp, use a small depth of field, don’t forget your tripod, use the self-timer to activate the shutter if no cable release is handy, and practice achieving good hyper focal distance when picking your point of focus.

**Easier Focusing**

There’s no denying that the automatic focus features on a7-series cameras are great, but sometimes it just pays to turn them off and go manual. This is especially true when you are shooting on a tripod: Once you have your shot composed in the viewfinder and are ready to focus, chances are that the area you want to focus on is not going to be in the area of one of the focus points. Often this is the case when you have a foreground element that is fairly low in the frame. You could use a single focus point set low in your viewfinder and then pan the camera down until it rests on your subject, but then you would have to press the shutter button halfway to focus the camera and then try to recompose and lock down the tripod. It’s no easy task.

But you can have the best of both worlds by having the camera focus for you, then switching to manual focus to comfortably recompose your shot.
Getting focused while using a tripod

1. Set up your shot and find the area that you want to focus on.
2. Pan your tripod head so that your active focus point is on that spot.
3. Press the shutter button halfway to focus the camera, and then remove your finger from the button.
4. Switch the camera to manual focus by pressing the Fn button next to the shutter button, navigating to FOCUS, and selecting MF (manual focus).
5. Recompose, and then take the shot.

The camera will fire without trying to refocus the lens. This works especially well for wide focal lengths, which can be difficult to focus in manual mode.

Using Manual Focus Assist

If you choose to manually focus, Sony a7-series cameras have a built-in feature that helps you achieve exact focus. Whether you have your eye to the electronic viewfinder or are using the LCD display to compose your scene, the MF Assist (manual focus assist) function will, once you start to make focus adjustments, digitally “zoom in” to the area on which you are placing focus so you can have greater control over where the plane of critical focus actually lands. Essentially, MF Assist is akin to placing a magnifying glass between the camera and subject so you can specifically adjust for exact focus. To turn on the MF Assist function, simply turn your camera’s focus mode to MF, or manual focus. (MF Assist is a default function of the camera, but if you want to ensure that it is turned on, select Menu > Custom Settings 1 > MF Assist > On.)

Using DMF Focus Mode

When you’re using native Sony E-Mount lenses, Sony a7-series cameras also offer the DMF focus mode, which is ideal for fine-tuning focus. In DMF focus mode, the camera autofocuses as normal, once it does, if you turn the focus ring slightly, the camera will digitally “zoom in” to the focus point you have selected, giving you a quick way to double-check or correct focus. To turn it on, select Menu > Camera Settings > Focus Mode > DMF.

Expand Your Range

Sony a7-series cameras have about 14 stops of dynamic range. While you may not see that in a straight capture, there’s a lot of detail hiding in the shadows of your Sony RAW files when you need it (Figure 8.20).
Shooting Panoramas

If you have ever visited the Grand Canyon, you know just how large and wide open it truly is—so much so that it would be difficult to capture its splendor in just one frame. The same can be said for a mountain range or a cityscape or any extremely wide vista. There are two methods you can use to capture the feeling of this type of scene.

Sweep Panorama mode

Sony a7-series cameras include a panorama mode, and even through it takes a bit of control away from you during shooting, it serves as a great way to preview what your multiple-image panorama might look like. Depending on how well the camera stitches the shots together, the resulting panorama might just be the one you like most. In a context with enough light, the sweep panorama also allows you to forgo the tripod because it provides you a visual guide on the LCD to follow while you are shooting. Simply turn the Mode dial to Sweep Panorama (the icon that looks like a concave rectangle), turn the Control dial to indicate which direction you want to pan, and while holding the shutter button down, pan the camera using the guide. The camera will then stitch all of the individual images together into one final image. This is not the method I prefer to use to shoot panoramas, but it is useful for previewing panoramas and for those in need of a quick shot.
The multiple-image panorama

To shoot a true panorama, you need to use either a special panorama camera that shoots a very wide frame, or the following method, which requires the combining of multiple frames.

The multiple-image panorama has gained in popularity in the past few years; this is principally because of advances in image-processing software. Many software options are

Figure 8.21 Here you see the makings of a panorama, with ten shots overlapping by about 30 percent from frame to frame.

ISO 100 • 1/100 sec. • f/11 • 24–70mm lens at 50mm

Figure 8.22 I used Adobe Photoshop to combine all of the exposures into one large panorama that spans from coast to coast across Fiji’s Waya Island.
available now that will take multiple images, align them, and then “stitch” them into a single panoramic image. The real key to shooting a multiple-image pano is to overlap your shots by about 30 percent from one frame to the next (Figures 8.21 and 8.22). It is possible to handhold the camera while capturing your images, but the best method for capturing great panoramic images is to use a tripod.
Shooting properly for a multiple-image panorama

1. Mount your camera on your tripod and make sure it is level.

2. Choose a focal length for your lens that is, ideally, somewhere from 35mm to 50mm. (I used a 50mm in Figure 8.21, which worked well, but a focal length similar to the perspective of the human eye is appropriate in most cases.)

3. In Aperture Priority (A) mode, use a very small aperture for the greatest depth of field. Take a meter reading of a bright part of the scene, and make note of it.

4. Now change your camera to Manual (M) mode, and dial in the aperture and shutter speed that you obtained in the previous step.

5. Set your lens to manual focus, and then focus your lens for the area of interest using the HFD method of finding a point one-third of the way into the scene. (If you use the autofocus, you risk getting different points of focus from image to image, which will make the image-stitching more difficult for the software.)

6. While carefully panning your camera, shoot your images to cover the entire area of the scene from one end to the other, leaving a 30 percent overlap from one frame to the next.

Now that you have your series of overlapping images, you can import them into your image-processing software to stitch them together and create a single panoramic image.

Sorting Your Shots for the Multi-Image Panorama

If you shoot more than one series of shots for your panoramas, it can sometimes be difficult to know when one series of images ends and the other begins. Here is a quick tip for separating your images.

Set up your camera using the steps listed here. Now, before you take your first good exposure in the series, hold up one finger in front of the camera and take a shot. Now move your hand away and begin taking your overlapping images. When you have taken your last shot, hold two fingers in front of the camera and take another shot.

Now, when you go to review your images, use the series of shots that falls between the frames with one and two fingers in them. Then just repeat the process for your next panorama series.
Look for the Unexpected

Never forget that your best images might well come from happenstance, not from meticulous planning. Always stay alert for the unexpected (Figure 8.23). Learn to observe and pay attention to things that come into the frame. And never forget that photography is supposed to be fun!

Figure 8.23  A typical day at the beach gets far more interesting when a cow walks into the picture.

ISO 200 • 1/500 sec. • f/10 • 16–35mm lens at 20mm
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