

- » Discovering the differences between single and multi-lens Android cameras
- » Understanding the differences between the many Android OS manufacturers
- » Taking photos using your phone's built-in camera
- » Viewing, editing, and sharing your photos

Chapter **1**

Introducing Android Smartphone Photography

Whether you're brand new to photography using a smartphone, or new to the Android operating system, the aim of this chapter is to familiarize you with the basics so you can get out and start photographing as soon as possible. It's such an incredible feeling to have a powerful camera always with you, in your pocket, bag, or purse. After reading through this introduction to Android cameras, you should feel confident creating images with a smartphone. The photo opportunities await, so get excited about your Android smartphone and its surprisingly high-quality cameras!

Becoming Familiar with Your Android Camera

In the fantastic world of Android-powered mobile devices, you find a wide assortment of lens combinations. Each manufacturer of Android-based smartphones offer a single camera (often with a slightly wide-angle view), and the majority offer what is called a multi-lens combo. It's common these days to see Android smartphones with three cameras plus a front-facing selfie camera.



REMEMBER

If you own a single lens Android smartphone, don't feel that you're stuck with creating mediocre photos. The Google Pixel 4a, for example, only has one front-facing camera lens but it beats many of its competitors that have multiple lenses! What is more important than how many lenses your smartphone has is your ability to craft an image. What this means is how you compose your photo, how you use light to your advantage, and the emotion or narrative that you add to your images are skills that usually have more weight than just pure technical knowledge. This book helps you develop those skills, regardless of how many lenses your smartphone has.

The following list explains a rough description of the most common Android smartphone lens combinations. Some smartphones have one lens, some two, some three, and a few have four or more lenses. Multi-lens smartphone camera lenses are usually described as

- » **Ultra-wide:** Made for sweeping landscapes or interior architecture.
- » **Wide-angle:** This is usually the default general-use lens for all smartphones.
- » **Telephoto:** More of a zoomed-in look, great for portraits and nature.
- » **Super-telephoto:** Very zoomed-in look, perfect for distant wildlife and even for capturing a full moon!

Single-lens models

When someone mentions that their smartphone has a single lens, they're usually referring to what's called the rear, or back-facing lens, not the *selfie* lens that faces you and allows you to take a photo of yourself (more on selfies in Chapter 2). If your smartphone only has one lens, which is usually called a wide-angle lens, don't feel left out! Most of the great documentary, photojournalism, and street photographers of the past and present have created their best work with a single wide-angle lens. You can do the same.

Figure 1-1 shows off the small but powerful single wide-angle lens on the Google Pixel 4a. Keep in mind that the lens is the darker circle, and the white circle is the flash.



FIGURE 1-1:
The single-lens Google Pixel 4a.

Dual-lens models

Dual-lens Android devices are getting harder to find these days. The most popular options are single-lens and triple-lens combinations. Figure 1-2 shows an example of the Xiaomi Mi Mix 2S with its two lenses. This device, plus many other dual-lens devices have a wide-angle view from one lens, and what is often called by the manufacturers a *telephoto* view from the second lens. *Telephoto* usually refers to a view that appears more zoomed-in than what the human eye sees.



REMEMBER

If you have a DSLR camera or are familiar with traditional film photography, the use of the word *telephoto* by the manufacturers of dual-lens smartphones is sometimes a bit of a stretch. Often what they call the telephoto lens is actually what photographers call a *normal field of view*, which would be similar to a 50mm prime (non-zooming) lens in traditional photography terms. If you don't know what any of that means, no problem! All you need to know is that the wide-angle lens is great for architecture and landscape photography, and the second telephoto lens is better for portraits and general smartphone photography.

Triple-lens models

While not always the case, a triple-lens Android smartphone usually has an ultra-wide, wide, and telephoto lens combination. An ultra-wide lens fits in a lot of the

scene in front of you, such as whatever is in front of your feet, the landscape, and a lot of the sky. This camera type is great for vast, expansive landscape photos. The normal wide-angle lens is great for traditional street photography, photojournalism, and documentary work. The telephoto lens view is perfect for portraits and to a certain extent, wildlife.

FIGURE 1-2:
The dual-lens Xiaomi wide-angle and telephoto lenses.



© Xiaomi Corporation

Figure 1-3 shows the triple-lens design of the Sony Xperia 5 II. If you're familiar with full-frame DSLR or SLR cameras, the Xperia's three lenses have focal lengths of 16mm, 24mm, and 70mm.

FIGURE 1-3:
The Sony Xperia 5 II with its triple-lens camera combination.



© Sony Corp

Models with more than three lenses

Four lens Android smartphones are very popular, and there are so many great options to choose from. As of the writing of this book, the Samsung S21 Ultra 5G is probably the most highly regarded Android device for photographers, but of course that will change as new devices come on the market. Figure 1-4 shows the S21 Ultra's four lenses, which range from ultra-wide, wide, telephoto, and super telephoto views. Don't be fooled by what appears to be a fifth lens on this Samsung, which is actually a laser autofocus sensor. Many of Samsung's competitors have similar lens combinations and focal lengths. There are also five lens Android smartphones available, such as the Nokia 9 PureView and no doubt many more in the future.

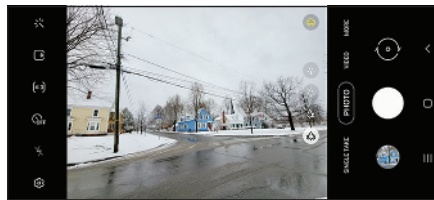


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FIGURE 1-4:
The impressive quad-lens Samsung S21 Ultra 5G.

It may be a bit hard to visualize what all the lens descriptions really mean without a visual example. Figure 1-5 shows the view from each of the Samsung S21 Ultra 5G's four lenses.

ultra-wide-angle 13mm



wide-angle 26mm



telephoto 70mm



super-telephoto 240mm



FIGURE 1-5:
The view from the four types of lenses on the Samsung S21 Ultra 5G.

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Taking a Look Around the Camera App

As the author of this book, I've been confronted almost daily with the struggle that each manufacturer has their own *take* on the Android operating system. That means that the appearance of your own Camera app may look slightly different than the three examples that I show you in this section. However, while the shapes and appearances of the icons look different between the manufacturers, the meaning of the icons are usually universal and easy to understand. For example, Figure 1-6 shows the typical view of a budget-friendly Motorola Camera app.

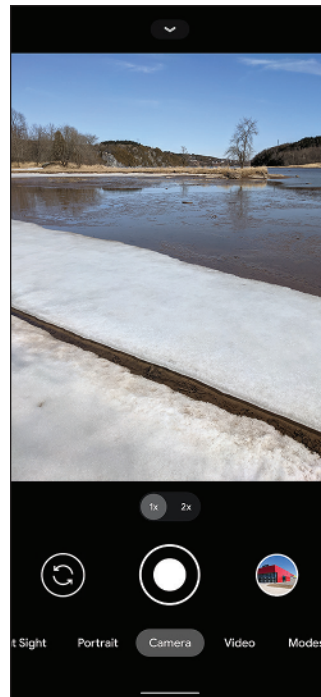


Figure 1-7 shows the appearance of the Google Pixel 4a Camera app. The icons look different than the previously mentioned Motorola Camera app of Figure 1-6. Take a look at both figures and you see that extra camera options are visible at the top of the Motorola screen, but are hidden behind a downward-pointing arrow at the top of the screen on the Google Pixel 4a.



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FIGURE 1-6:
The Motorola Moto G7 Play smartphone Camera app appearance.



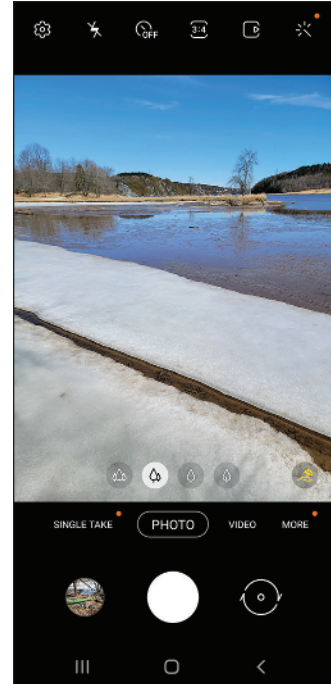
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FIGURE 1-7:
The Google Pixel 4a smartphone camera app appearance.

MORE

Figure 1-8 shows the appearance of the Samsung S21 Ultra 5G Camera app. Again, the icons look different than the two previously mentioned Android smartphones. This Samsung smartphone is considered a *flagship* model, which means that it's geared toward power-users and professionals. Even more camera option icons are visible, and many more are accessible at the bottom of the photo preview by tapping the More icon. Flagship models from any manufacturer have a lot of camera options to give the photographer as much manual control as possible.

To close the Camera app, Android manufacturers have different ways to go about it. For example, if you have a Google Pixel, place your finger or thumb at the bottom of your smartphone screen and swipe in an upward motion. Other smartphones have three icons at the bottom of your screen that perform functions such as opening your previous app and accessing all your apps.



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Taking a Picture

FIGURE 1-8:

The Samsung S21 Ultra 5G smartphone Camera app appearance.

Regardless of what Android smartphone you own, the Camera app is always recognizable as an icon in the shape of a traditional camera. The Camera icon is most often visible on your home screen. Some Android smartphone manufacturers require you to long-press the Camera icon for about one second, others allow for a quick tap of the Camera icon, and still others require that you hold the Camera icon and then slide your finger in a slight upward motion. Figure 1-9 shows a typical home screen of a Google Pixel smartphone, with the Camera app at the bottom right.

Alternatively, if you're already within your Android device and you can see all your apps, simply tap the camera icon. Figure 1-10 shows an example of the Camera app icon within the app page.

With your Camera app open, find a good scene that you want to photograph and tap the large white shutter button circle, as shown in Figure 1-11. The term *shutter button* is a hold-over from traditional SLR and DSLR cameras, where the camera's shutter would physically open and close when the button was pressed. Smartphones don't have physical shutters like bigger cameras; however, the *shutter button* name has been adopted for smartphones.



FIGURE 1-9:
A typical Google Pixel home screen with the Camera app icon.

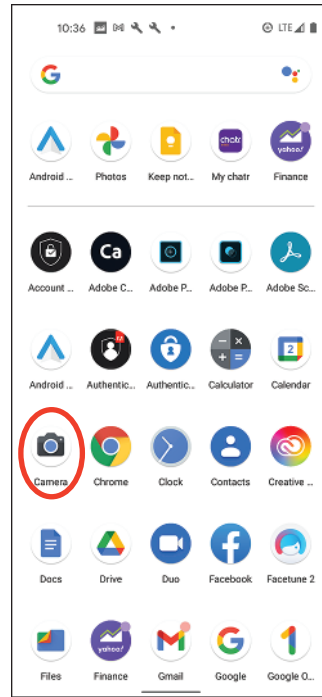
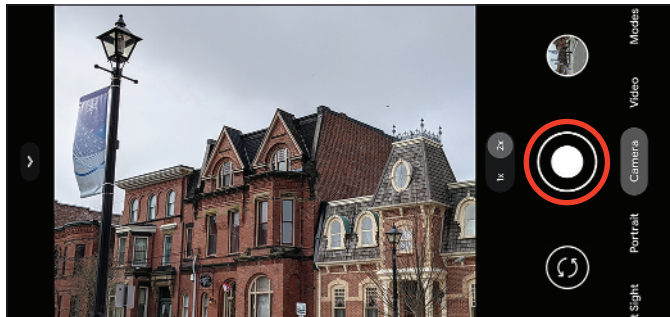


FIGURE 1-10:
The Camera app icon within the apps page.

FIGURE 1-11:
Tap the shutter button to take a photo.



Viewing Your Photo

To view your photos, simply go to your Android apps page. Figure 1-12 shows a collection of apps, and when you locate the Google Photos app icon, tap it to open your photo collection.



REMEMBER

Even though you can access a newly taken photo within the Camera app itself, always close the Camera app and open the Google Photos app to access your photos. Opening your newly created photo from within your Camera app may open a non-Google photo editor. Some companies, such as Samsung, have their own photo collection app and image editor. For this book, I use Google's Photos app for image review and image editing.

When you open the Google Photos app, you see your most recent photos in the Today section of the app, as shown in Figure 1-13. At the bottom of the Photos app are three icons: Photos, Search, and Library. I cover all the features of Search and Library in later chapters.

Tap your most recent photo and it pops up in the photo review section of the app, as shown in Figure 1-14. You can flip through your most recent photos as well, simply by swiping your finger in a horizontal motion.



TIP

Use the pinch-to-zoom technique to see greater detail in your photo. Place your index finger and thumb on your photo and then widen the space between both of your fingers to zoom in, as shown in Figure 1-15. Do the opposite to zoom out.

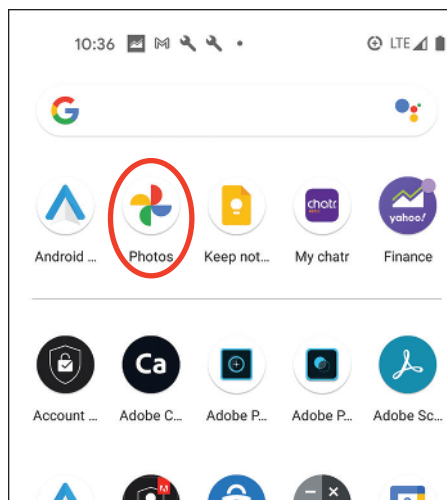


FIGURE 1-12:

All your photos are stored in the Google Photos app.

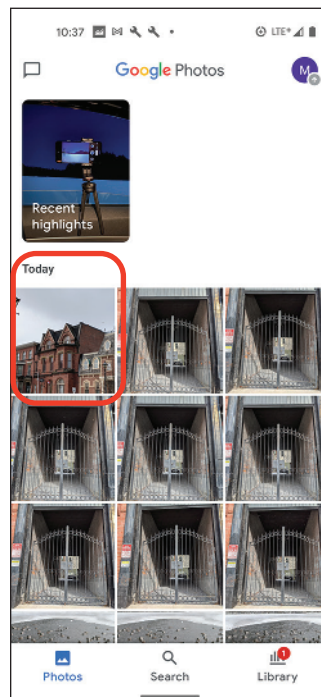


FIGURE 1-13:

Your recent photos are in the Today collection of the Photos app.



FIGURE 1-14:
Your photo review screen.



FIGURE 1-15:
Using the pinch-to-zoom technique to see greater photo detail.

Editing Your Photo

With a photo open in the review screen, tap the editing icon (see Figure 1-16) to access the photo editing tools.

Enhance is always a nice starting point to editing your photos. Tap Enhance in the review screen and the Google Photos app adjusts your photo to look its best, as shown in Figure 1-17.

After the enhancement, you may be prompted to choose to either save your edited photo or save it as a copy, as shown in Figure 1-18. Both options have pros and cons, which I explain in a number of upcoming chapters. If you like it, tap Save. If you still want to keep your original along with the edited version, tap Save as Copy. If you don't like the look of the edited changes, tap Cancel and then tap Discard. This takes you back to your original unedited photo. (Chapter 12 explains how to delete your saved photos.)

If you want to jump into the finer details of editing your photos, Chapter 11 is full of great tips and techniques to make your photos shine!



FIGURE 1-16:
Tap the editing icon to edit
your photo.

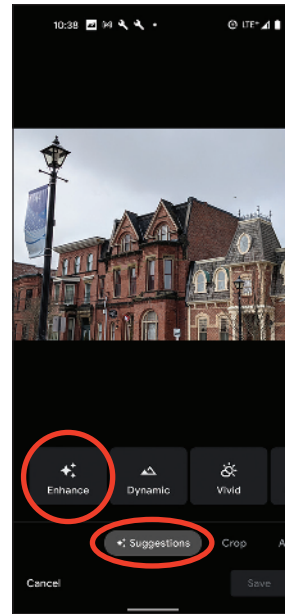


FIGURE 1-17:
Tap Enhance for an automatic
adjustment of your photo.



FIGURE 1-18:
Tap Save when done with your
photo editing.

Sharing Your Photo

It couldn't be easier to share your photo! To the left of the photo editing icon in the review screen is the Share icon with three little connected dots, as shown in Figure 1-19.



FIGURE 1-19:

Tap the Share icon to open the Share Photo screen.

Figure 1-20 shows the Share Photo screen, and there are a lot of great sharing options that you can explore. Because Chapter 12 goes into photo sharing in greater detail, take a look at the most common sharing options: Messages and Gmail. If you use the Google Messages app, you can send your photo to any of your contacts after tapping that icon. If you want to email your photo to friends and family, by tapping the Gmail icon you're automatically taken to your Gmail account.



TIP

If you don't have a Google account, you won't be able to access Google Messages and Gmail. No worries! Chapter 3 is all about getting you set up for maximum Android smartphone functionality.

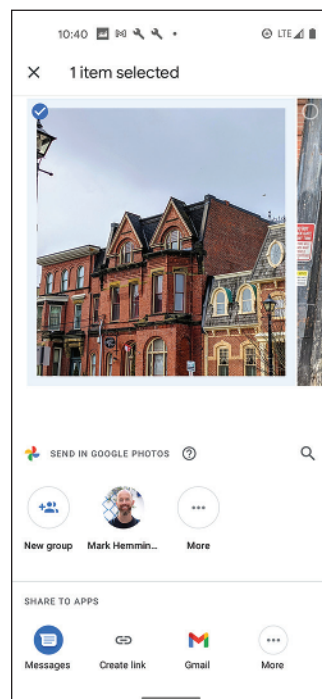


FIGURE 1-20:

The Share Photo screen has many photo sharing options such as sending photos to Gmail and Messages.