

Through The Lens

*A guide to digital photography for computer enthusiasts.
After the click of your camera, you're only half done!*

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Cell Phone Photography (2026)

by Lynda Buske

It is impossible for me to write an article about cell phone photography that would cover the advantages and disadvantages of every make and model. Even if I was capable, it would probably be out of date within a few weeks. To keep abreast of changes and features, my advice is to ask questions online and then watch recent YouTube videos specific to your make and model of phone. This article will cover some standard phone features and limitations as well as a couple of more recent techniques that may not be available on your model.

The main advantage to cell phones has always been that they are small and usually with you, especially when you are travelling. I always tuck mine into my camera bag even if I am shooting primarily with my Nikon Z6. I may use it to scout out different angles as it is easier to try out a shot with the phone than move my tripod around. There are some situations where I will shoot with both and decide later which one did a better job. The cell phone image may also give me an indication later of what edits I could do with my Nikon shots but perhaps not to the same extent. When creating the JPEG, cell phones often sharpen, dehaze and add vibrancy and it is hard to undo what is baked in if I feel they have gone too far. For example, if I'm in a foggy environment, my cell phone assumes I don't want the mist and tends to apply a dehaze function. Wrong! Many phones now have extra enhancement editing features available after you have taken the shot but the original may still be pretty processed.

Often cell phones these days have the ability to adjust the brightness level when you are shooting. This is the equivalent to the EV adjust (+/-) button on your traditional camera.

When shooting dark scenes without a tripod, a traditional camera will usually bump the ISO – the light sensitivity – to give you a fast enough shutter speed to hand hold your camera. This causes “noise” or graininess in your image which must then be removed with editing software. Most cell phone cameras have a wide aperture so you can get the most light and fastest speed possible indoors or in dimly lit areas. As well, in night mode, it takes multiple images, combining them together to keep sharpness and limit noise. I have even taken photos of constellations and northern lights!

I have been pleased with some images that were taken with my cell phone during blue hour (the hour before sunrise, the hour after sunset). With landscape photography, it is great having foreground to add a three-dimensional effect and allow the viewer to journey through the image. Before the sun comes up (or after it goes below the horizon) the sky is full of lovely pinks/oranges but is much brighter than the rest of the scene so if my Nikon exposes for the sky, I have to lighten the dark foreground areas after and sometimes (even with RAW files), it can look muddy. In extreme cases, you can get banding in dark areas. The best solution is to take two images, exposing for the sky in one and the foreground in the other. However, to do this you need a tripod and photo editing software that allows you to combine them later. Cell phones handle this high dynamic range (HDR) situation very well and in effect does take multiple images, metered to different areas of the scene and merges them together right on your phone. See Figure 1.

Figure 1: Blue hour



Some phones allow for a simulated adjustment of aperture but it is not a true optical adjustment as you would have on a camera. The wide aperture can sometimes work against you when taking close up photos. With mine, the depth of field is so small that I cannot take a photo of my meal in a restaurant without leaning far back in my chair or standing up!

When set to portrait mode, the cell phone creates a blurred background similar (sort of) to a short depth of field with a traditional camera. On my phone, sometimes it's a nice soft blur (see Figure 2) and sometimes it's a rather chunky AI creation that I don't find appealing. If I'm taking a photo of a person where there is a cluttered background in behind, even if I'm not in portrait mode, it will ask if I'd like the background blurred or people removed. I don't get these prompts if it is an inanimate object like a vase of flowers (I have not yet tried it with animals). See Figure 3.

Figure 2: Portrait mode



Figure 3: Removing people from background



It can also create the softening effect on moving water. There is probably a long exposure setting on your phone camera that will take multiple shots and then combine them, causing the water to blur nicely but keeping everything else in sharp focus. See Figure 4.

Figure 4: Long exposure



The zoom advertised with cell phones can be misleading. It may claim to have a 30x zoom but that is not the equivalent in quality to a 30x zoom in a standard camera.

- Optical Zoom uses the camera's lens to physically magnify the image, maintaining sharpness and detail.
- Digital Zoom simply enlarges a portion of the image sensor's output using software, which often results in lower image quality by cropping and magnifying pixels.

Phones typically combine several fixed focal length lenses for up to about 3x optical zoom but beyond that it relies heavily on digital zoom and computational enhancement, which results in softer, more pixelated images. This can result in a very unnatural capture of your subject.

Some of the more recent phone features may tempt to you to upgrade your device. In some later models, you can take a photo of your travel companion, have them take yours and the phone will combine the two together so it looks like a third person had taken the shot for you. As well, some of the newer phones will combine and create the best image among multiple people shots. For instance, if you take three photos of a large group or people, it will select the best image of each person (no closed eyes, not looking away) and create a final image.

With some newer phones, you can ask it how to create a better image. It will look at your scene and make suggestions based on well-established composition guidelines like leading lines and rule of thirds. These suggestions could help you become a better photographer!

Additional information from Chris Taylor:

Phones will sometimes brag about super-high resolution such as 48 megapixels or even 108 megapixels. But you may be disappointed when you find the resulting images are just 12 megapixels. Although the sensor may actually have 48 or 108 megapixels, the phone is doing "pixel binning" to combine grids of 4 or 9 pixels into a single output reading.

While it sounds like they are lying—in reality they are being disingenuous. Pixel binning is done to increase the light-gathering capability. The result is that the camera can take pictures in lower light at the cost of fine details in resolution. Pixel binning also reduces the effect of optical crosstalk, where photons of light intended for one photosite are detected by adjacent photosites, reducing image sharpness and causing color inaccuracies or blurring at the pixel level.

OPCUG editor: Here is another article by Lynda Buske on [Cell Phone photography](#) from 2021.

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