Photzy

DSLR AUTO-FOCUS MODES EXPLAINED

Quick Guide

Written by Jason Little

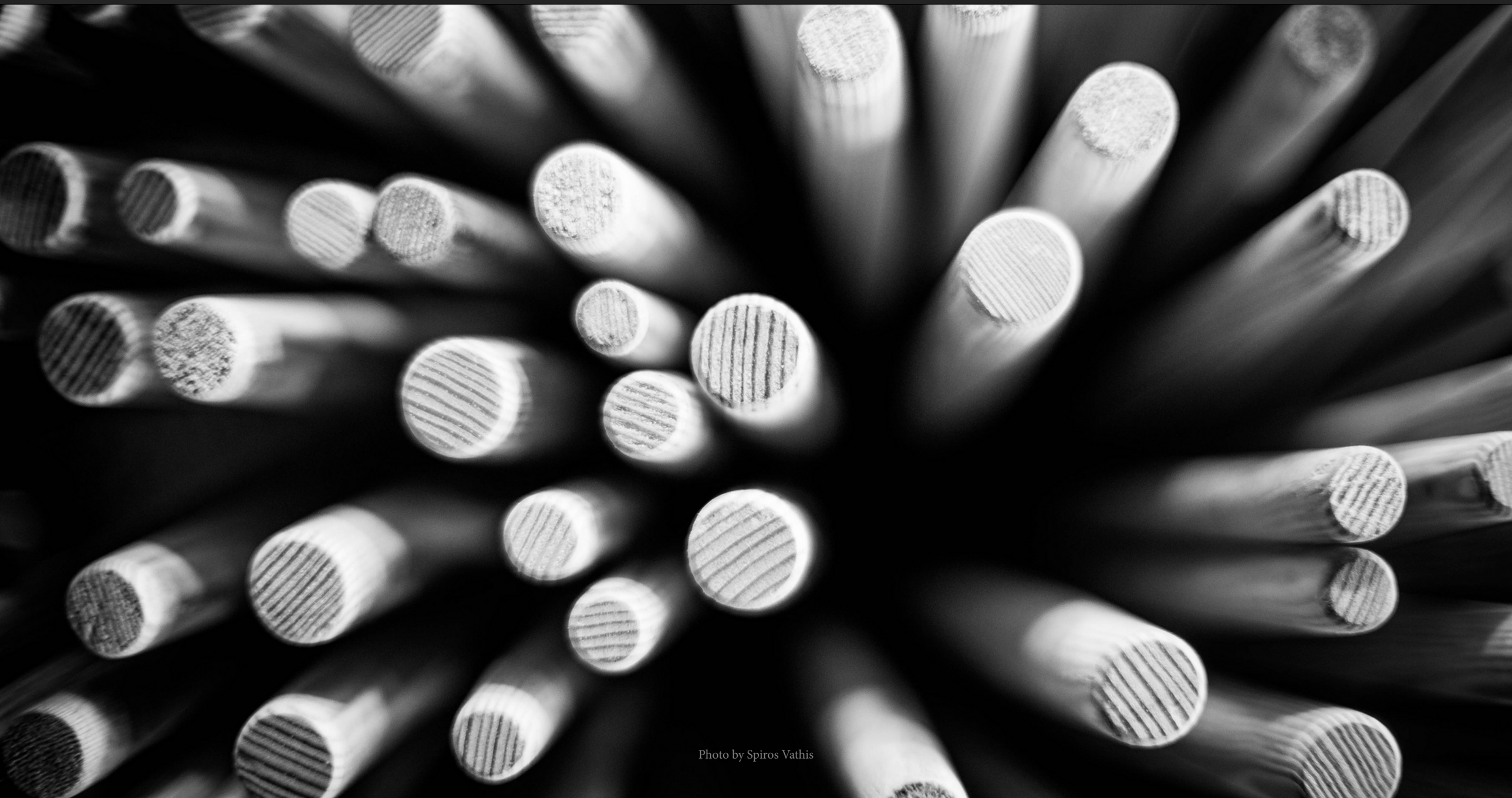

Photo by Spiros Vathis

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When first embarking on the journey toward becoming a photographer, you were probably repeatedly told of the importance of exposure and composition. You went through all the pertinent exercises designed to help you grasp the fundamental concepts behind exposure (aperture, shutter speed, ISO), and you diligently worked on developing your creative vision, because no one wants to be accused of using boring composition. Accordingly, no one with even a basic understanding of photography would suggest that composition and exposure are unimportant, but neither element means much if your photos aren't in focus.

The audience needs to know what they are looking at; the subject of a photograph needs a degree of definition that renders it visually recognizable and conceptually relatable. Of course, there are exceptions to be made such as in the case of abstract photography, but before you can even think about something like that you've got to first get a handle on the basics of achieving proper focus.

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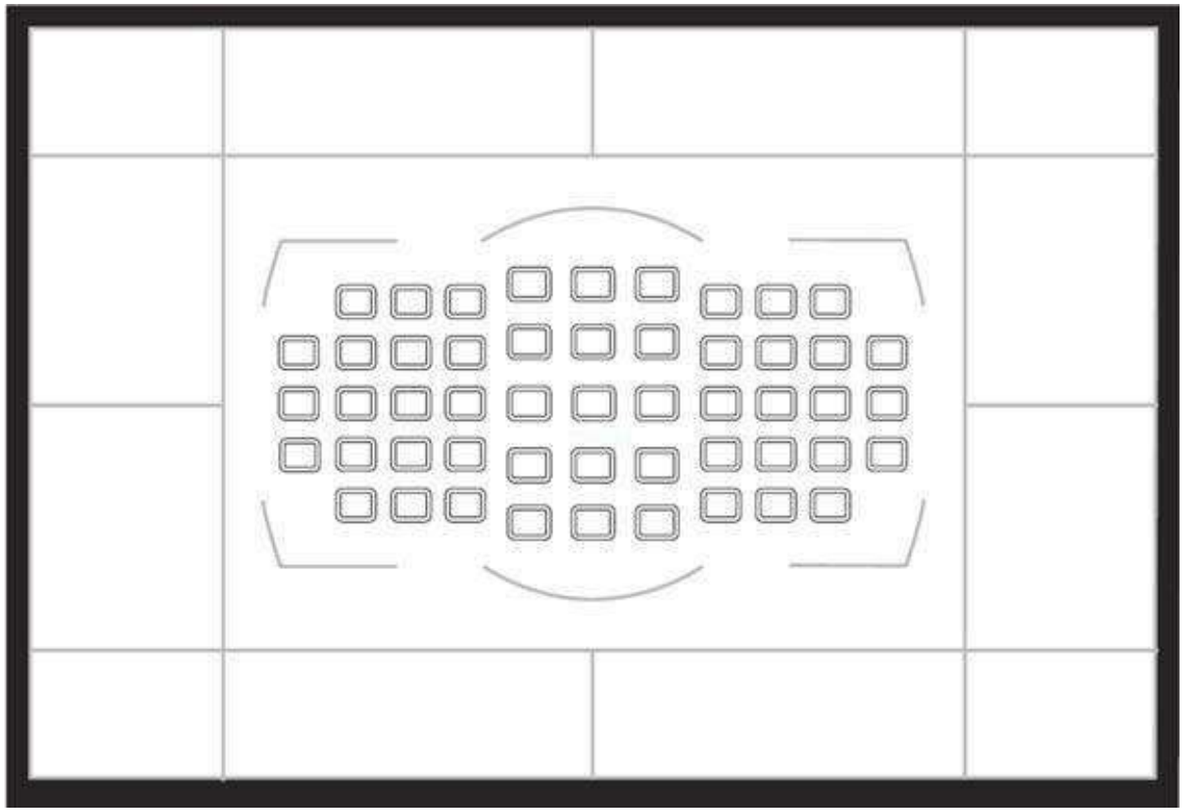

This figure is an example of what your viewfinder display may look like.

AUTOFOCUS POINTS

When you look through the viewfinder you see whatever your lens is aimed at, but on the viewfinder display you also see the camera's focus points. Their exact appearance and arrangement will vary by camera manufacturer and model; there will also be some variation according to what AF mode you are using. Furthermore, the number of autofocus points you see will depend on how sophisticated the camera is. Entry level DSLRs, for instance, may have as few as 7 points, while higher-end DSLRs with considerably more complex focusing systems may have more than 50 autofocus points. There are a number of mirrorless cameras that boast upwards of 100 autofocus points.

Each AF point is one of two types: vertical type or cross-type. Autofocus sensors of the vertical variety detect differences in contrast only along the vertical axis of the area on which the AF point is placed. Cross-type AF sensors are more accurate because they detect differences in contrast along both the vertical axis and horizontal axis. Most cameras contain a mix of these two kinds of sensors. Basic DSLR models will typically feature one cross-type AF point as the center point, with the remainder being the standard vertical type. As you work your way up the ladder of camera sophistication, the number of cross-type points increases as does the accuracy and responsiveness of the overall AF system.

AUTOFOCUS MODES

Not only do digital cameras make focusing faster and more accurate than their analog predecessors, they also provide a great deal of AF customization designed to be adaptable to the characteristics of the scene/subject you are shooting. Once you've learned the options that are available to you, you will be well on your way to new heights of photographic efficiency.

- **Single Shot AF** - This is the mode you will want to use for stationary subjects such as portraits (people or animals), flowers, architecture, cars, or landscapes. By pressing the shutter button halfway, the camera will meter the shot and lock focus on the AF point that you choose, so long as the subject stays at that selected point. If the subject moves, focus will not be acquired and if you try to press the shutter button completely no shot will be taken.

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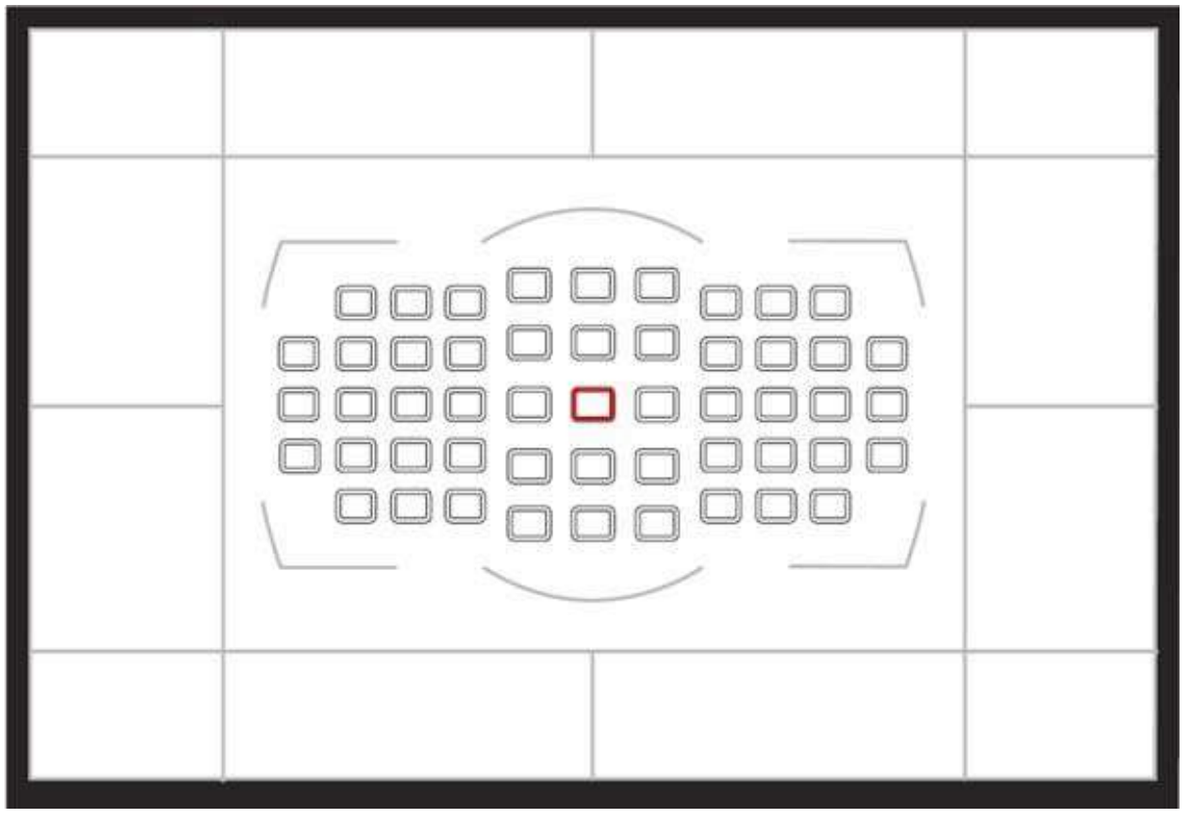
- **Continuous/Servo AF** - This mode works by using the AF point that you choose to continuously focus on a subject while you keep the shutter button pressed halfway. As you might have guessed, continuous AF is the perfect solution to focusing on moving subjects such as your kids running around the yard, birds in flight, or anything else that is on the move. You would also use this mode for the panning technique, in which you track the motion of a subject with your camera to convey a sense of movement.

- **Hybrid/AI Focus AF** - This mode is ostensibly the best of both worlds. Under this setting the camera will automatically choose single shot AF if the subject is not moving. However, if the subject moves, the camera will switch into continuous AF mode as long as you keep the shutter button pressed halfway and follow the subject's movement with the selected AF point. More experienced photographers often find that hybrid AF isn't as intelligent as it is made out to be by camera makers; in fact, this hybrid AF mode is missing from some high-end/professional DSLR models.



This figure shows how a viewfinder looks when Single Point AF is selected. In this example, the camera will use the focus point in the center, but you can manually choose any of the other focus points. With Dynamic/Expansion AF, more focus points are highlighted in a cluster.

AUTOFOCUS AREAS

To further refine the autofocusing process, your camera allows you to specify exactly how you want to use your selected AF point(s) within a given AF mode. Let's take a look at the most commonly available AF areas.

- **Single Point AF Area** - This AF area is pretty self-explanatory: the camera will use only one focus point, chosen by you, to achieve focus. This technique works best for stationary subjects.

- **Dynamic/Expansion AF Area** - In this mode you choose one AF point, which the camera will use to acquire initial focus. If your subject moves, the camera will automatically use one of the surrounding AF points to track the subject and keep it in focus. Of course, you will need to move your camera along with the subject to keep it within the focusing area. This AF area is best when you want to keep focus on a specific point, but allow yourself some breathing room when tracking fast moving subjects such as birds in flight.

Photo by C.P. Ewing
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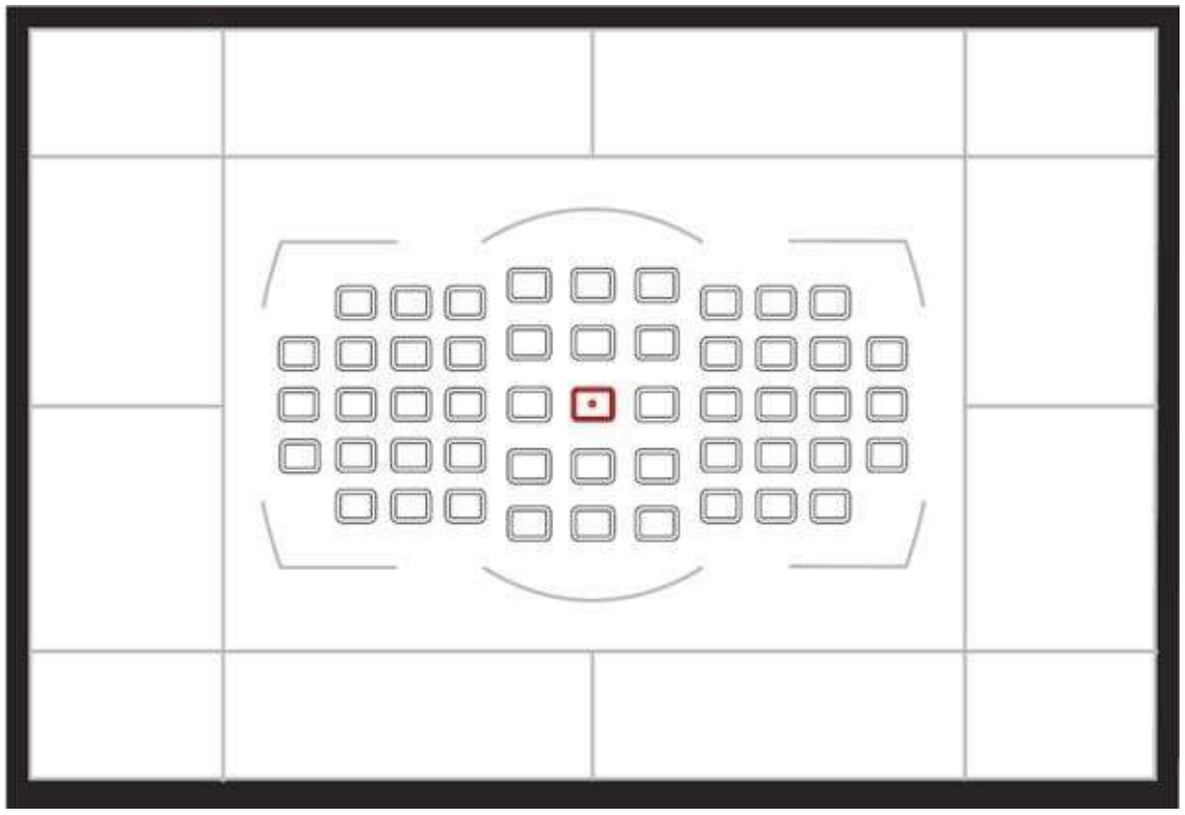

This figure is an example of how a viewfinder looks when Spot AF Area is selected. In other viewfinders, only the dot is highlighted.

- **Spot AF Area** - This mode uses the AF point of your choosing and incorporates a smaller, more concentrated point used to achieve precise focus on a very small portion of a subject. If you are doing macro photography, particularly with subjects that aren't moving and exhibit tiny details, the spot AF area will help you get sharp focus.

Remember that different camera manufacturers will use different names for the various AF modes and areas, and not all features will be available on all cameras, so be sure to consult your camera's user manual for specific details.

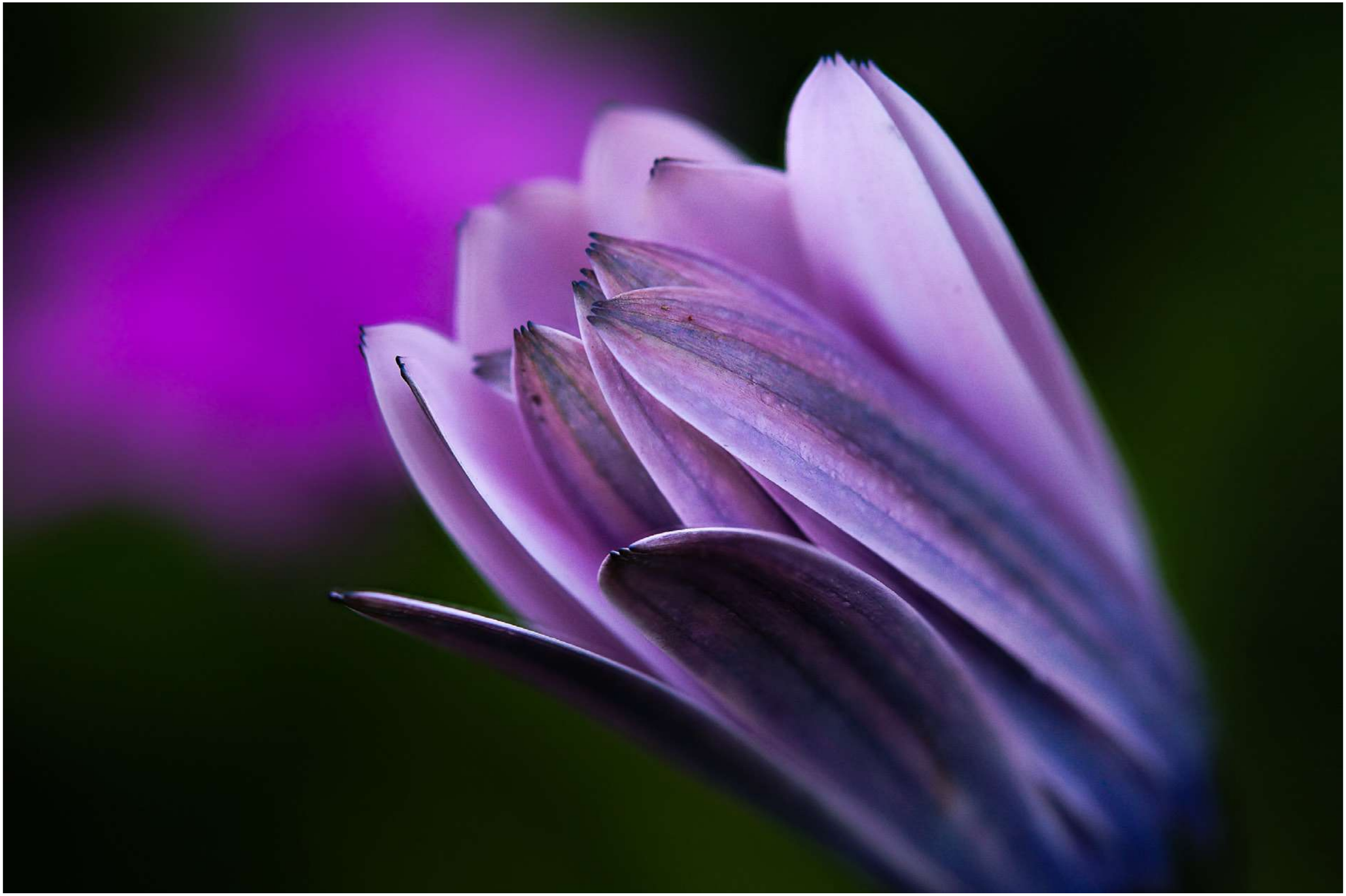

Photo by Gabriel Gonzalez
https://www.flickr.com/photos/gaby1/16247807595/

Photo by Tony Webster
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LIVE VIEW

Live view is a feature that allows you to use the rear LCD as a viewfinder. This is the standard means of operating for point and shoot cameras and cellphone cameras as they don't have a traditional optical viewfinder. This also broadly applies to mirrorless cameras, though many include an electronic viewfinder designed to take the place of an optical viewfinder. Virtually all DSLRs manufactured since about 2008 feature the live view function, though this is not the primary means framing and focusing a shot. The optical viewfinder remains the chief method for DSLR users.

Live view does, however, serve as an extremely valuable option for DSLR users. When autofocus isn't successful, the prevailing advice is to turn to manual focus so that you control the operation yourself. But there are times when even manual focus is an ordeal. Live view can be useful for achieving focus in challenging scenarios due to its ability to magnify subjects. Using live view in tandem with manual focus can often make the difference between sharp and almost-sharp images.

Do not hesitate to use your live view function whenever you need it.

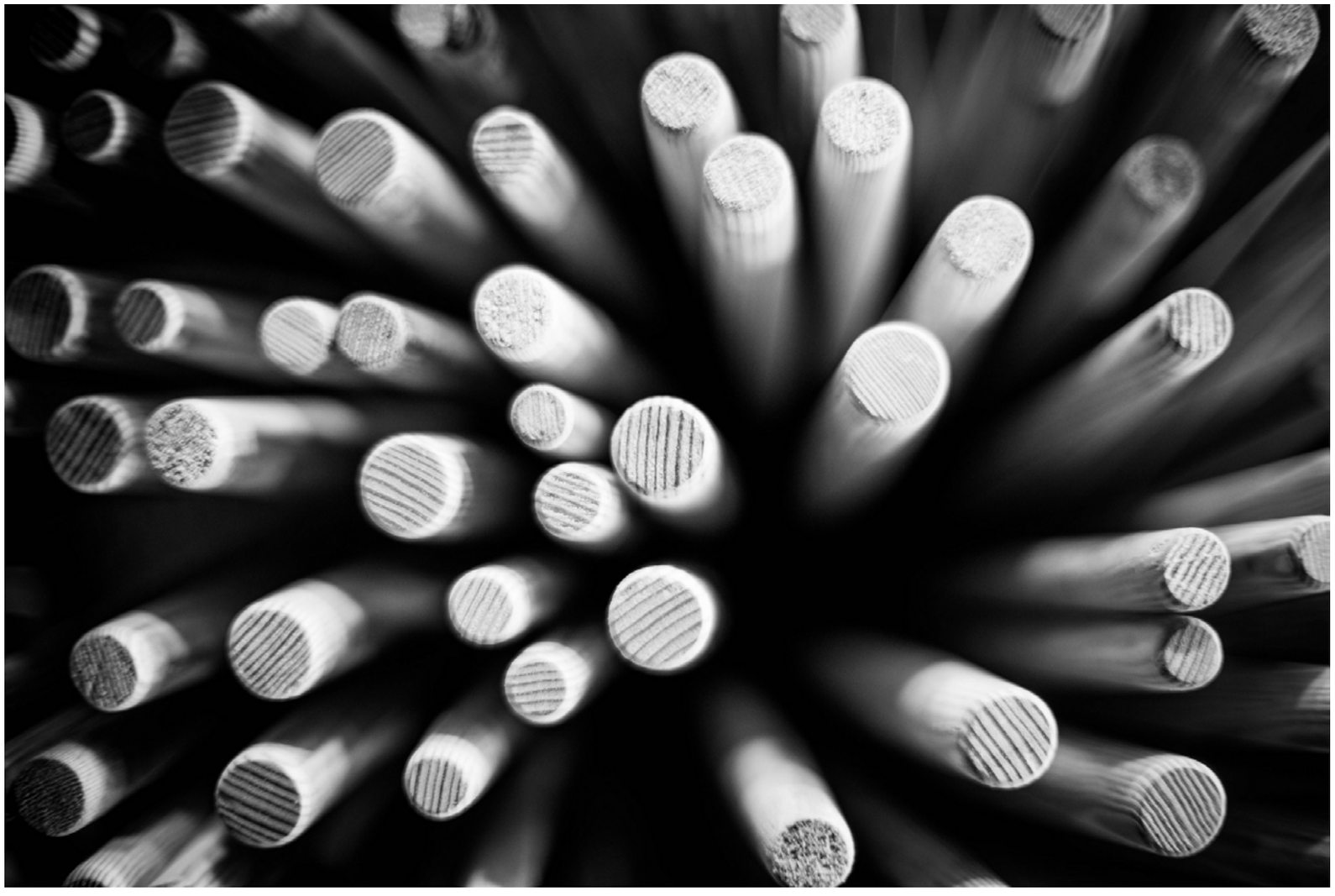

Photo by Spiros Vathis
https://www.flickr.com/photos/vathis/15377265024/

Learning all the autofocus methods available to you will be a boon to your photography experience and will have a significant impact on your photos themselves. Once you're comfortable with the fundamentals of focusing, you can harness those principles and use them in all sorts of creative ways. All it takes is patience, practice, and perseverance.

Note: If you want to avoid boredom and repetition in your photography, you can inject some creativity into your work, by using the fun and challenging assignments in our Creativity Catalog. Go here now to take a look.

Hey there!

Let's get real for a minute... Learning photography can be super challenging! But we're here to help you every step of the way! Here are 3 of our most useful *(and FREE!)* photography resources:

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About the Author

Jason D. Little is a photographer (shooting macros, portraits, candids, and the occasional landscape), part time writer, and full time lover of music.
You can see Jason's photography on his *Photography Blog* or on *Flickr.*

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