

Mastering MANUAL MODE

Module 3 Aperture

Aperture

Aperture Special Function

I mentioned earlier that each of the three key functions for manual mode - that is shutter speed, aperture and ISO - also has its own special characteristic. The secondary effect of manipulating aperture is probably the most coveted characteristic of manual mode for food photography.

The special characteristic that aperture controls is the area of focus. That is the amount of the image that will be in sharp focus, versus the amount of the image that will be blurred or out of focus. This feature is particularly important in food photography and mastering manual mode is key to be able to select the area of focus yourself.

The term for describing this characteristic is depth-of-field. Generally, people find the term 'depth of field', quite confusing. It actually has the same meaning as the phrase area-of-focus, so today rather than using the term depth-of-field, I'm going to say area-of-focus instead because I find that using that terminology helps people to visualise what I'm describing much more clearly. This is my own special term, not an official one! So, just be aware that area-of-focus and depth-of-field are the same things in the context of what I am describing in this module.

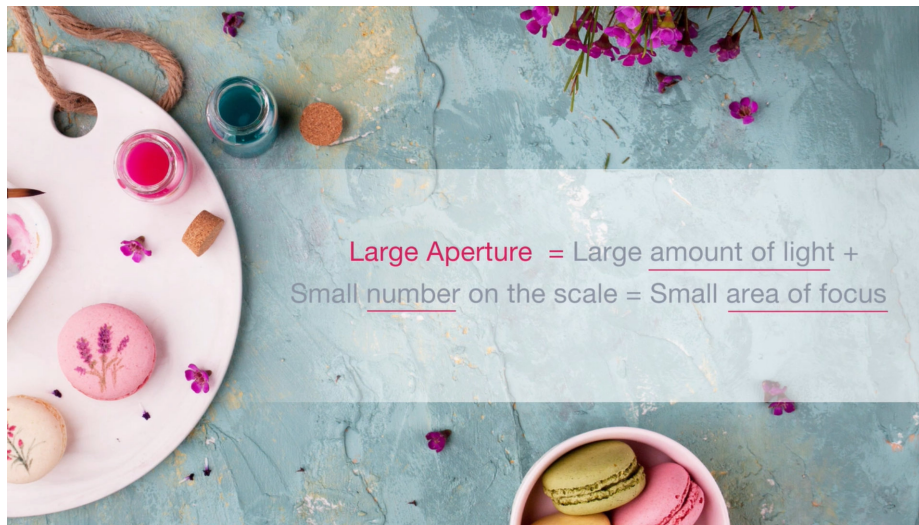
As I mentioned in the last video, the most challenging part of aperture is comprehending the aperture scale.

I have come up with a formula of sorts, to help you to remember the relationship between area of focus and aperture size is; (are you ready for it, this is important!)

A small aperture which lets in a small amount of light - offers a large area of focus and it also has a large number on the scale.



A large aperture which lets in a large amount of light - offers a small area of focus and it also a small number on the scale.



If you can commit this concept to your memory you will be well on your way to mastering manual mode for food photography.

Lens limitations

Being able to control your aperture and the associated area of focus is one of the most important elements of manual mode, particularly for food photography. However, unfortunately not all camera lenses are equal and not all of them have the same range of functionality. This will particularly be true of kit lenses that you'll often buy as part of a package or a cheap addition, with your new camera.

If we discuss a kit zoom lens as an example, you will find somewhere on the lens, it will have printed something like 1:3.5 to 5.6. What this means is that the maximum aperture it's capable of expanding to at the minimum zoom level is 3.5. And at the maximum aperture that it can expand to at full zoom is only 5.6!



If you have a more expensive lens it might say something like 1: 2.8. This means that the lens has the ability to open to a maximum aperture of f2.8 regardless of the zoom level.



So the reason for this is because when less expensive zoom lenses are being produced, to keep the costs down, they have to make compromises within the functionality of the lens. And unfortunately, producing the ability for an aperture to open fully is an expensive and complex function to produce. So by limiting the maximum apertures that cheap zoom lenses can expand to means that they're actually able to provide the lens at a very economical price and get you set on your way to learning how to use them without parting with truckloads of cash.

But once you get to the point where you're wanting to work with manual mode, you'll probably get frustrated quite quickly when you discover that you can't actually use a lot of the larger apertures with your less expensive lenses. And this is when you might start eyeing off some more expensive lenses and realise that they are significantly more expensive a lot of the time.



But of course, those beautiful images with limited areas of focus, result from being able to use large apertures. This is often what new photographers would really like to be able to achieve. So here again, I'd like to refer you to an article that I have written on my website, all about selecting lenses specifically for food photography. If you haven't read it already, it will really help you understand more about lens options and

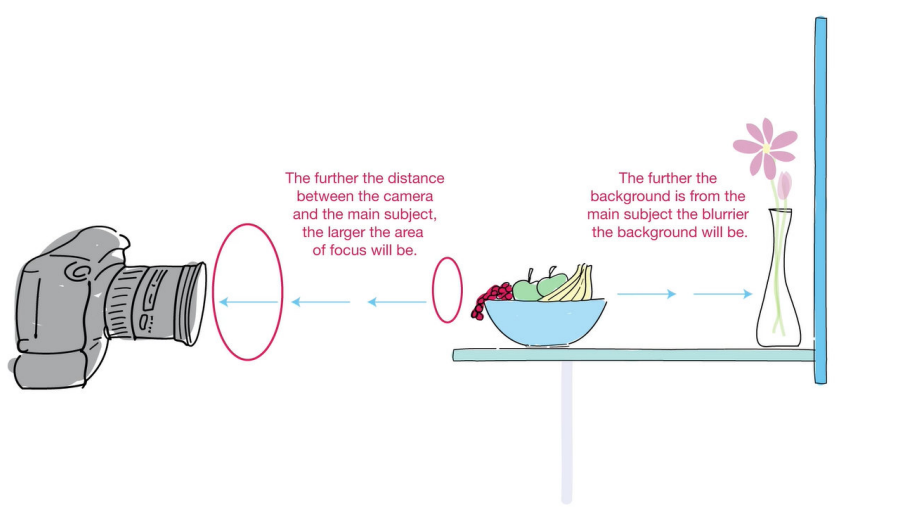
it also it gives suggestions for the kind of lenses that you can upgrade to when you're ready. The link is in the module notes below.



If you are not ready to buy a new lens you can still shoot with the maximum available aperture and blur additional parts of your image when you're editing. This isn't the ideal of course, because software generated blur will never look quite as good, but it's a reasonable 2nd option until you're ready to get a new lens.

Other things that affect area of focus

There are other things as well as the aperture value that affect the area of focus in your image. The aperture setting is very significant of course, and we've just discussed how the larger the aperture is, the larger your area of focus, but another important thing that you need to consider is distance. Both the distance of your subject from the background and the distance of your camera in relation to your subject. The further that your subject is from the background, the more out of focus the background will be.



The closer you are to your subject, the less area will be in focus, regardless of the aperture. For example, quite often the first new lens that aspiring food photographers purchase after using kit lenses for a while, is like a 50mm, f1.4 aperture lens, and they get all excited because they finally have the opportunity to use larger apertures and they open it wide up to 1.8 and then they take some closeup photographs and they're all excited because they can see beautiful results on the little preview screen on the back of their camera. But then they pull the images up on the computer and find that not only is the background out of focus but actually, the only thing in focus is one tiny area, like just the sesame seeds on top of a burger bun, certainly not enough to make a pleasing image.



And the reason for this is that when you're shooting a food image with a very large aperture, and you position yourself very close to the subject, your area of focus is actually going to be very small. Maybe only a matter of a few centimetres or an inch or so.

As a test, if you stand further back but maintain the same settings in the camera and take the same picture again you will see a lot more area in focus and you can then crop that image in and compare it to your original image. You will see how significant the impact that your physical distance from your subject has on the area of focus.

The other important factor is the distance from the background. So we need to also do an experiment with your subject close to the background and then, maintaining the same settings in the camera, move it a good distance away from the background until you can see how dramatic that difference can be.

Focal length and area of focus

The final thing to consider when it comes to area of focus is your focal length. I talk a lot more about focal lengths in the bonus section of this course. But briefly, when you have a short focal length, there will be a larger area of focus than if you are using a lens with a long focal length.

This relates to the distance between you and your subject again, but this time it's the distance between the beginning of your lens and the camera sensor that matters. So for example, if you shoot something using a 50 mm lens, and then you shoot the same thing using a 200mm lens - using the same camera setting – with the 200mm you will have to physically move much further back to frame the same shot and then you'll see that the background elements are much more out of focus despite the fact that the aperture setting is still the same. So by default you're not only increasing the area of blur by using a longer focal length, you're also increasing it by moving your physical position, and by using a lens with a longer focal length.

