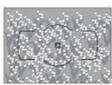# Focussing the Camera and Composition

How did you go with the exercises on shutter speed and aperture from last lesson, did you notice the results of the different settings? These are good exercises to practice until you know them backwards. Now let's get sharp images with focusing the camera.

We have seen how to get correctly exposed images with the correct combination of ISO, shutter and aperture settings. The next setting we have to learn is focussing the cameras lens. OK, I can hear you from here "my camera has auto focus". So again my answer is how can the camera know what part of the image YOU want to focus on? As seen in the excerpt from the Nikon D7000 users guide below, the auto focus is not suitable for all conditions.

In this unit you will need to check your user guide to find out how to use manual focus with your camera.

All that can be done by the camera is to try and average out the subject. However it might have face recognition built in and be able to focus on a person's or people's faces, but even so, what person did YOU want to focus on. So, here we go again, turn OFF the auto focus and use manual. Sure, AUTO will work fine for a lot of your images but I find that I use manual focussing about 50% of the time.

To correctly manual focus involves using the zoom feature of the lens, zoom into the subject, i.e. make the image as large as possible with the zoom ring, even if you just have a persons eye showing in the viewfinder, then adjust the focus ring on the lens to make it as sharp as possible, then without touching the focus ring, zoom back out to compose your image and shoot.

With sporting events that use a track, or apparatus that is stationary, it makes it easy to use manual focus, focus on the apparatus, or a point of the track that the competitors must pass and then use the panning method I mentioned previously and take the shot when the competitor gets to the focus point. Panning is a technique where the photographer gets the subject (the jet car in this instance) in the viewfinder as early as possible, and using his body follows the movement of the car pressing the shutter release at the point previously focused on, and then follow through. Much like the follow through of a tennis stroke, the follow through is just as important as the lead in. This image below was taken with the ISO set to 400, and a shutter speed of 1/60 second, the camera's exposure meter set the aperture to f4.0.

The result shows that there is movement blur to the background which has just enough detail to set the scene with being distracting, and even at such a slow shutter speed by pre-focusing on that part of the track, then panning the camera keeping the jet car centred in the viewfinder I released the shutter when the jet car got to my focus point. The panning rendered the jet car quite sharp and without movement blur.

The opposite would have happened if I kept the camera still and took the photo as the car went past, even with a very high shutter speed there would have been a lot of movement blur in the car, the background would have been very sharp and the blur of the car would have blended into the background. This would not have produced a good result because the car is the main point of interest and needs to stand out from the background.

Also, using auto focus here might result in the auto focus system not working fast enough causing you to miss the shot. Manual focus is often used in very low light conditions such as night scenes as some auto focus systems will find it difficult to locate an object to focus on, as seen on the chart in the previous unit.

I think I may have mentioned it before, but it is so important, I want to state it again. When photographing people or animals, it is vital that the focus is on the eyes, the eyes have to be pin sharp, this might mean that the auto focus could let you down, as it will be scanning the whole image and possibly try to average the focus out with some other object, causing the eyes to lose some of the sharpness. To focus on the eyes with manual focus, zoom the lens to enlarge the image as much as possible, then concentrating on the eyes make them as sharp as possible, then zoom back out to frame the image.

So like other auto functions in your camera, do not rely on auto focus for all you shots, even today I had a problem where I wanted to take a photo of a person quite a long distance from me, as I could not avoid some close tree branches coming into the frame, the auto focus wanted to focus on them, so I had to get off auto focus and manually focus on the person.

Composition
Here is a good time to look at composition in images. Composition rules in photography consist of leading lines, rule of thirds, items of distraction, balance and story telling. There are some rules for composition and, as with all rules, they can be bent or broken. However, one has to know the rules to start with and practice. The first, and the most well known rule is the 'Rule of Thirds'. This is where the image is divided into three, both horizontally and vertically.

The image above shows that our skier, the main point of interest is situated about the intersection of the thirds. It is assumed that the four intersections are the most powerful place for the main subject. Some camera viewfinders have these lines showing as a help in composing the image. More examples are shown below.

A corollary of this rule is to try to avoid putting prominent objects in the centre of a scene unless there is a specific reason for doing so, It helps to add interest if a scene is slightly asymmetric, but don't go too far - try to keep some balance. A couple of examples of bad composition are shown below. They could have been improved by changing the shooting position slightly.

Also watch out for is the position of the sun or other bright light. If you are outdoors and the sun is behind you then be aware of your shadow appearing in the foreground. If the sun is in front, don't aim too close to the sun otherwise there is a risk of internal reflections in the lens assembly appearing in the image.

Another important compositional tool is Leading Lines. These apply mainly in landscape photography and are natural lines like fences, rows of trees, roads, paths etc. that leads the viewer's eyes into the image. An important factor with leading lines is that ideally the leading line leads to a main point of interest. Try not let the viewer's eye wander around the image without finding a main point of interest. The image seen below shows the road and lights from passing motor cycles leading your eye into the image.

Now we add another factor, 'Flipped' images. Can you tell me which one of these two images is correct? No you can't, unless you are familiar with this part of Male in the Maldives. Flipping an image can have benefits to the viewer. Sure, you will always know the correct image, however, to the viewer, we are conditioned to read from left to right, unless you come from a country where they read from right to left. Now the leading line change can our impression of the image. It seems more normal in our eyes that the image on the right is better as the leading line travels in from lower left to upper right. Whereas the first image our eyes have to lead in in a way that is not as comfortable. Most image manipulating software allows you to flip horizontally at the click of a button. Of course, one has to be very careful that there are no street or advertising signs in the image otherwise the writing on them will give your game away.

So here is our great shot of the cockpit area of an aircraft, we have the leading line, the line of the aircraft's fuselage going from lower left to upper right, eh, good shot, yes! NO!! The dead give-away is the sign just below the cockpit window, the writing is mirror reversed. Other give-aways are watches on the wrong wrist

or wedding rings on the wrong hand, also, world known landmarks, there is no way you could get away with flipping a shot of Sydney's harbour bridge with the Opera House in the background, it would be too obvious.

Here are some more examples of leading lines:

Other things to avoid are distracting backgrounds; it is easy to see the difference in the two images below - there is far too much in the background of the first image and viewers' eyes are drawn to the items in the background, away from the competitor.

The sign and other gate are bad, and the official is much too close to the jumper IF you needed him in the image. Notice how in the second image your attention is kept on the jumper as there is nothing else there. Just a pity he was going in the wrong direction, if he were to be jumping towards the camera it would have been great, could have got a facial expression like the following white water shot. My only fault with this shot is the unnecessary red pole in the background, but that can be eliminated with good software; we will look at that in a later lesson. Be wary of your backgrounds, light patches, even if they blurry and out of focus are a big distraction, the viewer's eye will always be drawn to light patches in the background and should be avoided. Remember, if it is in the image it has to be a part of the story, if it is not, then it should be eliminated where possible through cropping, re-framing the image before shooting or correcting in post processing with software.

A feature of this shot is of course the facial expression, this was only one shot out of about 500 taken over a two hour visit to the event. As every competitor came down I was using continuous shooting, taking about 20 – 30 shots as they went past. Remember, it does not cost any more to take 1000 photos as it does to photograph 10 photos. So in situations like this take many shots, and delete the ones you do not want, that way you will find one with that right expression on his face, or the timing is better etc.

With composition, take notice of other peoples images, in particular photos in advertisements, magazines, newspapers etc. and try to analyse them, see if you can work out what the photographer wanted you to see, were there any distractions etc. The viewers eye is normally drawn to light areas in an image, so if you had taken a portrait of a loved one, make sure they are against a darker background and that there are no light or white patches behind them.

HOMEWORK

This weeks homework is to take images with the camera on auto focus and also take some with manual focus, get used to focussing the camera. Take images that have a foreground as well as a distant background, then see how the auto focus handles them, and then with manual focus, focus on nearby objects and take an image then focus on the distant background and take an image.

Next lesson we will look at using flash and artificial light and tripods.