

Depth of Field

All Photographs will have a certain amount of depth of field. Unless they are intentionally blurred by the photographer trying to show the effect of movement or blur!

A definition of the term *Depth of Field* could be:

'The 'zone' that is acceptably sharp in an image.'

In other words, this could be the distance between the nearest and farthest points that appear acceptably sharp in an image.

Depth of field varies with and is controlled by the following factors:

Lens aperture: f 2.8 gives a small depth of field whilst f22 produces a greater depth of field. Therefore, a **smaller** number (f2.8) produces **less** the depth of field. A **large** number (f22) produces **more** depth of field.

Focal length of the lens: A wide angle lens for example an 18mm lens will produce more depth of field than a telephoto lens 100mm, 200mm and so on. It could be said that the longer the focal length of the lens the shorter (or less) the depth of field. The wider the lens the greater the depth of field.

Camera-to-subject distance: Subjects close to the camera will have less depth of field than intermediate and distance images. Even at small apertures.

A working knowledge of the creative use of depth of field can be utilised to create some interesting images. Form example a 'short' depth of field could be used to throw part of the image out of focus.



A small aperture gives you greater depth of field.

The greater depth of field brings the subject in the background into focus. An aperture of f22 was used.

A large aperture produces a shorter depth of field.

A large aperture lets you throw the background subject out of focus. An aperture of 2.8 was used.





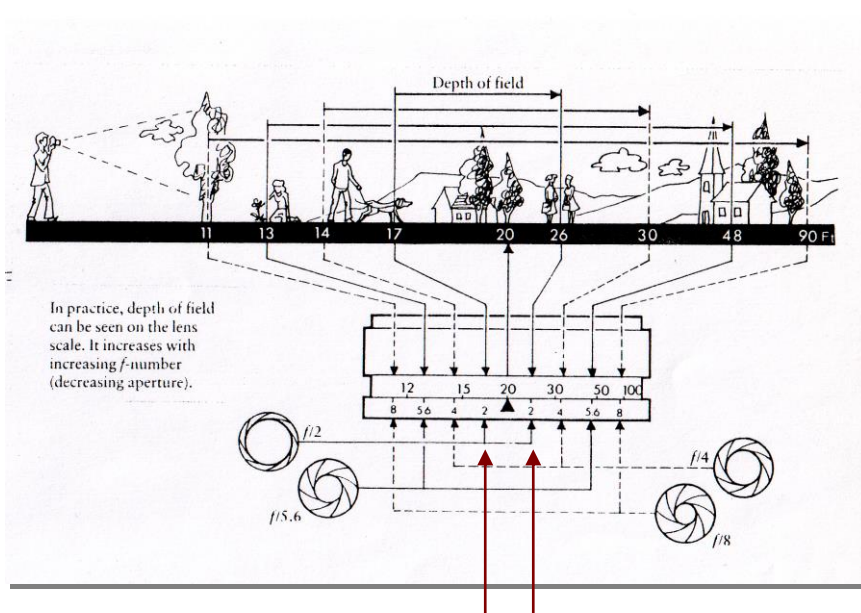
What do you notice about this image? Compare it with the image below. What are the differences?

Add your notes below.



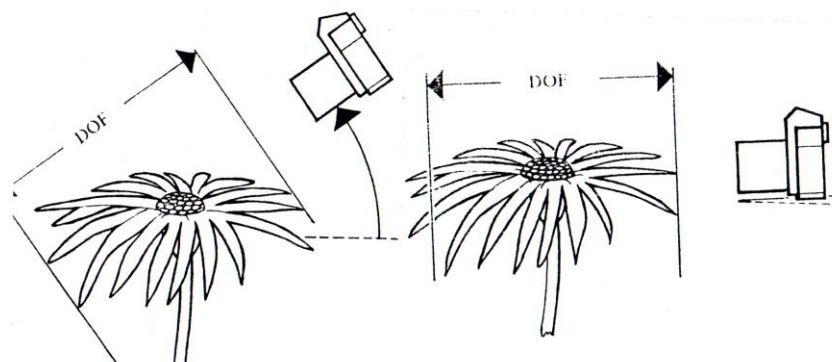
Notes:

Depth of field

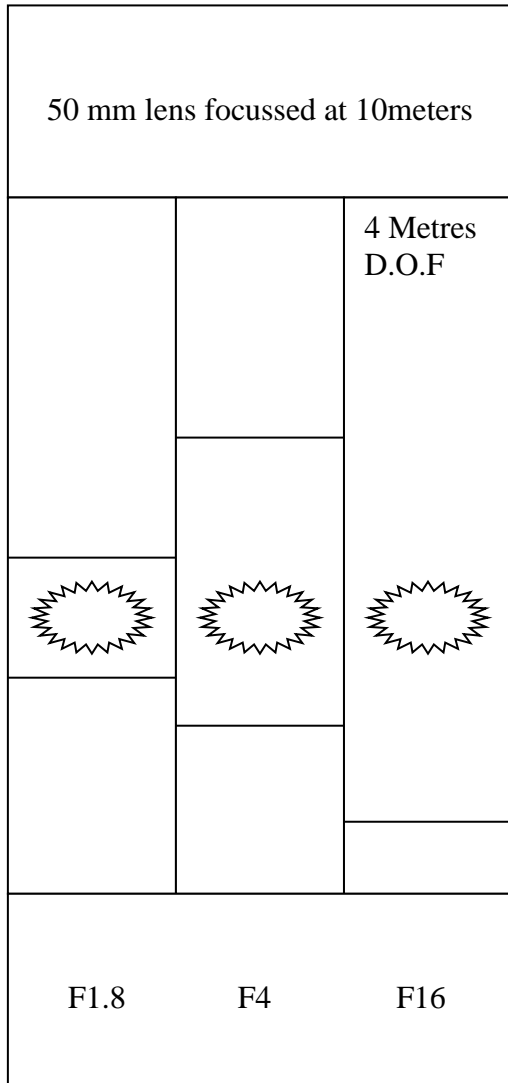


The diagram above shows the increase in depth of field from f2.8 to f8. Some lenses have a depth of field scale showing the amount of depth of field for the focussing distance and the aperture selected.

The lens is focussed at a distance of 20ft and at an aperture of f2 the depth of field is from 17ft to 26ft. as the lens is stopped down the depth of field increases.



Depth of field decreases as the lens is focused at close distances. The above diagram shows that by tilting the lens the whole of the flower is in focus.



This diagram shows the increase in depth of field as the lens is stopped down from f1.8 to f4 and then f16. The point of focus remained the same.