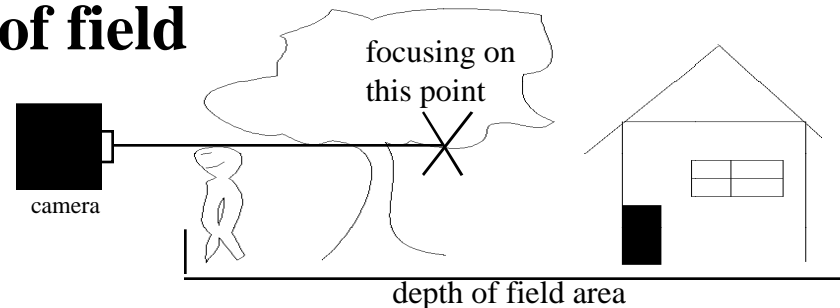


Assuming a normal subject brightness range, here are the effects of exposure and development on a negative and a print:

<i>If the negative is :</i>	<i>Underexposed</i>	<i>Normally Exposed</i>	<i>Overexposed</i>
<b>Under Developed</b>	<b>Negatives:</b> thin overall; lacks density in both shadows and highlights <b>Prints:</b> low contrast; little or no shadow detail	<b>Negatives:</b> good shadow density, but thin highlights <b>Prints:</b> low contrast with full detail in both shadows and highlights	<b>Negatives:</b> somewhat dense overall; but adequate density in both shadows and highlights <b>Prints:</b> low contrast; good range of tones; possibly some reduction in sharpness
<b>Normally Developed</b>	<b>Negatives:</b> thin overall; lacks shadow density <b>Prints:</b> low contrast; or no shadow detail	<b>Negatives:</b> good overall density in both shadows and highlights <b>Prints:</b> average contrast with full detail in both shadows and highlights	<b>Negatives:</b> too dense overall; plenty of shadow density, but highlights may be blocked up (opaque) <b>Prints:</b> usually average contrast; full detail in shadows, although highlights may be too bright; likely to have increased graininess and reduced sharpness
<b>Over Developed</b>	<b>Negatives:</b> good density overall; but lacks shadow density <b>Prints:</b> high contrast with little or no shadow detail; probably increased graininess	<b>Negatives:</b> full shadow density but highlights are too dense <b>Prints:</b> high contrast; good shadow detail but highlights may be too bright; increased graininess and probably reduced sharpness.	<b>Negatives:</b> very dense overall; may have blocked up (opaque) highlights <b>Prints:</b> contrast normal or low; full shadow detail; but highlights are too bright; very grainy and reduced sharpness

## Depth of field

Depth of field refers to the following situation. You have focused on a certain subject. you notice that certain other objects both in front and behind the subject are also in acceptable focus. This area in front and behind the subject is referred to as DEPTH OF FIELD:



DEPTH OF FIELD is controlled by three factors:

- (1) **focal length of lens** - long focal length of lenses (telephoto) tend to have short depth. Short focal length lenses (wide angle) tend to have long depth.
- (2) **f-stops** - small lens openings (large f-number) have large depth of field while large lens openings (small f-number) have small depth of field.
- (3) **camera to subject distance** - when the camera to subject distance is great, then the depth of field is great; when the camera to subject is short; then the depth of field is small.

As you can see by manipulating these three factors, it is possible to cause the background or foreground in a photo to be sharp and thus relevant to the picture, or out of focus and more or less irrelevant to the photograph. When the foreground and background are out of focus the subject of the photo becomes the main and only part of the picture that draws the eye of the observer. When the foreground and background are in focus they become important elements of the photo and compete with the subject for the attention of the observer. This is a very important concept in the composition of the photograph.