

# “Zones” from Black and White Photography to Digital

N. David King

**Simple Definition:** In the film world a “Zone” is the gray value derived on a print from a one-stop change in exposure on the negative. For Digital Photography it is simply a reference point for the typical luminosities/grey values found in good full range photographs.

ZONE #	DESCRIPTION	8-Bit Value
0	Pure Paper black (“D-Max”) on Fiber Paper. (Different paper and different emulsions can reach a different level of “black” or “D-Max”)	
I	Last visible tone before paper black on fiber paper. Paper black on RC paper.	0
II	Very nearly black. Very dark object but with sense of volume and space.	31
<b>III</b>	<b>The DARKEST tone that still renders detail or texture.</b> Shadows under bushes. Black hair or fur.	<b>55</b>
IV	Medium dark. New blue beans. Average Dark foliage. Brown Hair	86
<b>V</b>	<b>Middle Gray. The same gray as an 18% Gray Card. This is the tone your calibrated meter assumes it is reading and which its reading will reproduce.</b> If you read any tone in your subject and make an exposure based on that reading, what you read will be this shade of gray on your print. Also typical of weathered wood, Grass in sunlight. Most Black Skin.	<b>128</b>
VI	Light Grey. Average Caucasian skin (not highlight or shadowed). Concrete sidewalks. Light weathered wood.	170
<b>VII</b>	<b>The LIGHTEST Tone that still renders detail or texture.</b> Very delicate values. Blonde hair. White clothes. Snow with texture. White textured wood.	<b>212</b>
VIII	Very nearly white. Very light object but with some sense of tone to give feeling of volume and space. White paper. Smooth white painted wood. Snow	244
IX	Lightest visible tone on fiber paper. Paper white on RC paper.	255
X	Paper White on fiber paper.	

In the Film world these Zones are achieved through a combination of exposure (for dark tones) and development (for lighter tone). In the Digital world, the “Curves” dialog with the grid in 10-step mode indicates incoming and outgoing tonal values and can be adjusted to desired values. Remember however, in the film/analog world the characteristic curve is an “S” curve but in the digital world, the starting point is a linear distribution of tones. To recreate the film world’s sense of contrast and “snap” that straight line curve needs to be modified.