

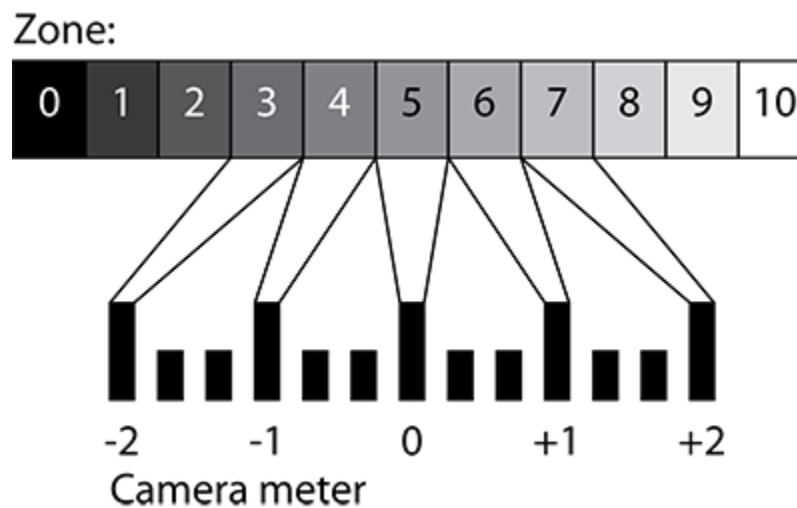
# Nick Miners Photography

Thoughts And Bloggings

## THE ZONE SYSTEM

What I'm going to try now is the first in a series of little lessons, where I'll show you some aspect of photography of which the average point-and-shoot snapper may not be aware. Hopefully if you put these lessons into practice you'll be able to achieve the sort of photographs you've always wanted to. Let me know if I sound too patronising; that's not my intention at all.

The zone system was developed by the American landscape photographer Ansel Adams, and the principle is simple. A camera can 'see' a more limited range of brightness than the human eye, so it needs to be adjusted to take into account lighting conditions. Most cameras try to render a scene so that the overall lightness is what's known as 18% grey, or exactly half way between pure black and pure white. If we number these brightnesses, 0 for pure black, 10 for pure white and 5 for 18% grey, then by filling in the numbers in between we have the 11 zones of the zone system. Each zone is 1 stop brighter than the previous one.



*The zones mapped to an exposure meter*

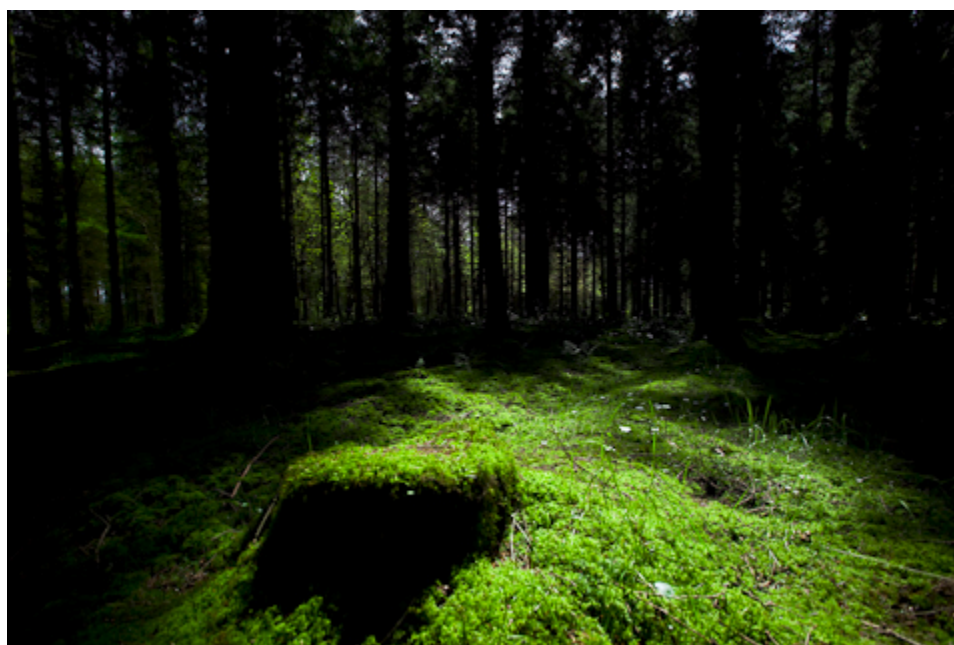
Most modern SLR cameras, digital or film, allow you to over- or underexpose by up to 2 stops in auto or semi-automatic mode, which can be limiting, so the first thing to do when using the zone system is to switch to full manual mode. The next thing to do is to set your camera to spot metering mode; refer to your camera's manual if you're not sure how to do this. You are now equipped to try the zone system.

Each zone has a description of what it represents:

- 0 – Pure black
- 1 – Near black, with slight tonality but no texture
- 2 – Textured black; the darkest part of the image in which slight detail is recorded
- 3 – Average dark materials and low values showing adequate texture
- 4 – Average dark foliage, dark stone, or landscape shadows
- 5 – Middle gray: clear north sky; dark skin, average weathered wood, grass
- 6 – Average Caucasian skin; light stone; shadows on snow in sunlit landscapes
- 7 – Very light skin; shadows in snow with acute side lighting
- 8 – Lightest tone with texture: textured snow
- 9 – Slight tone without texture; glaring snow
- 10 – Pure white: light sources and specular reflections

What you need to do to apply it is to find a key part of your photograph that you can assign a zone to, then set the exposure accordingly. In the illustration above, I have mapped the camera's exposure meter onto the middle 5 zones, but that does not mean you are limited to just these zones – by using full manual mode you can go beyond these zones but you need to count!

Now let's take an example. Suppose you are in a forest on a sunny day, where the grass on the floor is partly lit by sun and partly in shade. The most effective way of exposing such a scene is to meter on the sunlit grass, and the rest will take care of itself. Point your camera's spot metering zone at the grass so that the grass fills the metering zone, and adjust the exposure so that the camera says '0' – i.e. perfectly exposed (or zone 5). You can then recompose, and because the camera is on manual, the exposure will not be affected. The result will be something like this:



A camera set to full auto would have seen the silhouetted trees in the background and overexposed by a stop or two, to look something like this:



Note how the vivid green in the foreground in the first picture has been bleached out, and the stump is not as isolated as a feature as it was.

Generally you will be able to find a part of your picture that fits within zones 3-7 so you can see your camera showing you how far over- or underexposed you have made it. However if you want to venture further into the more extreme zones, here's where you need to count. To expose for zone 2, set the exposure to underexpose by 2 stops, then decrease the aperture or the shutter speed by 3 more clicks of the wheel (if your camera meters in 1/3 stop increments, as in the illustration above) or 2 more clicks (if 1/2 stop). For zone 1, use 6 or 4 clicks, and 9 or 6 for zone 0. To achieve a silhouette, for example, you should ensure the object you want to appear in silhouette is at zone 2 or below, but bear in mind that you may lose detail in the background if it is not bright enough, so take another reading from the background to ensure that you keep it in zone 5 or higher. If the contrast between the background and the object isn't great enough, you probably won't be able to achieve a perfect silhouette.

I hope this has all made sense; by all means look on the internet for more about the zone system and how a camera meters, but if you do get any good results using this system I'd love to hear from you.

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This entry was posted in Lessons and tagged exposure, manual, metering, spot, technique, zone system on 9th

May 2009 [http://nickminers.com/2009/05/the-zone-system/] by Nick Miners.

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## 5 thoughts on “The Zone System”

Pingback: [Nick Miners Photography» Blog Archive » Graduated filters](#)



Mohindar Rao

18th May 2011 at 9:45 am

Hello there,

Can I use this zone1.png for profile picture in one of the forum, since I like the mapping of zones to exposure meter in digital camera very much...please, let me know your convenience.

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Nick Miners

Post author

18th May 2011 at 10:34 am

Hi Mohindar – I’ve sent you an email. Cheers, Nick

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Randy

27th October 2011 at 1:59 am

“To expose for zone 2, set the exposure to underexpose by 2 stops”, I am confused shouldn’t it be three stops to get to zone 2 if my starting point was zero metered off sunlit grass?

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Nick Miners

Post author

27th October 2011 at 3:12 pm

That would be true if that were the full story, but I also said to move the dial down three further clicks, as most camera exposure meters only allow you to see 2 stops underexposed.

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