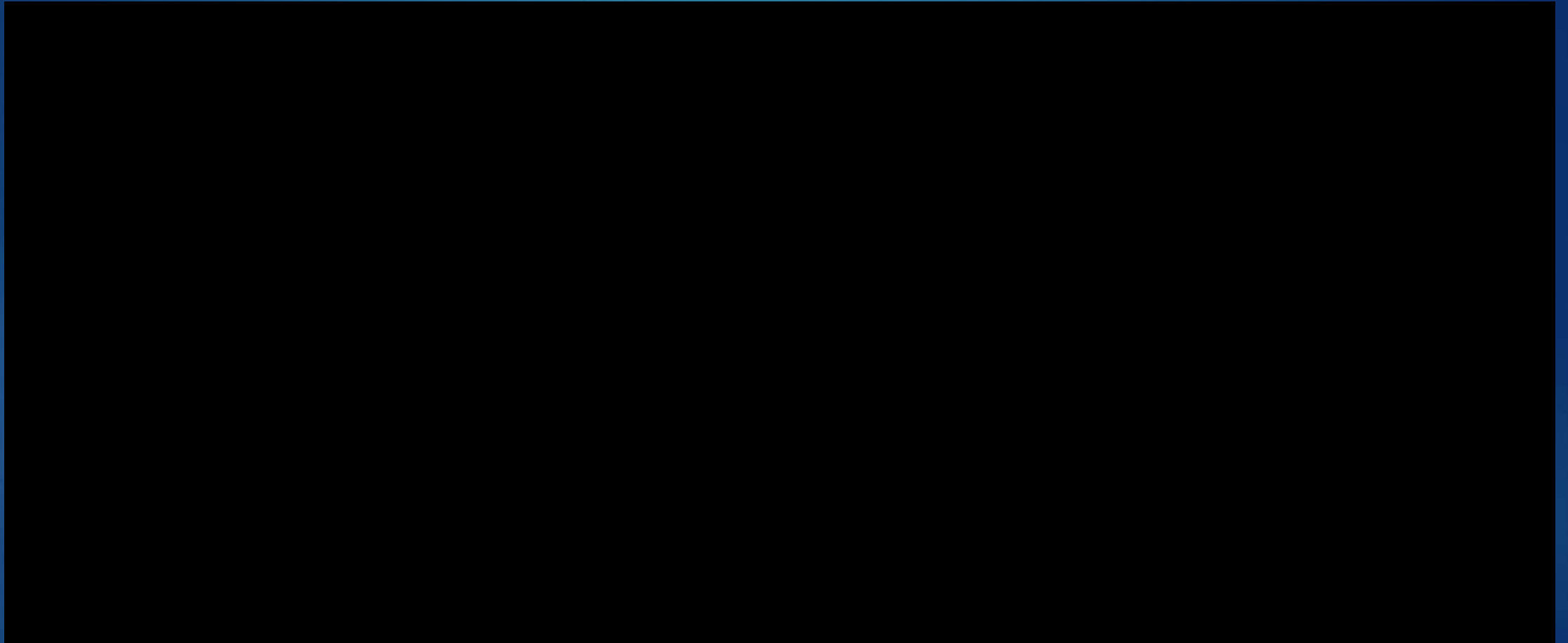




Night Photography

TONY WRIGHT OCTOBER 2015

What happens at night?

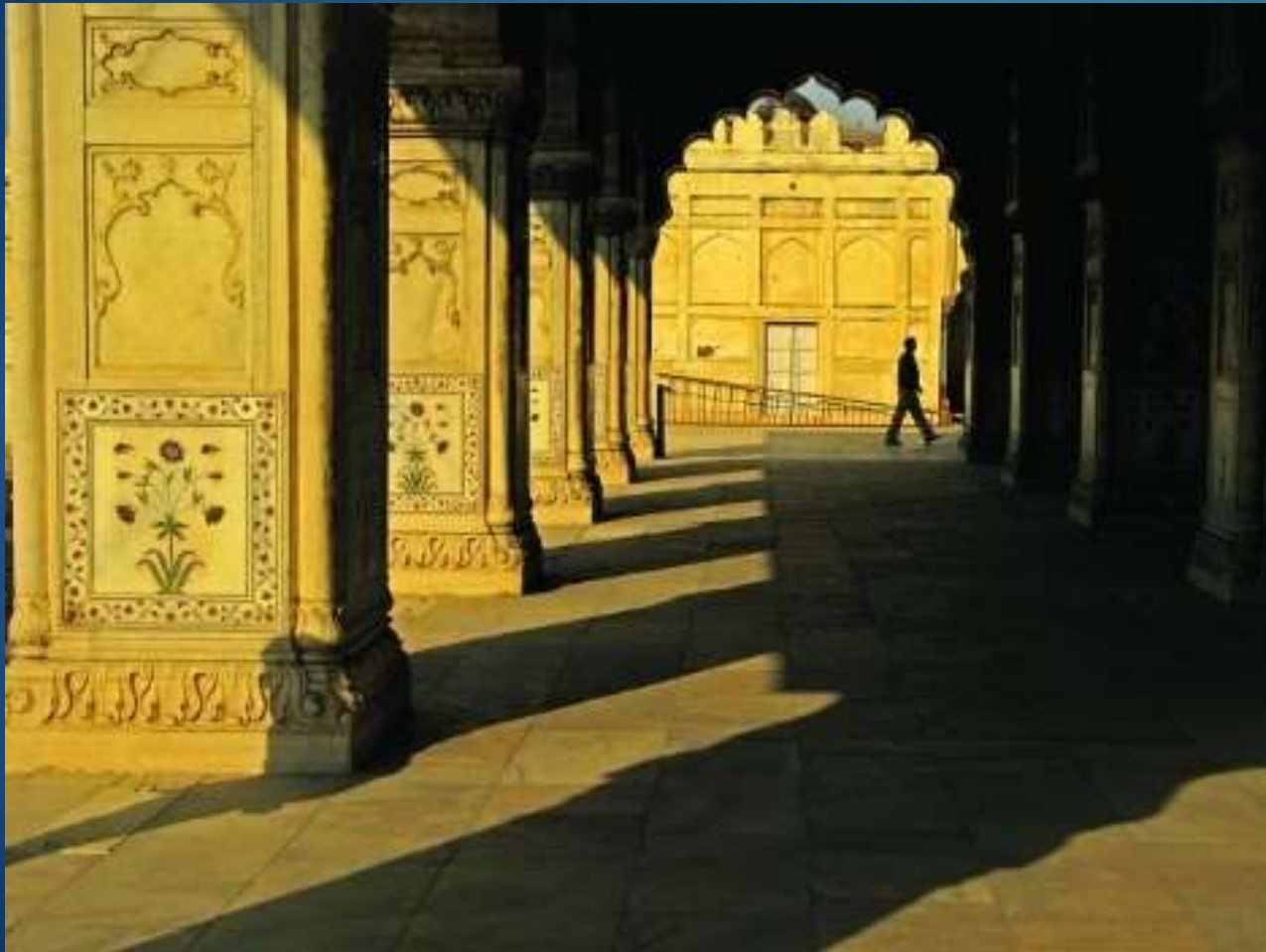


But first we have the evening light

To the direction of light



And how it can illuminate different areas



Colour of the light



Beware the shadows



Then comes a sunset



Followed by dusk and “colour drain”



And into night



How has the camera and photographer been dealing with this

- ▶ Opening up the aperture - Managing the depth of focus
- ▶ Lengthening the time the shutter is open - Steading the camera
- ▶ Increasing the sensitivity balancing loss of image quality
- ▶ Manual compensation or using appropriate Scenes Mode
- ▶ Understanding camera settings re speed and aperture
- ▶ Adjusting the white balance
- ▶ Editing techniques

Minimise or Enhance

Night Photography Proper

▶ <https://vimeo.com/128433985>

Now down to very little light



Noise



How would you react if I told you that the aperture and shutter speed you choose make more difference to image noise than the ISO setting? You might be surprised to discover that a lot of the noise in your images doesn't come from your camera at all: it comes from the light you're capturing.

“Shot noise

Probably the most significant and certainly least recognized source of noise is what we call 'shot noise' or 'photon shot noise'. In the simplest terms, this is you being able to see the impact of light's inherent randomness.”

Noise

“Electronic Noise

The second source of noise is more likely to resemble what most people think of, when they think of noise: it's the background *electronic* noise that's added to your images by the specific camera you're using.”



Understanding how your sensor responds can open up creative options that aren't otherwise obvious. For instance, this high dynamic range scene was achieved using a single exposure, thanks to the camera's excellent noise characteristics.

FOCUS

- ▶ Autofocus requires light
- ▶ Autofocus illuminator is limited in range

Light sources

- ▶ Street lights – colour balance
- ▶ Signage - exposure
- ▶ Floodlights
- ▶ Moving lights – how much movement - reduces shutter control
- ▶ Moon and stars
- ▶ Flash light – limited use, specialist use
- ▶ High Dynamic Range







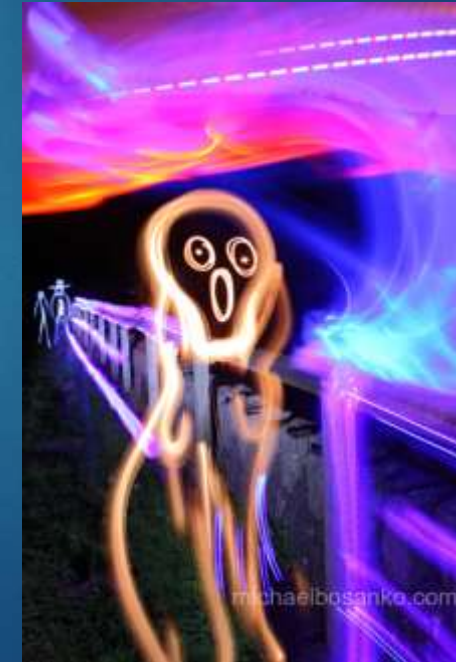
Moon and Stars



Light painting objects with flash or torch



“Creative” light painting



Light painting video

- ▶ <https://www.youtube.com/watch?v=RAe30VG5CI4>