

...having fled the city, Narcissarella has removed her mask and is seeing her true self for the very first time, see Image 001—this image of model Kelsey Barnwell is a study in colour harmony, mixed lighting and perhaps an attempt at humour. The job at hand was to create an eye-catching image of this fiery red dress for Vancouver fashion designer, Sam Stringer. Sam made my job easier by sourcing Kelsey and the make-up artist Ana Maria Badila, leaving me to supply the location, lighting, photography and concept (with the help of my publicist/wife Sylvianne). Part of my concept was to contrast the vibrant red of this beautiful creation against a cold blue city skyline – the deep blue sky and its blue light reflecting on the Vancouver city skyscrapers would create wonderful colour harmony with the dress. I wanted everything except the dress to appear cold in image and so I processed the Raw files with a bias to blue (3700° Kelvin for colour temp in Lightroom). Kelsey's fair skin with the additional blue balance was perfect—fair skin tends towards blue while darker flesh towards yellow—it helped lend a cold and ethereal look.

For my perfect background, I needed the blue sky behind the camera to create a blue wash of light over the towers of the city. For this to work, it was necessary to pick the time of day when the sun starts to move behind the buildings; this would minimise direct sunlight on their front sides, too much direct sunlight here would negate the cold blue look, see set-up in Image 003.

To separate Kelsey and the dress from the background, I chose to shoot at f4 – this aperture created a shallow DoF which threw the cityscape nicely out of focus while leaving it distinguishable as a city. The open sky lighting on the front of Kelsey gave an incident meter reading of f4 at $\frac{1}{1600}$ th of a second at 100 ISO and an incident meter reading of the direct sunlight striking the back of Kelsey read f4 at $\frac{1}{1000}$ th, see Image 002A shot at f4 at $\frac{1}{160}$ th—this is pretty close to how this scene would photograph if I had set my camera to P for Program or A for Automatic.

To find an exposure of the city, I simply set the camera to f4 then took a number of test exposures bracketing the shutter-speed. A quick look in Lightroom on my tethered MacBook Pro revealed f4 at $\frac{1}{1600}$ th to be my favourite. An incident meter reading of the backlighting on



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Kelsey was asking for a longer shutter at $\frac{1}{1,000}^{\text{th}}$, so at $\frac{1}{1,600}^{\text{th}}$ the backlighting is recorded at $\frac{2}{3}$ stops below the camera setting. Due to the back-angle of the sunlight, its brightness on the subject will appear brighter than the incident meter reads—when light comes from beyond 90° from the camera angle, it appears much brighter than an incident meter suggests. I was totally happy with the look of this minus $\frac{2}{3}$ ratio.

As I said above, the open-sky is lighting the front of Kelsey and read $f4.0$ at $\frac{1}{1,600}^{\text{th}}$, this will expose at $3\frac{3}{4}$ stops under the camera setting of $f4$ at $\frac{1}{1,600}^{\text{th}}$, in other words the open sky will deliver low-level fill lighting to Kelsey's front while the direct sunlight will appear very bright on the back edges of Kelsey's body, dress, and hair. See Image 002B to see the image shot at $f4$ $\frac{1}{1,600}^{\text{th}}$; note how the backlighting on the dress and Kelsey is perfect, adding extra depth to the image, but the front of Kelsey is $3\frac{3}{4}$ stops underexposed and is lit with boring flat light. Here's where the mixed light part comes in, to create more suitable lighting and exposure on the front of the subject, a Small Chimera soft-box (0.6×1.0 metre) attached to an X3200 WhiteLightning mono block studio strobe plugged into a portable Pro-Foto battery pack was placed 2.5 metres from Kelsey on the camera-right side. The strobe is triggered with a Pocket Wizard Plus III on the light and a Pocket Wizard Flex TT5 on the camera. One of the cool bits of working with Pocket Wizards and Sekonic meters together is, I can set the meter so that every time I press the take-a-reading button, it sends a signal to the Pocket Wizard receiver to fire the light, isn't that just the greatest thing since chocolate truffles? How often do photo-gear manufacturers cooperate like this? Placing this light to the side of Kelsey makes for light that skims the front of the dress, creating lots of texture and beautiful dramatic high-contrast shadows that are slightly filled in by the open sky, see Image 002C and 001.

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There is, however, one thing wrong with this set-up, because I'm shooting at $\frac{1}{1600}$ th, the camera shutter is unable to sync with the strobe flash at this shutter-speed, the fastest it can handle is no more than $\frac{1}{200}$ th-of-a-second. Not a problem because the Pocket Wizard Flex TT5 which happens to be programmable. I can actually set it to create an offset that causes the camera to only collect the end portion of the strobe burst, this gradual trailing off portion of the burst occurs right after the strobe peaks. You are of course losing a lot of the strobe power by omitting the peak, but since we're shooting with a fairly powerful strobe and with our camera aperture wide open, we get more than enough light. So the imaging sensor receives mostly constant light during the travel of the opening shutter-blades rather than an intense short light-spike for a fraction of the exposure. To figure out what offset to program the Flex TT5 to, I refer to my previously shot Hypersync test results chart, find the offset that corresponds with the shutter speed I'm wanting to shoot at, then set this offset figure on the Flex TT5 (all this info and how to do the test in an upcoming article). For this to work though, we must run the strobe at full power. Based on my test chart I need to make the strobe light read f16 incident at the subject if I want to expose correctly at my f4 camera setting. That sounds a little nutty, but remember that the meter can only collect and read the full burst of light from the strobe, whereas our camera-shutter, which is being manipulated by the Pocket Wizard, is only going to collect strobe-light after the peak – this after-peak light is the end portion of the burst which is considerably more constant in brightness than the peak, it is however, also much-less bright. To make the strobe burst on Kelsey read f16 for a f4 real exposure, I cannot change power on the strobe – it must be set to full power for the longest flash duration possible – I can only alter exposure on the subject by changing the distance of the light or by feathering the light. Since these distances will always be the same, I shot a test which is basically a Guide Value test. For this Hypersync test set-up shoot, I used trial and error to figure out what distance the strobe needs to be from the subject to create a perfect exposure at full power. Now measuring distances at the time of the shoot is cumbersome, so at the time of the test, once the right distance for the strobe was found, I took a meter reading to see what the meter would read, even though this reading is not what my subject will get I can use it as a correlation. After I found the perfect distance for the strobe to get a perfect strobe exposure on my subject with camera set to f4 at $\frac{1}{1600}$ th-of-a-second at 100 ISO, I found that my light read almost f16. I then documented this correlation, and then did the same for other high-speed shutter-speeds that I might need to HyperSync to. So in my test I observed a one stop gain in strobe lighting with every one-stop decrease in shutter-speed. Basically if I want to shoot at f4 at $\frac{1}{1600}$ th, then I need to alter the strobe's distance from the subject until it reads f16—using my Sekonic flash-meter in incident mode.

Once I've programmed the offset into the Flex TT5, which you have to do by connecting the Flex TT5 to my laptop via USB, I set the camera shutter to $\frac{1}{160}$ th of a second and took a shot with the FlexTT5 hooked up to the camera—this first shot is a calibration shot, once done you can delete this frame. The strobe will not fire when you do this test shot, but that's okay and once done I set camera back to the shutter I really want to shoot at and from here on the Pocket Wizard will trigger the strobe.



So by setting the strobe to its highest power to ensure the longest strobe burst duration possible, and then by tricking the whole system with an offset set on the Pocket Wizard Flex TT5, I'm able to use strobe lighting with high shutter-speeds. This technique works best on strobes that take longer to dump their full charge of light onto the subject. The most suitable strobes are typically older and/or more powerful models – older is better because newer designs tend to use more capacitors and so dump faster, perfect for freezing action but not a good thing for Hypersync. Also, those units that generate more light, need more time to dump this charge onto the subject. So in a nutshell, slower (within reason) is better!

So there you have it, yet another mixed lighting set-up fully exploiting the available light sources – sun and open sky with a mix of heavily modified strobe lighting. At the request of Pocket Wizard, I created an in-depth how-to video during this shoot as well as a video on how to perform the required preliminary Hypersync set-up test. These should be ready to view on my website and/or the Pocket Wizard website in June or July. Next article we'll look at doing the Hypersync set-up test.

Camera Lighting Info:

- Camera: DSLR with full frame sensor.
- Lens: 70–200mm set to 70mm
- Exposure: f4 @ $\frac{1}{1600}$ th, 100 ISO.
- Camera to subject distance: 3.5 metres.
- Camera height: 1 metre from ground to middle of imaging sensor.
- Main-light to subject: 3.2 metres.
- Main-light height: 2.2 metres from ground to strobe-tube.

Dave Montizambert lectures internationally on lighting, digital photography, and Adobe Photoshop. He is also a published author, having written two books on lighting and digital photography (www.montizambert.com) plus numerous magazine articles on these topics in North America, Europe, Russia and Asia. Dave also creates Lighting and Photoshop tutorial DVDs for www.software-cinema.com and www.photoshopcafe.com. Dave is available for lectures and workshops in your area and can be reached through www.montizambert.com.

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