Dazed and Confused

efore I get started, please look at Image 001A&B. Which of these two images do you think has the softest light quality? Now record your answer in the back of your brain for later recall and then please read on.

Does diffusing a light make it soft? The answer depends upon what you mean by soft so we need to start with our language of light. Lighting is a vast subject so I'll limit it to shadows for this article. When expressing our likes and dislikes about shadows, photographers, clients, and art directors will say things like, 'The shadows are too harsh or hard looking, can you soften them up a bit?' They often use hard and soft to describe their shadow preferences. In most cases they are refer-encing how dark the shadows are (High Shadow Contrast in tech-speak). In the real language of lighting, Hard is reserved for describing Edge Transfer – how fuzzy (soft) or sharp (hard) are the edges of the shadows - and not how light or dark they are. Phrases like this are more about the viewer's feeling towards the shadow rather than its physical characteristics, which is fine if you are having a general discussion about your feelings towards an image, But if you are trying to create some great lighting and trying to identify what it needs, or if you are trying to express what you are after to a client, assistant, or art-director, this doesn't work. This sort of nomenclature is ambiguous, that is, unclear or inexact, leading to misunderstandings, frustration, fear, and perhaps the downfall of western civilization (threw in this last bit to see if you are paying attention). Everyone is fearful of the unknown and so, by extension, of what they don't understand. This makes us insecure, so we hide behind poetic vagueness, saying things like, 'The light plays beautifully over its surface, or 'You have to just feel the light' or 'Just play with the light'. No one really knows what you mean but just like the emperor's new clothes, we nod and pretend to know what is going on.

I recall feeling taken in way back in my early photo days, having travelled a long way, at great expense, for a rather prestigious and expensive lighting workshop in Rockport Maine. After being stirred up into a 'photo-frenzy' the night before at a general assembly where we were told how hard we would work over the next few days and how fried our brains would be from an overload of information, I was really disappointed the next day when our 'photo-celebrity' instructor got to the lighting instruction part - this part consisted of him placing a soft-box over a tabletop set-up and enlightening us with the following, 'Just play with the light (meaning move it around) until it looks right'. Great, that absolute 'gem' really gave me the confidence to tackle any lighting challenge! My brain would have been dangerously reeling from that overload if I was a goldfish. So, we need and actually already have – a concise language for light, like Shadow Edge Transfer and Soft-Light, that identifies the various aspects of light as well as the controls required to alter light for our photographic creations. With this knowledge you need never again be stumped by lighting and you can quickly cut to the chase when someone else is trying to tell you their lighting preference.

So back to Soft-light. What is Soft-light? Soft-light is a term to describe light quality – light quality can be described as Soft or Hard. Soft-light means that the edges of the shadow are soft (fuzzy) and any specular highlights (also referred to as, mirror image of light-source, shine, sheen, glare, or hotspots) are more spread out over the surface of the subject (larger in size) and so the specular highlight's energy is more spread out over the subject making this specular less bright in appearance – less opaque, more translucent. In terms of Soft-light, the brightness of the shadow is irrelevant; you can have soft-light with true-black shadows, or soft-light with shadows that are only slightly (say 1/3 stop) darker than the tone of the surface they are on. A shadow by definition is an area of the subject or object that receives no light whatsoever from the main source of illumination, however, it can and usually does receive light from an extraneous ambient source such as a fill-light or reflector, a wall, the opensky, room lights, etcetera. You have full control over how dark or light that shadow appears by controlling those extraneous secondary sources and

you have full control over how soft or hard that light quality appears by changing the size and/or distance of the light-source in question. Enlarging a source or reducing its distance from the subject allows more of this light-source to see into the shadow and so it begins to eat away at the edge of the shadow, creating a greater area of transfer from fully lit into true shadow. The greater the transfer area the fuzzier the shadow edge resulting in softer light quality. The lesser the transfer area the sharper the shadow edge resulting in hard light quality.

Hard and Soft are relative terms. How soft does the edge transfer have to be before the lighting is considered soft is up to interpretation, however, generally we all pretty much agree on what seems soft and what seems hard. With light quality there is no right or wrong, this is a creative function and so is up to you or more importantly up to the preferences, biases, and prejudices of the person paying you – as my mentor, Dean Collins used to say, 'Beauty is in the eye of the cheque book holder.' Which is really funny the first time you hear it, but it hurts me to write it down here since I had heard him say it a thousand times!

And now back to the opening question, 'Does diffusing a light make it soft?' Nearly every photographer thinks so, but technically speaking, no it doesn't - you can only make the quality of light softer by enlarging a light-source or by moving it closer to the subject, both have the effect of making the source appear visually larger to the subject. Adding diffusion material to the front of a light like a flash changes what is actually lighting your subject. The addition of the diffusion material changes the source of illumination from the flash to the recently added diffusion material in other words, the diffusion material is now the source of illumination to your subject. A few sentences back I said, 'Technically speaking,' and said so because, if diffusion material is just draped over the light-emitting end of the original source (our bespoke flash), then this source will now be ever so slightly bigger than the original and will be a fraction of a centimetre closer to the subject, so yes, in this instance, the light will be ever so slightly bigger and closer and will be ever so slightly softer, but not enough to be visually detectable.

Conversely, if you replaced the front clear glass/plastic cover/lens of your flash with a translucent white plastic of the exact same thickness and dimensions, there would be no change whatsoever in hardness of light on your subject (assuming all else stays the same). However, depending on the environment, you are taking the image in, chances are the lighting will look different on the subject – the white diffusion plastic will diffuse or spread the light out covering a 180° radius, and so more light will bounce off surrounding surfaces such as walls, ceilings and floors, onto your subject filling in shadows making them less dark. So, the real change is, Shadow Contrast (brightness of the shadow) and not Shadow Edge Transfer, this is assuming that the diffusion material on the flash is the primary or main source of illumination and not one of the bounce-light surfaces – walls, ceilings, and/or floors.

Now with all that out in the open let's once again return to our opening question, Which image has the softest light quality?' Look back at images 001A and B to recall your choice. In Image B, being the sly beggar that I am, I made a pathetic attempt to trick you by turning off the fill-light to create dark shadows (High Shadow Contrast). This was to distract you from the shadows' relatively soft edges. In A, the shadows are way less dark looking (low Shadow Contrast) be-cause the fill-light was on – it filled them in at about 11/2 to 2 stops below the camera setting. The shadow edges of B are markedly softer than in A. In A, look below my eyes at the shadows caused by my glasses, they are very hard edged and so very distinct, but in B they seem to disappear. They are almost gone because a much larger light-source was used as the main-light and so a portion



of that larger main-light sees around the obstruction (the lower glasses frame) eating into shad-ow as well as all the way through shadow – this almost completely removes these shadows. Look at B again, this image proves that you can have softlight with dark shadows, or in tech-speak, 'Soft Shadow Edge Transfers with High Shadow Contrast.'

Which lighting is better? That's up to you, remember there is no right or wrong, better or worse, it's subjective. For my taste I like the lighting in B best.

dave MONTIZAMBERT'S creating with light



