## **Lighting Silverware**

think photographers probably photograph more people than anything else and so when it comes to lighting, creating light on people is most common. Case in point, if you look at the training schedule for most photographic conferences, the majority of light training is for portrait, wedding, boudoir, and fashion. For this reason, most photographers lack the skill set for creating and controlling light on tricky surfaces such as those of shiny objects. They may be proficient at lighting humans, but human skin is somewhat textured so not particularly shiny – its texture breaks up the shine (Specular Highlights) making it way easier to deal with than the specular highlights you see shaping the silverware of my colourful fruit image in Image 001.

In this article I'm going to walk you through one of my favourite techniques for controlling specular highlights, specifically on the upper knife in my fruit shot. But before I lay out this technique, here's a little background on what the image was about: This image was created for a North American paper company (paper for printing presses) that wanted a colourful full-range image to be printed on all their paper stock so clients could view and compare the different characteristics of all their papers side by side in a beautiful book. To that end it was up to me to come up with a simple catchy image – the only direction I received was a brief that read, 'Create a still-life with vibrant colourful fruit.' Unfortunately, it was off season for fruit in the northern hemisphere so only tired looking imported supermarket produce was available. Typically, in situations like this perfectly crafted wax fruit can be rented from bigger cities such as Toronto. New York, or Los Angeles, but at great cost. Or fruit can be shipped overnight, also at great cost, from other parts of the world where it is in season. For example, once we ordered a single flat of raspberries from Israel at a cost of €300! For this project there wasn't the time to order from afar – I was expected to conceive, prop, and shoot in less than a day. I ended up picking out the best from a grocery store nearby – any fruit shortcomings would have to be perked up in post.

The symphony of colour provided by using fruit as subjects was a perfect way to show off the colour reproduction abilities of all the client's papers. As great a choice as this was, it did have one shortfall – it did not show off the paper's ability to render neutral highlights and shadows.

Placing two silverware knives amongst the fruit made for the perfect solution. The knives were 'just the ticket' for creating neutral tones and brilliant contrast to the sea of colour. Obviously the fruit alone could not provide this because all specular highlights sitting on their surfaces would have colour shifts from the underlying fruit pigments bleeding through, unless of course you let them burn out to pure white which is a harsh look that neither my client nor I like!

To create the lighting for this image, I started with a mono-bloc strobe placed behind and to the left of the set (see Image 002A). To even out its light, a white translucent gel was affixed to the front end of the strobe's 18 cm (7 inch) bowl-reflector. This backlight was placed down low so that its energy skimmed across the fruit, projecting dramatic hard-edged shadows across the set. This strobe was also tilted up a little so that just the edge of the light struck the fruit, thus making the more intense middle portion of the light-path, pass over the top. A mono-bloc strobe fitted with a 60x90 cm (2x3 foot) soft-box was placed over the top and to right of the set to fill in the shadows (see Image 002A). The brightness of this light source was metered to under-illuminate the fruit by three stops – three stops below the camera setting (back of the incident meter against fruit, its dome pointed at the soft-box).

Wanting to create spot-lighting effects on key areas of the fruit arrangement, I suspended six small silver cards from magic arms above the subjects (see Image 002A). The cards were positioned to reflect the backlighting passing over the set back down onto the fruit. The problem with this technique is in trying to create a pleasing lighting ratio between the backlighting and the spotlight reflectors while only using one light origin (the backlight strobe). Invariably your backlighting is too strong if you point the light directly onto the subjects. To overcome this shortcoming I usually tilt the strobe up a bit; this reduces light on the subject backs while increasing brightness to the silver cards. In other words, this feathering trick provides the control to achieve whatever lighting ratio you need. The exposure of the light striking the back edges of the fruit was set to one stop below the camera exposure setting while the silver-card spot-lit areas, ranged from one stop over to one stop under (measured with incident meter).

Once the fruit was lit to my satisfaction, I turned my attention to light the knives. The knives were silver-plate which means they have a metallic surface. When light strikes metal the photons cannot penetrate the metal's molecular structure. This is because the molecules are too tightly packed together for the photons to pass through. For this reason, the metallic surface does not absorb any of the light striking it – all photons bounce off the metal surface. This means that we get no colour or tone from this object. The colour and tone that our eyes and mind perceive is really just the surrounding objects reflected on the metal's surface. If metal does appear to have colour and tone other than reflections, this is due to some sort of coating over its surface, that coating could be rust, dirt, or some sort of applied pigment.

When I placed the knives amongst the fruit, I found that their blades reflected my studio's black ceiling making them appear black and lifeless (see upper knife in Image 002A). To bring them to life I needed to find and/or create a brighter surface for them to see. For the lower knife I angled it so that it caught a reflection of the soft-box fill-light over its surface. The upper knife was the feature knife and so I spent a little more time creating specular form over its surface. To this end, a small rectangular white-card reflector was suspended above the set then angled so that its white surface was lit up by the backlight (see Image 002B). The positioning of the card was pretty finicky; it had to be in just the right spot relative to the position and angle of the knife as well as the camera point of view, but once the perfect orientation was found, it created a white reflection on the knife blade. To prevent the knife from looking like it was made of white plastic, which is how it appears if it sees an evenly lit white surface, I bent one end of the white-card away from the backlight so that the light would fall off in brightness on the card; this gradated the specular highlight brightness from bright to dark at the handle end of the knife blade. This solved the white plastic look, but I wasn't happy with how the tip of the blade appears to be stuck into the lime. I found this abrupt end to the specular highlight distracting and so added a small black-card gobo to throw a soft-edged shadow onto the other end of the white-card (see Image 002C). Now the edge of the white-card starts out dark and then gradually gradates into white. This unevenly lit white-card images on the blade tip giving a beautiful softedged transfer to the edge of the specular highlight; this is technically called a soft Specular Edge Transfer. With this tweak, the blade gradates from near white at the blade's middle to a darker grey at the blade's tip, no longer drawing our attention to the tip and lime - hard edge transfers draw attention, soft edge transfers don't.

I love *light shaping* objects such as silverware, but it takes a different mindset than lighting people. As you read above, metallic objects have no tone or colour of their own and so must be lit by giving them something to reflect. If you create your sources well, you can create much depth within the specular highlights that show up on the subject's surface. But when that surface reflects an even tone, usually white, it makes it look very two-dimensional, looking like white plastic; this is



## dave MONTIZAMBERT'S creating with light



# Lighting Silverware

a common result when using a soft-box to create specular highlights because most soft-boxes are designed to be fairly even in tone from edge to edge. I remember being very frustrated early on in my career when all my silverware shots looked like white plastic cutlery from a fast-food kiosk!

And one final thing, usually on set-ups like this I use a fill-reflector rather than a fill-light. I typically place a piece of white foam-board over the top of the set to redirect some of this stray light back down onto the subjects to fill in the shadows. However, on this shoot I already had a 60x90 cm (2x3 foot) soft-box assembled from an earlier shoot and so used it instead; I am ever the opportunist!



#### 2

#### Bio

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 & www. PhotoshopCAFE.com/video and authors 'Dave On Demand' (www. montizambert.com) lighting tutorial based photo-training. Dave is available for lectures and workshops in your area and can be reached through www.montizambert.com.

## dave MONTIZAMBERT'S creating with light

