### The Polar Bear Snow Storm Dilemma

ighting is all about contrast. Contrast is actually a metaphysical concept, it is about polar opposites like North and South, Good and Evil, Yin and Yang, Off and On, Black and White. Explicitly, each of these pairs are separate, yet implicitly they are one; one cannot exist without the other. White on white tabletop photography is no different, my white teapot (see Image 001) cannot visually exist against its white tabletop surface without some

'black'. Without 'black' it is the proverbial 'polar bear in a snowstorm'.

Shooting against white is a staple of commercial tabletop photography and though it isn't the most imaginative work, it does pay a lot of bills! Usually it requires simple lighting solutions, but the going can get tough when the subject is also white – now you have to really think about lighting contrast. In the case of my simple teapot image, shown in Image 002A, it gets lost against the white seamless paper where it blends right into that white tabletop surface; this image needs more black (shadow)!

When you have a light-toned object it makes sense to show its form using shadows, however, the rounded surfaces of my teapot create a challenge – these surfaces pick up a lot of light reflected off the white paper tabletop surface that happens to be in the camera-frame. To block this reflected light, it is necessary to add black gobos right in the cameraframe covering up big sections of the white backdrop. This makes for a very distracting background instead of a nice clean white one. Rounded surfaces are a bit like fish-eye lenses whereas flat surfaces are more like telephoto lenses, the former sees more background whereas the latter less. Non-rounded white subjects can often can be shaped with black fabrics placed out of camera-frame leaving the in-frame white tabletop surface clear. As it stands, sections of the camera-left side of the teapot blend right into the white tabletop surface. The densitometer in Lightroom reveals that a sample point at the pot's edge is just little below the spout and reads 92.1% and a second reading off the white tabletop directly against the pot-edge reads 92.6%. The difference between these two readings is less than 1% and as you can see, is an almost imperceptible difference! It's a white teapot in a snow storm!

The teapot is fabricated out of white porcelain and is coated with a fine glaze making its surface both white and shiny – so a very high 'light return' from the white porcelain as well as the smooth glazed surface. To geek out for a minute, in technical jargon we would say that the teapot has a 'high tonal efficiency' as well as a 'high surface efficiency' meaning that it returns a high degree of the light particles (photons) that have passed through the glaze into the porcelain's molecular structure and that it also directly reflects light particles off its glazed surface without breaking up the direct pathways of the light particles like a matte surface does – it is a white specular surface.

If the teapot had a matte finish, its edges would have blended less into the white tabletop surface. The reason for this is a matte finish would break up the reflection of the white paper imaging on the pot's surface. This spreading of the light particles out over a larger area would diminish the resulting brightness perceived at this point.

To create separation from the tabletop, I added black cards around the teapot as well as underneath (see Image 002B and Diagram 003). These cards reflect less light than the white tabletop surface thus reducing the amount of light striking the edges and sides of the pot. The reflections (specular highlights) of the tabletop surface imaging on various areas of the pot are also blocked by the cards, so instead of seeing the white paper reflections on the pot, we now see the black cards. These cards are acting as 'Specular Gobos'.

I did find that the black cards worked just a little too well, the front of the pot turned out a bit too dark, so I placed a white card at the front of pot (see Image 002B - notice the 'gray-looking' white-card in foreground). Once the teapot was photographed with the black cards, I removed both the teapot and the cards, then captured an image of just the white tabletop. This step isn't totally necessary since a white background could have been generated in Photoshop after the fact, however the less than perfect 'real' background looks a little more convincing. Either way, in Photoshop I selected the teapot, deleted the black-card background, and then added in the white. This almost works, however, it looks fake since the teapot is not anchored to the white tabletop - it looks like it is floating. To anchor it, two shadows were created, a drop shadow and a contact shadow. The drop shadow sits underneath the pot and extends out a little from the pot's bottom edge. This helps to make the illusion look real, but it still looks a little fake. This is where the contact shadow comes into play. This second shadow is a darker thinner harder edged shadow that sits right under the teapot and extends outward only a tiny bit (see Image 002C or Image 001).

Another approach is to shoot the subject against black or dark gray rather than white with black cards. Either of these two methods requires some 'quality time' in Photoshop, but with the artificial intelligence driven auto select features, this isn't the chore it used to be! ...And since it is such a simple background the selections are usually pretty accurate. Viva le Photoshop! Polar Bear Snow Storm Syndrome be-gone!

#### 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.



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