

## SEEING LIKE A CAMERA

### COLOUR PERCEPTION

One of the great challenges of photography is seeing colour accurately. Think of the example of what colour a serviette might be in a brightly-lit restaurant. Unless a decorated item, you would probably say, it's white. It IS white and you might say you know it's white because it is typical of serviettes used by this type of restaurant, which are always white.

But, the serviette might be white in daylight, but under the tungsten lighting it would look quite orange. What needs to be realised here as the core of the problem is that of colour perception...it is our knowledge and assumptions about colour that prevent us from seeing what is actually in front of us.

Once again, our brain acts as interpreter and "fixes" information coming from our eyes.



Anyone who has had a dodgy night at a club dancing under ultra violet lighting will remember how people's teeth and white shirts glow bluish-purple. This brings up an interesting question... is the shirt white or bluish-purple? The answer has to be... it depends. What it depends on, of course, is what colour light source we use as a reference, because in sunlight the shirt is white, but in UV light it is bluish-purple.

The difficulty for us photographers is that we have a brain that acts like an interpreter, but the camera doesn't. The camera photographs the colours as they are, not as we perceive them to be. We need to bypass the brain's interpreter function and learn to really see and this only comes with knowledge, practice and a slowing down of the visual process.

When I am looking at photographing an object or scene, I slow down and study what is before me. I stare, I question, and I ponder. In our society it is regarded as impolite to stare at someone, or even in someone's direction, for an extended time, but this is exactly what we must do if we are going to truly see.

The proliferation of images that bombard us every day from billboards on the roadside, to television, movies, computers and magazines, have made us numb to visual stimulus and a quick scanning of images is now the norm.

When taking photographs or looking for "found" images, we need to slow down the pace of our scanning and once again learn how to study something. If you have the opportunity, spend an hour with a recently born baby and regard the way they look at things. When they look at you they stare longer than is considered polite but are forgiven because they are babies. We need to recapture the inner baby and re-learn how to see once again.



## DEPTH PERCEPTION

One of the most difficult things I have tried to photograph is a scenic view when perched upon a cliff or hilltop. I have stood on the edge of precipitous drops that have taken my breath away and made me feel giddy, but when I later look at the photos I have taken, I am often disappointed with the results.

I have thought about this problem for years and have pored over photographs of the old explorers to see if they fared any better. There seem to be several factors at work here. The eyes see in stereo because most of us are blessed with two eyes and this is definitely one factor, since the camera has but one lens and sees in mono. Our stereovision gives us the ability to differentiate the distance between objects, known as depth perception, and this goes a long way to appreciating scenic views.



I believe another factor at work here is simply being there. We get the feeling of the wind roaring up the cliff and most of us experience a certain amount of vertigo as we stand above the drop. The feeling of being there will require new technology to duplicate, but some photographers have successfully overcome the stereo issue by skilfully employing excellent photographic techniques, which I will now discuss.

One of the major difficulties is being able to appreciate and translate the scale of distant things. A tree a long way in the distance looks like a shrub and a boulder looks like a rock. It is helpful to introduce an object of known size in the photo to help the viewer appreciate the magnitude of the encapsulated scene.



Here it can be seen that, knowing how large tankers and other ships can be, the city behind becomes enormous by comparison, whereas taking the city image alone would give no impression of scale.

So, the placing objects in the foreground is another way of conveying distance. This can be as simple as branches from an overhanging tree, people, or other objects of known size.

Selective focusing, that is having part of a photo in focus and other parts out of focus can be used to great effect, but unfortunately not in scenic views because the camera records all distant objects as infinity focus with all but the longest telephoto lenses. It doesn't differentiate between objects at twenty metres or two hundred metres. I have also found that scenic shots just look wrong when not sharp throughout.

There is a difference between the human and mechanical functions of a camera which means that we often have to compact the dynamic range of a scene that the eye is quite comfortable with but is beyond the capability of the camera. It is a lucky person that points a camera at a pleasing scene and is not disappointed with the camera's results.

The skilled photographer needs to look, evaluate, measure and understand how to translate "real world" scenes into two-dimensional photographs. That is the purpose of this article: to help you understand the difference between the eye and the camera, thus giving you the skills to harness the functions of the camera and related tools.

## **SOME USEFUL TRICKS**

### **SQUINT**

Squinting, when looking at a prospective photograph, tends to remove the "reality of the situation" and forces you to study the scene a bit longer. Squinting also tends to compact the shadows and helps you to ascertain the scene's dynamic range on an intuitive level.

### **LOOK THROUGH AN ND FILTER**

Using a 3 stop Neutral Density filter in front of your eye has a similar effect as squinting and helps you to evaluate the dynamic range of the scene before you. It is also useful when considering a black and

white image because the dark ND has the effect of removing colour from the scene and rendering a simulated black and white scene.

## CLOSE ONE EYE

I always close one eye when evaluating a subject for photography. The camera “sees” in mono-vision because it lacks a second offset lens and closing one eye removes the stereovision we normally enjoy. This helps to understand what the image will look like in two dimensions.

## MAKE A FIST

When considering using a telephoto lens for a shot, I close my hand into a loose fist and look through the opening in it with one eye to evaluate the scene. This removes the extraneous part of the scene that will be outside of the angle of view of the long lens. If I like what I see through my fist, I then pull the camera and lens out of my bag for a better look.

## ROTATE THE IMAGE

This is a great trick, which was known years ago by make-up artists in the fashion and beauty trade. Back then Polaroids were used for previewing a shot but rotating the image on screen is even better.

Turning the image upside down removes the reality of the subject from the image and allows critical evaluation of make-up, or shadows or contrast or whatever.

This is especially good for portraiture and beauty as it stops you from looking at the person and helps you to look at the technical stuff.

## SQUAT



This sounds like strange advice but changing the height of the camera can make a huge difference to the final image. I find this to be especially true when photographing interiors of houses and architectural work.

Generally, I find my shot and set up the tripod, if used, and frame up the shot. I then move a bit to the right and to the left and up and down to make sure I am in the best possible spot, and often I am not. Don't get locked into a camera position. If necessary, work off the tripod until you are totally satisfied with your position. Always ask yourself “can I do better”?

## PREVISUALISATION

Previsualisation has always been the stock-in-trade of painters and sculptors, but the subject is little mentioned where photographers are concerned.

A painter starts his/her work with a blank canvas and an infinite number of choices about what to do with it. Likewise, a sculptor starts with a lump of clay or slab of rock or pile of metal or other materials. These artists, before laying brush to canvas or chisel to stone, must first decide what they are going to do with the empty canvas or lump of rock.



We have heard of painters who have stared at a blank canvas for months before picking up a brush. Others will attack the canvas with paint and allow a painting to evolve seemingly like magic. All of these artists have, at some point in the creation of the work, had a vague idea of what they are going to create. A blank canvas without an idea will remain a blank canvas. The painter must choose the paint, brush and colour.

Many artists will do a number of preliminary sketches before finally committing brush to canvas. Many change their mind in mid-painting and over-paint large areas of the painting with a new idea. All of these artists visualise the final outcome in the creation of their work. The discipline is particularly severe for sculptors who work in stone and marble. There is no over-painting here...one wrong chop and the work can be ruined. Planning is essential.

Photographers are lucky in a way because the world is their canvas. Just point the camera and click, the shutter is released and a picture is made. It is worth remembering however, that a chimpanzee with a camera can make a photograph. What sets accomplished photographers apart from the chimps and the hacker is the development of technical skills, an understanding of the medium and the ability to previsualise the final image.

## Summary

You are beginning to understand the technology that determines each shot you make. The Aperture/Shutter Speed/ISO combinations, coupled with the Aperture/Depth of Field effects, all the technical know-how that has so far helped to improve your photography. Now you have to see like a camera! When you look at a scene, cut out the distractions by moving around to get the best shot. If taking a landscape, would foreground objects add or detract from the image? Should I take landscapes in portrait orientation? When taking close-up objects, are there distractions in the frame you are looking at? Unless the object of the image is a living creature that could move away, take your time to compose the image. Buildings, landscapes, flowers rarely move (except in high winds!) so take your time in the composition of the shot. Look at the edges of the viewfinder or screen. Is everything included? Or are things there you don't want included?

Art is a personal thing. No one can tell you what good art is – it's what YOU see that matters.