

## Topic 31

### Factors of Photography

There are six basic factors of photography.

#### 1. Light

To make a picture you require light, that light may be natural (sunlight/moonlight) or artificial such as a light bulb or flash. Light that our own eyes are sensitive to is called a visible light. But other creatures and material are sensitive to non-visible forms of light such as ultra-violet light, infrared, or x-rays.

#### 2. Medium

Medium of light is also very important in photography. Photographer has to check which medium is being used in the photography either its sunlight, bulb light, or any other indoor light. Techniques of the photography vary according to the medium of photography.

#### 3. Aperture

Aperture refers to the opening of a lens's diaphragm through which light passes. It is calibrated in f/stops and is generally written as numbers such as 1.4, 2, 2.8, 4, 5.6, 8, 11 and 16. The lower f/stops give more exposure because they represent the larger apertures, while the higher f/stops give less exposure because they represent smaller apertures. This may seem a little contradictory at first but will become clearer as you take pictures at varying f/stops. Be sure to check your manual first to learn how to set your camera for Aperture Priority, and then try experimenting to get comfortable with changing the aperture and recognizing the effects different apertures will have on the end-result image.

#### 4. Shutter speed

Shutter speed, also known as “exposure time”, stands for the **length of time** a camera shutter is open to expose light into the camera sensor. If the shutter speed is fast, it can help to freeze action completely, as seen in the above photo of the dolphin. If the shutter speed is slow, it can create an effect called “motion blur”, where moving objects appear blurred along the direction of the motion. This effect is used quite a bit in advertisements of cars and motorbikes, where a sense of speed and motion is communicated to the viewer by intentionally blurring the moving wheels.

#### 5. Composition

Main factor of composition is Rule of Third. Rule of third can be done manually by cropping too.

## 6. Optics (lenses)

Optics or lenses are very important in photography. There are different kinds of lenses used in photography like Standard/Normal lens, Wide angle lens, Telephoto lens, Zoom lens, Fish eye lens, Macro lens, Tilt-shift lens and image stabilization lens.

The choice of the lens depends on your type of photography. If you want to shot outdoor you will need wide angle lens but in indoor photography vivid range of lenses are used to cater different types of photography.

There are many possible lens choices and all gives you distinct and different images. Basically, you choose your lens to get specific results in your picture. For example telephoto lens is used to capture distant objects. You cannot get specific results with another camera lens.

All these fundamental principles of photography are very important to do photography.

From the six essential requirements two of them are important to learn first and fully understand;

- **The aperture size**
- **The shutter speed**

These are the main mechanical control functions of your SLR camera. If you learn to control them manually than all other areas of photography becomes easier to understand. If you only use your digital SLR in automatic modes then you will never fully benefit from the creative possibilities of your digital SLR camera.