From A to Z: Photography Terms Glossary

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With great talent comes great responsibility: mastering the use of jargon. The list of photography terms the world expects you to know is nearly endless. Because of this, you have probably found yourself more than once trying to understand what a specific word means while reading an article or the latest Instagram post by your favorite photographer. Some of them are quite easy and you have probably heard them many times while developing your work and building a photography website, such as composition, JPEG, and resolution. But what about chimping, dynamic range, or hyperfocal?

This photography terms glossary will walk you across every word you need to know in order to become a pro in the field's jargon. Ready to become a walking encyclopedia? From A to Z, including some of those difficult letters no one can ever seem to think of a word to go with, here's the ultimate photography terms glossary:

Aperture

Aperture is the opening through which light passes through the lens to enter the camera. Its size can be modified to control how

much light reaches the sensor or negative film. The diameter of the aperture, also known as the F-stop, affects the exposure and depth of field.

Aspect ratio

Aspect ratio defines the relationship between an image's lengths, represented as width:height. It is predetermined by the dimensions of the camera's sensor, but can be altered in post processing. The most common aspect ratios are 3:2 (full-frame, mirrorless, 35mm film) and 4:3 (most DSLRs). Recently, 4:5 has gained popularity due to Instagram's vertical cropping.

Blue hour

Blue hour is the short period of time before sunrise or after sunset when the sun is just below the horizon. Indirect sunlight is evenly diffused and takes on a blue shade. The duration on the blue hour varies depending on the location, but generally lasts less than an hour.

Bokeh

Bokeh is an optical phenomenon that makes bright out-of-focus elements aesthetically pleasing. Using a fast lens at its wider aperture turns a busy background into a blurred, homogenic canvas where light appears as soft shapes. The form of these points of lights is determined by the number of blades in the diaphragm – the higher the number, the more circular these elements will appear.

Bracketing

Bracketing is the action of capturing the same shot using different exposure values to make sure the whole scene is exposed properly. Bracketing can be done manually or using the auto exposure bracketing (AEB) function. In most cameras, AEB allows photographers to select the exposure compensation for the additional shots, which are taken automatically as you press the shutter release. For most compositions, a 1/3 exposure compensation is the way to go.

Bulb

Bulb is a camera setting that holds the shutter open for as long as the shutter release button is pressed. In some cases, the shutter release needs to be pressed once to open the shutter and once to close it, rather than remaining pushed down. This mode allows photographers to capture longer exposures than the ones offered by the camera (usually up to 30").

Burst rate

Burst rate is the number of consecutive shots a camera can take in continuous shooting mode. When using this mode, images are stored in a high-speed buffer memory before being transferred to the memory card. Once the buffer is full, the camera will reduce the FPS to give it enough time to free space. Burst rate can be affected by image formats, as it depends on the file size, as well as by the speed of the memory card used.

Candid

A candid is a portrait taken while the subject is not posing. This can be achieved either by capturing a subject unaware of the photographer's presence or by introducing motion and surprising the model during a photoshoot. This kind of portrait photography is highly popular in street photography and is becoming more relevant in formal environments such as weddings.

Chimping

Chimping means to constantly check the camera display after every single shot. The term comes from the similarity between the "oooh, oooh!" sounds photographers take to make while chimping and the sound of a chimpanzee. This action is commonly seen as a major amateur mistake as many shot opportunities can be lost while overchecking each image.

Chromatic aberration

Chromatic aberration is a common optical problem in lenses where colors are not focused on the same convergence point in the focal plane. As a result, the image shows fringes of different wavelength colors around the edges where bright and dark sections meet. In black and white photography, chromatic aberration results in significant blur in the picture.

Composite

A composite is a picture created by combining multiple images into a single one. The most common uses of this practice include removing unwanted elements, creating surreal images, and generating time-lapse style compositions. To <u>create a composite</u> <u>photo</u>, photographers usually layer the images one on top of the another and mask out the undesirable parts.

Composition

Composition is the manner in which elements are positioned within a photo. It is considered one of the most important

components of an image, as it allows the photographer to guide the viewer's eye across the image towards the main subject. There are numerous <u>photography composition rules</u> that are proven to be successful.

Contrast

Contrast defines the range of tonal difference between the shadows and lights of an image. As the contrast becomes higher it emphasizes these variations, resulting in stronger textures and colors. Pictures with lower contrast may be perceived as dull, as a smaller difference between lights and shadows results in a muted appearance.

Crop factor

Crop factor is the proportion of a camera sensor size to a 35mm film frame or digital full-frame sensor. Different brands work with different crop factors. For example, Canon offers 1.3x (APS-H) and 1.6x (APS-C), while Nikon, Sony, Fuji, and Pentax use a 1.5x ratio (ASP-C). A camera's crop factor determines a lens' effective focal length, which allows photographers to easily understand the field of view they will get in comparison to other bodies.

DOF

DOF, which stands for Depth of Field, is the distance between the closest and farthest object within the focused zone of an image. It is determined by focal distance, aperture, and distance to the subject. The higher these numbers are, the more shallow the DOF will be.

Diaphragm

Diaphragm is the mechanical device inside a camera lens that controls the aperture. Modern DSLR cameras use what is known as an "iris diaphragm," which is made of overlapping blades that can be modified to increase or decrease the size of the aperture.

Dynamic range

Dynamic range is the range of luminance of an image between its highest and lowest light intensities, usually pure white and pure black. The dynamic range of a digital sensor is slightly narrower than that of <u>film photography</u>, and both of them are significantly limited in comparison to what the human eye can perceive. Scenes with a wider dynamic range than that of the camera sensor will result in images that are either overexposed or underexposed.

Exposure

Exposure is the amount of light that reaches the camera sensor and it determines how light or dark an image is. The exposure of an image is determined by the aperture, shutter speed, and ISO.

EV compensation

EV compensation, or exposure value compensation, allows photographers to modify the exposure on automatic and semi-automatic modes. Generally, the values can be changed through 1/3, 1/3, or full stop increments.

Focal length

Focal length is the distance in millimeters between the center of a lens and the camera sensor. It determines the angle of view as well as the magnification of the subject. Focal length is the measure used to categorize the different type of lenses: wide angle (<35mm), standard (35mm – 70mm), medium telephoto (70mm – 135mm) and telephoto (>135mm).

FPS

FPS stands for frames per second and determines the speed at which a camera can take photos. It is especially important for sport and wildlife photographers, who need to be able to shoot rapidly to make sure they capture perfectly-timed images.

Golden hour

Golden hour, also commonly referred to as 'magic hour,' is the period right before sunset and after sunrise. During this time, the sun is low on the horizon so light takes on a redder shade than when it's higher up in the sky.

HDR

HDR, which stands for high dynamic range, is a technique that gives images a wider dynamic range than the one captured by the camera. The goal of this technique is representing a scene as

close as possible to how it was seen by the human eye. HDR images are created by combining multiple photos with different exposure values.

Histogram

Histogram is the visual representation of the luminance of an image. The left side of the graph represent the shadows, while the right side belongs to the highlights. The height of the histogram shows how many pixels there are for each specific luminance level.

Hyperfocal

Hyperfocal is the distance at which the focus point provides a deeper depth of field. It is often used by landscape photographers to ensure their scenes are as sharp as possible.

IS

IS stands for image stabilization, a technology that reduces the effects of vibration on an image. IS can be integrated in the camera body or lens. This system is meant to be used when

hand-holding the camera, as using it in combination with a tripod can send the wrong data do the system and incorrectly detect shakes.

ISO

ISO, International Organization for Standardization, represents the sensor's sensitivity to the light. The higher the number, the most information will be captured. Higher ISO numbers are used in low-light situations such as <u>astrophotography</u>. Digital cameras allow photographers to easily change the ISO, while each film roll has a predefined number.

JPEG

JPEG is an acronym for Joint Photographic Experts Group and the standard format in which pictures are compressed. Due to this compression, JPEG files are smaller and carry less information.

Kelvin

Kelvin is the absolute thermodynamic unit used to measure temperature color. The scale goes from 1,000K (candlelight) to 10,000K (blue sky) and is tightly related to white balance.

Underwater photography offers a great opportunity to experience how color temperature works, as lower temperatures disappear rapidly as the distance to the subject increases.

Light meter

Light meter is a device that measures the scene's luminosity in order to determine the best exposure value. The vast majority of cameras have a built-in light meter that relies on reflective readings through the lens.

Macro

Macro is the name given to extreme close up photography, usually capturing really small organisms or objects. In this kind of photos, the size at which the subject appears on the sensor is larger than it is in real life.

Manual

Manual is the camera mode in which the photographer controls all exposure settings. Shooting manual offers complete creative control over the shot, and is therefore considered a "must" for professional photographers.

Metadata

Metadata, also known as EXIF, is the essential information about the image. This includes dimensions, resolution, keywords, camera settings, focal length, copyright owner, etc. Most of this information is automatically added to the photos, but some fields can be added or modified in post-processing.

Noise

Noise is a visual distortion that looks like tiny colored specs on a photo. It is especially visible in images shot at high ISO or very slow shutter speeds. Noise is the digital photography version of film grain.

Overexposure

Overexposure occurs when the exposure value is higher than it should be, resulting in a loss of information over highlight areas.

P

P is a semi-automatic camera mode. Contrary to popular belief, it doesn't stand for "professional," but for "programmed automatic". This mode allows photographers to control a few settings such as the use of flash, ISO, EV, and WB. The rest of the settings are automatically selected by the camera.

Pixel

Pixel is the smallest unit of programmable color represented on a digital display. Despite common <u>photography myths</u>, the number of pixels is not the determining factor on how good a camera is.

Portfolio

Portfolio is, basically, a collection of work. Over the last years, online portfolios have become an absolute must and have grown to become full <u>professional photographer websites</u>. In addition to showcasing their work, photographers can now communicate with clients, constantly update their projects, and even book their services, all from a single platform.

Prime

Prime lenses are those with a fixed focal length. These lenses are usually smaller and faster, as they have a smaller number of moving parts and a less complicated lens formula. Their maximum apertures are usually lower than f2.8.

Quality

Quality is one of the most widely used and yet more vague photography terms. One way to consider the quality of an image is looking for aberrations or information loss. Another, more subjective, one is to evaluate its composition, sharpness, exposure, etc.

RAW

RAW is a file format that saves the image as it was captured by the sensor, with minimal processing and no compression. This allows photographers to take complete control over the creative edition of the photo. On the downside, RAW files are much larger than JPEGs and other compression file formats.

Resolution

Resolution is the dimension in megapixels that a camera sensor is able to capture. For example, the Canon EOS 5D Mark IV maximum resolution is 6720×4480 pixels, which rounds out to 30.1 effective megapixels. Higher resolutions allow photographers to capture a larger amount of detail on their photos.

Saturation

Saturation refers to the color intensity of an image. As their saturation increases, colors appear more vivid and are considered more pure. Decreasing saturation results in muted colors, with full desaturation giving a monochromatic version of the image.

Scene modes

Scene modes are automatic camera modes with pre-set exposure values based on different types of situations and subjects. These modes are aimed to help amateur photographers achieve the optimum exposure and DOF without having to control any of the settings.

Shutter speed

Shutter speed is the length of time a camera sensor is exposed to light when taking a photo. Slow shutter speeds capture the blur of subjects in motion, making it highly valuable for night and landscape photographers. On the other hand high speeds allow photographers to freeze a single millisecond in time, which is usually an absolute must in fields such as sport and pet photography.

Tonal range

Tonal range is the total number of tones in an image, from its darkest to its brightest area. A wider tonal range allows for a higher variety of shades, which translates into more detail. In

black and white photography, this translated into shades of gray. In digital photography, tonal range is directly affected by dynamic range.

Underexposure

Underexposure means that the exposure value was lower than necessary, resulting in a photo that is too dark to produce normal contrast.

Vibrance

Vibrance is a post-processing photography term coined by Adobe used to describe a "smart" saturation setting. Unlike the saturation slider, which increases all colors' pureness equally, vibrance only affects those colors that are less saturated than the rest.

Vignetting

Vignetting is a common occurrence in photography in which the edges of an image appear less bright and desaturated, specially on the corners. Nowadays, most post-processing programs can automatically detect a lens that is vignetting and correct it seamlessly.

Watermark

Watermark is a piece of text or image added to a photo in order to identify ownership of its copyright. The most common type of watermark is a somewhat transparent version of the owner's photography.logo. General opinion on the use of watermarks is strongly divided, with passionate advocates and fervent critics.

White balance

White balance is the adjustment done to an image in order to compensate for the temperature of the light illuminating the scene. Cameras offer a few pre-set values based on the most common types of illumination, but it can also be set manually during or after the shot.

Xiphiidae

The Oxford English Dictionary lists only around 400 words that begin with "X", none of which is a photography term. Xiphiidae is the taxonomic family of the swordfish.

Yellow filter

Yellow filter is one of the most popular types of color filters on black and white photography. When shooting monochromatic pictures, color filters are used to block a specific color from reaching the sensor in order to modify the image's tonal qualities.

Zoom

Zoom lens are those whose focal length can be modified, allowing photographers to make the subject appear closer than it really is. This type of lenses is much more popular than prime lenses, as it offers more flexibility.