

MAKING AN IMPACT WITH MACRO & CLOSEUP PHOTOGRAPHY

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Macro & closeup photography are often seen in text as the same, but that is a misnomer. Macro is a category of closeup photography. The concept is that both increase the size or magnification of the subject.

Reason for shooting closer: create more impact in the photo with a more powerful image that holds the attention of the viewer.

In closeup photography of landscapes, more distant objects will appear closer and give a new perspective.

Next to flying bird photography macro is the most difficult in my opinion. However, the results can be very rewarding. It demands total concentration, extreme patience and creativity.

Closeup photography is also very gratifying, allowing the photographer to get closer using the range of the lens to bring in subject matter, rather than being positioned with equipment in impossible places. Ex. High up in trees.

EQUIPMENT:

Many manufacturers design macro lenses, Nikon calls theirs Micro Nikkor. Usually, the glass is top notch quality, as a result, these lenses are expensive. They can be used for other purposes not just macro work.

I have Nikon's 60mm & 105mm micro Nikkor lenses, the 105 allows for twice as much working distance, this is a plus when photographing insects or subjects that don't tolerate human presence.

True macro photography yields the subject with a 1:1 ratio, it will document life size without accessories.

For closeup photography, some lens manufacturers claim they make macro zooms. These are not true macro lenses since the maximum reproduction ratio could be 1:2 or 1:3. Before purchasing, this value along with the minimum focusing distance needs to be evaluated. Be aware, the minimum focusing distance is calculated based on the distance from the camera's sensor plane, not the distance away from the end of the lens.

A macro lens differs from other lens at the same focal length because of its ability to let you move closer into the subject.

WEATHER:

Assessing the weather for a shoot is a must:

Go out on cloudy days when the light is drab but not flat (too gray and dark) and there is no wind. If excessive wind, do pan blurs or make long exposures on a tripod and let the wind

create the composition. For macro, use devices engineered to hold the subject. Ex. The PLAMP.

A rainy day yields more naturally diffused images and a bit of moisture on subjects can be very pleasing.

MAGNIFICATION:

* Magnification ratio is the ratio between the physical size of the composition on the sensor and the physical size of the object photographed.

Can be achieved by use of: Extension tubes or Teleconverters
Both must be purchased in accordance to the camera used.

***** Principle of extension tubes and teleconverters:

By moving the lens further away from the sensor plane, the more magnification will result.

EXTENSION TUBES: Can be used with most lenses

Elements that contain no glass, they exist to be mounted between the camera body and the lens with the purpose of creating a distance between the two. When this distance arises, more magnification of the subject matter is the result. These can extend the magnification beyond 1:1.

Usually, tubes come in set of three different rings, with various millimeters, I have the Kenko brand. They can be used individually or stacked. Using them stacked is difficult because the amount of light is diminished into the lens. Although, they are coupled to the camera's diaphragm, certain brands do not function to autofocus. Since with macro the preferred focus is manual, they serve the purpose at an affordable price.

TELECONVERTERS: Very Effective for Closeup Photography

Elements that contain glass, and are mounted between the camera body and the lens. They magnify the subject matter greatly. I have Nikon's 1.4X and the 2.0X. These are expensive but are the preferred method of increasing focal distance compared to heavily cropping the image to bring subject matter closer in the editing. Comparisons between usage of teleconverters and cropping have found the teleconverter to produce images with far less noise, pixel distortion, and more clarity than highly cropped images. In other words, if you have a teleconverter, use it, don't assume you can crop an image instead and get the same quality results.

See: Steve Perry, "The Cropping Epidemic"

When the 2X is added to my Nikon 300mm f/2.8 prime lens, on a D500 body, it can reach 900mm of focal length, on my Nikon D850, 600mm.

Use teleconverters for higher magnification, but stops of light will be lost.

They can increase the magnification 40-100%.

I recommend using only name brand teleconverters that couple with the lens of the same brand. Teleconverters usually require lenses with large apertures, or prime lenses, they can not function on most telephoto zooms, unless the zooms are lenses with larger apertures.

EXTREME MACRO:

More than life size at 2.5:1 to 5:1 magnification ranges can be obtained with a lens such as Venus Optics Laowa 25mm.

Venus Laowa 15mm macro shows the subject in its environment. It can render the foreground image in a macro perspective while allowing the background to be viewed as a 15mm wide angle. Also it enables the lens to be shifted 6mm to change the perspective control and angle distortion.

Both Laowa lenses are made for various camera mounts but beware, they are totally manual in terms of operation with the aperture and focus and are not easy to use.

Watch the Thomas Shahan video on you tube: Wide Angle Macro and Venus 15mm macro lens.

TRIPODS:

Tripod stabilization is always recommended for both macro & closeup photography, and for most other types of photography.

Tripod for macro usage:

A tripod is mandatory, but you can hand hold the camera to find the composition then decide where you want to set up the tripod for macro photography. Bean bags can be helpful for low to the ground subjects.

For convenience, a focusing rail can be mounted on the bottom of the camera body, then placed on the tripod head. This allows for movement of the camera towards or away from the subject while trying to focus. I found by turning my mounting plate at a nonparallel position of the camera body, then placing it on the tripod head, I can move the camera and lens back and forth somewhat.

COMPOSITION:

While considering composition, picture in your mind the image flat, rather than 3D, this will help determine how the background will appear.

Subtle changes in background can really change the composition, moving a few inches side to side, or up or down, can greatly alter the look in macro composition.

Cut out distractions from backgrounds.

In the field, the idea is to immerse the viewer into a world they most likely are unaware of. This could be subjects such as insects, plant parts, or objects close to the ground.

To create a high key background, position the camera at exaggerated angles such as very high or low. Ex. The subject is a flower, get down low and position it against a bright river, oppositely, position the lens high against a white sky. This creates isolation of subject and negative space.

With flowers, using true macro lenses welcome the viewer in and reveals the botanical anatomy. Do be careful of dirt on flower petals or brown leaves that distract from the beauty of the composition.

WHAT TO KEEP IN MIND FOR COMPOSITIONS:

Avoid LAZY PHOTOGRAPHER'S SYNDROME, that means not making compositions directly in front of the eye, look up and down. Look at the ground, the most interesting subject matter can be dead and below the normal field of view.

Don't be afraid to reposition objects in the composition, but, keep things looking natural rather than staged.

Look for patterns and symmetry, train the eye to see visually appealing composition before the shutter button is pressed. Use composition as a way of inviting the viewer to "walk into" the image.

Shoot for the moment, sometimes lighting can change dramatically within seconds especially near sunset.

One of the secrets of beautiful macro and close up photography is what the composition shows behind the main subject. This can take an ordinary image and make it magical.

****The background is going to make or break your image for both macro and closeup photography.

I totally control my in camera backgrounds using three methods:

1. Setting the aperture wide, (smaller f/stop), thus blurring the background
2. Isolating the subject matter using high key, low key techniques
3. Using flash in lower lighting conditions, which actually darkens the backgrounds

TEXTURES:

As humans our eyes may first be compelled to see colors and beauty, but look for things that aren't too pretty such as dead blossoms or dry leaves.

With flowers if a petal is missing, focus on the inside. The inside reveals the "soul" of the flower and leads the viewer inward.

Don't hesitate to photograph the underside or an upside down flower.

Decide what to include as far as amount of stem.

Remove distractions that will fight with the composition, change the positioning or angle of the camera.

Using software textures added to the original image can create a unique ethereal effect. They can be made using water reflections, or out of focus images.

Shadow House Creations, Kathleen Clemons, Hazel Meredith, are sites to buy textures.

FOCUS:

FOCUS: 3 schools of thought:

1. Critical sharp focus on a designated point.
2. Everything in focus
3. Nothing in focus

Use manual focus with single or group point focus for best results. Use live view to find the point of focus. For macro, shoot manual focus, otherwise the camera will be hunting trying to make the picture in focus.

Focus placement is critical, with extreme closeup, use single focus and place the focus area exactly on the area that is to be the main part of the composition. With a shallow depth of field, you must identify the exact place the focus is to be rendered, I focus on the point that is the closest to me.

Focal plane has a effect on depth of field, if the sensor is parallel there will be more in focus. In other words, line the tripod up so the object is straight in front of the camera and on the same level. Even a small change in the angle makes a difference in how much is in focus.

*** For 1:1 macro photography, manual focus as opposed to auto is always recommended. Rotate the lens focusing ring to the opposite end of infinity. From there move into the subject preferably on a tripod, until the object is in focus, do not turn the focus ring. When the camera is at its closest focusing distance, the subject is a true 1:1 ratio.

For sharp focus use a remote release, mirror up, or the camera's self timer mode for static subjects. In mirror up, the shutter is released after the programmed amount of time. Mirror up prevents mirror slap which can make the image out of focus with shutter speeds below 1/30 sec. Press the shutter button twice, once to raise the mirror, then again to release the shutter.

Intentionally, make the image totally out of focus rendering no specific detail. These images make lovely /creative textures that can be added by use of layers in a photograph. Or can be used for in camera image overlays.

Everything in Focus:

When there is a desire for total focus front to back, it can be obtained with focus stacking also called focus shift shooting on Nikon D850. This can be done with in Fuji XT2 & XT3.

Focus Stacking can be done with any type of photography. It can be an effective tool for landscape photography as well. Shooting at low apertures can put landscapes somewhat in focus from the front to back because of the extended depth of field. However, the smaller f/ stops (those in the range of f/16/f/22) are not areas where the lens is at the sharpest. It is best to find the sweet spot of the lens, and find the proper exposure, then go about the focus stacking procedure.

View the You Tube Tutorial by Tony Northrup: <https://youtu.be/F3Dz34MMjQ0>.

LIGHTING:

***** AS MAGNIFICATION INCREASES, LIGHT HITTING THE SENSOR DECREASES.

When photographing close, the light has a tendency to spread out. Also, F/STOPS are logarithmic, each stop records only half as much light as the previous one.

The downside of macro photography is loss of light reaching the sensor due to positioning the lens close to the subject, also the entire object won't be sharp from front to back. With flowers, using true macro lenses welcome the viewer in and reveals the botanical anatomy.

Use flash off camera, dial it up or down in flash capacity and reposition the light angle. A diffuser can help if the flash is too bright after dialing down to the minimum capacity. If conditions are windy, a flash helps stop the motion.

A ring light can be valuable since it evenly applies light to the subject at all angles. Other manufacturers such as Bolt have a flash with extension arms that can be positioned exactly where needed on the subject. When shooting in close proximity, an onboard flash is almost useless since the light will be positioned up and over the photographic subject.

New invention: Needing extra light but have no flash use the following technique I devised: Have the camera on a tripod, set the composition, proper exposure and focus. Set the camera's timer to trigger the shutter button when depressed this allows for hands to be free, I use 5 seconds. On Nikon cameras the timer can be configured in the Custom Setting Menu, under Timers. Have your cell phone with its flashlight available. Place a piece of paper, over the light if the flashlight is too bright, or dial it down. A piece of paper, paper towel or white fabric could also work, even a white tee shirt! Position the cell phone in various places around the subject to see what angle works best to illuminate and create the desired effect.

Reflectors & Diffusers:

Very effective on sunny days.

If working close, and no diffusers are available, the body can be used to block invasive light. When shooting on a bright day, use of diffusers can be very helpful. Some photographers use a white umbrella over the object to diffuse the bright light for a softer effect.

FOR ADDED ARTISTIC METHODS / IN CAMERA: Explained in the Magnolia Critique Session

MULTIPLE EXPOSURES:

A programmable in camera function that superimposes one image on top of another. For Nikon cameras the images must be made in RAW and most will require post processing. Take one in center, then turn camera one way then the other, do maybe 3. One at 11 o'clock one at 1 and one at center. Five exposures work well, take 3 without moving, vary the position of the last two. A trick for photographing areas of sparse flowers, take about 5-6 exposures moving the camera. The end result will show a frame that looks filled when the images are merged in camera. The opportunities are endless and addicting.

IMPROVEMENTS:

[SIPS]... SELF IMPOSED PROJECTS !!!!!

Practice shooting with only a fixed focal length rather than a zoom lens, this forces more thought about the composition.

Be positioned in areas that have an enormous amount of subject matter, stand and study it to visualize possible compositions, determine which lens to use, how to deal with light and weather conditions, and how far away to be from the subject. Photograph with different focal lengths and apertures to make a variety of images.

ADDED THOUGHTS:

Treat favorite images as individual works of art. Don't fall into using the habit of using presets that softwares offer. Edit each one individually and make the most of them.

Take time to study images, do a self critique. If the opportunity arises, find mistakes from the self critique, then go back the next day, shoot the same subject again and correct the mistakes.

Don't go out on a shoot with the intention of taking dozens of random images. Concentrate on less quantity but more quality.

If you don't love your images immediately after a shoot,,, which often I don't, refrain from looking at them for an extended period of time. Go back, to see them in a totally different manner after their "flavor" sets in.

Don't throw away all bad images. Self access them from time to time, study the metadata and see where the mistakes are. This will uncover incorrect settings, improper histograms, and unveil compositional tendencies that might follow a repeated detrimental pattern.

So into macro,, you will compelled to photograph your lunch before you eat it!!!!!!!

Love your Magnum Opus.... Also known as your best work of art!

INFORMATIONAL LINKS:

Macro Flower: Jackie Kramer www.luvblooms.com

Textures: Kathleen Clemons www.kathleenclemonsphotography.com

Macro guru: Don Komarechka https://youtu.be/bisg8ZsN_a4 macro snowflakes

Focus Stack Info: "How to Focus Stack Images in Photoshop", photoessentials.com
Tony Northrup "Focus Stacking for Macro Photography"
<https://youtu.be/ajnhlAwZUX0>,

Thomas Shahan: Wide Angle Macro and the Venus Laowa 15mm Macro Lens
<https://youtu.be/PZcYXUMkhek>

Closeup: "The Cropping Epidemic", by Steve Perry
<https://backcountrygallery.com/the-cropping-epidemic/>

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