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Photography handbook:

A photographic guide created for the delivery of the Central European Photography Club

Introduction to Photography: The Universal Language

This photography introduction was designed with beginners in mind, and it includes a number of pointers and ideas to help you enhance your abilities. Writing an introduction to photography, however, is similar to writing an introduction to language; despite how wonderful and significant photography is, it can be almost endlessly complex. What distinguishes compelling images from uninspiring ones, and how can you raise the level of your own work? These and other topics are addressed in the handout's basis.

What is photography?

Photography is the art of using a camera to capture light in order to produce an image, typically using a digital sensor or film. Even light waves like UV, infrared, and radio that are undetectable to the human eye can be captured on camera with the correct tools.

Joseph Nicéphore Niépce made the first ever permanent photograph in France in 1826 (other accounts state 1827). It displays a sun-lit building's roof. It is included above for reference.



Figure 1- "View from the Window at Le Gras" by Joseph Nicéphore Niépce

Do you actually need a "Fancy Camera"?

A significant part of why Apple became the first trillion dollar corporation in the world in 2018 was due to the iPhone, which replaced items like alarm clocks, flashlights, calculators, MP3 players, landlines, GPSs, audio recorders....

...and cameras. Nowadays, many people think they don't need to buy a separate camera because their phone can take most of the photos they need. And actually... they are right! A dedicated camera is overkill for the many of the people out there.

For the majority of their needs, phones are preferable to separate cameras. In addition to becoming quicker and simpler to use, they seamlessly integrate with social networking. Buying a dedicated camera only makes sense if your phone is inadequate for the images

you want to take (such as those of sports; low-light situations, requiring large prints) or if you have a particular interest in photography as a hobby.

Though it may seem counterintuitive coming from a photographer, the advice is valid. You already have everything you need for photography if you have a camera of any kind, especially a mobile phone camera. What else is there to say if you have a more sophisticated camera, such as a DSLR or mirrorless camera? Your equipment can definitely handle the task. Learning how to use your gear is the only thing left to do.



Figure 2- © Oxana Bischin; f 4; ISO 100; 1/ 400s; Focal Length: 52 cm.

What is the essential equipment required for Photography?

Camera. Choose a dedicated camera (if you decide to go for more than a phone) that has interchangeable lenses so that you can more readily experiment with several genres of photography. Read reviews, but don't get too caught up in them because everything that is now available is very much on par with its competitors in quality. Find a good price, then proceed.

Lenses. Here is where things matter. Start with a basic zoom lens for everyday photography, such as a 24-70mm or 18-55mm. Choose a prime lens (one without a zoom) at a focal length of 35mm, 50mm, or 85mm for portrait photography. Consider using a telephoto lens for sports. Get a macro lens specifically designed for macro photography, and so on. Since they determine the types of images you can capture in the first place, lenses are more important than any other piece of equipment.

Post-processing apps and tools. You have to edit your images to some degree. It's fine to start with software included with your camera or pre-installed on your computer. But over time, a specialised programme will be the best option. There are many possibilities, like purchasing independent software from another provider, or buying Lightroom and Photoshop from Adobe as a bundle for £10/month. Whatever you decide to go with, give it some time and effort, and you'll pick it up very quickly.

The remaining information is optional but very useful:

The tripod. The ideal accessory for landscape photographers.

Bags. Purchase a shoulder bag for street photography, a rolling bag for the studio, a technical hiking backpack for landscape photography, and so forth.

Memory sticks. Pick a storage option between 64 and 128 GB to begin with. If you frequently take bursts of images, get a fast card (measured in MB/second), as your camera's memory will clear more quickly.

Additional batteries. Get two spare batteries, or at the very least one, for the start. Off-brand batteries are typically less expensive, but they might not last for the same time or continue being compatible with future cameras.

Polarising lens. This is important, especially for photographers of landscapes. Don't buy a cheap polarizer because it will reduce the quality of your images.

Flash. Flashes can be pricey, and if you want to use your flash off-camera, you might need to purchase a separate transmitter and receiver. But they're essential for genres like macro and portrait photography.

Cleaning kit. A microfiber cloth is the most important accessory to keep your lens' front clean. Purchase a rocket blower as well to more easily remove dust from your camera sensor.

Other accessories. There are endless additional photography accessories available, including printers, GPS attachments, and remote shutter releases. At first, don't worry about them; you'll learn whether you require one later.

The Three Basic Camera Settings You Should Understand

There are probably hundreds of menu items and buttons on your camera. How do you learn all these settings? And how do you translate this practically in the field?

Although difficult, it's not as awful as you may imagine. In actuality, the majority of menu settings are something you'll only set once, then use infrequently or never again. Only a small number of settings require frequent adjustment.

Shutter speed, aperture, and ISO are the three most essential settings. Although they each manage brightness, all three of them affect this in a different way. To put it another way, each has different "side effects" on an image. Knowing exactly how to balance all three for a particular photo is therefore somewhat of an art.



Figure 3- © Oxana Bischin. f 5.6; ISO 640; 1/4000s;
Focal Length: 75cm.

The amount of time your camera's sensor is exposed to the environment while taking a picture is known as the shutter speed.

The aperture in your lens is like a "pupil" that may open and close to let in various quantities of light.

Technically a little more difficult, ISO is comparable to the sensitivity of film (as in film used for analogue photography) for taking images in various lighting situations. Similar to post-processing techniques for brightening or darkening photos.

What's the Most Important for You in Terms of Camera Specs?

You could find yourself quickly overwhelmed by information when looking to buy a camera.

Resolution and megapixels, sensor size and ISO range, burst rate and aspect ratio are all topics of discussion. And that's only the start...



Figure 3-© Oxana Bischin; f 4; ISO 320; 1/40s; Focal Length 105 cm.

Which of these requirements are the most significant and what do they all mean? For instance, the battery life of a Nikon D3500 camera is 1550 shots, which is five times longer than that of a mirrorless camera at the same price. Therefore, this camera is the best option for those looking for cameras with the longest battery life.

Let's try to make sense of all of this.

Sensor Type

Digital cameras include a variety of sensors, with APS-C and full frame being the most common ones.

Full frame sensors are often found in higher-end cameras for amateur and professional photographers, such as the Sony A7R II pictured above.

Its name comes from the fact that the sensor's dimensions are similar to those of 35mm film, which are 36 mm by 24 mm. In contrast, an APS-C camera, sometimes known as a "crop sensor," features a sensor that is much smaller and normally measures roughly 22mm by 15mm, however the exact dimensions vary depending on the camera maker. For instance, the APS-C sensor on the Pentax K-3 is 23.5mm by 15.6mm.

The term "crop sensor" refers to a sensor that is a scaled-down version of a full frame sensor. The different sensor sizes in these cameras translate to different fields of view as well.

What do I mean this?

Even if we use the same lens and shoot at the same distance, the images we take will seem different if I use a full frame camera and I stand next to you as you use an APS-C camera.

A full frame camera's bigger sensor allows it to capture more of the scene. In contrast, the APS-C camera will capture less of the scene since the corners of the image are cropped, giving the impression that the image is being zoomed in.

APS-C cameras alter the effective focal length of the lens that is used because of this cropped appearance.

In other words, a 50mm lens functions as a 50mm lens on a full frame camera. In contrast, a 50mm lens on an APS-C camera may perform like a 75mm or 80mm lens depending on the size of the camera's sensor.



Figure 4- © Oxana Bischin; f / 4; ISO 100; 1/100s; Focal Length: 105 cm.

Megapixel Count

The resolution of the images that a camera produces is somewhat based on the amount of megapixels that its sensor possesses.

The resolution rises with the number of megapixels, and larger prints can be produced at greater resolutions.

The photographer determines what megapixel count is suitable.

A professional could like the Nikon D810 as an example because of its 36-megapixel full-frame sensor, which provides outstanding resolution for prints of all sizes.

Even greater resolution cameras exist, such as the Canon EOS 5D S with its 50 megapixel full frame sensor.

These cameras are obviously quite pricey, but you can also get fantastic prices on used camera bodies.

An entry-level full frame camera, like the Canon EOS 6D above, has more than enough resolution for the majority of photographers at 20.2 megapixels. It is also far less expensive than the full frame cameras mentioned previously, despite the fact that it is a full frame camera.

An APS-C camera with a 24.2-megapixel crop sensor, like the Nikon D3300, is an even more cost-effective choice. For the majority of photographers, an APS-C camera will provide more than enough resolution for standard-sized prints, even if the photographs from an APS-C camera cannot be printed as large as these from a full frame camera.



Figure 5- © Oxana Bischin; f/4; ISO 100; 1/640s; Focal Length: 105 cm.

Dimensions & Image Size

The shape of the images that a camera can produce is referred to as the aspect ratio.

A precisely square image has an aspect ratio of 1:1, but a wide rectangle image has an aspect ratio of 16:9.

Images produced by 4:3 ratio cameras are a little bit wider than they are tall. A 3:2 aspect ratio is used by cameras with a full-frame sensor.

Referring to image area, that specification reveals what a camera is capable of producing expressed as photo size in pixels.

For instance, a 2000x1500 pixel image is smaller than one that is 4000x3000 pixels.

Additional Specs to Consider

When looking for a camera, there are many other specifications to consider.

The ISO range should be examined because it affects how well the camera works in low-light conditions.

The ISO 100–51200 range of mid-range cameras, like the FujiFilm X100T displayed above, allows for good low-light performance. You can quickly determine which camera is better able to capture images in low-light scenarios like the one here, by comparing its ISO range with that of the entry-level Canon EOS Rebel T3i, which ranges from 100-6400.



Figure 6-© Oxana Bischin; f/22; ISO 100; 1/5 s; Focal Length: 58 cm.

Shutter speed is an additional requirement to consider.

You need a camera with a quick maximum shutter speed, like 1/8000 seconds, if you want to capture moving objects like birds, wildlife, or athletic events.

The quantity of autofocus points is also a crucial component.

A camera is more likely to catch the subject in crisp detail the more autofocus points it has. Additionally, the camera will be able to track a moving subject more effectively the more focused points it has.

More autofocus points are found in ultra-high-end cameras, such as the Sony a9's staggering 693 points. In contrast, the Nikon D5500 offers 39 points.

That is not to say, however, that the D5500 is a subpar camera. Quite the opposite. It just indicates that the Sony a9 has a significantly more advanced autofocus technology.

Watch out for the burst rate or continuous shooting speed as well.

More than 10 frames per second burst shooting is a feature that certain cameras offer. This is helpful if your line of work involves taking pictures of quickly moving activity.

The burst rate won't be as much of a problem for you, though, if your preferred subjects for photographs are landscapes or still-life portraits.

What Camera Specifications are Most Vital? This is one of those "it depends" questions.

Truly, a lot of different things, not the least of which is your budget, will determine what you require from your camera.

The truth is that more expensive cameras include higher-end features including a large full-frame sensor, excellent ISO performance, and a high burst rate.

However, not all photographers will require such characteristics and will be able to accomplish their objectives with a budget-friendly or entry-level APS-C camera.

The point is that you must review camera characteristics to determine which ones best meet your requirements.

If you frequently need to take pictures in low-light conditions, search for a camera with a broad ISO range.

A camera with a fast continuous shooting speed and a large number of autofocus points may be particularly crucial if you photograph moving subjects.

The Importance of Focus and Quick Tips on How to Get it Right

What do we refer to when we refer to focus?

The sharpest element of an image in photography is called the focus. It is the spot where the lens is used to draw attention to a specific thing, person, or circumstance. In addition to ISO, aperture, and shutter speed, focus is one of the key elements of photography.

Focusing can be done manually or automatically. In automated mode, the camera adjusts the focus to make the subject appear as sharp as possible based on the amount of light entering the lens. When shooting in manual mode, the photographer must turn the focus wheel on the lens to bring the appropriate area of the image into focus.

Autofocus

Autofocus refers to the camera setting that facilitates focusing, especially for novice photographers or those who wish to test out a faster-paced style of shooting.

Although the names of the autofocus settings vary from one brand of cameras to another, they are usually obvious. For instance, you can choose from the following features on a Canon camera:

One Shot: When you have to lock focus on an item, use the One Shot setting. If not, the photo won't be taken. This setting is known as Autofocus S or Single AF on other cameras.

AI Focus. On other cameras this setting might be referred to as **AF-A:** To focus on a moving item, employ this focus setting. It is perfect for sports or wildlife photography.

Manual Focus:

By rotating the wheel at the end of your camera lens, focus can be changed when the camera is in manual mode. You can focus on the desired subject by rotating this wheel. Use this option if there is not enough contrast or if you are too near to the subject for your lens to focus.

When utilising automatic mode, keep in mind that the camera may not always concentrate on the target object; in this situation, you can utilise an option called focus lock. This enables you to quickly and accurately use manual focus to focus on the chosen object.

The sharpest part of an image in photography is called the focus.

Avoid employing manual focusing in circumstances when speed is required because it takes practice and very sharp vision.

What are camera lenses, when would I use them, and how?

In photography, focus doesn't just refer to sharpness in an image or the ability to see what you are looking at. Focus may draw you in, it can enhance a subject by making it stand out from or blend in with its surrounds, and the appropriate focus can evoke an emotional response in the viewer.

Whatever kind of photography you like, focus can either help or hinder you.

Let's talk about how to focus when doing various kinds of photography.

Portraits

The most important rule in portraiture is: The eyes should always be 'in focus' when taking photos of people or animals. (Exceptions abound—as with all laws. But really, pay attention to the eyes. Due to millions of years of evolution, humans have the ability to recognise and react to faces relatively fast. In my family, for instance, being able to tell when someone is furious with you is unquestionably a survival skill.)

Certain dog images could benefit greatly from having the focus on the ear or the tip of the nose, however the combination of highly defined eyes and a background that is softened is what draws the eye to a portrait.

What is the best method employed to achieve this? Get as close as you can by using a wide aperture ($f/2.8$ or lower if you can), and use longish focal length (50mm and up).

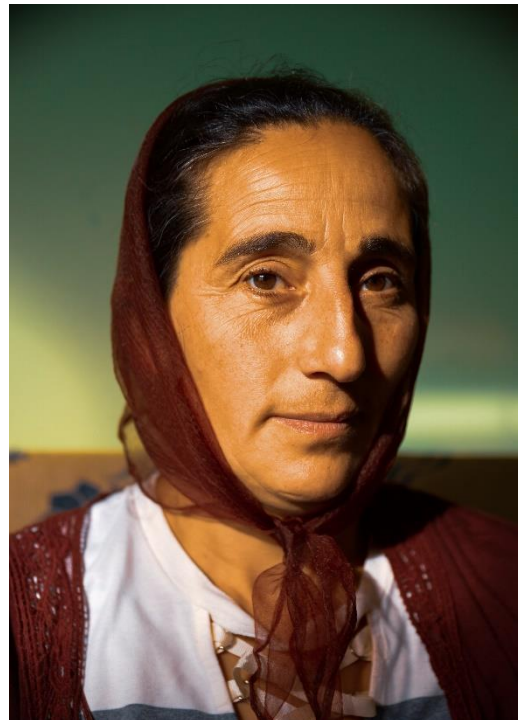


Figure 7 - "Volovatic" © Oxana Bischin.

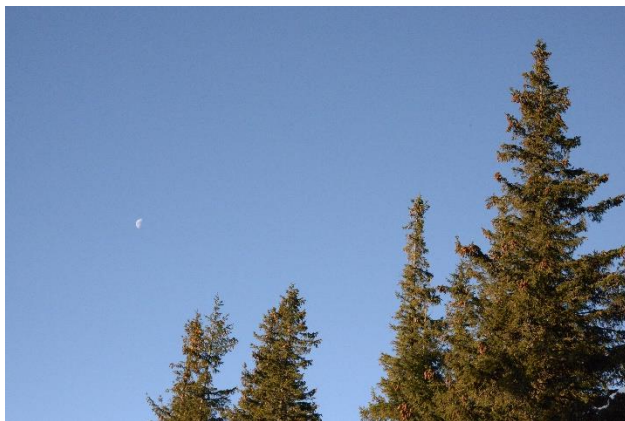


Figure 8 - © Oxana Bischin;

Landscapes/architectural

Landscapes, or images of the natural world or your immediate surroundings, typically try to capture as much of the scene as sharply defined or focused as possible. The goal is to convey scale and size to the observer. A feast for the eyes, a banquet of sights. To maintain the entire subject in sharp focus, from the nearest flower to the farthest cloud, landscape photographers

frequently use a basic understanding of hyperfocal distances.

When everything in a photograph is sharp, the viewer's eye is directed to the composition's bold, key features first, such as a strong lines, sizable blocks of colour, and the intersections of the rule of thirds. From then, the spectator moves through the image like a virtual traveller, taking in every detail and exploring every nook and cranny.

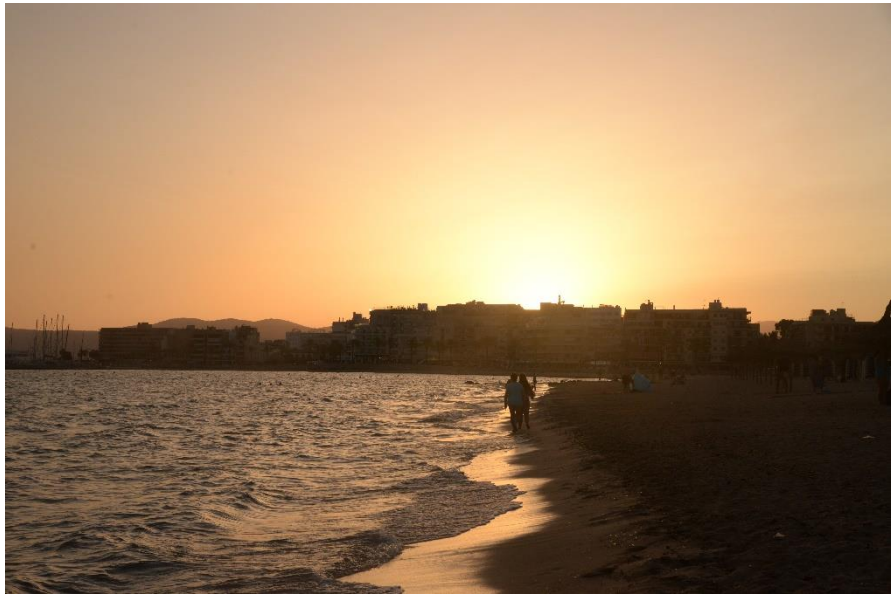


Figure 9 -© Oxana Bischin;

What is the method? Make use of a tripod if at all possible, focus on a distant object in the middle of the frame (or apply the hyperfocal distance), and use the smallest aperture you can (f/11 or higher). Since very small apertures (f/11, f/16, and f/22) require longer shutter speeds, tripods are frequently required for the best possible sharpness.

Macros

The best close-ups are macros. Macros, which frequently concentrate on a single, tiny subject, need specialised approaches and a great deal of patience to master.

Macros are well known for their capacity to focus on and magnify a single object that frequently escapes the attention of the unaided eye. Additionally, they have very small depths of field (sometimes just a few millimetres).

Because macro photography frequently requires very close working distances (as little as a few inches), the small depth of field is typically an implied result. Contrary to popular belief, while shooting macro, it might be difficult to boost the depth of field as much as possible in order for the right amount of subject to be in focus.

What is your method? Use the macro setting on your camera or your favourite macro lens, get as near as you can to your subject, and use the smallest aperture you can (f/8, f/11, or higher). You may need to carry additional lighting, a tripod, or use a higher ISO setting because small apertures and close working distances can occasionally result in low light as well.

Environmental portraits

These images combine traditional portraiture with landscape photography. The concept behind this kind of portrait is to place the individual in a setting that reveals something about them to the observer. There are many different methods to approach this kind of photography, but generally speaking, the person should always be in focus since they are the main subject. The composition of the image, how clean or busy the background is, and how much emphasis you want to put on each (the subject vs. the environment) all have a significant role in whether you keep the background in focus (and how much).

The eyes alone aren't as crucial because these are typically not close-up portraits (head photographs).

What is your method? Use a moderate aperture ($f/4$, $f/5.6$, or $f/8$), a wide-to-medium focal length to include some background, and a quick enough shutter speed to capture the portrait subject in motion. I sincerely hope that this was useful in showing you how to maintain strong focus in a variety of settings.



Figure 10- "Janina" © Oxana Bischin.

Bonus: Focus on your phone's camera.

How can I control the focus my Android camera manually?

Sometimes you need to manually focus before snapping a picture with your camera phone to make it act like a DSLR. Can you accomplish that with your Android camera? Let's investigate.

The stock camera app on the majority of modern Android handsets includes a built-in manual mode. If not, when your camera is ready, you can download a third-party application that will enable manual focusing.

We'll demonstrate how to access the manual camera mode on your smartphone and how to download a dependable third-party app to handle this task for you.

Android Camera Manual

On Android, how can I access the manual camera settings?

Even though every smartphone is unique, the Android camera settings share some similar characteristics. Locate the following mode in the default Android camera app:

professional or

manual mode

It may be found among other options such as slow mode, time-lapse, or panorama. Alternatively, it's possible to find it located at the bottom of your screen. You can choose the professional option by simply scrolling up.

How does a phone camera manually focus?

To manually focus your smartphone camera, switch to the manual mode and seek the MF icon. This function is triggered when you tap the figure. On your screen, a slider that lets you manually focus will appear. Test it out. Try to focus on one of the elements in the foreground or background of a photograph. Yes, it is that simple!

You'll probably use autofocus a majority of the time, but there are times when manual focus is required. It will be useful in the following four circumstances:

-dimly lit situations;

-the subject's own low contrast or lack of prominent details makes it more challenging for the camera to distinguish;

-several subjects are present in the scene, therefore choose where do you want your sharp focus to be (on which one).

Although the object has not yet arrived, it moves quickly, so you need to focus before it does.

On an iPhone, how can I change the camera's focus?

The iPhone camera automatically adjusts the focus and exposure before you take a picture, and face detection evenly distributes the exposure across numerous faces. Follow these steps to manually refocus and expose your camera:

To see the automated focus area and exposure setting, tap the screen.

To move the focus area, tap the desired location of your focus.

Drag up or down to change the exposure next to the focus area.

Touch and hold the focus area until you see AE/AF Lock; tap the screen to unlock settings. This will lock your manual focus and exposure settings for future photographs.

You may precisely set and lock the exposure for subsequent photographs on iPhone 11 and later. To change the exposure, tap three times, then drag the slider. Until you open Camera again, the exposure is locked. Go to Settings > Camera > Preserve Settings, turn on Exposure Adjustment, and then click Save Exposure Control to prevent it from being reset when you open Camera.

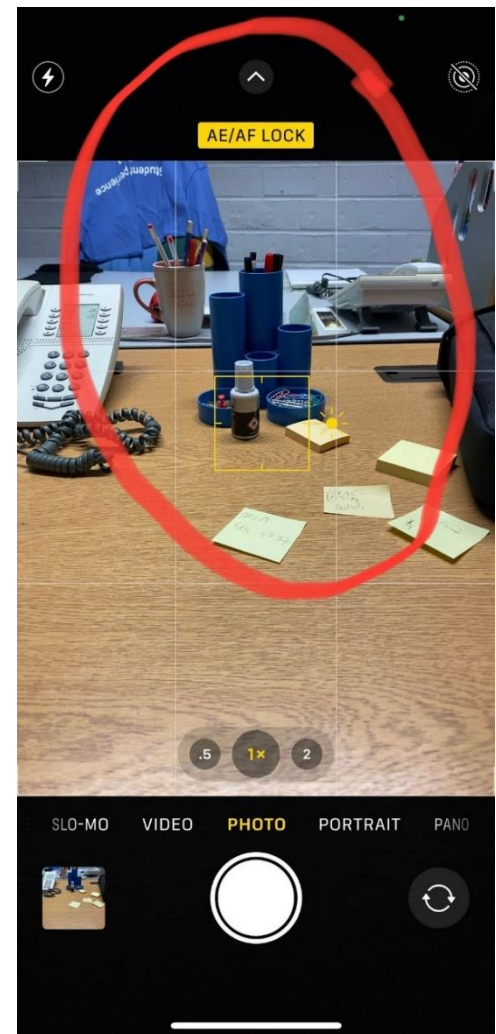


Figure 11-© Oxana Bischin Iphone camera menu.

Controlling EXPOSURE: A short Guide

Exposure= how much light reaches the camera sensor

APERTURE (many lens blades) = how much light is recorded in the photo (f)

- It adjusts how much of the subject is in focus.
- BOKEH effect
- WIDE = more light & shallow depth of field
- NARROW= less light & deeper depth of field

All light must travel through the aperture, a hole with a changeable size inside your lens (that mimics the look and function of the human pupil), before it can reach the shutter. It is possible for the hole to be small ("stopped" down) or huge ("opened" up"). More light may be captured the broader the hole. The term "f-stop" (sometimes known as "f-numbers") is used to describe the size of the aperture. The aperture grows in size as the f-stop decreases. When someone refers to shooting "wide open," they are referring to their lens's aperture being opened to its widest setting. And when a photographer talks about "stopping down," he or she indicates that the aperture has been closed (the camera's f-stop setting has been set to a bigger f-stop number).

SHUTTER SPEED

The most straightforward concept is most likely shutter speed. The "shutter" is a moveable screen inside your camera that sits in front of the film or sensor. The camera opens the shutter and then closes it again when you touch the shutter release button. The length of time during which light is captured is controlled by this. From 1/8000 of a second to 30 seconds, its setting is expressed in fractions of a second.



Figure 12 -ISO 400; F/4.0; 1/400s. © Oxana Bischin.

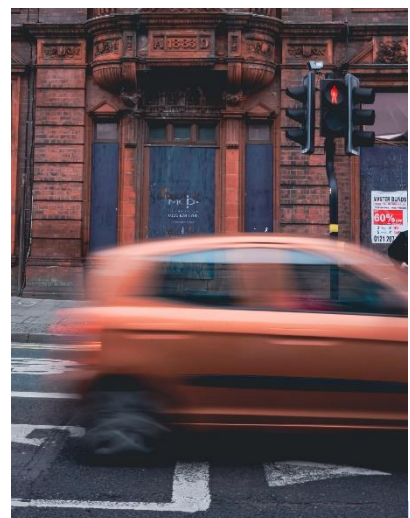


Figure 13 - Comparative for motion blur:
ISO 400; F/20; 1/13s. © Oxana Bischin.

Shutter speed= the length of time the shutter is open, letting light into the camera sensor; or the speed at which the shutter is triggered to open and close.

30-1/800 of a second

(Sports, 1/150 second, fast motion) TO FREEZE the motion

BLURRING the motion (A tripod works best for achieving motion blur)

Before moving on, let's talk about these for a moment. Your camera needs to catch light from the scene and record it on the sensor in order to capture the scene. This is referred to as the "exposure." You can achieve this by either capturing a lot of light for a brief period of time (wide aperture and fast shutter speed) or a little light for a prolonged period of time (small aperture and slow shutter speed). But why does this matter at all? Because you have a great deal of creative influence over the finished image thanks to these two basic aspects.

How much light reaches the sensor is controlled by the shutter speed and aperture. But they also have influence over other things. Time and motion are controlled by shutter speed. An

extremely quick shutter speed can freeze activity, suspend water droplets in mid-air, and record the fleeting moments on film. A mountain stream, star trails, and moving objects can all be captured with an extremely slow shutter speed to create a strong impression of motion, via the effect we refer to as motion blur.



Figure 14 -ISO 400 (in shadow); f/10 (good value for environmental portrait); Shutter speed: 1/250. © Oxana Bischin.

Because you still need a certain amount of light to capture a proper exposure, these settings have an impact on one another. In order to make up for the increased amount of light coming through the wider aperture, the shutter speed must likewise be decreased (this is in order to avoid over-exposure). Likewise, you must reduce the aperture to let less light in if you increase the shutter speed to let light fall onto the sensor for a longer period of time.



Figure 15 - ISO 400; f / 5.6 (aperture value is too large in this photo, this decreases the depth of field and as such only the girl in the picture is in focus with her mother behind her being slightly blurred out). This can be rectified to obtain a clear photo with larger depth of field or can be used as such if the author wishes to emphasize distance, identity alienation etc. Shutter Speed: 1/80s. © Oxana Bischin.



Figure 16 - ISO 100; f / 4.0; Shutter Speed: 1/50s.
© Oxana Bischin.

Thankfully, Shutter Priority and Aperture Priority modes are included with the majority of cameras, making these calculations straightforward for you. Put your camera in Shutter Priority mode (commonly marked "Tv" in Canon cameras, and 'S' in Nikon devices), and it will calculate the right aperture based on the shutter speed you choose to achieve a balanced exposure. When you want to manage the amount of blur in the image or make sure you can freeze the action, you'll use this technique.

When using the camera in Aperture Priority mode (labeled "Av" in Cannon cameras and 'A' in Nikon devices), you set the aperture manually and the device determines the appropriate shutter speed. When you want to control how much of the image is in focus from foreground to background, either the entire landscape (small aperture, big f-number) or just a tiny portion of a portrait (large aperture, small f-number), use aperture priority mode.

Most lenses display their largest aperture setting. The term "fast" refers to lenses that have very high apertures, such as f/2.8, f/1.8, or even larger. These lenses let in a lot of light, enabling quick shutter speeds in low-light situations.

ISO

= the sensitivity of the camera sensor

25,000 (bright) - 100 (dark)

Use only if you can't increase the aperture (for aperture this refers to a lower value) and shutter speed (for shutter speed this refers to a higher value as expressed in fraction of a second or seconds) n.b. When I say increase the aperture and shutter speed - I mean increasing them for your desired effect while still maintaining a balanced exposure.

COST = digital noise optical stabilization in lens/ camera



Figure 17 - ISO 6400; F/ 20; 1/4000. All values are bad and off chart: ISO should be around 200 or 100 on a sunny day-this large ISO value results in a lot of noise. f value should be larger at around 8 to compensate for a lower ISO value and Shutter Speed

The last element directly affecting exposure is ISO sensitivity. The less light needed in order to record an image, the more sensitive your film or sensor is. Noise or grain is impacted by ISO sensitivity as well. The image will be grainier and noisier the higher the ISO. However, a higher ISO also enables you to shoot in low light with faster shutter speeds, an alternative that many photographers like over the use of a flash.

Finally, keep in mind that shutter speed, aperture, and ISO are frequently stated as figures that denote a halving or doubling of exposure. As an illustration, f/4 lets in twice as much light as f/5.6 but only half as much as f/2.8. 1/30s

lets in twice as much light as 1/60s but only half as much as 1/15s. Additionally, ISO 800 has twice the sensitivity of ISO 400 but only half that of ISO 1600. If you are going entirely manual and want to control all three settings manually it is useful to keep this in mind. For instance, if you cut the shutter speed in half, you have two options for maintaining the same exposure: either reduce the aperture (1/60s @ f/5.6 is equivalent to 1/30s @ f/8) or lower the ISO while maintaining the same aperture (1/60s @ ISO 400 is equivalent to 1/30s @ ISO 200 with constant aperture).

Making use of this information is simple and requires no arithmetic or formula memory while shooting in aperture or shutter priority settings. Use shutter priority settings and a long or short shutter speed if you want motion blur or frozen activity. Use aperture priority mode and adjust the aperture to smaller f-stops for narrower focus (for portraiture) and larger f-stops for broader focus (for landscape photography) if you want to manage the depth of field.



Figure 18 -© Oxana Bischin.-Demonstrating the result of bad ISO

Typical Landscape Photography (Not at Night)



Figure 19 - ISO 6400; $f/8$; $1/1600s$. This shows how depth of field is visibly larger compared to portrait specific values of larger apertures that decrease the depth of field, e.g. $f/4$ or $f/1.8$, etc. © Oxana Bischin.

- Use a tripod.
- Change to the aperture-priority setting, where the aperture is manually chosen and the shutter speed is automatically determined by the camera.
- In general, shoot at $f/8$, but switch to $f/11$ or $f/16$ if you need additional depth of field (for example, if there is a nearby foreground or if you are using a telephoto lens). On a full-frame camera, this is. Divide these figures by your crop factor to obtain the corresponding aperture for your camera.
- Reset the ISO to its default setting.
- Allow your shutter speed to drop to whatever level is required for the correct exposure.
- Pay attention to your highlights. Don't overexpose any of them. Use negative exposure compensation if necessary to darken the image. Why? In post-processing, it is just simpler to lighten shadows than to darken overexposed highlights.



Figure 20- ISO 500; f/ 4.0; Shutter Speed: 1/60. © Oxana Bischin.

(Without Flash) Portrait Photography

- Shoot with a monopod, tripod, or handheld camera. The right course of action in this situation is debatable. Use a setting that is most appropriate for your specific photo shoot, or use the manner in which you are most comfortable.

Use the aperture-priority setting.

- Select an aperture that provides a pleasant depth of field, often about f/2.8 or f/1.4, although it depends on the effect you want.
- Be mindful of your shutter speed. When motion blur appears, your shutter speed is too slow and you need a faster setting.

- Maintain a low ISO, but don't be afraid to increase it if your shutter speed and aperture aren't letting in enough light. You'll probably need to increase your ISO in darker conditions in particular, so that you can use a shutter speed that is fast enough.

- Like before, avoid overexposing any highlights. If necessary, use negative exposure compensation.

Wildlife and sports photography

- Use a monopod or shoot handheld.

Use the aperture-priority setting. (Some tutorials will advise you to use shutter-priority mode, which is fine if you're learning about motion blur but typically shouldn't be used once you're more experienced.)

- Make use of a big aperture, such f/2.8 or f/4.
- Pay close attention to your shutter speed. To freeze fast-moving sports, you'll need something quick (like 1/500 or 1/1000 second).
- It's likely that you need to increase your ISO to a level that enables you to make use of such a quick shutter time. The trade-off is worthwhile. Noise can be better than motion blur.
- Do not overexpose any highlights.

What is a photo composition?

The way a photographer arranges the visual components in their frame is known as photo composition. According to photographer Adam Long, "It's a pleasing organisation of objects within your rectangle." It might seem simple to place people or situations there, but it's not. Even though composition in your photographs can be challenging, it's always crucial. According to photographer Grace Rivera, "Everything can seem perfect: lighting, location, attire, styling, whatever." But it's a deal breaker if your composition is flawed.

'Rules' of composition

It takes more than just focusing on your subject to compose a good picture. Here are some of the compositional strategies used most frequently by photographers to produce images that are visually interesting.

- Make use of the 'rule of thirds'.

To improve your composition, you can divide your frames into thirds using the rule of thirds. This is achieved by creating a three-by-three grid, evenly dividing the frame between two gridlines that are equally spaced apart on the horizontal and vertical axes. Compositional relevant elements should be positioned where these grid lines meet or divide your image in order to achieve some balance and flow. Instead of simply focusing/ centring your subject, this usually results in more intriguing photographs. "You want to move your eye around that image and find things with that trio," advises Long. A shot that just has an interesting aspect in one area is probably not as successful as one that has interesting elements from top to bottom and side to side.



Figure 21 -The window in this photo illustrates positioning of subject according to rule of thirds. © Oxana Bischin.

- Balance images.

Symmetry and balance are connected, but they are not the same. A balanced image need not be identical from side to side or from bottom to top. Instead, the image's several quadrants can harmoniously contrast with one another. The viewer's eye will probably scan the image in search of a focal point and another element that interacts with it; for example, a clear subject might be offset by negative space on the opposite side of the image. "If you have a really complicated photo with a lot of stuff going on, it can cause us to respond by drawing parallels," explains Long, "which can be kind of invigorating, confusing, and aggravating in a good way."



Figure 22 -Good balance can be observed in this photo as a result of the equilibrium between the negative and positive spaces. © Oxana Bischin.

Loud or vibrant colours frequently demand attention, complicate, or disrupt. According to Long, "the saturation of some hues is really going to pull your eye." Increasing an object's / subject's saturation or brightness can be helpful if I want it to have more visual impact.

Unbalanced images can appear awkward or unprofessional. According to Long, an unbalanced image gives off an uneasy feeling. "Most of the time, we prefer an impression of fluidity with the image," Things on the left and right match up, and they might even circle something in the middle. Learning to recognise equilibrium takes practise, just like developing an artistic sense or a strong visual intuition. "Balance isn't something you can teach people," claims Long. As you examine the situation, "you really get a sense of it." You become more accustomed to how the many components of an image interact as you continue to work and with practice a sense of balance will eventually be achieved.

- Use depth of field, focus, and leading lines.

The three dimensions are reduced to two through photography. A photographer must be conscious of what an image is composed of and how they are focusing on it in order to maintain a sense of space and depth.



Figure 23 -Leading lines are exemplified here where the bridge's lines lead the observer to the photo's subject (the rock and landscape). © Oxana Bischin.

Leading lines are decorative components that direct attention to a subject or focal point. They can be anything that draws attention to something else, such as distant highways, an arm extended in another direction, or tree branches ascending towards the moon. These lines can provide the illusion of depth, dimension, and shape on flat surfaces.

The photo gives the appearance of having a third dimension due to the use of focus and depth of field. Even in flat photographs, shallow depth of field can provide the idea that the viewer is concentrating on something that is directly in front of them. It also gives the image a sense of depth and scale.

- Select the best point of view.

Move around if you want to experiment with composition. Simply altering your point of view can make the difference between an amazing photo and one that is average. Long claims that all we are doing is making decisions about what to include or exclude.

Play around with your spacing and proximity to the subject. "I move around a lot," admits Rivera. "I try extreme lows or highs. I experiment to see what happens if I get under my subject or if they shift side to side. To determine how you want to frame your subject, move close, far, above below, or around and then again.

Last but not least, when you're setting up a shot, consider how the image will be used in the end. According to Rivera, "there might be text over an image or it might be a magazine cover." When setting up the shot, account for any potential additional aspects and try to picture them in your mind's eye as you look through the viewfinder.

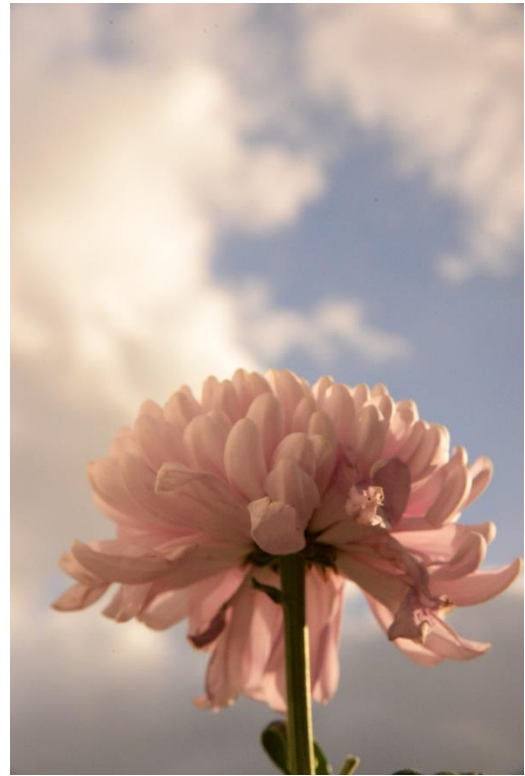
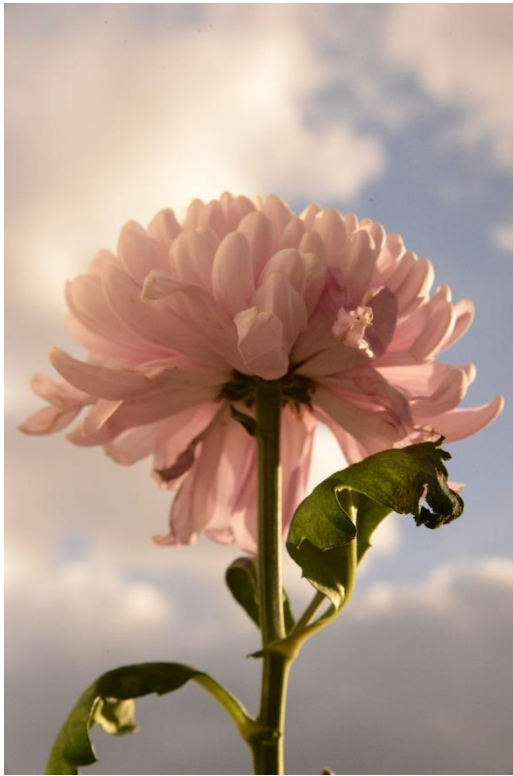


Figure 24 and Figure 25 -Illustrate how perspective can change the way the subject appears in a photo and even transform the quality of the photo itself. In this example the flower is photographed from below with only the sky behind it giving it an eerie feel of being an oversized flower or a more metaphorical meaning of representing the feeling of being overwhelmed with/by beauty. © Oxana Bischin.

Utilise post-production cropping to enhance composition.



Figure 26 and 27- In this comparison you can see how the composition and quality of the photo is affected by cropping or (in real life) zooming in. This can transform your photo from average to a good shot. © Oxana Bischin.

It's frequently possible to fix a photo's slightly off composition in post-production with a quick crop. The subject may not be well-framed in a photograph. But you may frequently find a good image within a bad one by just shifting the frame's edge, cropping in etc.

Try viewing old photos from a different angle or perspective when going through them. Play around with the image's rotation, advises Rivera. "When you crop an image, you can rotate, flip, or invert it and possibly see something else."

Getting composition right.

To take good pictures, you need to do more than merely adhere to compositional guidelines. It's possible to use or adhere to principles like the rule of thirds without intending to.

Recognise that the elements of composition are not like formulas or algorithms; rather, they serve to guide a photographer's decision-making abilities rather than to replace them. "Leading lines are great, but hopefully they're leading me to your subject and not leading me to nowhere," advises Long.

The core of photography composition is rules. You can break the rules once you've internalised the foundations of what makes a strong image or even in order to purposefully make a point. You can experiment once you've mastered the fundamentals, according to Rivera. "There are no predetermined guidelines on how to shoot something. The appeal of being an artist is that you are free to create your own rules and style.

An eye for subjects and settings is a good quality for photographers. They can utilise composition as a technique to influence other people's perceptions. They gather different components and, using their tools and knowledge, arrange them attractively inside a rectangle. This holds true for all forms of photography, including macro photography of microscopic objects or large-scale photography of vast landscapes.

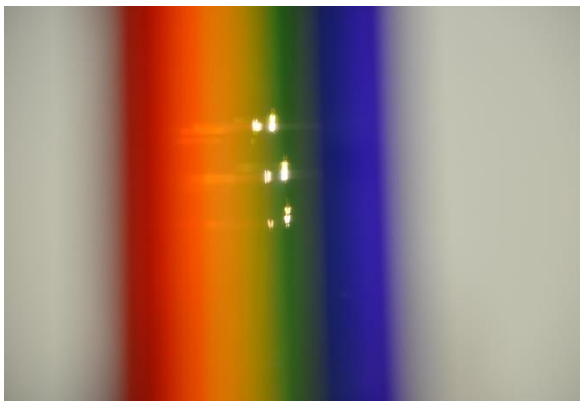


Figure 28 and 29 - Show us how a photo can still be interesting and engaging even when we are breaking these rules! © Oxana Bischin.

How to Improve Your Photos with Advanced Composition: Techniques & Elements

Which thought comes to mind first when you think of composition in photography? Let us guess, the rule of thirds?

Undoubtedly many of you reading this can attest to it. Why do you believe that is? Probably the most well-known and frequently utilised compositional tool in photography is the rule of thirds. It is frequently the first compositional tool we learn how to use. Once we have used it and are familiar with it, we rarely consider it or any other composing strategies that can complement it, for that matter.

However, there are alternative approaches that make use of visual design strategies to improve composition and which, among other things, talk about texture and colour. Many photographers just shoot the picture using the rule of thirds without attempting any other arrangements of elements. Your photos may change as a result of these other techniques. This hand-out outlines six other approaches you may apply to enhance your photo compositions. Although some of these are considered advanced methods, if you comprehend them, they are quite self-explanatory.

Unity

Order is what unity is all about. In this case, repetition can be highly effective. In your image, you can use repetition of lines, shapes, or colours. By doing this, you offer the scene a unified point of view, which in turn creates a compositional effect that is quite strong. Find a subject that conveys unity to create a relaxing effect in the picture.



Figure 30- The lines and rivets of this image make it look more uniform and so does the lack of other colours giving it a sense of unity. © Oxana Bischin.

Coherence

Coherence, as opposed to unity, focuses more on similar types of objects or shapes in your environment. Imagine a rough riverbed with pebbles and rocks of comparable sizes. If the rocks and pebbles were the same size, shape, and colour, the landscape would make for a coherent composition.



Figure 30(a) -Similar shapes and colours make this image feel more coherent. © Oxana Bischin.

The attractiveness of coherence in visuals is that this characteristic is quite interesting in that it appeals to the viewer's sense of order without unifying the image and transforming it into a background or stock photo (as it can be argued for the first example in this handout).

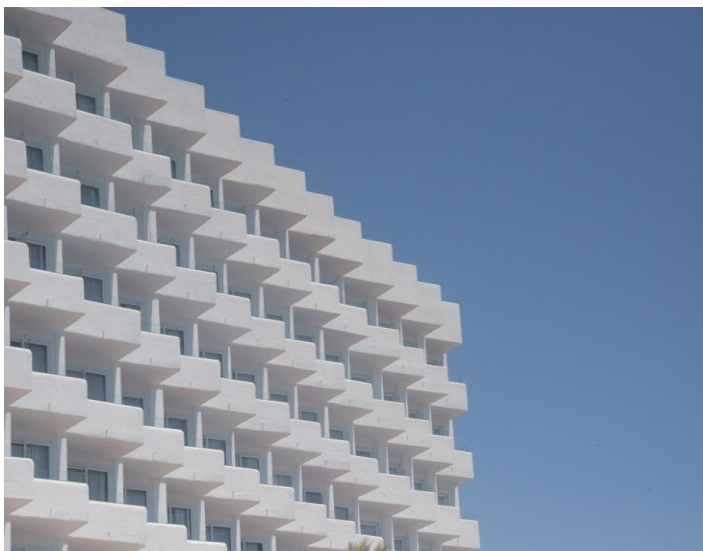


Figure 31 -The repeated angular shapes of this buildings gives a great sense of rhythm.

Balance and Rhythm

The concept behind balance is to try and set up the pieces in your scene in a way that the image is symmetrical or if not symmetrical at least harmonised. Lines and shapes can be used to accomplish this. The goal is to give the scene a feeling of equality.

In some ways, rhythm is comparable, except it focuses on a scene's

repeating pattern. These are a little harder to come by, but a close-up or an abstract photograph frequently works well to demonstrate the method.

Space

Sometimes the empty or negative space in a photograph is just as significant as the subject. Negative space provides context for your subject and demonstrates to the observer how or where your subject fits into its surroundings. Negative space is frequently the sky. Although it may be tempting to overlook this one, if used properly, this may be a very effective compositional technique.



Figure 32 and 33 - Here we can observe how we can use the negative space and orientation of the photo to balance out our composition. Compared with Figure 39 (the landscape image on the right) we can observe how Figure 38 balances the composition much better © Oxana Bischin.

Texture

The emotional impact and level of attention an object/subject receives are both significantly influenced by its texture.

When you picture smooth pebbles and mist from a long exposure of the sea, what emotion are you able to capture? What about rocky, angular mountains in high contrast light?

The subject of your photograph may occasionally be textures in themselves, such as patterns in the sand or the water's waves. However, textures are typically discrete components of a bigger image either adding depth to your subject or bridging the gaps between your subjects.



Figure 34 - In the image above we can observe texture as well as the principle of unity in photography. While this sort of photography can be used more as a background or stock picture, it is a good example of a unified solid composition offered a kick by the interesting texture of the rocks. © Oxana Bischin

More textured areas frequently attract more attention. When there is too much texture, a photograph's "unimportant" elements might end up being distracting and give the impression that the image is cluttered with details. In other instances, such as when capturing the contour of a mountain landscape, texture lends your subject a crucial sense of dimension.

Colour



Figure 35 and 36 -Colour is one of the most important elements for non-Black and White photography, Colour has been used by humans for centuries to signal danger or importance, status or mood. Colour will often be one of the most effective communicators of emotion in your photos as well as one of the easiest elements to control when you are aiming to catch people's attention. © Oxana Bischin.

Colour has a significant impact on both the composition and atmosphere of an image, with the exception of black and white photography, which is a creative choice all on its own.

An extensive discussion of this subject might take up much more room than is provided here. However, the key comparison you need to be aware of right now is between warm and cold colours.

Red, orange, and yellow are warm colours. They communicate more movement, energy and excitement since they are lively, dynamic and rapidly jump to the front of an image. I don't simply mean that they metaphorically leap to the front; many individuals actually perceive a red dot as closer to the observer and virtually casting a shadow behind it when it is placed against a vibrant blue background.

Green, blue, and violet are the opposite of warm colours, making them cool tones in a photo. These hues have a more subdued character and are calmer overall. The most prevalent colours in nature are blue and green in particular; a blue sky or a green field conveys a calming and pleasant message. But these cool colours can also convey a sense of gloom since they frequently appear in lower light conditions, including shadows on a sunny day. This sensation of darkness can be especially strong in photographs of storms.

Recognise the colours present in your images when you're composing them and try to take advantage of their characteristics. A warm colour and a chilly colour together frequently produce an intriguing feeling of contrast and an eye-catching image. Similar to this, images with just one or two main colours convey a very cohesive message that, if well crafted, may be incredibly effective.

Patterns

There are patterns everywhere in photography. This applies to all recurring elements, not just minor ones like a texture that appears repeatedly across the image. Even a mountain's reflection in a body of water is a pattern, one that shouldn't be overlooked because it unites the image.

Actually, that's what patterns do. They connect the images or elements in a single image. They provide photographs with a compelling justification for why they were taken in this particular instance rather than another.

In artificial settings, such as architectural/urban photography, patterns may be easier to see. However, even natural landscapes and living things exhibit patterns, such as the crossing of sea waves or the feathers of birds.



Figure 37 - Even though less obvious in nature, patterns can still be found there as well.

Here we can observe how the trunks of these young trees form a pattern of beguiling

lines. © Oxana Bischin

There won't be a clear pattern in every picture you take, but that's okay. You should however pay attention when you do notice a pattern or connection in the world. It might result in a powerful photograph.

Order is what unity is all about. In this case, repetition can be highly effective. In your image, you can use repetition of lines, shapes, or colours. By doing this, you offer the scene a unified point of view, which in turn creates a compositional effect that is quite strong. Find a subject that conveys unity to create a relaxing effect in the picture.

Shapes

We are now moving from the straightforward components of composition to the intricate ones. Anything may be a shape, from the shape of a smiling face to the crescent moon. It's impossible to generalise because every type of shape has a unique emotional effect on a photograph. The only thing to be said about every shape is that they have the ability to grab our attention. A circle may be tranquil, a heart evocative, a triangle energetic / dynamic, and so on.

Shapes might also be the actual subject of a photo. When you photograph the sun, it creates a circular form. Some shapes are more abstract than others, such as a curved cloud over a curved valley that yields the composition of the entire image as round. Shapes of all kinds are important. The first grabs viewers' attention, while the second provides the image its framework.

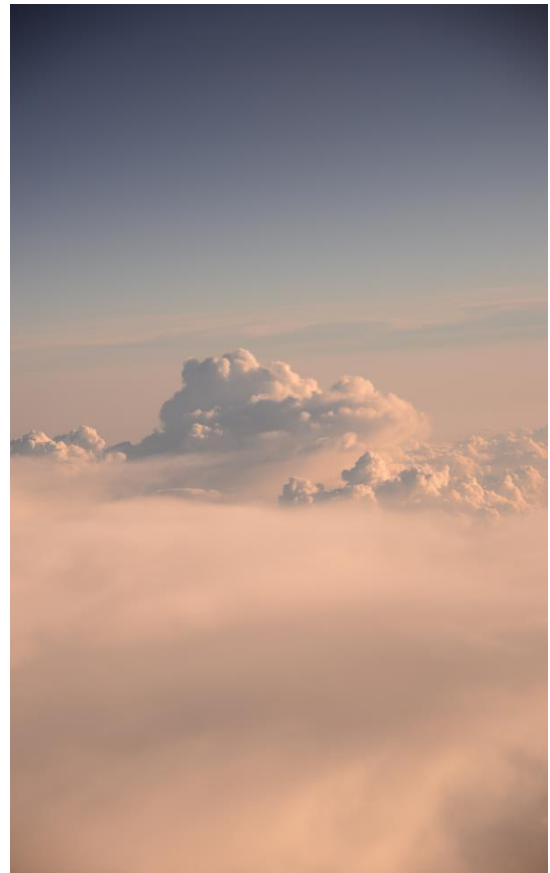


Figure 38 and 39 - In the images above you can observe how simple and more complex shapes can both play a significant role (or even the only role!) in the composition of a strong photo. © Oxana Bischin

Look for shapes in your photos, whether they are obvious or abstract, when taking pictures. Remember that basic shapes, as well as those of people and animals, are quite effective in catching our attention. Create appropriate photo compositions.

Distance

The distance between compositional elements is the simplest way to relate them.

There are several factors that influence distance. Start by determining which of your subjects are too near to one another.

The implications can be annoying if one object crosses another, for example. Move around a little bit to alternate these distances.

Every significant section in a photograph can have a dedicated "breathing space."

Beyond that, distance also refers to the notion of shapes, as was previously mentioned, or, more generally, structure. The two simplest compositional elements are a line (linking two points of interest) and a triangle (containing three). However, when you keep adding objects and fiddling with the distances between them, you'll end up with compositions that have a lot more intricate structures.

Additionally, pay attention to the distance between your subjects and the frame's edge. Observe the edges as they are some of the most crucial components of your shots.

The good news is that you nearly always have a lot of control over how close or how far apart your composition's objects are from one another. Simply move about; either closer or further away from your subject. Put some effort into conveying the emotion you want to convey, and you'll get good results by default.

Breaking the rules:

Now that you've got some fresh suggestions for improving compositions, understanding these techniques will help you create better photographs, but understanding how to break them down is just as crucial. In some circumstances, the correct strategy will be evident, but



Figure 40 - The distance between the elements (flowers) of this image offers a prime example of how this can affect the dynamic of an image as well as position these elements to create interesting structures. © Oxana Bischin.

in others, you might discover that centring your subject in the frame produces the finest results. You must choose what will enhance your image. See if one of these methods works by testing others. If not, disregard the guidelines and do what you feel appropriate.

How can you develop your own photographic style?

The idea of a distinct style is important to all forms of art, not simply photography. Every person has their own unique perspective on the world, and this fundamental individuality serves as the foundation for all that humans create. But when it comes to photography, even bringing up personal style can sound strange. After all, since our work is intrinsically grounded in reality, is it even possible to have a distinctive style? For professions like landscape and wildlife photography, where you frequently rely only on the scene that nature delivers to you rather than any aspects you may add yourself, this question is extremely pertinent. How do you add your own personality to a picture which reflects how the world genuinely appeared at a specific time point? It's a challenging topic. When you consider all the details that must be accurately reproduced in order to create a convincing fake (or benign copy) of another photographer's personal style, things become even more difficult. Additionally, you must consider the implications of analysing and imitating your own personal style. We'll talk about personal style in this hand-out and how to incorporate it into your photography.

We will examine all the subtleties of individual style in this handout. The reason this subject is broken down into three parts is because it is best addressed in smaller spaced-out sections rather than all at once.

The three sections are divided as follows:

1. Defining one's own personal style and the components that contribute to it.
2. Addressing what differentiates method from personal style in photography.
3. Discussing the benefits of adopting or avoiding a personal style.

Personal Style: What Is It?

Everyone views the world in a different manner, and that is the basic tenet of personal style.

Different elements will draw the attention of various individuals in different manners when they view the same scene. Perhaps the first thing you see in a vast environment is a striking waterfall out in the distance. Others may focus on the amazing clouds soaring overhead, while yet others may catch sight of a bird perched on a tree branch. If we were all photographers, the images we took of the scene would obviously differ greatly.

However, personal style goes beyond a single picture you shoot. It's something that emerges from a broader body of work, a collection of works of art that share a common theme. Jackson Pollock's body of work couldn't be regarded complete if he had only ever thrown paint onto a canvas once. However, he produced hundreds of works in that manner, thus it qualifies as a personal style.

It's true that photography as a medium adds to the complexity of things. Photographers are not artists who can splatter paint on a canvas or produce images entirely from their imagination. Even with studio photography, the actual setting will still influence everything to some extent.

Not that photography can diverge from reality. Photographers can shine a torch at their camera (either in a dark room or at night) to 'paint' a scene that wasn't really there, or use microscopes to record alien-looking creatures / scenes. But in both of these cases, a different photographer could position their camera in the exact same spot and get the same picture whereas painting, sculpting, or singing will never really achieve that identical result.

We can say however that photographers can have a personal style in the same way that any other artist might, in the sense that their audience may be able to instantly recognise their work. To identify images taken by some of your favourite photographers, or at least a photo taken "in their style" (intentionally or as a practice exercise), you don't need to see a signature or a copyright indication. Their work has a certain originality about it and traits that make it recognisable.

Therefore, personal style can be thought of as essentially an anonymous signature that is inextricably linked to an artist's creations. Even while photography is grounded in reality, some photographers have a distinctive style that binds their work—or imitations of it—inextricably to them.

Interactive group exercise: Below are images without technical or compositional details listed. Have a guess at the elements used in constructing the photographer's personal style and discuss.

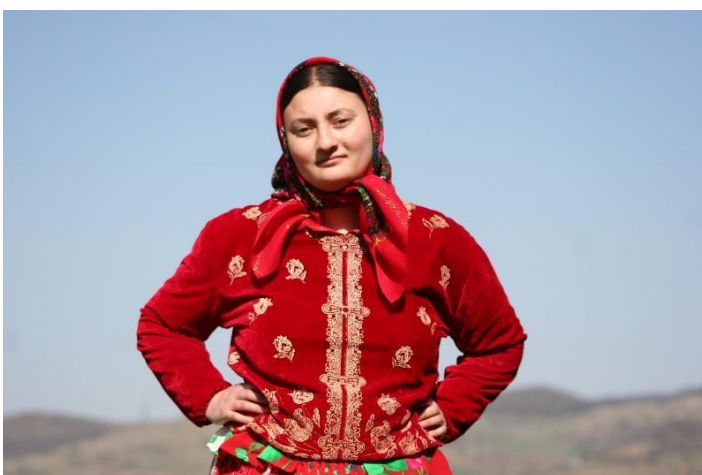


Figure 41- © Oxana Bischin



Figure 42- © Oxana Bischin



Figure 43- © Oxana Bischin



Figure 44- © Oxana Bischin



Figure 45- © Oxana Bischin



Figure 46 - © Oxana Bischin



Figure 47 - © Oxana Bischin.



Figure 48 -© Oxana Bischin



Figure 49 - © Oxana Bischin



Figure 50 - © Oxana Bischin



Figure 51 - © Oxana Bischin

What components Make Up a Personal Style?

The overarching personal style of a photographer is composed of innumerable factors, both significant and minor. There are simply too many subtle influences at work for me to be able to list them all here. At the same time, some of the highlights ought to be covered. The list below provides an overview, generally ranking the factors that influence personal style from most to least important:

1. What the topic is or Subject Matter
2. Colour (if in colour) or tonality (if in black and white)
3. Lighting
4. Composition
5. Camera settings and equipment

Some of these components, like the colour scheme of a particular photograph, are modifiable in post-production, either marginally or significantly. Others are limited to the scene that a photographer really caught (such as subject matter), barring the most extreme post-processing.

An intriguing aspect of personal style is that even just one of these components is sufficient to unambiguously distinguish between two images by various photographers or to completely describe a photographer's style.

Even "less important" elements like your camera setup might become the focal point of your design. For example, if you used a 600mm lens for all of your landscape shots, they would all have a sense of homogeneity that would make them stand out sharply.

What the topic is

The first thing that stands out when you examine a photographer's own style is the the kind of subject that they photograph.

This can broadly refer to their particular area of expertise in photography, such as portrait, landscape, wildlife, macro, and so forth. The subject is considerably more precise than that, though. The mountains of Northern Canada may be the subject of one photographer's leisurely photography, while the peaks of Patagonia may be the subject of another. These mountains' various distinct forms are enough to produce completely distinctive personal styles.

The examples also include well-known photographers. Photographers that repeatedly photograph spiral shells and peppers on a dark background are probably influenced by Edward Weston. Anyone who mimics these aspects is automatically paying homage to one of the most well-known photographers of all time since these topics are synonymous with him (consciously or not — at the absolute least, other viewers will notice the similarities).

Tonality or colour

The unique style of a photographer is frequently inextricably linked to colour and tonality.

The colour scheme that is employed can extend across subject matter and time. If, let's say, pink tones and gentle contrast are consistent throughout all of your images, those features become essential components of your particular style.

The scene in front of the camera has some influence over the colour and tonality of a photo, but they mainly depend on photographer's choices in the field regarding which scenes to photograph first, as well as those made in terms of post-processing. For example: If the lighting is perfect, I personally enjoy taking high-contrast pictures (or, alternately, underexposed pictures) with a variety of red and dark brown tones. If I decided to line up multiple images using this colour scheme, as I am doing in this section, it might give the impression that red is an essential component of my aesthetic.

For the record, black and white photography falls under this category as well — on the one hand, are all of a photographer's images monochromatic? And if so, what are their typical shooting tones and contrast levels? No matter what subjects you shoot, if all of your photos are high-key, high-contrast images, even if you don't work in colour, your personal style will be very obvious.

The character of light

Despite the fact that lighting is, in some ways, an extension of your subject, it is an element that is crucial enough to have its own section. Your own style is inextricably linked to the kind of lighting you frequently use in your photographs.

For instance, perhaps you regularly capture landscapes in low contrast with soft shadows under overcast skies. Or, if you consistently capture the same urban or portrait subjects in strong directionality and sharp shadows during a dramatic sunset, that would be a key component of your distinctive aesthetic.

Occasionally, you'll probably be able to identify images taken by well-known photographers just by looking at the lighting. One clear example is Ansel Adams. To capture many of his photographs, he searched for particular lighting and weather conditions, specifically cloudy sky and sporadic sunlight, which became a defining characteristic of his work. Although not all of his photographs were taken in the same lighting conditions, he regularly attempted to achieve the sense of drama that distinguishes his work as uniquely his own.

Composition

Every photographer must choose how to position or frame the objects in their scene before taking a picture. Despite the fact that not all photographers have a common compositional style, it is nevertheless one of the most important elements that contributes to a great picture.

For instance, two photographers would compose their images differently if they arrive at the same location in the same window of time. This is a result of the distinct perspectives they have on the world. One may reposition oneself so that they are closer to or further away

from their subject, while the other may raise or lower their camera to present a different perspective.

Whether you like his photos or not, street photographer Bruce Gilden gained notoriety in part because of his distinctive compositional approach. In New York City, Gilden takes pictures of people by positioning his camera just a few inches from them, putting their face directly in the centre of the picture, and emphasising their characteristics prominently. To put it mildly, this approach to photography is not embraced or appreciated by everyone, but it is obvious that this kind of composition is essential to his individual style.

Camera configurations and tools

According to many photographers, who like to assert that the camera doesn't matter, a good photo is the result of the photographer's effort rather than the purchase of expensive equipment. This is very definitely true to a considerable extent, however camera setup and technique still matter a lot when it comes to personal style, though.

If you were using a camera with a shutter speed of three seconds and taking all of your pictures while holding it in your hand, the results would obviously be blurry. However, this could be done on purpose; you may want to visit the settings that you regard as being "wrong" because they support your creative interpretation of the subject. Although other photographers might easily duplicate these settings, this still indicates something significant that a key component of your personal aesthetic will be determined by the values displayed in your camera's viewfinder.

And although this is a more contentious point of view, I think it's true that your camera gear can influence your own aesthetic. Think about Henri Cartier-Bresson as a case study. He was well renowned for taking his iconic street shots with a "medium" 50mm lens. This vantage viewpoint, which was appropriate for the way he saw the world, has come to represent his creative output.

The 50mm focal length is however, certainly a popular choice for many photographers, and this goes to show why it isn't enough to distinguish Cartier-Bresson's work from the competition based just off his lens. Nevertheless, it is an integral aspect of his work. Even if a street photo's tone, subject, or composition makes you think of Cartier-Bresson, you may be sure it was taken by another photographer if it was photographed with a telephoto lens.

However, personal style is an incredibly intricate subject, and this discussion only scratches the surface. You're on the right track for our upcoming photo session if you're beginning to consider the question of replicating these five components from other people's work without asking permission. Next week, we'll discuss about the two different approaches to personal style — method and personality — and when you want (or don't want) your personal creativity to come across in a photo.

You should now have a solid foundational understanding of personal style thanks to this introduction. Consider how it relates to your own work for the time being. Do all of your images share a common aesthetic? Do different subsets of your images, such as all of the ones from an event, share a common aesthetic even when the rest of them don't? Or is everything mentioned here a strange idea that only loosely or not at all pertains to the pictures you take? Although personal style is elusive and complex, it is a crucial concept to comprehend if you want your photographs to capture your distinct perspective on the world.

How to use light when taking pictures

People appreciate good images for just one reason, at the end of the day. Really, it's a straightforward idea, yet it also serves as the basis for all of photography. Emotion. A photo needs to strike a chord with the viewer in order to be successful. That might occur for a variety of reasons, including your subject matter or composition. The best instrument for capturing emotion, though, is much more basic than that; it is, very simply, your light.

Light has a remarkable ability to evoke emotions in a photograph. This significance of light is something which many photographers are aware of however everyone should make an effort to learn more about it and get better at how to employ it. You can master photography if you master light. Light is in photography. You can't even start taking shots without it.

Brightness, contrast, direction, and other aspects of light all evoke different feelings in us. A bright, airy forest at sunrise conveys a vastly different message than a dark, backlit image with high contrast. Additionally, in photography, the lighting should enhance the subject. Your lighting should emphasize, not distract from, the mood you're aiming to create while photographing a dramatic and strong waterfall. The same applies if you're taking a lively, joyful portrait, the lighting should convey those feelings.

We'll examine below the array of emotional effects that various types of light produce. Although some of this is subjective, other aspects are nearly universal. I think you'll find a lot of these themes in your own work.

Summary of Contents

- Dark light
- Bright light
- High Contrast
- Low Contrast
- Direction of light
- Summary

1.Dark Light

Dark, strong lighting is one of the most emotive types of lighting. All types of photography, including moody portraits, striking landscapes, and sombre documentary work, benefit from this. Dark light is, to put it in simple terms, one of a kind. Dark light obscures details from viewers, giving photographs an air of

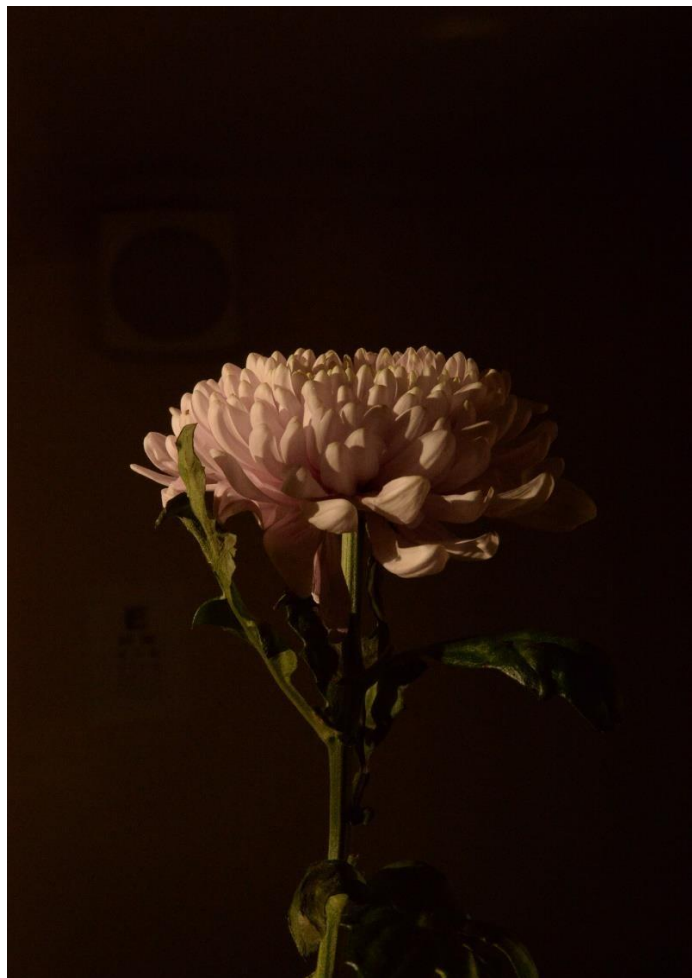


Figure 52 - ISO 6400; 52 mm; f / 22; 1400/sec. © Oxana Bischin.

mystery and, depending on the topic, either potential ominousness or refinement.

Since this type of imagery, once again, does such an excellent job of conveying emotions, you'll see numerous product photographers working with it for high-end commercials.

The emotions of dark light:

- Powerful
- Ominous
- Refined
- Intense
- Sombre

2.Bright Light

The evident counterpoint to dark light is bright light which likewise exists and has its own distinctive set of significant feelings associated to it. Let's say you wish to take an ethereal, airy image. Which would you prefer for your photo shoot: a dramatic storm or a late-afternoon sun? This shouldn't be a difficult decision because the afternoon sun will make your picture appear softer and more breezy.



Figure 53 - ISO 125; 24 mm; f/ 7.0; 1/60 sec. ©

In other situations, the same point is applies. For instance, perhaps you want to take a joyful and upbeat picture. You probably won't go looking for dark street corners at night if that's your goal. They simply wouldn't fit the atmosphere, however a more cheerful scene may.

While bright light is quite prevalent, it is worthwhile often seeking it out. Bright light will be your main tool if you're trying to create a particular mood, such as one that is light and open, upbeat, or airy.

The feelings evoked by bright light

- Optimistic
- Airy
- (The adverb) Light
- Gentle
- Ethereal

3.High Contrast

High contrast, or juxtaposing highly bright and dark areas of the image close to one another,



Figure 54 - ISO 125; 32 mm; f/ 8.0; 1/250 sec. © Oxana

is a technique used in many excellent photographs.

Contrast is when you have a light mountain silhouetted against a dark sky. If you have a vibrant pond next to a dark area of land -that's contrast!

Many people believe that contrast is the distinction between an image's brightest and darkest areas.

While mostly accurate, that isn't the full definition of the term. For instance, the gradient in your photos has both white and black, but the contrast isn't very high:

Instead, contrast happens when very dark and very light elements are placed close together (as well as in the case of strong different-coloured elements, but that's a topic for another article). The slider for "contrast" in most editing software increases the distance between an image's brightest and darkest areas but it also makes smaller, side-by-side regions of contrast more punchy.

Punchy is one of the main keywords for contrast. It's not surprising that high-contrast visuals get a lot of attention when it comes to emotions. They are dramatic and different from the rest. While contrast is not always a positive thing - depending on the picture and context - right now, social media platforms and photography websites favour photographs with great contrast. Simply put, it's a good technique to draw attention to your photo.

In order to find contrast, look for non-diffused light. In other words, high contrast photographs are likely to be produced by a sunny day or an unaltered camera flash (although it does depend on your subject matter).

The feelings associated with high contrast:

- Dramatic
- Loud
- Vibrant
- Punchy
- Sharp

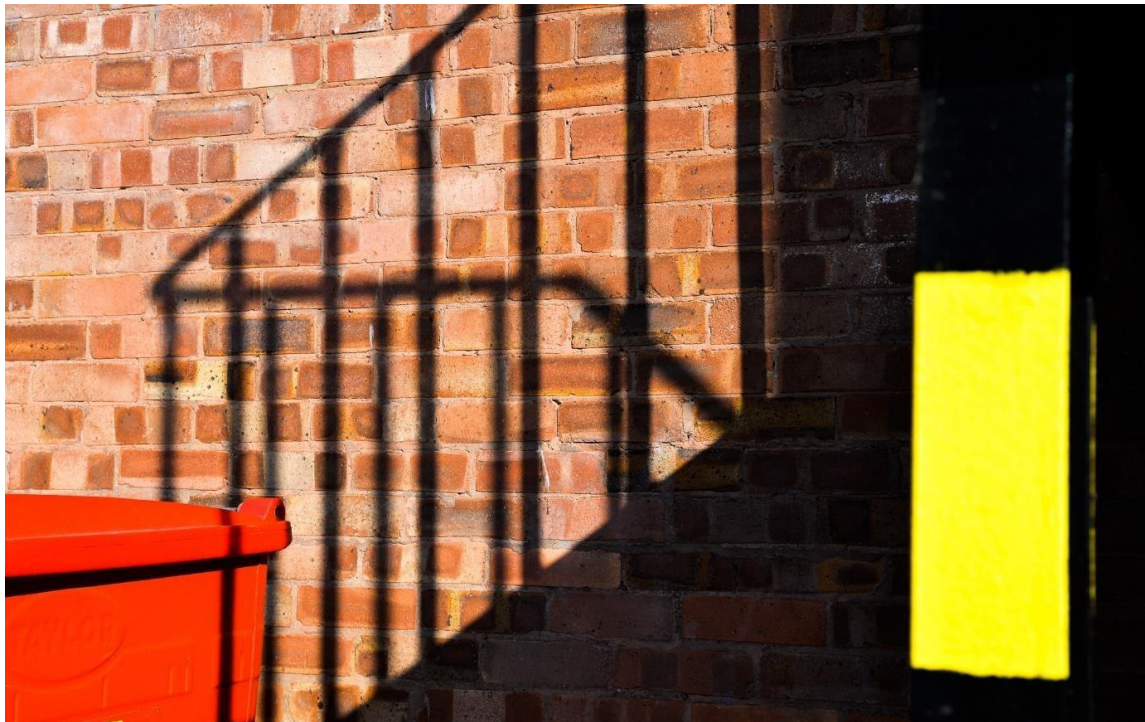


Figure 55 - © Oxana Bischin

4.Low contrast

While photos with strong contrast can be popular, don't underestimate shots with low contrast. Images with low contrast are more subdued and muted. When your light source is extremely dispersed (like on a cloudy day), these type of images frequently happen. It also helps to take pictures of topics that are fairly consistent, like the one below, which shows a fish-filled water reserve.

Low-contrast images often don't instantly jump out as starkly. They do not yell to attract attention. They do however work nicely, though, if you're going for a more understated appearance. That's because efficient lighting should not necessarily grab viewers' attention right away; rather, it should complement the character of the subject matter. My first tip is to go for low-contrast light when capturing a serene, calm landscape or when creating a mellow mood for a portrait.



Figure 56 -© Oxana Bischin

Does it sound like what you're looking for? If so, either change your subject's position to the shadow or add a diffuser to your flash. Wait for a cloudy day or after the sun has set to take landscape photographs. This will often be a useful approach to enhance your subject in photographs.

The feelings evoked by low contrast

- Subdued
- Gentle
- Soft
- Quiet
- Muted

5.Light direction



Figure 57 - © Oxana Bischin

So far, it should be clear that brightness and contrast have a significant influence on the emotions that a photo evokes. But what about the light's direction?

The five main directions of light are as follows:

- Backlighting
- Front lighting
- Side lighting (left or right)
- Overhead lighting
- Under-lighting

Except if you're going for a Halloween effect, the last one, under-lighting, is relatively uncommon. However, the others are very typical in most photographic genres, from street photography to landscape photography. You may also have additional light sources, usually for studio work. There may be more than a dozen separate lights in high-end product photography setups. Except for basic practicality, there is really no restriction.

But does the angle of the light affect the feeling of your picture?

Yes, is the answer. However, because it varies depending on the scene, it is difficult to generalise how exactly it impacts emotion. Backlighting is sometimes highly contrasted and dramatic. Other times — say, on a foggy day — it could cause the atmosphere to light up with bright, ethereal sunbeams. No inherent consistency exists.

That still holds true even if you're shooting an organised portrait session. A single light direction can elicit a wide range of feelings. Are you, for instance, changing the dispersal of your flash? What about the background's hue or perhaps the feeling your subject is expressing? Because of all of these variables, backlighting and side lighting, to mention a couple examples, won't necessarily convey the same feelings from picture to picture.

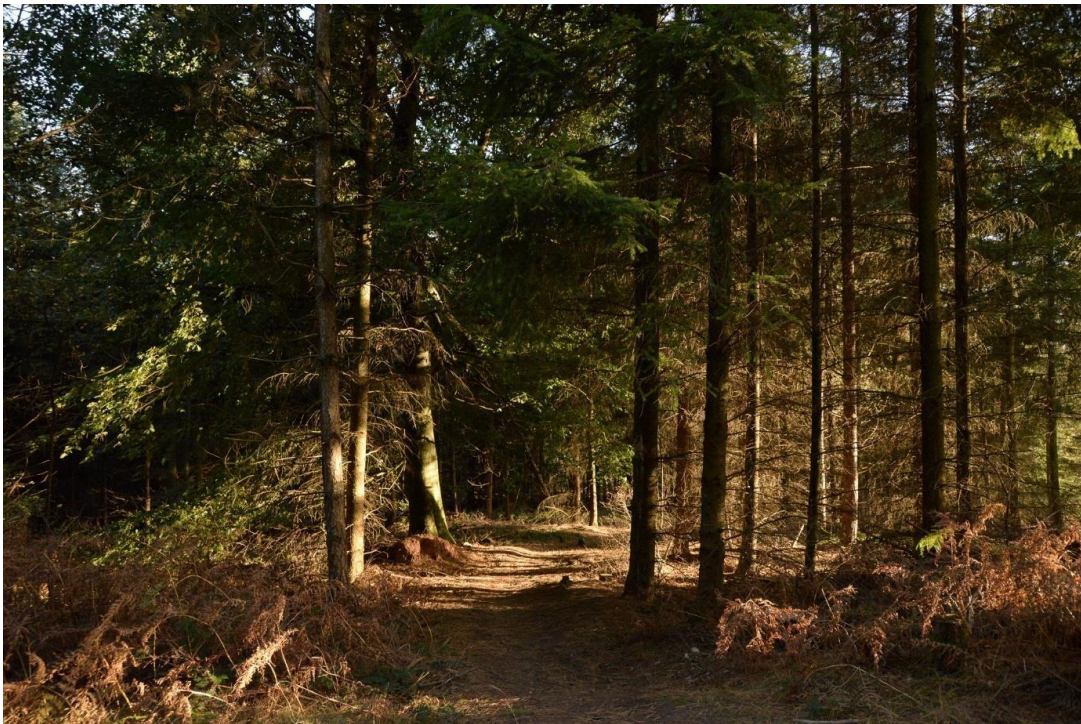


Figure 58 - © Oxana Bischin

You must therefore tackle this on a case-by-case basis. See which aspects of your photograph get emphasised by the scene and the light's direction. Usually, you can tell which feelings are more likely to be evoked by doing that.

The crucial point is that, while not always in a positive or negative way, light direction does affect how a photo makes you feel. You must do field tests and carefully consider the mood that the light is evoking.

Summary

Will you try to capture any special looks in your own photographs now that you have seen how light can convey emotion? Are you susceptible to its allure?

The good news is that you should always try to shoot shots in a variety of lighting conditions.

Unless you're working on a particular picture or series, there's no reason to stick with just one type of light. Nevertheless, it's still crucial to pay attention to the sort of light you are capturing in a particular image since you want to make sure it enhances your subject and effectively conveys your message.

Aside from that, I wish you good luck and light, as the expression goes and remember that this aspect of photography has the potential to elevate your images more than any other.

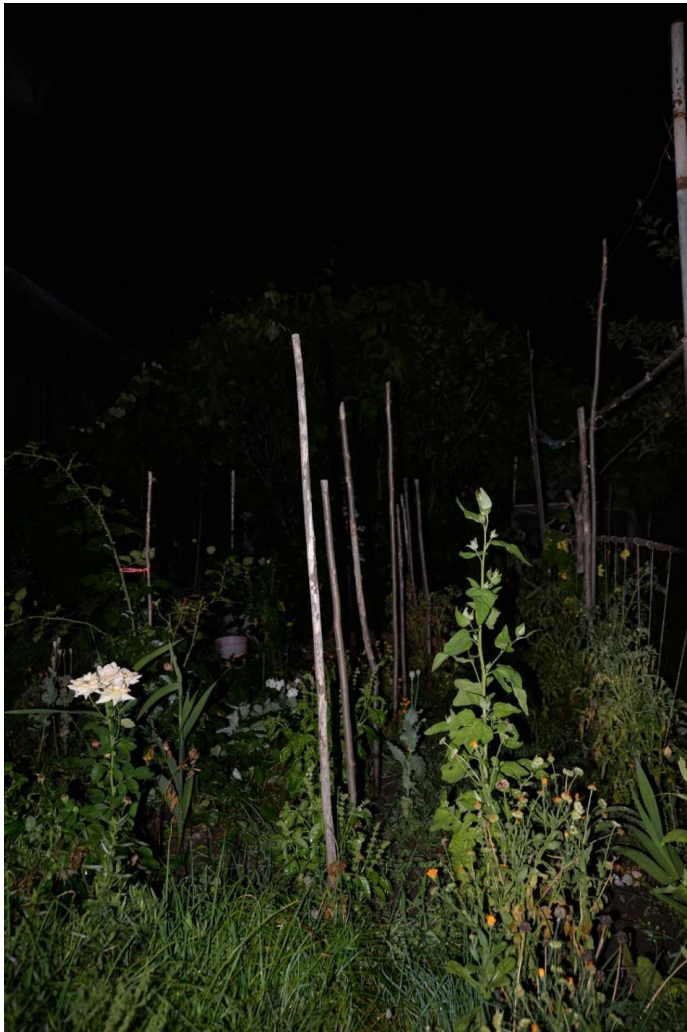


Figure 59 - © Oxana Bischin



Figure 60 - Mode dial (2022) Nikon D610 Manual

Understanding the modes on your digital camera

To adjust exposure in photography, it is crucial to have a solid understanding of the digital camera modes. Regardless of your level of experience, you should be aware of what each camera mode accomplishes, when it should be used, and under what conditions.

Summary of Contents

What are the modes on a digital camera?

- Types of Camera Modes

- Program Mode
- Shutter-Priority Mode
- Aperture-Priority Mode
- Manual Mode

- How Do I Change the Camera Mode?

- What can I set ISO?

- What about alternative modes my camera offers?

What are the modes on a digital camera?

Shutter Speed, Aperture, and ISO are three exposure factors that can be adjusted by photographers using digital camera modes. While certain modes can completely automate the camera's exposure, other modes allow the photographer to manually adjust part or all of the exposure's variables.



Figure 61 - © Oxana Bischin

There was no such thing as a camera mode in the past; everything was manual. Photographers had to manually adjust their cameras' shutter speeds, apertures, and film types. They used to carry specialised light metering devices that measured the light and

provided the exposure information, which they would then utilise in their cameras, to assess the brightness and amount of light. The first SLR camera that measured the light entering the camera through the lens was released by a Japanese firm called "Topcon" in 1962. Kodak had previously launched a film camera with an inbuilt light metre in 1938. This meant that photographers would no longer need to carry along extra light metres because the camera would take care of it. On cameras, new "Automatic" modes started to emerge that would assess the amount of light passing through the lens and would automatically choose the necessary exposure settings to produce a photograph that was properly exposed.

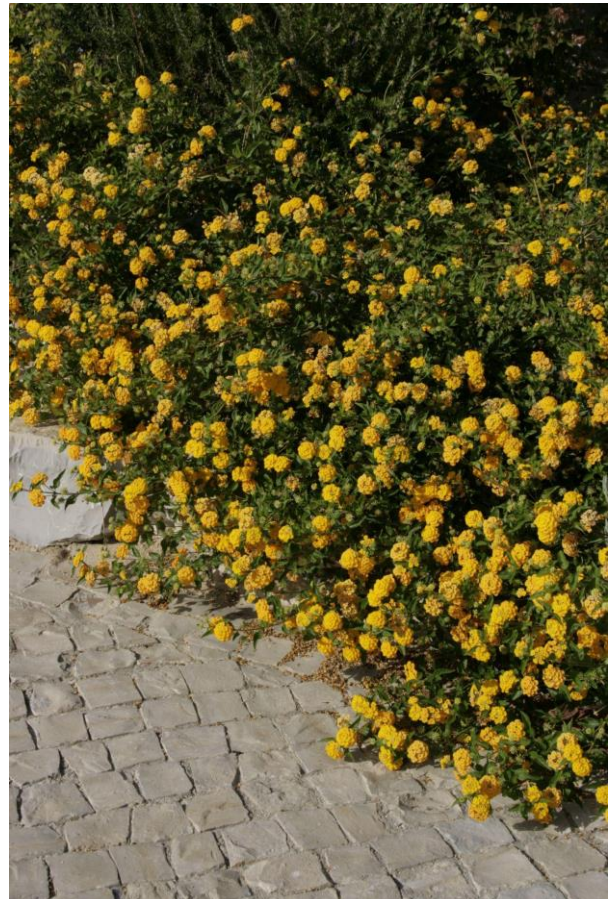


Figure 62 and 63 - © Oxana Bischin

The majority of digital cameras today feature a variety of camera settings that can be employed in various circumstances. More sophisticated cameras have settings that enable both automatic and manual exposure control, but most point and shoot cameras, for the sake of simplicity, focus on automated modes.

Types of Camera Modes:

The four primary camera modes that are present in the majority of modern digital cameras are as follows:

1. Programme (P)
2. TV or S shutter priority
3. Av or Aperture Priority
4. Manual (M)



Figure 64 - © Oxana Bischin



Figure 65 - © Oxana Bischin

1.Programme (P)

The camera automatically selects the aperture and shutter speed in "Programme" mode according to how much light is passing through the lens. For "point and shoot" situations, such as when you only need to rapidly take a picture, you should select this mode. According to the amount of light, the camera will adjust the aperture and shutter speed to maintain balance. The aperture will automatically increase to a larger number when you point the camera at a bright area while maintaining a respectable shutter speed. In order to retain a sufficiently quick shutter speed, the aperture will be reduced to a lower number when the camera is pointed towards a darker location. When there is insufficient light, the lens aperture will remain at its highest value (its maximum aperture), and the shutter speed will continue to slow down until the image is properly exposed.

Since it gives little control over exposure, I personally never utilise this mode. It is possible to override the camera-approximated shutter

speed and aperture. By using the control dial (with Nikon cameras, this is the dial on the back of the camera), one can infer shutter speed and aperture. The shutter speed will drop and aperture will increase as you turn the control dial to the left. On the other hand, the shutter speed will increase and the aperture will drop as you turn the dial to the right. In essence, rotating the dial to the right would get you a faster shutter speed for freezing activity, and rotating it to the left would get you a deep depth of field.

Shutter-Priority Mode

In "Shutter Priority" mode, you choose the camera's shutter speed manually, and the camera chooses the ideal aperture based on how much light enters the lens. When motion needs to be frozen or purposefully blurred, this mode should be employed. In order to reduce the amount of light passing through the lens when there is too much light, the camera will increase the lens aperture to a greater number. The camera will reduce the aperture to the smallest value if there is insufficient light to allow more light to flow through the lens. As a result, in Shutter Priority mode, the shutter speed remains constant (at the setting you choose) while the aperture automatically changes in response to the amount of light. Additionally, because you are allowing the camera to decide the depth of field, there is no control over subject isolation.

Since there is a chance of receiving an image that is either overexposed or underexposed, I also try to avoid using this option. Why? Because my exposure will be restricted to the aperture/speed of my lens, if the ambient light level is insufficient and I set the shutter speed to a really high figure. For instance, if my lens's maximum aperture is f/4.0, the camera won't

be able to utilise an aperture less than f/4.0 and will continue to use the quick shutter speed I manually specified. An underexposed picture will be the end outcome. The image will be overexposed and blown out if I use a very slow shutter speed when there is abundant light.

2. Aperture-Priority Mode

In "Aperture Priority" mode, you choose the lens aperture manually, and the camera chooses the appropriate shutter speed to expose the photo correctly. Because you can change the lens aperture and let the camera figure out the ideal shutter speed, you have complete control over subject isolation and can experiment with the depth of focus. The shutter speed of the camera will automatically change depending on the amount of light present. If it is dark outside, it will automatically slow down. Because the shutter speed can be as slow as 30 seconds and as fast as 1/4000-1/8000th of a second (depending on the camera), which is more than enough for the majority of lighting circumstances, there is absolutely no risk of getting an overexposed or an underexposed photograph.

Since I have complete control over the depth of field and am confident that the image will be properly exposed in most situations, this is the option I use 95% of the time. Most new cameras have excellent metering systems, so I delegate shutter speed calculation and control to the camera.



Figure 66 - © Oxana Bischin



Figure 67 - © Oxana Bischin

3. Manual Mode

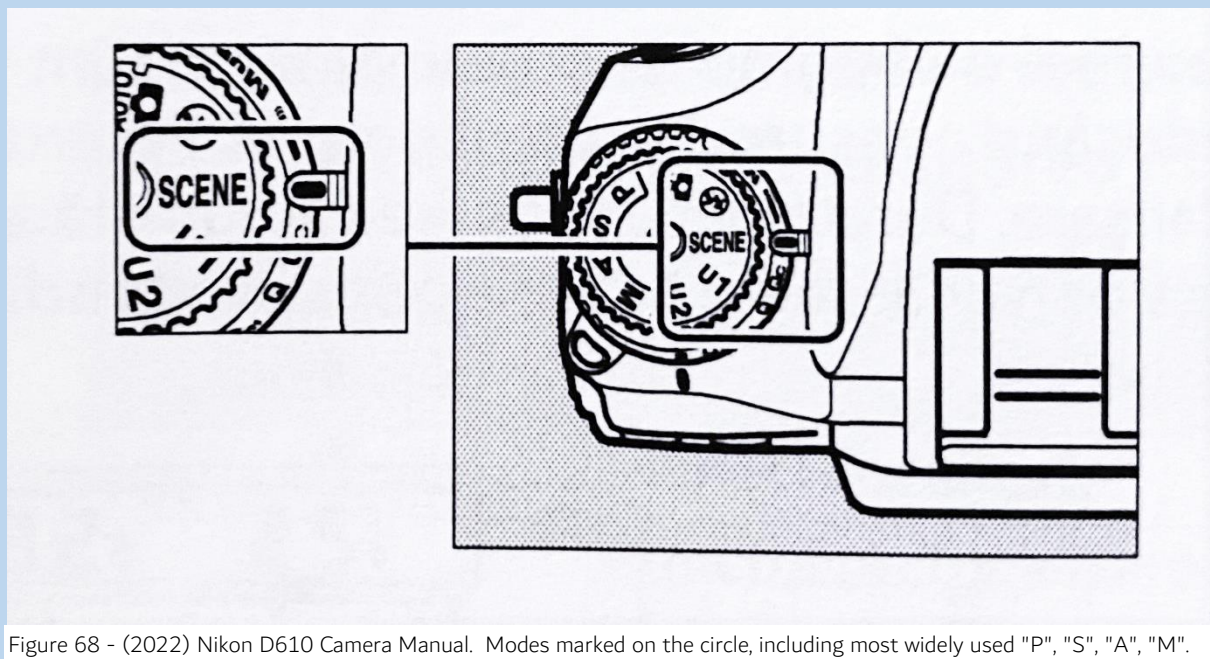
The "Manual" option, as the name implies, allows for complete manual control of the aperture and shutter speed. The camera gives you complete control over the exposure settings in this mode, allowing you to manually set the aperture

and shutter speed to any value you like. This mode is typically employed when the camera struggles to determine the proper exposure under challenging lighting conditions. For instance, the camera can guess the exposure wrongly and overexpose or underexpose the rest of the image if you are capturing a scene with a particularly bright section. In those circumstances, you can switch to manual mode on your camera, assess how much light is present in darker and brighter places, and modify the exposure using your own settings. If you want to maintain consistency over several exposures, manual mode is also helpful for setting the shutter speed and aperture. For instance, all of the photos you're trying to combine into a panorama must have the same shutter speed and aperture. If not, some pictures may be darker and others will be lighter. Your photographs' exposures will be uniform once you set the shutter speed and aperture in manual mode to the parameters of your choosing.

Only in extreme circumstances, when taking panoramas, or when employing on-camera or off-camera flashes do I use this mode.

How can I change the camera mode?

On most entry-level and semi-professional cameras, the camera mode dial can be seen plainly; it is a sizable rotatable circle with the letters "P", "S", "A," and "M" for Nikon DSLRs and "P," "Tv," "Av," and "M" for Canon DSLRs.



The mode dial on professional cameras may not appear the same. Look up the Nikon D300s camera body and notice the little "Mode" button in the top right corner of the camera.

What About ISO?

You must manually set the ISO because it typically does not vary automatically in the aforementioned camera modes. Enable the "Auto ISO" feature on your camera if you don't want to constantly adjust the ISO. Then, set the minimum shutter speed to something like 1/200 of a second and the maximum ISO to "800-1600". Change your maximum ISO to a lesser value if you find there is too much noise. If your camera does not have a "Auto ISO" feature, set your ISO to the lowest setting and raise it when the light level is low.

Which Other Camera Modes Exist?

Depending on the camera, many entry-level and semi-professional cameras feature additional modes such "Portrait", "Landscape", "Macro", "Sports", and "Night" (professional cameras DO NOT have these modes). For the following three reasons, I won't use any of these modes:

1. They merely combine the aforementioned four modes with a few camera-specific adjustments.
2. The custom modes on various cameras vary, so you shouldn't become accustomed to any of them. Simply because you depended too heavily on a certain custom mode, you can become disoriented if you ever switch to a different camera brand or buy a professional camera.
3. These are all unhelpful custom modes. Instead, learn the four primary camera modes discussed in this article and stop utilising them.

Techniques for Quickly Selecting Your Best Photos When Doing Photography

When you first start out as a photographer, you could become preoccupied with selecting the best photos from each photoshoot. You might agonise over every shot for far too long (and worry bitterly that you might accidentally delete a good one...

You will, however, come up with a number of tactics over time. techniques that will:

- accelerate your process
- lessen the difficult task of culling
- aid you in concentrating on actual photo editing

Here are some tips that should make choosing photographs simpler.

1. Reduce the number of images you take initially.

It's not exactly a quick way to browse through hundreds of pictures. However, consciously shooting fewer images can be a game-changer for many photographers, so you should at least give it some thought.

It feels wonderful to take a thousand pictures in the knowledge that you'll eventually get some good ones due to the low cost of digital storage and the absurdly large buffers offered by cameras. How many of those thousands of pictures are decent, though? And how many should you really take in order to acquire some quality pictures?



Figure 69 - © Oxana Bischin



Figure 70 - © Oxana Bischin

It is needless and maybe risky to take so many shots. You'll become complacent as a photographer if your finger is constantly tapping the shutter button. You won't take your time to precisely frame your shots. Instead, your images will suffer because you'll shoot a lot but also miss a lot.

Another significant problem of continuous shooting is:

To find the best pictures, you have to sort through hundreds if not thousands of them.

You don't have to take a tonne of pictures. And if you can control yourself, the post-processing and organisation phases will be lot simpler for you.

2. Select pictures that represent your aesthetic

Don't merely think in terms of "good images" and "bad images" if you want to develop a unified portfolio or a compelling story of an event.

Instead, consider this: Does this picture match my personal style? If not, disregard it. Although you don't have to discard the image because your style may change and you may use it in the future, set it aside for the time being so you can concentrate on the style you're creating.

A photograph that is bright, lively, and airy may be excellent, but it generally doesn't belong in your portfolio if your style is dark, sombre, and dramatic. Does it warrant being thrown out? Most likely not, so immediately file it away in a rejections folder and continue. If you wish to later compile a portfolio of cheerier pictures, you'll know where to look. But in the interim, get it over with so you can focus on what really matters.

3. Be mindful of distractions

When selecting images you like, be particularly attentive to the background, the foreground, and any potential distractions as well as the main topic.

It's up to you in the editing room to spot distractions and get rid of them whether through selection or editing, because they're easy to miss when you're out shooting but they can really detract from an image.

I'm referring to issues like:

- Telephone Posts
- Streetlights



Figure 71 - © Oxana Bischin



Figure 72 - © Oxana Bischin

- Wires
- People passing by
- Cars
- Fences
- Trees

Take the aforementioned list with a grain of salt because, in reality, it all depends on the image since some elements may work great in one shot while being distracting in another. But be sure to keep a sharp eye out for any and all

distractions so you can swiftly delete pictures that won't be used.

However, it should be noted that some distractions can be eliminated during post-processing. For instance, it is possible to eliminate cars from a street scene and telephone wires from a portrait. Additionally, you must determine whether the distraction is fixable and whether it is worthwhile to fix it (especially if you already took a shot that is comparable but free from the same flaws).

4. Reject any images that are out of focus or fuzzy.

Another deciding factor when selecting images is spotting if any of them are soft or blurry. They don't have to be out of focus by default because you might want to try experimental photography or utilise the image in a graphic design or editorial context, but if you're having trouble picking the best pictures, you can always employ the out of focus criteria.

What if a client requests a fuzzy image that you included in their package and they want to put it on a giant canvas?

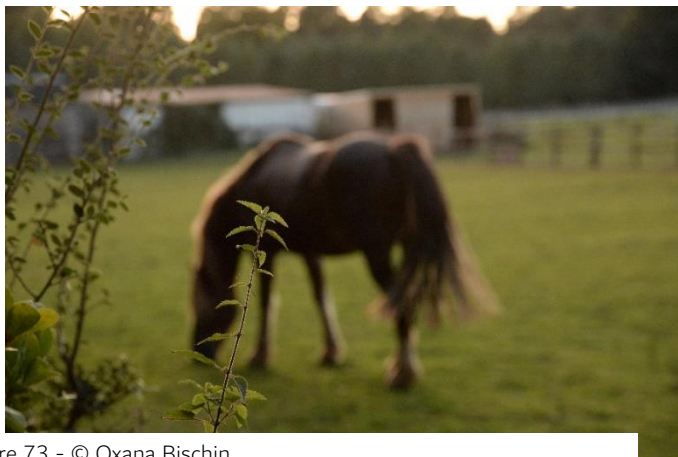


Figure 73 - © Oxana Bischin

Simply avoid going there because an image that appears unclear at low resolutions will look terrible when blown up large. Instead, eliminate any haziness as soon as you notice it.

It's usually possible to determine whether an image is blurry right away, if you're unsure, you can zoom in to 100% in your preferred post-processing programme to check for focus/blur before



Figure 74 - © Oxana Bischin

making your final choice. (This guideline also holds true for any images with drastically off exposure. Let them go, please!)

This process may overall be quite difficult. The nicest positions can occasionally be tarnished by blur, and you'll dread having to delete them, but it's inevitable. Here's an illustration of how the top shot has the better elements—the horse's

tail is moving, and the bush next to it isn't being blown away by the wind—but the subject is out of focus, making the picture useless.

5. On your initial photo-picking, eliminate photos that are identical.

Be harsh when selecting photos every time you see a group of related images. Remove all but one image since no client wants to sift through a collection of twin images and no portfolio should have a few nearly identical pictures. Just choose one image, even if they are both fantastic.

You can choose whichever way you want to do this: flip a coin, always choose the shot on the left, or ideally, choose the shot that makes you feel the best because one of



Figure 75 - © Oxana Bischin



Figure 76 - © Oxana Bischin

the photos is undoubtedly going to be better than the other. Additionally, you might think about testing the exposure and sharpness when deciding which photo best represents your interests and personal style.

Based on compositional factors, I ultimately decided to go with the third photograph of this blossom when comparing the two

(please proceed to the next page). In contrast to the first image, which has the subject almost out of the frame and close to the left edge, the last image in this series has the subject (the brightest area and highest contrast zone) almost in the middle. However, it is not as closely cropped as the second image, giving the subject "space to breathe."



Figure 77 - © Oxana Bischin

6. Pay attention to the hidden treasures

Up until now, we've seen techniques for rapidly getting through to your best photographs. However, I'd like to provide the following bit of guidance:

The best pictures aren't always instantly obvious.

The best facial expressions, the nicest moments, and the most valuable combinations can occasionally be found in the scenes that are hidden jewels.

Therefore, even though you should quickly scan through your images, if an image grabs your attention and speaks to you, don't immediately dismiss it. With a little bit of magical editing, the shot might turn out to be fantastic.



Figure 78 - © Oxana Bischin

For instance, check out Figure 78: I liked how the sign is spotlighted in the sun and the great contrast, however I did edit the brown scarf hanging down with one from an earlier shot where it was just a bit blown by the wind rather than static in order to emphasize it.

Just keep an eye out for such kinds of pictures: ones that, with a little magic editing, might become your favourites.

7. Don't hesitate to make mistakes and be ruthless.

This guide's entire purpose is to speed up your photo selection, and the only way to do so is to be willing to make mistakes.

You will, on an occasion, pass through wonderful pictures. Yes, there are times when you won't recognise photos that would benefit much from editing. Is that really a negative thing, though? Why is it so difficult to reject a nice picture? You're not really throwing it away, after all. If you have enough storage, you can store it on your hard drive and access it whenever

you need to.

Additionally, you must be ruthless. Every shot can't be edited, so sometimes you just have to act quickly and move on.

A quick tip: If you're struggling to let go of images, consider rating them with stars as you go through them: five stars for keepers, four stars for "maybes." The four stars immediately get discarded because I often find more five star photos than I require. After giving pictures a fair chance, it can be simpler to let them go.

References:

1. Melinda Smith,
<https://digital-photography-school.com/taking-out-the-garbage-7-tips-for-choosing-your-best-photos-fast/>
2. <https://photographylife.com/what-is-photography>
<https://www.photographytalk.com/beginner-photography-tips/understanding-camera-specs>
Figure 1 : "View from the Window at Le Gras" by Joseph Nicéphore Niépce
3. <https://photographylife.com/what-is-exposure>
<https://photodoto.com/understanding-exposure-shutter-speed-aperture-and-iso/#more-21>
4. <https://www.adobe.com/uk/creativecloud/photography/discover/photo-composition.html#:~:text=Photo%20composition%20is%20how%20a,easy%2C%20yet%20it's%20anything%20but.>
5. Scott Cox,
<https://photographylife.com/elements-of-composition-photography>
6. Scott Cox,
<https://photographylife.com/personal-style-in-photography>
7. Scott Cox,
<https://photographylife.com/personal-style-in-photography>

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https://upload.wikimedia.org/wikipedia/commons/thumb/5/5c/View_from_the_Window_at_Le_Gras%2C_Joseph_Nic%C3%A9phore_Ni%C3%A9pce.jpg/1024px-View_from_the_Window_at_Le_Gras%2C_Joseph_Nic%C3%A9phore_Ni%C3%A9pce.jpg
(Accessed: 18 June 2023).

Figure 60 - Mode dial (2022) Nikon D610 Manual

Figure 68 - (2022) Nikon D610 Camera Manual. Modes marked on the circle, including most widely used "P", "S", "A", "M".

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