

Photojournalism

WEEK TWO: Photojournalism Tools

Learning Outcomes



At the end of this week, you should be able to:

1. Learn the different types of photojournalistic equipment
2. Understand the different types of cameras
3. Analyze how different tools of photojournalism work together
4. Discuss the role of technology in computer and software application in photojournalism

Introduction

This lecture introduces you to photojournalism tools, which are the type of photojournalism equipment you need depending largely on the assignment at hand. A photojournalist working on a human interest story, might need prime lenses like a 50mm or 85mm to capture compelling portraits, while one capturing a local protest, may need a camera with fast autofocus and a high shutter speed so you can snap moment after moment. In addition to a photojournalist camera and lens, a photojournalist may also include an on-camera microphone for recording interviews, a tripod for capturing more scene-setting landscapes, a spare battery, filters, carrying bag, external flash, and an extra SD card or two.

The different types of photojournalistic equipment

Adorama (2022), proposes *12 Must-Have Camera Equipment for Photojournalists* and these include:

1. Invest in good glass

Get the best lenses you can afford. Ideally, a wide-angle to normal zoom lens with a constant f/2.8 wide aperture, and a tele zoom are virtual requirements. If you can't afford these, at least get a couple of fast prime lenses, and a 180 or 200mm telephoto, plus a 50mm f/1.8 or f/1.4 (Adorama, 2022).

2. Get two camera bodies

You don't necessarily need the top-end model. While full-frame is best, it costs a lot more; a high-end refurbished APS sensor camera (or even a used or refurbished full-frame) can save you hundreds or even thousands, and give you outstanding low-light performance, which you'll need. As you move up and can afford it, you can upgrade to the latest, greatest DSLR bodies and make the jump to full-frame (Adorama, 2022). There are many excellent camera systems available, but the most commonly used in the photo- journalism industry are either Nikon or Canon. Some older used DSLR cameras may get you started, but it is strongly advised to have a current model

with HD video and external sound connection capability. In the end, this will save you time, money and frustration. (Loyalist College, 2017).

3. Buy a good omnidirectional microphone (if you're going to shoot videos)

You need a good microphone to capture sound on your camera. Get a good, rugged handheld microphone, with a wind sock, for interviews or to capture ambient sound.

4. Bring a TTL strobe, either from the camera maker or an independent flash company

Get the most powerful unit you can afford. Even better: Make it a wireless set-up, or at least a TTL-friendly off-camera cord, so you can move the flash off the camera.

5. Use a flash modifier

At the very least, get a reflector so you can bounce the flash or a diffuser to widen the flash source for more flattering lighting. This will allow you to get more natural lighting.

6. Don't forget those extra, fully-charged batteries

Bring at least two back-up batteries for each camera and flash.

7. Ditto for memory cards

Buy the fastest memory card you can afford, to take advantage of your camera's burst rate and data transfer capabilities. This very well might make the difference between getting the moment and missing it.

8. Invest in tablet with a data plan

Connect wirelessly via your provider's data plan (hint: invest in a data plan!), and don't have to rely on the availability of Wi-Fi. The ability to file pictures from the field on a tight deadline is an absolute necessity. Get the data plan and go. (Also make sure to have Photoshop loaded so you can do any very basic last-second exposure adjustments.) Alternatively, when shopping for a new camera, either look for a model with built-in wireless capabilities or with a grip or hot shoe unit that will turn it either into a Bluetooth device (upload images via your cell phone) or a standalone wireless unit.

9. Pack sensor cleaners, microfiber cloth, etc

You may be in the field under less than ideal conditions, changing lenses. Be prepared to clean the lenses and sensor often. You don't want to make a busy picture editor deal with sensor dust. That's an automatic "delete" no matter how good the shot.

10. Throw in your smartphone...

Note that your phone might be pressed into service as a way to wirelessly transmit images from your camera to your editor on tight deadline. Make sure your data plan can handle it.

11. And a roll of gaffer tape, of course

Even if you don't think you'll need it, it's good to have gaffer tape around because eventually, you will. If room in your bag is at a premium, microGaffer tape is a very handy option.

12. Finally, get a good bag with room to grow

Make sure the camera bag has adjustable dividers so your gear will sit snugly. Investing in appropriate equipment will put you on the right track.

How to choose your photojournalism camera equipment

According to Adorama (2022), the type of photojournalism equipment you need depends largely on the assignment. If you're working on a human interest story, for example, you might need prime lenses like a 50mm or 85mm to capture compelling portraits. If you're working on an assignment about, say, a local protest, you'll benefit from a photojournalist camera with fast autofocusing and a high shutter speed so you can snap moment after moment. You want to capture authentic, not posed, images, which means you need to be able to click away as the candid happen. In addition to a photojournalist camera and lens, your photojournalism equipment list may also include an on-camera microphone if you're recording interviews, a tripod if you're capturing more scene-setting landscapes, and always have a spare battery and extra SD card or two. Visualize the scene, and any potential hiccups or roadblocks, then research and experiment with gear that will best help you get the job done.

According to Loyalist College (2017), you can also use the following tools that may have not been listed by Adorama (2022) proposed list or adequately covered:

1) Image Storage Card: Compact Flash or SD card (top speed and quality only suggested), 16 GIG \$30, 32 GIG \$50. You should have two of these. Sandisk and Lexar are recommended.

2) Lenses: Having the right lenses will give you a solid foundation for your photographic education. Most digital photojournalists work with a selection of zoom lenses. The speed of the lens is extremely important, particularly for lower light level situations. Avoid lenses slower than f/2.8 (ie. f/3.5; f/4; f/5.6). An ideal zoom lens for working photojournalists is within the wide angle to normal range. These lenses are offered by both Nikon (17 mm – 55 mm for DX sensor bodies \$ 1,400) or Nikon (24 – 70 f2.8 for \$1,800) and Canon 16 mm – 35 mm for \$1,700. Canon EF-S 17-55 f2.8 for \$1,350). If the cost of a zoom lens is prohibitive, the ideal option is to purchase a fixed 35 mm f/2 lens (approximately \$400). Lens purchases and focal length choices may depend on camera models and sensor sizes of each camera model. Make sure the lens is compatible with your camera body.

3) Flash equipment: Flash units are usually dedicated to a comparable camera model or range. A flash stand and convertible umbrella will be required. Remote firing devices for the flash

(Pocket Wizard Plus is the industry standard) will cost about \$500 for a pair plus connectors. Those using Nikon gear will benefit from Nikon flashes ability to fire remotely using the Nikon CLS flash system which negates the need for Pocket Wizards in most cases.

5) **Gadget bag:** A gadget bag is the ideal way to transport your camera equipment and to protect it. Popular bags for photojournalists are manufactured by LowePro (Reporter Series), and Domke. Estimated Cost: \$150 (new)

6) **Miscellaneous Supplies:** You will be required to supply your own batteries, chargers, USB memory sticks, etc.

7) **Audio Equipment:** A good separate lav microphone for use with this recorder and the audio jack on your DSLR is highly recommended. Suggested models are Zoom H1 Recorder series with a SONY ECMC tie pin microphone and so on.

8) **External Hard Drive:** Minimum (LaCie recommended) 1TB \$150

9) **Tripod:** A good solid tripod is needed occasionally for video and certain low-light situations. Estimated cost- \$200.

Personal Computers: A laptop is certainly a great asset. The photojournalism industry is primarily based upon the Macintosh with Creative Cloud Suite, but some students use PCs. Most of the work performed will be done using Adobe Photoshop software and other related software.

The different types of cameras

According to Adorama (2023), cameras come in many different forms. These camera types include your favorite compact digital cameras, DSLRs, action cameras, new and improved film cameras, and even the latest mirrorless cameras. Whether you're a beginner, a hobbyist, or a professional, you'll find a specific type of camera that will fit your lifestyle and photography needs from our list below.

1. **Compact Digital/Point and Shoot Cameras:** literally allow anyone to capture beautiful images by simply pointing the camera at the subject and clicking the shutter. Also known as a point-and-shoot camera, it is the most user-friendly of all camera types. It is smaller and lighter, and doesn't require film or extra lenses. It also does all the hard work of automatically adjusting its settings to deliver well-exposed photos every time. Cons of Compact Digital Cameras: Usually can't customize shutter speed and aperture, Limited aperture and zoom range, Noisier photos due to small sensor, Lower resolution, and Slower focus
2. **Bridge Cameras:** is "somewhere between" a point and shoot and an interchangeable lens camera. It has a large zoom range, a viewfinder, and allows for some manual control of settings. It's ideal for someone who has "graduated" from a point and shoot but isn't ready yet to invest in an interchangeable lens camera (ILC) system or doesn't want the inconvenience of carrying around and changing multiple lenses. Single lens may not be ideal for specialized needs such as ultra-wide angle or extreme shallow depth of field portrait photography

3. **Digital SLR Cameras:** DSLR (or digital single lens reflex) cameras take photos to the next level of image quality. This more “serious” type of camera is best known for delivering remarkably sharp and spectacular images. Today, professional photographers and videographers from around the world mostly use DSLRs (now alternatively known as hybrid single reflex lens cameras or HDSLR) for commercial purposes. Many of Canon’s and Nikon’s DSLR cameras are being used for capturing hi-res images for magazines and billboards, and even full HD 1080p videos at up to 60fps for television shows and movies. Pentax DSLRs are also well-known for being the perfect camera buddy for shooting under the most difficult weather situations. Cons of DSLRs: Bigger and bulkier, Higher cost, and Requires ample know-how
4. **Mirrorless Cameras:** the latest in professional cameras. They are basically more compact DSLRs without the internal mirror that reflects light onto the sensor. What’s interesting about mirrorless cameras is that they are now capable of capturing incredible, high-resolution images with even faster shutter speeds and record ultra HD videos that only the most expensive, higher-end DSLRs can produce. Overall, it’s a combination of two popular types of digital cameras—a point-and-shoot for its compact size and somewhat simpler controls, and a DSLR for its interchangeable lenses and impressive output.
5. **Medium Format Cameras:** in general, have sensor sizes that are smaller than film medium format. However, medium format sensor size is larger than a full frame sensor, which generally translates to higher quality images. Medium format cameras also produce shallower depth of field, produce smaller equivalent focal length, and have more dynamic range when compared to a full frame camera. Because of the larger surface area of the sensor and typically larger pixel size, the resulting image quality and noise profile is also better. Because medium format cameras are generally slower (e.g., autofocus speed and frames per second) and produce much larger image files, they are usually not as well suited for fast moving action (e.g., birds in flight) or sports photography. Medium format cameras are mainly used for studio and landscape work. However, with evolving technology, this is changing.
6. **Action Cameras:** Common action cameras like the GoPro can fit in the palm of your hand, but they’re some of the most durable and versatile types of digital cameras that offer very high-resolution output. A wide range of accessories like waterproof housing and mounts allow the user to attach action cameras to helmets, bicycles, and even drones, which enable hands-free shooting in different types of situations. This opens up a whole new world of photographic possibilities. This type of camera allows you to capture impressive wide-angle photos and videos with sound from almost any angle and environment. Take them underwater or on top of a mountain. Cons of Action Cameras: Viewfinder too small, if available, Exposure settings not fully customizable, Fixed focus, and Limited digital zoom.
7. **360 Cameras:** takes half dome to full-circle panoramic photos and videos using back-to-back lenses. Like action cameras, some of them are also water resistant and mountable on

many surfaces, such as on top of cars, helmets, or drones. Above all, they take the most realistic pictures and videos with stunning panoramic views that you can truly immerse yourself in, virtual reality style. Because of its non-traditional output, images cannot be printed unless they are cropped as a rectangular panoramic frame. It can also be a challenge to produce perfect panoramic shots because a lot can go wrong with the image stitching and composition (especially since it's hard to hide the camera director in the shots).

8. **Film Cameras:** Film cameras may seem outdated in our new digital world, but they are by no means obsolete. There are many types of film cameras and they provide more artistic output than ever before. Much to the delight of film photography enthusiasts, there are still classic 35mm film cameras being sold today with improved bodies and enhanced capabilities. Medium format film cameras provide an even bigger surface frame (up to 4 times bigger than the usual 35mm, but smaller than large format) and is widely-used by gallery artists for its capability to develop huge prints without losing image quality and to capture natural-looking, wide-angle shots as our eyes actually see them in the real world.
9. **Instant Cameras:** instant film has made a strong resurgence. There are a variety of reasons why you should consider purchasing an instant camera. The biggest benefit of an instant cameras is it allows you to give a physical copy (print) of the image to anyone right after taking the picture. This feature alone has changed the way many photographers approach their craft, such as event or wedding photography. Instant cameras also appeal to the casual photographer who might want to handout keepsakes at a family gathering or when out with friends. Cons of Instant Cameras: Print is generally not as detailed as from a dedicated photo printer, Dynamic range and colors are also not as good as lab prints, and Different sizes are available but are usually still no larger than 5" x 7"
10. **Smartphone Cameras:** the most significant advances in digital photography in recent years have been in smartphone cameras. According to many online sources, images taken with smartphone cameras vastly outnumbers those taken by any other format. Computational photography allows for sought after features such as simulated shallow depth field, automatic blending of files to produce noise free images, and easy removal of unwanted elements from photos. The latest generation of cameras on iPhones and Android devices allow for incredible zooming capabilities, RAW image capture, and 8K video, just to name a few features.
11. **Rugged Cameras:** Most people will likely mention a camera that is waterproof or freeze-proof or one that can survive a drop from a certain height. So, it all depends on your definition of "rugged". For the purposes of simplicity and fairness, let's only include cameras that are waterproof and can withstand a few tumbles. If you read reviews, one of the best rugged cameras is the Olympus Tough TG-6 is frequently at the top of the list. It's reasonably priced, waterproof (50 feet /15 meter), dust proof, shock proof (7 feet / 2.1 meter), crush proof (100 kgf), freeze proof (14 degree Fahrenheit / -10 degree Celsius), and has an anti-fog coating.

A lot of action cams, such as the GoPro Hero10 Black, are also considered rugged cameras and are ideal for outdoor and underwater adventures. You'll have to sacrifice a bit of overall image quality or focal length versatility when using a rugged camera because the lens coating/cover needs to prioritize sturdiness over absolute best optical quality glass. The system also needs to be completely self-contained and sealed or be placed in a housing.

12. **Digital Cinema Cameras:** specialized cameras designed specifically for professional filmmaking and video production. Unlike consumer-grade cameras, digital cinema cameras are built with larger sensors, higher resolutions, and more advanced features to capture cinematic footage with exceptional quality. One of the main features of digital cinema cameras is their ability to capture video in high resolutions such as 4K or even 8K, which allows for greater detail and clarity in the final image. Digital cinema cameras also offer advanced color grading options, which allow filmmakers to fine-tune the color and contrast of their footage to create a particular aesthetic. They often also support the RAW format, which provides the highest quality image and the most flexibility in post-production.
13. **Drones:** offer a unique perspective that is impossible to achieve with traditional camera equipment, giving professionals access to stunning aerial views that would otherwise be difficult or impossible to capture. Drones are highly maneuverable, allowing photographers to reach tight spaces and difficult-to-access areas, making them ideal for capturing images of landscapes, buildings, and other subjects that are challenging to photograph.

Drones can cover a large area in a short amount of time, making them an ideal tool for capturing images of large events or landscapes. This makes them a cost-effective tool for aerial photography, as they can capture high-quality footage quickly and efficiently.

Cons of Drones: Pilots are now required to be fully certified with the Government agents, Prosumer and pro-level drones still can't match up to the quality of professional mirrorless or digital cinema cameras, Limited or unusable in poor weather conditions and extreme temperatures, and Drones are quite noisy and polarizing and can cause unwanted, negative attention

What's the Best Type of Camera for Photography?

According to Adorama (2023), the two best camera options for professional quality photography are DSLRs and mirrorless cameras. Thanks to higher megapixel counts, impressive processors, a wide range of compatible lenses and useful accessories, and endlessly adjustable settings, both mirrorless cameras and DSLRs offer the greatest range of customization and high-quality imagery.

Modern features such as face detection, image stabilization, and conventional PSAM shooting modes have also been added. If you're looking at a high megapixel full frame camera for your

type of photography, you might want to take a peek at some of the latest digital medium format offerings.

How different Photojournalism Tools work together

LENSES

According to PhotoGuard (2023), there are 6 of the main types of camera lens on the market, and knowing when to use the correct lens, is just one step towards becoming a much better photographer. In this article, we take a look at the different types of camera lenses and when they should be used.

What types of camera lenses are there?

There are lenses which are designed for different camera bodies, so always check before making a purchase. DSLR and Mirrorless cameras are either full-frame or crop sensors. While full-frame lenses can be used on a crop sensor, a lens designed for a crop sensor can't be used on a full frame! (PhotoGuard, 2023),

Focal length size guide

Focal Length	Type of Lens	What is it used for?
4mm - 14mm	Fisheye	Abstract, creative
14mm - 35mm	Wide angle	Landscape, architecture
35mm - 85mm	Standard	Street, travel, portrait
85mm - 135mm	Short telephoto	Street photography and portraits
135mm+	Medium telephoto	Sports, wildlife, action
300mm+	Super telephoto	Sports from a distance, nature and astronomy
35mm - 200mm	Macro	Close-up shots

(PhotoGuard, 2023)

What are the main types of camera lens?

Camera lenses can be broken down into two types, zoom lenses and prime lenses. We'll explain what the definition of these two camera lenses are below (PhotoGuard, 2023):

What is a zoom lens?

Zoom lenses have variable focal lengths, so with a 70-200mm lens for example, you can zoom from 70mm all the way up to 200mm. If you're travelling light, though, you can find zoom lenses with much more range, such as an 18 - 270 mm, allowing you to photograph both close up and in the distance. Zoom lenses are a versatile choice of lens (PhotoGuard, 2023). The downsides of a Zoom Lens are that they are usually heavier than Prime Lenses, not quite as sharp as proportionally priced Prime Lenses, and the aperture setting doesn't usually go as low, meaning low-light shots aren't as easy to get (Van Eynde, 2022).

What is a prime lens?

Prime lenses have a fixed focal range, which means that you can't zoom in or out. The main advantage of prime lenses is that they specialize in just one focal length. In other words, they are finely tuned to deliver on one specific type of photography, unlike a zoom lens which can be used in a multitude of cases.

Because of this, prime lenses produce much higher quality images than a zoom lens in general, but you will need to know in which situation you can use them. For example, the 50mm prime lens, otherwise known as the Nifty Fifty, is perfect for portraits, as the focal length is seen to be as close to the human eye as possible. A 35 mm prime lens, on the other hand, is usually best employed by landscape photographers (PhotoGuard, 2023).

The benefits of Prime Lenses include generally higher quality images compared to zoom-capable lenses, lighter weight, great for low-light or night photos. The downsides are that, obviously, you cannot zoom in if you want to, you need to carry multiple lenses in most cases, and you risk losing a shot while switching lenses (Van Eynde, 2022).

Telephoto Lens

These big lenses are found within a range of 100mm up to 600mm, sometimes even more. Telephoto lenses are bulky and may require a tripod to support them, making them nowhere near as practical as a standard zoom lens. If you are a professional wildlife photographer, sports photographer, or if you photograph the night sky and the stars, then a telephoto lens can be invaluable. (PhotoGuard, 2023). They are also great for capturing that image with a great deal of bokeh (the blurry background). The downside of Telephoto is they are generally heavier, need a tripod to get the shot stable, and are expensive. (Van Eynde, 2022).

Wide-angle lenses

Wide-angle lenses are a must-have if you're a landscape photographer and looking to step up your game. Wide angles have a wider focal field, allowing you to essentially capture more of the scene in front of you than say a zoom lens. (PhotoGuard, 2023). They are also great for

photographing architecture, as you'll be able to capture the whole building in front of you. Wide-angle lenses generally have a focal length between 16 and 35mm. They are lightweight like Prime Lenses and capture a clear image of most of the field of view, but aren't useful for close-up, portrait, or when you want that blurred background (known as bokeh) (Van Eynde, 2022).

Fisheye Lens

A fisheye lens is basically an ultra-wide-angle lens, offering an enormous field of view. These are more specialist lenses and aren't generally needed by most photographers. They are useful if you are photographing indoors or using your camera for design work. An ultra-wide-angle lens can have a focal length as low as 8mm (PhotoGuard, 2023). Because of the nature of Fisheye Lenses (major distortions), they aren't useful in most common situations, such as portrait or wedding photos (Van Eynde, 2022).

The Macro Lens

The Macro Lens are for that EXTREME close-up! When you see a bee on a flower or the snowflake before it melts, you're seeing a Macro shot. These lenses can give you the best detail for your money, but that can be a lot of money for a good lens.

Again, they are specialized, so you wouldn't use them in everyday photography or even in portrait/wedding shots (except for the posed shots like of the rings). They need to be focused so well, focusing times typically take longer than a typical Prime or Zoom Lens (Van Eynde, 2022).

CAMERA FILTERS

According to B & H Foto & Electronics Corp (2000-2023), in their article *Choosing Lens Filters for Your Camera*, they stated that although it is usual for photographers to use filters to protect their lenses from scratches, thumbprints, and dust, the real benefit lies in the way filters improve images and, in some instances, achieve effects that even the best photo editing suites cannot replicate. There are many different types of lens filters, each for a specific purpose. Filters attach in one of two ways. The most common are circular filters that directly screw onto the lens. The second method is to use a filter holder that accepts universal type rectangular filters. This is useful if you use multiple filters to obtain different effects.

Types of Lens Filters

DSLR lens filters fall into three general categories and are available from many popular brands. Names you'll often see include Tiffen, Hoya, Heliopan, and Canon filters. Some primarily protect lenses against dirt, dust, or moisture, while others change the properties of light as seen by camera sensors, while yet others create special effects (B & H Foto & Electronics Corp (2000-2023)). Common filters used by photographers include:

- Clear filters: Used as lens protectors
- Ultraviolet (UV) haze filters: Reduce haze, and they're commonly left on the lens permanently as a lens protector

- Skylight filters: Slightly pink filters used to reduce blues, correct haze, and act as a lens protector
- Polarizing filters: Reduce glare, cut unwanted reflections from water, and saturate colors, making skies appear bluer and clouds whiter
- Neutral density filters (ND): Dark filters that reduce the amount of light the sensor receives so larger apertures and slower shutter speeds can be used to reduce the depth of field or to create motion blur
- Graduated ND filters: Similar to ND filters except part of the filter is darker, so it's possible to expose bright backgrounds and dark foregrounds correctly
- Diffusion and soft focus filters: Used to soften image details in portraits
- Star filters: Create starburst effects over bright lights

A photo filter or video filter must be the right size to fit the thread on the front of the lens. The diameter is stamped or printed on the lens body, usually toward the front. Because lens sizes vary, it's common to have filter kits for each lens (B & H Foto & Electronics Corp (2000-2023)).

Using Filters

Although it's possible to use several circular camera lens filters, one on top the other, this isn't a good idea because the multiple layers of glass may affect image quality, and, if the filters extend too far, they may interfere with the picture when you're using a wide-angle lens. When several filters are needed, consider using rectangular filters mounted in a separate holder. These filters are thinner and made of plastic, gelatin, or resin, and cause less distortion (B & H Foto & Electronics Corp (2000-2023)).

Some filters are adjustable. A polarizing filter turns to obtain the desired effect, while an adjustable neutral density filter darkens. Colored filters change the hue, correct for color temperature, increase the warmth, and reduce the harshness of bright lights (B & H Foto & Electronics Corp (2000-2023)).

TRIPODS

According to B & H Foto & Electronics Corp (2000-2023), in their article *Choosing Photography Tripods and Support*, asserts that whether shooting a baseball game, wedding reception, wildlife, or anything else, tripods and support systems can mean the difference between a good photo and an excellent photo. A tripod steadies the camera to create a versatile and stable base from which to frame your composition. It doesn't matter if you're a beginner or a serious photographer—tripods are guaranteed to improve your imaging. In addition to providing stability, tripods allow for easier manual adjustment of tricky lighting situations, such as a night sky or landscape. Adjustable legs on flexible tripods help you get shots at various heights and angles, too.

A popular option for many photographers is a *quick release system* designed to attach or remove the camera from the tripod mount easily through a gliding groove system attached via the

baseplate. If you desire stability while working in small spaces, or with smaller equipment, consider tabletop or mini tripods for increased control over your work (B & H Foto & Electronics Corp (2000-2023)).

Monopods

According to B & H Foto & Electronics Corp (2000-2023), in their article *Learning About Monopods* describe them also as a unipod, this is a one-legged support or a collapsible pole. This photography accessory steadies a mounted camera by eliminating vertical motion. Leaning it against solid objects, such as a wall, turns the single-leg pole into a makeshift bipod that also dampens shakiness in the horizontal axis. Stabilizing cameras in this way eliminates blurry shots. The best monopods for video capture also reduce jerkiness in footage. By serving as a stable platform, a unipod makes it easier to shoot sharp images and videos at slow shutter speeds and with long-focus lenses.

How Do Monopods Compare to Tripods?

They're lighter and more compact than tripods, and better suited for on-the-go photography. They're also easier to pack when traveling, and ideal for outdoor photography. Sports and wildlife photographers who spend a lot of time shooting in one place choose unipods for these reasons. Some of the best monopods also double as walking and hiking sticks. These trekking poles have capped and threaded tops that fit monopod heads (B & H Foto & Electronics Corp (2000-2023)).

A monopod is easier to deploy than a tripod. With three legs to spread out, setting up a tripod takes longer. Therefore, unipods are better for quick action shots. However, having three legs make tripods more stable. This design locks cameras firmly in one position and makes tripods better for studio and time-lapse photography (B & H Foto & Electronics Corp (2000-2023)).

Detachable Camera Flashes

According to B & H Foto & Electronics Corp (2000-2023), in their article *Learning About Detachable Camera Flashes* describes proper lighting is a staple of good photography and videography. Whether you're a beginner, enthusiast, or pro, flashes and on-camera lights should be integral tools in your work. Flashes have the ability to illuminate objects, create special effects, and set a certain mood. On-camera lights ensure continuous illumination while shooting.

A flash is a piece of equipment that produces a beam of light for a very short period of time when you release the camera shutter. You can use it to lighten shadows and to brighten your subject without having to decrease the shutter speed or increase the ISO settings. External camera flash accessories outperform internal camera flashes because they're more powerful and thus can be used at greater distances. They can also be pointed in many directions, and can even be used to create unique effects. Additionally, external flashes have an internal flash battery instead of running off your camera's battery, allowing you to take more photos (B & H Foto & Electronics Corp (2000-2023)).

Photography bags

According to B & H Foto & Electronics Corp (2000-2023), photography bags include backpacks, pouches, and rolling cases that make it easy for you to carry photography equipment to a location. These bags are more durable than traditional backpacks or purses, with added compartments and fasteners to make your accessories comfortable to carry. Choosing the right camera bag to fit your photography equipment is crucial to making sure your investment in your gear is protected.

Types of Photography Bags and Cases

When exploring the different types of photography bags and cases, consider your photography style to determine which best suits your needs.

Pouch

A pouch is a small bag designed to take up little room. Those designed for a camera generally only have space for your camera and a few small accessories, such as batteries or memory cards. You can also buy accessory holders, such as lens pouches, to use in conjunction with a larger carrying case.

Holsters and Belts

Wear a holster or belt around your waist or over your shoulders to allow for hands-free carrying of your camera when you're on the go. Like pouches, holsters may also offer limited room for accessories, including an extra lens.

Messenger Bags and Backpacks

Larger in size, messenger bags and backpacks offer lots of room for your photography equipment. Because they're equipped with straps, they're also easy to carry around from one location to another. Specially designed bags offer extra cushioning to protect your gear for longer outings.

Trunks and Hard Cases

Trunks and other hard cases offer the most protection for your equipment, generally coming complete with cushioning and dividers so you can stay organized. These types of cases can range from the size of a large shoe box to the size of luggage or larger. Many have carrying handles, while some of the larger or bulkier options have extension handles and wheels to make traveling even easier. Due to their size, they're a good option if you need to bring tripods, lights, and other accessories as you work (B & H Foto & Electronics Corp (2000-2023)).

The role of technology in computer and software application

According to Intel Corporation (2023), creating compelling images inevitably requires at least some time at a computer with photo-editing software. Imperfections that strip images of their power and reality can be corrected. Unique elements can be added that provide otherworldly qualities that change the way people react to an image of a person, place or thing.

No matter what your goals, the most advanced photo-editing software can only attain its full creative potential when teamed with the appropriate hardware. In the same way, hardware choices have expanded dramatically, requiring photographers and graphic artists to consider functionality and desired effects when choosing the device they'll edit upon.

Desktops Edge over Laptops Disappear

Even people who have been using photo editing software for a relatively short time probably remember a time when desktop computers were the only option for serious craftspeople. Today, however, new laptop models boast speed and storage that rival high-end desktops, suiting those whose editing work must be done in the field, at multiple locations, or taken to clients or colleagues (Intel Corporation, 2023).

Built-in high-resolution screens up to Ultra HD 4K provide stunning color, contrast and, detail that discerning photo editors require. In short, modern laptops have all the advantages of heavy-duty desktop photo editing in a lightweight package weighing only 3-4 pounds (Intel Corporation, 2023).

Laptops Provide More Capabilities than Tablets

For starters, laptops are larger, with more technology capabilities that can make tablets feel limited and cumbersome. Laptops provide full-sized keyboards, the ability to connect external hard drives and disc burners, and bigger screens with more room for the editing software's control bars and menus (Intel Corporation, 2023).

While that can all be important, the key differentiator between laptops and tablets is the laptops' ability to run full versions of professional-level photo editing software such as Adobe Photoshop*, Adobe Lightroom*, Corel PHOTO-PAINT*, or popular free programs like GIMP (Intel Corporation, 2023).

Even the highest-quality tablets provide a smaller toolbox of photo editing functions. For example, most mobile devices are limited to review and light editing of JPEG or PNG files. While that is adequate for people who simply want a record of their vacation, upper-echelon creatives will routinely prefer to work with high-resolution RAW files, which allow them to fine-tune detailed images (Intel Corporation, 2023).

High Performance

	Good	Better	Best
CPU — Caches are pools of data that are “closer” to the CPU for even faster access and higher speeds. Look for a Level	2.3 MHz 2 Cores	3.1MHz 4 Cores 6MB Cache	4.1MHz 4 Cores 8MB Cache

	Good	Better	Best
3 – or L3 - cache to get more data moving at high speeds.	4MB Cache		
GPU — Responsible for giving you every detail, at every resolution, at a high frame rate (FPS), with no lag.	860 MHz 60 FPS	1.25 GHz 60 FPS	1.48 GHz 90 FPS
SSD — More GBs of storage mean faster data transfer and load times.	256 GB	500 GB	1 TB

(Intel Corporation, 2023).

Further Reading



Types of Cameras by PhotoUno Photography school

DSLRs and mirrorless and compact

FEATURE	DSLR	MIRRORLESS	COMPACT
Multi - purpose	YES	YES	NO
Interchangeable lens	YES	YES	NO
Photo quality	High quality	High quality	Low quality
Manual mode	YES	YES	Some models
High-definition movie option	YES	YES	NO
Weight & Size	Biggest & bulkiest camera	Smaller and lighter than DSLR	Smallest and lightest camera
Pricing	From \$400 and up	From \$350 and up	From \$200 and up

1. DSLR

This is probably the digital camera you picture in your head when you think of a digital

camera. Overall, they are extremely versatile and perform well in almost all situations.

Pros:

- A DSLR consists of a body—the part of the camera that records the image—and a removable lens. This ability to change lenses on a DSLR gives you lots of flexibility.
- DSLRs are designed to let you see the image exactly as the camera itself will record. The photos are high quality and will reproduce well when printed, even at large sizes (e.g. 11x17”).
- DSLRs tend to be very responsive—there is no lag time between when you snap your picture and when the image is recorded, so you'll never miss a moment.
- There are tons of lenses available for most brands of DSLR cameras (a whole other discussion!). This gives you lots of creative options.
- All DSLRs will give you full control, and most give you some pre-programmed automatic or semi-automatic modes.
- Some DSLR models also have video capability, allowing you to capture beautiful high-definition movies.

Cons:

- Of all the types of digital cameras, these are the biggest and bulkiest.
- They tend to be among the heaviest, especially when you include your lens or lenses.

Entry-level DSLRs are usually sold packaged with a lens and cost between \$400 and \$600. High-end DSLRs retail for \$1500 and up (and are often sold without a lens).

2. Mirrorless

A newer type of digital camera that is continually growing in popularity is the mirrorless system. A mirrorless camera usually gives you all the same capabilities and features as a DSLR, but in a slightly smaller package. They are very quiet—there is no loud “click-click!” when you snap a photo. This makes them popular with street photographers, who want to remain silent and invisible to their subjects in order to capture candid scenes.

Pros:

- They are smaller and lighter than DSLRs—this also makes them less conspicuous.
- You will still have manual control over all your settings, as well as some automatic or semi-automatic modes.
- There is no loss of image quality when compared to a DSLR.
- Some mirrorless cameras also include high-resolution video options, as well.

Cons:

- Some mirrorless models won't let you swap lenses! Many mirrorless systems do have interchangeable lenses. Even so, keep in mind that there are fewer lenses available for mirrorless cameras (for now, anyway—as demand for these cameras increases, so will your choices).
- Some mirrorless cameras don't have a viewfinder—you must rely on the rear LCD screen to compose your photos. This can be tricky in brightly-lit situations, when there is a lot of glare on your screen.
- Some photographers report a slight lag between what you see on your LCD screen and what is actually in front of the lens.
- There is also the possibility of a slight delay between the second when you press the button to take a photo, and when the photo is actually recorded.

- Depending on the model, automatic focus modes are not always as precise as in DSLRs.

Mirrorless cameras vary greatly in price, from as little as \$350 to as much as \$2000, depending on the brand, model, and whether or not a lens is included.

3. Compact

Compact cameras are our final category, and they are just that—small and compact! They may also be called “point-and-shoot” cameras. Be warned—there are a million compact camera choices, and it can be difficult to distinguish which will offer you the quality you desire.

Pros:

- Compacts are smallest, lightest type of camera out there. Easy to slip into your pocket or purse, and the most lightweight, these cameras are great for people on-the-go, who want to capture snapshots of daily life, parties, or vacation adventures, without being weighed down by a bulky camera bag.

Cons:

- Compact cameras tend to sacrifice some functionality and features in favor of their compact design, although there are some models available that will perform nearly as well as a DSLR or mirrorless camera.
- The main difference between compact and other cameras is that image quality will usually be reduced, so you may not be able to print your photos at larger sizes.
- Depending on how advanced the model is or isn't, a compact camera may not offer you as much control over your settings—it may come only with pre-programmed, fully-automatic modes. If you don't want to be bothered with learning how to control all the features of your camera, then this could be a good thing—but if you want to get more creative and consistent results, then it is better to look for a camera with manual control.
- You cannot change lenses—compact cameras almost always have only one lens that is built into the camera (but most compacts will let you zoom in and out, at least a little).

Compact cameras are declining in popularity, since many people use the cameras in their smartphones instead. This is something to consider—if you buy a compact camera, will it be redundant if you already use your smartphone to photograph while on-the-go?

Source: <https://www.photouno.com/a/tips/14/types-of-cameras/>

Summary



There are different types of camera lens for almost any situation you could find yourself in as a photographer. Knowing which lens is best for what scenario will set you on your way to becoming a much-improved photographer. Photojournalists use digital cameras to capture images. They also use other equipment in their roles, and these include:

- Different lenses, such as zoom and fixed lenses
- Lighting equipment, such as a flash stand and umbrella

- Batteries, chargers and memory cards
- Tripod
- Computer photo editing software

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