

the camera

A quick look at traditional 35mm, medium format and large format cameras.

Small format:

APS: The most recent format, an amateur system designed to print on an 8x10 format. Very small film, digitally encoded. Popular in newer “point-and-shoot” cameras.

35mm: Originally designed to use the same film as 35mm movie cameras. Small, easy to carry. The small size allows for small, fast lenses to be used. Can be rangefinder style (like a Leica M series - you look through a viewfinder, not through the lens) or SLR (**s**ingle **l**ens **r**eflex), where you see through the lens.

Pros: Interchangeable lenses. Light bodies. Wide range of options, from lenses and bodies to flashes etc. Vast selection of film.

Cons: Small film size (24x36 mm) limits size of enlargements. Processing/printing is expensive. The crop is 2” wider than standard 8x10 paper.

Medium format:

Cameras using roll film measuring 6 cm. across. Come in variety of sizes, from 6x4.5, 6x6, 6x7, 6x9. Pros: Often have shutters built into the lens, allowing flash to be used at high shutter speeds. Often interchangeable lenses, film and polaroid backs. Biggest, sharpest prints. Cons: Expensive. Short film rolls (9 exposures on 6x8 to 16 on 6x4.5). Cumbersome.

Large format: Cameras using sheet film from 4x5 to 8x10 inches and larger.

Pros: Options to change focal plane. Huge film size, means sharp prints (NOT as sharp as medium format). The lens and film holders can move independently, allowing contortions of focusing and perspective.

Great for landscape and architectural photography. Difficult to use for portraits.

Cons: Expensive. Incredibly cumbersome.

Important SLR camera parts:

Shutter speed dial:

ISO/ASA dial: for older cameras. Tells light meter what speed of film is loaded.

film plane marker: For measuring camera to subject distance

depth of field preview button: stops the lens down to the chosen aperture to let you to see how much will be in focus. The smaller the aperture, the dimmer the viewfinder will be.

hot shoe: allows you to use an on-camera flash

PC outlet: attaches to a cable to connect to a flash or powerful studio strobe

lens release button: allows you to attach different lenses.

On some cameras, the light meter works with an onboard computer to determine the proper exposure. These cameras offer “modes” of operation, from the “idiot-proof” fully automatic, to options including:

Aperture priority: You determine the aperture, the camera’s light meter and computer determine the proper shutter speed.

Shutter priority: You choose the shutter speed and the camera’s light meter and computer determine the proper aperture.

Cameras tips:

- cameras are complex, and expensive, but are fairly durable. With minimal maintenance, they’ll work for decades.

Do’s

- be **really** careful loading film: don’t damage rear shutter curtain. It is incredibly delicate – and expensive to replace.
- be sure to remove batteries if you won’t be using the camera for a few weeks.

- be careful around sand and water – especially salt water. Dry the camera off immediately if it gets sprayed with water. Try to keep salt water off it. Use plastic bags, with a hole cut out for the lens. Keep it under a waterproof jacket if it is raining.

Sand is great at getting into lenses and internal camera parts and grinding them down.

- Cameras work great in winter. If you are shooting outside for quite a while, bring spare batteries and keep them close to your body. Cold quickly saps the power. Also, be sure to bring a plastic bag with you to wrap the camera before you bring it inside. That way condensation occurs on the bag, instead of on the camera.

Don'ts

- don't try to "repair" cameras yourself
- don't apply force. If a lens is stuck, take it to a professional repair centre.
- don't use canned air on cameras. It lodges the dust deeper into bodies and lenses and can knock mirrors out of alignment.
- don't ever set your camera on a beach.
- **don't clean the mirror or shutter.**

The lens

Important markings:

identification of the maximum aperture and focal length

distance scale

∞ - infinity mark

depth of field marks

f/stops

Prime lenses: cover one focal length. These are usually “faster” (have a larger maximum aperture) than comparable zoom lenses.

Zoom lenses: cover a variety of focal lengths (e.g. 35-70) and are more sophisticated, with more elements (of glass).

- More expensive than primes, and tend to be “slower” (smaller maximum f-stop), larger, heavier and internally more complex.
- few lenses made today aren’t up to the standards of an average photographer.

Lens types:

Normal lenses: Considered the same view or **perspective** (45 degrees) as human eye. On 35mm, is 50 mm. On medium format 80 mm to 90 mm. On 4x5 is 210 mm. Usually have the fastest lenses - f 1.8 is standard on 35mm.

Wide angle lenses: Lenses wider than normal (and greater field of view than normal lenses), exaggerating foreground distance. Can bring drama to landscapes and honours to portraits. Gives enhanced depth of field.

Telephoto lenses: Narrower angle of view than normal and wide angle lenses. Tends to compress foreground distance (making noses smaller in portraits). Coupled with shallow depth of field, can add drama to a photograph.

Specialty lenses:

fish-eye: gives a 180° view. Popular with snowboard, band photographers

mirror lens: Uses mirror to increase the telephoto reach of a lens without the long lens barrel. Has one f/stop. Out of focus highlights are donut-shaped.

teleconverter: An attachment that uses additional elements to increase the length of a telephoto lens. The best are as good as longer lenses, provided they are used on quality lenses. Reduces light reaching the film by 1 stop for a 1.4x converter or two stops for a 2x converter.

extension tube: Hollow tube that increases the close-focusing ability

of a lens. Useful, but reduces light.

close-up filters: screw into front of the lens to provide closer focus. Quality filters give quality results.

lens factoids

- The front element of a lens is expensive – much more expensive than a good quality filter.
- A UV filter (to stop ultraviolet light) and a good, hard lens hood should be on every lens you own. The filter can prevent damage by rain and scratches, the hood even helps if you drop the lens.
- For the sharpest images, make sure your lens and filter are clean.