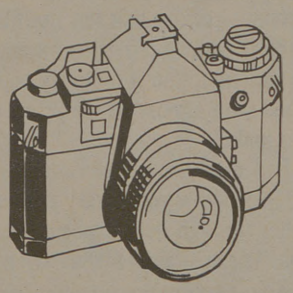
What Type Of Camera Do You Need????

Pocket 110 camera? Instant-picture camera? All-weather camera? Single-lens reflex camera? Pocket 35 camera? Auto-focus camera?

They are all very different and serve different functions and different users. It may well be overkill if you've been persuaded to buy a single-lens reflex when all you want is a no-nonsense pocket camera which means you can learn as little about photography as possible.

Books have been written about proper camera type selection. No matter—we're going to reduce it all into five thumbnail-size sketches and descriptions. We might not be able to accompany you all the way to the proper choice, but at least we can head you in the right direction.



35mm Single Lens Reflex (SLR)

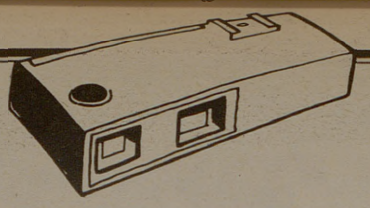
You see what you get by viewing and focusing right through the lens, be it a wide-angle, normal, telephoto or zoom; extremely versatile, available with manual control, auto-exposure only, or auto-exposure plus manual override. But SLRs are bulkier than pocket cameras or other 35s, heavier, more expensive, more complex, take more care to use. Accessory list is enormous with fully-coupled auto flash and battery-powered auto winders heading the list.

35mm Lens/Shutter Camera

Uses optical finder (like a miniature telescope) for sighting, optical rangefinder in some models for focusing. Lowest-priced models use simple scale: you guess distance, then set footage marker accordingly and hope it's right.

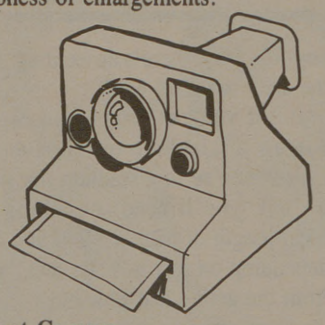
Advantages include rugged, simple design and lower-than-SLR cost, plus greater compactness and lighter weight than SLR. Models now available include built-in electronic flash, auto-exposure, super-compact pocket versions, auto focusing.

But only a few high-priced cameras offer interchangeable lenses. Good snapshot cameras, however.



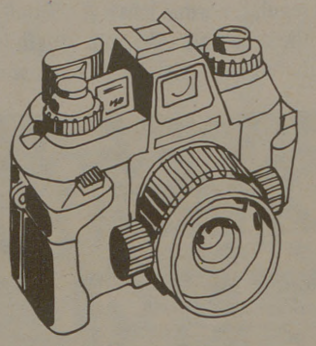
110 Camera

Tiny and super-tiny easy-to-load camera using miniature film size. There's a wide range of models from simple box-camera equivalents to a single-lens reflex and underwater types. Newer models have built-in electronic flash, automatic exposure, built-in auto winders. Rugged, simple, light and compact, the 110 turns out good snapshots but small film size limits sharpness of enlargements.



Instant Camera

If you must see your color prints within minutes, the instants will deliver the goods. Cameras tend to be bulky, lenses slow. Cameras are fully automatic, film fairly expensive, enlargements of poorer quality. Great for making friends all over the world, shooting at parties, weddings.



Underwater/All-Weather Cameras

Specially designed to withstand elements, these auto-exposure cameras are ideal for hunters, fishermen, sailors, backpackers, when extremely rugged camera is needed. Some are water resistant only; others can go to 15 ft. or so. Only one, the Nikonos, is a true underwater camera with interchangeable lenses!

Closeups And Copying: School Aids

Have a lab experiment you want to preserve before you break it down? Do you need a copy of a map, drawing or painting but can't get it to a copying machine? Is there some material in a book that you can only glom onto for a few hours? The answer is to copy it or shoot a close-up with your camera. You can use any camera, except pocket cameras—the negatives or transparencies made with them are generally too small to carry enough information—for copying and close-ups.

Most 35mm SLRs focus as close as 18 to 24 in., which may be enough for some copying and close-up work. Other cameras reach 3 ft., which is usually too far.

Close-up lenses are by far the simplest and most convenient accessory to allow you to focus nearer than the regular minimum distance of your camera. They're easiest to use on an SLR, since you can thread one over your normal lens and focus right through the finder. Close-up lenses are generally available in three major strengths: +1, +2 and +3.

While we could give you the distances at which the close-up lenses will allow you to work, what you really need to know is how large an area the close-up lens will take in when fitted on your normal lens. For a 50mm normal camera lens a +1 close-up lens will cover a subject from 9¼ × 14 in. to 18⅝ × 28 in. depending on the focus setting of the camera. A +2 will allow areas from 6⅓ × 9¼ in. to 9⅜ × 14 in., while a +3 will get you from 4½ × 6⅞ in. to 6¼ × 9⅜ in.

These close-up lenses can be combined for even closer work with smaller areas. It's now simply a matter of choosing the right close-up lens depending on the size of your subject area you want covered. For instance, if you were copying a map in a book which was 8 × 10½ in., a +2 close-up lens would do nicely.

With a single-lens reflex camera, making a close-up is no more complicated than lining up the camera and subject and shooting. Use the built-in, or a hand-held, meter recommendation for the correct exposure.

While close-up and copying lighting can get very complicated, even, shadowless daylight from a window (or from a skylight in a library reading room) will do.

With cameras other than SLRs, follow the directions that come with the close-up lenses as to proper camera distance settings and actual distance from the subject. If you don't have a single-lens reflex, you won't be able to rely on your viewfinder to show you just what will be framed in the close-up picture. Instead, measure carefully from the very center of your camera lens to the very center of your subject using a rigid or coiled metal tape.

How can you hold the camera steady enough, particularly if you need a longish exposure and you don't have a tripod or copy stand? The accompanying pictures show you just how to do this with books as supports for the subject and camera.

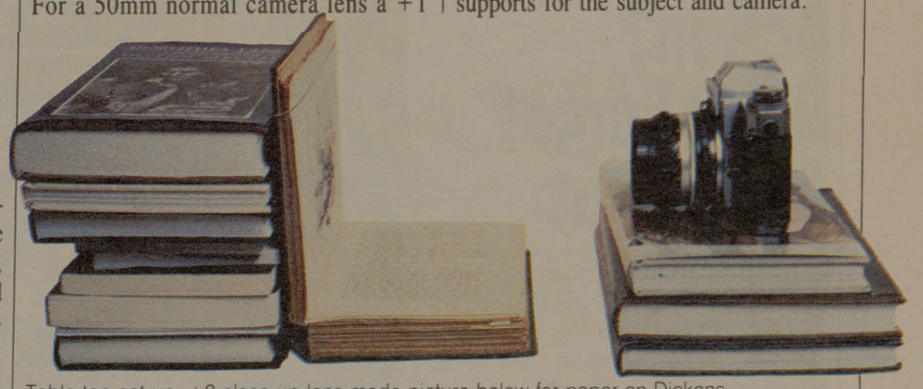


Table-top set-up, +2 close-up lens made picture below for paper on Dickens.

Herbert Keppler

If you load up with a fast (ASA 400) film, you should be able to make good exposure in reasonable light. For sharp pictures with close-up lenses, you will have to close your lens down to f/8 or f/11, which means a fairly long exposure if the light is poor. If your meter can't handle such a low light level, you'll have to experiment by making exposures at a number of longish times until you find the proper exposure.

Avoid using color print film for copying if you are photographing a map or printed matter. Instead, shoot black-and-white negative or transparency material. View the slides (or even the negatives) with a projector or by means of a fairly powerful (10X or more) magnifier. If it's a negative you will want to have a print made.

With careful copying, your transparency or negative should have all the detail from the original that you'll need.