





An Experiment with NEGATIVE COLOR

How to buy Accessories That Make Sense

FILTERS How, when and why to use them

What's in a Picture?

PART IV Re-Evaluation Of Leading 35mm Cameras

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RE-EVALUATION SERIES / By ARTHUR KRAMER

The Minolta SR-1

T HE Minolta SR-1 falls into that very special category of cameras that cost well under \$200, yet boast features that compare favorably against cameras in the \$400 class.

This "high performance at low cost" class of cameras certainly can be considered "best buys," not just in terms of cost and features, but in the sense of actual optical performance as well.

There are many cameras to choose from in this class. What does the Minolta SR-1 have to offer? A superficial examination shows that it has all the features a single lens reflex should have to make operation fast, simple and versatile.

Want internal automatic coupling?

The SR-1 has it.

Want rapid return mirror?

The SR-1 has it.

Want fast-changing bayonet mounted lenses?

The SR-1 has them.

Want all shutter speeds on a single dial? . . . x and fp synch? . . . rapid wind lever? . . . depth of field previewing? . . . bright image? . . . the SR-1 has them all. But so have many other cameras.

Is the Minolta SR-1 different or better? Let's find out.

The Minolta SR-1 is a conventional single lens reflex. That's another way of saying that everything is in the right place.

A camera designer has a number of courses open to him. He can start from scratch and work toward a fresh, original design. Or he can take every tried and tested feature and combine them into a camera of supreme dependability and proven handling qualities.

If he decides to blaze the trail toward something original he must be prepared for astronomical costs for design and development as well as an extremely high selling price. Even so, it might be years before all the bugs are worked out.

The designer who uses tested design is ahead before he starts. He *knows* his camera will be dependable. He can turn his efforts toward producing a superior instrument at a lower price. There are no bugs to work out and the photographer reaps an immediate benefit in both cost and versatility.

Needless to say, Minolta chose the latter. The SR-1 is, from every indication, a blend of the tried, the true and the tested.

The single lens reflex exists because of its viewing. Let's examine the Minolta's viewing system. Basically, it consists of a field lens with a clear center spot. The image can be easily focused anywhere within the field, clear or fresnel. Brilliance is uniform right out to the corners and the image "snaps in" with a certainty that unmistakenly marks good optics.

This camera has a really bright

viewing system. Bright enough to be classed the best at any price and better than most even at higher cost than the Minolta. The SR-1's eyepiece measures a huge 9/16" in diameter – photographers wearing glasses can see the entire field without a bit of trouble (and that goes for the extreme edges as well.) This eyepiece, by the way, unscrews to reveal a bayonet mount that accommodates various accessories. More about these later.

Just to the right of the eyepiece is the rapid wind lever that advances the film and cocks the shutter. Moving it counterclockwise through 180 degrees, either in one stroke or a series of short strokes, will set the camera for exposure. The rapid wind lever moves concentrically around the shutter release button, which is one of the joys of the Minolta SR-1.

The Minolta shutter release is unusually smooth and unusually sensitive. So sensitive in fact, that ex-



posures of about 1/5 second handheld are possible with negligible camera shake due to shutter jar.

It takes some practice to discover this due to the Minolta's rather loud shutter. On first impression you would think that camera vibration is extreme. But it's all bark and no bite. This camera rates high on shutter smoothness and even higher on its fine shutter release.

B

D

The shutter itself is a horizontally-operating cloth focal plane shutter with speeds from 1 second to 1/500 plus "B." A red "X" located between the 1/30 and 1/60 second marking indicates the proper setting for electronic flash. Minolta has been considerate enough to design the shutter speed dial so that it may be rotated in any direction, any number of degrees, with shutter wound or unwound and without limitations of any kind. This makes shutter speed setting fast and simple.

All Minolta SR-1 lenses are bayonet mounted. The lens contains the male component, the camera body contains the female. Depress-

minolta

ing a small catch just above and to the right of the lens releases the mount. A quarter turn clockwise and the lens is out. Line up the red dots and turn counterclockwise and the lens is firmly seated.

From every point of view this bayonet mount is solid, conventional and foolproof. And, more important, it will hold a high degree of rigidity through thousands of operations. This is an important consideration since the rigidity of the bayonet is one essential to holding good definition. One point of departure is the method of internal coupling of shutter and automatic diaphragm.



C

E

A. Top of Minolta SR-1 reveals rapid wind lever which moves concentrically around shutter release; fast-operating speed dial; flipped-up rewind handle.

B. Among the quality Rokkor lenses tested with Minolta were (left to right) 135mm f/4 pre-set Rokkor, 55mm f/1.8 (on camera), 35mm f/2.8, 100mm f/2.8.

C. Versatile DeLuxe bellows unit is also a slide duplicator. Spring-loaded groundglass pressure plate holds the slide parallel to upright of the unit.

D. Right angle finder gives brilliant view; accepts same correction lenses and magnifier as camera's eyepiece. Coupled exposure meter is detachable.

E. Minolta's large eyepiece is boon to photographers with glasses. Camera back is opened by lifting rewind knob; film take-up spool is non-removable. This is accomplished by a vertical lever located just inside the lens mount. When the shutter is tripped, the lever kicks to the left engaging a bar on the lens mount. This action stops down the lens to the preselected aperture. After exposure the lever returns to its original position opening the lens to full aperture once more. The combined action of quick return mirror and automatic diaphragm is fast and smooth with little vibration. Perfection is marred by a noise level that is slightly higher than ideal.

Checking out the Rokkors

The standard lens supplied with the test camera was a 55mm f/1.8Auto Rokkor. A short lever mounted at the lower right of this lens need only be touched to pre-view depth of field. On comprehensive testing, some interesting data was gathered concerning this Rokkor.

Definition at full aperture was good in the center of the field with unusually high brilliance and contrast across the field. At f/4 resolution was outstanding from corner to corner—a condition which held down to f/11. This six-element design focuses down to about 13/4 feet. The lens mount is rigid and quite smooth without the slightest trace of looseness or backlash.

The following additional lenses were submitted by Minolta for testing:

35mm f/2.8 Auto W. Rokkor 50mm f/3.5 Macro Rokkor 100mm f/2 Auto-Tele Rokkor 135mm f/2.8 Auto-Tele Rokkor 135mm f/4 Rokkor-TC 200mm f/3.5 Auto-Tele Rokkor 300mm f/4.5 Tele Rokkor TD

Let's start with the wideangle.

It doesn't take more than a glance at this lens to realize that it is retrofocus in design. That is, it achieves a short focal length but a sufficiently long back focus to clear the mirror by means of an inverted telephoto construction. This 35mm f/2.8 uses seven elements and focuses to about 18 inches. Minimum aperture is f/16.

How good is it? It's very good. At full aperture sharpness and brilliance is excellent at all but the extreme edges. The edges are good \ldots better than many lenses of this design, focal length and speed are at the center. At about f/5.6 sharpness becomes fairly uniform across the field and this high level of performance holds through to f/11. The particular lens tested is an outstanding example of a 35mm f/2.8retrofocus design.

The 100mm f/2 is an equally interesting lens. At full aperture brilliance and contrast are high in the center of the field. At about f/2.7the entire field becomes sharp. Flare in either against the light shooting or wide aperture work is almost nonexistent. At the medium apertures, f/4 to f/8, performance is outstanding. This is a six element design that focuses down to about $3\frac{1}{2}$ feet.

The next lens is a real shocker. It is, believe it or not, a 135mm f/4 of the triplet design. As a rule, more than three elements are necessary to achieve a high degree of performance. This lens, however, has a number of things going for it. First of all is its long focal length of 135mm. That means only the center rays are being used. This lens is also very well made. In spite of the three element design (and corresponding low, low price) this lens performs well. Not as well as lenses that are more complex in construction-Rokkor's 135mm f/2.8 seven element design, for example. But this lens is lighter . . . and much lower in cost. It can be classed as very good value for the man who needs a lens of this focal length and uses it at apertures of about f/8 to f/11 most of the time.

Now let's get down to a 135mm lens that makes a lot more sense from a critical point of view. It is the 135mm f/2.8 Auto-Tele Rokkor. This lens is light and fairly compact for its speed and focal length. Unlike the lower priced 135mm f/4 which is pre-set, this faster version is fully automatic with the typical lever type depth of field pre-viewing, silky smooth mount and firm bayonet.

Optically, the 135mm f/2.8 is quite a good lens. Contrast is high and definition good at full aperture. Fall off at the edges as well as illumination is not a problem. This lens becomes unusually fine at f/5.6 and holds both sharpness and brilliance right down to f/22. I recommend this lens over the 135 f/4 without reservation.

In the 200mm class, Minolta makes available its 200mm f/3.5 Auto-Tele Rokkor. A speed of f/3.5 plus small size make it unusually attractive in spite of its semi-automatic operation. That is, it stops down automatically, but must be opened again to full aperture manually. No big problem. Closest focusing distance is just under eight feet. Not bad. In terms of sharpness, this lens becomes good at about f/5 holding its definition down to about f/16. Contrast and brilliance are moderately good at all stops. This is a lens which offers much in terms of speed. It can be easily carried with other equipment in a medium sized gadget bag.

If you're considering an extreme telephoto here's the inside on the 300 mm f/4.5 Tele Rokkor TD. This lens is screaming sharp at f/8... completely useable at wide aperture and extremely good at its smallest aperture of f/22. This lens has a smoothly operating pre-set diaphragm and focuses down to 15 feet.

Most interesting lens

The next lens is not only the most interesting in the Minolta lineup, it can qualify as the most interesting in any line. It is the 50mm f/3.5 Macro Rokkor. This lens not only focuses down to 4 inches without extension tubes, but has exposure compensating f/stop scales as well as magnifications marked right on the barrel!

These are clever and convenient features. But they are only part of the story. Most important is the superb definition of this lens when used at the close distance for which it was designed. This lens is one of the sharpest I have ever tested. It is supremely sharp at all f/stops (f/3.5 to f/22). Contrast is superb. This lens is my number one choice for close-up work. The diaphragm is pre-set and the mount is nicely made. If you are thinking of getting a Minolta, think in terms of this r lens as part of your outfit.

Now let's get back to that interesting eyepiece mentioned earlier. Unscrewing the eyepiece reveals a bayonet mount which has been exploited to the full to accept a wide range of accessories . . . all helpful! First of all, there is a full line of correction lenses for the far sighted that range from minus .5 diopter to plus 2 diopters in increments of 1/2 diopter. No need to go into detail about how helpful these can be. Of course, most any camera can be fitted with correction lenses custom ground and at high cost. These Minolta units sell for a mere \$2.00 each . . . list!

The second accessory designed for this versatile eyepiece is a joyous 2.5 times magnifier that really permits critical focus in the highest sense. It's small and nicely made with ocular focusing and a smooth bayonet with positive locking catch. Since only a part of the field can be seen, this accessory is best used when the camera is used on a tripod, or when only a central portion of the negative is to be used.

Probably the most ambitious unit designed for use on the Minolta SR-1 eyepiece is the right angle finder. And what a right angle finder. This is the king of all right angle finders. It's large, brilliant and crisp without a trace of color fringing. The ocular is adjustable and the entire device has a quality and precision that is often lacking in similar units even at much higher price. Somehow I get the feeling that an engineer at Minolta made this right angle finder his pet project as well as a monument to his skill. He succeeded. It's a honey. He didn't overlook a thing. The eyepiece of the right angle finder, for example, has the same bayonet as the camera eyepiece and will accept both correction lenses and the magnifier! That's a lot of attention to detail and versatility for a camera that sells for well under \$200.

Now on to a few dozen more details.

The camera back is opened by lifting the rewind knob until it meets with some pressure, and then lifting it a bit further. This action might sound vague in the description, but it is quite positive in its action. The back swings open from left to right revealing a simple interior arrangement that reeks of good finish and solid design.

A large film cartridge chamber on



2.5 TIMES MAGNIFIER bayonets on to Minolta's eyepiece; allows critical focus.

the left accepts cassettes easily. The film race is well finished with a high degree of smoothness and a moderate degree of polish. The takeup spool is non-removable (the only sensible way a take-up spool should be) and engages film ends in a positive manner. Pressure plate is enamelled metal, finely serrated and centrally sprung. Just flipping the back shut engages the lock . . . and it's locked to stay. The action of opening the back, by the way, resets the film counter to zero automatically. The counter is located on the camera's top, just to the right of the rewind knob and, like the proverbial pheasant, is under glass.

Form-fitting meter

One of the most interesting of the Minolta accessories is the detachable, coupled exposure meter. It "form-fits" the Minolta body and couples to the shutter speed dial. The meter has two prongs in its base which engage two sockets on the camera's front. As the meter is seated in the sockets, the coupling plate comes down on the shutter speed dial. Jiggling the meter's dial engages the coupling plate and seating can be completed.

The top surface of the exposure meter is marked with the entire range of shutter speeds. Matching the desired f/stop opposite the indicator needle automatically sets the proper shutter speed on the camera. This meter is "dual range" in design. A selector knob marked with a red dot (high sensitivity for use in dim light) and a white dot (low sensitivity for use in bright light) is set to the proper light condition. The f/stops are marked on the meter in both red and white. Use the red markings when the red dot is used. the white markings when the white dot is used.

This meter is not only convenient and quite accurate, but has moderately high sensitivity as well when compared to most other selenium cell units. It is also easily removed whenever readings must be taken off the camera. And for me, that's very often.

Among the equipment submitted for testing was a box modestly marked "Extension Bellows – De-Luxe Type." I'm always a bit suspicious of equipment marked "De-Luxe." But in this case, it was an understatement.

This is probably one of the most versatile bellows units around. Actually it's a lot more than just a bellows unit. It's a slide duplicating unit as well. And because of the virtually infinite number of positions to which it can be adjusted, this slide duplicator can be a useful creative tool in cropping transparencies.

Basically, the Minolta "DeLuxe" bellows is a supremely well made

double track unit that extends to about seven inches with the slide duplicating unit removed. Both male and female lens mounting bayonets are well made and positive in action. This unit as it stands is an unusually fine bellows. When the slide duplicator is added, the entire unit becomes outstanding. The duplicating unit consists of a spring loaded groundglass pressure plate that holds a slide parallel to the upright of the unit. A bellows at one end of the duplicator can be extended to any length up to about four inches. This means that both the lens-to-film distance as well as the subject-to-film distance can be critically controlled.

The unit is rigid and precise. Once tightened into position, there is not the slightest trace of looseness or "slap" on any moving part. The rack and pinion, by which the uprights are driven, are silky and tight in their action.

The Minolta SR-1 succeeded in accomplishing what the designers intended: a high level of performance and dependability at a price which can almost be termed ridiculously low for an instrument of this calibre. The lenses in most cases equal the quality of some of the finest higher price units. In terms of basic design the Minolta will satisfy the vast majority of critical needs of many professionals... and certainly those of most amateurs. At this price ... it's a honey.

Minolta SR-1 with