

THE SUBMINIATURE TIMES

The Subminiature Times is published monthly by Doylejet, P.O. Box 60311, Houston, TX. 77205 (713) 443-3409.

Supporting 110, 17.5mm, 16mm, 9.5mm, 8mm, 4mm, 1mm, Microdot, and Electronic Still Photography.



"Equal Rights Now"

Al Doyle

Signs of the Times

All across the country our neighbors took to the streets to make their voices heard. The acquittal of the four L.A. policemen videotaped beating Rodney King prompted this dawn march in Houston.

Camera: Minolta-16 QT

Film: Kodak 1461

Update

5/28/92, Chicago, IL, Consumer Electronics Show. Eastman Kodak announced today that by summer they will provide small format consumers with alternative output from film processing: paper prints or a compact disc.

The Kodak CD player on display could show the CD on any TV, crop, zoom, retouch, and make color prints. Cost of the unit will be "about \$400."

The Lippmann Emulsions



One of the more engrossing pursuits in subminiature photography is the search for the 'ultimate' fine grain film.

For general pictorial work and copying, any ISO 25 film combined with a high acutance developer will produce excellent enlargements.

A good measure of how 'fine' the grain will be is the resolving power of the emulsion. Eastman Emulsion 649-F (ISO .01, 2000 lines per millimeter) is suitable for most applications where Tech Pan (320 l/mm) or Eastman Emulsion 1461 (1000 l/mm) are inadequate.

In situations where film speed isn't important, vastly higher quality is attainable.

In 1891 George Lippman devised photographic emulsions that resolve 5000 lines per mm. The contrast levels are much too high for pictorial work because they cannot be developed for tonal gradation, and you'll have to coat the emulsion on film or glass yourself. However the emulsions are quite free from turbidity with reasonable handling, and this isn't a major problem.

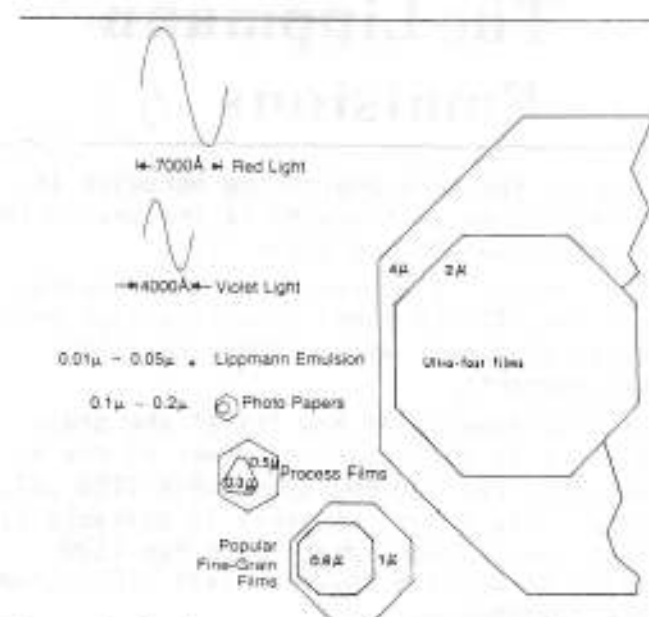
The crystals in Lippmann emulsions are smaller than the wavelength of visible light. You shouldn't have to search any further for 'finer' film, because your camera or optical microscope won't be able to perceive the improvement.

In practical terms this ISO .0025 emulsion requires exposures of 90 seconds @ f5.6 in bright sunlight. The complete rigidity of the system is as important as the quality of the lens.

What you gain is the capability of reproducing the equivalent of an 800 page novel on one square inch of film. Or of reproducing this newsletter page with a negative the size of the period at the end of this sentence.

We are indebted to reader Ray Rigger, of Morrison, Illinois, for researching the original formula. See also "Image Clarity, High Resolution Photography" by J. B. Williams, Focal Press, 1990.

Emulsion crystal



The crystals of a Lippmann-type emulsion compare to those of a fast film like pebbles to boulders. Indeed, it is barely possible to present both to scale on the same page. The crystals in Lippmann-type emulsions are smaller than a wave of light. They cannot be resolved by optical microscopes.

THE FILM.

The following three solutions are made:

SOLUTION A.

Gelatin 1 part
Distilled water 25 parts

SOLUTION B.

Potassium Bromide $\frac{1}{2}$ part
Gelatin 2 parts
Distilled water 50 parts

SOLUTION C.

Silver Nitrate 0.3 parts
Distilled water 5 parts

Warm A and B in a water bath until the gelatin is dissolved. Cool to 40°C., add part C to A. Part B is then added to the mixture. Any of the following sensitizing agents can be used:

Eastman cyanine Catalog #E11371

Eastman erythrosine Catalog #E1126

THE DEVELOPER.

Kodak D158.

Elon 3.2 grams
Sodium Sulfite (Anhy.) 50.0 grams
Hydroquinone 13.3 grams
Sodium Carbonate (Mono.) 82.0 grams
Potassium Bromide 0.9 gram
Water to make 1.0 liter

For use, dilute with an equal volume of water, and develop for up to 4 minutes at 20°C. (68°F.) This developer is recommended for maximum resolution plates in applications where preservation of fine grain structure is more important than high contrast, e.g. for micro-radiography.

LONG- AND SHORT-EXPOSURE ADJUSTMENTS FOR MOST BLACK-AND-WHITE FILMS

If Indicated Exposure Time Is (seconds)	Use This Lens-Aperture Adjustment	OR This Exposure-Time Adjustment (seconds)	AND Use This Development Adjustment
1/100,000*††	+1 stop	Use aperture change	+20%
1/10,000*†	+½ stop	Use aperture change	+15%
1/1000	None	None	+10%‡
1/100	None	None	None
1/10	None	None	None
1	+1 stop	2	-10%‡
10	+2 stops	50	-20%‡
100	+3 stops	1200	-30%‡

Notice the 35 in the 'ever ready' case while the subminiature is taking pictures.



Paul Roseman/The New York Times

An abortion-rights advocate taking a picture of an anti-abortion demonstrator in front of the Supreme Court building yesterday in Washington.

LETTERS

Dear Al,

I would like the name of a lab that would process the Kodachrome (E-6) in my Gami, and reload the cassettes with Kodacolor ASA approx 200.

Also I would like to do the same for the MEC however I have no cassettes. I see them occasionally but have been told that they are very difficult to reload.

I have been doing business with Microtec in Calif. but they stopped processing or loading odd cassettes.

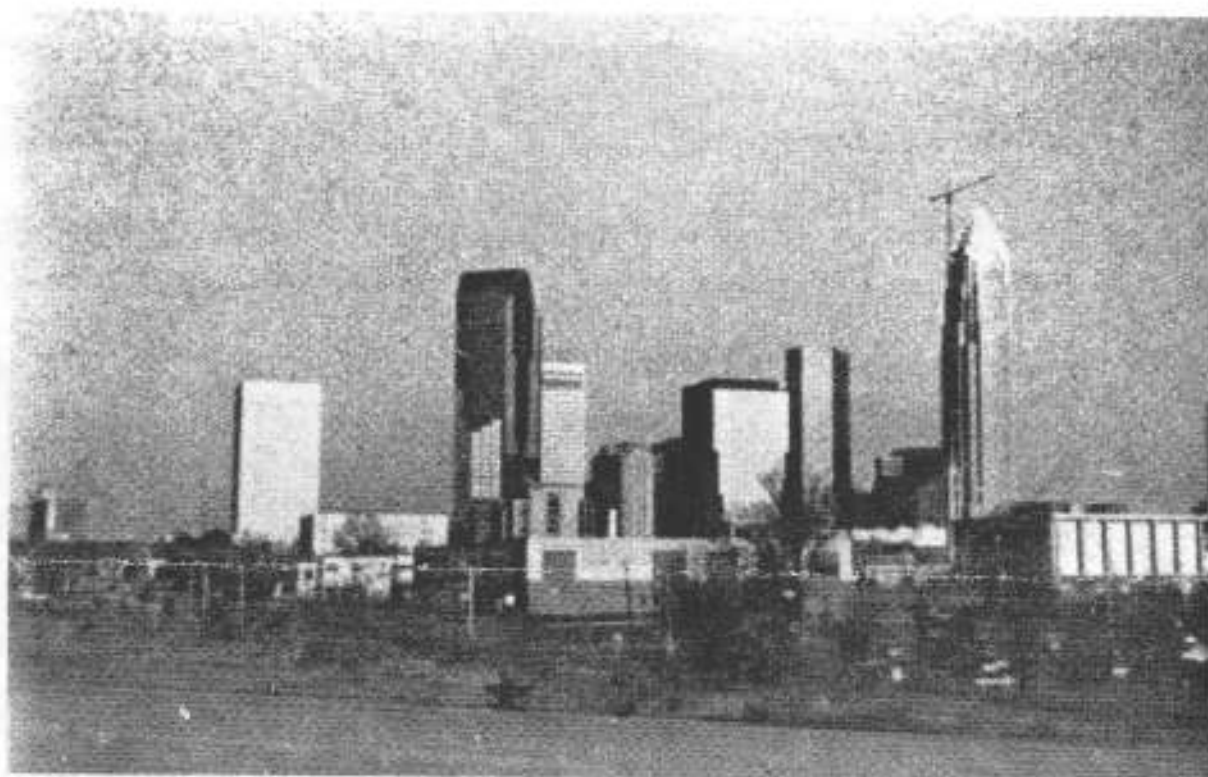
Herman Yellin
Bklyn, NY 11234

Dear Herman,

Contact Eastman Kodak for the name of a lab near you. 1-800-242-2424. If Kodak can't help you with that Kodachrome it isn't a total loss. It can be developed for b & w negatives.

When you see more MEC cassettes pick them up. I can supply double sprocketed film: Plus-X 7276 ISO 400, Kodak 2479 ISO 1000, and Agfa Pan 250 ISO 2500. \$3 each for the film and reloading. I'll spool up any formats that Microtec won't touch including roll film. See Pg. 6.

Al Doyle



J. Rider

LETTERS

This view of the Charlotte, N.C. skyline was sent by Joseph Rider, of Goose Creek, S.C. He mentions in an accompanying letter that he was a bit unhappy with the print quality. Minox EC, Minocolor 100.

Dear Joe,

It's a colorful sunset shot with red lights and a rich blue sky, and I like it. I tried to match your print with the shot of the Houston skyline on the opposite page so that we could tackle the problems one by one.

1. Film. Lower ISO emulsions have finer grain. I used Kodak 1461 at ISO 25. The color film equivalent would be Ektar 25.
2. Format. When grain and sharpness won't improve no matter what you do, it may be time to consider a bigger negative. The Minox is 8 x 11mm. The Minolta MG-S is 12 x 17mm. Twice as large.

3. Visual impact. This is one that photographers sit up arguing about all night. Toneless areas in subminiature enlargements seem to exaggerate grain. A cloud or two would have made a difference. With no filters handy, I held my camera high enough to include the tinted portion of the windshield. Hope this helps. Keep those photos coming.

Last month I wrote that the 9.5mm Chadt was the smallest camera in production. Several readers asked if smaller cameras were available. I had the GF'81 Gold Ring cameras and the Camera 'A' in mind.

Steve Kessler of Burbank, CA, sent these photos of the Camera 'A' from Tokyo's Okada Optical Company, vintage 1950. Shown are: camera, tripod mount, and 8mm film cassette.

In the lined presentation case are: glass filters, a close-up lens, short cable release, long cable release, and transparency mounting glass.

A larger Model 'B' used 16mm film. The price in 1972 was \$125. Watch page 6.





Amazing! 3D SNAP SHOTS

GREAT NEW WAY TO TAKE SNAP SHOTS IN 3D! ESPECIALLY GREAT FOR SCENE SHOTS (GRAND CANYON etc.) IT'S LIKE LOOKING THROUGH BINOCULARS...EVEN BETTER! BEST OF ALL WORKS WITH REGULAR 35mm, 110 OR 126 CAMERA AND FILM. NOTHING ELSE TO BUY. FOR COMPLETE INFO AND ACCESSORIES SEND \$9.95 U.S. FUNDS TO:



3D VISION
10 BERNARD WEST MONTREAL
P.Q. CANADA P.C. HET-117
M.C. VISA AMEX OR MONEY ORDER
NO C.O.D.

3D?

Did anyone send for the 3D Vision Kit? Their ad (above) includes the 110 format. Let's hear from you.

FOR FREE

Ron Speicher just published an updated list of his cameras and photo accessories, all formats.

To see the complete list send a legal SASE to: Ron Speicher, P.O. Box 1234, Long Island City, NY 111011-0234. (516) 868-6411.

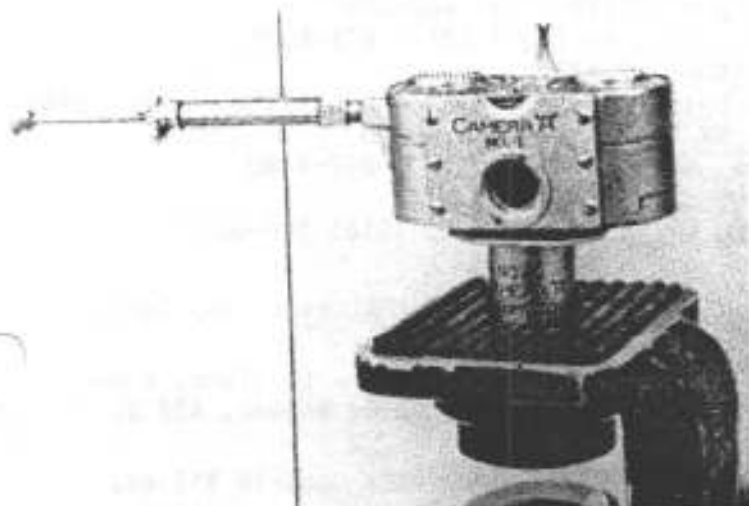
Pentax-110 Filters:

18mm close-up #21 (5) c10	\$8
18mm skylight (10) c10	\$5
18mm hood (8) c10	\$3
24mm close up #1 (5) c10	\$9
24mm close up #2 (6) c10	\$9
24mm skylight c10	\$5
24mm lenshood (9) c10	\$3
24mm UV c10	\$5
50mm close up #1 (6) c10	\$9

UNDERWATER CAMERAS

NIKONOS-III 2.5/35mm, C8, \$325 • Minolta Weathermatic-Dual, C9, \$119 • Minolta Weathermatic-Dual kit, C9, \$149 • Minolta Weathermatic-110, C8, \$39 • Minolta-XK, AE-Finder 2.8/28mm, flash, brackets, Ikelite Housings, C9, \$495 • Ikelite-VW flash housing/Nikon connector, C9, \$49 • Starr Universal underwater housing, C8, \$59 • Flash adapter, C7, \$29 • Toshiba-TMI flash, C8, \$95 • Ricoh Hi-Color with underwater capsule, box, more, C9, \$95 •

SUBMINIATURES
GOLDS - 8 box, wide and telephoto lenses, C9, \$350 • Minox-16, C7, \$30 • Minox-L gold, box, cards, New, \$1575 • Minox-11, case, C8, \$129 • Minox-C black, C1, \$295 • Minox-B, case, C8, \$129 • Minox tripod clamp, C9, \$25 • Minox tripod, C9, \$69 • Minox-35EL, C8, \$99 • Minox-GT, C8, \$139 • Minox-35ML, box, cards, C10, \$219 • Minox-FCE flash, box, cards, C10, \$75 • FC-35-Flash, C8, \$59 • Rollei-A110 (Germany) outfit, box, C8, \$289 • Rollei-S126 2.8/40mm, case, C8, \$189 • Pro-Tresar 3.2/28mm, C9, \$179 • Eljiy, case, C8, \$99 • Minolta-110 Zoom-ELR, C8, \$69 • Pentax-110 brown with tan leather (very rare), C9, \$450 • Pentax-110 clear (see-through), C9, \$45 • Pentax-110 Super outfit, boxed, C1, \$450 • Pentax-Auto 110, AF130-Fish, Winder, 18-24-50, box, 1B, filter cases, C9, \$325 • Pentax-110, AF130-Flash, Winder, 18-24-50, case, box, C8, \$269 • Pentax-110 AF100-Fish, 18-24-50, case, caps, C8, \$219 • Pentax-110 2.8/24mm, C8, \$129 • Pentax-110 2.8/50, C8, \$49 • Pentax-110 2.8/18mm, C8, \$39 • Pentax-110 2.8/70mm, C9, \$195 • Pentax-110 20-40 Zoom, C9, \$285 • Soligor-7X Converter, C9, \$60 • Pentax-110, case, C8, \$29 • Pentax-110, case, C8, \$60 • Minolta-16EE, C7, \$29 • Minolta-16EELI, C7, \$15 • Minolta-16P, C7, \$29 • Minolta-16, C7, \$39 • Minolta-16MG, case, C7, \$39 • Minolta-16PS outfit, boxed, C7, \$49 • Minolta-16P close-up, C7, \$24 • Trades



LETTERS

Dear AL,

Could you tell me what a reasonable price for a new Minox LX would be? I see that MUSA in N.Y. wants \$1385 (\$1420 Black) whereas I see ads in "Shutterbug" for purportedly new LXs for \$600 or so. I found a camera store in the Virgin Islands that will order brand new LXs (from Germany with "Made in Germany" and not "W. Germany" so they are really current production for \$850.

Tom W. Moorman
Hopkinton, MA. 01748

Dear Tom,

Go for the \$600 model. I'll print your letter. Maybe one of the busy Minox mavens can send us a postcard to clarify the situation. Is there a difference in construction or picture quality?

AL

**Point 'n Shoot 110 Camera**

Focus-free, fits in
pocket or purse.
Sale! Reg. \$6.99

3.99**THIS LITTLE 110 CAMERA**

It's hard to believe that the low end 110s could come down in cost almost to the same price as a roll of film, yet here it is. The Vivitar 110-F is currently on sale at Walgreens.

THE SUBMINIATURE TIMES QUICKFINDER 6/92

Bolsey 8 (movie & still)	350	L	Minox 2nd B	169	WD	Minox Gold	1109	C
Bolsey 8	149	BC	B	209	BC	IIIS	159	WD
Edixa	229	BC	B	175	BC	Narcissa SLR + Caseta	795	BC
Met 165B	239	F	B	169	AL	Orinox Blix/Cam	149	W
Minox-16 #1	69	WD	B	159	BC	Pentax 110 +	449	WD
16 #2	75	WD	B	149	P	110 +	279	B
16	59	C	C Black	595	H	110 +	229	BC
16 EC01	59	WD	C	249	P	110 +	229	WD
16 MG	59	F	C	229	WD	110 +	169	BC
16 P	59	WD	C	219	WD	110 +	179	WD
16 P	59	F	C	199	WD	110 +	119	WD
16 P	49	WD	C	195	BC	Robot (Luftwaffe)	395	RL
16 P	29	BC	C	189	WD	Robot (Luftwaffe)	350	RL
1101	405	B	EC K10	250	C	Robot Star	249	RS
1102	89	WD	EC	219	W	Rollei 16	269	F
1102	79	WD	EC	209	BC	16S	Call	F
1102 Mark II	229	WD	EC	199	WD	E-110	339	F
Minox 1st B	179	WD	EL	179	WD	Steky I	89	AL
1st B	169	WD	EL	129	W	I	79	AL
1st B	169	AL	LX Black	649	W	III	100	AL
1st B	159	WD	100S	169	WD	Stylophot	219	F
1st B	159	AL	LX Black	639	C	Tymar	119	F
1st B	149	P	LX Black	525	BC	Whittaker Micro-16	29	AL
1st B	139	WD	LX Chrome	599	C	Yashica Ataron	79	BC
							79	S

- AL All Seasons Camera, 5 Harvard Lane, Box 111, Hastings on Hudson, NY 10706 (914) 473-0931
 B Bergen County Camera, 270 Westwood Ave., Westwood, NJ 07675 (201) 664-4113
 BC Brooklyn Camera, 549 E. 26th St., Brooklyn, NY 11210 (718) 462-2892
 C Cambridge Camera Exch., 7th Ave & 13th St., NYC, NY 10011 (212) 675-8600
 F Fotocell, 49 W. 23rd St., NYC, NY 10010 1-800-243-8733
 H Hayden Photographics, 85 Queen St. E., Toronto, Ontario, Canada M5C 1S1 (416) 862-8585
 L Lens & Repro Equip., 33 W. 17th St., NYC, NY 10011 (212) 675-1900
 P Photographic Systems, 412 Central SE., ABQ, N. Mex. 87102 (505) 247-9780
 W Wall St. Camera, 82 Wall St., NYC, NY 10005 (212) 344-0011
 WD Woodmere Camera, 337 Merrick Rd., Lynbrook, NY 11563 Suite 7. (516) 599-6013

FOR SALE Robot Collection, 10 cameras+, all Luftwaffen from WWII + accessories, Call: Collector Cameras, 3119 E 25th PL #2, Tulsa, OK 74114 (918) 749-4021.

FOR SALE Late model Minox IIIS complete with all accessories: Tripod with clamp, binocular/microscope clamp, daylight developing tank, BC flash, etc.. E. Brewer, 437 S. Oakhurst, Beverly Hills, CA. 90212 (310) 271-6691.

FOR SALE 17.5mm roll film ISO 25 microfilm \$5 ea. (call). Cassettes: Gami-16 \$15 ea. Yashica-Y16 \$10 ea. DIN Standard (Mamiya-Rollei-Edixa) waiting list. Steky waiting list. AL Doyle (713) 443-3409.