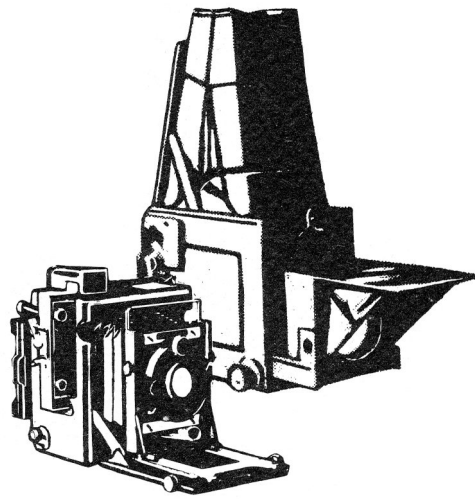


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New Times, New Camera; The Pacemaker Series

Part 2

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1955-1963: Finding the Photographer

While the post-war years were certainly boom times for Graflex, they weren't without competition. Lenses got better, film got better, and those die-hard newspaper editors who insisted on 4x5 film either died or retired. Twin lens reflex cameras like the Rolleiflex had a brief boom in the early to mid 50s. The Leica and Contax had been there from the beginning, but the Nikon S (and later, S2) had won the hearts and biceps of war correspondents

during Korea. But to big-city photographers, they were still fussy little *miniature cameras* with tiny rangefinders and hard-to-read dials. The Nikon F, however, was a different story. Built like a tank with a large viewfinder and a wide range of lenses from the very start, the Nikon F was formidable. A fraction of a Graphic's weight (at least until you filled the bag with lenses and a flash), a news photographer could get a wider shot and a longer shot than a Graphic ever could and do it quickly and without add-on viewfinders that rangefinder cameras needed. Film was cheaper. You could shoot more. You could shoot faster. Faster than the best film-pack-pulling Graphic photographer ever could.

Kodak's C41 color film brought wedding photographers down to medium format; the brides wanted color prints, but they could not afford 4x5 color film.

Somehow, and lucky for us, all this doom and gloom never made it to Gaylord Whitaker's office. He insisted that the 4x5 would always be the standard camera of the professional photographer. Over the course of the next 8 or so years, they would tweak and fiddle with the Pacemaker line in hopes of catching their old customers' attention.

After several years of design playing and head scratching, Graflex came out with the top rangefinder in 1955 for the 45 Pacemaker. It had been in the design stage in one form or another going back to 1939. This incarnation was to be both integrated with the camera and still be retrofitable to the earlier models, the Anniversary in particular. In these areas, the Graphic Rangefinder failed. While certainly more integrated than a Kalart or Hugo rangefinder, it still looked like it was plopped on the top. The retrofitable goal of the new design was abandoned pretty late in the design, at least as suggested in the [Trade Notes](#) of June 1955, when they stated ...*We have now, reluctantly, come to the decision that it is impracticable to attempt fitting it to pre-1955 cameras. The Graphic Rangefinder is not a one-piece device to be added to a camera box, but one which is actually built into the box.*

It did give us a viewfinder and rangefinder with the Rangelite feature all under a single nylon cover that was nearly indestructible.

The viewfinder still used the same lens from the Anniversary but added automatic parallax correction. The Rangelite was based on the same principle as the Focuspot on the Kalart—an image of a light bulb filament is projected through the rangefinder onto the subject, and when the camera is focused, the two images coincided. A pair of AA batteries inside the case powered the light, and a red button just above the handle controlled it.

The biggest benefit of the Graphic Rangefinder is that it's cam driven (See page 3A for cam instructions.). Each lens has a factory-selected cam, so no matter what lens you have, from a 90mm to a 385mm telephoto, the Graphic Rangefinder can be matched to it.

While never advertised, those who asked could get their Graphic camera in something other than black. In a note from May 1954, Tim Holden states that a customer could order the material from the Photo-Graphic Supply Co. of Phoenix, Arizona, in at least red and possibly other colors, except white. The customer then shipped the material to Graflex, along with an extra \$25.

The Graphic rangefinder would be the last major change for the Graphic line and began the Top Rangefinder era of the Speed and Crown Graphics.

The body did get some minor improvements. The best improvement was the replacement of the flat stainless sheet metal for the front sport finder with a wound wire version. Acting much like a spring, it could take a beating and still not get bent out of shape. With this feature, the parallax correction moved to the rear peep site, which is now a two-piece design that is simply pulled up or down to fit the circumstances. On a more minor note, the metal body trim in the focus knob cut-out went from black to matte silver finish, and the body release lost the two screws in front.

With profits soaring from amateur cameras and processing, Kodak started to move out of the professional photographic industry. The first to go was the Supermatic shutter. Originally designed to replace German shutters during World War II, the Supermatic was now seeing competition from both Germany and Japan, and Kodak was not willing to compete. 1955 saw the first 127mm Ektar in a Synchro-Compur shutter.



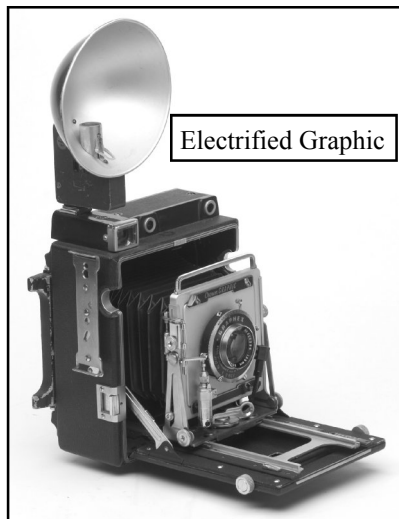
With the photojournalist market waning and the wedding market gone, Graflex marketed the 4x5 camera to the serious hobbyist. In May 1956, Graflex ran a limited-time promotional campaign. They sold a Pacemaker Crown "45" with a Kalart rangefinder and a 135mm Xenar lens in a Synchro-Compur shutter. The Ektalite field screen and the viewfinder were removed, as was the single film holder that usually came with a new camera. The price was \$199.50, compared to the regular price of \$256.70.

The Crown Special had been born. Its success had clearly not been anticipated, as that *limited time* turned out to be 17 years!

These early Crown Specials are fairly easy to spot. They have all the features of a Top Rangefinder body—wound wire sport finder, two-piece peep sight, two-screw body release and chrome cutout trim, but no top rangefinder. Tim Holden said, "It was easier to live with the Kalart body holes than to retool. The holes are there. We just never cut out the covering."

In 1957 the Ektalite field screen came to the Crown Special, along with the viewfinder shoe. No viewfinder, just the shoe. By 1960 the Kalart RF was dropped in favor of the Graphic RF. By now the only difference between a Crown Special and a Crown Graphic was the lens and a slight difference in price, so Graflex added the word "Special" to the lensboard.

Also in 1956, Graflex announced the "Electrified Graphic." It was an attempt to gain the benefits of electric shutter tripping without the weight of a full-sized flash or battery case.



Available in both Crown and Speed models, but only with a 135mm Optar in a Graphex shutter, the Electrified Graphic added a hot shoe to the top rangefinder and hid a pair of wires in the body, one from the hot shoe to the sync post, the other from the Rangelite button to the solenoid. This allowed you to trip the shutter via the solenoid and the pair of AA batteries from the Rangelite. Synchronization was handled by the shutter, and the camera used one of the small Graflash units in the hot shoe. It was not

a success. The AA batteries couldn't handle the current of the #2 solenoid for long, the price difference between this and a normal Crown or Speed was steep, and there was little marketing done. While the model was quietly discontinued in 1958, the idea lived on in the Super Graphic, which made its debut the same year.

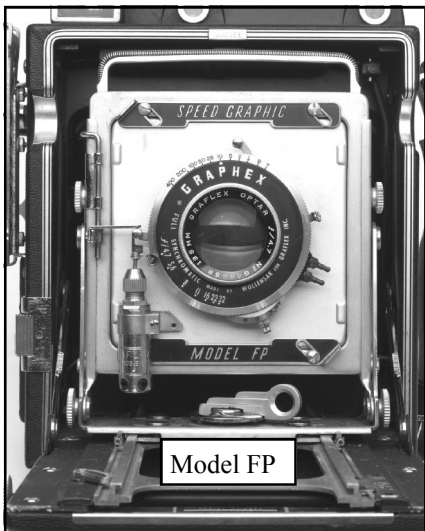
The introduction of the Super Graphic had a minor effect on the Pacemaker "45." Until this time, the lensboard had a pair of small bosses or dents at the top and the bottom to help the slide locks on the front standard keep a firm hold on the lensboard without undue friction. The Super Graphic used the same lensboard, but the slide locks were on each side. Since the lensboard is not square, the

board can't be rotated for the Super Graphic, so 4 more dents showed up on post-1958 lensboards.

1959 saw the debut of the Super Speed Graphic with the in-house designed Graphex 1000 shutter and a Rodenstock 135mm Optar lens. It was a major achievement to get a leaf shutter to give 1/1000 of a second and stay together for the next shot, and Graflex President Gaylord Whittaker wanted to make the most of it. Not only did he want it on the flagship camera, the Super Graphic, he also wanted it on the Pacemaker as well, and insisted it have its own model designation.

In 1960 Graflex started a company-wide policy of dating products via a code system. These were found not only on cameras, but also roll film backs, Grafmatic backs, as well as projectors and tape recorders. Most of the time it's a three-character alphanumeric code. The first designates the month, the second the year, and the last the revision number. No decade is given, but, between serial numbers and the revision character, it's easy to figure the decade.

For the Super Graphic, it was easy to simply call it a Super Speed Graphic. On the Pacemaker line, however, it was confusing. A Speed was a Speed because of its 1/1000 of a second shutter speed, but now there were two cameras capable of the name. Gaylord decided the old Speed Graphic would become the Model FP (for focal plane), and the Crown Graphic, with a slightly modified Graphex 1000 shutter (2B), would be called the Model 1000. These names would be on the lower slider of the front standard. The top slider would say Speed Graphic.

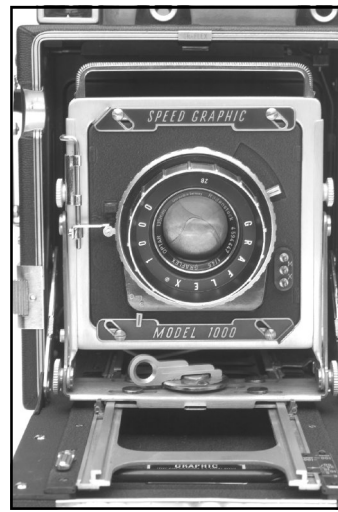


For a while, you could get your camera retrofitted by buying the Graphex 1000 shutter separately, and, on more than one occasion, the special slider came with it. After about three or four years of this, the shutter was demoted to simply an accessory, and the Speed and Crown went back to their rightful names.

1963-1973 Life Support

In 1963 Kodak discontinued all professional lenses, including the 127mm Ektar. During this time, 3M was eyeing Wollensak for their audio equipment, and, by the end of the decade, they would buy Wollensak and dissolve the photographic division. Old friends were disappearing.

At Graflex designers' and engineers' attention was drawn away from the Pacemaker line toward the audio line of Ampro and, later, the audio visual line of products from SVE. Except for a redesign of the roll film holders under Singer's reign, nothing



Model 1000

The body was a standard Crown, but this lens differs from the lens on the Super Graphic as it needed the external sync. There seems to have been only one batch of these lenses made, all starting out with 4,59x,xxx.

major changed for the last decade of the Pacemaker's life. The Graphex shutter was taken over for a short time by Dynex after Wollensak disappeared, and, when they failed, the only two shutters left for Graflex were Copal and Compur. Catalogs were difficult to print because supplies of lenses and shutters were constantly changing.

Oddly enough, Graflex posted record profits in 1968. But it wasn't from the Pacemaker camera or even the critically acclaimed xl line. It was from government contracts and SVE products like movie projectors and filmstrip viewers.

In 1968 a small modification was made to the body release. Until then there was a lever action in the mechanism that gave a bit more torque with less effort. But the Copal shutter needed more travel than the older shutters, so this lever was removed.

At the end, only the Crown Special was left, and it went through several lenses before the end. The most interesting is the Rodenstock Ysarex in a Copal shutter. Today the Ysarex is nearly a cult lens with its radioactive glass and alleged superior performance. Occasionally a Crown Special will show up with a 135mm Ysarex in a Graphic-engraved Copal shutter on eBay, and the chat rooms will suddenly spring to life about what it really is, since no catalog shows the 135mm Ysarex for a Crown or even an xl. "Custom Job" or "government issue" was usually bandied about, along with "fake!"

I finally asked Tim Holden about the mysterious hot lens on a Graphic. As usual, he smiled. It would be fun to think of it as a high-cost secret government job, but the truth is far simpler. "We had a pile of (Graphic engraved Copal) shutters left over from the xl. We asked Rodenstock if they could help, and they put them in the Ysarex. We sold them wholesale to the big camera companies in New York. They bought them by the thousands, but they were never in any catalog."

Officially Graflex ceased to exist in December of 1974, but camera production had halted sometime in 1973. Contrary to popular belief, the plant didn't close. Singer, under the SVE division, continued to make audio-visual projectors, recorders and even the Cara-Mate for Kodak for several years after Graflex was dissolved.



GRAFACTS....

THE GRAFLITE FLASH UNIT 1948 to 1973

Copyright William E. Inman, Sr.
(Former Graflex Sales Rep.)

With the introduction of the Pacemaker Graphic cameras in 1947, Graflex also needed to come up with a new and modern professional flash unit. The Heiland flash units, and others, were beginning to give Graflex some serious competition. A new and versatile flash unit was introduced in 1948. It was called the Graflite Flash Unit.

The Graflite Flash Unit patent was applied for in 1948 and granted on Dec. 8, 1953, (No. 2,661,671) by Irving Jacobson of Hollywood, Calif., Clinton F. Brundage of Macedon, N.Y., and Milford B. Moore of Rochester, N.Y. It is known that Irving Jacobson was the primary contributor to the patent.

Patent No. 2,596,887, granted in 1953 to Clinton Brundage and Milford Moore, was for a "Bulb Support and Ejection Means."

The new Graflite battery case was made of aluminum tubing instead of brass, which was used in the old Graflex battery case. This made the new battery case lighter and cheaper to make. The Graflite battery case had five household-type outlets:

1. **EXTENSION** For use with extension cords or the Graflite extension flash unit.
2. **SHUTTER** To be connected to the contact posts of a built-in sync leaf shutter or the focal plane shutter contacts. Not for (X) type shutters.
3. **BATTERY** It was a "HOT" or open outlet not controlled by the main switch. You could plug a Focuspot or Focalite into this outlet.
4. **REMOTE** Used for operating equipment with a

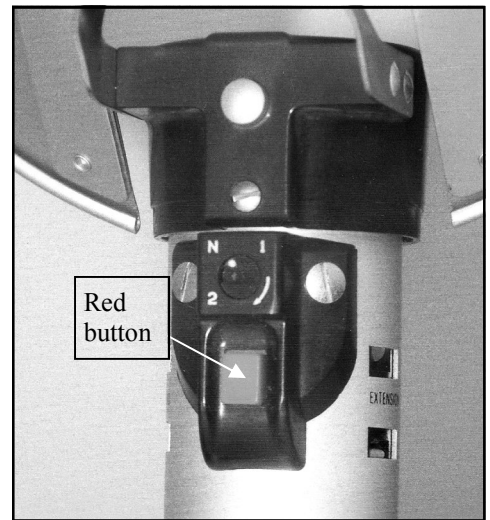
remote control cord.

5. **SOLENOID** Used to connect to the solenoid for tripping the front leaf shutter on the camera.

The outlets were polarized, so the right angle plug on the Graflex cord, when running down, maintained polarity.

There was a red button micro-switch on the battery case, along with a multi-purpose circuit controller.

1. Circuit "N" was for solenoid sync or sync shutters.
2. Circuit "1" was for sync shutter and electroswitch, meaning you could trip the shutter with the solenoid, but the flashbulb would not fire until contact was made with the sync shutter.
3. Circuit "2" was for hook-ups that required additional power (multiple battery cases).



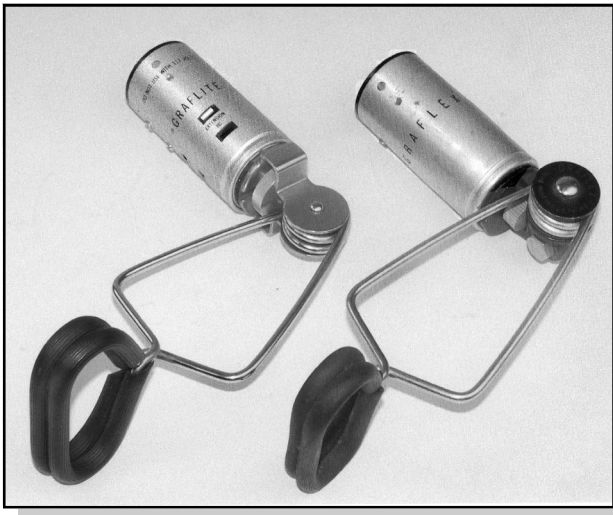
Graflite microswitch

Red button

The Graflite Battery Cases (Cat. Nos. 2772 and 2773) were supplied with a set of top and bottom quick-locking clamps (Cat. No. 2771) for mounting on the Graphic cameras, using the Cat. No. 2754 bracket that could be fitted to encircling brackets (Cat. Nos. 2752 and 2753) and other camera brackets. The clamps could also be attached to the handle lugs of the Pacemaker Graphics and the Super and Super Speed Graphic cameras. The Cat. No. 2759 Platform Bracket for reflex cameras and the Cat. No. 2758 L-Bracket for 35mm and other small cameras were available for the clamps. See page 3B.

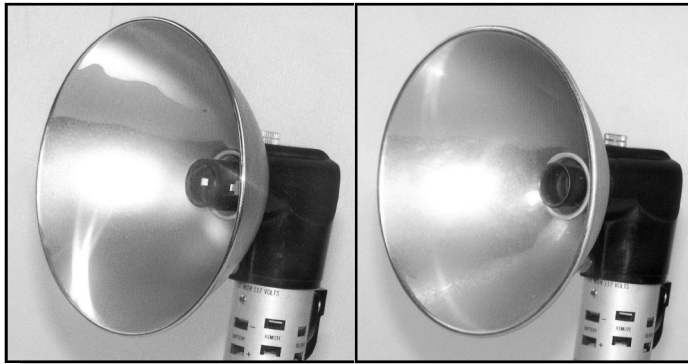
1-Cell Extension Tubes (Cat. No. 2774) were available for additional power. A total of two or three extension tubes were recommended for maximum power. The Graflite units initially used D-cell batteries. See page 3B.

At the same time, the Graflite Side Lighting Unit was introduced (Cat. No. 2712). It had only two extension outlets and came with a 15-foot cord and a clamp. It was replaced in 1955 by Cat. No. 2778 Graflite Extension Unit with four outlets, two normal and two B-C outlets. The clamp was also redesigned.



Right - first Graflite Side Lighting Unit, Cat. No. 2712.
 Left - later Graflite Extension Unit, Cat. No. 2778.
 Units are pictured with the first and later clamps.

The 5" Graflite reflector was a focusing reflector for normal bayonet flashbulbs. It had a plastic socket, and the bulbs had to be inserted with pins in the horizontal position (Cat. No. 2749). The 5" reflector was replaced with an improved model in 1955 (Cat. No. 2745). The focusing reflector could be removed for easier storage or bare-bulb photography, and the plastic socket was replaced by a metal socket allowing the bulb to be inserted any-which-way. Both reflectors had an ejector button at the back of the reflector head.



Left - 5-inch reflector, Cat. No. 2749, 1948-1955.
 Right - 5-inch reflector, Cat. No. 2745, 1955.

The 7" Graflite reflector (Cat. No. 2747) (See lead picture on right.) was for medium screw-base bulbs. The reflector could be adjusted for height depending on the size of the bulb. The bulb could be ejected by a button on the back of the plastic reflector ring. The button engaged the ring that held the bulb in place in the battery case through a small opening at the top of the battery case, and the center contact in the battery case, which was spring loaded, would eject the flash bulb when the button was pressed. It should be noted that the battery case must be mounted with the switch facing backward for the ejector to work.

In 1949 a plastic "Shield" (Cat. No. 2746) was introduced for Graflex and Graflite 5" reflectors. In 1950, in response to "repeated requests," a diffusion disc was added (Cat. No. 2744). See page 3B.

In 1955 Graflex introduced the Graflite Jr. Flash Unit, mainly for the amateur camera market (See page 3B.). At the same time, Graflex changed the labeling of the Graflite Battery Case from **Graflex**, which was imprinted in the center of the battery case, to **Graflite**, which was imprinted under the socket outlets. See page 3B. **Graflite Jr.** was imprinted above the sockets of the Graflite Jr. Battery Case (Cat. No. 2770). The Graflite Jr. was a 2-cell battery case with three household outlets: One was for the trip cord from the synchronizer fitting of the shutter, and the other two were for extensions. One marked "N" was for use with two D-cells; the other, marked "B-C," was for use when a battery capacitor insert was used. The Graflite Jr. accepted all the original Graflite accessories, and the bottom cap came with a tripod socket which allowed for the new light-weight universal and reflex brackets to be attached to the bottom cap (Cat. Nos. 2757 and 2760). The new bottom cap was eventually added to the Graflite battery cases.

As a companion feature for the Graflite Jr., a Graflite 2-cell B-C battery cartridge was introduced, along with a 2-cell B-C cartridge, with a wooden spacer for the Graflite 3-cell battery case (Cat. Nos. 2795 and 2796). The B-C was a miniature power pack which replaced the D-cell batteries. It used a standard 22½ volt photoflash battery. It was good for thousands of flashes and was dependable under extreme temperatures. It was made for only shutters with built-in sync and was not recommended for use with solenoids. See page 3B.

As the popularity of the M2 flash bulb, and later the M3 and M5, increased, Graflex introduced a 3" M-2 reflector insert (Cat. No. 2743) to be used with the Graflite 5" reflector (Cat. Nos. 2745 and 2749). In 1958 Graflex introduced the M-2 insert adapter (Cat. No. 2840) to be used in the Cat. No. 2745 5" reflector. It allowed the ejection of the bulb by the usual button on the back of the reflector.

After Graflex introduced the Graflex 22 in 1952, they came up with a special Graflex solenoid mount (Cat. No. 8049) for the Graflex 22 Model 400 and the 400F, both targeted for the professional photographer. Naturally, the Graflex 22 could be used with either the Graflash units or the Graflite and Graflite Jr. flash units with the appropriate camera bracket and sync cord.

Graflite and Graflite Jr. equipment was listed in Graflex's last photographic catalog of 1973.

According to my GE price list, production of flash bulbs continued through 1977. Flashbulbs are still available from Cress Photo in Wayne, New Jersey, www.flashbulbs.com or wcress@ix.netcom.com.

Electronic flash units had their beginning after WWII, in 1945, which eventually caused the demise of the flashbulb, but that's another story.



Why I've Wanted a Graflex for 50 Years

By Fred Haeseker

Actually it's been more than 50 years now. I was 10 when I became fascinated by my father's Leica with its mysterious knobs and dials and that fine black engraving. I wanted to know what those knobs and dials were for and how my dad used them to take pictures.

I asked him for a camera of my own, and he took me to a photo store. Of the half-dozen beginners' models, I picked the most distinctive-looking one. The Argus Seventy-Five was a box camera shaped like a twin-lens reflex, with a bright waist-level viewfinder. Two lenses are better than one, I thought.

We lived in Houston then, where my father worked for Shell Oil. I wanted to roam all over the city on my bike taking photographs of everything, but my parents wouldn't hear of my leaving the neighborhood on my own. Most of my pictures in those days were snapshots of family and friends.

In 1954 my father was transferred back to the Shell head office in our hometown in Holland. The Hague is located directly on the North Sea, bordered by a white sand beach and grassy dunes. It has an ancient fishing harbor (fresh-caught raw herring on a bun is the local

version of the hot dog). The fishermen and their wives still wore the traditional costumes then, and they didn't mind being photographed. This was before the big tourist boom.

On Sundays when it wasn't raining, which it often did, my father and I would go for long walks through the dunes with our cameras. When one of us saw something that looked interesting, we'd both take pictures from different angles and distances. Later we'd compare the results. I learned a lot about photography that way.

On one of those treks, an American friend of my father came along, carrying a Graflex in its official black leather case. He and my father argued about their equipment. I remember my dad quoting the Leica slogan "small negative, big picture." His friend replied, "No, no -- big negative, bigger and better picture."

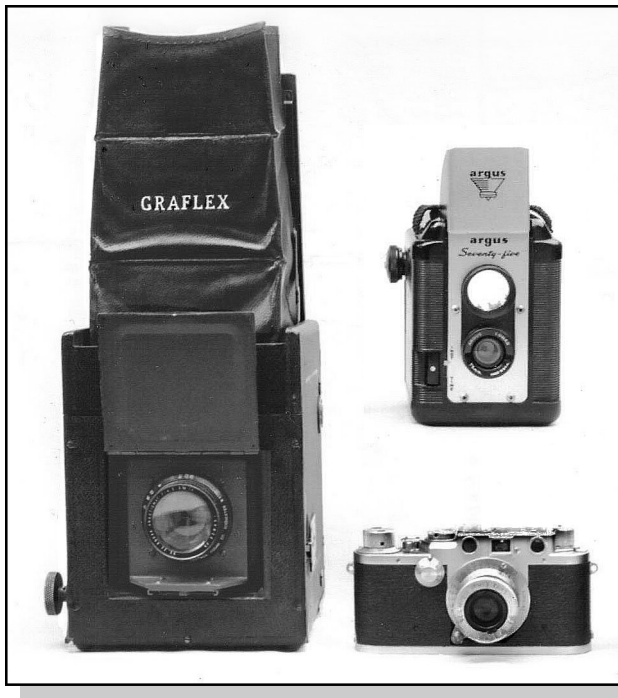
I thought the Leica was impressive, but that Graflex had it beaten just by size. My dad's friend let me look down into the hood with its huge ground glass. Seeing the big image come into focus as I turned the knob was more exciting than seeing two tiny images merge in the Leica rangefinder. I'm going to get me one of those when I grow up, I thought.

My father's friend was big and strong. He carried that Graflex (I'm pretty sure it was a 4x5.) without slowing down through a good one-hour hike up and down the dunes and along the beach, all the way to the fishing harbor.

Next year we followed the oil boom to Calgary, Alberta, Canada, where my interest in photography continued. Later, when I went to work as a reporter at the Calgary Herald, I found the photographers switching from Speed Graphics to transitional Mamiya TLRs and ending up with Nikons. Time passed, and as they continued keeping up with the latest models, I was able to put together a nicely broken-in 35-mm SLR outfit for a bargain price.

Over the years, I found some good used medium-format cameras, too, but I didn't forget the Graflex. Whenever I came into a secondhand photo store, I'd look for one. By then Graflexes hadn't been made for a good many years, and all the ones I saw needed rebuilding from the tripod socket up. Once I did come upon a 4x5 Super D in mint condition, but the price was too super for me.

I was a latecomer to the Internet, and it wasn't till last winter that I began searching online. After a few months of looking, I saw a promising-looking 3x4 RB



Series B on the popular auction site. It looked scruffy in the pictures, but the listing said it was all there, including the black leather case, and the seller assured me that the most important moving part -- the shutter -- was indeed moving. So I went ahead and was able to win the auction at a good price.

The camera, which I later found out was made in 1931, arrived from Baltimore a few weeks later, and to my surprise, looked better than it had in the pictures. The grime was superficial, and even the leather handle that's so often found flapping loose was still firmly attached. A previous owner had hand-copied in tiny print the table of action-stopping shutter speeds and glued it to the top inside of the hood. I like to think he used the camera for its original advertised purpose (nothing too fast for a Graflex!).

My favorite photo technician said I'd been lucky. The shutter curtain was intact, the springs and rollers in good shape and the lens unscratched and fungus-free. After he finished cleaning, lubricating and adjusting, I had a Graflex that looked almost brand-new. But I had no way to try it out. No film holders were included in the outfit, which came with the obsolete film-pack holder.

A few months later, I got lucky on the auction site again and spotted the correct 6x9 rollfilm back listed by a seller who knew what he was selling ("for a 3x4 Graflex, will NOT fit a Graphic"). The holder ended up costing me almost as much as the camera, but you can't take pictures without film. Later I also found a bag mag with a complete set of intact septums. It needs only a little patching, and I'm looking forward to shooting some black-and-white sheet film.

The first thing I did when I got the rollfilm holder and made a 6x9 mask for the ground glass was to try out a good cross-section of those 25 shutter speeds. I was amazed. The exposures (when I remembered to stop down the lens) were dead-on every time. Not bad for a 75-year-old camera!

As I began learning to use the Graflex, I made all the usual mistakes. One roll of film was blank because I'd forgotten to take out the dark slide. Another was blank because I'd loaded the roll-holder backwards. There were double exposures (forgot to wind on the film right away), pictures that came out in chopped portrait orientation when I meant to shoot landscape but forgot to turn the back, and some over-optimistic focusing. On 6x9, looking through the 6-3/8" standard lens is like looking through an 80-mm lens on a 35-mm camera, but, of course, you've got only a fraction of the depth of field.

It's a fine focal length for informal portraits, and the Graflex is a wonderful camera for that purpose. Using a weird-looking antique that most people have seen only in period movies puts everyone at ease, and, on a sunny day, the image on the big ground glass is bright enough to focus with the lens stopped down. The uncoated lens makes for flatteringly smooth skin tones, and the shallow depth of field yields an attractively blurred background. As my friend the camera technician said, lenses had character in those days.

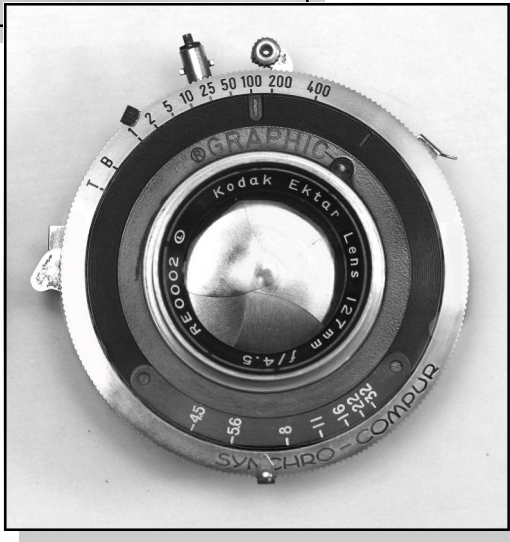
Handling the Graflex has made me appreciate its well-thought-out design. The positions of the focus knob and shutter release are just right. Flipping down the mirror becomes second nature; so does holding the camera on one arm, like a baby, to work the controls. And it's a thrill to use the same kind of camera that such great photographers like Dorothea Lange and Alfred Stieglitz used. It feels like real photography.

I haven't lost my fascination with the Leica either. Leicas are as rugged as Graflexes, and the IIIf my father used on those shooting expeditions is still in perfect working order. It's now my notebook camera, the one I carry with me most of the time. The Graflex is for more deliberate work -- for the bigger negative and the bigger picture.



Graflex Historic Quarterly

The Quarterly is dedicated to enriching the study of the Graflex company, its history, and products. It is published by and for hobbyists, and is not a for-profit publication. Other photographic groups may reprint material provided credit is given GHQ and the author. We would appreciate a copy of the reprint.



The beginning and the end. On the upper left, is a 1940 127mm f4.7 Ektar in an un-synchronized Supermatic. On the lower right, the Supermatic's replacement, a 1955 127mm f4.5 in a Synchron-Compur shutter. Supermatic shutters went from no synchronization, to full synchronization to X-sync only, before Kodak stopped production. By 1963 Kodak would stop production on all professional lenses. Ironically this S-C shutter sports an ASA bayonet flash sync, something that Kodak developed. After Kodak left, the Prontor-Compur or PC connection was adopted.

Publisher: Mike Hanemann
Editor and associate publisher: Ken Metcalf
Contributing editor: Les Newcomer

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Contact:

Mike Hanemann
2044 SE Maple St.
Milwaukie, OR 97267
E-mail: hanemann@highstream.net

Ken Metcalf
94 White Thorn Dr.
Alexander, NC 28701-9792
E-mail: metcalf537@aol.com

Les Newcomer
33922 Grand River Avenue
Farmington, MI 48335-3432
E-mail: LNPhoto@twmi.rr.com

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Pacemaker