

# Classic CAMERA





In 1954, Leitz unveiled the Leica M3, a charming camera loaded with appealing options, but totally lacking the possibility of being motor-driven. The sprocket's short axis even made it impossible to use the Leicavit manual fast-winding systems located on the base plate. However, the need to have a motor-driven camera was felt by many Leica photographers, so Leitz began to make a number of experimental changes on some Leica M3s to make them motor-compatible.

Between 1956 and 1957, approximately 450 Leica MP cameras were manufactured, derived from the Leica M3 but with a long sprocket so that the Leicavit could be utilized. Other modifications involved the frame counter (manual reset type) and lack of self-timer mechanism. The Leica MP cameras were numbered from 1 to 450 and did not follow the normal serial number sequence of other Leicas. The first 150 Leica MPs had a black finish, while successive cameras were chrome-finish.

For the modified Leica M3 and Leica MP cameras, Leitz produced at Wetzlar a prototype electric motor that was not connected directly to the sprocket axis, but rather used an intermediate mechanism coupled to the shutter winding. The electric motor for the Leica MP was never mass produced and was different from the motor that in 1959 would be used to equip the Leica MP2.

The experimental MP 1167 Betriebsk camera is differentiated from other Leica MP cameras by the self-timer mechanism on its front and use of a button for film rewind release instead of the traditional lever.

#### Leica MP: authoritative sources

- The Leica MP 1167 Betriebsk appears on page 198 of Lager, vol. I, but equipped with a Leicavit.
- An electric motor like the one shown on the cover is found in Lager, vol. III on page 71, but mounted on a Leica M3 Betriebsk, no. 1147.
- Also shown in Lager, vol. I are the chrome-finish Leica MP 5

and MP 9, the black Leica MP 129 and MP 108, the chrome Leica MP 312, a Leica MP without markings or number, the black Leica MP 58 SP and the chrome Leica MP 235 SP.

• Van Hasbroeck (in the first Italian edition, Vallardi 1990) shows the prototype electric motor without camera. Also included are the chrome Leica MP 5, the black Leica MP 63, and chrome Leica MP 151 and MP 174.

• Sartorius shows the chrome Leica MP 322.

• Rogliatti shows the black Leica MP 115, the chrome Leica MP 392 and a black Leica MP, serial no. 1113833 of a Leica M2.

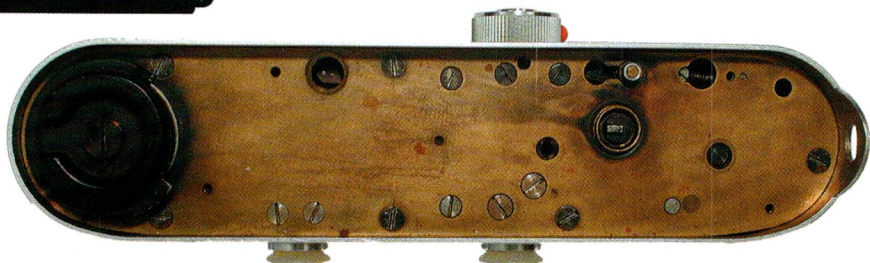
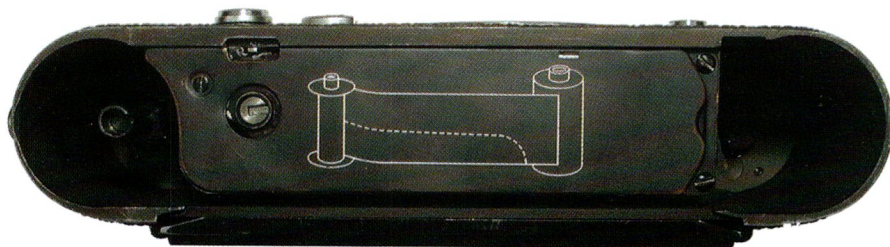
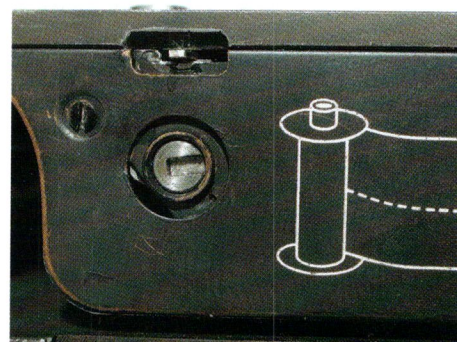
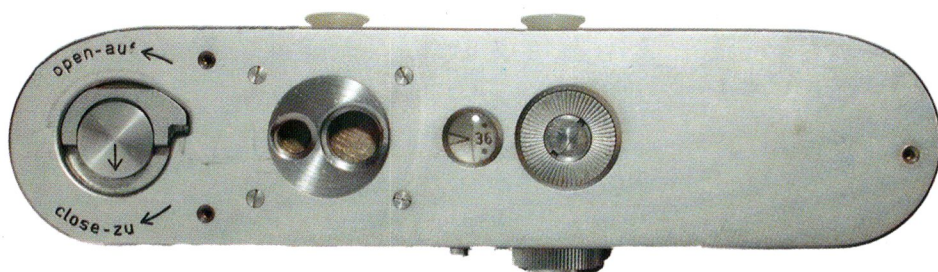
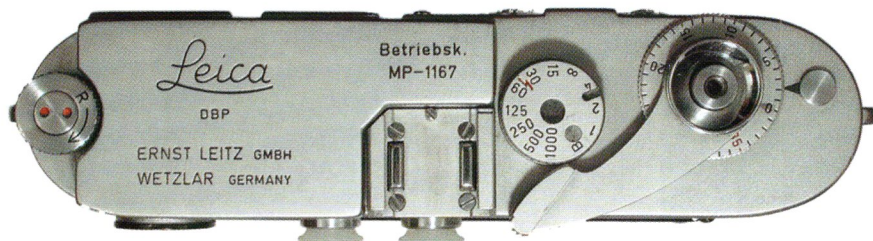
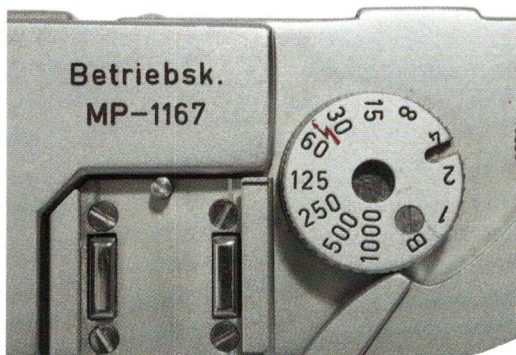
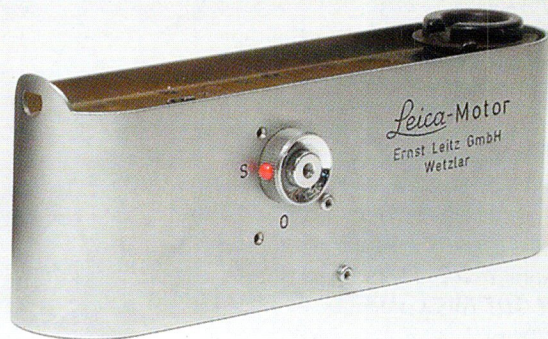
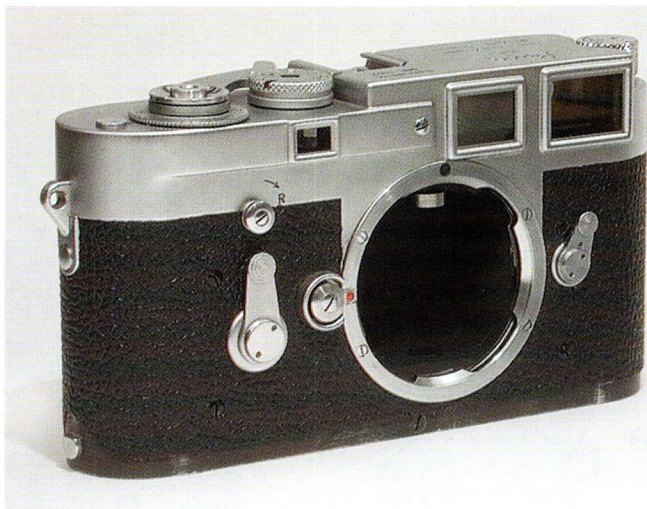


The camera appearing on these pages was kindly made available by Gianni Di Benedetto.

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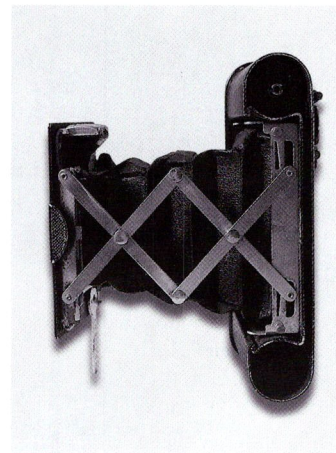
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**CLASSIC CAMERA**

**NOVEMBER 2001**



Contax IIA



Kodak Vest Pocket



Between Contax and Pentacon

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## STEIMER'S FOTOLISTE 2001-2002

Kameras Objektive Preise Daten  
Franz Steimer  
Lindemanns Verlag  
For Windows 95/98/ME

A new and unique guide to collectible cameras, it is (to our knowledge) the first guide that is not printed, but on CD-Rom. With the help of a computer, it is fascinating leafing through the computer screen pages of the Steimer Guide and displaying the spec sheets of the various cameras. Perhaps less detailed than other more traditional guides, the Steimer Guide is written in German and, in addition to basic technical specifications, also includes a basic description and history of each camera. Many spec sheets also include drawings or photographs of the camera, and some even more than one showing the camera from various angles. The extreme flexibility of this tool makes it possible to group cameras according to manufacturer (alphabetical order), price range or chronological order (by selecting the "Kamerakalender" option). Scrolling through the time line offers an overview of the most interesting cameras over the years and makes it possible to compare those produced in the same period. Alongside the cameras, the lenses are also included (something fairly unusual), and for each lens there is a spec sheet giving geometric, focal, speed, element, weight and minimum opening as well as an evaluation of optical quality. Lenses can also be searched for by price or alphabetical order. Given the fact that this tool is meant for computer users, there is also a list of links to the most interesting Internet sites, found under the section "Links & Kontakte". A guide which—we are willing to bet—will find a wealth of users as well as imitators.

## ROLLEI REPORT 1

The First 25 Years  
Claus Prochnow  
(English Booklet)  
Lindemanns Verlag, Nadlerstrasse 10  
70173 Stuttgart, Germany  
Fax 0049-711- 236.9672

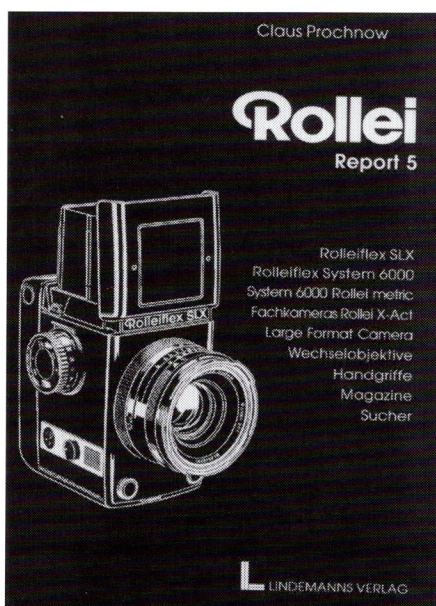
The series of books published by Claus Prochnow under the title, "Rollei Report", unquestionably represents the best and most complete information written on this topic from both a historical and technical standpoint. Unfortunately, the fact that they are written in German has complicated their distribution outside the homeland of Goethe. Plus, the cost of translated editions constitutes an obstacle for this kind of book that has a specialized readership and will never become a bestseller. Therefore, the decision to publish them in German and translate them into English at a later date is completely understandable. The English text of the first book in the series, the *Rollei Report 1* dedicated to the history of the first 25 years of Franke & Heidecke, has been released as a photocopy in A5 format without illustrations, to be used as a companion to the original German book. The pair of books—the German edition, with its text even "harder" than its hardcover binding but filled with high-quality illustrations, and the unassuming softcover English without illustrations but more-

accessible text—goes for a price of \$45 (about 90DM). Those who already have the book in German and only want the English translation can order it for just \$13 (about 26DM).

## ROLLEI REPORT 5

Rolleiflex SLX / Rolleiflex System 6000  
Claus Prochnow  
Lindemanns Verlag

As is well-known, the saga of the Rolleiflex twin-lens 6x6cm seemed to come to an end at the end of the 1960s with the technological, economic and financial crisis of the Rollei brand name. Not even the production of the revolutionary Rolleiflex SL66 seemed to solve the company's problems. While diversifying production to include other formats such as 16mm, 35mm and even Instamatic cassettes and amateur movie cameras, they set to work developing new strategies for the professional market. The square 6x6cm format was never called into question, nor was the single eyepiece, but they began to work on the electronics and linear motors. A variation on the SL66 with Synchro Compur shutter diaphragm was developed which went well, aside from the prototypes. But the truly decisive turn was the presentation at Photokina in 1974 (following a number of years of work) of the Rolleiflex 6006 which cashed in entirely on its inheritance, maximizing its potential and placing it in the technological vanguard. There followed the other 6x6cm members of the 6000 family with their differentiated, but always top performance levels. After having analyzed the entire Rollei output from the founding of the company to its modern lines, Claus Prochnow dedicates this most recent *Rollei Report 5* to the Rolleiflex SLX and Rolleiflex System 6000, giving its origins, history and evolution and describing in detail all its elements, camera bodies with viewfinders, cassettes and lenses and accessories for both traditional and digital picture-taking in which Rollei demonstrated its faith from the very beginning. Prochnow's book, with its German-only text but filled with documents and illustrations, has been published for the company's 80<sup>th</sup> birthday and is the perfect conclusion to the Rollei Report collection with its 5 invaluable volumes that are a must on every Rollei-enthusiast's bookshelf as well as those of serious collectors of cameras of all formats and eras.





## RPS COLLECTION ON THE MOVE

The Royal Photographic Society (RPS) has announced that it has formed a long term partnership with the National Museum of Photography, Film and Television (NMPFT), situated in Bradford, Yorkshire.

In a surprise move, the RPS has taken the decision to transfer the whole of its historic collection of photographs to the NMPFT sometime during 2002. The RPS has, for some considerable time, been looking at ways to make its famous print collection more accessible to members of the public and the move will go a long way towards achieving this aim.

The agreement for the NMPFT to house the collection of some 270,000 images and other related items, including important photographic equipment, was negotiated with the help of Lord Puttnam Hon. FRPS, who is a member of the museum's board of trustees. The deal is expected to be worth several million pounds to the RPS in the long term.

The museum is anticipated to become an important centre for future RPS functions, although it will not become the new headquarters for the RPS, who are still looking for a suitable site.

The Insight Research Centre at the Bradford museum will house the print collection and stage regular exhibitions of work from it.

In a separate move, the RPS has obtained a government grant of nearly £ 73,000 from the New Opportunities Fund to finance its Digital Image Archive with the intention to place 5,000 of its historic images on the Internet commencing in December 2002.

The new site will be hosted by the British Library and will allow the purchase of digital images for private and commercial use and to buy the rights to reproduce prints.

## NEW VOIGTLANDER ON WAY?

Rumours from several sources indicate that, following hard on the heels of the successful introduction of the Voigtlander Bessa-T with Leica M bayonet mount, the Company are working on a top-line model with an advanced combined view/rangefinder system set to rival the Leica M6 models.

At the time of writing the unconfirmed details are sparse, but the new model, it is believed, will be available in both chrome and black finish with similar styling to the Bessa-T. Apart from featuring the M bayonet the new model will accept the T's rapid wind base. The finder is expected to display at least three bright-line frames for 35mm, 50mm and 90mm lenses. Voigtlander are also believed

to be working on new, wide aperture lenses in M bayonet mounts.

## RUSSIAN CAMERA COLLECTORS' CLUB

Formed in 1994, the club now has well over 300 members from eighteen countries worldwide and continues to grow in numbers each year.

The Club invites all of its members to participate in providing information on all aspects of collecting cameras, lenses, projectors and accessories together with any related literature from the former eastern bloc manufacturers.

Each year members receive five sets of technical data sheets which are published in February, April, June, September and November. The data sheets, currently running at almost 300 pages, are A5 size and are prepunched to fit ring binders and build up to a very specialised handbook. Members letters are published along with answers to collecting and technical queries.

For further information on the RCCC and details of the current membership rates contact the organiser and publisher, David C. Tomlinson, 128 Henwood Green Road, Pembury, Tunbridge Wells, Kent TN2 4LN, England. E-mail: RCCCCUK@aol.com  
Web site: <http://members.aol.com/RCCCCUK/RCCC.htm>

## CAMERA FAIR GAINS IN POPULARITY

The South London Photographic Fair, which has been held on a regular basis for several years has now grown to be one of the most popular events to be held in the south of England. Now held about seven times each year from a start of four, the fair has grown from relatively small beginnings of about thirty tables to now, on average, ninety.

At the last two or three events I have noted both dealers and buyers in attendance from France, Germany and the Netherlands. They come for the day by the easy route through the Channel Tunnel, either on Eurostar or with their own vehicles via Le Shuttle as the venue is within easy access of the UK terminal and motorways.

The current venue is at Leigh City Technology College, Green Street Green Road, (A225), Dartford, Kent DA1 1QE, but it is understood that from early 2002 a new, larger venue will be used at Sidcup, Kent.

For further details contact the organiser: Patrick Archer, Dormer Lodge, Common Lane, Wilmington, Kent DA2 7AX. E-mail: [patrick@archerphotoservices.fsnet.co.uk](mailto:patrick@archerphotoservices.fsnet.co.uk)

## NIKON CINE CAMERAS

Although renowned for their rangefinder and SLR cameras, during the 1960's and up to the mid 1970's Nippon Kogaku offered for sale in their catalogues a small, continuing range of amateur cine cameras. These models were made by outside contractors to Nikon specifications and subject to their own quality control, throughout the series seven models were produced with each one incorporating a higher specification than its predecessor. The first three were of standard 8 format and the remaining four super 8, with the last two models being of semi-professional standard. The first model, named Nikkorex-8, but sold in Germany and Switzerland labelled as Nikkor-8, was a small, flat, rectangular shaped model with a very simple specification. It had a fold out frame finder which covered the format of the fixed focus 10mm f1.8 Nikkor lens. Automatic exposure control was achieved via a CdS exposure meter situated above the taking lens with film speeds from 10 to 100 ASA and electric film advance of 16 frames per second was provided by penlight batteries. A plug in remote release was available together with a x2 tele-converter. The camera was finished in a grey or red crackle paint with satin chrome trim. It accepted 15mm screw-in filters.

Within a short time a slightly improved model, the Nikkorex-8F, with virtually the same body was introduced. It incorporated a reflex viewfinder, film speed range increased from 5 to 200 ASA and a single shot facility. The filter size was increased to 40.5mm and at the same time a 8-20mm zoom converter was available. Both of these models were compact enough to be carried in a large jacket pocket and were normally used as 'visual notebooks'. Both models were supplied with a soft leather slip in case.

During 1963/4 a new, larger model was in production, which was more in line with the usual 8mm cine camera shape. Again, finished in a dark grey crackle paint finish with satin chrome trim, the Nikkorex - Zoom 8 sported a new 8 -32 mm Cine - Zoom Nikkor lens, which focussed down to one meter via a reflex viewfinder which incorporated a split image rangefinder and eyepiece diopter correction. A coupled but non-TTL CdS meter was incorporated above the lens covering film speeds from 5 - 400 ASA. Electric film advance was 16 frames per second or single shot. A large manual zoom lever was provided on the right hand side of the camera together with a carrying strap on the top. Accessories included a grey hard leather case with a cut out for a pistol



grip and a remote control release. This was the last standard 8 model.

1965 saw the introduction of a new breed of super 8 models, this time bearing the Nikon logo instead of Nikkorex. The first model was the Super Zoom - 8 which, in Germany was badged Nikkor. In some other European markets, including France it was labelled as Nikon - Zoom Super 8.

The new camera was finished in a black crackle paint body with satin chrome trim and, for the first time featured a built-in, fold down hand grip. The lens was a Cine-Zoom-Nikkor 8.8 - 45mm f/1.8 which allowed for power zooming via a rocker switch on the left of the body. The minimum focus was 1.2 meters and the lens accepted standard 52mm filters. Filming speeds were 12, 18 and 24 frames per second, plus single shot. For the first time TTL metering was incorporated with film speeds from 16 - 160 ASA.

In 1969 this model was slightly modified with the addition of a manual rapid zoom lever and a change in lens specifications to a Cine-Zoom-Nikkor 7.5-60mm f1.8. The name was changed to Nikon 8x Super-Zoom. During 1975/6 Nikon released their final two super 8 models, both of semi-professional specification. Named the Nikon R8 Super and R10 Super, these cameras were among the best of the super 8 cameras produced by any company in the world at the time.

Both models were of similar design with satin black stippled finish and black leatherette body and grip panels. Some controls were highlighted with chrome rings. Operation and handling of both cameras was identical with the only difference in their specifications.

Common features were: Motorised fade-in/out, lap dissolve, reverse filming, multiple exposure, two speed power zooming and filming speeds of 18,24 and 54 frames per second, plus single shot, full information viewfinders with rangefinder focussing, red end of film marker, full manual control, true macro focussing without any additional attachments, eyepiece diopter correction from -5 to +3, viewfinder blind, auto film speed setting from 10 - 640 ASA for both day and artificial light with automatic insertion of conversion filter and connections for electronic flash, remote control and coupling to a tape recorder. The R8 had a Cine-Nikkor-Zoom 7.5-60mm f1.8 lens with a vane type iris diaphragm and accepted 52mm filters. The top of the range R10 was fitted with a 7-70mm f1.4 Cine-Zoom-Nikkor and had a 67mm filter



*Nikkorex 8, Nikkorex Zoom 8, Nikkor R10 Super.*

thread. The iris diaphragm was a five bladed type. Both lenses for these models had Nikon Integrated Coating applied to all elements. The additional range of accessories for the R8 and R10 was very extensive to cover all applications of cine photography.

None of the Nikon cine cameras are easy to find in the UK, but when located they are normally fairly inexpensive. The ones most sought after by collectors here are the red version of the original Nikkorex-8 and the R8/R10 Supers. The most common faults found in all models are severe corrosion of the battery terminals for both the film transport drives and the metering systems.

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# BETWEEN CONTAX AND PENTACON



*Contax/Pentacon family with Contax FBM with exposure meter*

The war's passage and the fiery storm unleashed by Anglo-American bombing raids over Dresden left an enormous heap of smoking rubble in the heart of this historic city, as well as an enormous number of deaths in the civilian population that had sought refuge in what was reputed to be the safest city in Germany, at least until the final months of the war. Dresden's industrial zone, located on the outskirts of the city, was only partially hit and in a much less blanket fashion than the air raids against the center of the city. In fact, the February 1945 bombings only completely destroyed the plant and equipment of some companies, while others were only partially damaged. Still others went miraculously unscathed.

Among those partially damaged were the Ernemann facilities located in Schandauerstrasse, occupied since 1926 by Zeiss Ikon that had begun producing the rangefinder Contax there in the early 1930s. The materials and other plant and equipment in this factory which had escaped being damaged in the bombings were immediately requisitioned by the Soviet army after its entry into Dresden on May 8, 1945. Many of the managers

and engineers of Carl Zeiss, Jena and Zeiss Ikon itself had been transferred earlier to Stuttgart by the American troops. In 1946 the Dresden photographic industry was nationalized into the Industrie Verwaltung Feinmechanik und Optik and ownership passed to the VEB VolksEigener Betrieb (Company owned by the People). Zeiss Ikon became known as VEB Zeiss Ikon before merging with other companies into the VEB Mechanik in 1949.

## **Rebirth**

The former employees that remained in Dresden made dogged attempts to restart production in the few near-empty facilities in Schandauerstrasse that had survived bombing and confiscation. It was not an easy undertaking and they were kept from using the Zeiss Ikon name by Zeiss Ikon of Stuttgart, but the tenacity of the ex-employees of Zeiss Ikon Dresden was partially rewarded.

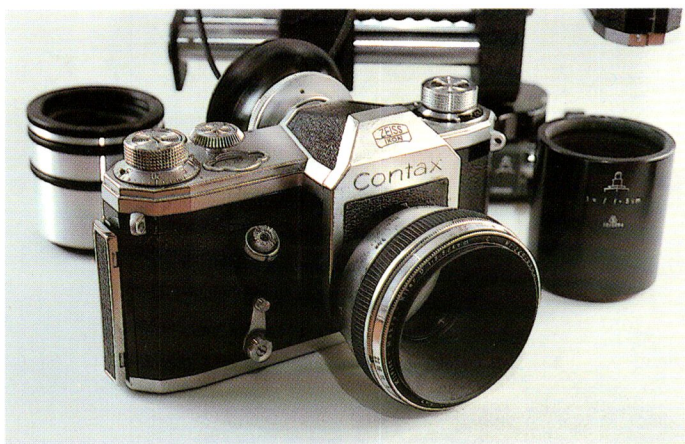
Tucked away in file drawers were plans and perhaps a prototype of a 35mm reflex camera generically based on the Contax rangefinder. It was called the Syntax and seems to have been the fruit of a cooperative effort between Zeiss Ikon and

the Kamera Wekstaetten company of nearby Niedersiedlitz which, back in 1936, had begun production on the 35mm single reflex Praktiflex. Plans were also discovered for a pentaprism reflex viewfinder called the Pentagon that Zeiss had designed in the pre-war period. The creativity of the Dresden designers took care of the rest by filling in missing pieces and even substantially modifying the plan drawings and simplifying the cumbersome structure of the old Contax cameras.

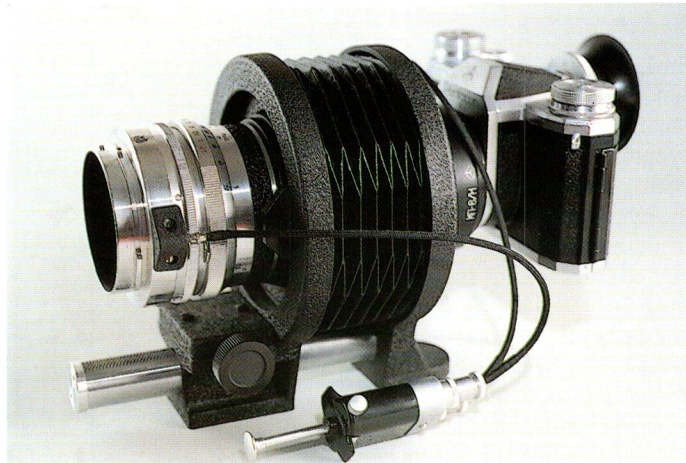
While the corporate structure was being transformed into a cooperative, a new camera was slowly taking shape under the guidance of head designer Wilhelm Winzenburg (1895-1971).

The final design was completed at the end of 1947 and realized over the course of 1948, with the camera being presented officially in Spring 1949 at the LeipzigerMesse. This new reflex camera from Zeiss Ikon Dresden proudly displayed the Zeiss Ikon logo on the front of the pentaprism viewfinder hood and equally proudly bore the famous Contax name engraved at the base. Oblivious to the protests from Stuttgart and fortified by its own photographic tradition, Dresden

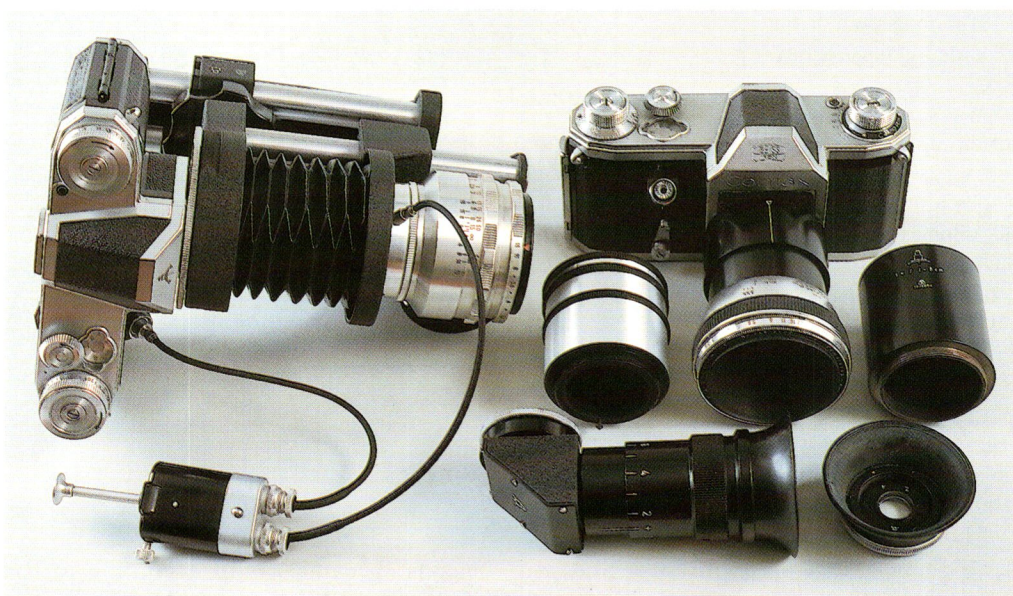




*Contax S with Macro Kilar D 40mm f/2.8 lens on infinity setting*



*Contax S with lens and macro accessories*



*Contax S camera with accessories for close-up shooting, tubes, bellows, eyepieces*

continued to use the Zeiss Ikon and Contax names for a number of years and it was only the decisions of a number of foreign courts and the need to export its cameras outside the Iron Curtain and across the Atlantic that convinced them to change. In fact, the Contax name even appeared using the same lettering as in the pre-war period.

The only concession made to differentiate it from the past was the addition of the letter "S" which stood for Spiegel (mirror). The intention of the manufacturer was that the "S" would indicate a reflex rather than a rangefinder camera, but the letter "S" remained a commercial identification only and was not engraved on either the front or top plate of the camera.

In October 1949 the DDR (Deutsche Demokratische Republik) was declared independent of the Bundesrepublik Federale that had been formed the month before, and mass production of the Contax began almost immediately.

### **The Contax reflex**

Although it had been officially unveiled in the Spring, the Contax reflex was only put into mass production six months later in September 1949. Comparison between the reflex and rangefinder Contax is not possible, even on a superficial level. Apart from the two different finder systems, the body was also totally different as were the shutters and mounting of the interchangeable lenses.

The Contax reflex had a square body with flat base plate and flat, 2-level top plate broken up by the truncated pyramid of the pentaprism. Only the corners of the body were vertically cut at a double angle typical of pre- and post-war Zeiss Ikon cameras. The height of the camera to its top plate was 70mm and it was 142mm long, not including the back opening hinges, and at its thinnest point the camera was 32mm thick. The mirror box protruded 18mm out from the front and was completely rounded

on the bottom where a folding stabilizing foot was fitted using two screws. The pentaprism hood was recessed into the top plate and extended only 15mm, bringing the total height to 85mm. The front of the hood was trapezoid-shaped and its top flat and slightly inclined on the back towards the eyepiece.

On the left of the top plate was a traditional knob used to rewind the exposed film and on its base was a disk to record film sensitivity. Next to this knob, a synch socket was added in 1950.

On the right of the top plate was a second knob that turned clockwise to wind the shutter and film and on its base was an automatic frame counter with manual zero reset.

Also on the top plate was a mushroom-shaped shutter speed selector that was pressed and turned counter-clockwise. The disk with reference values was recessed into the top plate — 2mm higher on the right than on the left — and could be seen



through a round window with two lateral semi-circular wings.

On the back was a large rectangular eyepiece with rounded sides and equipped with an accessory shoe. On the right of the eyepiece was a sliding knob to switch from the high speeds from 1/1000 to 1/50 etched in black, to the slow ones in red from 1 to 1/20 and B setting.

On the front, the threaded shutter release button was positioned at 45° to avoid both the vertical movements typical of cameras with the button on the top plate and the horizontal ones typical of cameras with the button accessible on the front. This solution was to be adopted on the Praktina in 1952 and on all screw Prakticas manufactured from 1964 on as well as on the Pentacon Six and some Japanese reflex cameras of the 1960s.

The self timer lever was added in 1950 and was placed immediately below the shutter release button.

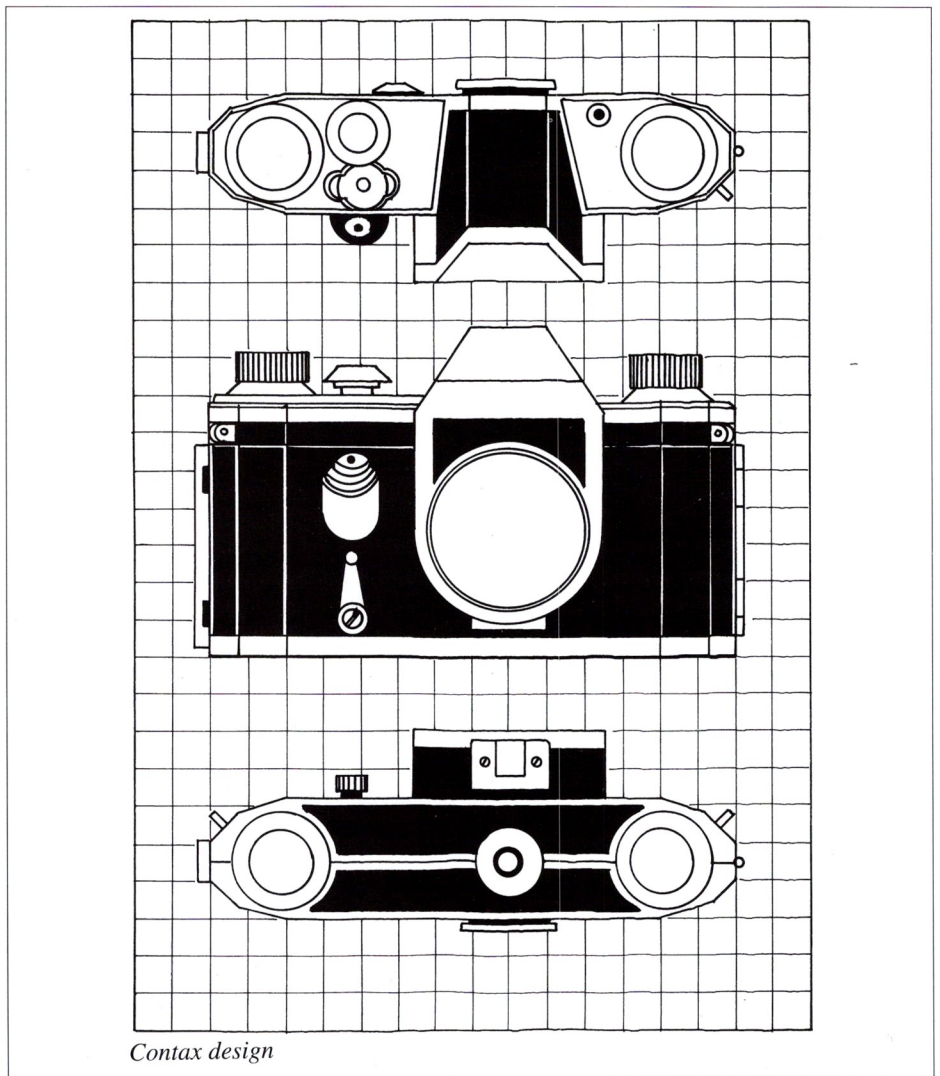
On the right side of the camera, a sliding catch opened the back which was attached to the rear half of the base and hinged on the side. The lack of a fixed film reel permitted transport from cassette-to-cassette. The clutch release button was on the removeable part of the bottom. The top plate and front of the prism hood were chrome-finish and the camera body was finished in artificial black leather. Without lens, the camera weighed 560 grams.

The Contax reflex was an elegant, well-designed camera with a simple, harmonious line, well-balanced and a pleasure to handle. Its only defect was that it tended to be light, the result of the materials utilized, and mechanically fragile thanks to the not overly-conscientious care taken in its manufacture. Its finishings were not first-class and the control layout, modified in 1956, was fairly clumsy. However, given the fact of its birth in a post-war emergency situation, the Contax reflex stood out for its original design and highly-innovative technical and aesthetic features.

### Center of controversy

From its birth, the Contax reflex found itself the center of a number of controversies. The first was over its name and marque, both claimed by Stuttgart. The second involved its pentaprism finder, the idea for which was claimed by Rome lawyer Telemaco Corsi, designer of the Rectaflex presented at the Milan Trade Fair in 1948.

In reality, it would seem that the application of the pentaprism to the reflex finder occurred independently in both Dresden and Rome and the issue was never legally contested. However, the legal battle



Contax design

with its Stuttgart cousins became increasingly intense with time and in 1952 the style of the Contax name was modified and as early as 1953, Contax cameras destined for export outside the Iron Curtain and across the Atlantic had to give up the Zeiss Ikon marque and replace the Contax name with another destined to become famous: Pentacon.

The substitution of the Contax with the Pentacon name did not occur simultaneously in all markets because it was dependent on the court decisions in the various countries. In Italy, the decision to recognize the validity of the Zeiss Ikon name only for West Germany products was not handed down until June 14, 1965. However, the Zeiss Ikon marque disappeared definitively from the Contax/Pentacon pentaprism in 1955 and was replaced by the symbol of the Ernemann cylindrical tower even on those models that continued to bear the Contax name.

### The first series of Contax

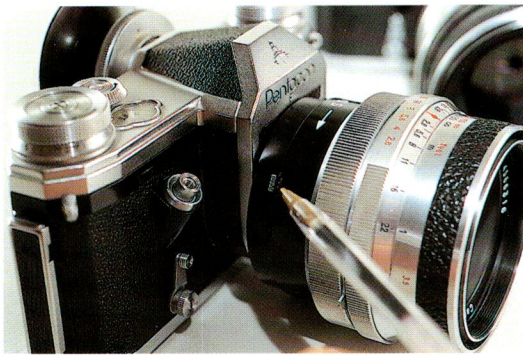
The original Contax reflex without synch socket and self timer, was manufactured from September 1949 to December of the same year. In four months, 2400 units were

built according to Richard Hummel's count. In 1950, a series of slight modifications and structural improvements began that led to an impressive number of variants which are not easy to keep track of and which are identified by experts using letters of the alphabet.

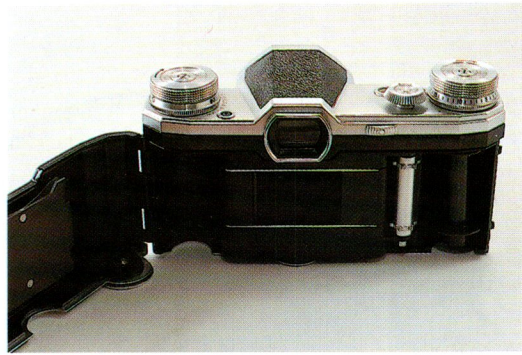
The first modification to the original reflex Contax is generally labeled with the letter A and is recognizable from a number of details, for instance the lack of the self timer lever and use of a modified shutter speed scale. Instead of the sequence 1, 2, 5, 10, 25, 50, 100, 250, 500, 1000 on the original Contax reflex, the sequence 1, 2, 5, 10, 20, 50, 100, 200, 500, 1000 was used. Less than two thousand of the Contax type A were produced up until May 1950. The next model, type B, utilized a modified shutter speed selector with the characteristic truncated tapered shape instead of the cylindrical shape of the early models and had a chrome button on the bottom front indicating the future possibility for a self-timer which was still missing. The Contax type B was produced until August 1950 with a total of 2400 units.

From this date until December 1951, close to 8000 of the type C models were

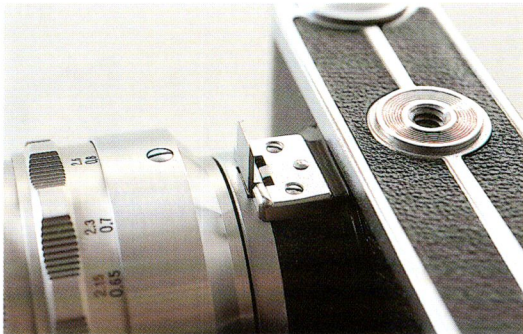




*Detail of button used for manual aperture closure.*



*Contax/Pentacox with back open*



*Detail of base plate with folding foot and tripod bush*



*Contax/Pentacox base plate*

manufactured, representing the first major modification to the original camera. The Contax type C was finally equipped with a self timer lever and the first type of synchronization that used flash bulbs with a socket located on the base near the tripod screw mount.

Over the course of 1951, the Contax type C was flanked by two non-structural variants marked with the letter D engraved in small letters under the Zeiss Ikon logo. They were produced parallel with the Contax type C and 5000-6000 were produced of each. The first type D variant was synchronized but did not have a self timer, while the second type D variant was synchronized and equipped with the self timer lever.

In just a little over two years and up until December 1951, approximately 27,000 Contax reflex cameras were produced in the various types.

### **Contax D for Dresden**

A new version of the Contax reflex was presented at the LeipzigerMesse in March 1952, absolutely identical to previous models in terms of casing and overall performance, but with significantly improved mechanics and structure. The new version of the Contax reflex was identified with the letter "D" and was the first Contax reflex to have the model letter engraved on its front.

The Contax D gave up somewhat the

traditional Contax logo, using an "a" that was round in shape instead of contoured. Many of the Contax D models also had to forego the Zeiss Ikon marque which was replaced on the top plate by the Ernemann tower. The Contax D was also the first Contax reflex to have to give up the Contax name on those cameras destined for the Western markets, using Pentacox instead. Because of these variations in name and marque, the Contax D was marketed under a variety of names and trademarks. Produced until August 1956 in almost seven thousand units, the Contax D is the most common among the reflex Contax cameras and represents the high point of Contax reflex production in Dresden.

### **Contax E with exposure meter**

A secondary, but interesting, variant of the Contax D was the Contax E, identical to the base model but with a large exposure meter with selenium photocell built into the pentaprism top plate. The exposure meter was not coupled with the controls and was not recessed into the body, but rather designed to be a real hand-held exposure meter. The Contax E name was engraved on the rectangular front panel that protected the photocell.

The Contax E was also known as the Pentacox E for Western markets and production on it began in 1956, four years after the Contax D. The Contax E was manufactured only until August of the

same year, with just over three thousand units made and, aside from the original Contax reflex, could perhaps qualify as the rarest of all the reflex Contax models.

### **Contax F: End of an era**

In 1956, production of the Contax was transferred from Dresden to nearby Niedersedlitz where it continued at the KW Kamera Werkstaette facilities. This was the same company that had built the Praktiflex and the Praktica with waist level finder and was fast becoming the largest photographic company in Dresden. The KW company would also begin to manufacture the 6x6cm format Praktisix single reflex in 1957.

Production of the reflex Contax in Niedersedlitz began in September 1956 with the new model Contax F. The Contax F had the letter "F" engraved on its front and had a number of external changes in the controls with the film winder and rewind buttons larger and flattened in the same style as the Contax rangefinder. Internally, the Contax F had a number of modifications in the housing of the mirror that was more securely attached to the moving support using a metal frame, but it was also smaller, giving rise to some vignetting.

The finder was also modified and the focusing ground glass screen no longer had the frame present on the first models and had rounded edges. As in all previous





*Contax/Pentacoon accessories and finder systems*

models, the mirror return on the Contax F was not automatic and coincided with the re-winding of the shutter. Automatic mirror return had already been a successful feature on the Japanese Asahiflex for a number of years, but in that period it was virtually unknown in Europe. The most advanced technical feature of the Contax F was its internal stop-down mechanism. The moving connection between the pusher activated by the shutter release and an aperture spring closing pin located at the rear of the automatic screw mount lenses was an innovation implemented by KW within just two or three months of each other on both the Praktica FX2 and FX3 and the Contax F and Pentacoon F — proof of the close ties between the two production lines. The same system was also used just a few months later by the Japanese on the Asahi Pentax K and in

1960 by the West Germans with the Edixa Mat Reflex. The Contax F or Pentacoon F was the final evolutionary state of the original Contax reflex and remained in production until June 1961 without undergoing any further structural modifications with just under 34,000 of them being produced.

At the same time as the Contax F, just under 22,000 units of the same camera equipped with an exposure meter like that on the Contax E were also produced. The Contax F with exposure meter was dubbed the Contax FB or Pentacoon FB, the “B” standing for the German for exposure meter, Belichtungsmesser, added to the model letter “F”.

In September 1958, some of the Contax reflex cameras manufactured by the KW company were fitted with a split image rangefinder, a feature previously used on

other European reflex cameras such as the Rectaflex.

Since the modified Contax F with rangefinder did not replace the simple ground glass Contax F, alongside the Contax F was another camera known as the Contax FM. The letter “M” meant literally Messkeilen (wedge). Just over 17,000 of these Contax models were manufactured up until June 1961, the date on which all production of the reflex Contax models was suspended. In addition to the Contax F, FM and FB, just under 14,000 units of the Contax FBM model with uncoupled exposure meter and focusing glass with rangefinder were produced.

June 1961 saw the end of the age of the reflex Contax, just as the market began to be definitively won over by the charm of the 35mm SLR.

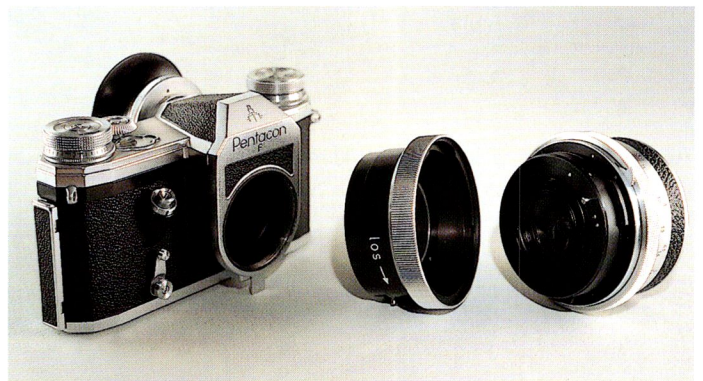




*Jena f/2.8 Praktisix automatic lenses on the Contax S: Tessar 50mm, Biometar 120mm, Sonnar 180mm.*



*Rings for Praktisix automatic lenses on the Contax S.*



*Semi-automatic ring for mounting Praktisix lenses on the Contax S.*

### **Contax reflex accessories**

Like all reflex cameras of that era, much of the charm of the Contax reflex was based on the advantages offered by the mirror finder for close-up shots and macro photography. For the latter, the Contax reflex could be equipped with extension tubes, extendible bellows, shoes and coupling rings for microscopes. Unlike rangefinder cameras, the Contax reflex did not require special viewfinders for different lenses, but given the fact that the reflex finder could not be exchanged for a waist level finder, a right angle finder to be inserted on the eyepiece to focus from above was deemed useful, as was a magnifying lens, also inserted on the eyepiece, to improve focusing under difficult conditions.

To insert these accessories on the eyepiece, there were grooves into which the finder accessories were inserted and then locked into position by rotating the dial. There was also a frame finder for rapid shooting to get around the problem of automatic mirror return. The only accessory never

contemplated for any of the Contax reflex cameras was a direct or indirect motor drive system to accelerate shooting speed which was, in fact, quite slow because of the relative awkwardness of the wind buttons in comparison with the rapid wind lever on its contemporary, the Exakta.

### **Contax lenses designed by Carl Zeiss Jena**

Although Stuttgart had tried to block right from the outset the use of the Zeiss Ikon trademark on cameras manufactured in Dresden for marketing reasons, it tolerated the use of the Carl Zeiss Jena marque on lenses built on the other side of the Wall throughout the 1950s. In reality, while lens production under the Zeiss Opton name was started up in Oberkochen, many of the lenses for the Stuttgart Contax were still being built by Carl Zeiss Jena and were imported into the Federal Republic by Zeiss Ikon itself.

In Stuttgart at the time, the major interest was in maintaining good relations with Jena, allowing them to use the Carl Zeiss name in exchange for supplying lenses for

the Contax. Only once lens production in the West had become self-sufficient did they begin to raise a hue-and-cry and resort to legal channels to gain exclusive use of the Carl Zeiss and related names such as Tessar, Sonnar, Biotar and Biometar. Therefore, it is possible to encounter lenses with Contax reflex screw mount labeled Carl Zeiss Jena or just C.Z. Jena, or even just Jena, while the names Tessar, Sonnar, Biotar and Biometar were replaced by the initials T, S, B and Bm.

### **From manual to automatic aperture**

For the Contax reflex and Contax D without automatic step-down mechanism, manual aperture lenses were manufactured, labeled in the catalogues with the initials NB for NormalBlende or RB for RastBlende in the case of a release aperture.

After 1951, lenses with a preset aperture began to be produced, labeled with the initials BV for BlendenVorwahl. A spring ring located on the front part of the mounting of these lenses could be rotated to the desired value and then locked in





*Contax/Pentacox with Jena lenses in unfinished aluminum*

*Above and below: Jena Sonnar 180mm f/2.8 and 300mm f/4.0 lenses on Contax/Pentacox*



*The standard Praktisix lens became a portrait tele on the Contax S.*

place. When the aperture was closed manually, the diaphragm was prevented from closing further than the preset value. The diaphragm could be re-opened to the maximum value by manually rotating the ring in the opposite direction.

For a brief period, following the example of the Exakta lenses, even screw mount lenses were equipped with a small external mechanical arm at the end of which was a button that was pressed before the shot was taken to close the diaphragm and transmit the movement to the release button to open the shutter. The Isco company built the standard Westanar 50mm f/2.8 and Westagox 50mm f/2.0

lenses with external mechanism.

After 1956, the lenses to be used on the Contax F and Pentacox F were finally equipped with the rear spring loaded pins for automatic stop-down and device for manual re-opening, sometimes performed by a lever and sometimes by rotating the entire lens mount clockwise.

The semi-automatic lenses were identified in the catalogues with the initials SB for SprungBlendeausstattung. These lenses were followed by lenses with completely automatic stop-down and re-opening, identified in the catalogues with the initials ASB for Automatische SprungBlende, or by the letters ADB for Automatische

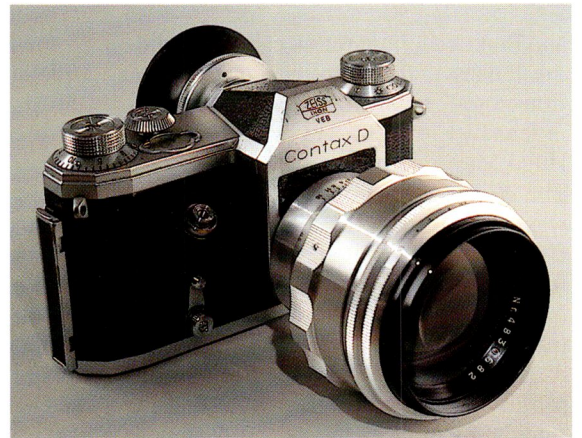
DruckBlende. This lens truly freed the 35mm reflex from awkward manual control of the diaphragm, making shooting faster and more precise. On the external mounting of lenses with screw mount and automatic stop-down and re-opening was a small button for manual stop-down, indispensable for estimating depth of field in the reflex finder.

### **Screw Jenas**

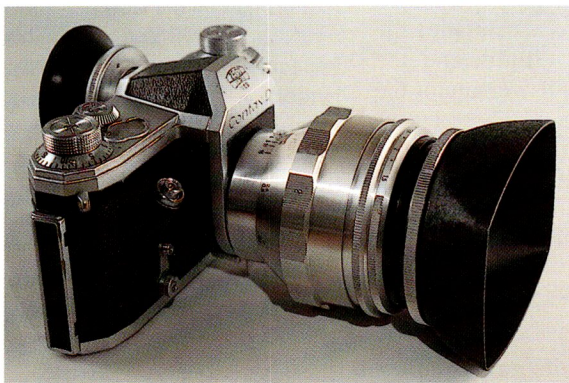
European lens companies furnished a large number of Contax/Praktica screw mount lenses. These lenses appeared in numerous official catalogues of the manufacturers themselves or distributors of the Contax



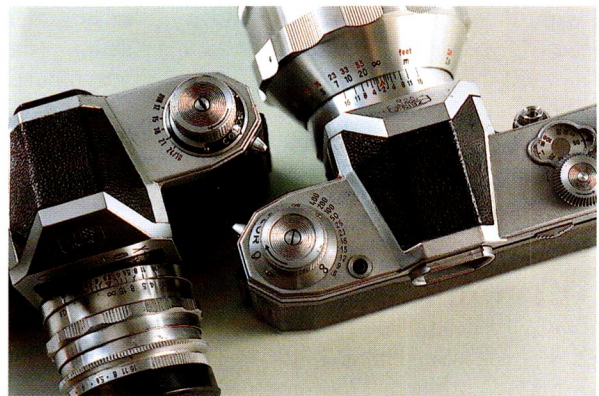
*Jena lenses for  
Contax/Pentacox*



*Left and above: Biotar 75mm f/1.5 lens on Contax D*



*Biotar 75mm f/1.5 lens on Contax D*



*Detail of sync socket on top plate, comparison  
between sync and no-sync models*



*Contax and Contax D with standard lenses*





*Pentacon FBM with built-in exposure meter on top plate.*

and Praktica 35mm reflex cameras, while the lenses that officially equipped the Contax reflex were those built in the DDR in Jena by Carl Zeiss and in Gorlitz by the Hugo Meyer company.

The standard lens on the Contax reflex was derived from the lens layout of the f/2.0 pre-war Sonnar, but to prevent interference with the movement of the mirror, the focal length was modified and increased to 57mm.

A new lens followed on the heels of this prototype. Called the Biotar, it had the same number of elements and basic lens layout with the focal length increased to 58mm with a maximum speed of f/2.0. In addition to the Biotar, the Contax S was equipped with the classic Tessar 50mm with a speed of f/2.8 or, less frequently, f/3.5.

The only non-back focus wide-angle produced with screw mount for the Contax was the Tessar 40mm f/4.5 which was replaced in the second half of the 1950s

by the Flektogon 35mm f/2.8 back focus wide-angle, a lens that harkened back to the Angenieux lens scheme and allowed for focusing down to a distance of just 30cm.

Among the pre-war Carl Zeiss lenses for the Contax, only the Sonnar 135mm f/4.0 and, more infrequently, the Triotar 135mm with the same speed, were built with screw mount. Strangely enough, the Sonnar 85mm f/2.0 was not produced in a reflex camera version, while in the early 1950s the Biotar 75mm with the very fast speed of f/1.5 was built.

Three other f/2.8 lenses with screw mount and signed Carl Zeiss, originally destined for the Praktisix, were also made: the Biometar 80mm and 120mm and the Sonnar 180mm (the 1950s version of the pre-war Olympia Sonnar). These lenses with Praktisix bayonet mount could be mounted on the screw reflexes using a ring that transformed the automatic lenses into semi automatic ones. For longer focal

lengths of 180mm, Jena made the screw mount Sonnar 300mm f/4 and Fernobjektiv 500mm f/8. The Jena lenses with 180mm, 300mm and 500mm focal lengths were equipped with an adapter and could also be used on other Dresden-made reflex cameras such as the Exakta, Praktina, Pentacon Six and even the rangefinder Contax using the Flektometer reflex mirror box.

Production of Jena screw lenses continued even after production of the Contax reflex was stopped. These lenses are still completely compatible with the old Contaxes, but conscientious collectors prefer not to mix their periods. Contax collectors continue to favor lenses from that period—those made by Jena or their contemporaries, such as the Meyer Primagon, Primotar and Primoplan as well as the Orestor and Tele Megor telephoto lenses. Not forgetting the tantalizing screw lenses made by Schneider, Schacht, Staebler, Steinheil, Voigtländer, Enna, Isco, Astro, Novoflex, Rodenstock, Kilfitt and Angenieux, to mention just the European ones.

### **Success and failure of the Contax-Pentacon**

The first 35mm reflex with prism finder to be made in the post-war period, simultaneously with the more complex Rectaflex, the Contax reflex was used as a model to be copied by all other camera manufacturers. At first, the only competitors the Contax and its successive models had on the European and American markets were the Rectaflex and its kinsman the Exakta Varex, both with prism finders, respectively fixed and interchangeable.

The Rectaflex bowed from the scene first because of well-known financial problems, while the Exakta was longer-lived — ten

### **CONTAX PRODUCTION HISTORY**

| <b>Model</b> | <b>Start</b>   | <b>End</b>    | <b>Units</b> | <b>Comment</b>                          |
|--------------|----------------|---------------|--------------|---|
| CONTAX S*    | September 1949 | December 1949 | 2400         | No self-timer / no synch 1/25           |
| CONTAX SA*   | March 1950     | May 1950      | 1940         | No self-timer / no synch 1/20           |
| CONTAX SB*   | May 1950       | August 1950   | 2420         | No self-timer / no synch                |
| CONTAX SC*   | August 1950    | December 1951 | 7730         | Self-timer / synch on base              |
| CONTAX SD1*  | April 1951     | December 1951 | 5550         | No self-timer / synch on top            |
| CONTAX SD2*  | April 1951     | December 1951 | 6250         | Self-timer / synch on top               |
| CONTAX D     | March 1952     | August 1956   | 69,600       | Self-timer / synch Pentacon             |
| CONTAX E     | April 1956     | August 1956   | 3360         | Exposure meter Pentacon E               |
| CONTAX F     | September 1956 | June 1961     | 33,900       | Auto aperture Pentacon F                |
| CONTAX FB    | September 1956 | June 1961     | 21,600       | Exposure meter Pentacon FB              |
| CONTAX FM    | September 1958 | June 1961     | 17,300       | Stigmometer Pentacon FM                 |
| CONTAX FBM   | September 1958 | June 1961     | 13,940       | Exp. meter and stigmometer Pentacon FBM |

\* marketing ID not appearing on the camera body



## CARL ZEISS JENA LENSES FOR CONTAX, 1949 – 1961

### LENSES WITH MANUAL APERTURE OR PRE-APERTURE

| NAME         | FOCAL       | APERTURE  | ELEMENTS | WEIGHT | FILTERS |
|--------------|-------------|-----------|----------|--------|---------|
| Flektogon    | 35mm f/2.8  | BV        | 6        | 200    | 49mm    |
| Tessar       | 40mm f/4.5  | NB        | 4        | 140    | 49mm    |
| Tessar       | 50mm f/3.5  | NB        | 4        | 75     | 30.5mm  |
| Tessar       | 50mm f/2.8  | RB SB ADB | 4        | 150    | 49mm    |
| Pancolar     | 50mm f/2.0  | ADB       | 6        | 175    | 49mm    |
| Biotar       | 58mm f/2.0  | BV SB     | 6        | 220    | 49mm    |
| Biotar       | 75mm f/1.5  | BV        | 6        | 460    | 58mm    |
| Biometar     | 80mm f/2.8  | BV        | 5        | 250    | 49mm    |
| Sonnar       | 135mm f/4.0 | BV        | 4        | 375    | 49mm    |
| Triotar      | 135mm f/4.0 | NB BV     | 3        | 490    | 49mm    |
| Sonnar       | 180mm f/2.8 | BV        | 5        | 1325   | 77mm    |
| Sonnar       | 300mm f/4.0 | BV        | 5        | 1950   | 77mm    |
| Fernobjektiv | 500mm f/8.0 | NB        | 2        | 1750   | 77mm    |

### ASB LENSES WITH COMPLETELY AUTOMATIC APERTURE

| NAME      | FOCAL       | APERTURE | ELEMENTS | WEIGHT | FILTERS |
|-----------|-------------|----------|----------|--------|---------|
| Flektogon | 25mm f/4.0  | ASB      | 7        | 300    | 77mm    |
| Flektogon | 35mm f/2.8  | ASB      | 6        | 175    | 49mm    |
| Tessar    | 50mm f/2.8  | ASB      | 4        | 150    | 49mm    |
| Pancolar  | 50mm f/2.0  | ASB      | 6        | 175    | 49mm    |
| Sonnar    | 135mm f/4.0 | ASB      | 4        | 400    | 49mm    |

### PRAKTISIX LENSES ADAPTABLE TO SCREW CONTAX AFTER 1957

| NAME      | FOCAL       | APERTURE | ELEMENTS | WEIGHT | FILTERS |
|-----------|-------------|----------|----------|--------|---------|
| Flektogon | 65mm f/2.8  | ASB      | 6        | 460    | 86mm    |
| Tessar    | 80mm f/2.8  | ASB      | 4        | 250    | 58mm    |
| Biotar    | 80mm f/2.8  | ASB      | 5        | 260    | 58mm    |
| Biometar  | 120mm f/2.8 | ASB      | 5        | 550    | 67mm    |
| Sonnar    | 180mm f/2.8 | ASB      | 5        | 1100   | 86mm    |
| Sonnar    | 300mm f/4.0 | ASB      | 6        | 1950   | 86mm    |

years longer than the Contax reflex. In 1952, the Praktina was also born in Dresden with interchangeable finder and bayonet mount, automatic stop down and motor drive-ready. It was the only reflex in the Fifties that challenged in any way Contax supremacy.

In 1954 the German Edixa was released that used the same screw mount as the Contax reflex and focal plane shutter that was similar to that of the Contax reflex. Plus, it had an interchangeable prism finder and rapid-wind lever, but all-in-all, it was not a credible enough alternative to the Dresden reflex.

The Japanese Miranda and Asahi Pentax reflex cameras appeared on international markets in the second half of the 1950s, but did not yet represent any real commercial challenge.

After the Contax F offered the internal aperture transmission mechanism in 1956, both the Edixa and Asahi Pentax screw also adopted the same system. While the Contax F — like the Exakta penalized for being an East bloc camera — began its downturn, the Edixa and Asahi Pentax began to gain in popularity. In order to break into the American market,

Contax/Pentacon even had to stoop to masquerading its name behind such pseudonyms as Astraflex, Hexacon, Consol, Ritacon and so on.

At the beginning of the 1950s, the reflex Contax was imported into the United States by the Ercona Camera Corporation with headquarters in New York, and was fairly well publicized together with other products from the DDR. The reflex Contax pentaprism finder was known in the US as the Zeiss Prisma Scope and the Contax S was sold with the Tessar f/3.5 lens for \$365, with the Tessar f/2.8 for \$395 and with the Biotar f/2.0 for \$475.

These prices were very high compared with those of other imported German cameras such as the Leica and Contax. In 1952, prices were reduced \$10 for models with Tessar lens and \$15 for Biotar lens models.

At the same time, the various retailers began to offer the Contax at reduced prices. Olden sold the Contax S with Biotar lens with preset aperture for \$228, the same price as a Contax IIa with Sonnar f/2.0. In 1953, importation of the reflex Contax and Praktica was taken over by Pentacon Corporation, later re-named Prakticon

Corporation, which offered the camera with Tessar f/2.8 lens with preset aperture for \$299.75 and Biotar f/2.0 with preset aperture for \$359.50.

Over the course of 1954, the Contax was offered with Westagon 50mm f/2.0 lens for \$259.50 and Angenieux S21 50mm f/1.5 at \$299.50. Independent retailers waged a price war, offering the Contax D with Biotar f/2.0 for between \$249.50 and \$269.50, with the Meyer Primoplan f/1.9 for between \$229.50 and \$239.50. With less-prestigious lenses, the price even fell under \$140. In 1954, the Peerless company of New York began to offer the Contax D under the name of Hexacon at an even lower price, less than \$125 with the Biotar and under \$95 with the Tessar or Taylor Hobson Cooke f/2.0, while the Pentacon marque was also making a name for itself. In 1955, Sterling & Howard retailed the Contax D under the name of Astraflex, selling it with the Meyer Primoplan f/1.9 for less than \$100, while Penn Camera distributed it with the name of Verikon or ConSol, offering it with the Biotar f/2.0 for under \$125 or \$150, depending on the brand.

In 1956, with the importation of the Praktica and Praktina, it came into the hands of the Standard Camera Company and the reflex Contax seemed orphaned, at the mercy of independent retailers who continued to sell it for ever-lower prices and under ever-more creative names, such as the Ritacon label given it by the American Camera Exchange.

At the end of the 1950s, the Pentacon F found a new importer, the Robinco company of New York, and the new model with automatic aperture transmission was sold with the Auto Biotar f/2.0 for \$179.95, while the Pentacon FB with built-in exposure meter was sold for \$18 more. But by the end of the 1950s, Japanese reflex cameras such as the Asahi Pentax and Miranda offered features at reasonable prices and began to overshadow the Dresden reflex while taking hold in the American market.

Present in all camera history books, the Contax reflex is not as popular with today's collectors as it perhaps should be. During the dozen years of its production, less than 200,000 were made, and prices on today's collecting market range, in Europe, from 600DM to 700DM for the original model and less than 200DM for the more common models while, in the US, prices are just slightly higher, from \$400 for the rarer model down to \$120 or \$150 for the more common ones.

**Danilo Cecchi and Norberto Tubi**



# INTERVIEW WITH ROMOLO ANSALDI

## FROM LEICA TO SIMENON, MINOX AND TARDI



Romolo Ansaldo has been called the prince of Leica collectors in Italy. He has earned this title thanks to his constant, long-term activity of collecting Leica materials, the completeness of his private collection and the knowledge he has acquired in his years as Leica devotee. It is not surprising that many of the early covers of the Italian edition of *Classic Camera* feature cameras

so kindly lent by Romolo Ansaldo. We met with Romolo in his Genoa apartment with its splendid rooftop view of the old city and sea beyond the city's historic port. ***How could one best describe a collector of the calibre and standing of Romolo Ansaldo?*** Romolo Ansaldo is a professional with a

certain economic stability who enjoys enriching his intellectual and cultural background through collecting. In short, Romolo Ansaldo is a die-hard collector. ***Which means?*** For me, collecting is a way of being totally involved. When I become interested in something, I want to explore it fully — whatever the cost. I always attain the goals



I've set for myself.

***Are you just referring to cameras, or also other things?***

It goes way beyond cameras. I like to concentrate on specific collecting areas. For example, with watches, I prefer a single Swiss brand, Corum, which began production in 1954 and has continued up to the present day. I became interested in these watches, striking up a friendship with the old owner of the company and have succeeded in acquiring the first issue of each series. The watch I'm wearing is one of the pieces from my collection. Today I have over forty. The same is also true of the other areas which interest me. Books, for example.

***Interesting ... which books in particular? Novels, non-fiction, photography?***

Popular books. George Simenon in particular. I am currently collecting everything published by this prolific author, best known for his Inspector Maigret, but also author of at least six hundred other novels. I have been able to collect almost all the first editions, not only in French but also in Italian and Spanish. Traveling to-and-from Genoa and Paris, I have gathered a wealth of material, not just books but also articles, interviews, photographs, posters and anything else about this author who passed away in 1989. As a result, I have become an expert on Simenon and gladly take part in conferences about him. For example, in this bookcase are the first Italian editions of the Maigret series published in the Thirties.

***I see there are also some recent books of comics with Nestor Burma.***

Yes, I also love Leo Malet. As is well known, this author worked with illustrator Jacques Tardi to create the successful Nestor Burma series, perhaps still not that well known in Italy. Tardi's work was not often published in Italian and even the adventures of Adele Blanc-Sec are little known. But every time I return from Paris, I bring back with me some album that was never published in this country.

***We could talk about Paris and its writers and illustrators for days. But let's get back to Leica. How did these cameras become a part of your busy life?***

In 1948, when I was a penniless university student, I was seduced by a Leica IIIc with three lenses offered at the —for me then exorbitant — price of 270,000 lire. It remained a dream of mine.

Then, in the 1970s, I owned a Leica M3 that accompanied me on my business trips around the world. With that Leica M3 I photographed a number of the important individuals I worked with, but I don't want

to bore you with my personal memories.

***What triggered the step from photography to collecting?***

Returning once from one of my trips, in the window of one of the shops in the Frankfurt International Airport, I saw a Leica R3 Safari with three lenses. This was the first step in a buying crusade that introduced me into the world of Leica. But my primary interest is in screw-mount Leicas. Taking advantage of my travels and the help of my wife Dainella, I have had great fun acquiring all types and models of screw-mount Leicas from around the world, but especially in Europe. Collecting rare models has provided special satisfaction. With my typical determination and drive, I made friends with the owners and managers of Leitz, leading Leica experts and the major dealers. In collecting, having certain kinds of relationships is critical. As an aside, I even knew Cartier-Bresson and his repairman personally ... but I'd rather not talk about the latter.

***Leica has been an all-consuming passion for you. How did this come about?***

I have collected them all — Anastigmat, Elmax, Compur and screw-mount Leica cameras as well as their lenses and finders. Even some Leica M's. I have always attempted to reconstruct the history of each camera I own, gathering information on its origins and ownership documentation. Knowing your equipment in-depth is important, to possess not only the camera but also its pedigree. But this is not always possible and sometimes you have to take risks.

***How many Leicas do you have in all?***

At the peak of my interest, I owned at least five hundred Leicas, including eighteen Leica 250's and some truly rare pieces such as the black IIIf and three crown black IIIg as well as some military models. Among the Leica bayonet-mount cameras I was able to obtain directly from the manufacturer were the Leica M6J, the Platino, the Colombiana and many others. ***Many collectors of Leica (and other marque) cameras, end up publishing books on their cameras. Have you ever been tempted to do the same?***

I have printed calendars with photographs of my Leicas and, in this single album, I have collected photos of many of the cameras I have owned. Each spread has a photo on one page and a table on the other which not only gives all the technical data of each camera, but also any interesting stories or anecdotes. My plan had been to complete it one day, but a number of pages have remained blank. On the other hand, the majority of the photos used to illustrate

Filippo Giunta's books have as their model cameras from my collection, even if the credits given are not always correct (which bothers me somewhat). But now that I have sold most of my pieces, it is no longer all that important.

***Why and when is a collection considered finished?***

There are many factors. There comes the moment in which it no longer provides entertainment. But not because you are tired. The fun lies in searching. In the end, I was not the one doing the searching because I was sought out by dealers and collectors. Some honest, others less so. Some even tried to trick me with obvious fakes. Others were envious and I even lost some friends without understanding exactly why.

Leica collecting has lost the unaffected, spontaneous nature it had up to a few years ago. It has become a "business" in which individuals without scruples or morals operate. There is too much tension, too much ambition, too many go-getters. There's no fun poisoning your existence for a collection. So I gave up on Leica.

***But can you give up Leica completely?***

No. I still have some things. A number of pieces. Some Leica M3's including the gold-finish M3 that I will not sell to anyone, a perfectly-functioning black varnish Leica M4, a military KE-7A M4. And, of course the R3 Safari I started with. No, I'll never be able to give up Leica completely, it is still an on-going story.

***You can't give up Leica ... and what about photography in general?***

I don't know, I still continue to take pictures. I also have three Hasselblads that I use fairly often, but I can't say I collect them. I also have a Linhof Technica that I use very happily.

On the other extreme, I have a small Minox EC that I always carry with me in my pocket or hidden in the handle of my walking stick. Its automatic exposure and fixed focus make it a very handy and interesting camera. Even if today Minox manufactures cameras that no longer have the same appeal as the original ones in metal, the Minox name still maintains a certain charm. Plus, Minox collecting has not reached the extremes of Leica collecting and can still be satisfying. There are not many collectors around, apart from a very active and well organized German club.

***Is there a new collecting season in store for Romolo Ansaldi?***

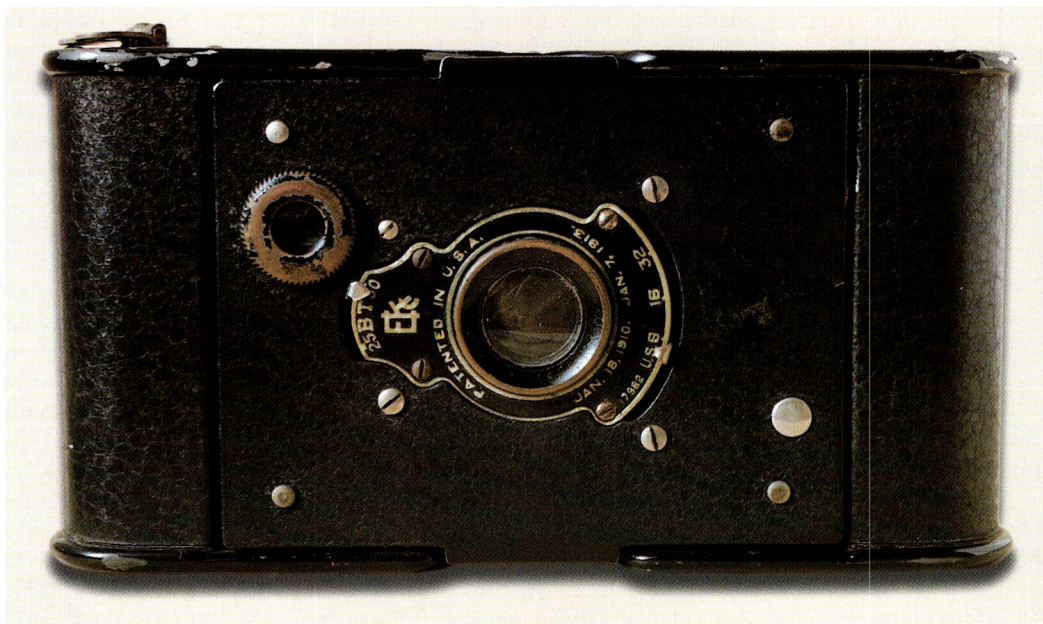
Why not? Collecting adds spice to life. And helps us stay young.

**Interview by Danilo Cecchi**



# KODAK VEST POCKET

Earlier, smaller and lighter than the Leica



*Front of the Kodak Vest Pocket*

In April 1912, the Eastman Kodak Company began production on a new line of folding pocket cameras. Called the Vest Pocket Camera, it utilized a new type of roll film with protective black paper and slender take-up spool. Since this new type of film was first manufactured six years after the appearance of 126 roll film in 1906, it was given the number 127 — the same appellation under which it is made to this day. Like the cameras, the film was also known as Vest Pocket and for its day was incredibly compact. The same frame size utilized by the Vest Pocket cameras (1-5/8 x 2-1/2in. or approx. 4x6.5cm) was known as the Vest Pocket format.

### **An attractive, popular camera**

The Vest Pocket camera weighed nine ounces (320 grams) was made of contoured metal plate and the camera body with its rounded corners was two-and-a-half centimeters thick, just over six centimeters high and a little over twelve centimeters long.

The front plate (7.5 cm x 5.5 cm) could be

pulled out easily using the two side grips and was attached to the camera body by a pair of double-X folding stays and short leather bellows. When the plate was fully extracted, the total length of the camera was eight centimeters. Mounted on the front plate were the lens, reciprocating motion shutter and reflection view finder that could be rotated for either vertical or horizontal framing. To close the camera, the finder had to be returned to its vertical position. On the back of the plate were the shutter release button and folding clip to support the camera during vertical shooting.

The top plate of the camera could be opened by simply sliding a knob from LOCK to OPEN position and the film was loaded from the top. Normally, the film was wound from spool to spool and its advance was controlled by a small folding butterfly key. How far to advance each time was controlled through a red window on the back through which the number of shots taken could be seen. Small, lightweight, handy, practical, easy-to-use but also extremely effective, the Vest Pocket camera was very successful in

both America and Europe and approximately two hundred thousand of them were manufactured up to 1914.

### **Lenses and variants**

The lens on the Vest Pocket was a simple fixed focus achromat meniscus, but in 1914 a Kodak Anastigmat f/8 that closed to f/32 was also used. The second camera was sold at exactly double the price of the first: twelve dollars instead of six.

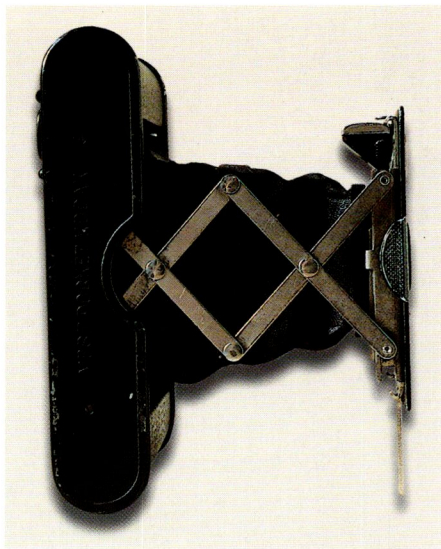
In July 1912, the Vest Pocket Kodak Special was released with a price tag of twenty-five dollars. This camera was identical to the older model, but came equipped with a superior lens, the Zeiss Kodak Anastigmat f/6.9.

The cameras produced in England utilized a range of lenses, including the Zeiss Tessar f/6.3, Cooke f/6.5, Kodak Anastigmat f/6.3 and Taylor Hobson Kodak Anastigmat f/6.8 or f/6.5.

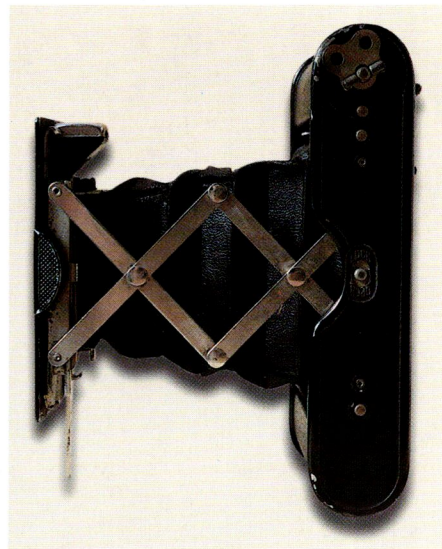
### **From the Vest Pocket to the Vest Pocket Autographic**

In January 1915, the Vest Pocket camera

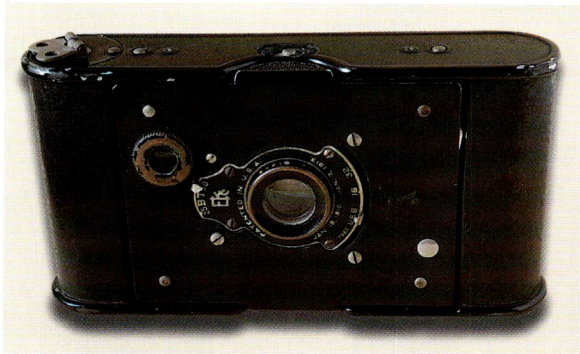




*Kodak Vest Pocket Camera open, right view*



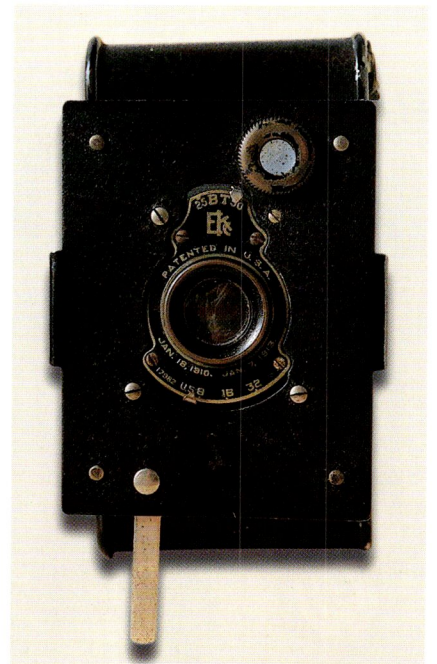
*Kodak Vest Pocket Camera open, left view*



*View from top plate with butterfly film advance key*



*Back of Kodak Vest Pocket Autographic*



*Kodak Vest Pocket Camera open with stabilization clip*

was modified to use Autographic film on which it was possible to write notes or numbers using a pointed stylus through a hole at the back of the camera. Autographic film had been invented by Kodak the previous year and was a tremendous commercial success.

This change to the back of the Vest Pocket also caused its name to be changed to Vest Pocket Autographic, but the camera base still bore the simple inscription VEST POCKET KODAK in capital letters.

The Vest Pocket Autographic was manufactured continuously for over ten years, ceasing only in 1926, with a total of 1,750,000 produced, bearing numbers starting from 200,000.

World War I proved to be a very successful testing ground for the Vest Pocket Autographic. Thanks to its "pocketability", officers and enlisted men alike took it with them to the Front where it played a key role in portraying life as it really was in the trenches. The first model of the Vest Pocket

Autographic, produced in 1915, had a black enamel finish and was equipped with the fairly expensive fixed focus Kodak Anastigmat f/7.7 lens. The camera was sold with a price tag of ten dollars, but at the end of 1915, a less expensive meniscus lens was used and the price was reduced to just six dollars.

At the end of 1917, alongside the more economical model, a higher priced version with Rapid Rectilinear lens was marketed for nine dollars.

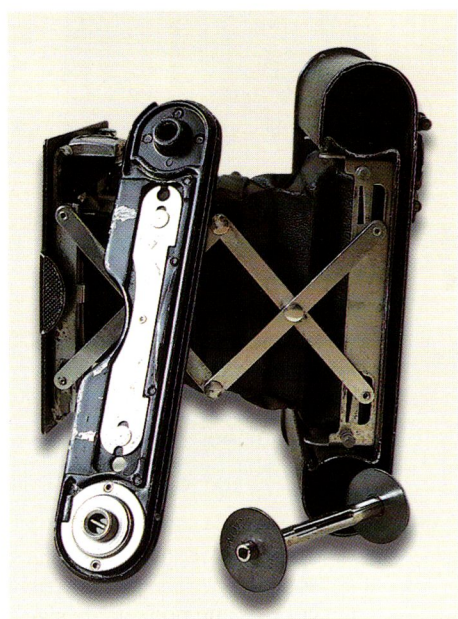




*Detail of Vest Pocket Kodak lens and viewfinder*



*Detail with shutter open on T setting*



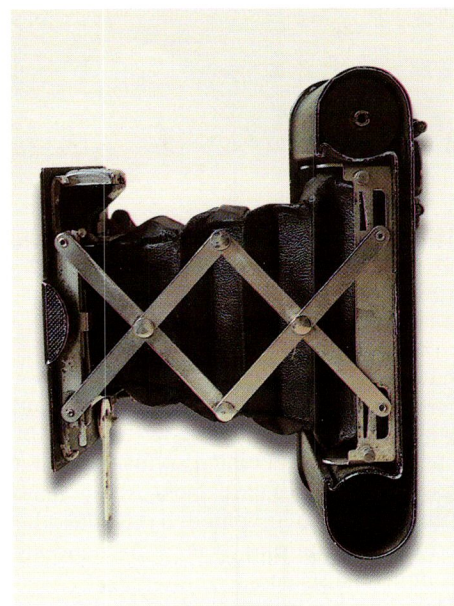
*Kodak Vest Pocket Camera open with cover and film spool*



*Kodak Vest Pocket Camera with modern-day 127 film roll*



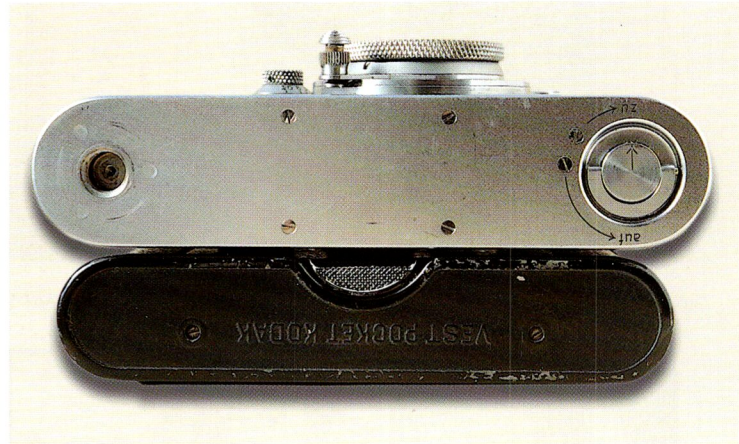
*Detail of back with inscription panel open*



*Kodak Vest Pocket Camera open without cover*



Comparison between Vest Pocket Camera and Leica (top plates)



Comparison between Vest Pocket and Leica (base plates)



Comparison between Vest Pocket and Leica (front and back)

In 1919 or 1920 (sources differ), the black enamel finish was replaced by a crystallizing lacquer that provided a fake-leather feel and improved camera grip. In April 1915, as a companion to the Vest Pocket Autographic, production was started on the Vest Pocket Autographic Special that utilized a range of higher quality lenses and was sold for between ten and twenty-three dollars. The American version of the Vest Pocket Autographic Special was equipped with the fixed focus Kodak Anastigmat f/6.9 or f/7.7, as well as the same lenses with the possibility of estimation focusing.

The English and European versions of the same camera could come equipped with a wide range of English lenses, including the TTH-Kodak Anastigmat f/6.5, Cooke f/6.5 or f/4.5 and Ross Homocentric f/6.8, or even the Lacour-Berthiot Olor French lens. The cameras with top-of-the-line lenses were

those that came equipped with the Zeiss Tessar f/6.8 or f/4.9 with focusing using Compur shutters with external dial on the front for speed setting.

### End of an era

Having come close to a total output of two million cameras, production stopped on all Vest Pocket cameras in September 1926 just after the birth of the Leica. The Vest Pocket name was passed on to other Kodak folding cameras which remained in production until the second half of the 1930s and the 6.5x4cm format remained a perennial favorite, even found on the German reflex Exakta Vest Pocket. The 127 film proved adaptable to a number of formats, including the 4x4cm of the Baby Rolleiflex to the 3x4cm of a wide range of cameras produced up through the 1960s.

It is interesting to note that Oskar

Barnack's Leica resembled the Vest Pocket in its loading system, flattened silhouette with rounded corners and pocketable size thanks to the ability to retract the lens into the camera body. But in the end, the Leica was larger and heavier than the Vest Pocket.

When, in his memoirs, Oskar Barnack wrote that he had designed the Leica to free himself of the load of the bulky, heavy plate cameras he used during his mountain climbs, he is perhaps not telling the whole truth. Oh, Oskar ... how can it be that, with over two million Vest Pocket cameras — small and light but with a frame size almost four times the 24x36mm — circulating around America and Europe, you never held even one in your hands, or better in your pocket? How can it be that you were not acquainted with one, used one, loved one — and that you weren't somewhat inspired by one.

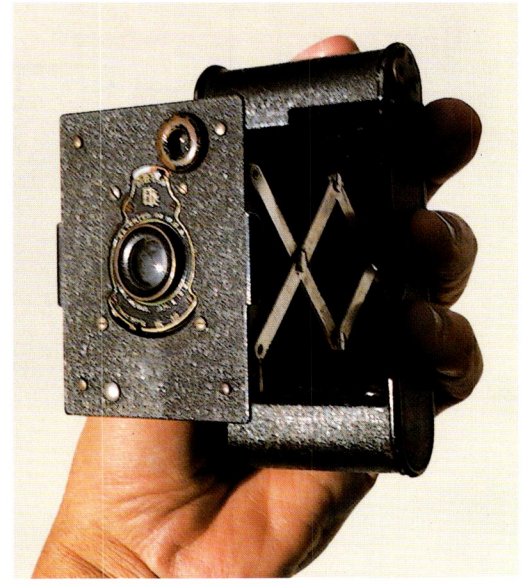




Kodak Vest Pocket Camera



Kodak Vest Pocket Camera seen from base



Kodak Vest Pocket Camera open

**OGNI UFFICIALE E MARINAIO**  
dovrebbe provvedersi dell'apparecchio fotografico  
**Vest Pocket Kodak**

Dato il suo piccolo formato e minimo peso può essere comodamente portato in una tasca della divisa, senz'alcun disturbo.

Formato delle negative  $4 \times 6\frac{1}{2}$  cm.  
Dimensioni.  $25 \times 60 \times 120$  mm.  
Peso 260 grammi

Migliaia di questi piccoli apparecchi sono in uso.  
Il Vest Pocket Kodak con borsa L. 40  
Idem con obj. Kodak Anastigmat „ 69

Chiedete particolari  
**KODAK SOCIETÀ ANONIMA**  
MILANO Corso Vitt. Em. 34 | VENEZIA P.za S. Marco, 52  
NAPOLI Via Roma, 288 | ROMA Corso Umberto, 399

Illustrations from *La Domenica del Corriere*, 1916

**OGNI UFFICIALE E SOLDATO**  
dovrebbe provvedersi dell'apparecchio fotografico  
**Vest Pocket Kodak**

Dato il suo piccolo formato e minimo peso può essere comodamente portato in una tasca della divisa, senz'alcun disturbo.

Formato delle negative  $4 \times 6\frac{1}{2}$  cm.  
Dimensioni.  $25 \times 60 \times 120$  mm.  
Peso 260 grammi

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MILANO Corso Vitt. Em. 34 | VENEZIA P.za S. Marco, 52  
NAPOLI Via Roma, 288 | ROMA Corso Umberto, 399

## REFERENCES

- Jim and Joan McKeown, *Collectors Guide to Kodak Cameras*, Centennial 1981.  
Brian Coe, *Kodak Cameras, The First Hundred Years*, Hove, 1988.  
Brian Coe, *La macchina fotografica (Cameras)*, Garzanti, 1978.

OK, Leica is Leica, but don't these millions of little Vest Pockets have a right to a place in photographic history?

## The Canadian version

The camera shown and described in the photos for this article has the serial number 1750923 engraved on its extractable clip, which would indicate a date of manufacture between 1924 and 1925, near the end of the production period.

It has the crystallized finish used after 1920 and the lens is the fixed focus Rapid Rectilinear utilized between 1917 and 1927 with f-stop values of 8, 16 and 32. There are two instantaneous shutter speeds of 25

and 50 and B and T settings.

Printed on the metal lens housing is the inscription "PATENTED IN USA" along with the patent dates JAN. 18, 1910 and JAN. 7, 1913.

On the back of the openable panel used to inscribe information appears the message "USE AUTOGRAPHIC FILM N° A-127". Engraved on the dial with the red film advance window are the various international patents, which we reproduce below:

PATENTED IN USA – SEPT. 7, 1909;  
MAY 6, 1913; AUG. 18, 1914; MAY 30, 1916; AUG. 22, 1916; JUNE 19, 1917;  
AUG. 28, 1917; JULY 16, 1918; NOV. 16,

1920; OCT. 18, 1921; NOV. 8, 1921.  
BRITISH PATENTS – 9006-1914; 9007-1914; 5043-1915.

PATENTED IN CANADA 1916 – 3283  
PATENTED IN AUSTRALIA – 13077-  
MAY 2, 1914; 13078 – MAY 6, 1913; 15818  
– MAR. 19, 1915.

## OTHER PATENTS PENDING

The metal plate on the upper back bears the inscription: "MADE IN CANADA BY CANADIAN KODAK CO. LTD. 14958 TORONTO CANADA".

A Canadian version. Yet another point of similarity with Leica.

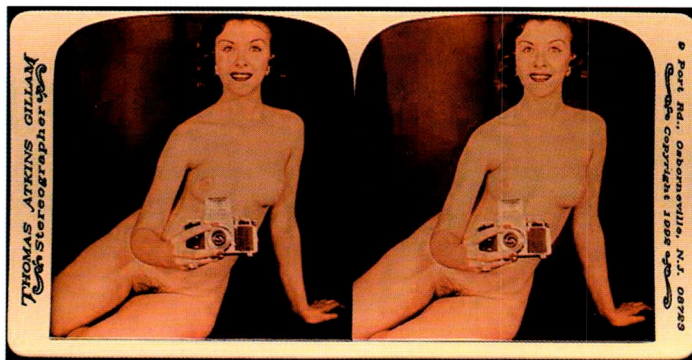
Danilo Cecchi



# A THOUSAND AND ONE COLLECTING ALTERNATIVES



*Stereflex, stereo finder in its original box*



*A curiosity*

The Internet is a source of deadly temptation. Here's an everyday situation: I arrive home from work, catch a bit of news on the TV, eat something, chat a bit and, while my wife is in the kitchen, I turn on the computer and click on a couple of sites I had placed in my "Favorites" file. For example, Pacific Rim Cameras where, divided by brand name, are all those things I searched for in vain at the last three shows I attended. As always, I'll use the example of Ihagee/Exakta, but what follows is valid for any brand.

I start by finding a 1961 waist-level finder which until that moment I had only ever seen in the book by Aguila and Rouah. They're asking \$100—it might be high, or it might be low, the catalogues give no price indication. An opportunity not to be missed so ... I pull out my credit card and it's mine. It's 10pm and I've just spent 200,000 lire from the comfort of my own home without receiving as much as a smile from the person who sold it to me! I immediately begin to hope that the dishes are done and that my

wife will soon appear—it's the only way to stop myself.

Just a few lines below I see that rare Zeiss prism that is mounted over the waist level finder of a Kine. Only a very few were ever made and even though a camera can always be found, the same cannot be said for accessories. The result? Another \$100 gone! The vast majority of new surfers run the risk of purchase overdose following long periods of abstinence caused by the failure to find the objects of their desire through more casual means. Today, this difficulty is decidedly reduced thanks to a few dozen web sites that contain more than one could have hoped to discover in ten years of traditional searching, and sooner or later the temptation to buy everything raises its ugly head. We become spoiled children who get everything they want when they want it, without that period of expectation that heightens the desire. But in this case, there's an added twist. Our playthings sometimes carry hefty price tags, a fact we must

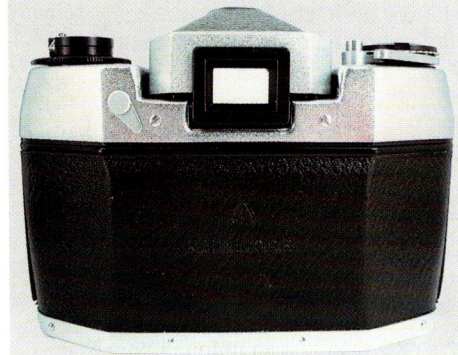
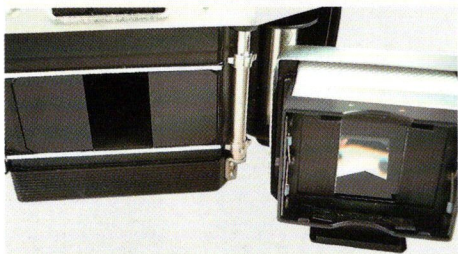
eventually come to terms with.

Here is a suggestion for getting the best out of the Internet, an unquestionably valuable tool for increasing our competence in the sector we have chosen.

## **An archive of rare images**

Type in <http://www.ebay.com>, address of the largest on-line auction on the entire Net. In the search entry field, that small white rectangle that appears on the first page, type the brand you are interested in and press the return key. This will call up a list of available pieces a page or more long, each one containing 50 lots. Scrolling through you are sure to find rare items that you might not even have seen, even in the most comprehensive books. When you click on an item, a spec sheet will appear for it, almost always accompanied by one or more illustrations. Now is the moment to begin a new collection by saving the illustrations and any other information you feel is useful (you can organize your "collection" the way

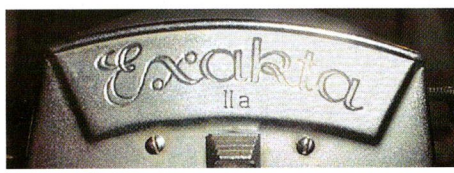




A very rare half frame Exa



Variations of the Varex IIa



Variations of the Varex IIa



Stereflex, stereo finder



Stereflex, stereo finder on Exakta camera.



you want later). This way you can build a detailed archive, make note of the prices for which each of the lots were sold, including the date, to monitor the price trends of each item over time. From when Ebay started up its German version, the availability of photographic materials (especially for collectors) has doubled. Under normal conditions, this

should have caused a drop in prices, but since 90% of the purchases are made by American and Japanese collectors, the currently-high value of the dollar has not offered any advantage for those of us in Europe. Getting back to data archiving. For the text that interests you, use the copy and paste option, while to copy images, all that is





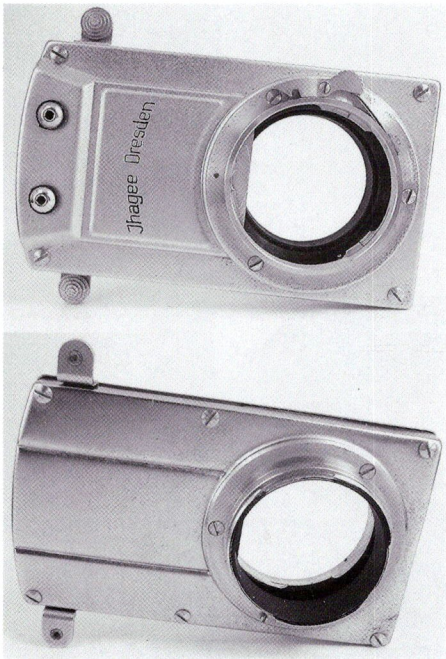
*Summicron 90/2.*



*Enna 85-250 zoom*



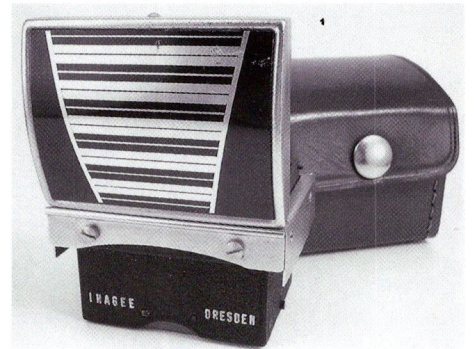
*Voigtlander Zoomar*



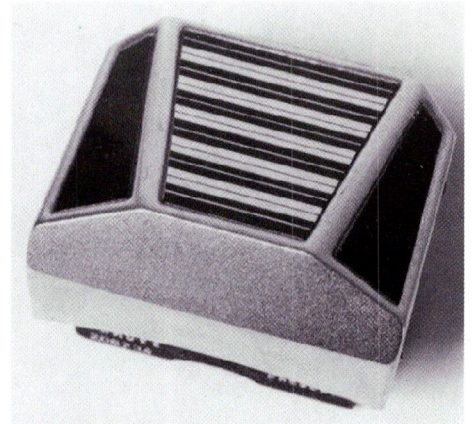
*Varilux, macro exposure meter*



*Viewfinder for Magnear macro*



*"Jubilee" (1961) waist level viewfinder*



*"Jubilee" (1961) prism*

required is to click on the image using the right-hand mouse button and select the option you prefer from the box that will appear. It is simple, and once you have done it, you'll never forget.

Now, in this article, I want to show you some of the images obtained in the way I described above, but fully respecting the wishes of those selling (for example, David Barajas desires to keep the intellectual rights of his images which are very nice and well-prepared, and I respect his wishes).

Among the images I have chosen is one which deserves special examination—the wooden box that contains the Stereo-Kindar complete with accessories and of which about 150 were produced (if you want more information, my site has a page dedicated

to this lens and its clones: <http://exakta.org/kindarb.html>). But as you can see, it's not the only one! For curiosity-seekers, I have also included a "hold-all" bag for an Exakta, truly a one-of-a-kind item.

Rising up the price ladder is a Summicron 90/2 with Exakta mount, a Zoomar by Voigtlander, an Enna zoom and an "acquirable" Varilux, a rare macro exposure meter mounted on the front of the camera to be used, preferably, with the Magnear. For those in search of manuals to collect and, above all, to know what the market has to offer, the choice is endless!

As you may have noticed, I keep jumping from one item to another without following any particular logic, but this is just the way

they appear on Ebay. Here is the front of a camera that, alone, triples the value of the camera. It is a variation of an Exakta Varex IIa, different even than the one in Aguila and Rouah. Over the weeks which followed, I found two other variations and have put together a small collection. It would be virtually impossible to own all these cameras, so the least I can do is collect their photographs!

This last example may even be more useful than anything I could write to explain the idea behind my suggestion to create an archive of rare and even unique images, at virtually zero cost, to pique your fancy and form an alternative to traditional collections.

**Maurizio Frizziero**



# BESSAMATIC, THE VOIGTLÄNDER 35mm REFLEX



*First model Bessamatic*

The experience gained during the Fifties through the Prominent 35mm range finder camera with Synchro Compur interlens shutter and completely interchangeable lenses convinced the Voigtlander company to begin production on a 35mm reflex with the same basic features.

### **A Synchro Compur for all seasons**

The physical limits of the Synchro Compur shutter and substantially inferior performance of this type of shutter compared with focal plane shutters, did not worry in the least the engineers at Voigtlander who were profoundly convinced of the correctness of their choice and blinded by complete flash synchronization.

This, the only true advantage of the

Synchro Compur shutter over focal plane shutters was, in the second half of the 1950s, more than enough to justify such a drastic choice.

On the other hand, the photographic industry of the day was passing through a period of dizzyingly optimistic euphoria for the Synchro Compur reflex shutters which were successfully mounted on the Zeiss Ikon Contaflex and Kodak Retina Reflex, and were even chosen by Hasselblad for its 500C. Therefore, Voigtlander's clear-cut choice was not out-of-line with the times and was followed by a good number of other optical companies, including Agfa, Braun, Topcon and Kowa.

### **The mythical Bessamatic**

The first Voigtlander 35mm reflex was born

in 1958 and, in honor of a famous 6x9cm folding camera of the Thirties and Fifties, was named the Bessamatic, adding to "Bessa" the suffix "matic" to indicate the presence of a built-in, coupled exposure meter.

In addition to its central 1/500s diaphragm shutter, the Bessamatic had a number of features that set it apart as a class camera, including its precise mechanical construction and sturdy, heavy feel. As was normal Voigtlander practice, the Bessamatic was not based on any pre-existing models, had a system of completely interchangeable lenses in contrast to the simple dismantling of the lenses of the Contaflex and early Retina Reflex cameras, and had a very pleasing curvy, round design that today might appear dated.





*Zoomar 36-82mm f/2.8 lens, first zoom lens for 35mm reflex.*



*Original shade for the Zoomar lens.*



*Zoomar lens on Bessamatic CS. Note the size of the lens in comparison with the camera body.*

Unlike the angular appearance of its near-contemporaries — the Contarex and Nikon F — the Bessamatic had all its controls on the top plate, except for diaphragm and shutter speed setting which was performed directly from the upper part of the lens changing catch using two neighboring rings.

The short, contoured winding lever, shutter release button, AR selector, rewind crank and film sensitivity selection dial (from 100 to 1600 ASA) were on the top plate.

Under the ASA dial, a second dial was used to set the correction factor if colored filters were used, with an absorption coefficient from 1.5 to 5. The pentaprism cover was not 100% removable, was completely fixed and smooth without sockets and located

prominently at the base of the prism on the front was the rectangular window of the selenium photocell.

The only element visible on the camera's black finish at the bottom, under the shield-like faceted front, was the MX co-axial synch socket. Correct exposure was checked in the viewfinder by simply aligning two moving references.

The Bessamatic was identified with the code 145/00 and came standard with a Tessar Color Skopar X 50mm f/2.8 lens and the original kit included the six-element Skoparex 35mm f/3.4 and the 4-element Super Dynarex 135mm f/4.0.

Just after its arrival, the Bessamatic was equipped with a lens that, for the day, was extraordinary and excited much admiration and numerous imitators. The lens, presented

with great fanfare in 1959, was the Zoomar, known in Germany by the playful nickname "Gummilense" (rubber lens). The Zoomar was bulky and heavy with a very large front lens element and was the first photographic-application lens with variable focal length. It had fourteen elements with a wide diameter, 3-element front unit, an internal mobile unit of 5 elements and a rear unit with six elements. The focal lengths ranged from 36mm to 82mm with a speed of f/2.8.

This coupling between the new reflex and revolutionary lens did not fail to raise a certain interest in photography circles, but Voigtlander itself put a brake on the enthusiasm through its fairly controversial sales strategy. Unquestionably more interested in selling lenses than cameras,





Short Bessamatic telephoto lenses. From right to left: Dynarex 90mm f/3.4, Dynarex 100mm f/4.8 and Super Dynarex 135mm f/4.0.



Detail of the minimum focusing distance of Super Dynarex telephoto lenses, the 200mm to 8.5 meters and the 350mm down to 28 meters



Long Bessamatic telephoto lenses: Super Dynarex 200mm f/4.0 and 350mm f/5.6.



Standard lenses compared: Septon 50mm f/2.0 and Color Skopar X 50mm f/2.8.

Voigtländer offered the Zoomar lens with the exclusive Bessamatic bayonet mount and connection for automatic diaphragm closing for the price of approx. 800DM, but during the same period, for just 50DM more, offered the same lens with diaphragm pre-setting and the option of using simple adapter rings (20DM each) that allowed it to be mounted on practically all German 35mm reflex cameras of the day, including the Exakta, screw-mount reflexes such as Edixa, Praktica and Pentacon, the Alpa and Japanese Miranda and Minolta, as well as the screw-mount Asahi Pentax and Exakta-type bayonet Topcon.

### Expanding lens kit

Engraved on the diaphragm ring located on the lens changing catch were values from f/2.0 to f/22, even if none of the lenses in the Bessamatic kit offered the maximum speed of f/2.0. But Voigtländer technicians were at work on new lens projects and soon a second standard lens with this speed was presented. The new lens, different from the six-element Ultron of the Prominent, was the Septon 50mm with seven elements and

maximum diaphragm opening of f/2.0. Not long after it was released, the Septon was followed by a new fast lens, a medium wide-angle Skopagon with nine elements from 40mm with speed of f/2.0 that covered an angle of 48 degrees with enlargement ratio approx. 25 percent greater than the 50mm focal. If the 35mm focal seemed to set the maximum limit for Bessamatic wide-angles, the f/2.0 diaphragm seemed to simultaneously represent the maximum speed. The just barely 22mm diameter of the Synchro Compur shutter marked an insurmountable limit for lens speed, and feats such as the Prominent Nokton f/1.5 were unthinkable on the Bessamatic. With this limit to the more extreme wide-angles and very fast lenses, Bessamatic turned to enriching its lens kit with two 5-element Dynarex medium telephoto lenses, with respectively focal lengths of 90mm and f/3.4 speed and 100mm with f/4.8. They were not particularly fast lenses, and the reasons behind Voigtländer's choice are not particularly clear, especially since a very interesting Super Dynarex telephoto was presented in 1962, 200mm f/4.0 with

5 elements plus the future promise of a 350mm f/5.6.

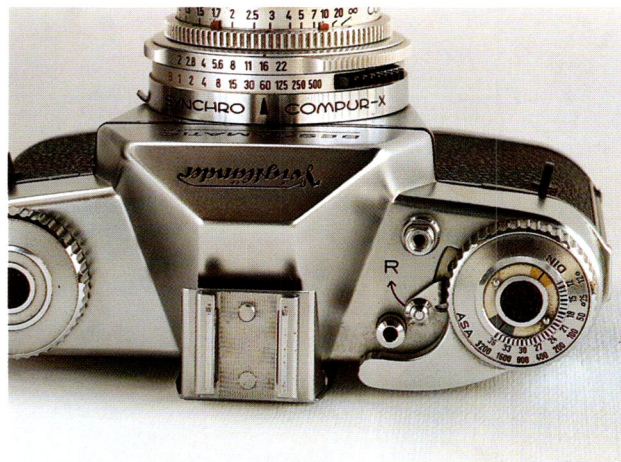
### Two siblings for the Bessamatic

In 1962 the Bessamatic was modified with the addition of diaphragm and shutter speed indications in the viewfinder. The system used an optical prism that extended quite a bit beyond the camera front, right above the photocell, and directly read the values on the selector rings and projected them into the finder. The camera with this modification and equipped with the flash socket on the top plate was called the Bessamatic Deluxe, but a second camera without exposure meter and device to read the selected values was produced alongside it. With its completely smooth front, the new camera was known as the Bessamatic M and was offered as an economically-priced alternative to the Bessamatic Deluxe as well as a camera to be used for professional applications such as laboratory photography mounted on microscopes or other optical equipment. Production of the Bessamatic Deluxe and

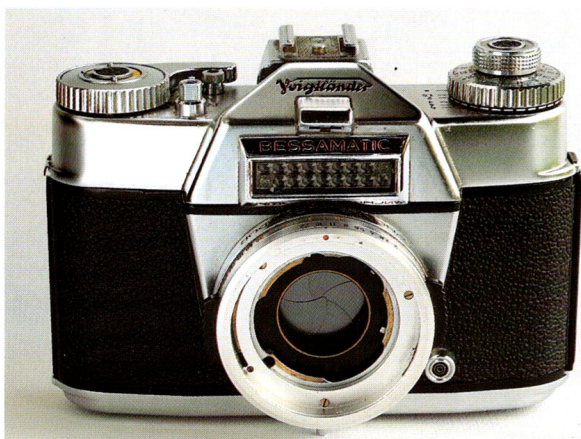




*Bessamatic M, without exposure meter, with Color Skopar X lens.*



*Detail of Bessamatic M top plate.*



*Bessamatic De Luxe without lens.*



*Ultramatic and Ultramatic CS compared.*



*1963 Ultramatic with external selenium exposure meter.*



*Detail of open back of Ultramatic.*



*1965 Ultramatic CS with internal TTL-reading CdS exposure meter.*



*Detail of Ultramatic CS Synchro Compur shutter.*





*Bessamatic CS with wide-angle Skopagon 40mm f/2.0.*



*Bessamatic CS with Septon 50mm f/2.0 lens, the fastest lens in the standard Bessamatic kit.*



*Top plate of Bessamatic CS.*

M was halted in 1966 after a fairly limited production run, especially for the M model without exposure meter. Compared with the 140,000 first-type Bessamatics produced in its six-year history, in five years, only 75,000 Bessamatic Deluxe were manufactured and just 9,300 Bessamatic M cameras.

### **An automatic and compatible cousin**

Alongside the Bessamatic Deluxe, the Voigtlander company presented a camera with a new body and unusual performance features, but equipped with the same lens mount as the Bessamatic and Compur shutter. With a smoother and more linear appearance than the Bessamatic and its controls housed hidden within its enveloping casing and large, plastic shutter release button on the front and winding lever hidden in the back, the new camera seemed more inspired by the design of the Vitoret than the Bessamatic. But it fitted into the Voigtlander reflex system perfectly. The most outstanding feature of the new camera — called the Ultramatic — was its large trapezoid-shaped window with its

recessed arc that housed the selenium cell and the same protruding prism above for direct exposure value readings as in the Bessamatic Deluxe. However, what set the Ultramatic apart was the possibility of working with completely automatic exposure by positioning the diaphragm ring on the A setting.

Of course, the Ultramatic could also be utilized traditionally and automatic diaphragm setting was an option offered for the first time by Voigtlander in a 35mm reflex. When the automatic mode was selected, a needle in the Ultramatic finder indicated the value of the opening selected automatically on the basis of the speed selected by the photographer. Ultramatic film speed ranged from 12 to 3200 ASA, just as on the Bessamatic Deluxe. Slightly taller than the Bessamatic, the pentaprism cover on the Ultramatic was more recessed and did not have the flash socket.

Thirty-five thousand Ultramatic cameras were produced until the year 1965 when the success of CdS cell exposure meters built into reflex cameras convinced even Voigtlander to change course.

### **Bessamatic and Ultramatic with CdS**

In 1966 Voigtlander adapted to the trend started in Japan by Topcon and Pentax and equipped its 35mm reflexes with built-in exposure meter with CdS cell and TTL light reading. The adoption of this new system of light measurement did not change either the appearance or performance of these two cameras very much, and they remained in production until 1969 and were listed in the general catalogue which also included Zeiss Ikon products until 1971.

The only changes necessitated by the TTL system were the new CS mark given the cameras and the disappearance of the selenium exposure meter grid from the front of the cameras, replaced by simple chrome panels. The panel that took the place of the photocell in the Bessamatic CS was mobile, hinged on the bottom and hid the battery compartment required for the CdS exposure meter.

The new glass optics technology based on the use of rare earth such as lanthanum required replacing the standard Color Skoparex lens with the Color Lanthar with



## BESSAMATIC/ULTRAMATIC PRODUCTION

|                   |           |               |
|-------------------|-----------|---------------|
| BESSAMATIC        | 1958-1963 | 140,000 units |
| BESSAMATIC DELUXE | 1962-1966 | 75,000 units  |
| BESSAMATIC M      | 1962-1966 | 9,300 units   |
| ULTRAMATIC        | 1963-1965 | 35,000 units  |
| BESSAMATIC CS     | 1966-1969 | 22,000 units  |
| ULTRAMATIC CS     | 1966-1968 | 10,000 units  |



*Detail of Septon  
50mm f/2.0 lens.*



*Bessamatic CS with Septon 50mm f/2.0 lens.*

*Bessamatic CS with wide-angle Skoparex 35mm f/3.4, maximum wide-angle focal in the Bessamatic kit.*

## BESSAMATIC LENSES

|                |               |
|----------------|---------------|
| Skoparex       | 35mm f/3.4    |
| Skopagon       | 40mm f/2.0    |
| Color Lanthar  | 50mm f/2.8    |
| Color Skopar X | 50mm f/2.8    |
| Septon         | 50mm f/2.0    |
| Dynarex        | 90mm f/3.4    |
| Dynarex        | 100mm f/4.8   |
| Super Dynarex  | 135mm f/4.0   |
| Super Dynarex  | 200mm f/4.0   |
| Super Dynarex  | 350mm f/5.6   |
| Zoomar         | 36-82mm f/2.8 |

same focal and speed, but no other new lens was put into production for a photographic system based on interlens shutters in which no one believed in any longer. Faced with the crisis caused by the development of the focal plane shutter technology and ever-increasing number of lenses and accessories available for reflexes that utilized that type of shutter, but even more so by the crisis provoked by the corporate strategies developed following the merger with Zeiss Ikon that promoted the project of a new series of 35mm reflex cameras known as the Icarex, the Bessamatic CS and Ultramatic CS were taken out of production after 22,000 and 10,000 respectively had been manufactured of each.

### Collecting the Bessamatic

Despite the fact that they are very special objects, the Bessamatic and Ultramatic reflex

cameras do not bring very high prices on the collecting market. In particular, for Voigtlander collectors, the long telephotos and Zoomar lens are interesting, while estimated values of the camera bodies with standard lenses are not that high. According to McKeown, the original or Deluxe Bessamatic with standard lens has a value of between \$100 and \$150 that may rise to \$120 or \$180 for the same cameras with the faster Septon or rarer Bessamatic M. Prices for the Bessamatic CS can reach \$175 to \$250. For the Ultramatic, estimates range between \$200 and \$300 for the model with external cell and \$250 to \$350 for the CdS TTL model.

For the more common lenses (50mm, 35mm and 135mm), estimates are less than \$100. For the Skopagon 40mm, they are between \$300 and \$450, for the Dynarex 90mm between \$ 175 and \$ 250 and for the Dynarex 200mm between \$ 300 and \$ 400. For the Zoomar between \$250 and \$375,

while the rarer Dynarex 100mm and Super Dynarex 350mm are quoted between \$500 and \$700, rising to as high as \$1000 for a Super Dynarex 350mm in mint condition. Estimates from the German Kadlubeks are limited to camera bodies, 180-200DM for the more common Bessamatic and Bessamatic Deluxe, up to 220-250DM for the Bessamatic M and CS and for the Ultramatic and Ultramatic CS.

**Danilo Cecchi**

**Photos by Pierpaolo Cancarini**

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# SPECIAL CAMERAS FOR PHOTOGRAPHING THE EYE

**The human eye is the photographer's primary tool, and a camera is nothing but an extension of it. But when the eye itself becomes the subject to be photographed, traditional cameras are no longer adequate to the task. A short history and guide to the classification and collecting of special retinography cameras.**

Reading the article in a past issue of *Classic Camera* in which Luca Piccinelli told about the identification of a special Canon used for retinal angiography thanks to information he found on the Internet and from collectors abroad, triggered in me the desire to write what I know about this little-known subject and make the expertise I have in a range of sectors available to enthusiasts and collectors.

My professional life has brought me into continuous contact with a number of special cameras. For almost twenty years I was an engineer in the lens department of the Officine Galileo of Florence where I was primarily involved in topographical instruments, including small cameras for precision surveying. Here, memories from the past, including the production of cameras for Ferrania and the aerial photography cameras used during the war, were still very much alive. This period saw the definitive closing of the Officine Galileo in Milan, and its entire productive output (for example, for microscopes, related small cameras and what remained of the GaMi 16) was transferred to Florence.

In the early 1980s, I left the Officine Galileo — already on the track towards exclusive production of instruments for the military and aerospace sector — and concentrated on medical instruments, naturally from the standpoint of lenses. I specialized in ophthalmologic equipment, including fluoroangiography and all other types of photographic systems imaginable. This has allowed me to become acquainted

with a large number of special cameras used in this sector.

## **Photographing the back of the eye**

The cameras currently used for retinography and angiography can be classified into four major types. Some are standard-manufacture cameras that are used without any type of modification. From a collecting standpoint, these are the least interesting, but they should be noted. Then, there are standard-manufacture cameras that have undergone some minor changes but can easily be returned to their original state.

Other cameras, although based on standard models, have been so substantially modified that they have become something quite different from those they derive from, and these can be quite enticing for alert collectors. Finally, there are those cameras built specifically for certain applications and/or devices. These come in truly unique shapes with special features and are bona fide rarities on the collecting market.

## **From the ophthalmoscope to retinograph**

The retinograph (the instrument that photographs the back of the eye) was a direct offshoot of the ophthalmoscope invented by Helmholtz in 1851 and used for simple observation. The imprinting on a plate of the image from an ophthalmoscope was only made possible in 1930 when Zeiss produced the first retinocamera, designed by Nordensen. Nordensen's camera used plates, but over the years as the device was improved,

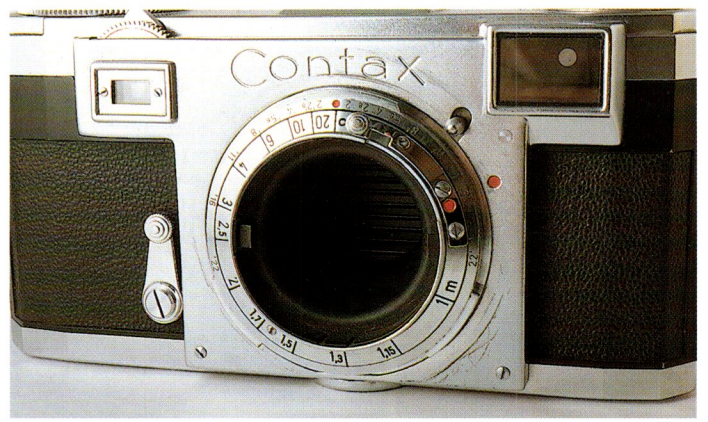
Contax bodies were used as film magazines and the use of 135 film became standard for this type of photography.

Even after the creation of East and West Germany, the various Contax models were used by both Zeiss Jena and Zeiss Opton until the watershed date of 1961 when two researchers from Indiana University — Novotny and Alvis — embarked upon a project that utilized fluorescein as a contrast medium for first observing and then photographing retinal blood circulation. To do this, they modified a retinocamera available to them by inserting a fluorescein excitation cobalt filter into the path of the light rays and, on the path of the returning image rays, before the film, a yellow barrier filter that would permit the very high contrast levels required for this type of shooting.

Their study transformed a simple photograph of the back of the eye into a highly-effective diagnostic tool — the fluoroangiography (FAG) that soon became indispensable for ophthalmologic and anti-diabetes treatment. To enhance the level of information obtained, a number of features were added: the option of taking a series of shots in fast succession; the possibility of annotating the patient name or number on the film itself; and the option of superimposing a second counter or clock on each frame to provide the time sequence so critical to this test.

This led Zeiss Opton to abandon the Contax backs in favor of the Robot Recorder, motor driven and modified to also include a time-keeper. Then, after a number of years of time-honored service,





*Contax IIa with limiting cone inserted*

*Contax IIa with limiting cone inserted (detail)*



*Contax IIa with limiting cone extracted*

the Robot was replaced first by the Nikon F2, followed by the Pentax KX and, finally, the Contax RTS II Quartz.

Carl Zeiss Jena chose a different route by modifying the Praktica. Then, German reunification caused the creation of hybrids between Zeiss and Jenoptik, and other manufacturers who had entered the sector in the meantime generally opted for their own solutions. In this regard, let me just mention that between the 1970s and 1990s, manufacturers of these cameras numbered a dozen, but today less than half remain. The cameras of this type currently imported into Italy are Canon, Nikon, Kowa, Topcon and Zeiss, despite the fact that these latter companies have ceased production of traditional cameras. In the recent past, Olympus and Zeiss Jena also played an important role, but today they are no longer involved in their production. Medical literature also mentions cameras made by Mamiya, Mira Reichert, Humphrey Instruments and Par Technology, but I must admit that I have never seen any of them because they have never been imported into Italy and I know nothing of them except their name.

The cameras described below come from my collection and represent each of the four basic types of camera I mentioned at the outset.

#### **Contax IIa – No. R33971**

This comes from a Zeiss retinograph of the 1950s where it was used simply as a film magazine. The camera is a standard Contax IIa that has not undergone any structural modification, and just has an image limiting cone wedged inside the lens changing catch. The cone, made of burnished, enameled brass, has a front diameter of 36mm with four tabs along the fitting edge: two of these have clearly been designed to hold it in place, while the other two are there as a grip for its extraction. The total length of the cone is 32mm and delimits a circular area of 23mm in diameter on the film. Clearly etched on it is the number "30°" that indicates the retinograph shooting angle. This leads me to believe that there must have been at least one other cone (20°?) used perhaps on previously-designed equipment, but this is just an hypothesis because I have never run across anything

other than this 30° cone. However, I do know of an image copier that was inserted between the Contax and the retinograph to change the magnification level, and a cone with a smaller angle of field could have been part of its standard equipment. The full field image of the retinograph generates a circular image well-adapted to the physical features of the base of the eye and this is the reason why this format is still used for this type of exam. The camera is very worn near the exterior of the bayonet which was used to attach it to the instrument itself and rendered the position of the focusing ring irrelevant. The film was advanced manually, of course, because the retinograph did not require rapid shooting, and the shutter was commanded using a double cable release that also controlled the lifting of the reflex viewer mirror of the retinograph. The camera could, therefore, be removed by taking out the cone and, with the addition of a standard lens, be used on Sundays to take pictures of the family.

#### **Pentax KX Motor Drive**

The step from retinograph to fluo-





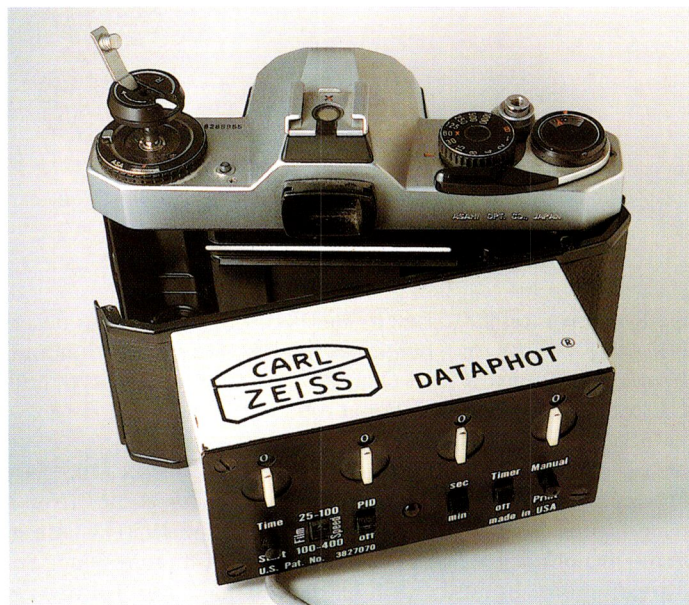
*Pentax KX Motor Drive with motor, connecting cables, coupling ring and limiting cone inserted in the lens changing catch*



*Pentax KX Motor Drive with ring and 30° cone extracted*



*Close-up of ring and 30° image limiting cone*



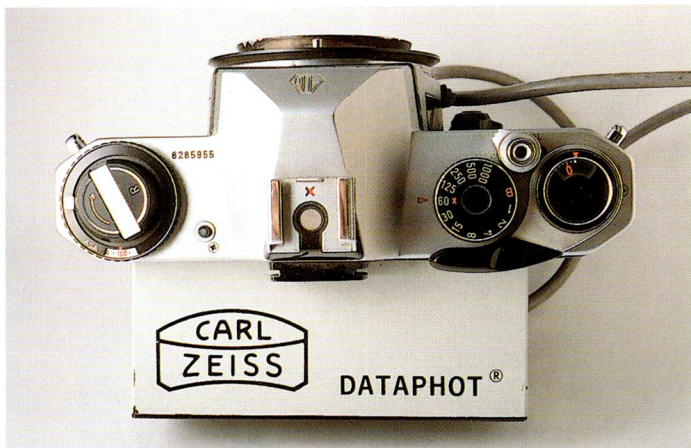
*Modified back of Pentax KX Motor Drive with attached Carl Zeiss Dataphot*

rangiograph (FAG) required the use of more modern cameras than the Contax with greater technical capabilities. Zeiss, after having utilized the Robot Recorder, in the 1970s and late into the 1980s, switched to both the Nikon F2 and Pentax KX. It should be stressed that the use of these backs on this equipment is almost never linked to the actual production period of the cameras of the backs themselves, but depends on FAG design and inventory. Often the pairing of

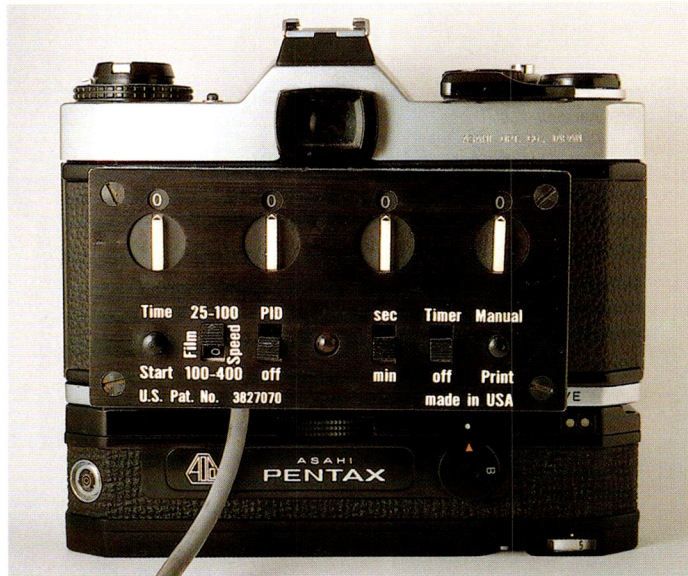
equipment extends quite a bit beyond what is generally considered the market life of the camera being utilized. An example is the current Zeiss FAG equipped with the Nikon F3, which press releases report has gone out of production. But despite this, Zeiss will certainly continue to use this type of magazine before undertaking the design modifications a change would require. Keep in mind that for this equipment, we are talking about tens or perhaps a hundred units — numbers quite

inferior to “normal” camera output. During this period, Zeiss produced one of its most widely distributed cameras, the FF3, that could be equipped with either the Nikon F2 or Pentax KX. Their characteristics are exactly the same. I own the PENTAX KX Motor Drive no. 8285955. The thing you notice first on picking up this Pentax is the large ZEISS DATAPHOT unit attached to the rear door of the camera. This unit, powered by the FAG itself using a dedicated cable, was





*Pentax KX Motor Drive with Dataphot back (detail)*



*Carl Zeiss Dataphot back, Made in USA, with control panel*

used to superimpose on the negative the critical data required by the ophthalmologist for a precise diagnosis and was attached using two virtually homemade holes in the pressureplate and door. The complex control panel of the Dataphot (produced by Zeiss N.Y.) has three separate areas. The upper section has a manual numbering device to assign an I.D. number to each patient. In the second area, on the lower left, is the film sensitivity dial and the timer button and in the third area is the adjuster to set the timer to minutes or seconds (normal setting), timer switch and manual data printing button. In the center is the LED display. Zeiss designed and produced this bulky device because it had not designed its own machines to include these functions as others of that period, primarily the Japanese, had done (and do — they are now “standard”).

It is interesting to note that this KX has a small, handmade change to permit the substitution of the back using a small oval slit inside the film wind compartment, near the traditional spring tab, but which does not appear on standard equipment. However, by chance I found a real KX back with the removal tab as if it were standard equipment. The connection with the FAG was created by Zeiss using an intermediate ring (labeled with the code number 30 16 41) that had, on one side, a Pentax lens bayonet and, on the other, a swallow-tail rapid hook-up for the instrument body (the Nikon ring is numbered 30 15 77). Given the fact that the purpose of the intermediate ring was to be able to use different magazines, it is

obvious that a rapid hook-up to the body was necessary for quick magazine change (each with its own ring). To clarify this feature, I should add that, as an homage to its ancestry, the FAG could also be used as a retinograph. Normally, images of the base of the eye needed to be in color so, for good color fidelity, either slide or Polaroid film (with its own back) was utilized. However, when used for angiography, black and white ISO 400 (standard) film was used, including for some shots with a green red-free filter. The green red-free filter was used to enhance the contrast between the color of the blood vessels and the base of the eye (in much the same way red filters are used to enhance the contrast between the white of the clouds and blue of the sky in normal B/W photography).

Of course color photos were taken without filters while, as has already been said, fluoroangiography required two: a cobalt one in front of the light source and a yellow one in front of the film. In this case, as in others, the yellow barrier filter was mounted *inside the camera body*, freeing the operator of one of the filters and permitting residual vision. This also reduced the possibility of error during camera-magazine change. The filter is mounted on the front end of a black plastic cone, very similar to the one previously described for the Contax IIa. Here, the circular opening in front of the film is 22mm, while on the front of the cone it widens to 38mm and is pressed into its seat in the 30 16 41 ring. The cone has two flattened sides to facilitate entry into the reflex box and leave the space for the mirror. One of

the two flattened sides has “30°” engraved on it while on the front, where the filter is housed, the code number 30 08 47 is engraved. For mounting, the mirror is lifted using the corresponding control and remains in this position, then the bayonet ring is inserted and after it the pressure ring and filter for attachment to the FAG. Naturally, the finder is not used and is replaced by the large eyepiece of the fluoroangiograph, and the only shutter speed used is that of synch X (in this case 1/60). The shutter is controlled by a double cable release that also controls the flipping of the FAG reflex mirror. The film advance motor is the standard Asahi Pentax, but powered directly by the fluoroangiograph. The cameras utilized by Zeiss were standard production without major modifications that could allow them to revert back to their original application. It should also be noted that during this period, Nikon chose (as I believe was the obvious thing to do) to follow the Zeiss route. More recently, however, Nikon has changed and opted for the custom back solution which, if on one hand allows more specific application targeting, on the other made the backs virtually unusable for any application other than that for which they were created. Canon, Topcon, Kowa, Olympus, Zeiss Jena and lastly, Nikon made use of totally customized cameras or cameras so substantially modified that they became, in essence, another piece of equipment.

**Topcon FP-M-FL no. 40176  
with Topcon M-3 motor no. 1293810**  
Perhaps the most interesting camera of





*Topcon FP-M-FL angiographic camera*



*Topcon FP-M-FL back and eyepiece*



*Topcon FP-M-FL with viewfinder extracted*



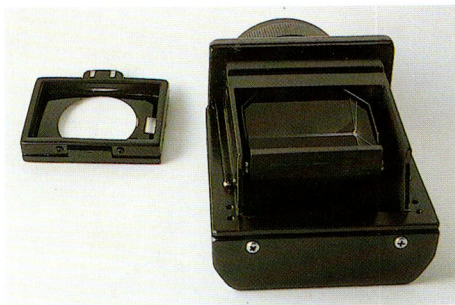
*Topcon FP-M-FL without viewfinder*

this small sampling is the modified Topcon taken from a 1975 FAG, but it should be kept in mind that Topcon used this back without making any substantial changes for approximately twenty years. Let me start by saying that my piece of equipment is motorized using a completely standard M-3 motor without any sort of modification to either the motor or body couplings. The major changes are on the camera itself: the shutter has been simplified with just one aperture setting; the f-stop dial has been removed from the top plate and replaced by a cylindrical plug of the same shape that closes the opening. In the center of this plug is a smaller grooved cylinder that is unscrewed to reveal a short plug that can be screwed

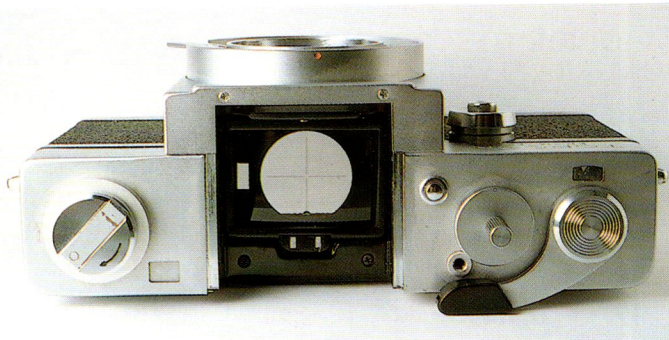
into the small threaded hole immediately next to it. When this is done, the shutter remains open in T to permit cleaning of the yellow barrier filter located behind the reflex mirror and in front of the traditional fabric curtain. Because the camera does not have any kind of exposure meter, the mirror does not have the classical Topcon slits and the readings window on the top plate has been closed with a chrome plate. The viewfinder, also the FAG eyepiece, is the most noticeable modification of the Super D from which this back was derived. The prism housing (here black enameled) hearkens back to its Topcon tradition, but on the inside, the pentaprism has been replaced by a normal roof prism that only permits inverse image viewing —

perfectly adequate for this application. The wide diameter eyepiece is very visible and sticks out quite a bit from the camera body. The eyepiece lens is recessed, a clear indication of its excellent pupillary emergence. The viewfinder also permits a wide dioptic adjustment range which on the dial, however, is only marked "+ 0". On the cover, next to the black prism, is a small, polished chrome button that when pressed releases the lock on the prism itself to access the focusing glass which can be removed easily and placed in a sturdy cast-aluminum cassette. The glass is completely clear without any focusing screens, making it possible to work directly with the aerial image. Only the circular center is clear, all the rest being





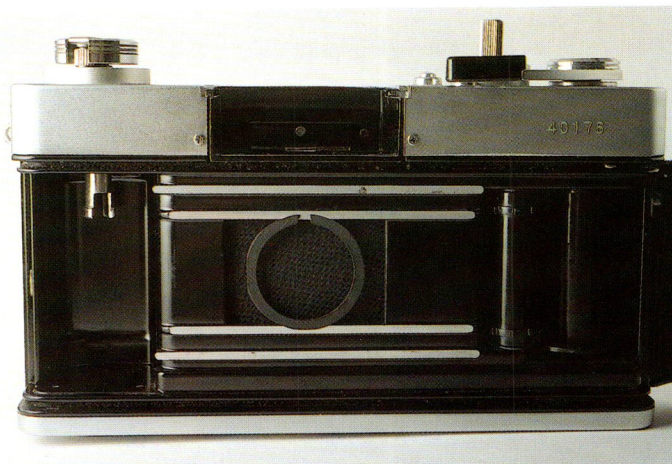
*Special viewfinder for Topcon FP-M-FL that functioned as FAG eyepiece*



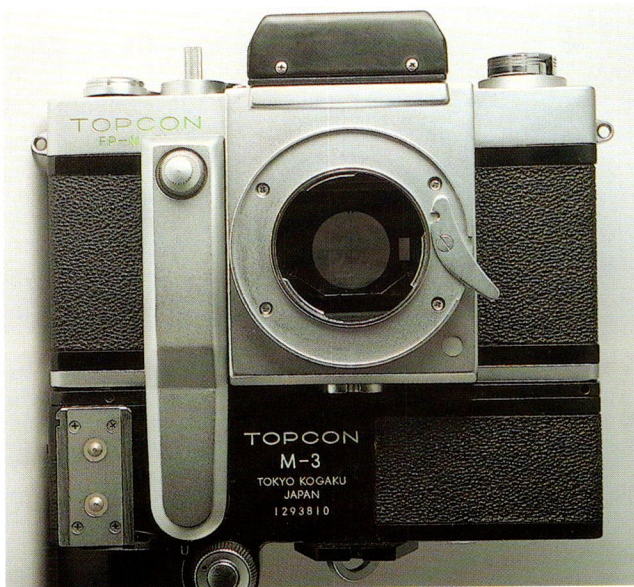
*Topcon FP-M-FL seen from above with modified circular image window*



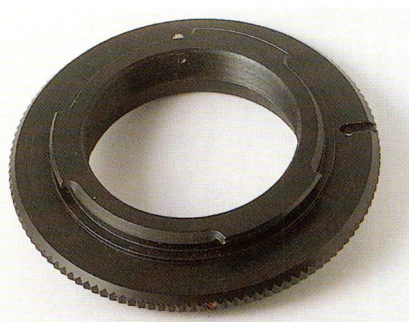
*Special viewfinder and window of the Topcon FP-M-FL*



*Open back of Topcon FP-M-FL with circular opening*



*Topcon FP-M-FL with M3 motor*



*Coupling ring inserted on lens changing catch*



*Topcon FP-M-FL (detail)*

black, with the exception of a small rectangular area to the left of the person observing. In the center of the transparent circular field is a large engraved focusing cross with double-line arms. Looking into the viewfinder, one sees the large circular field with the cross and, on the left, the

small clear rectangle with the time stamp. When the camera is opened, using the unusual button/dial located on the modified Topcon base plate, one notes the film window that recalls the shape of the viewfinder with an inlaid ring that circumscribes the same area. A side slit

occupies the same position as the rectangular area. As stated above, the base of the eye is displayed as a circular image with the timer stamp on the left and the possibility of inserting the patient name on the right using the dedicated slit on the body of the FAG. When the shutter is



## GUIDE TO SCIENTIFIC CAMERA MANUFACTURERS

### RETINOGRAPHY and FLUOROANGIOGRAPHY

Zeiss Oberkochen  
 Carl Zeiss Jena (aus Jena/Jenoptik) } Today only Zeiss  
 Kowa  
 Topcon  
 Olympus  
 Nikon  
 Canon

### PHOTOGRAPHY USING SLIT LAMP

Zeiss Oberkochen  
 Carl Zeiss Jena (aus Jena/Jenoptik) } Today only Zeiss  
 Topcon  
 Nikon  
 Haag-Streit  
 Gambs  
 Takagi / Shin Nippon / Inami / Kowa  
 Sbisà / CSO

### PHOTOGRAPHY WITH WORKING MICROSCOPE

Zeiss Oberkochen  
 Carl Zeiss Jena (aus Jena/Jenoptik) } Today only Zeiss  
 Topcon  
 Takagi  
 Leica  
 Muller

### ENDOTHELIAL MICROSCOPE

Cooper Vision  
 Keeler  
 Biotrics

### COLPOSCOPY

Zeiss Oberkochen  
 Carl Zeiss Jena (aus Jena/Jenoptik) } Today only Zeiss  
 Takagi  
 Jagee

### MICROPHOTOGRAPHY

Zeiss Oberkochen  
 Carl Zeiss Jena (aus Jena/Jenoptik) } Today only Zeiss  
 Officine Galileo  
 Olympus  
 Nikon  
 Leitz / Leica

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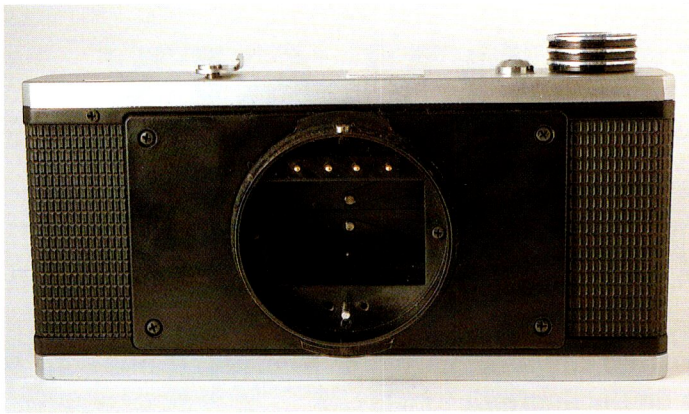
Manufacturer brochures and  
 informational material

loaded by moving the grooved plug on the top plate from its normal position to the other threaded hole, the camera remains in T and, when the back is opened, the yellow barrier filter — strangely trapezoid shaped, the reason for which is not known — is accessible (for example, for cleaning). The traditional Exakta coupling is used to attach it to the FAG. The letters FP-M-FL, engraved in light green on the camera, are unique and only used on the backs of the fluoroangiographs in order to differentiate these backs with internal filter from the AM-W backs used for retinograph color shots (both backs came

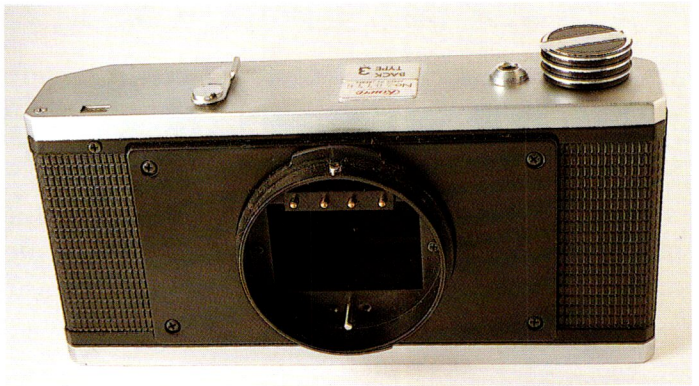
as standard equipment on the Topcon FAG). The two cameras are virtually identical and only differentiated, on the outside, by the engraving and, on the AM-W by the absence of the grooved plug used to keep the shutter open because there was no filter. In addition, the motor was only attached to the FP-M-FL because the film on the AM-W was advanced manually using the wind lever (although it was equipped for future motorization). FP indicated the type of flash synch required on these FAG cameras. Other previous models had an X and FP switch on the base plate, but this had only been a source

of error with customers who knew something about photography because they interpreted this as the wrong position and normally "reset" it to what they believed to be normal functioning mode, thus causing it to malfunction. I can attest to the fact that this was the most frequent cause of service calls. In this case, however, the small switch has been eliminated and the opening closed by a small plug similar to the one used for the exposure meter. M indicates the motor option, and FL indicates the presence of the yellow barrier filter and its fluorangiographic application.

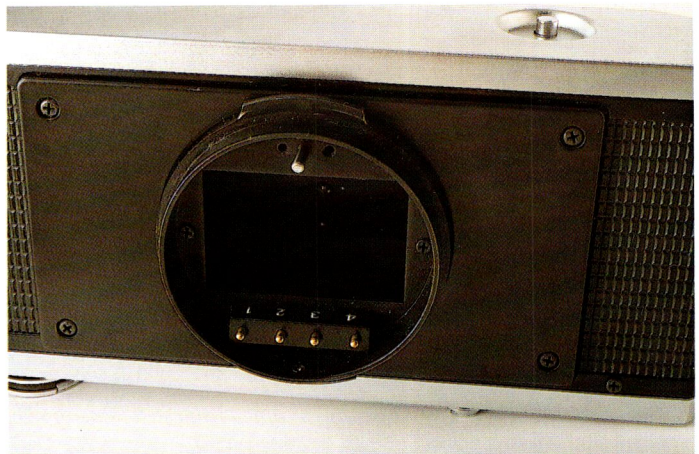
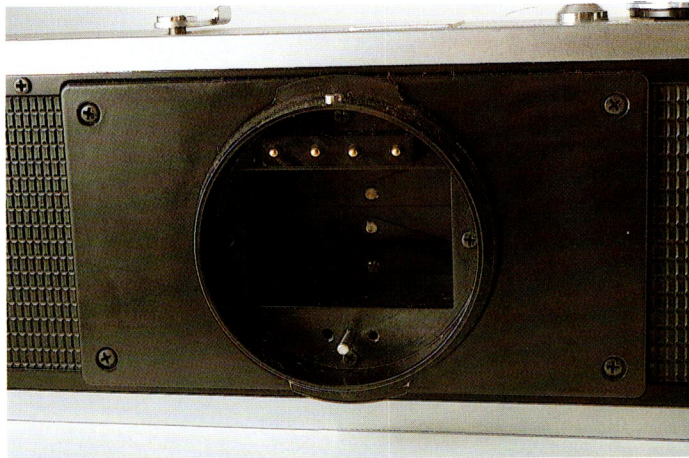




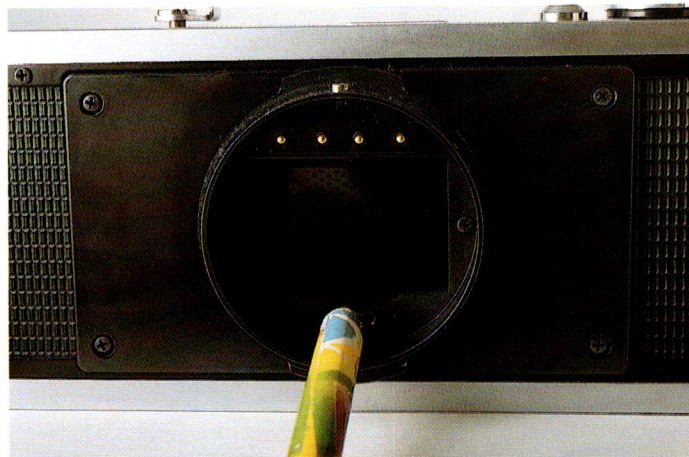
*Kowa Back*



*Kowa Back (detail of changing catch and curtain)*



*Kowa Back (detail of changing catch and numbered spring contacts)*



*Kowa Back (internal curtain opening mechanism)*

### **Kowa Back Type 3 no. 30776**

The last camera I would like to describe here is the Kowa Back Type 3 that was a back designed specifically for the Kowa FAG, a very widely-used camera. It no longer bears any resemblance to normal photographic equipment: the back/magazine does not have a viewfinder; the upper cover has no controls and only includes a rewind button with a red "ON" LED next to it; on the right, a small lever replaces the shutter release button and at the edge of the top plate is the frame counter window; two ID plates with name and number complete the outfit. The base

plate only has the rewind button and the rear door a pocket for the film being used. The lens changing catch carries the external bayonet like a lens, with a red dot as reference mark. Inside the changing catch are four spring contacts labeled 1 to 4 used to power the film advance motor and for advance consent. On the lower part of the changing catch is a small plug that opens the internal curtains when the magazine is attached to the FAG, and closes them again, of course, when it is removed. The camera has no shutter which is built into the FAG and is comprised of the same reflex mirror as the viewing unit.

The door is opened in the normal way by pulling on the rewind lever. On the inside, there is the usual contoured plate on the film window with its circular opening and area in which patient information and time are superimposed. The back appears to be quite simply constructed, but I warn you not to think this apparent simplicity made them affordable. Unfortunately, as was said earlier, the fact that so few of them were ever produced makes these backs quite expensive — generally in the neighborhood of \$ 2,500.00.

**Tito Antonielli**



# ASTOR: SIX-BY-SIX SIGNED FERRANIA

In the immediate post-war period, the Ferrania company of Milan was, without doubt, the most important Italian producer of still and moving picture film and it embarked on a corporate policy to further consolidate its position on the domestic market.



*Ferrania Astor – front with lens in travel position*

In 1928, Ferrania had taken over the Milan firm of Cappelli and for a certain period produced photographic plates bearing the double name Cappelli-Ferrania and, in the years right before the war, simple box cameras first marked Cappelli and later Ferrania.

After the war, Ferrania decided to significantly increase its production of popularly-priced cameras with the double-edged purpose of opening a new industrial front while at the same time developing an effective promotional tool for selling its film.

In 1945, production was begun on the Zeta, a 6x9cm box camera using 120 roll film, and in 1946 a new, 6x4cm 127 roll film camera in die-cast aluminum alloy, called the Delta, was released.

1947 saw the appearance of the 6x9cm Falco, a folding bellows camera without any special distinguishing features but comparable to other cameras being produced abroad. The Falco utilized a Prontor diaphragm shutter with speeds ranging from one second to 1/250s and three-element Terog 105mm lens with speeds of f/4.5 or f/6.3 supplied by Officine Galileo of Florence.

In fact, specific agreements were drawn up between Ferrania and Galileo after the war

that also included Ferrania marketing the Condor 35mm rangefinder camera manufactured in Florence by Officine Galileo. The Condor and Falco represented the top-of-the-line of Ferrania cameras.

Ferrania cameras were produced in Milan in the old Cappelli factories, and the bulk of their output consisted of the economically-priced Rondine, ElioFlex and Tanit cameras, to be followed by the economical Ibis. Ferrania production was unquestionably geared towards lower-priced cameras as part of a conscious sales policy to target the general public rather than the more demanding and smaller market represented by informed and wealthier amateur photographers and professionals.

Within this general corporate philosophy, the 6x6cm Astor was a successful exception.

## **Medium format Astor**

In the early 1950s, the 6x6cm format was not yet synonymous with professional photography, despite the established market presence of high-precision professional

cameras such as Rolleiflex and IkoFlex twin-lens reflex cameras and the Korelle and Primarflex single lens reflex, and the beginning of the ascent of the Hasselblad name.

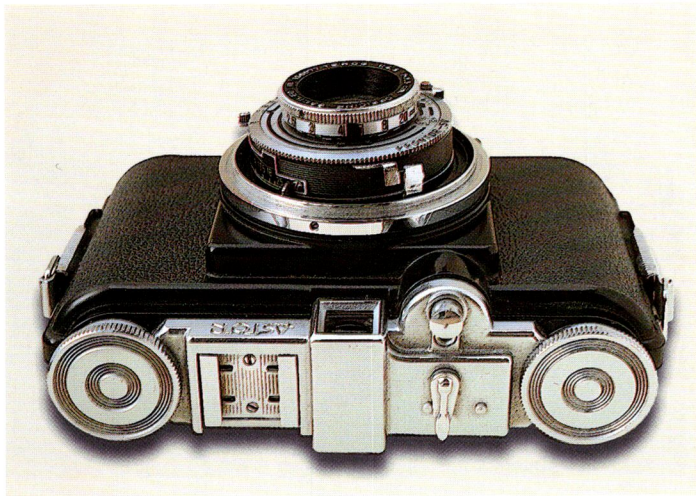
Quite the contrary. The 6x6cm format was still the preferred format for economically-priced cameras that produced modest results but offered the possibility of a large-size negative that minimized defects and, like the 6x9cm format, still offered the advantage of direct contact printing.

The Ferrania Astor was designed as a hybrid between higher level and more economical cameras, but with the same format. The Astor's normal finder eyepiece did not utilize any efficient focusing device—rangefinder or otherwise—and focusing was accomplished by “guesstimating” between a meter and infinity by rotating the front cell. This glaring deficiency somewhat limited Astor's performance.

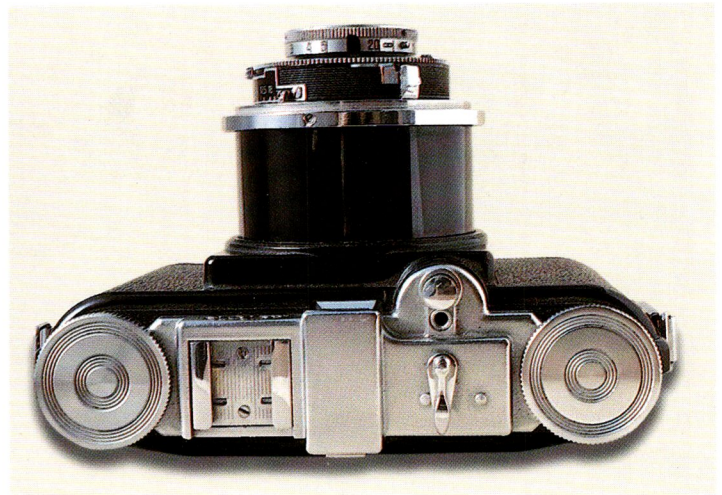
On the other hand, the Prontor SV shutter offered a full range of speeds from one second to 1/300 of a second on a scale of 1, 2, 5, 10, 25, 50, 100 and 300 plus B setting and also had a delay action using the built-in self-timer lever. The shutter also had a synch socket with a lever to switch from M and X settings.

The three-element lens was a Terog 75mm





*Ferrania Astor with lens in travel position, seen from above*



*Ferrania Astor with lens extracted seen from top plate*



*Ferrania Astor with lens extracted seen from bottom plate – the MADE IN ITALY inscription, threaded hole for the tripod and M X synch selector are visible*



*Back of Ferrania Astor with viewfinder, red window with safety closure and depth of field scale for the various shutter settings*

f/4.5 supplied by the Officine Galileo of Florence and could be stopped down to f/25 to offer good resolution and depth of field. The sturdy, efficient camera body was die-cast in light metal alloy with its molded back plate completely removable thanks to two sliding hinges on the side. In addition to the usual red window to check film advance, it also had a depth of field scale with aperture values of 4.5, 6.3, 9, 12.5, 18 and 25.

The upper case in shiny silver chrome housed the square viewfinder, the shutter release button and two other identical knobs used to advance the film and release the lens holder tube. The shutter lens unit was mounted at the end of a black metal tube that was pushed into the camera body to make the camera compact enough to fit into a pocket and was locked in the closed

position using a small spring hook.

When the knob on the right of the top plate was turned, the hook opened and two powerful springs pushed the tube out to place the lens in operating position. Shutter loading, setting of the shooting speed, diaphragm and focusing were performed from the front of the lens shutter unit, while the shutter release was controlled by the smooth chrome button on the camera top plate.

Following shutter release, a red signal appeared in the viewfinder to indicate that the camera must be reset and the release button remained locked until the film was advanced. This red signal could be removed manually using the chrome lever on the top plate.

For film loading and unloading, there were two extractable hinged tabs on the bottoms

of the sprockets to facilitate sprocket insertion and removal.

### **Galileo to Steinheil**

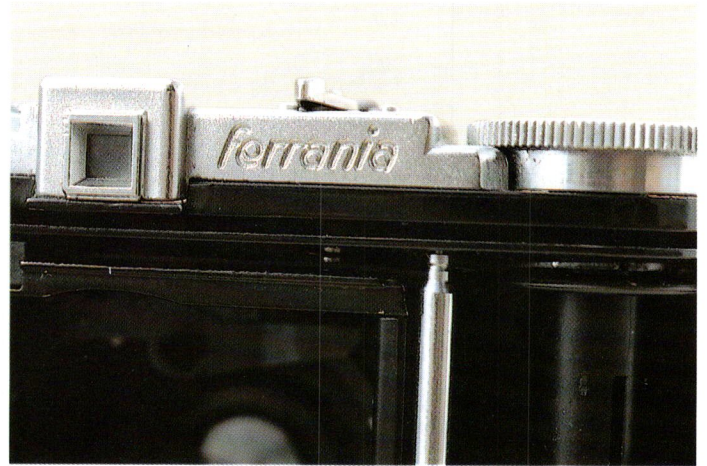
Fairly compact and light, quite sturdy and efficient and precise despite the lack of a rangefinder, the Astor was released on the market in 1953 and was the top of the Ferrania line, especially following suspension of production of the Falco and leaving aside the Condor and Condor II which were manufactured by the Officine Galileo in Florence.

Relations between Ferrania and Galileo soured in the mid-1950s following a series of misunderstandings and even the supply of camera lenses was placed in jeopardy. To equip the Astors, the company looked abroad and instead of the Terog lenses, the German Cassarit 75mm f/4.5 lenses





Detail of the "Astor" inscription on the front near the square viewfinder window



Detail of the "Ferrania" inscription on the back of the camera near the finder eyepiece



Detail of the Galileo Officine Terog 1:4.5 f=7.5cm and Prontor SV shutter

### ASTOR

|               |  |
|---------------|--|
| Company       | Ferrania   |
| Headquarters  | Milan  |
| Years         | 1953-1957  |
| Camera        | Astor  |
| Film          | 120 roll   |
| Format        | 6x6cm (58x58mm)  |
| Type          | Normal viewfinder  |
| Shutter       | Prontor SV diaphragm shutter                               |
| Shutter speed | 1" - 1/300" B self-timer                                   |
| Lens          | Fixed on telescopic tube                                   |
| Standard lens | Galileo Terog 75mm f/4.5;<br>Steinheil Cassarit f/4.5 75mm |
| Accessories   | Removable back   |

### Other Ferrania 6x6 cameras

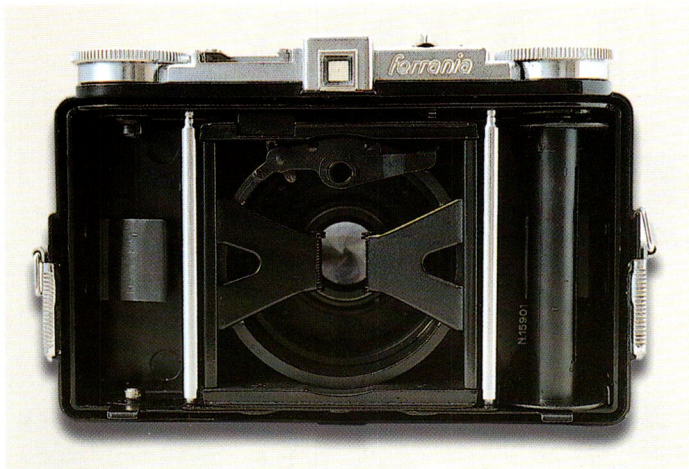
|             |      |            |                |
|-------------|------|------------|----------------|
| Beta        | 1940 | 80mm       | I P            |
| Elioflex    | 1950 | 85mm       | 1/25"-1/200" B |
| Elioflex II | 1952 | 75mm f/6.3 | 1/25"-1/200" B |
| Astor       | 1953 | 75mm f/3.5 | 1"-1/300" B    |
| Ibis 66     | 1953 | 85mm       | I P            |
| Eura        | 1959 | 80mm f/8   | I              |

supplied by the Steinheil company of München were utilized.

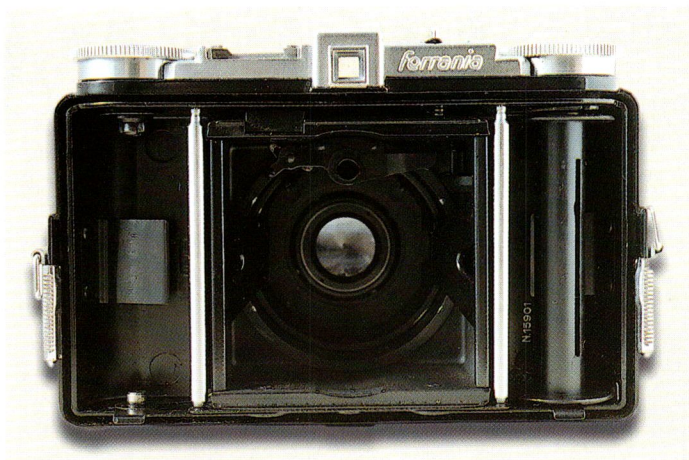
In 1958, the Astor legacy was partially taken up by the Ibis 66, a 6x6cm styled to resemble the contemporary Ibis 6x4cm and which compared with the Astor, offered much more limited performance from both a mechanical and optical point of view. Only its format and fast-extraction telescopic tube—the mechanics of which were simplified and streamlined—faintly resemble the performance and features of the Astor.

Unlike the lower-priced lenses mounted on

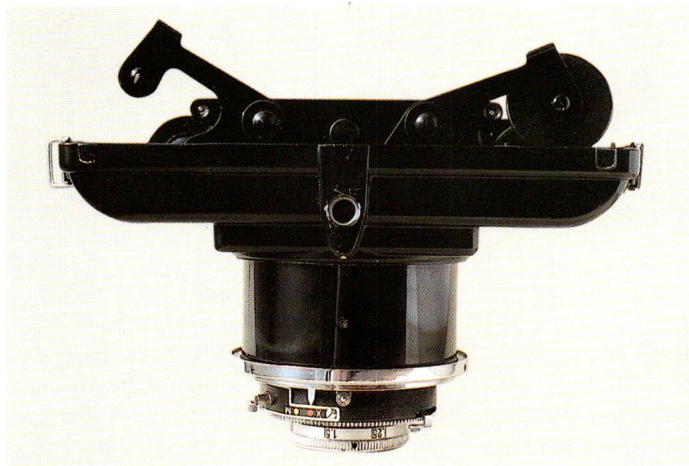




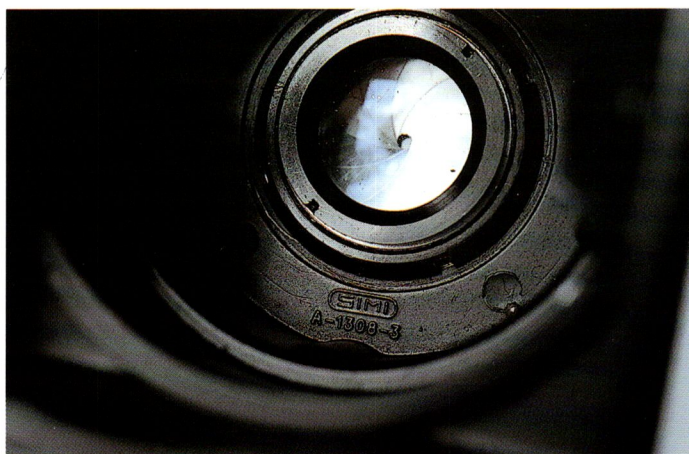
*Open back of the Astor Ferrania with lens in collapsed position and springs folded*



*Open back of the Astor Ferrania with lens extracted and springs extended*



*Astor Ferrania with back open and film extraction tabs visible*



*Serial number in the film compartment*

*Casting number in the lens holder tube*

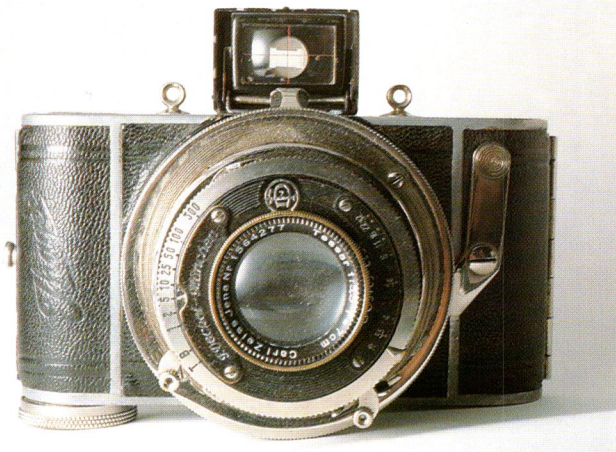
other Ferrania cameras (such as the Elio-flex Monog or Rondine Linear lenses), the Terog lenses mounted on the Astor have the 6-digit serial number engraved on the barrel. Inside the camera body, in addition to the casting marks — SIMI A 1307 for the camera body and SIMI A 1308-3 for the lens holder tube — the right-hand film roll

compartment also has a white number which, unlike standard Ferrania practice, is the camera serial number. In this case, it is a 5-digit number (e.g., 14546 and 15901) which leads one to believe that between 10,000 and 20,000 were produced. Almost half a century since its birth, the

Astor Ferrania remains an efficient and especially sought-after camera, in both the Terog and Culminar lens versions, by both Ferrania collectors and Italian camera collectors in general. Its value on the Italian market is around \$ 100.00, but on international markets where it is not known, it can go for quite different sums.



# KLEIN ULTRIX, AKA “PARVOLA”



*Parvola Zweifomat with finder open*



*Parvola Zweifomat with finder closed*

The dynamic, Dresden-based Ihagee camera company of Dutchman Johan Steenbergen is well known to collectors for having built the Exakta Vest Pocket and Exakta 35mm, as well as the large Exakta 6x6cm and small Exa 35mm. However, the company's activity in the 1920s and early '30s — before the Ihagee name burst into the limelight with its most successful product, the Exakta Vest Pocket — is largely ignored by photographic enthusiasts.

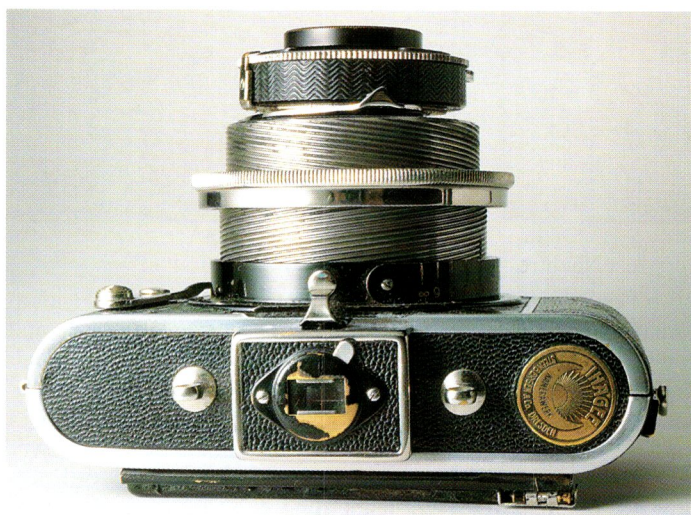
## **Ihagee before the Exakta**

Ihagee output in the 1920s was very interesting and diversified among various models with a range of features, with reflex or traditional viewfinders. As early as 1921, production began on the Plan Paff Reflex box camera with reflex viewfinder and magazine for 6x4.5cm format plates. This was followed in 1922 by the Roll Paff Reflex with similar features but using 6x6cm roll film, perhaps the first 6x6cm reflex in camera history.

Between 1924 and 1928, the folding reflex camera for larger-format plates became Ihagee's lead product and during these years the company marketed the Patent Klappreflex in 6.5x9cm, 9x12cm, 10x15cm and 9x9cm formats, equipping it with focal plane shutters with speeds up to one-thousandth of a second. This was followed by the 6.5x9cm, 9x9cm and 9x12cm format Serien Reflex. Ihagee corporate policy further pushed its design department to develop ever-improved lenses.

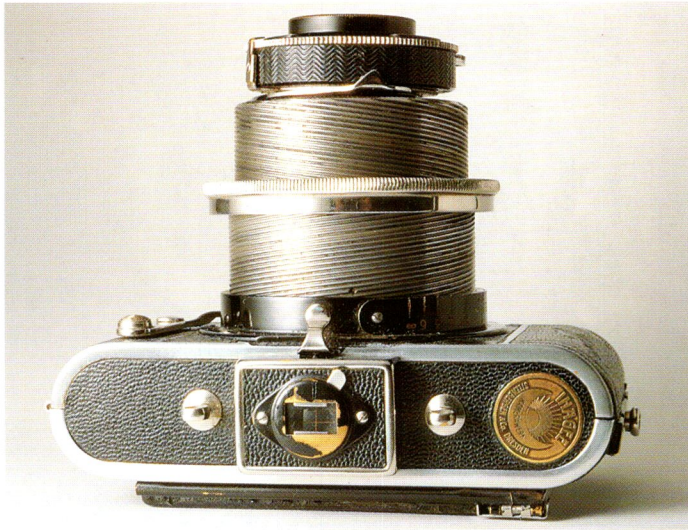


*Parvola closed, seen from above*

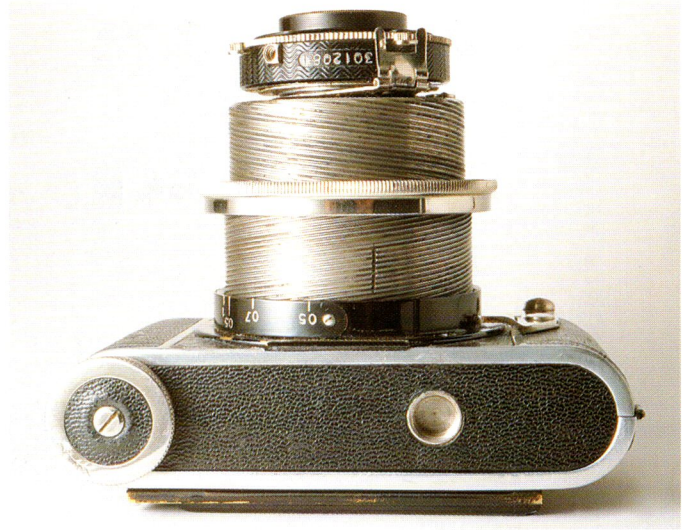


*Parvola open to infinity, seen from above*





*Parvola open to minimum focusing, seen from above*



*Parvola open to minimum focusing, seen from base plate*



*Parvola open to infinity (right side)*



*Parvola open to minimum focusing (left side)*

In an effort to imitate and challenge the success of the Ermanox, in 1929 Ihagee began production on the Nachtkamera, a 4.5x6cm and 6.5x9cm format camera equipped with very fast Plasmat f/2.0 and f/1.5 lenses supplied by the Hugo Meyer company. The step from the Nachtkamera with normal viewfinder to the Nachtreflex was a short one, and in 1930 Ihagee began producing the two Nachtreflex cameras with mirror viewfinders in 4.5x6cm and 6.5x9cm plate formats.

### **Ihagee's little cameras**

Alongside its large folding reflexes and very fast Nachtreflexes, and before taking the major leap towards the Exakta Vest Pocket, Ihagee dedicated itself to manufacturing a series of less demanding, more traditional medium-format folding cameras that used roll film and were known by the name Ultrix.

In the early 1930s, a special camera with rigid body and optical finder that presaged

somewhat the birth of the Exakta was produced. The cameras manufactured in 1931 by Ihagee had a normal viewfinder, folded into a compact size, used Vest Pocket 127 roll film and mounted 70mm lenses of various makes and speeds in Compur leaf shutters. The shutter/lens unit was mounted on a double-helicoid movement threaded metal tube that had a wide range but retracted completely inside the camera body, making the closed camera quite compact. This small camera was called the Klein Ultrix, or Wenny Ultrix in some markets and Parvola in others as a way to underscore its truly small size.

### **A Thirties compact**

The Parvola body, not including the lens, was 110mm long (less than the Leica), 28mm thick (similar to the Leica) and 60mm tall (a bit more than the Leica). The completely retractable lens protruded a total of 28mm from the camera body.

With the Tessar f/3.5 lens, the camera weighed 460 grams. Smaller overall than the Leica, the Parvola negative size was 6.5x4 format and in reality 64x41mm, three times that of the Leica format. The lens was extracted by rotating a large, 65mm chrome ring in a clockwise direction to activate the double helicoid and when the lens was set at infinity, it protruded a total of 50mm.

The chrome infinity release lever, similar to that adopted later on the Exakta Vest Pocket, freed the lens so that it could focus at half a meter, extending to a total of 66mm. The Parvola had a normal spring-folding viewfinder released by a lever that locked automatically when the lens was retracted in its carrying position. Film was advanced using a grooved 28mm diameter dial and correct positioning could be checked through the traditional red window at the back. The back opened with a catch and was hinged on one side.

The shutter was cocked using a traditional

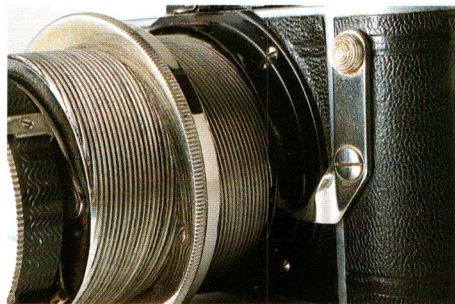




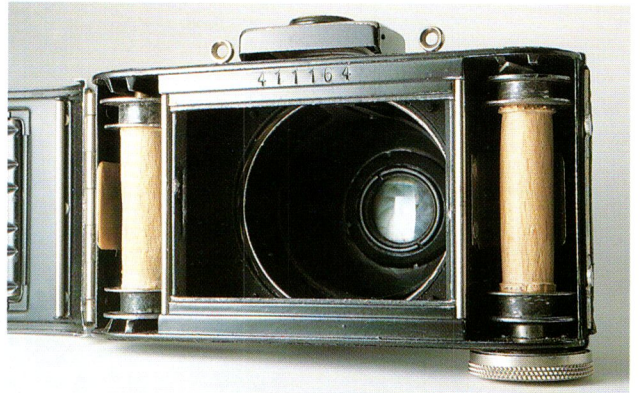
*Lens, detail*



*Ihagee logo, detail*



*Release lever, detail*



*Back open showing serial number*

lever on the front and the shutter release lever (that had a block against accidental shots) was also positioned on the front. Between the rim-set leaf shutter and telescopic focusing tube was a long, sabre-shaped, chrome lever which, when fully extended, held the camera steady for vertical shooting. Attached to the flat base plate of the camera was the prestigious brass disk with the symbol of the Steenbergen company, a half moon and small nesting sun with the Steenbergen logo.

With these dimensions and features such as the double-helicoid movement, infinity release lever and other detailing, the Parvola represented the forerunner of many solutions later adopted on the Exakta.

### **One camera, two formats**

The Klein Ultrix or Parvola was created in Vest Pocket format, but in that period infatuation with small-size negatives was so great that the camera was manufactured in two identical versions for two formats. The first version, Parvola A, utilized the classic 6.5x4cm horizontal Vest Pocket format, while the second version, Parvola B, used the vertically-halved 3x4cm format. Despite this difference, the focal

length of the lenses and size of the camera body remained the same. Camera versions A and B were completely identical except for the frame inside the viewfinder, the metal mask inside the camera body near the film surface used to limit the frame size, and the position of the red frame counter window on the back.

In addition to the Parvola A and B, the Parvola C was also produced that could utilize either 6.5x4 or 3x4 format thanks to a moving internal metal mask, the finder that could be switched between horizontal and vertical shooting using a rotating mask, and the double window on the back. For enhanced versatility, the Parvola C also came equipped with a door on the back that could be removed and replaced with a ground glass or plate holder for single shots. For this substitution, given the 4mm difference between the plate and film surface, a different metric focusing scale had to be utilized that was engraved in red next to the primary scale in white. The retractable lens allowed the lens unit to be pulled back behind even the normal infinity position. The type C Exakta, used with either plates or roll film, had a back similar to that of the Parvola, but because it had an interchangeable lens, for focusing

adjustment it adopted a system of spacer rings that were inscribed with the same serial number as the camera.

### **A vast selection of lenses and shutters**

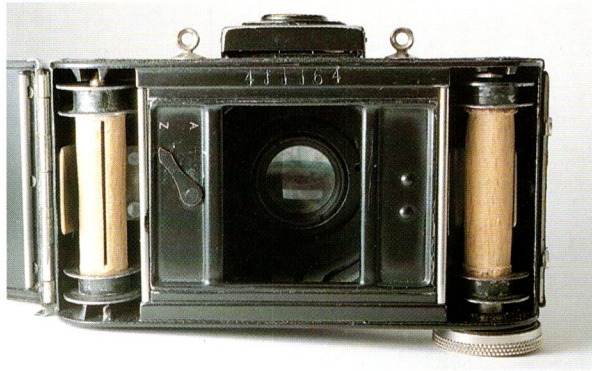
A number of different lenses were used on the Parvola, ranging from the modest Anastigmat with speeds of f/6.3, f/4.5 or f/3.5 and Primotar f/3.5, to the Xenar f/4.5, f/3.5 and f/2.9 and the Tessar f/4.5, f/3.5 and f/2.8.

For the Parvola cameras destined for a more demanding public, there were the Xenon f/2.0 and Biotar f/2.0. The focal length was generally 70mm, but 3x4 format units equipped with the Xenon f/2.0 with 45mm focal do exist.

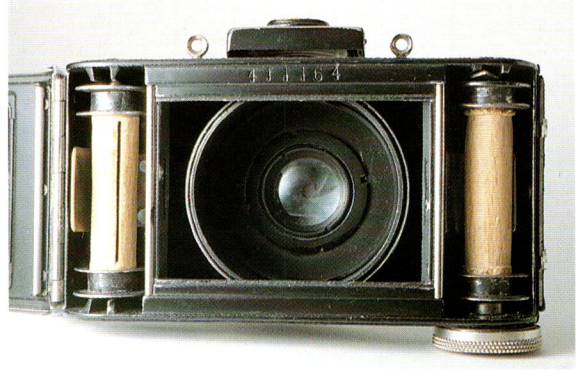
The selection of shutters ranges from the more modest Zenit to the Pronto and Prontor, up to the 1/300sec. Compur in both dial-set and rim-set versions.

Such a wide lens and shutter selection just emphasizes how much importance Ihagee attributed to this particular camera which seems to have had a fairly wide distribution, even if actual production data, both in terms of quantity and time periods, does not exist. In the November 1933 issue of *Popular Photography Magazine*, the





*Back open with 3x4 mask*



*Back open without mask (4x6.5 format)*



*Removable back for plates, detail*



*Back closed without plate holder*

6.5x4 Parvola A or Weeny Ultrix was described just at the point production must have been winding down, and the twin-format Parvola C, the Parvola Twin, was covered in the September 1938 issue when it had already been out of production for some time. In addition, the Parvola Twin, with its winding lever similar to that of the Exakta, was described having a Tessar 75mm f/2.8, the same focal length used for the standard Exakta lens and with a 1/400sec Compur Rapid shutter.

#### **A somewhat anomalous Parvola**

Following the birth of the Exakta, a Parvola with rapid-wind lever in place of a simple button was put into production, probably in limited quantities. This is confirmed by the illustration appearing in Ihagee catalogues of the day, but a Parvola equipped in this way would seem rather rare.

However, a Parvola with a number of structural anomalies has been found — the model C shown in this article which was made between 1933 and 1934 judging from its serial number. All the camera controls are reversed compared with traditional Parvola layout. The winding button is on the base plate on the right instead of on the back on the left, and the

film advances from left to right instead of right to left.

The medallion with the Ihagee logo is found on the top plate instead of the base plate. The infinity release lever is on the left of the front not the right, is turned upside-down and is commanded from above instead of from below. Even the sabre-shaped lever for vertical shooting opens in the opposite direction. The perfect correspondence of the lens axis and symmetry axis of the camera made this inversion of controls possible without having to modify the camera body in any other way. But, it is also well-known that the type two Exakta had its infinity release lever on the opposite side of the front compared with type one cameras, and they had the winding lever on the left.

It is possible that this modification also involved some of the Parvola cameras manufactured after 1933, before Ihagee decided to halt their production in favor of virtually exclusive production of the new mirror cameras.

#### **The Parvola and collecting**

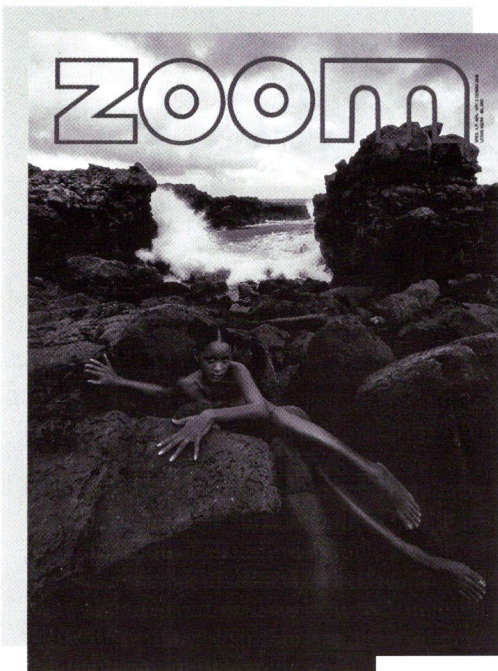
Not very well known to collectors, even Exakta collectors whose interest in the Ihagee marque usually begins with the

1933 Exakta Vest Pocket, ignoring and turning up their noses at all that was produced before this camera, the Parvola does not have a great collecting following. However, given the name it bears, its charming and curious appearance and the period of its manufacture, it does pique the interest of some enterprising collectors to buy and preserve them and, in some cases, even collect and document the camera.

*Exakta Time*, the publication of the Exakta Circle, has dedicated a number of articles to the camera, listing its variants and their features, but without delving into the subject in too much depth.

From a monetary point of view, estimates vary greatly. McKeown estimates the value of the 6.5x4 model A at \$90-\$130, and the 3x4 model B at \$100-\$150 without distinguishing between their lenses or shutters. According to Kadlubeks, the value of a Parvola 1350 6.5x4 is identical to that of a Parvola 1450 3x4, both around 180DM, while the estimated value of the Parvola 1550 Zweiformat rises to 400DM, reaching a high of 500DM for models with the rapid-wind lever. The Parvola with inverted controls is not cited by any source.

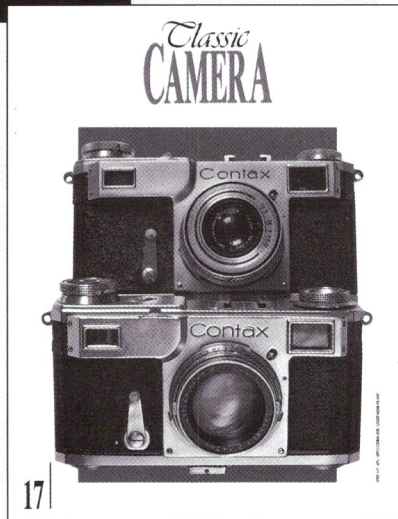




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
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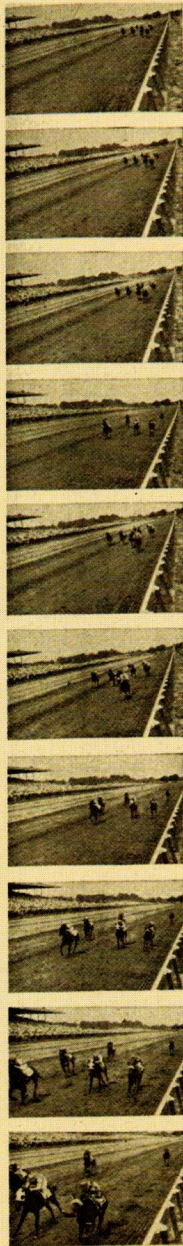
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