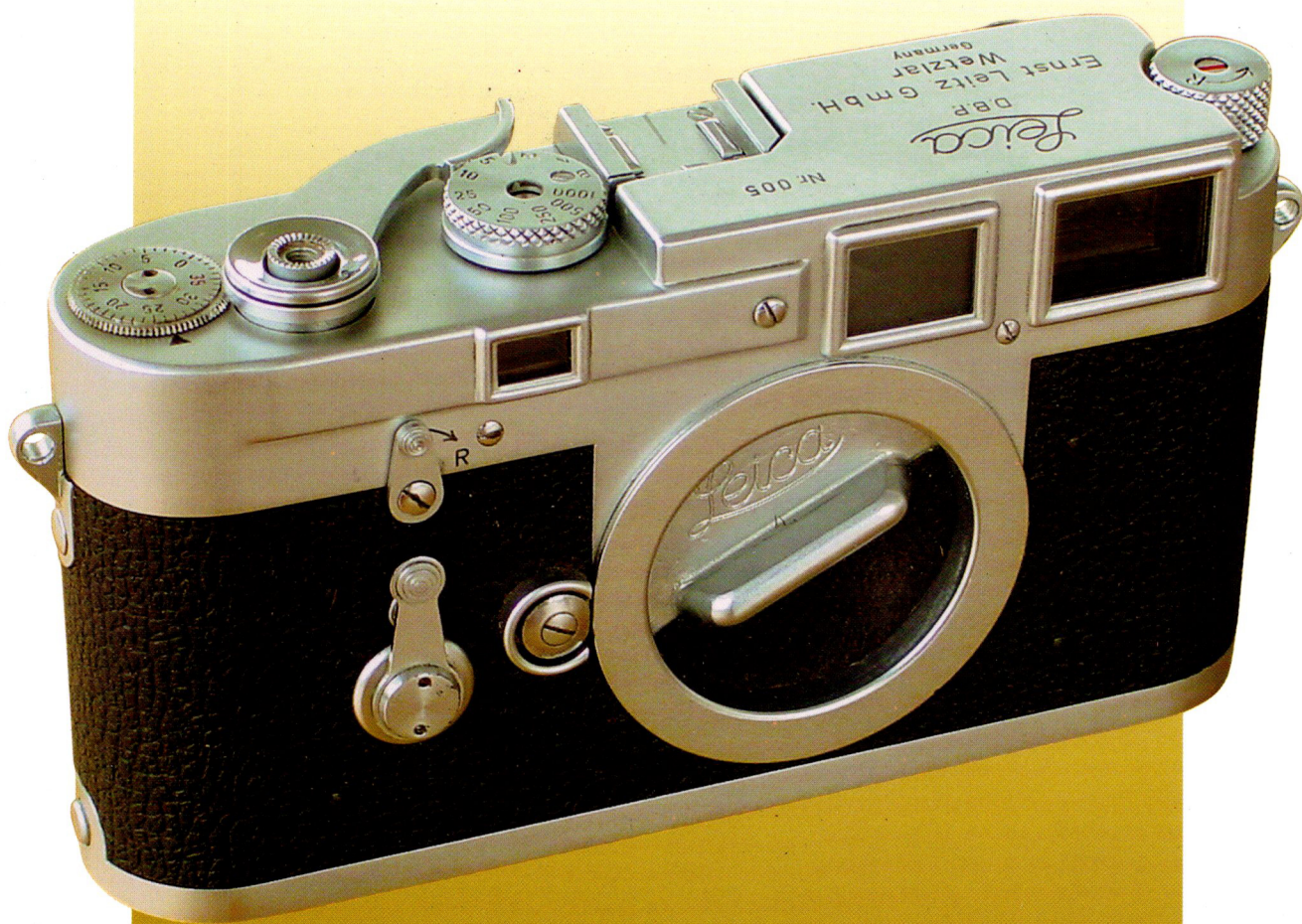
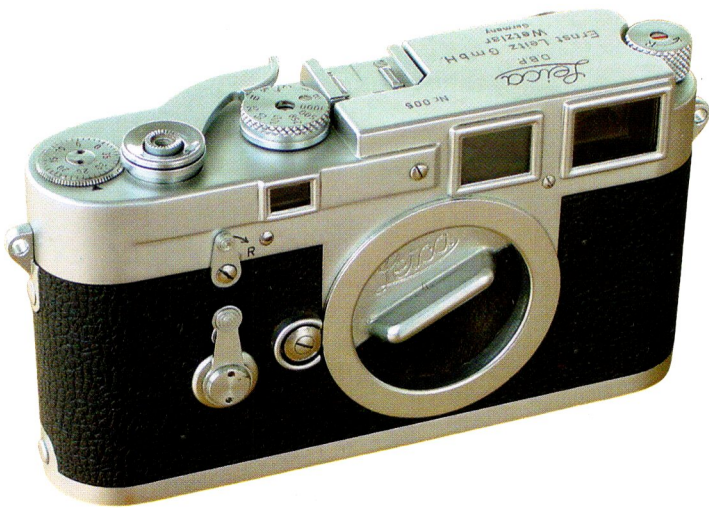


# Classic CAMERA





As had already been the case with the 1923 Leica “zero” whose 31 specimens were given to photographers and other expert users (explorers, doctors, naturalists) to make practical field tests, in 1953 a limited test series of a few dozen cameras of the new bayonet Leica—the future M3—were produced. These cameras *do not* have M3 engraved on them, but they do bear a number preceded by two zeroes: Nr. 001, Nr. 0015, Nr. 0056, etc.

Of these cameras—with their special, interesting features, today highly-sought-after and the dream of every Leica collector—the existence of only a few is known around the world.

Our cover features the lowest number currently known, the “Nr. 005”, previously published by Jim Lager on page 175 of his recent book, *Cameras* and in splendid condition. Today, a Leica M “zero” in good condition and everything “in order” is unquestionably the most important piece to be found in any Leica M collection, and perhaps in any camera collection, period.

This Leica M zero looks like and incorporates many of the features of the actual M3, but with some technical and aesthetic differences, the most obvious of which is the external, manual frame counter as on the Leica “no name”, but more evolved and elegant. The self timer lever is also very special and quite streamlined (never seen on other Leicas apart from the M “zero”) and the same is also evident in the film rewind release lever. Naturally, the famous and popular raised border on the front plate is present, identical to that on the early M3.



Looking closely at this photo, we can see the raised border on the rear left side, partially hidden by the viewfinder eyepiece. The inscriptions “Leica D.B.P.”, “Ernst Leitz GmbH” and “Wetzlar Germany” are the same text used later on the M3, but the layout, style and punctuation are different, nor does “Nr.” appear before the serial number on the later M3. The film rewind knob must be turned counter-clockwise, just as on the “no name”. Not all M “zero” cameras have these rare characteristics.



*Photos by Luigi Crescenzi*

**EDITOR**

Paolo Namias

**TECHNICAL EDITOR**

Danilo Cecchi

**CONTRIBUTORS**

Paolo Ascenzi, Luigi Crescenzi,  
Pierpaolo Cancarini, Maurizio  
Frizziero, James Lager, Derek White.

**ITALIAN OFFICE**

Viale Piceno 14, 20129 Milano  
Fax: +39-2-713.030

**USA:**

Classic Camera is published quarterly  
in February, May, August, November  
by Zoom America Inc.

USPS #018-699

Periodical Paid at Long Island City NY  
11101

Postmaster: send address corrections to  
Zoom, PO Box 1270,  
New York, NY 10156

**Subscriptions**

1 year: \$ 35.00

2 years: \$ 60.00

Zoom America, PO Box 1270,

New York, NY 10156

Toll Free 1-800-535.6745

info@zoom-net.com

**UNITED KINGDOM:**

1 year £ 20.00

The Falsten Partnership

P. O. Box 21175

London N16 6ZG

Tel: (020) 8806 2301

Fax: (020) 8806 8137

E Mail subscriptions@falsten.com

**OTHER COUNTRIES:**

Europe: € 31,50

Others: \$ 35,00

Editrice Progresso, viale Piceno 14,

20129 Milano, Italy.

Fax +39-02-71.30.30

info@zoom-net.com

© Editrice Progresso 2002

Registrazione del tribunale di Milano n.572 del  
25-7-91. Stampa Grafitalia.



Comparison between the slim and fat  
versions of the Carl Zeiss, Jena 75mm  
f/1.5 Biotar



Le Pascal, probably the first spring-driven  
film advance camera.

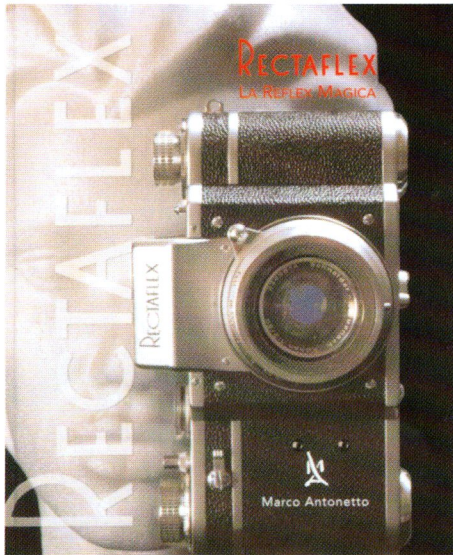


Gaudin Daguerreotype camera 7x7cm  
Cristie's auction price: £ 11,162

<u>The Collector's Bookshelf</u>	<u>2</u>
<u>Zeiss Ikon, we've got your number</u>	<u>5</u>
<u>Between Sonnar and Biotar the 75mm f/1.5 Biotar</u>	<u>10</u>
<u>Leica M Messucher</u>	<u>16</u>
<u>Spring-Driven Cameras</u>	<u>28</u>
<u>Mutar for the Rollei TLR</u>	<u>34</u>
<u>Technical specification sheets - Leica M2 &amp; Leica M1</u>	<u>38</u>
<u>The Narcissists</u>	<u>40</u>
<u>Christie's Auctions</u>	<u>42</u>

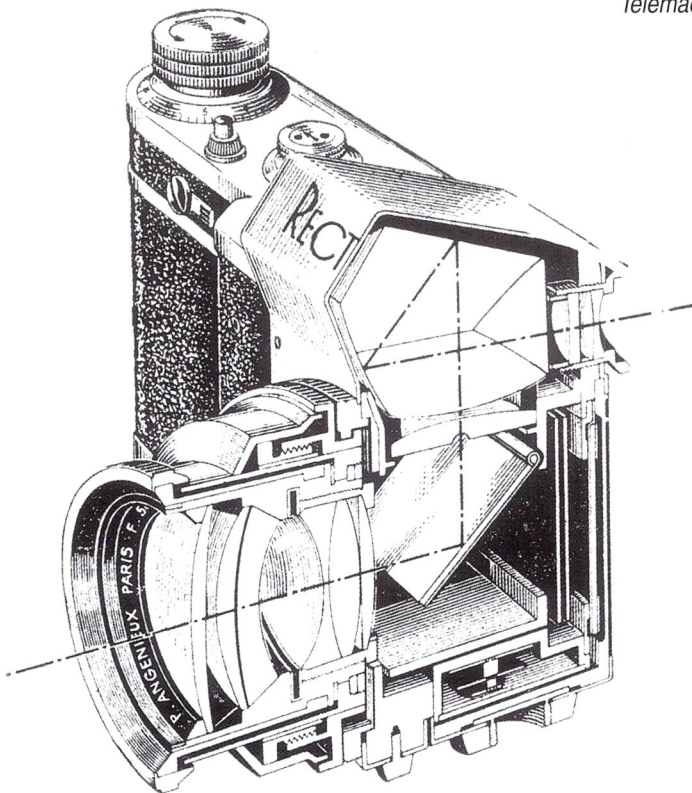
**RECTAFLEX LA REFLEX MAGICA**

**Marco Antonetto**  
**Nassa Watch Gallery 268 pp.**  
**23.5x28.5cm hardback**  
**750 copies in Italian €70**  
**1000 copies in English \$67**

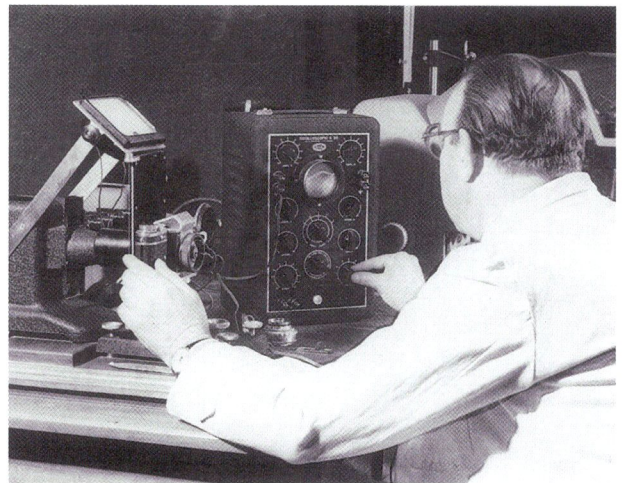


Marco Antonetto needs no introduction, being perhaps the most informed and certainly the most well-known among photography historians and Italian photographic history in particular. Nor does the Rectaflex need any special introduction since it is the most famous Italian post-war camera. Between Marco and the Rectaflex, there has always been a special relationship that has manifested itself through indirect, non-conventional publications. One such example is the gilded Rectaflex of Pope Pius XII connected with the name of Marco Antonetto on the cover of the Italian edition of a book by Wade published in 1980. That was an entire generation ago. There was also the French monograph on the Rectaflex published in 1987 by Foto Saga but "prompted" by Marco. And there was also Marco as he made his way through the stands of major fairs, armed with a powerful magnifying glass and small screwdriver in order to extort the secrets of the increasingly-sought after Rectaflex that would appear from time-to-time on stand tables. There was also the awaiting of a new publication on Rectaflex that Marco continued to announce as imminent, season after season, year after year. We remember the

galley proofs he showed us, the final page layout and the very last corrections and inserts. Today this wait has come to an end and the book on Rectaflex is available—not an inconsiderable event. If a book about the history and collecting of a camera brand could be compared to a literary classic, we could say this volume is an *Iliad*, an *Odyssey*, a *Divine Comedy*. If the requirements for a book about the history and collecting of a camera brand are creativity, completeness and clarity, this book on the Rectaflex has all this in abundance. In addition to all the rest—the large-size format, rich color photos, superb graphic layout and design—what we admire in this book about the Rectaflex, *La Reflex Magica* or *The Magical Reflex* as it is called, is the enchantment that exudes from each page, from the more austere ones in black and white that recount the origins and complex, contorted history of this camera and the company that produced it, to those in color that provide a full, detailed description for each model, each variant and each prototype, as well as each lens, each accessory, each object that is part of the world of Rectaflex, presented in a strict, precise manner. For each camera model, the front view



*Telemaco Corsi*



*Gina Lollobrigida and Humphrey Bogart*

S  
as well as the back and side view are offered, together with the top and base plate, without leaving any detail in the shadow or out of the picture in order to clarify any remaining doubts or uncertainties. An anatomy book could not be more rigorous and scientific. But there are also sophisticated full-page photos that show the various versions of the Rectaflex with different accessories and settings, taken by Princelle. A Pirelli calendar could not be more extraordinary.

The search for data, dates, names, serial numbers, facts and people was long and involved and stretched from Rome (headquarters of the Rectaflex company and factory) to far-away Vaduz, the tombstone of Rectaflex itself, and encompassed descendents and ex-employees of Telemaco Corsi, archives, libraries, collectors and dealers. In his obsession for detail, Marco received help from friends and acquaintances, amateurs and experts to bring together a publication that goes beyond the mere history of the camera and ranks as the definitive work on this brand. Together with the history of the camera is a slice of European and Italian photographic history that includes Salmoiraghi, Galileo, Koristka and Filotecnica. As a pleasant surprise, the book also covers the other great Roman camera, the Gamma, revealing the relationship that existed between Telemaco Corsi and Ireneo Rossi's sons, Giuliano and Silvano, and illustrating in the same detailed, analytical manner, all Gamma's special and commercial variations. A wide-ranging book, a thorough work from all points of view, a point-of-arrival following extensive, painstaking documentation and a touchstone for all other documentary and monographic works on cameras. Marco has promised us another book in the "Made in Italy" series on the small Ducati.

We would like to thank the author who, after having shown us an advance copy of his work, was kind enough to present us with a copy for our modest library dedicated to this area.

## STREET PHOTOGRAPHERS PHOTOGRAPHES DE RUE MINUTEROS

Patrick Ghnassia and Zilmo de Freitas  
Cyclope - Katar Press - 2001

I have always loved multi-language books, from the time I was in high school and we read the odes of Catullus with the original Latin and translation on facing pages, or Baudelaire and Rimbaud in paperback editions but again with the French on one page and the Italian translation on the next. Except perhaps at the very beginning, there was no real need for both, it was just a "double-check", to see and understand how certain expressions were translated. My love of these books has not diminished over the years—quite the opposite. I continue to collect bilingual books, such as Kafka's *Metamorphosis* in German and Italian, *White Nights* with the original Russian, *The Strange Case of Dr. Jekyll and Mr. Hyde* with the English text, as well as many others including Bram Stoker's *Dracula* and *The Silence of the Innocents*, *Naked Lunch* and *On The Road*. Even when the Italian translation is superfluous, as in Borges' *El Aleph* or Quenau's *Exercises in Style* with Italian translation by Eco, I like having the linguistic double and take a subtle pleasure in comparing the two texts. I find the same pleasure—although somewhat reduced—in the bilingual street signage in Corsica (French and Corsican) and even in Greece (Greek and English) or North Africa (Arabic and French). So, leafing through this trilingual book (French, English and Spanish) which Cyclope has dedicated to itinerant street photographers, gave me a special joy. First because of the three languages I love placed side-by-side, and secondly for the theme it deals with. That of the street photographer who, in just a few minutes and for a modest charge, will provide you with a real photograph, not an everyday Polaroid shot, but a real print made by re-

**Classic**  
 **Connection** LLC  
fine cameras

מדרורים  
עברית

Leica CONTAX H A S S E L B L A D Mamiya  
Authorized Dealer

Phone: 203-371-2352 or 203-371-2353

Fax: 203-371-2354



[www.classicconnection.com](http://www.classicconnection.com) • email: [sam@classicconnection.com](mailto:sam@classicconnection.com)

In the U.S. call toll-free: 1-888-LEICASAM (534-2272)

at **Classic Connection**  
we buy, sell and trade worldwide.

**Leica**

**Nikon Rangefinder**

**Canon**

**Hasselblad**

**Rollei**

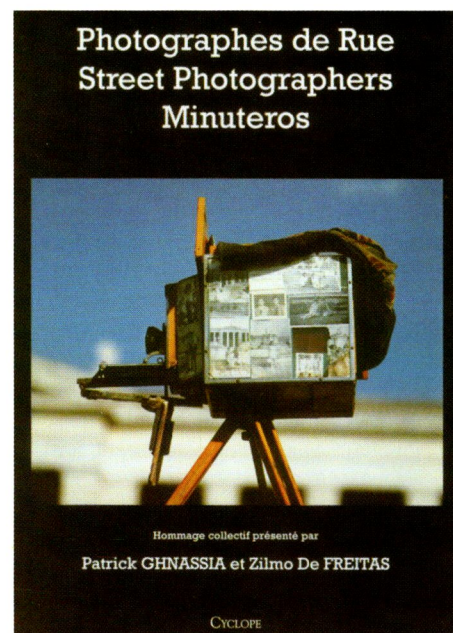
**Alpa**

and all other fine quality cameras

For more information please contact Sam Shohan by phone, fax or e-mail.

photographing the negative on a 1:1 scale on just-developed and printed paper. He is a figure we know well and have seen in Latin America, Southern Europe, North Africa and the Far East. A figure both noble and touching. Noble because he incarnates the true figure of the photographer who for just a pocketful of change practices the primordial art of photography without a studio, without a laboratory and without artifice, in a one-on-one relationship with his subject and using absolutely traditional techniques, not to mention his equipment which is almost always old, antiquated, self-built and heavily modified for use. Touching because face-to-face with the superficial Japanese or American tourist armed with a heavy Nikon F5 autofocus and awesome zoom lens and monstrous motor that takes twelve frames per second, our brave little street photographer would seem out-of-date, ingenuous, pathetic, old-fashioned, pitiful, quixotic and even tragic, but nonetheless incredibly romantic. Of all the terms used to indicate this profession or art, I prefer the Spanish *Minutero*, which in Castilian literally means the minute hands of a clock, i.e., how long his job takes. Looking through the photos collected in the book from around the world, including post-Taliban Afghanistan, the various *Minuteros* I met in Portugal, Marocco, India and Mexico immediately come to mind, not to mention their Italian brothers

who, until just a few years ago, could be found in the squares of Rome, Venice, Florence, Pisa and who knows what other picturesque spots of our peninsula. The invention of the Land camera never completely replaced the *Minuteros*, even if some did adopt the more sophisticated and costly Polaroid technique, but while paying for it in credibility. Many of the better-off *Minuteros* changed character and began using a Leica, utilizing established labs and giving up the service of immediate delivery. Even the mini-labs found in heavy tourist areas that guarantee delivery in 45, 50 or 60 minutes have not completely replaced the *Minuteros*, and our bet is that digital technology will not succeed, either. I have a hard time imagining the *Minuteros* of tomorrow armed with digital camera, cell phone, palm computer and solar-powered laser printer, stationed in front of the Acropolis, Taj Mahal or the Coliseum to take pictures of tourists, newlyweds, students on a field trip or independent travelers. On the contrary, I would like to see the traditional *Minutero* of the past more often, equipped with his modified 9x12cm bellows camera and adjustable tripod, black cloth and pails with fix and wash to provide clients with prints, still moist with gelatin.



# CHRISTIE'S

## Macchine fotografiche

Un invito a consegnare per la nostra tradizionale vendita specializzata in macchine fotografiche, attrezzatura e strumenti ottici.

### Informazioni

Michael Pritchard  
mpritchard@christies.com  
+44 (0)20 7321 3279

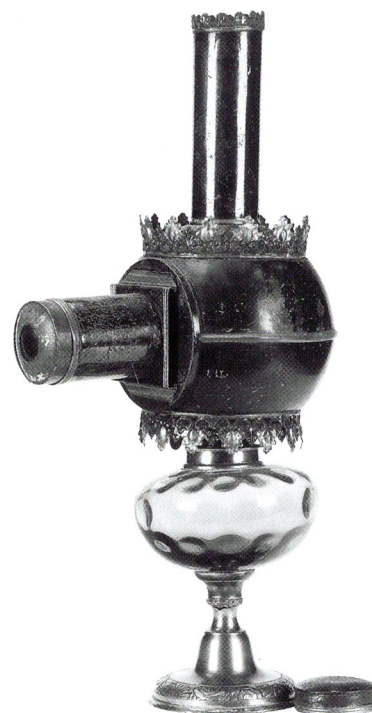
### Cataloghi

06 686 3333

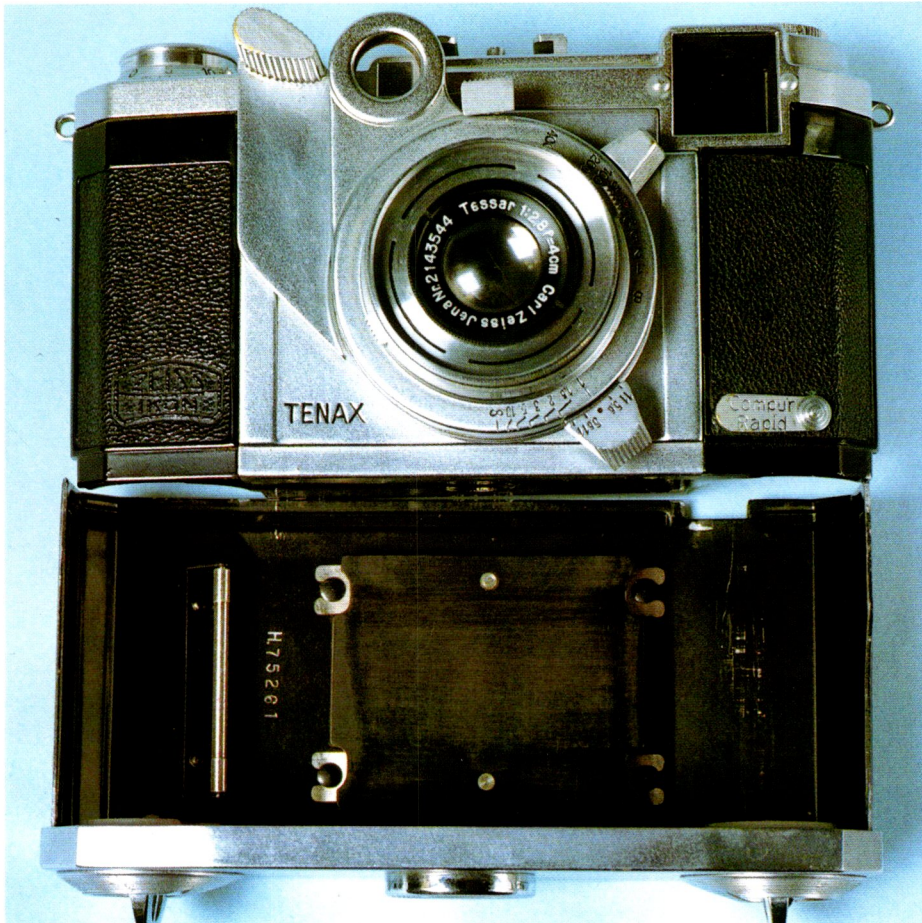
### South Kensington

85 Old Brompton Road  
London SW7 3LD

[www.christies.com](http://www.christies.com)



# ZEISS IKON, WE'VE GOT YOUR NUMBER!



Ikon began producing cameras in 1926 with the formation of the consortium that brought together ICA, Ernemann, Contessa-Nettel and Goerz. Each of these companies had dozens of cameras in production with their own numbering and coding systems, and together with the problems of reorganization was the no-less complex operation of renumbering.

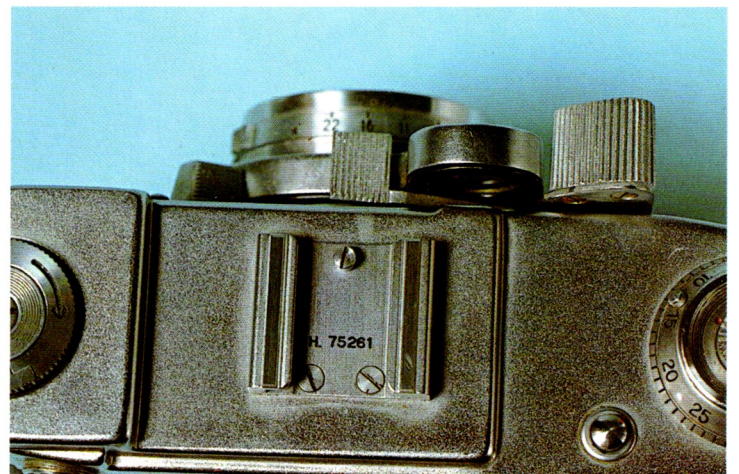
The Zeiss Ikon archives were kept in Dresden in the company's corporate headquarters housed in 22 Schandauerstraße in what were the former premises of the ICA and the headquarters were almost completely destroyed during the massive Anglo-American bombing of Dresden in 1945. Because of the large number of fire-bombs used by the Allies, hardly a trace of the documents preserved in the extensive Zeiss archives survived. This makes reconstructing the nature of the immense and widely-varied Zeiss pre-war output extremely difficult, but on the basis of recent reconstruction and thanks to the contribution of numerous collectors and researchers, a plausible chronology of serial numbers has been drafted for Zeiss Ikon cameras for the period between the two world wars.

The alphanumeric numbering system used by Zeiss Ikon for its cameras dates way back to the Huettig company and later bought up by ICA, and involves the use of an identifying letter followed by a sequence of five numbers. Rarely the letter is placed following the numbers. The Huettig company system started with A1 and, once A99999 was reached, moved on to B1 and so on. The

Number games—what fun they are! Once the camera collector has braved the dense forest of brand names and models, all the variations and different types, he or she begins to notice how important serial numbers are. Three-, four- or five-digit numbers begin to hold out special appeal, low numbers become more valuable and the key numbers that mark a changeover in production become essential. Books and periodicals publish the latest up-dated lists of numbers associated with camera bodies and lenses, while the hunt for the lowest, strangest or most even number continues. For some brand-names, its entire output is known, number-by-number. For others, only blocks of their output are known. It is not uncommon for numbers to be accompanied by letters of the alphabet that identify the type of equipment and often from the serial number the production date

can be determined.

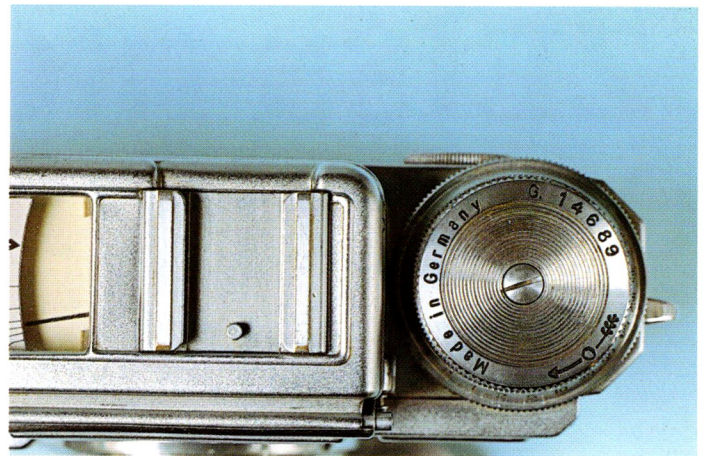
In terms of originality, Zeiss Ikon has nothing to envy the Russians, Japanese, Kodak or Victor Hasselblad. As is well-known, Zeiss



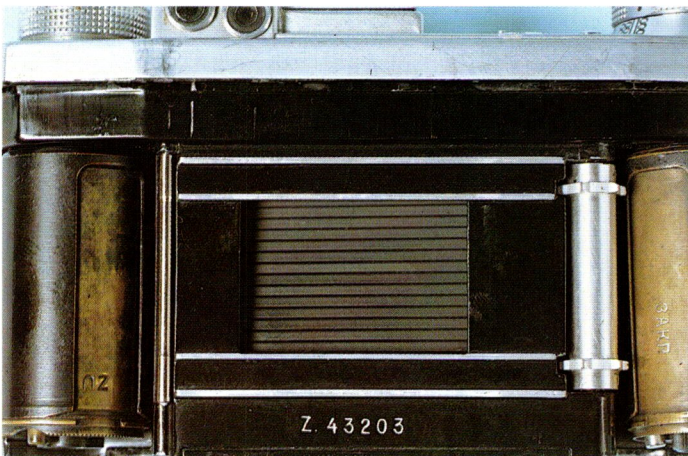
*Tenax with numbering repeated on back and clip*



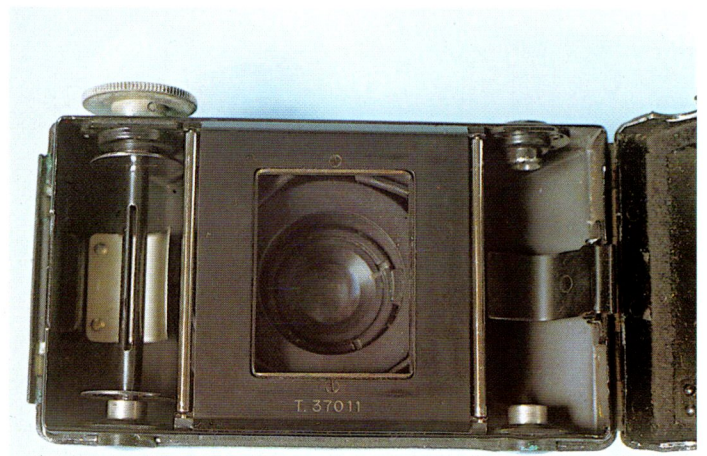
Contax I with numbering on back



Contax III with numbering on winding knob



Super Nettel II with numbering on inside



Kolibri with numbering on inside

## ZEISS IKON IDENTIFICATION NUMBERS

### Box cameras

#### 2-digit number with prefix 5

- 51 Erabox
- 52 Baldur Box
- 54 Baby Box and Box Tengor
- 55 Box Tengor

### Plate cameras

#### 3-digit number with prefix 1 or 2

- 101 Victrix
- 112 Simplex
- 207 Maximar
- 210 Trona
- 212 Trona
- 214 Trona
- 523 Kolibri
- 227 Donata
- 250 Ideal
- 265 Favorit
- 275 Juwel

### Special models

#### 3-digit number with prefix 3 or 4

- 301 Ergo
- 308 Orix
- 400 Toska

### Roll cameras

#### 3-digit number with prefix 5

- 500 Icarette
- 504 Ikonette
- 509 Icarette
- 510 Bob
- 511 Simplex
- 512 Icarette
- 515 Nettar
- 517 Cocarette
- 518 Cocarette
- 519 Cocarette
- 520 Ikonta
- 521 Ikonta/Cocarette
- 522 Cocarette
- 523 Kolibri
- 530 Super Ikonta
- 531 Super Ikonta
- 532 Super Ikonta
- 551 Icarette (Nixe)
- 540 Contax I
- 543 Contax II
- 544 Contax III
- 545 Piccolette
- 546 Piccolette

548 Bobette II

549 Bobette

570 Tenax I

580 Tenax II

### Stereo cameras

#### 3-digit number with prefix 6

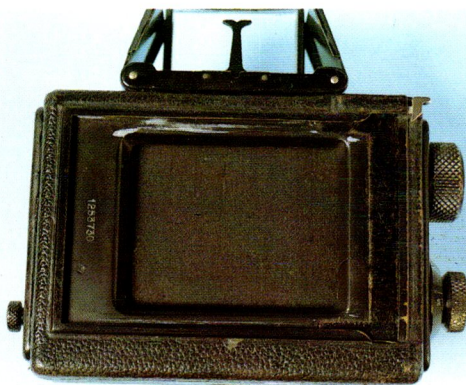
- 611 Stereolette
- 612 Steroco
- 621 Stereo Ernoflex
- 615 Stereo Simplex
- 650 Stereo Ideal
- 651 Stereo Ideal

### Reflex cameras

#### 3-digit numbers with prefix 8

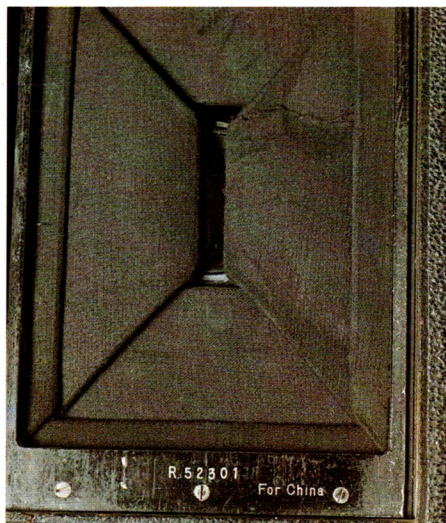
- 850 Ikoflex I
- 852 Ikoflex II
- 853 Ikoflex III
- 853 Simplex Ernoflex
- 859 Miroflex
- 860 Contaflex
- 870 Nettel





*Ermanox with old Ernemann numbering on inside*

*Bebe (for China) with numbering on inside*



ICA took over this system and continued it and Zeiss Ikon utilized it until 1972.

In 1926 when Zeiss Ikon was formed, ICA had arrived at the letter "L", so the equipment with the Zeiss Ikon brand name were numbered starting from this letter. When in 1935 the letter "Z" was reached, the series came to an end and in 1936 a new series was begun again from the letter "A". The last letter used before the war was the letter "M" in 1939. Given the fact that only 100,000 pieces are associated with each letter, in any given year more than one letter of the alphabet was often used. From the table given below, it is fairly simple to deduce the actual output of Zeiss Ikon in the pre-war period and calculate a level of production of approximately two million cameras in the years between 1926 and 1939.

In the early period of Zeiss Ikon's existence, as the corporate reorganization to integrate the merged companies was still in progress, the original numbering was maintained for a number of cameras. For a number of years, those produced in the Contessa-Nettel factories continued to use 6-digit serial numbers, while the cameras made in the former Ernemann facilities used numbers with 7 digits. Those cameras without numbering are limited to just a few models of the more economical ones, such as the Box Tengor. The position of the serial

number is also of some interest because it was adapted to each type of camera. On the Contax, the serial number is located on the inside of the back, on the Ikonta on the camera's side, on the Contax III on the rewind knob, and so on for each camera model.

The letter "I", easily confused with the number "1", was never utilized, although the letter "O" identical to the number "0" was. If examined more closely, those cameras

**YEAR, CODE AND ESTIMATED PRODUCTION**

Year	Code letter	Est. production	
1926	L	700000	-750000
1927	M - N	750000	-800000
1928	O - P	800000	-900000
1929	Q - R	900000	-100.000
1930	S - T	1000000	-1150000
1931	U	1150000	-1300000
1932	V	1300000	-1400000
1933	X	1400000	-1500000
1934	Y	1500000	-1600000
1935	Y - Z	1600000	-1750000
1936	A - B - C	1750000	-1950000
1937	D - E - F	1950000	-2200000
1938	G - H	2200000	-2350000
1939	J - K - L - M	2350000	-2650000

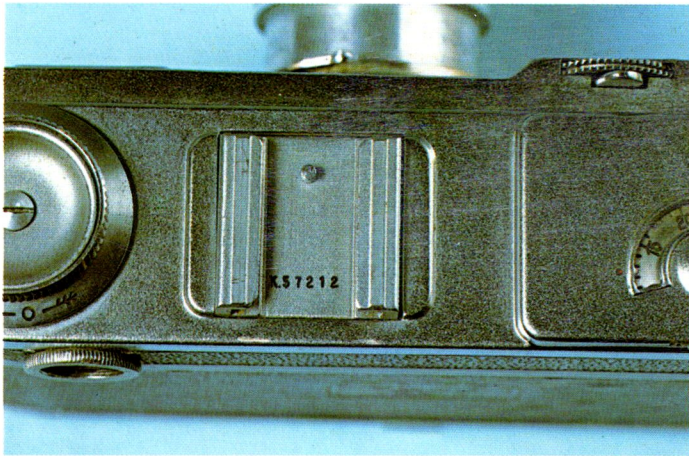
**FORMAT NUMBERS**

The second number in the Zeiss Ikon code refers to the camera format according to a system developed in the early 1930s. Plates and roll film have different codes, but for plate cameras that can also be converted to use roll film, only the plate format code is utilized. The 6x9cm format is indicated with the number /2 but the 4.5x6cm format (obtained by halving the 6x9) has no ID number, while the number /16 indicates the square 6x6cm format. The 3x4cm format on 127 film has the number /18 and format 4x6.5cm the number /12.

For 35mm format, two-number codes are used and /24 indicates the classic 24x36mm, while /27 indicates the square 24x24mm format.

The table below summarizes these various formats, all expressed (unless otherwise indicated) in centimeters.

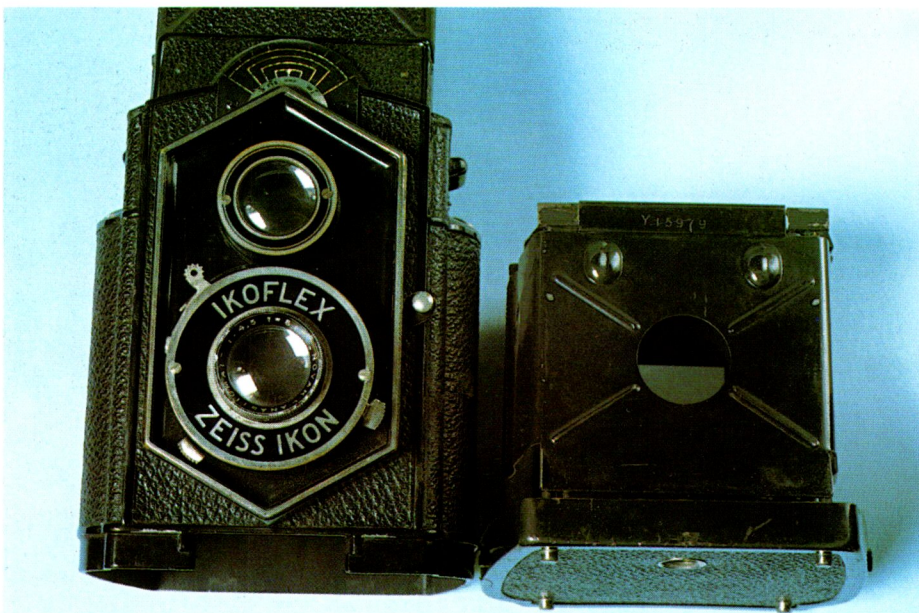
-	4.5x6	
/1	4.5x10.7	stereo
/2	6x9	
/3	6.5x9	
/4	6x13	stereo
/5	8.3x10.8	
/6	8x14	
/7	9x12	
/8	9x14	
/9	10x15	
/10	12x16.5	
/11	13x18	
/12	4x6.5	
/13	9x9	
/14	5x7.5	
/15	6.5x11	
/16	6x6	
/17	8x10.5	
/18	3x4	
/19	9x18	
/20	18x24	
/21	24x30	
/22	18x24 mm	
/23	22x33 mm	
/24	24x36 mm	
/25	-	
/26	10.5x14	
/27	24x24 mm	
/28	12x12	
/29	18x18	
/30	6.5x9.5	
/31	-	
/32	7.5x10	



*Contax II with numbering on clip*



*Box Tengor without numbering*



*Ikoflex with numbering on spool holder*

### LENS AND F-STOP ID LETTERS

A	Nettar	f/7.7
C	Nettar	f/6.3
D	Nettar	f/4.5
K	Triotar	f/3.5
I	Novar	f/4.5
F	Novar	f/3.5
L	Tessar	f/3.5
N	Sonnar	f/2.0
J	Sonnar	f/1.5
P	Tessar	f/2.8
U	Tessar	f/4.5

which seem to begin with the letter "I", can be seen to begin with a "T" or "E". "W" was never used on cameras, but was on some accessories, such as the Contameter or Stereotar.

A rare exception to the rule of the identifying letter can be found in the first Contax series in which the initial letter was sometimes replaced by the letter pair "AU" or "AV". Since these cameras were produced in the years 1931 and 1932, the relevant letter is the second one of the pair. There were 6500 pieces manufactured in the first Contax lot and they were marked with the letter "U", while the first two thousand of the second lot were marked with the letter "V". The second Contax lot is comprised of 8500 pieces. Subsequent Contax lots were marked with a single letter placed before the corresponding serial number. The reason behind the double letter has never been clarified, but it could be that there was so much enthusiasm for the new product that

they were marked with the letter "A" as a propitious sign, like starting again from zero. There is no direct relationship between the serial numbers of the cameras and lenses since the pairing of the lenses coming from Jena and the cameras from Dresden was completely arbitrary.

#### Zeiss Ikon code numbers

For Zeiss Ikon, assigning numbers was never a light matter and each model of Zeiss Ikon equipment is identified by a number or pair of numbers that must never be confused with the serial number of each individual camera. The ID code for the type of camera appears in catalogs but not always in the individual pieces and indicates both their type and format. For example, we know that the number 521 identifies 4.5x6cm format Ikonta bellows cameras, while 521/2 identifies the 6x9cm Ikonta, 521/16 the 6x6 Ikonta, etc. The number 860/24, on the other hand, designates the twin-lens Contaflex. The first

number always identifies a type of camera and the second a format.

#### Identifying types

Behind the formulation of the ID numbers used on Zeiss Ikon cameras are complex criteria that can be intuited on the basis of the examples given. With the exception of box cameras, all numbers are 3-digit of which the first indicates a type (plate, roll, reflex finder, etc.). The same code number followed by a format code different from the usual one identifies a different camera, but could also indicate an accessory instead of a camera. The Contax ID code 540 followed by /24 identifies a camera, but when it is followed by different numbers it indicates some of the accessories in the Contax system. For example, the number 540/1 is used for the bakelite cassettes, 540/12 for the correction lenses, 540/13 the back for flat films and the numbers 540/15 /16 /17 indicate a series of filters for Agfacolor films.

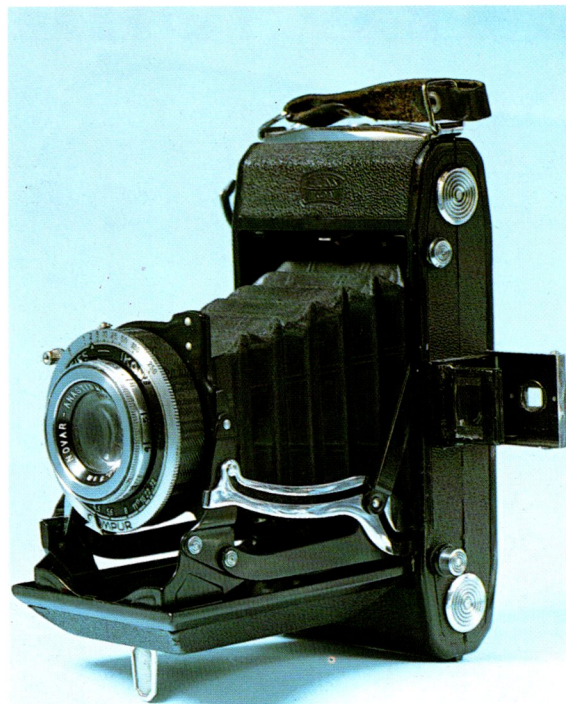


*Ikonta 521/2*



*Model ID number  
on Ikonta back*

*Model ID number  
on Nettar back*



*Nettar 515/2*

## FINAL NOTE

However, even German precision has its limits and there are various numbering series that do not follow the rules given above. In addition to known instances of duplication of the serial number, the most obvious cases are those of pre-war lens mounted on more recent cameras or, conversely, camera bodies produced before the war, completed with more modern lenses that can be identified from the Zeiss Opton logo. It can often happen that pre-war Super Ikonta 523/16 camera bodies (indistinguishable from the post-war model) are paired with newer-production lenses, but it can also happen that pre-war serial numbers are used for post-war cameras. Clearly, because of the cutback in civilian production during the war years, the serial numbers planned for use during the years 1939-1940 were not completely assigned and continued to be used after the war. Following the war, the traditional classification system was retained and continued to be utilized throughout the 1950s. Thus, post-war Ikonta are still identified with the number 521, the Ikonflex by the number 850, the Box Tengor by the number 55, etc., with new numbers added for new cameras or new modified versions. The criteria for the double type/format numbering was gradually abandoned at the end of the decade in favor of a new system, a so-called computer system, that utilized six digits divided into two groups of two and four digits. The new system was definitively adopted starting in 1958. For example, the number that identified the Contax IIa changed from the traditional 563/24 to the more anonymous 10.1800.

Universal filters are identified with a 3-digit code with the prefix 3 and are followed by numbers that indicate their density: /1 light, /2 medium, /3 dark. Even the camera bags have their own 4-digit code with prefix 17 and followed by a code for the camera format. For cameras with interchangeable lens, a final letter is used so, for example, 540/24L indicates the Contax I with Tessar f/3.5 and the number 540/24P the Contax I with Tessar f/2.8, while the final letters N and J indicate the Sonnar f/2.0 and f/1.5. For those cameras equipped with different lens/mechanical equipment, more complex alphabetical codes are used that give the lens (capital letter) and shutter (lower case letter). The number 580/27 Ncsr identifies the Tenax II 24x24mm with Sonnar f/2.0 lens and Compur OSR shutter.

**Pierpaolo Cancarini  
and Danilo Cecchi**

# BETWEEN SONNAR AND BIOTAR THE 75mm f/1.5 BIOTAR



*Slim Carl Zeiss, Jena 75mm f/1.5 Biotar with screw mount*

For the Carl Zeiss lens company of Jena, the tragedy of the war years marked an irreparable rupture that included the forced removal from the Thuringian capital of a large portion of its management and the work force. Despite this hemorrhage of manpower and resources, lens production in Jena started up again immediately after the war and the factory, still owned by Carl Zeiss, continued as in the past to produce camera and cinematographic lenses. In addition to the manufacture of universally-known lenses such as the Tessar produced in a wide variety of focal lengths and speeds so that they could be mounted on a range of different cameras and equipment, the Carl Zeiss facilities in Jena also continued to make special lenses designed to be

utilized exclusively on specific cameras.

## **Between Contax and Exakta**

In the pre-war period, the Tessar lenses by Carl Zeiss, Jena had equipped a large number of medium-format cameras such as the Ikonta and Super Ikonta, and numerous 35mm cameras of various brand names. Alongside these general-use Tessar lenses, during the same period Carl Zeiss, Jena had also built very fast lenses to be used primarily on the single-reflexes of the day. One of these lenses was the 80 mm f/2.0 Biotar destined for the Night Exakta. The pre-war output of Carl Zeiss, Jena was also known for its very fast lenses to be mounted on rangefinder Contax cameras. In fact, during the 1930s, the famous Sonnar lenses were built for

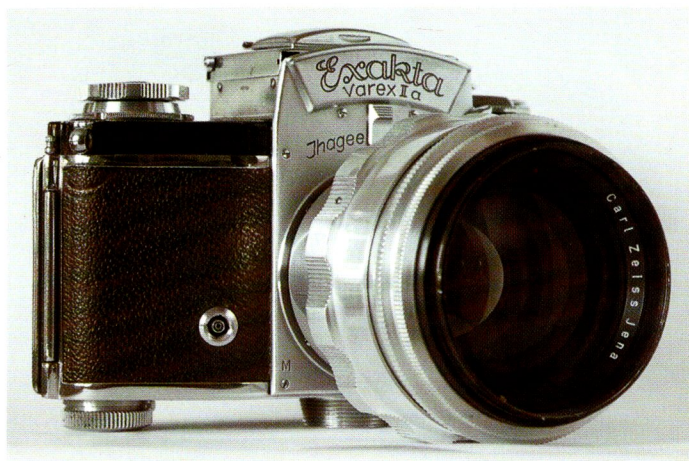
Contax, with focal lengths of 85mm f/2.0 and 50mm with f/2.0 as well as f/1.5, unusual for that time. The Sonnars were also made with focal lengths of 135mm f/4.0 and 180mm at a fast f/2.8. The manufacture of a number of lenses with Contax mount continued into the post-war period to equip the new Contax IIa and Contax IIIa made in Stuttgart. To compensate for the momentary shortages at Carl Zeiss, Oberkochen, the standard 50mm f/2.0 Sonnar lenses and the 85mm f/2.0 Sonnar portrait telephoto as well as a number of new lenses and long telephoto lenses for the Flektometer reflex boxes were also made in Dresden.

## **Jena lenses for Dresden**

Even if some of the lenses produced by



*Slim Carl Zeiss, Jena 75mm f/1.5 Biotar on Contax Pentacon*



*Fat Carl Zeiss, Jena 75mm f/1.5 Biotar on Exakta; note the black ring on the front that indicates the aperture pre-selector*



*Fat Carl Zeiss, Jena 75mm f/1.5 Biotar with Exakta bayonet mount*

Carl Zeiss, Jena after the war were destined for Stuttgart, the majority of them were made for Dresden. The Tessar and Sonnar lenses were modified to be used on the 35mm reflexes manufactured in Dresden and were made with different mounts. After the war, we find Jena lenses with bayonet mount for Exakta, screw mount for Praktica and Contax S and breech lock bayonet mount for Praktina. The fastest of the Sonnars, the 50mm f/1.5, was never offered in a reflex version, while the 50mm f/2.0 Sonnar was modified with the same f-stop but its focal length upped to 58mm so that it would not interfere with the moving mirror of the f/2.0 reflexes. After some initial hesitation, the name of this new lens was changed from Sonnar to Biotar.

For the Dresden 35mm reflexes, two other Sonnar telephoto lenses were also created—the 135mm f/4.0 and 180mm f/2.8—without any change being made in the lens design and taking advantage of the generous focal length that made them perfectly compatible with reflex mirror movement. The 180mm f/2.8 Sonnar, together with the 80mm f/2.8 Tessar (later

replaced by the 80mm f/2.8 Biotar and new 120mm f/2.8 Biometar) also became part of the lens outfit for the Praktisix and Pentacon Six 6x6cm reflexes.

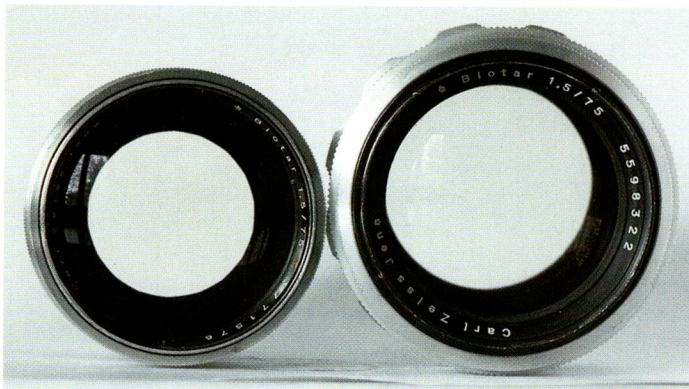
### **The heirs of the 85mm Sonnar**

The 85mm f/2.0 Sonnar portrait telephotos were built in Jena after the war, but only with the rangefinder Contax mount and, strangely enough, were never modified for use on any of the 35mm reflexes produced in Dresden or for the medium format Praktisix reflexes. It was the Soviets who nonchalantly took up the 85mm f/2.0 Sonnar scheme, offering it under the name Jupiter 9 on Kiev rangefinders (Contax copies) and Zorki rangefinders (Leica copies), as well as on the Zenit 35mm reflexes. For the Zenit, the Jupiter 9 was produced throughout the 1950s with 39mm screw mount and later, throughout the decade of the Eighties, with a 42mm screw mount identical to that of the Praktica and Pentacon. Despite the standardized mount, the Jupiter 9 was never equipped with automatic stop-down. The Carl Zeiss factory in Oberkochen only started offering the 85mm f/2.0

Sonnar once again in 1958 with a special Contarex mount, giving it the new name of Planar. It was only in the early Nineties that Carl Zeiss, Jena offered a new portrait lens with screw mount and automatic stop-down. This 80mm f/1.8 lens, although derived from the 85mm Sonnar, was not called either Sonnar or Biotar, but Pancolar, a name that had been patented after the war in the DDR.

### **Beyond tradition**

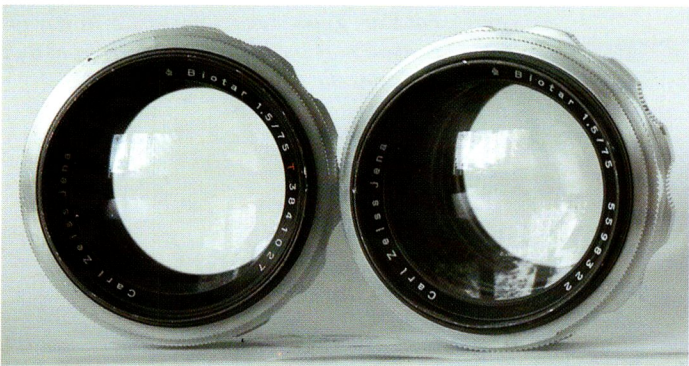
In the lens equipment destined for Dresden reflexes in the immediate post-war period, there seemed to be too much of a gap in the focal lengths between the standard 58mm Biotar and 135mm Sonnar telephoto, while a fast, portrait telephoto was lacking. Above all, in Jena, they did not want to give up making a lens with a speed comparable to that of the f/1.5 Sonnar whose manufacture had been transferred to Oberkochen. To equip the Dresden reflexes with a very fast portrait lens, a new medium focal length lens was made starting in 1947. A 75mm focal length was chosen with a maximum speed of f/1.5 and, instead of being called



Comparison between the slim and fat versions of the Carl Zeiss, Jena 75mm f/1.5 Biotar (front view)



Comparison between the slim and fat versions of the Carl Zeiss, Jena 75mm f/1.5 Biotar (side view)



Comparison between the Carl Zeiss, Jena 75mm f/1.5 Biotar versions for Exakta and Praktina (front view)



Comparison between the Carl Zeiss, Jena 75mm f/1.5 Biotar versions for Exakta and Praktina (side view)



Fat Carl Zeiss, Jena 75mm f/1.5 Biotar on Praktina; note the black ring on the front that indicates the aperture pre-selector

Sonnar, the new project was given the name Biotar. The 75mm Biotar for the Dresden reflexes was made with an Exakta mount, a screw mount for the Contax Praktica and a Praktina mount. But, on the request of Stuttgart, it was also produced with a mount for the Contax rangefinder. While the 85mm Sonnar was never mounted on Dresden reflexes, paradoxically the new 75mm Biotar was freely mounted on Stuttgart rangefinder cameras, at least during the short period of forced collaboration between Stuttgart and Jena.

The 85mm Sonnar for Contax is a beautiful, highly-esteemed and sought-

after lens, but it is not rare. Nor are the 85mm Planar for Contarex and 85mm Jupiter 9 made by the Soviets at all rare. The 75mm Biotar, on the other hand, has become a fairly rare lens and remains one of the most interesting lens projects of its era.

### The Biotar 75mm

The 75mm Biotar, like all Jena lenses of the same period, was manufactured with a mount made of light-weight aluminum with external finishing in unpolished metal. Its optical scheme was composed of six elements and covered an angle of 32 degrees. Large and bulky, the 75mm

Biotar weighed 460 grams, used 55mm diameter screw-mount filters and had a focusing range of between a meter to infinity. The diaphragm generally stopped-down to f/16 and only rarely to f/22. Initially manufactured with manual diaphragm closing, the 75mm Biotar was equipped starting in the early Fifties with aperture pre-selector and identified with the initials BV that stood for BlendVorwahl. In the aperture pre-selector version, the 75mm Biotar seemed "fatter" and the filters increased in diameter to 58mm, but at the same time the minimum focusing distance decreased to 80cm. The 75mm Biotar was manufactured with



*85mm f/2 Jupiter 9, Soviet version of the f/2 Sonnar for 35mm reflex*



*85mm f/2 Jupiter 9 mounted on a Zenit 3M with 39x1 screw mount*

Exacta bayonet mount and 42x1 screw mount, both with manual and pre-selector aperture, while it was made with Praktina bayonet mount only for pre-selector aperture. In the rangefinder Contax bayonet mount version, the aperture pre-selector was obviously useless and its silhouette remained trim and its filter diameter remained 55mm. Compared with the long life other Carl Zeiss, Jena lenses for reflex cameras had, that of the 75mm Biotar was relatively short, being produced at the end of the Fifties, although it could be found in some catalogs through the early Sixties. Another aspect that made the 75mm Biotar an exception that made the 75mm Biotar an exception. Perhaps because it was judged too expensive or demanding, the 75mm Biotar was taken out of production without ever acquiring the automatic aperture opening/closing typical of other Jena lenses and without ever being

replaced by another, just as fast, lens. Today the 75mm Biotar is an object much-in-demand by collectors, and not just those interested in photographic equipment from the ex-DDR.

### **The legacy of the Biotar 75mm**

The f/1.5 speed barrier for a lens with a medium focal length established by Carl Zeiss, Jena with the Biotar 75mm was only matched and exceeded by a handful of lens makers during the 1960s and 1970s, and it is only more recently that the trend towards 85mm with a speed of f/1.4 or even higher has taken hold. In 1943, Leitz, Wetzlar created a 85mm f/1.5 Summarex with seven elements for the screw Leica, but this lens was not sold commercially until after the war, starting in 1949. The Zeiss and Leitz examples were imitated during the Fifties by other Japanese, German and even Soviet

companies. Around the year 1950, Canon released an 85mm f/1.5 Serenar with screw mount and in 1951 Nippon Kogaku produced the extraordinary 85mm f/1.5 Nikkor for the rangefinder Nikon. In 1955, the German lens company, Enna Werke of Munich, released the screw mount 85mm f/1.5 Ennaston for reflex cameras of that period, while, at the end of the 1950s, the Soviets produced a screw mount 85mm f/1.5 lens known as the Helios 40. And, even Carl Zeiss, Jena, towards the end of the 1960s, reached back to the Biotar 75 mm in a certain way, offering a lens with the same 75mm focal length but with a speed of f/1.4 for the Pentacon Super. However, the new lens was given the Pancolar, not Biotar, name. Aside from these exceptions and a few lesser-known others, over the period that spans the Fifties to the Seventies, the maximum speed reached by lenses with



*A German competitor of the 75mm f/1.5 Biotar—the 85mm f/1.5 Ennaston*



*The Helios 40 and Jupiter 9—comparison of the two Soviet fast telephoto lenses (front view)*



*The Helios 40 and Jupiter 9—comparison of the two Soviet fast telephoto lenses (side view)*

a medium focal lengths of 80-90mm, normally did not exceed f/1.8. Products of this type are many and well-known, including the f/2.0 Summicron by Leitz for the Leica M, the 85mm f/1.8 Nikkor for the Nikon F, the 85mm f/1.9 Takumar by Asahi Optical, the 85mm f/1.7 Rokkor by Minolta and the 85mm f/1.8 Canon for the Canon reflex, just to name the most famous. It would take until the mid-Seventies to see a reawakening of interest for medium focal lengths with fast speeds. In 1974, for the Contarex, Carl Zeiss, Oberkochen released the 85mm f/1.4 Planar with six elements that also became part of the Contax/Yashica outfit as well as that of the Rollei SL35. In 1980, for the Leica M, Leitz produced a 75mm f/1.4 Summilux with seven elements, making changes in its casing after just two years. With the 1980s, the creation of high-

speed, 85mm lenses proliferated, with aspherical lenses also being used in their lens schemes. In 1980, Leitz released the 80mm f/1.4 Summilux R with seven elements and Nikon released the 85mm f/1.4 Nikkor with seven elements, followed in the late Nineties by an autofocus 85mm f/1.4 Nikkor AF with nine elements. Minolta later released its 85mm f/1.4 Minolta AF telephoto with seven elements and Pentax presented the 85mm f/1.4 Pentax A telephoto with eight elements, following it up by the Pentax FA autofocus version with the same specs, while Canon presented a fantastic portrait lens, the 85mm f/1.2 Canon EF autofocus with eight elements and weighing over a kilogram.

Compared with very fast modern portrait lenses that produce exceptional results and make use of special types of glass,

unusual optical schemes and the aid of automatic focusing with internal lens movement and vibration dampers, the Biotar 75mm seems extremely dated and risks succumbing to the competition. But it can still be seen in action, hanging around the neck of a die-hard traditionalist and mounted with the aid of a few adapter rings on a modern camera.

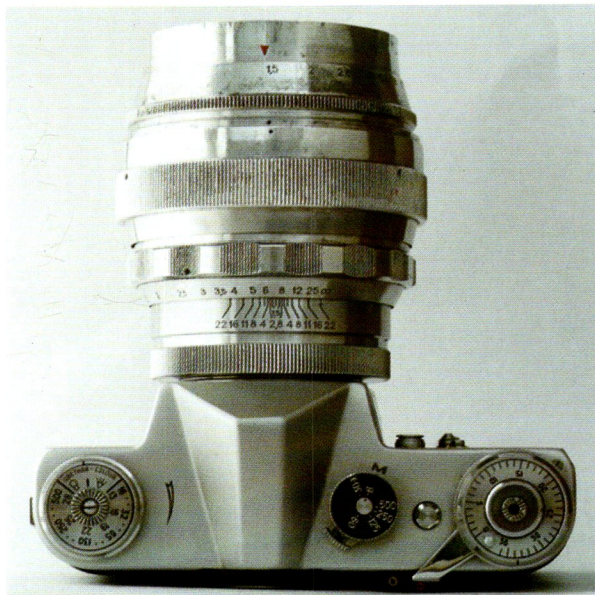
### **The Biotar 75mm and the collecting market**

According to Gunther Kadlubek's lens price guide—the only one of its kind extant—estimated prices for the 75mm f/1.5 Biotar on the collecting market vary greatly depending on finish and type of mount. The Biotar 75mm with Pentacon (Praktica screw mount goes for a minimum of 350 DM with CZ Jena B inscription and 58mm filters and up to





A Soviet competitor of the 75mm f/1.5 Biotar—the 85mm f/1.5 Helios 40



85mm f/1.5 Helios 40 mounted on a Zenit B reflex with 42x1 screw mount

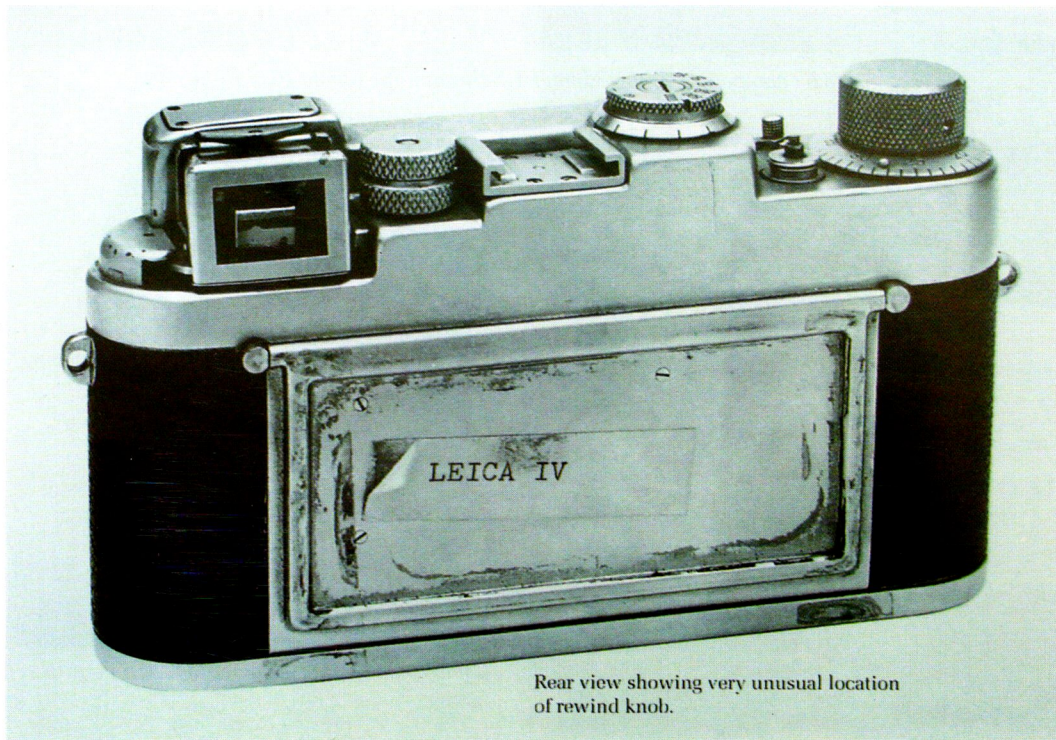
### THE BIOTAR 75mm AND COMPETITORS

Biotar slim	75mm f/1.5	1947	6 lens	Filters 55	100cm	460 g
Biotar fat	75mm f/1.5	1952	6 lens	Filters 58	80cm	600 g
Summarex	85mm f/1.5	1949	7 lens	Filters 58	100cm	800 g
Serenar	85mm f/1.5	1950	7 lens	Filters 58	100cm	
Nikkor	85mm f/1.5	1951	7 lens	Filters 60	100cm	546 g
Ennaston	85mm f/1.5	1955	6 lens	Filters 62	120cm	
Helios 40	85mm f/1.5	1957	6 lens	Filters 66	80cm	900 g
Pancolar	75mm f/1.4	1968	7 lens	Filters		
Planar	85mm f/1.4	1974	6 lens	Filters 67	100cm	
Planar T*	85mm f/1.4	1976	6 lens	Filters 67	100cm	595 g
Planar HFT	85mm f/1.4	1976	6 lens	Filters 67	100cm	
Summilux M	75mm f/1.4	1980	7 lens	Filters 60	100cm	490 g
Summilux M	75mm f/1.4	1982	7 lens	Filters 60	75cm	600 g
Summilux R	80mm f/1.4	1980	7 lens	Filters 67	80cm	625 g
Nikkor	85mm f/1.4	1980	7 lens	Filters 72	85cm	620 g
Nikkor AF	85mm f/1.4		9 lens	Filters 77	85cm	560 g
Minolta AF	85mm f/1.4		7 lens	Filters 72	85 cm	560 g
Pentax FA	85mm f/1.4		8 lens	Filters 67	85cm	550 g
Canon EF	85mm f/1.2		8 lens	Filters 72	95cm	1025 g

800 DM for specimens with CZ Jena Biotar inscription and 55mm filters. But prices can go as high as 1000 DM for older pieces with focal lengths marked in centimeters and minimum focusing distance of one meter. The Praktina bayonet mount model has an estimated value of 450 marks, both for the CZ Jena B and CZ Jena Biotar versions. With Exakta mount, the Biotar 75mm starts from an estimated value of 500 DM for the 58mm filter version, going up to 1000 DM for the 55mm filter version with aluminum or chromed brass. Finally, the Contax bayonet mount version with rangefinder brings the highest prices, up to 2000 DM.

**Danilo Cecchi,  
Massimo Bertacchi,  
Norberto Tubi**

# LEICA **M** MESSUCHER, "A STAR IS BORN!"



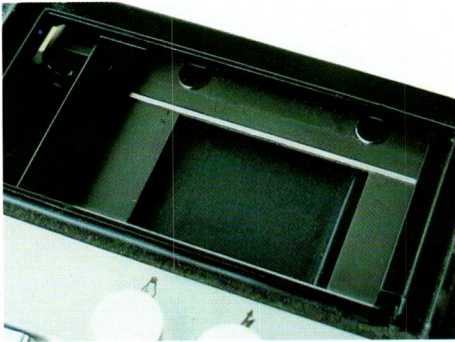
Rear view showing very unusual location of rewind knob.

*This is the Leica IV as seen in Jim Lager's wonderful book, published in 1993. The author gives the probable manufacturing period of this prototype as 1935-36, while other German experts currently believe that a date of 1938-39 is more likely. But even an intensive factory investigation might not reveal the exact date.*

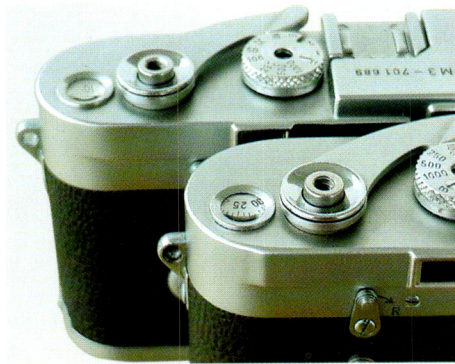
*Dear Classic Camera Reader, I hope I don't appear too "politically incorrect" if, after my long absence from these pages, I have taken the liberty of offering an article on that all-time favorite ... the Leica M! In the future, if inspiration strikes, I was thinking of preparing a detailed report on some particularly exotic model—maybe an Armenian camera still available in Pakistan. Or, what about a short dissertation (10-12 pages long) on an ingenious 1950s Siberian folding camera made of plastic and cardboard?*

1946. All German companies, even the most successful ones such as Leitz that were spared massive Allied bombing, had to struggle to get back to "civilian" production in a country that had been destroyed on a large-scale and afflicted by a serious shortage of technical personnel, materials and job orders. But perhaps thanks to some mysterious law of "losers' revenge", industrial recovery in Germany (and Japan and for that matter also in Italy) was fast and strong with high-quality products soon being produced in a number of sectors. It would almost seem as if from these devastated countries they

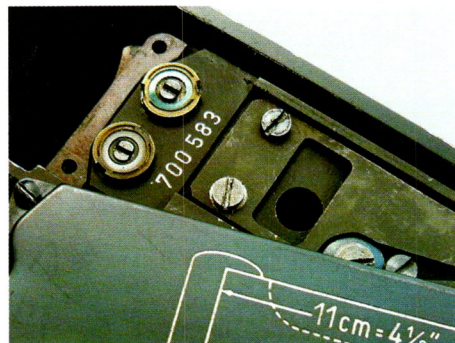
were saying, "We didn't win the war, but let's at least try to win the peace!" Despite the fact that 394 Leitz employees lost their lives in the war between 1939 and 1945, once hostilities ceased production of Leica cameras for the civilian market began to take off, with approximately 5000 of the renewed model IIIC produced in 1946 and over 15,000 by just the next year in 1947! Alongside these, given the strong demand from what was, once again, a worldwide market (or virtually worldwide ... I don't think the Soviet/Communist block had ever been a major consumer of "real" Leicas!), a few



The other feature specific to the first M3 cameras is the difference in the area over which the film passes, as can be seen in this photo of M3 no. 700583. Note the two circular shapes that extended slightly that are not found in cameras manufactured later.



This comparative photo highlights the previously-mentioned front raised border of M3 no. 700583, already gone from M3 no. 701689. Today a Leica M3 with raised border is a "must" for Leica M collectors and has definitely raised their price and made them difficult to find!



Of course, it is always a good idea to examine the internal serial number closely: this must be the same number engraved on the top and it must be "untampered" with. The internal casting (partially visible in this photo) is different in first lot M3s.



Fortunately (for serious lookers), not only can a lovely M3 with raised border and low serial number still be found, but it may also still be in its original box with its "own" instruction booklet, both dating from March 1954.

List Photo No. 8684 / Engl.  
III / 54 / DLX

not appear until 1940) - lens mount ... still exclusively screw mount! In fact, I remember having read an official Leitz release (from that era), which clearly maintained the superiority of screw- over bayonet-mounts, an affirmation not without foundation given the fact that the bayonet does theoretically increase the chance of the lens and/or camera being scratched or nicked during lens assembly, not to mention the danger of the lens falling out if there is no ... click! But these are minor disadvantages that are more than compensated for by the increased rapidity and practicality of the bayonet mount system which was a success and immediately adopted by all manufacturers.

For reasons unknown, these improvements were "forgotten about" for many years, perhaps because of the untimely death of its irreplaceable designer, Oskar Barnack (if only there were someone like him today!), but also probably because of the war which saw most of Leitz's productive energy turned to supporting the war machine and the consequent shelving of its more innovative projects.

But now we get to more recent times. In 1954 (or maybe it was already 1955), a young Luigi Crescenzi, 13-years-old and

already actively interested in photography, would spend hours-at-a-time, his face pressed up against those rare camera stores in Rome in a position to display a Leica, weaving impossible dreams! (But always from the outside. To this day, the same "young man" will only enter a store when he actually wants to buy, as his shopkeeper and "private collector" friends with their itinerant stands know). If at the time he could have afforded a Leica, it would have been a very early M3, perhaps with a 700xxx number and even equipped with the legendary "raised border". A true *star* had been born!

Just try to imagine the amazement and excitement owners of any other model Leica screw-mount or Leica copy must have felt when they saw, touched and held their first Leica M! It must have been fantastic trying that fast, butter-smooth double-stroke winding lever, or looking into the extraordinary incorporated viewfinder/rangefinder window—crystal-clear, good contrast, with three built-in bright framelines for 50, 90 and 135 mm lenses, with the correct one automatically selected when the lens was changed. And don't forget how easy it was finally to change film safely with the new opening back.



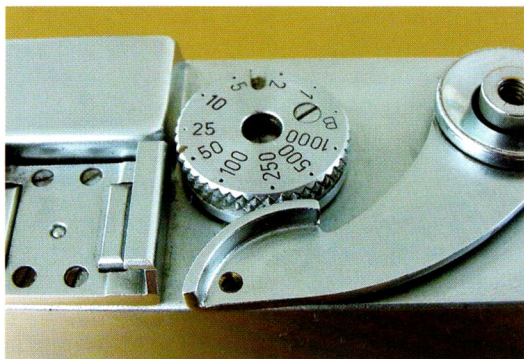
The Leica “no name” with bayonet lens mount, a true “bridge” between the screw-mount series (and the Leica IV) and the definitive M series not yet designated “M3”. This prototype is covered with the famous, indestructible Vulcanite material known as “Sharkskin”. The camera body dimensions are still smaller than the M3, but larger than the IIIIF and its special base plate is not compatible with either. The bayonet M, despite some minor differences, is already compatible with all future lenses that were so successful. On the left, note the legendary raised border. Of course the frame finder selection lever is missing since it was only to appear in the so-called type 2 M3 of 1955. A nice Leica, isn't it?



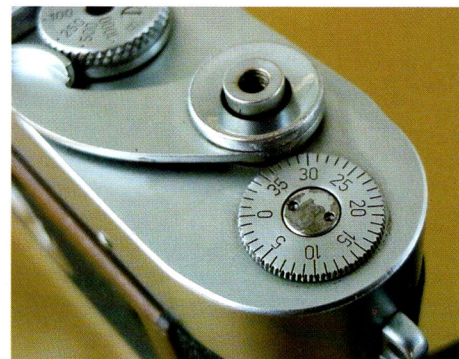
On the back, note that the opening door has a strange copper-color finish that is NOT painted, just as the two protruding parts of the camera body that mark the left and right. Perhaps it was a Freudian attempt to avoid those being the ONLY two parts to be black finished (apart from the finder eyepiece), a really sore point for future collectors and lovers of aesthetic perfection! The circular symbol of the film in use in the center of the door has no color at all. The chrome disk that surrounds it, while awaiting information about manufacturer-supplied film speed information, for reasons unknown is totally without a chrome flash system.



The rectangular frame lines of the viewfinder and rangefinder windows have all the earmarks of having been handcrafted. The viewfinder/rangefinder is different from the definitive one, but just as functional.



The film advance lever with its extraordinary shape common to all Leica M prototypes (which collectors even find ... sexy!) in this unique camera it has a hole drilled at the end, almost certainly to test the possibility of remote control using a wire-connected device—an old Leitz habit that goes back to the rare OOFRC accessory dated 1936 and the many MOOLY that have a similar hole on the shutter release lever.



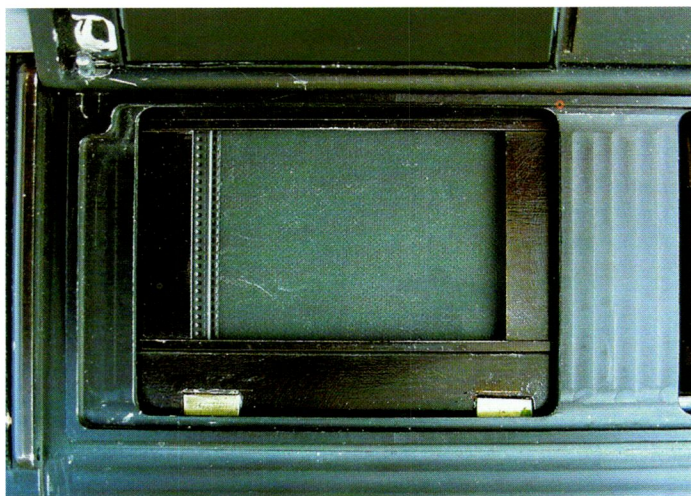
The external and manual-set frame counter—unlike the standard M3 with the luxury of an automatic one—is different from any of the successive models, including the M “zero”.



*Even the strap eyelet is different from the M3's and this prototype is also equipped with two sturdy, circular "mushroom-shaped" knobs that were attached to an elegantly-riveted internal plate. In my view, this could have become a safe way to attach accessories, speedlights, etc. as on some Canon rangefinders of that period.*



*The black glass film pressure plate is smaller than that on the M3 and the interior is completely different with a number of unique details that are only found in this prototype. On the rear edge of the base plate, where the side curve begins, are two other corners.*



*Here is a close-up of the area the film passes through, completely different from any other Leica I have examined.*



*The last shot of this rather mysterious Leica M "no name" prototype. Part of its undeniable appeal springs from its unintentional modesty. And just think that the absolute lack of any engraved Leica, Leitz, serial number or other marking could even give rise to doubts about it being a Leica! But I don't think any of us could have any doubt ...*

But how is that at Wetzlar they were able to arrive at such an elegant technical and stylistic solution, still extremely up-to-date and virtually unaltered to this day in the output of this new millennium, 48 years after the presentation of the Leica M3 (1954)? The interesting innovations found in the Leica IV 1935 prototype we took a look at above obviously formed the base of the new model. And Leitz must have worked feverishly in the early '50s to make it a reality, along with the addition of its famous (and it must be added, perfect) bayonet lens-mount, far-and-away better and more

sophisticated than those few already available for years, such as Contax, Exakta, Gamma, etc. The true designer of the Leica M3 was "technical designer" Willi Stein who, using the base already created for the Leica IV, inserted the bayonet lens-mount (previously patented by Leitz) and further refined the design and options on the M3 until they reached that state of perfection we know today.

There is an intermediate exemplar that formed a bridge between the 1935 Leica IV and the first mass-produced Leica M cameras—a true "no name" prototype I had

the privilege of examining at length and photographing. I find it absolutely incredible that such an interesting and important piece, representing a turning point between the Leica IV and much more evolved M3, is not today property of the Leitz museum. But who knows, one day even this lost generation may be returned to the ranks of its family tree. Take a close look at the photographs of it since, being a one-of-a-kind, it is highly unlikely that you will ever have the chance to handle it personally. A detailed description is given in the photo captions.



This is the Leica M "zero" no. 005, shown with its very special lens cap, never before seen (except in a photograph in some rare, old book), with the circular front part slightly recessed and Vulcanite-covered just like the camera. Removing the lens cap reveals one of the two parts into which the Vulcanite has been purposely divided, including the unexpected presence of the clear, lovely engraved "Leica" logo. This Leica M zero resembles and incorporates many of the features of the actual M3, but with some technical and aesthetic differences, the most obvious of which is the external, manual frame counter as on the Leica "no name", but more evolved and elegant. The self timer lever is also very special and quite streamlined (never seen on other Leicas apart from the M "zero") and the same is also evident in the film rewind release lever. Naturally, the famous and popular raised border on the front plate is present, identical to that on the early M3.



But, surprisingly, we also find on the back of the 005 two similar raised borders (the one on the left almost hidden by the viewfinder eyepiece) that are completely absent on the M3 produced immediately after (the famous 700xxx series) and the two other slightly raised borders on the vertical edge of the back of the base plate, like the ones seen previously on the Leica "no name". A very special characteristic of the M zero is the presence of a convenient punch located on the lower left of the rear door that allows the photographer to easily mark important frames or those to be printed "immediately".

Here we see clearly the rewind lever, the wonderful and precise frame counter that offers just the right amount of resistance when reset manually, and the special shutter release button that is only found on other (and perhaps not all) M "zero" cameras. If, after having been pressed to release the shutter, the button is turned clockwise using slight pressure from the fingertip, the "B" exposure changes to "T" exposure and the shutter will not close until the button is turned back. This is all accomplished very easily and only a rotation of a few degrees is required.

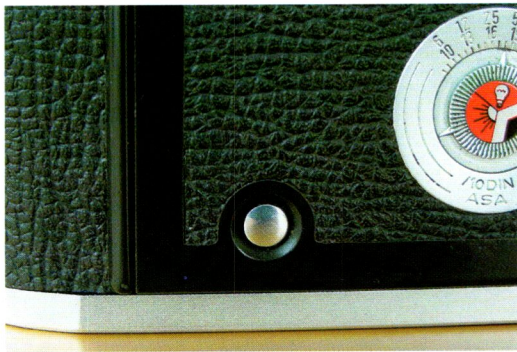


When the special lens cap of this camera is removed, we see that the ring for inserting lenses is the four-screw type and there are slight differences in the camera obscura and internal arm that operates the rangefinder. I spent hours examining this Leica and had great fun doing it!

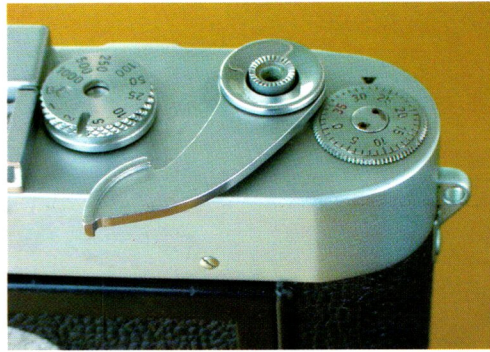


Looking closely at this photo, we can see the raised border on the rear left side, partially hidden by the viewfinder eyepiece. The inscriptions "Leica D.B.P.", "Ernst Leitz GmbH" and "Wetzlar Germany" are the same text used later on the M3, but the layout, style and punctuation are different, nor does "Nr." appear before the serial number on the later M3. The film rewind knob must be turned counter-clockwise, just as on the "no name". Not all M "zero" cameras have these rare characteristics.





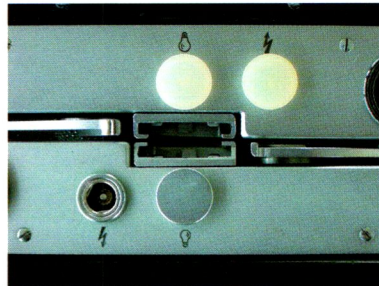
*Left rear raised border on the base plate and film punch fully integrated into the opening door.*



*Another raised border on the right, external frame counter, amazing sinuous winding lever (double-stroke, of course) and the shutter release modified as described for the "T" exposure function. Another difference, the rear door does not have the two black protruding guards, as in all M series models.*



*The interior of this M 005 is totally different than that of the M3, including its metallic structure. The plate that shields the moving parts on the bottom does not have the drawings that give instructions on how to load the film ...*



*Other minor, but nonetheless important, differences are shown in these photos: the way the sync symbols are drawn, which must be examined very carefully to notice the slight variations (for example, the point of the light bulb—the 005 is the one shown on the bottom with its unusual but inventive sync cap in chrome-finish brass). In the photo on the right, note the various attachment points: as for all M3 cameras on the 700583 (left), still round as for the screw-mount Leica (and "no name") on the "zero" series 005.*



*... as can be clearly seen in this photo. The black glass film pressure plate is also very different with a mirror finish that on the 005 is much blacker and smaller (45x30mm compared to 52x45mm) than that on the M3 700583.*

As had already been the case with the 1923 Leica "zero" whose 31 specimens were given to photographers and other expert users (explorers, doctors, naturalists) to make practical field tests, in 1953 a limited test series of a few dozen cameras of the new bayonet Leica—the future M3—were produced. These cameras *do not* have M3 engraved on them, but they do bear a number preceded by two zeroes: Nr. 001, Nr. 0015, Nr. 0056, etc. Of these cameras—with their special,

interesting features, today highly-sought-after and the dream of every Leica collector—the existence of only a few is known around the world. My dear friend and expert connoisseur of the world of Leica, the lawyer Lars Netopil, carried out a comprehensive study on the M "zero" cameras across the globe, and the ones with the following serial numbers are known to still exist: 005, 007, 009, 0010, 0011, 0012, 0015, 0017, 0018, 0020, 0024, 0025, 0032, 0035, 0040, 0041, 0043, 0056, 0060, 0063, 0065. He believes

that out of the approximately 65 specimens produced, less than thirty M "zero" cameras are still in existence. It is with great pleasure that I am able to show and describe the one with the lowest-known number, Nr. 005, in splendid condition and already published by Jim Lager on page 175 of his recent book, *Cameras*. Today, a Leica M "zero" in good condition and everything "in order", is unquestionably the most important piece to be found in any Leica M collection, and perhaps in any camera collection, period.



A perfect example of the serious doubts I think camera manufacturers were struck by in the '40s and '50s: the 1944-1952 Alpa Reflex brings together two focusing and shooting systems—reflex and rangefinder—in order to make everyone happy. An interesting camera, unquestionably very delicate and sought-after by collectors. This model is particularly suitable for standing alongside the Leicas since it is equipped with a marvelous blued 50/3.5 Leitz Elmar in a perfect, original Alpa mount!



The next stage of development of the Alpa Prisma Reflex (1948-1952) was the adoption of a real pentaprism, immediately following the Rectaflex and Contax D, that maintains the trustworthy rangefinder—at the time certainly safer than a dark ground glass for precise focusing.



The Zeiss Contax II (1950), contemporary of the Leica IIIIf, had a number of features that offered a theoretical and practical advantage over the Leica, some of which were already part of the Contax I: wider-base rangefinder; incorporated rangefinder viewfinder (not on the Contax I); removable backdoor for easy film loading; vertical-running shutter (a very weak point, together with the entire shutter mechanism) and bayonet lens mount. Production of the Contax rangefinder line, not updated despite the marked superiority of the Leica M3, was halted in 1958, apparently to concentrate on the Zeiss reflex line.



Even the Japanese-owned Canon company—without question Leitz's biggest competitor in the production of quality rangefinder cameras (if we leave aside the modest yet gargantuan Soviet output)—although it struggled intensely not to give in to the Leica M phenomenon, stopped production on its last and excellent rangefinder model in 1968. This photo shows a 7S with the super-fast 50/0.95 lens that could only be mounted on the Canon 7, 7S and 7S-z, thanks to a special external bayonet on the camera that supplemented its Leica-compatible 39/l screw-mount.

There are many Leica M cameras that whet the imagination of collectors, such as the fabulous MP, a real “must” for any “serious” collection. Others are the KE-7a, the legendary black military M4 made in Canada, the black lacquer-finish M2, 3, 4, the very rare green German military “Bundeseigentum” M1, 3, 4, or the few “Midland, Canada” chrome-finish M2, 3, 4. All important pieces for which a true

enthusiast will wage a fierce search, jump on an airplane and perhaps even forego a vacation or sadly part with other less-important objects ... just to make the exchange.

But the thrill one experiences in handling, examining and, I would add, “discovering” a Leica M “zero” through noting its distinctive features and unique parts, is something very special for a true Leica

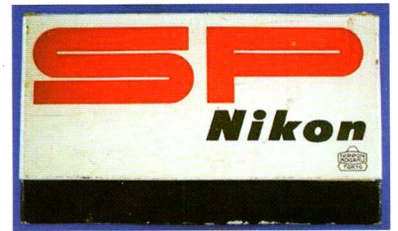
enthusiast. An almost indescribable experience! The Leica M “zero” is a true collecting chimera, virtually never up for sale even from major international dealers or through the highly-extolled auction houses (English or otherwise).

So, finally, we arrive at the mass production of the M3. Just think, 10,000 Leica M3 cameras were manufactured in 1954, first year, first lot; almost 50,000 in 1955; lower





The Canon 7S and 7S-z, of which approximately 16,000 and 4,000 were manufactured respectively in the years 1965-68 (in addition to the 137,250 Canon 7 cameras from 1961-64) are, in fact, one of the only serious attempts to challenge Leica on the level of offering a complete system (one of Leitz's real strong points), with cameras that were fantastically designed and manufactured, trustworthy and innovative (indestructible metal shutters, built-in CdS exposure meter) accompanied by a wide line of excellent lenses. Shown in the photo is a Canon 7S-z.



A Nikon SP box.

This is the only Leica M3 competitor that could have given Leitz a serious run for its money: the legendary, one-and-only Nikon SP, of which only 22,348 were produced between 1957 and 1964 and today highly sought after. Although its various viewfinders must be inserted manually and not automatically as on the Leica M, this gorgeous (including physically) Nikon has the advantage of a separate window for the 28 and 35 mm viewfinders—a real novelty in 1957, pre-dating the release of the Leica M2! I think that the modest number of Nikon SP cameras manufactured is not just a question of the competition, but also the result of the relatively small size of the Nippon Kogaku company in that period. I also believe that Nikon, unlike other manufacturers, decided to close down its rangefinder line in order to concentrate all its energy on producing its new reflex, the renowned Nikon F. And I certainly can't say they were wrong!



Year 1953: While Wetzlar put the finishing touches on the M3 and produced the handful of M "zero" models for field testing and evaluation by the ranks of a lucky few (who knows how many of them actually returned "their" zero!), not far away in Dusseldorf a new, decidedly luxurious version of the well-known Robot was presented, a camera equipped with an efficacious spring-driven motor to take long frame sequences without having to cock the shutter and advance the film. The brand-new Robot Royal (24x24mm format) was not only a handsome and well-designed camera, it was also the first Robot to include as standard a wonderful incorporated rangefinder on a wide base, bayonet lens mount and manufacturing quality to rival that of Leitz. I love its "barrel" shape and its Teutonic sturdiness is incredible. Just compare the weights: Leica M3 with 50/2.8 Elmar: 778 grams; Robot Royal 24 with Schneider 40/1.9 Xenon: 956 grams!

This photo shows a specimen of the successive 24x36mm version which debuted in 1955. Perhaps the decision to offer a Robot in full 24x36mm format was the result of the enormous success Leitz had with its new M3. When I was in the army (and photographer, 1962-63), my "CO" had one, Col. Gaetano Mantelli, a talented flyer who was always beating world altitude records in special light aircraft which he himself partially built and modified in a small hangar in Guidonia!



In this short round-up of early 1950s thoroughbred cameras, it wouldn't be right to leave out the near-perfect Voigtlander Prominent, a fantastic rangefinder camera introduced on the market "way back" in 1950, quite a bit before the Leica M and its less-fortunate rivals! Manufactured in Braunschweig, the same city that gave birth to the Rolleiflex, the Prominent inherited the name of a class 6x9cm rangefinder camera from the 1930s, today rare, but admired and collected with enthusiasm. Its central shutter with synch at all speeds, rangefinder and high-quality, fine-lineage interchangeable lenses, made it a good-selling camera, despite its rather high price tag. The photo shows a 1953 model with accessory clip and legendary Voigtlander 50/1.5 Nokton, today once again offered as part of the Voigtlander/Cosina product line.



The M3 was very popular throughout the world. It was a success in the hands of amateur and professional photographers alike and was also highly thought-of in military circles. This photo shows the green M3 no. 1100416 of which just a few dozen were made for the German army that “officially” returned to using Leica cameras over twenty years after the end of the war.



The engraved “Bundeseigentum” on the back of the camera was often followed by a contract number (usually) nine digits long. This specimen without such a number is decidedly rare.



On this ultra-used military Leica we not only find the contract number, but also a very tenaciously-adhesive label with high-gloss finish bearing the name of its home division.

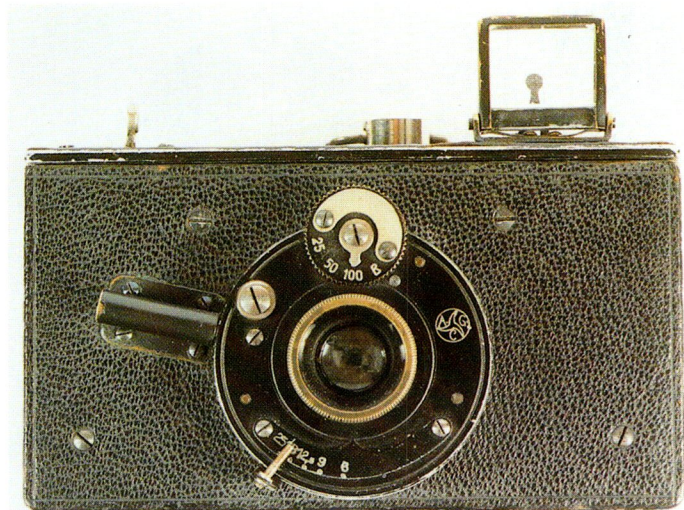


Last photo, but at the top of the wish-list for many collectors, the black paint-finish M3 shown here with “its own” Summicron, also black paint. The official lists published in many books dedicated to Leitz output have reported for decades that 3,010 black paint M3 cameras were produced. Personally, I believe—and this belief is shared by a number of friends more “studious” than I—that the actual number of black M3s is quite lower than the theoretical total. In fact, it is much rarer to meet a black M3 than it is a black M2 of which, officially, “only” 1,871 were made. How can this be explained, except through repetition of the same errors in the lists published to-date?

but still noteworthy the 21,560 produced in 1956, rising to 35,300 in 1957. A tremendous success, despite the strong presence of the modern Japanese (and also German) reflexes, which only partially affected its success. Even the tough-nosed Nippon Kogaku whose rangefinder Nikon was selling quite well, rushed into production in December 1954

with its S2 model. Decidedly better than the S and equipped with the first Nikon winding lever ... but what a difference if compared with the Leica M3! Even the excellent, well-conceived Nikon SP (1957) with its six built-in (but not automatic) viewfinders had a difficult time of it compared with the Leica M and its most important and long-lasting

claim-to-fame was in having “spawned” the Nikon F reflex, almost the same camera, if you think about it. Canon, an unrestrained manufacturer of excellent Leica copies since 1935, first under the name Seiki Kogaku, then as the Canon Camera Company from 1947, only issued a model that could come close to competing



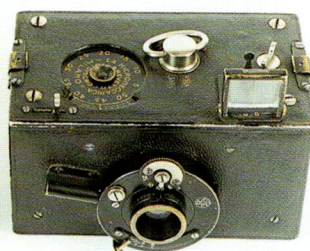
*The Micromeccanica, front with viewfinder, lens and shutter. (Courtesy of Osvaldo Mercuri)*



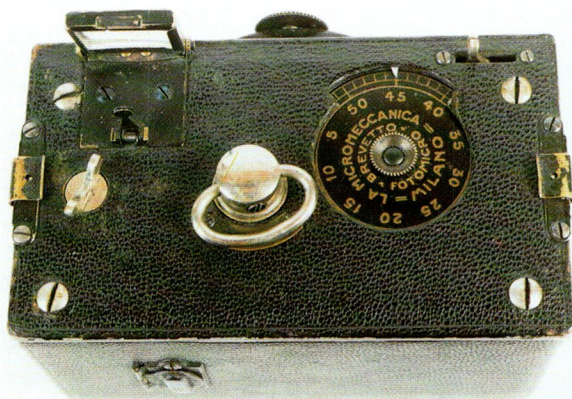
*The Micromeccanica with the spring winding key on the top plate. (Courtesy of Osvaldo Mercuri)*



*The Micromeccanica with original case. (Courtesy of Osvaldo Mercuri)*



*Top plate of the Micromeccanica with frame counter disk. (Courtesy of Osvaldo Mercuri)*



*French Sept camera, derived from the Italian Autocinephot. The camera is equipped with a larger spring as can be seen from the box with the spring at the left.*

35mm moving picture film for a 18x24mm format and was a strange combination of a moving picture and still camera. The Autocinephot enjoyed only modest success and its inventor, Giovanni Battista Tartara, sold the patent to the French company, Debrie. They made some changes—more on the aesthetic rather than mechanical side—and relaunched it on the market with the name **Sept**. This

new camera proved fairly successful, remaining in production for the next twenty years and as late as 1940 they were still sometimes available on the market. Strictly speaking, however, both these cameras should be considered movie cameras that had the option of taking a single shot and could also be utilized as enlargers and projectors.

#### **A little-known Italian spring camera**

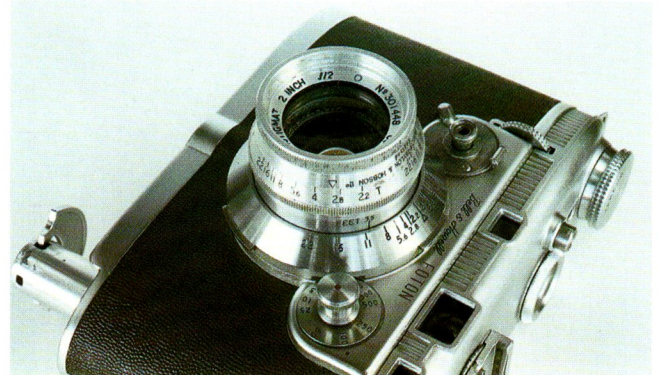
In the late '20s and early '30s, the Milan company, **Micromeccanica**, manufactured an unusual spring camera very similar to the Le Pascal. This box camera used a special roll of 35mm film and had a fixed focus lens that could be stopped down between f/8 and f/25. The interlens shutter offered speeds of 1/25, 1/50 and 1/100 sec, as well as the traditional B setting.



*Robot I camera dated 1935, 24x24cm square format, the first successful spring-driven camera.*



*Robot Royal from the 1950s with coupled rangefinder and interchangeable lens for 24x36 format.*



*Bell & Howell Foton (1948) with spring-driven motor, rangefinder and interchangeable lenses.*

Most likely developed for aerial applications, the Micromeccanica camera utilized a simple swinging optical finder and a spring winding key on the top plate. The shutter release button was also on the top plate, as was the large frame counter disk that marked off a total of 50 shots in increments of five. No precise data exists on the sales and use of this camera, nor do we have any details about the Milan company that patented, produced and sold it.

### Robot and the others

The best-known 35mm spring-driven camera is certainly the German **Robot** made by Otto Berning in a number of different models. From the first Robot in 1933 to the models produced during the war for the Luftwaffen, up to the Robot Recorder models in the Fifties and the rangefinder Robot Royal (one of the most



sophisticated cameras of the era), all models are exceptionally sturdy, reliable and equipped with a vast range of accessories. Robot spring cameras were produced up to 1969 and provided the model from which many other camera manufacturers drew their inspiration, sometimes with results nowhere near as positive. Extensive documentation about

*Finetta 99, German spring-driven camera from the early Fifties with normal finder eyepiece and interchangeable lens.*

the Robot exists both in English and German.

An interesting but less well-known German spring camera of this type was the **Finetta 99**, manufactured in 1950 and followed in 1954 by the very similar Finetta 99L. The Finetta cameras were 35mm with normal finder eyepiece equipped with a focal plane shutter and interchangeable lenses. Despite the fact that these cameras provided quite modest results, and although they were well designed overall, they were not that reliable and often broke

down. In confirmation of their weak mechanical construction, we note that the McKeown guide provides the market value for both functioning and non-functioning cameras.

One of the best spring cameras produced in the post-war period was unquestionably the US-made **Foton** (spelled with the F),



*Kodak Motomatic 35 from the early Sixties.*



*The Tessina subminiature camera, made in Lugano in the 1960s.*



*The GaMi subminiature camera, a mechanical masterpiece from the end of the Fifties.*

manufactured by Bell & Howell which poured into this camera all its know-how in the cinematographic field. It was a 35mm rangefinder camera with interchangeable lenses and spring-driven motor that could take 6 frames a second. To focus, it had a knurled dial as on the Contax. Extremely well-built, the Foton was not the commercial success it was hoped it would be because of its high cost. In fact, in 1948 it cost 700 dollars and even lowering the price to 500 dollars was not enough to definitively boost sales. It would seem that approximately 2000 were sold.

One of the most original spring cameras was the Swiss **Tessina** and it is, in fact, the most interesting of this type. Manufactured in the 1960s by the Concava company of Lugano, this small twin lens reflex was a masterpiece of craftsmanship. Smaller than a pack of cigarettes, the Tessina produced a 14x21mm negative on normal 35mm film and it was equipped

with a 25mm f/2.8 Tessinon lens with a large depth of field and focusing from 30cm to infinity. This small camera was equipped with a series of accessories including a small pentaprism, exposure meter incorporated into the diaphragm through a set of gears, a lens finder instead of a waist level one and, finally, a special strap to wear it on the wrist like a watch. Despite its impeccable construction, the Tessina was only partially successful, mainly because of its high price and the need to use special cassettes similar to those used fifteen years earlier on the Italian-made Ducati subminiature camera.

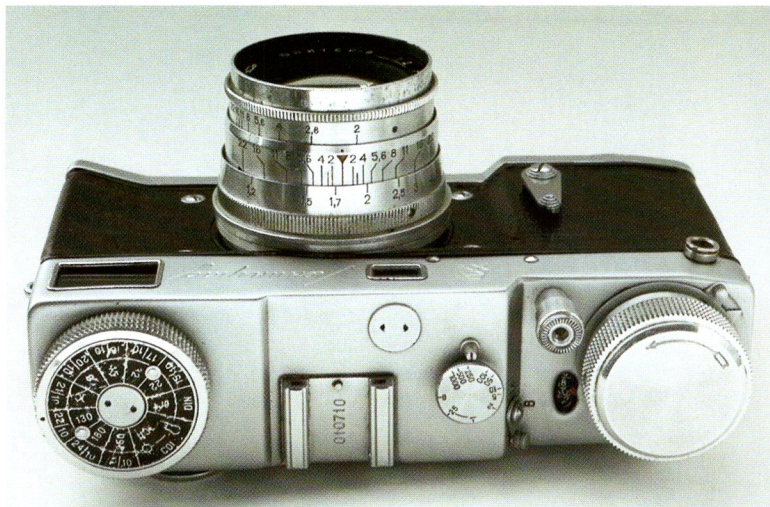
### **Spring-driven Kodak and 3M**

Between 1960 and 1969, Kodak manufactured the spring-driven Motomatic 35 in three different, but very similar, versions. These modest-performance cameras, despite their incorporated exposure meter, were derived from the contemporary Kodak Automatic

35 and, like this camera, were equipped with f/2.8 Ektanar lenses and automatic flash shutters. The Motomatic 35F had a built-in attachment for AG1 flashbulbs, while the later Motomatic 35R4 model could take a flash cube. Later, Kodak marketed eight modest-quality cameras as part of the Instamatic series that used 126 film in Instamatic cartridges and were equipped with spring-drive. These models were the 150, 154, 174, 400, 404, 800, 804 and 814. Another camera that used the 126 format and was clearly inspired by the Kodak Instamatic, was the Motordrive marketed by 3M in the 1970s.

### **An Italian model**

Among the few modern-day Italian spring cameras was the 16mm subminiature **GaMi** camera made by Galileo of Milan, produced in the mid-Fifties and capable of taking 3 frames after winding by just opening the camera. The GaMi was equipped with a six-element 25mm f/1.9



*The GOMZ Leningrad with rangefinder, focal plane shutter and interchangeable lenses; produced from the mid-1950s to the end of the 1960s.*



*Two Soviet spring-driven cameras, the LOMO 135M and the small KMZ F21.*

Esamitar lens and shutter with 1/1000 sec. Equipped overall with advanced features that made it one of the “state of the art” cameras of its day, the GaMi offered a wide array of accessories, including close-up lenses, and 4x and 8x telephoto lens attachments. Very popular at the time, the GaMi was also exported to the US and remained in production for a decade until the death of its designer, Ambrogio Carini.

### Spring-driven cameras from Russia

Soviet production of spring-driven cameras was anything but negligible, both from the standpoint of quality and innovation. Soviet spring cameras were divided into three different models, and each of these had its own special features that made it interesting. The most sophisticated of the Soviet spring cameras was the 35mm rangefinder **Leningrad** manufactured in the GOMZ factory in

Leningrad between 1956 and 1968. By Soviet standards, the Leningrad was an out-of-the-ordinary camera. It was sturdy with impeccable functioning that stood up to the worst kind of abuse. Equipped with interchangeable lens with 39x1 screw mount, a horizontal-running focal plane shutter with speeds from 1 sec to 1/1000 sec and self timer, and a clear rangefinder coupled to the viewfinder with three frames for 5cm, 8.5cm and 13.5cm focal lengths, the Leningrad is one of the most highly-recommended spring-driven cameras for those who want to photograph using this type of camera.

The most original Soviet spring camera was the small **F21** built by KMZ. The F21 was not well known during the period in which it was produced, partly because Soviet products were only rarely advertised to the domestic market and almost never to foreign ones, and partly

because it would seem that this camera was developed for the KGB, the Soviet secret service. The F21 did not have a viewfinder, was equipped with a 11mm f/2.8 lens, utilized 16mm film loaded in special cassettes and had only three shutter speeds. Two versions of it were produced, without exposure meter and fixed focus lens, or with CdS exposure meter and adjustable focus. The F21, very small but not very light, was easily adaptable to different kinds of disguises. The most famous in the West was a metal casing closed on the front by a button. A long, flexible release wire that also controlled the diaphragm set the aperture in two parts of the fake button and immediately after released the shutter. The F21 was precision-built and was especially easy-to-manage and silent. Manufacture of it began in the early Fifties and continued until the late Seventies, only to be resumed



Three Ricoh spring-driven cameras, the 35mm Super Shot and A2 and the half-frame Auto Half.



The Minolta Autopak 800 for Instamatic cartridges.



Canon Dial 35, half-frame with spring-driven motor with the Bell & Howell logo, US importers of Canon.



Canon Dial Rapid, 24x24mm format for no-wind Rapid cassettes.

again in the early Nineties.

The third Soviet spring camera, dating from the years 1975-1985 was a 35mm known as **LOMO** 135VS or LOMO 135M after the factory, LOMO, that replaced the old GOMZ. Extremely compact, the LOMO 135M functioned perfectly, but was a bit difficult to use because of the complex numerical markings and symbols used for aperture settings and focusing. It had a 40mm f/2.8 Industar and shutter speeds ranged from 1/15 to 1/250 sec. Eight shots in sequence could be made on a single winding with a shooting speed of two or three shots per second.

### Spring-driven cameras from Japan

Japanese output of spring-driven cameras was generally on a lower level than in Europe and centered primarily around less-expensive cameras with automatic or semi-automatic exposure. Among these were the 1964 **Ricoh** Autoshot without

viewfinder, the 1966 Ricoh Super Shot, the half-frame 1967 Ricoh Auto Half and the 1968 Ricoh Hi Color 35, all made by Ricoh. Some cameras, such as the Minolta Autopak 800 utilized Instamatic 126 film cartridges, others Rapid cartridges. Within this lackluster setting, the Auto Terra from the second half of the 1950s was an exception, equipped with incorporated rangefinder, sturdy spring-driven motor and f/2.8 and f/1.9 lenses. The Auto Terra was also used by the Japanese police force. Among all Japanese spring cameras, the most original, captivating and interesting was the half-frame **Canon** Dial 35, extremely compact in size and with a selenium exposure meter coupled to the photocells located around the 28mm f/2.8 lens so that it resembled an old telephone dial. A single wind-up of the Canon Dial was adequate for taking all 72 shots on a normal 35mm roll. The Canon Dial 35 was sold in the United States under the

Bell & Howell name and production of it began in 1963 in two, very similar versions, plus a third version that was completely different with 24x24mm format. It was named the Canon Dial Rapid and was designed to be used with no-wind Rapid cassettes.

**Fuji** also produced a half-frame motorized camera in the mid-Sixties called the Fujica Drive, as well as an analogous 24x24mm model that used Rapid cassettes and was known as the Fujica Rapid D1.

The authors do not claim that this review is a complete treatment of the topic, but we do hope that at least it has provided some new and interesting ideas for collectors; we would be happy to hear from anyone who has information on other models of this intriguing family of cameras.

**Brunello Brunelli,  
Pierpaolo Cancarini**

# MUTAR FOR THE ROLLEI TLR

Together with the project to provide interchangeable lenses for the twin-lens Rollei—a project that proved to be merely a feat of optical/mechanical bravura that was impractical, bulky and costly—and after having witnessed the scant success of the two telephoto and wide angle models, Francke & Heidecke decided in 1963 to release the two Mutar accessory outfits to the public. Used on the TLR, these outfits produced results that, although of lesser quality, were similar to those obtained with the non-interchangeable lens Rolleiflex and telephoto and wide angle models.

The goal of F&H was to offer its users the possibility of working with a small outfit comparable to that of interchangeable lenses. The other reason behind the “launching” of the Mutar lenses was that F&H realized that the TLR was on a downward curve (we’re talking about the early ‘60s) and that a certain amount of “cosmetic” attention was needed to make the camera more versatile and attractive.



The two Mutar lens outfits

	PLANAR XENOTAR 80mm f/2.8	MUTAR		PLANAR XENOTAR TESSAR XENAR 75mm f/3.5	MUTAR	
		1.5	0.7		1.5	0.7
FOCALE	80mm	116	57	75mm	110	54
MODIFICA RAPPORTO		1.5	0.7		1.5	0.7
ANGOLO DI RIPRESA (6x6)	53°	38°	69°	56°	40°	72°
ANGOLO DI RIPRESA (24x36)	30°	21°	41°	32°	22°	43°
CORREZIONE ESPOSIZIONE		+1/3	+1/3		+1/3	+1/3
		+1/2	+1/2		+1/2	+1/2
APERTURA MASSIMA CONSIGLIATA		5.6	5.6		5.6	5.6

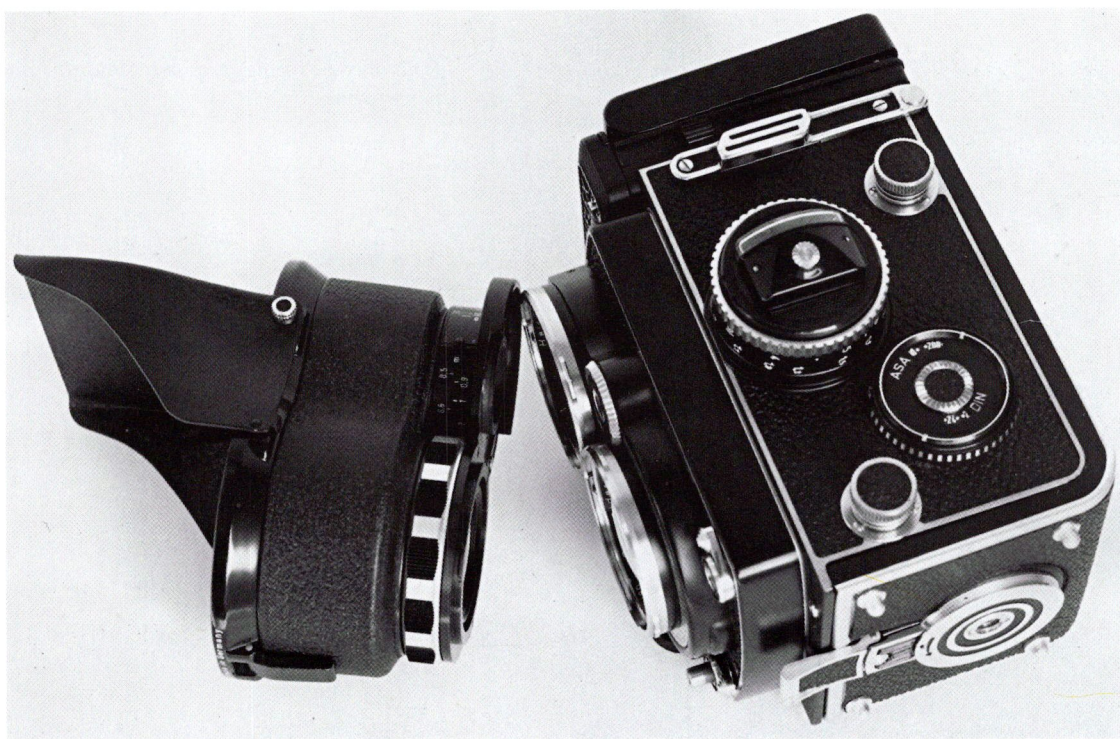
The Mutar for the Rollei TLR were two add-on lens outfits to be used for medium-telephoto and medium-wide angle shooting. This was a significant “plus” for a camera created with fixed lenses.

The Mutar 1.5 increased the focal of the camera lens at a ratio of 1:1.5 (lens scheme: five taking and four viewing elements). The Mutar 0.7 reduced the focal of the camera lens at a ratio of 1:0.7 (lens scheme: four taking and four viewing elements).

Approximately a thousand of each type were produced. The accompanying table shows the changes created on the base lenses by the Mutar in terms of shooting angle, focal lengths and exposure settings. Also given are the recommended maximum aperture limits to obtain good-quality results. Looking at the table, the limits of these two accessories regarding the focal lengths produced are immediately evident: a long focal length of just 116mm and a short focal length of over 57mm, decidedly modest values for a medium format when compared to focal limits of approx. 73mm and 36mm for a 24x36mm format.

Looking once again at the table, we note that exposure has to be upped from a third





*Mounting the Mutar on a camera*

to a half a stop, in addition to a maximum aperture limit of  $f/5.6$  to produce a sufficiently correct image. When using the Mutar, the meter, distance and depth of field markings engraved on the camera's focusing dial are no longer valid because of the changes created by the addition of the lens system.

On the upper part of the viewing lenses, the Mutar give real focusing distance values next to the theoretical ones. These values are engraved in a ring attached by two screws and may be removed and turned  $180^\circ$  so that these values (in feet) can be seen. Naturally, framing using the sport finder with the direct view finder does not produce correct results when the Mutar are used—with the 0.7 they are reduced and with the 1.5 increased. F&H did not design accessories that would adjust direct view shooting to the new shooting angles created by the Mutar. A homemade reduction "mask" can be attached in front of the finder when shooting with the Mutar tele, but no adjustment is possible with the Mutar Wide Angle. However, you can give a quick look at the focusing screen to note the framing limits.

Using the Rolleikin for 135 film it is possible to prepare masks that can be installed in front of the finder for either the Mutar 1.5 or Mutar 0.7. The problems that arise using the direct view finder with the Mutar are obviated by installing the Rolleipentaprism that also makes it possible to easily take horizontal shots when using the Rolleikin. However, it's a good idea to just "forget" the weight of the pentaprism which, together with that of the camera, the Mutar, the carrying case and a few other accessories

attached to the strap, reaches a total weight of nearly three kilograms—enough to discourage anyone.

### The design phase

This add-on lens system represented a considerable design challenge. For the lens components, the complex solutions were the responsibility of Carl Zeiss, a company that had worked closely with Rollei on other accessories. The Zeiss solution called for the use of a complex "Galilean telescope"-type creating a tele and wide angle effect lens through some inversion and placement of various lens elements.

The more serious problem for the design and realization of the system was mechanical in nature because it was imperative that the new accessory be compatible with the greatest number of Rollei TLR models possible in order to give virtually all "Rolleites" the chance to use it. The solution was not an easy one because the more modern Rollei models (starting from after the war) had different bayonets and lens axes. For the Mutar, a lens axis of 45mm was chosen, the same as that used on the most popular cameras of the day (Rolleiflex 3.5F, 3.5E3 as well as all Rolleiflex 2.8 with Type III bayonet). The standard Type II bayonet was chosen, and this meant that the only Rolleiflex that the Mutar was compatible with without further modifications were the 3.5F and 3.5E3. In all models with lens axis of 42mm, as well as all Rolleiflex 3.5 from the 1939 Automat to the 1952 3.5E2 and all Rolleicords from model III up, the 3mm difference between the two axes naturally created problems caused by a cut-off image and vignetting

on the ground glass. It goes without saying that the Mutar taking lens was correctly aligned and positioned with the camera's taking lens. For the other problem—that of bayonet type—the only solution was the use of pairs of interchangeable rings of various measures, including to compensate for the different lens axes.

Here is a summary of the ring sets required to adapt the Mutar to the various Rollei cameras:

- Kit for Type I bayonet and 42 mm lens axis (for Tessar and Xenar 3.5)
- Kit for Type II bayonet and 45 mm lens axis (standard kit compatible with Rolleiflex 3.5F and 3.5E3)
- Kit for Type II bayonet and 42mm lens axis (for Rolleiflex 3.5C and 3.5E2)
- Kit for Type III bayonet and 45mm lens axis (for Rolleiflex 2.8 except 2.8A)

Each ring kit (see detailed drawings) had two pieces, an upper piece which, when mounted on the Mutar body, clipped on to the upper part of the viewing lens bayonet, and a lower part (bayonet types I-II/42, II/45, III/0.7 and III/0.5) which, when the proper ring was turned, locked the Mutar onto the camera's taking lens bayonet.

The Rolleiflex cameras listed below *are not* compatible with the Mutar kits:

- all 4x4 Rolleiflex
- all Rolleicord before the 1950 type III
- all 6x6 Rolleiflex before the 1937 Automat
- the Rolleiflex Tele, Wide angle, Magic and 2.8A

Theoretically, Mutar accessories could be mounted on some of the cameras named above, but since it creates other types of problems, it is not recommended.



Rolleiflex 2.8F equipped with Mutar 0.7 and pentaprism

### Accessories

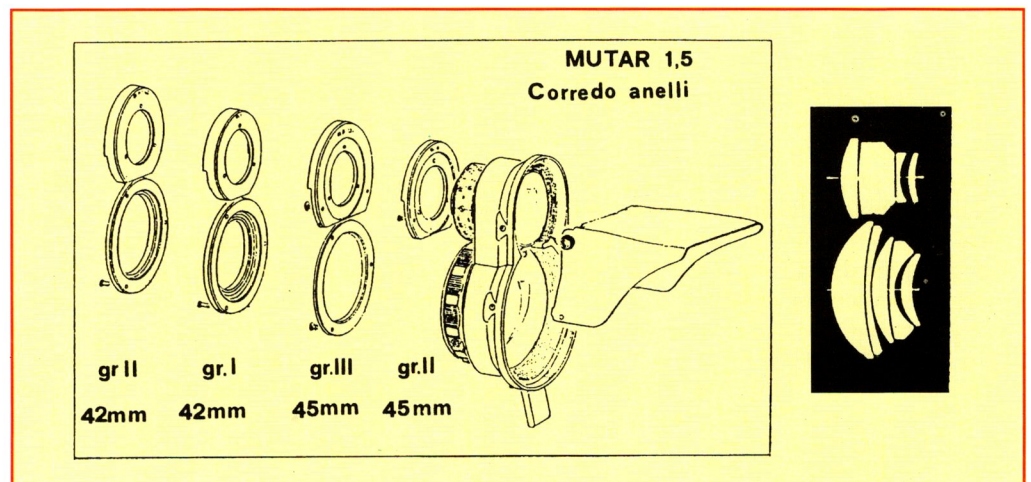
From the beginning, the Mutar system included a limited set of Type V screw mount filters which was later expanded.

For black and white:	For color:
UV	R1
medium yellow	R2
green	B2
orange	B11
red	
light blue	
gray 2	
gray 4	
infrared	

The Mutar equipped with its bulky visor-shaped hood and pressure mounted on the accessory body are not that common and much sought after by collectors. Also rare are the sturdy leather cases with pin closure and joined to a single strap. No information is available regarding the number of hoods, leather cases, filters and adapter ring sets produced.

### System pros and cons

From a design standpoint, the Mutar is praiseworthy and impeccably built, but its characteristics as a lens accessory do not produce exceptional results. Italian Rollei price lists of the mid-'60s show that they were quite expensive. Compared with a





Mutar leather cases

Rolleiflex 2.8F with exposure meter at 243,000 lire, a Tele or Wide Angle at 310,000 lire each, the Mutar pair cost a full 353,000 lire. For someone who owned a 3.5F or 2.8F and was interested in focal versatility, the most intelligent choice was the purchase of a Rolleiflex Wide Angle that saved money over the cost of the two Mutar accessories and provided better quality results than with the Mutar 0.7. The photographer would have to get used to

working with two cameras that were a bit bulky and without the Mutar Tele. But this lack could be made up for through enlargement during printing, an optimal solution given the size of the negative.

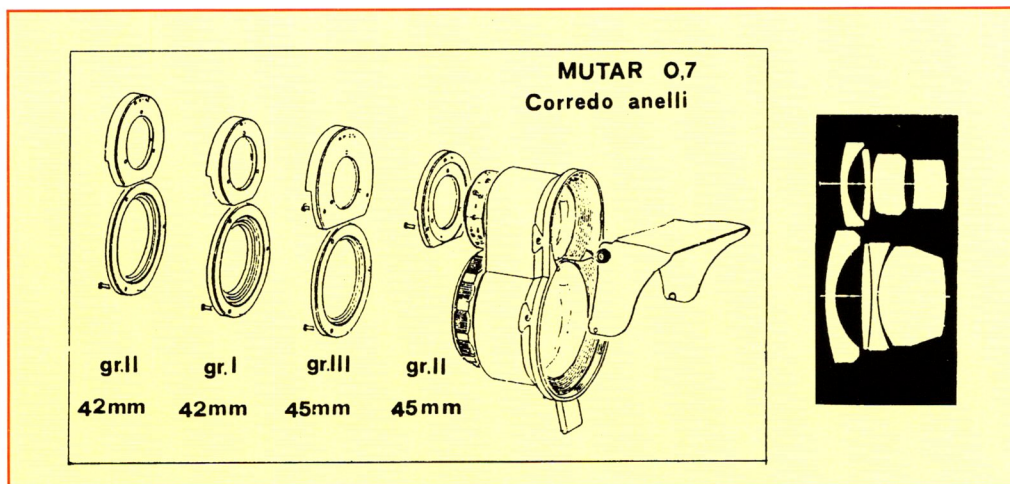
This was a very realistic solution because two Rolleis were, in fact, "portable". In the final analysis, if the end-quality and price are acceptable—which on today's used market is around three million lire—the Mutar kit is a valid solution. The

overall package is comparable on an operational level to an outfit comprised of three Rolleiflex that are unquestionably more cumbersome and expensive and produce better-quality results, even if only theoretically because working with three cameras around your neck (tele, wide angle and normal) would certainly not be easy.

However, it is also true that the Rolleiflex TLR was not created to make use of accessories or interchangeable lenses. The results obtained represent a compromise in terms of practicality and quality that do not fit in with the Rolleiflex philosophy and tradition. A Rolleiflex camera cannot be modified or improved and cannot be tampered with using inopportune expedients. A kit of supplementary lenses could be acceptable, but certainly not an over-elaborate heavy system of add-on or interchangeable lenses.

In over fifty years of evolution, the Rolleiflex TLR has remained fundamentally the same, exactly because it was impossible to change the "concept" without spoiling it.

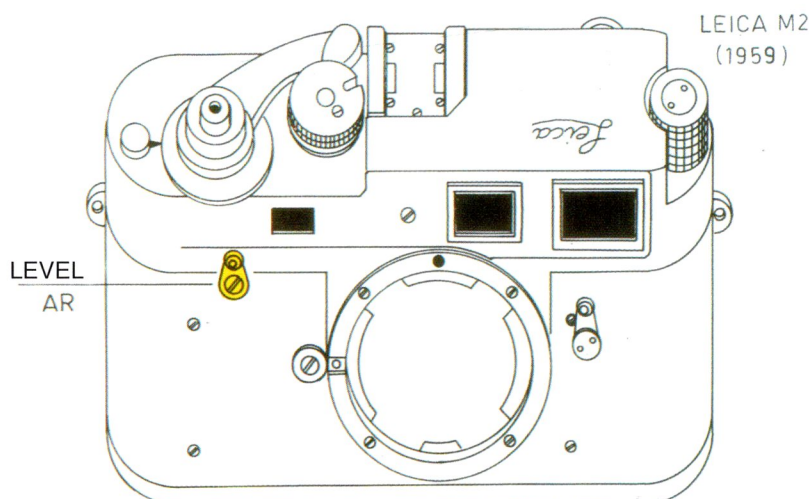
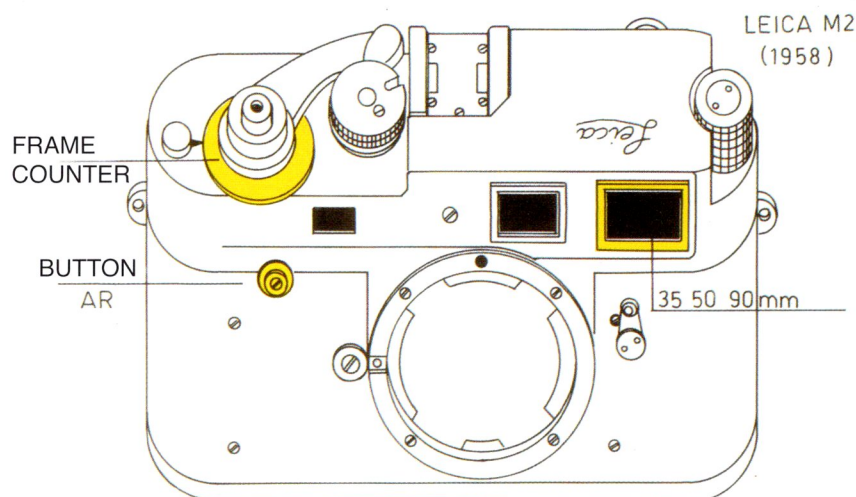
Angelo Derqui  
(Photos by Terence Sheehy)



## LEICA M2—1958-1967

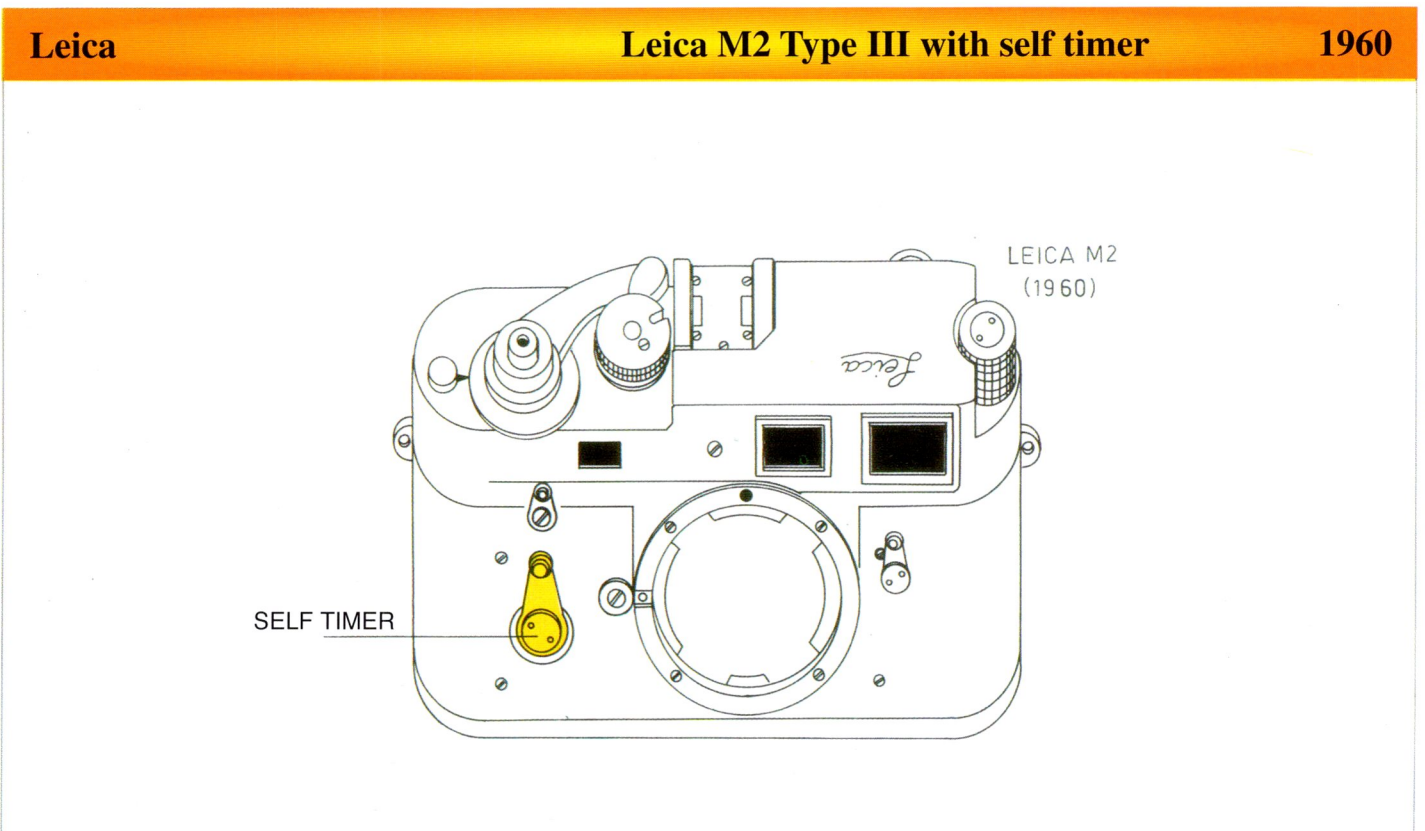
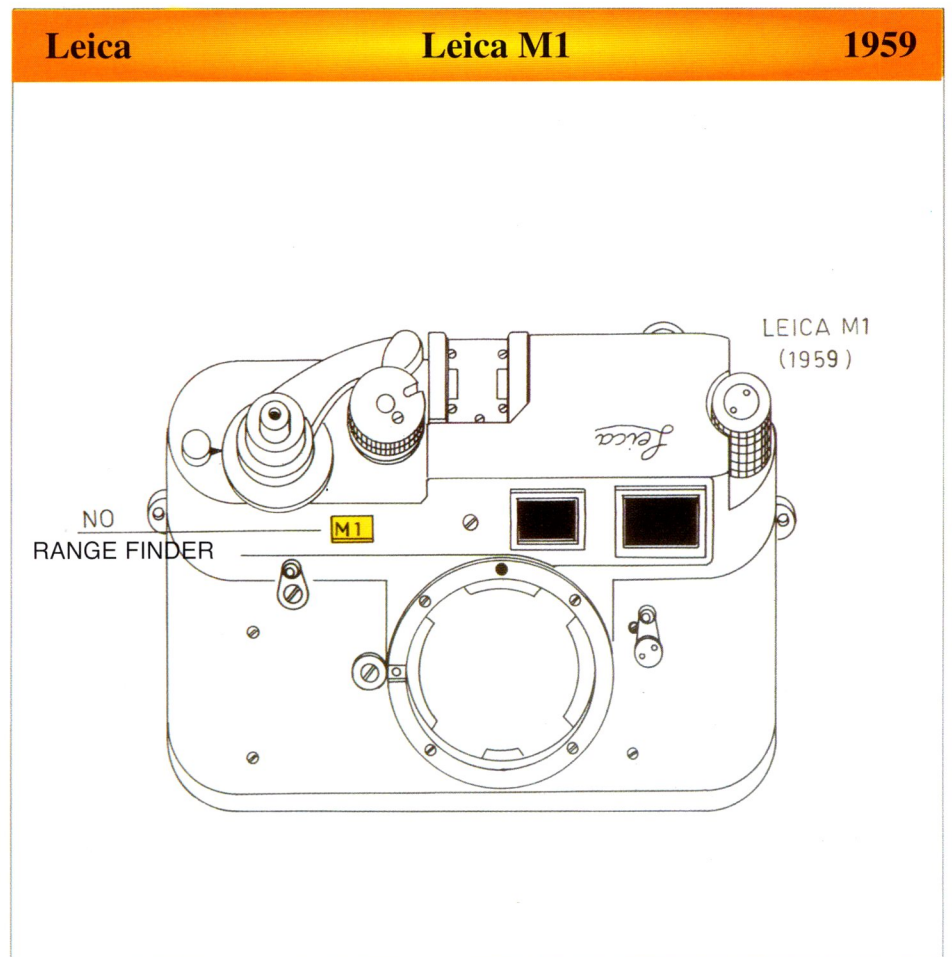
In 1957 the Leica M3 was backed up by the Leica M2 that utilized the same components as the Leica M3, but was a slightly more economical version of it. In essence, the Leica M2 offered all the features of the Leica M3, with the exception of the frame counter and automatic zero reset that was replaced by a manual frame counter with outside dial, as well as the self timer mechanism that was not included on mass produced models, but was present on just over 5,000 cameras manufactured between 1958 and 1960. More than 85,000 Leica M2s were made, up to the year 1967. Just over 1,800 were black-finish and slightly more than 1,500 were made in their Canadian plant. The finder on the Leica M2 displays the framelines for 35, 50 and 90mm lenses using the bright line system tested on the Leica M3.

The first Leica M2 models did not have a self timer and the rewind lever was replaced by a button. Only later was the same rewind lever used on the Leica M3 included, and not all Leica M2s were equipped with self timer. Combinations of these three elements identify three different versions of the Leica M2.



## LEICA M1—1959-1964

The lower-priced version of the Leica M2 was called the Leica M1 and less than ten thousand of them were made between 1959 and 1964, all chrome-finish. Entirely identical to the Leica M2, the Leica M1 did not have a self timer or rangefinder, but this could be added later on, transforming the Leica M1 into a Leica M2. Because the M1 ID is engraved on the front and is cancelled with the addition of the rangefinder, it is possible that some modified Leica M1 cameras do not have any ID. Approximately two hundred Leica M1 cameras made for the army were finished in olive green.



# THE NARCISSISTS

The smallest reflex of the Sixties



*Narciss with black covering and Cyrillic lettering*

Camera production in Krasnogorsk during the early Sixties took a turn towards the popular market with its 35mm rangefinder Zorki 4 and 35 mm single-reflex Zenit 3, of which hundreds of thousands were manufactured, alongside the 35mm rangefinder Drug and 35mm single-reflex Start of which just a few tens of thousands were made. To accompany this relatively homogeneous and not-overly inventive output, a small 16mm format camera with truly unique and interesting features was designed and produced. On the request of Soviet doctors for primarily endoscopic applications, in the early 1960s production was begun on a small camera equipped with reflex viewfinder, focal plane shutter and screw mount for connection to microscopes and endoscopes and for use with an interchangeable lens. The 14x21mm format made it possible to take twenty-five frames on 16mm non-perforated film loaded into special

cassettes different from the Minolta-type ones used on the 16mm Vega subminiature camera being manufactured in Kiev during the same period. This small camera was also held to be interesting for the civilian market and production of it was included in 1961-65 Five-Year-Plan under the name the Narciss.

### **A Russian narcissus**

The Narciss subminiatura camera was stylized like a small Zenit with everything reduced in proportion to the format. Less than six centimeters tall, less than ten long and less than three thick, the Narciss was characterized by its soap bar shape: thicker in the middle and thinner at the ends, with a smooth front without the normal bulges of the reflex box and flat top plate with all controls. On the right side of the top plate was a small winding lever, the frame counter with half-moon shaped window, the shutter release button

and the speed dial going from 2 (half second) to 500 (1/500 sec.), with settings at 4, 8, 15, 60, 125 and 250 in-between and B setting and 30 setting (1/30 sec) with flash synch. On the right side of the top plate were the two X and M synch contacts and film speed dial. In the middle of the top plate was a very compact removable pentaprism viewfinder with almost-flat hood. An alternative, waist level finder with strong image enlargement seems to have been designed but never released on the market.

### **An itsy-bitsy outfit**

The Narciss' standard lens with 24mm diameter screw-mount was a Vega M1 35mm f/2.8 with 4-element Tessar layout and it could be stopped-down to f/16 and focused. Preceded by an Industar 60 of the same focal and speed, the Vega lens was first offered with an unpolished aluminum finish and later with black



*Narciss with black covering and roman lettering*



*Narciss with white covering and Cyrillic lettering*



*Narciss with gray covering and Cyrillic lettering*



*Narciss with lens and viewfinder removed*



*The tiny Narciss in the palm of a hand*

finish for the more common version. The other lenses with 24mm mount were two, very rare wide-angles (28mm f/2.0 and f/2.8) and a 50mm f/2 telephoto, also rare. For close-up shooting, an extension ring could be used. There was also an adapter ring from 24mm to 39mm so that Zenit lenses could be mounted on the Narciss. The back and base plate were connected and locked together using a key located

on the base plate itself which was completely removed to load film.

#### **Variants and quantities produced**

The metal parts of the Narciss had a silver chrome finish and it was covered in synthetic leather that was usually black, but sometimes also white or gray. The red inscription on the front was in italic, Cyrillic letters, but for export, a number

of Narciss with more everyday roman lettering were prepared. According to more well-informed Soviet sources, the first year of production of the Narciss was 1961 in which only 137 were made, in the second year 333 and in the third year 415. In 1964, production rose sharply to 7484 to drop off to 2570 in 1965 for a total number of 10,939 before production was finally halted on it. As on all



Back of gray Narciss with serial number that indicates it was manufactured in 1961 and the plate with a warning against rotating the speed dial during shooting.



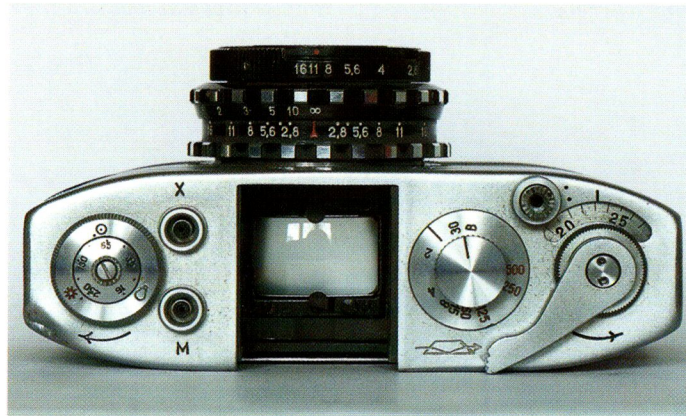
Back of export-model Narciss with inscription "Made in USSR"



Back of Narciss for domestic market



Narciss with back open



Narciss top plate without viewfinder

Krasnogorsk products, the first digits of the serial number engraved on the back of the camera near the eyepiece indicate the year it was made. The lens serial number does not include a prefix and only gives the number produced. Unlike the 16mm Vega-Kiev minicamera, the Narciss was never put back into production and remained an isolated chapter in the history of Soviet camera production, as well as being the only 16mm reflex camera with interchangeable lenses. Only the small

Pentax Auto 110 from 1979, nearly twenty years younger, has similar features using much more highly-developed technology.

### The Narciss and the collecting market

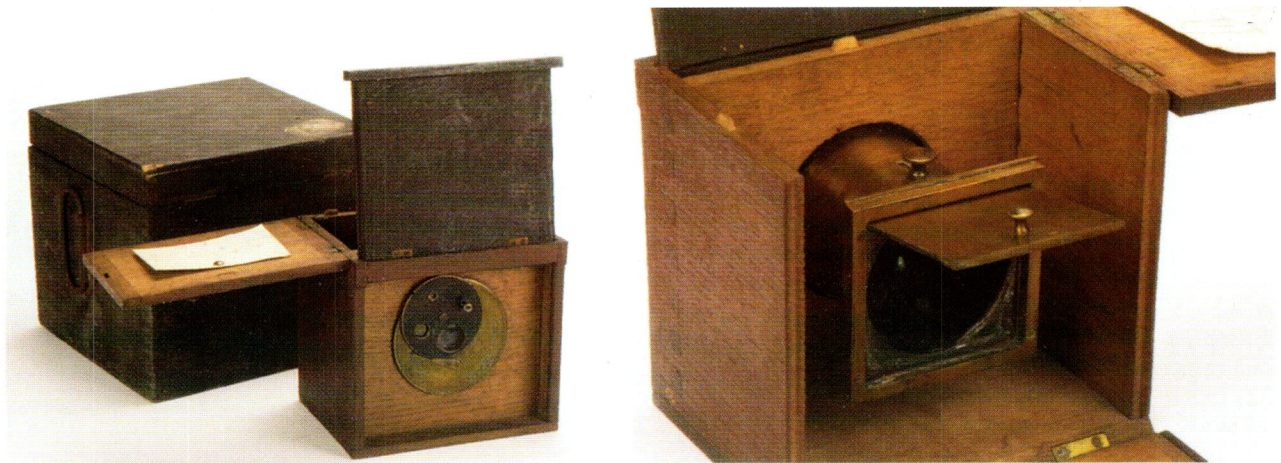
Sought-after and admired by collectors of Soviet cameras as well as mini-format enthusiasts, the Narciss with its inscription and finish variants is a special object that is a must for any significant collection. At one time over-appraised in the belief

that it was rare, following the collapse of the Iron Curtain, it has become fairly common but still has a value of around 200-250 dollars. In addition to the complete camera, the standard outfit also included four cassettes, an adapter ring to use the lens on an enlarger and accessories for negative developing and printing.

**Danilo Cecchi  
and Massimo Bertacchi**



## Christie's Auctions



*Gaudin Daguerreotype camera 7x7cm*  
*Estimated price £ 10,000-15,000*  
*Auction price: £ 11,162*

The adoption of the Euro does not seem to have had any leveling effect on the prices of collectible cameras throughout Europe, but it does seem to have pushed prices up a bit, at least judging from the lists published by top French and German dealers and prices at the major trade fairs. The British, however, remain linked to the pound sterling and their old price lists.

In reality, truly top-quality merchandise is becoming increasingly rare and virtually without a fixed price, while brand-name cameras and lenses in mediocre condition are overvalued because of the famous name they carry. Even among names that are less-known and -sought-after by collectors, prices are also on the rise thanks to the excuse of

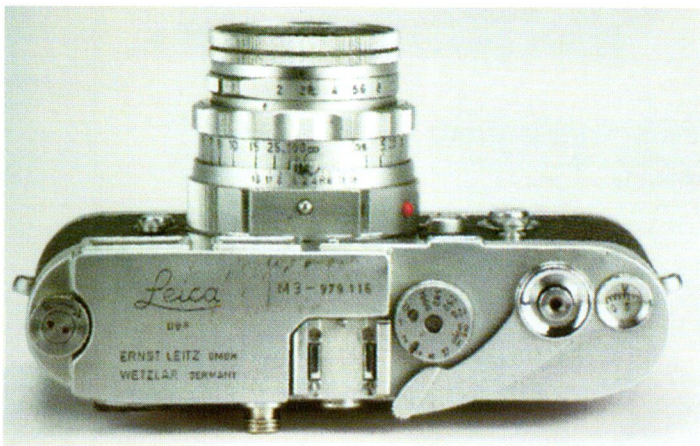
widening interest, and often accompanying the camera is a clipping or photocopy of an article or page of a book in which it appears, awarding the camera its proverbial "place in the sun". For many, publication in a book or magazine carries with it an increase in value and, consequently, in price. At trade fairs and markets, the sale of new or almost-new



*Leica CL with a Leitz Summicron 40mm f/2 lens and a Leitz Elmar-C 90mm f/4 lens*  
 Condition: 4 B  
 Estimated price £ 400-600  
 Auction price: £ 493



*Leica M2 chrome with a Summilux 50mm f/1.4 lens*  
 Condition: 3C  
 Estimated price £ 700-1000  
 Auction price: £ 763



*Leica M3, chrome with a Leitz Summicron 50mm f/2 lens*  
 Condition: 5B  
 Estimated price £ 500-800  
 Auction price: £ 493



*Nikon SP chrome with a Nikkor-S 50mm f/1.4 lens*  
 Condition: 3B  
 Estimated price £ 1000-1500  
 Auction price: £ 3290



*Canon chrome with a 50mm f/1.5 and filters*  
 Condition: 2B  
 Estimated price £ 200-400  
 Auction price: £ 705

cameras is on the rise, including Minolta Dynax, Canon Eos, Nikon Autofocus and even digital cameras. If previously we complained about seeing too little wood and too much chrome, today we see almost no wood, little chrome and too much polycarbonate—while the big names in camera collecting begin to be “no-shows”. With the change in the world of

photography, the world of collecting is also changing and the marketplace—the driving force behind all human relations—finds itself adapting to the new forms.

#### **May auction at Christie's**

Within this fluctuating reality, the cornerstones of traditional collecting remain firmly anchored: a Leica is still a Leica and a screw- or bayonet-mount

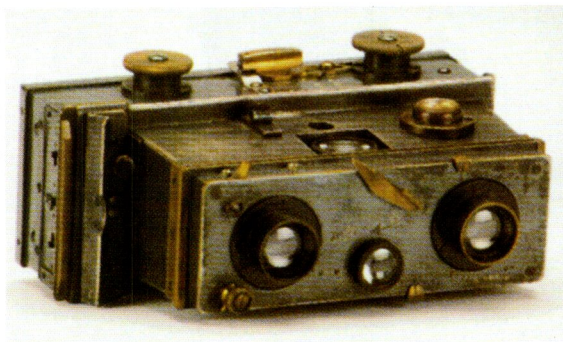
Leica continues to have a reassuring value that goes beyond contemporary trends. A chrome-finish Leica M3 still went for just under £500, but a Leica CL with two lenses (40mm and 90mm) also went for the same amount. The Leica M2 ranged from £350 to over £700 if equipped with a Summilux f/1.4, and surpassed a thousand sterling with a second lens and



*Rolleiflex 2.8F in maker's box*  
 Condition: 2B  
 Estimated price £ 600-800  
 Auction price: £ 881



*Hasselblad 503 CW Gold, Supreme Anniversary, in maker's box and certificate.*  
 One of an edition of 500 built to commemorate the fiftieth anniversary.  
 Estimated price £ 1000-1500  
 Auction price: £ 3290



*Verascope camera, Richard, Paris. 45x107mm with a pair of Berthiot Stellor f/4.5 lenses.*  
 Condition: 4B  
 Auction price: £ 117



*Tele Rolleiflex*  
 Condition: 3B  
 Estimated price £ 800-1200  
 Auction price: £ 705



*Nikon F miniature Sharan with a flash*  
 Condition: 1  
 Estimated price £ 200-300  
 Auction price: £ 329

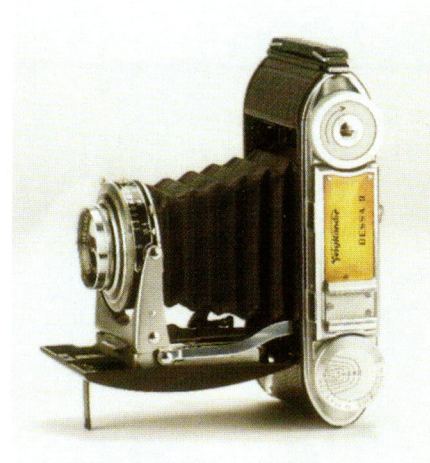
a few accessories. Outside the world of Leica, the circle of trustworthy names remains limited. A Nikon SP with f/1.4 lens went for £3,000, the same price paid for a limited edition, gold-finish Hasselblad. The Rolleiflex 2.8F in excellent condition went for over £800, more or less the same bid price obtained by the Rolleiflex telephoto and

modern Rolleiflex 2.8GX, while other twin-lens Rolleiflex in worse condition or less sought-after, such as the 3.5F, went for just half this amount or remained firm at under £300. But a Rolleiflex pentaprism with other small accessories went for well over £400. Collecting interest in special-category cameras such as subminiatures and

stereocameras was subject to wide swings, with £350 paid for a plastic Japanese Stereo Rocca, the same price obtained for an all-Italian Iso Duplex, while a Richard Verascope 45x107mm brought just over £100. A Steineck ABC subminiature still packed in its box with instruction booklet (estimated at £1200) rose to over £1600



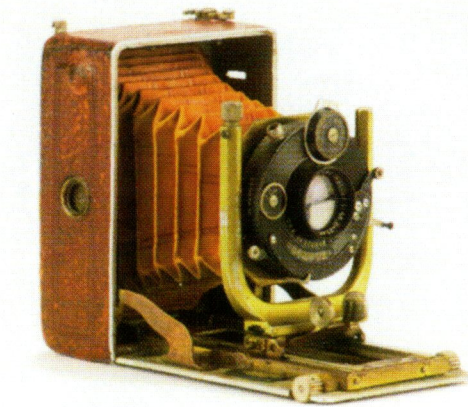
*Linhof Technika 6x9cm with a Schneider Xenar 105/3.5 lens and a Linhof Rollex back.*  
 Condition: 4B  
 Estimated price £ 200-400  
 Auction price: £ 352



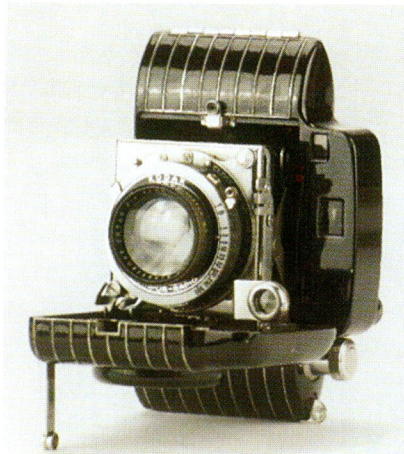
*Bessa II Voigtländer.*  
 Condition: 4B  
 Auction price: £ 211



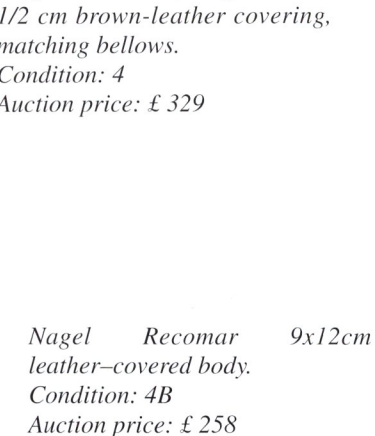
*Fotocamera ambulante turca formato 9x12cm*  
 Street camera 9x12cm  
 Estimated price £ 600-900  
 Auction price: £ 881



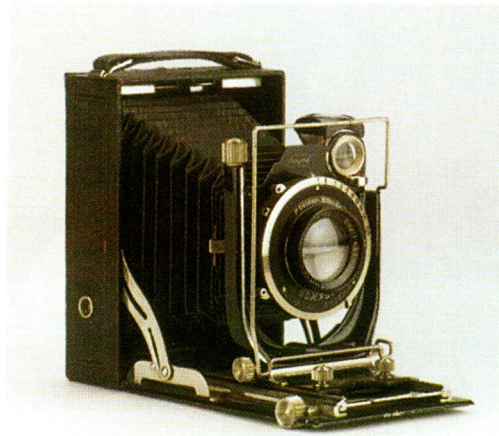
*Bergheil De Luxe, Voigtländer. 4 1/2 cm brown-leather covering, matching bellows.*  
 Condition: 4  
 Auction price: £ 329



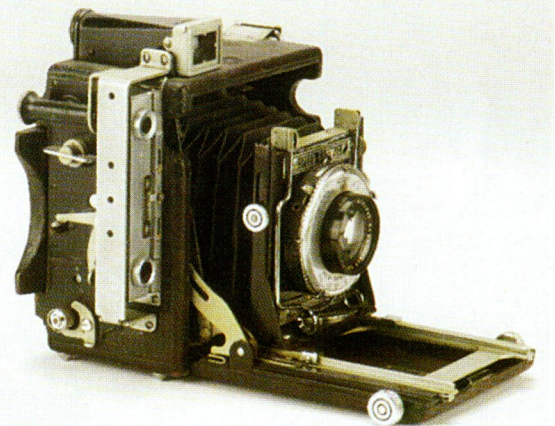
*Kodak Bantam Special*  
 Condition: 3B  
 Estimated price £ 200-300  
 Auction price: £258



*Nagel Recomar 9x12cm leather-covered body.*  
 Condition: 4B  
 Auction price: £ 258



*Speed Graphic, Graflex, 2 1/4 x 3 1/4 inches.*  
 Condition: 3C  
 Auction price: £ 223



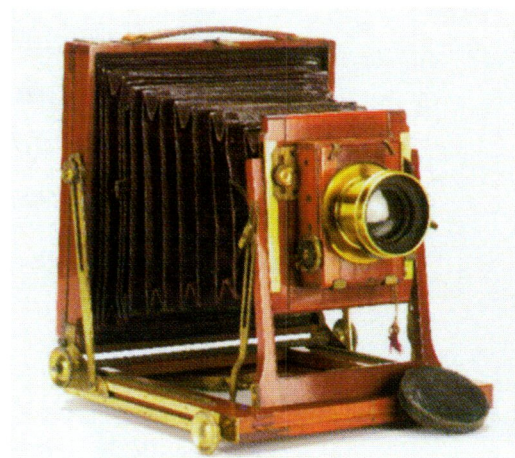
while a Kodak Matchbox Camera, offered at £2000, remained unsold. Three Steky cameras all went for £200, while a Steky and a Sakura Peta both arrived at £470. The miniature copies of the famous Minox 8x11mm cameras made by the Japanese company Sharan have arrived on the collecting market. A copy of the Nikon F complete with miniature flash brought

£250. Going from the smallest to the largest formats, there was a single-rail Linhof 9x12cm complete with Symmar 150mm lens that went for over £500 and a second Linhof Technika 9x12cm with three lenses (75mm, 105mm and 135mm) that sold for £880. A Linhof Technika 6x9cm with Xenar 105mm and Rollex back for

6x9cm film went for £350. A Speed Graphic 6x9cm with Ektar 107mm lens brought just over £200. A classic Bergheil De Luxe 4.5x6cm with Heliar lens sold for over £300 and a post-war Bessa with Color Heliar lens for over £200. Among the small cameras of interest was a Bantam Special with Ektar f/2 lens that sold for £250 and a Nagel Recomar



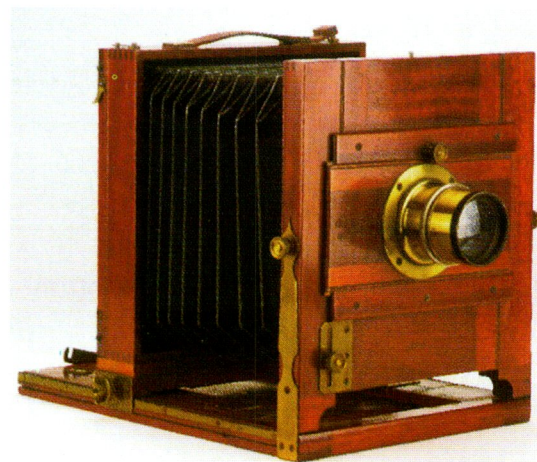
*Oftalmostereoscope, Chorretier, France, comprising a pair of 6 1/2 x 9cm cameras each with wood-body.  
Estimated price £ 3.500-5000  
Auction price: £ 3.525*



*Lizars, Glasgow. Half-plate, mahogany and brass  
Condition: 3/4  
Auction price: £ 258*



*Lizars, Glasgow. Quarter-plate, polished-wood body, brass fittings  
Condition: 4  
Auction price: £ 329*



*Austrian half-plate camera, mahogany and brass  
Condition: 3  
Auction price: £ 352*

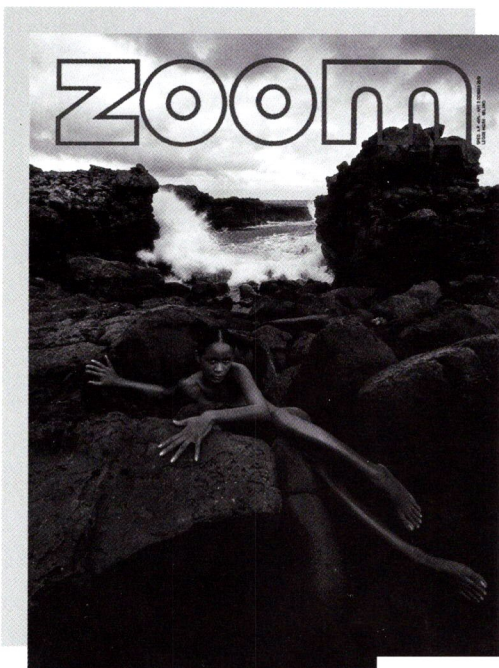
9x12cm with Elmar 135mm lens for the same price.

Small and large wood cameras dating from the period of the late 1800s and early 1900s and still underrated today, went for reasonable prices. An English-made full-plate Hare camera sold for £250, but other cameras of the same format went for less, just over £150. For half-plate wood

cameras, prices began at £250 for a Lizars with two lenses, and finished at just over £100 for a Taylor. An Austrian half-plate with Voigtländer Collinear lens dating from the end of the 1800s brought £350. Quarter-plate cameras ranged from £400 to just over £100. A 9x12cm street camera from Turkey, hand-crafted using as its base an extensively-modified bellows

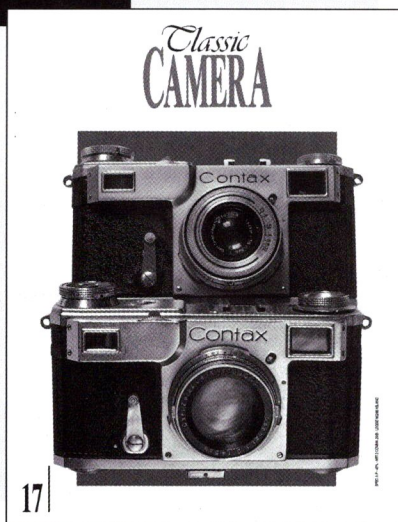
camera, was sold for £880.

For higher-priced items, we need to go back in photographic history to a French Ophthalmostereoscope from the late 19th century for close-up stereoscopic photography that brought over £3,500, and a 7x7cm daguerreotype camera by Gaudin that finished under the gavel for over £11,000.



**International  
Magazine  
Bi-monthly  
(6 issues/year)**

**International  
Magazine  
distributed only  
by Subscription  
Quarterly  
(4 issues/year)**



**USA:**

**Zoom** 1 Year \$ 49.90  
2 Year \$ 79.90  
**Classic Camera** 1 Year \$ 35.00  
2 Year \$ 60.00

Zoom America, P.O. Box 1270  
New York NY 10156  
Toll free: 800 - 535-6745  
Fax: 973 - 783-3368

**Europe:**

		<b>Europe</b>	<b>UK</b>
<b>Zoom</b>	1 Year	€ 37.70	£ 23.90
<b>Classic Camera</b>	1 Year	€ 31.50	£ 20.00

**Other Countries:**

**Zoom** 1 Year \$ 49.90  
2 Year \$ 79.90  
**Classic Camera** 1 Year \$ 35.00  
2 Year \$ 60.00

Editrice Progresso, viale Piceno 14  
20129 Milan, Italy  
Fax: (+39) 02 - 713030

**www.zoom-net.com**

**YES!** Please enter my subscription

**Zoom**       \$ 49.90 (1 Year)     \$ 79.90 (2 Year)     £ 23.90 (UK)       € 37.70 (Europe only)  
**Classic Camera**     \$ 35.00 (1 Year)     \$ 60.00 (2 Year)     £ 20.00 (UK)       € 31.50 (Europe only)

I enclose my check

Please charge my Credit Card:

Visa                       Mastercard                       American Express                       Diners

Card Number ..... Expiration Date .....

Name .....

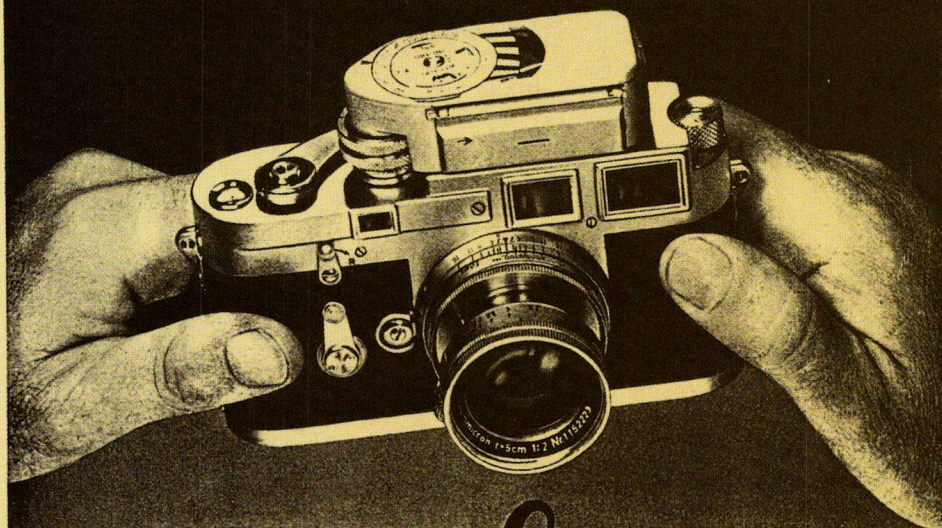
Address .....

City ..... Zip .....

State ..... Country .....

Telephone.....

*picture yourself owning*



**THE NEW** *Leica* **M-3**  
*lifetime investment in perfect photography*

Imagine it's yours... the new LEICA M-3... the finest camera you've ever seen. Versatile? You do just about everything your friends can do with a variety of specialized cameras... and better, too. Fast? You shoot a picture a second without moving the camera from your eye. Easy? Others marvel at your pictures; you marvel at how easy it is to take them with your M-3.

Makes a pretty picture, doesn't it? Close up it looks even better! There's a franchised LEICA dealer near you ready to give you a demonstration. For a list of dealers in your vicinity and free literature, write to E. LEITZ, Inc.



**NEW LEICA-METER M**

This new lightmeter is an exclusive feature of the LEICA M-3. It couples to shutter speed dial... automatically sets correct shutter speed. Light-shield is always set for normal light conditions... flips up to increase sensitivity.

**E. LEITZ, INC., 468 FOURTH AVE., NEW YORK 16, N. Y.**

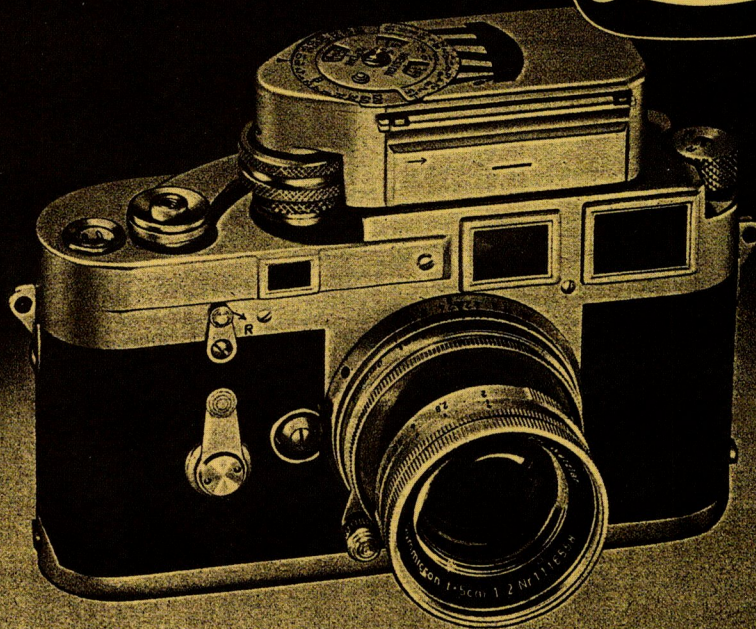
Distributors of the world-famous products of Ernst Leitz, Wetzlar, Germany

**LENSES • CAMERAS • MICROSCOPES • BINOCULARS**

**PHOTOGRAPHY**

*there's nothing like a*

*Leica*



*and the latest is the greatest!*

**NEW**

*Leica*

**M-3**

*lifetime investment in perfect photography*

Designed for versatility, speed and easy operation, the LEICA M-3 is the ultimate in the famous LEICA line. Its many new automatic features make it finer, simpler and more foolproof. But you have to see it for yourself. Visit a LEICA franchised dealer soon. You'll enjoy handling the world's most advanced camera.

**E. LEITZ, INC., 468 FOURTH AVE., NEW YORK 16, NEW YORK**  
Distributors of the world-famous products of Ernst Leitz, Wetzlar, Germany  
**LENSES • CAMERAS • MICROSCOPES • BINOCULARS**

January, 1955

03784

39

**Popular Photography, 1955**