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The Zeiss Historica Society of America is an educational, non-profit organization dedicated to the exchange of information on the history of the Carl Zeiss optical company and its affiliates, people and products from 1846 to the present.

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On The Covers

Front Cover: Charles
Barringer shares with us in
his letter, opposite, the
story of how he found this
Jena Contax II



Back Cover: Charles Gellis sent us this photo from a few years ago in London. He recalls that the sign seen at "Alfie's Antiques" was too expensive to buy and too big to bring home.



Other Credits

Page 7: Prism diagrams by Peter Abrahams

Page 8, bottom: Allen Numano

Page 13: Joe Brown (Ernemann), Lars Sundberg (Cyrillic)

Pages 16-17: Carl Zeiss Jena Archive via Dr. Wolfgang

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Pages 20-21: Dr. Hansjoachim Hinkelmann, Optisches

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President's Letter

When I started collecting in the early seventies, one could still find a nice Contax IIa or a Nikon SP in a dealer's window. Most of the clerks knew the equipment well, and dead-stock paraphernalia could still be excavated from the shop's catacombs. The collector itch could be further scratched at the Sunday swap-and-shop camera meets held at most once or twice a year.

The regular print fix was Shutterbug Ads, unique as a targeted classified advertising sheet. The same stalwart dealers who manned the tables at the shows still had time to breathe on off-weekends, and sent out occasional typewritten lists. For the really serious, occasional highly specialized photographic auctions were held in Europe. There were certainly other venues, but these, for me, were the conduits through which I began to acquire the pieces (some of which still grace my shelves,) and to know the history of the Contax, initially, and later other exotics, mostly Zeiss in one form or another.

The fraternity was relatively small and quite personal. I knew the dealers and they knew me. Information available nowhere else was generously shared, advice offered, theories advanced, and requests answered. There were virtually no compendia on cameras, no guides to this or that brand of equipment. Pricing guides were nonexistent. In short, it was a good time to be "growing up;" there were still discoveries to be made, deals to be had.

This struck home again as I wrote the story about the Jena Contax (page 9). Let me share the story of the provenance of the beauty that graces the cover. At the local show, I had noticed a fellow offering the contents of a genuine cardboard suitcase, which screamed "Russian émigré." Yuri had a mixed bag of Soviet cameras and other odds and ends, but what caught my eye was a large black lens in a reflex housing and a nice, virtually new Contax II in its case and box. He and the dealers had differing ideas about the equipment's value.

Months later I got in touch and after several hours of discussion and a few shots of vodka we sealed a deal for a Sonnar 300mm f/4 and an essentially new Jena Contax in case and box, with the original receipt. The equipment I bought then is still in my collection and it would be years before I saw another Jena Contax. The price that then seemed so high now seems a bargain even by the standards of that time.

I was able to buy these pieces mainly because no-one else was willing to believe Yuri's story about their provenance, and second, because no-one really knew what they were. That would be impossible now with so much information available to everyone, and electronic markets which span the globe instead of a hundred-mile radius.

For all its promise as a marketplace, eBay will only satisfy part of what I knew, because the contacts made via the Internet are virtual, not real. The human contact that was such an integral part of the Sunday show experience added a dimension now lost. *Sic transit gloria*, I guess, but how much of an adrenaline rush did you get from your last virtual kiss?

Charlie Barringen

Möller and Zeiss Compact Binoculars

Jack Kelly, Oregon City, Oregon

When Ernst Abbe patented the first prism binocular for Zeiss in 1894, he coincidentally used the same erecting prism system developed by Italian artillery officer Ignazio Porro in 1854. The design is simple and functional, utilizing two 90° prisms arranged to erect the image and shorten the length of the objective tube. The same Porro prism design is still used today, and in the author's opinion it still produces the best images for the lowest cost and complexity. Almost immediately after the introduction of this new binocular, creative optical technicians began to develop alternatives to the Porroprism design. Variations abounded, and Ernst Abbe is noted as one of these inventors with his Abbe-Koenig roof prism. Hensoldt was the first manufacturer to utilize a variation of the roof prism design in a production binocular, which they introduced in

The primary purpose of all of this prism development effort seems to have been aimed at improvement in binocular size, shape, and compactness. However, prior to the advent of lens coating, a roof prism, which has fewer glass to air surfaces, vielded a binocular with significantly reduced light loss and improved contrast. Over the years, roof prisms have allowed designers to reduce the size and weight of the binocular and, until quite recently, have generally been associated with higher quality instruments. Development of roof and other prism designs continues to this day with recent "phase correction" P40 coatings claimed to significantly improve image quality significantly in the third-generation Leica Trinovid.

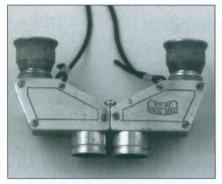
By the early 1920's, the J. D. Möller Optical Works, a small private optical shop in Wedel, utilizing this newer prism technology, designed and patented a series of high quality,

compact and optically superior binoculars. The first to come to market was the $3^{1/2}\times15$ Theatis in 1920 followed by the 6×22 Tourix and the 8×24 Turox in 1923. The Theatis utilized a Sprenger-Leman prism while the two larger glasses incorporated the Möller prism, a modified Abbe-Koenig design. The Möller binoculars were available in either individual or center focus models. with the focusing arrangement of the gilt and mother of pearl 5×15 Theatour an interesting combination of both (see photograph on next page). The unique and functional design of the Möller glass was immediately apparent, and Möller further promoted the glass by drawing attention to the inherently superior optical efficiency of their design, claiming better light transmission improved contrast over Porro-prism glasses of the same size.

By 1923, Zeiss was the dominant manufacturer of precision optical equipment in Germany and actively engaged absorbing competitors. Recognizing a potential threat to their dominance of the marketplace because of Möller's unique design of these compact binoculars, Zeiss initiated legal proceedings challenging Möller's design rights, while at the same time organizing a boycott of Möller Optical Works products and services by members of the German optical industry trade association.2 Although information is sketchy, it appears that while Möller's design rights were upheld, by 1925 Möller was forced by the realities of their economic position to seek settlement with Zeiss. In June of that year Möller



Original Möller Theatis. The first successful compact binocular design from J. D. Möller, Wedel, the Theatis, was introduced in 1920 and continued in production by Zeiss Jena until 1980. Originally finished in crinkle black enamel (left), later versions had leather inserts on the body of the binocular. From the collection of Fred Schwartzman.







Zeiss-Marked Theatis. This Theatis from the collection of Peter Serafin is of the earliest design with small center hinge and the ability to fold completely in half for convenient storage. It was most likely painted with a textured black finish, long since lost. An interesting note is the Carl Zeiss Jena logo engraved on the prism cover. Whether this was done by Zeiss or a local distributor is open to interpretation but the example shown was manufactured prior to Zeiss' association with Möller and the lettering in the logo is just slightly different from that used by Zeiss on binoculars of that period.

submitted a proposal whereby Zeiss would be licensed to manufacture and sell products based on the Möller design.

After indicating preliminary agreement with the Möller proposal, Zeiss announced that they suddenly had "discovered" an old design of their own that would dispense with any need for the Möller patents. Financially strapped, and faced with the prospects of a protracted and expensive legal battle, J. D. Möller Optical Works was forced to cease operations on 21 October 1925 to be succeeded on the same day by a "new" company, J. D. Möller Optical



Works, GmbH, a stock corporation, owned 52.5% by Zeiss and the remainder by Möller. This new company acquired all of the patents and design rights of the old Möller company, and shortly thereafter Zeiss commenced series production of their own compact binoculars utilizing the Möller designs and technology. The I. D. Möller Optical Works, GmbH continued in the binocular manufacturing business into the 1960's, producing a line of quality binoculars including the Cambinox, which incorporated a precision miniature camera into a 7×35 binocular.

In the 1923–1925 time frame,



Möller Theatour. A gilt and mother-of-pearl variant of the Theatis, the 5x15 Theatour has a unique focusing system. The viewer first sets the small middle lever to the center position and then adjusts the individual eyepieces to bring the subject into focus. From that point on, the lever is used to focus both eyepieces simultaneously. The choice of the Theatour name is an obvious attempt to convey the impression that the 5x glass could be used for both theater and touring purposes. From the collection of Fred Schwartzman.





Original Möller Tourox. The 6x22 Tourix and 8x24 Tourox were built on the same platform, identical in every respect except for the diameter of the objective lens and the magnification of the oculars.

Möller and Zeiss Compact Binoculars compared

		Size	Fie Deg.	eld of View m/1000m	Weight	Years Produced	P	rice
Möller					8			
Moner	Theatis Theatur Tourix Tourox	$3^{1}/_{2} \times 15$ 5×15 6×22 8×24	6°	105m	11 oz.		\$56.00 (1926)	
Zeiss								
	Theatis Telita I	$3^{1}/_{2} \times 15$ 6×18	10.9°	190m	6 oz.	1929-1980 1923-1926		\$75.00 (1937)
	Telita II Turita	$\begin{array}{c} 6\times18 \\ 8\times24 \end{array}$	8.3° 6.3°	145m 110m	10 oz. 15 oz.	1926-1943 1928-1943		\$103.00 (1937) \$106.00 (1937)

In 1928 a 6 × 30 Porro-prism Silvamar cost \$60.00

Zeiss introduced a flat compact 6×18 binocular called the Telita. Visually different in design from the Möller and later Zeiss binoculars, and using a slightly different prism design, the model is not depicted in the author's 1923 or 1926 Zeiss catalogs. This Telita might in some way be associated with the Zeiss strategy of maintaining economic pressure on Möller during the design dispute. The design was very short lived but exists in at



Möller Touroxmo. This purpose-built monocular is derived from the Tourox but was clearly designed as a monocular with unique strap mounting method, special top plate and its own model identification.





Zeiss Telita I. The original Zeiss Telita utilized a different roof prism design than the Möller glasses and was manufactured for only a very short time. Note the rectangular shape as contrasted with the trapezoidal shape of the earlier Möller glass and later Zeiss Telita design. The glass on the right is finished in black enamel with no provision for textured coverings; the prism covers are recessed into the binocular body and the size of the glass (6x18) is inscribed immediately below the Telita model designation on the left prism cover. On the left is a glass identical in shape to the early version Telita. The only differences appear to be the presence of textured coverings on the body (but not on the prism covers); the size designation (6x18) has been moved to the center top hinge cover; and, the bottom hinge cover is larger to cover the edge of the textured material.

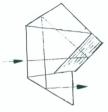
Binocular Prism Systems

Peter Abrahams

An objective lens paired with the standard eyepiece gives an image that is upside-down and reversed left-to-right. The Porro I prism system uses two prisms, the first to invert the image and the second to reverse it. There are other strategies to accomplish this. One of the reflecting surfaces in a prism can be modified into a V-shaped "roof," which splits the image into two halves and reflects the two halves off both sides of the roof. This allows the image to be rotated in two directions, using only one prism. There are several advantages to this. Fewer optical elements make it easier to maintain alignment, and meant a brighter image in the era before coated optics. Roof prisms also allowed the use of larger objectives, and the first binocular with a 50mm objective was a Hensoldt 10×50 roof-prism design.



1. Porro I Prism System



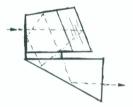
3. The Möller Tourox Prism



5. Telita II Prism



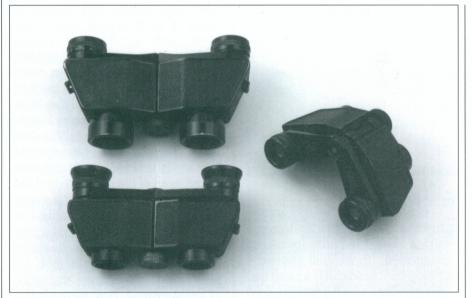
2. The Abbe-König Prism



4. Telita I Prism



6. Sprenger-Leman Prism



Zeiss Telita II and Turita. This photo shows the Telita II and Turita in the flat carry position. To the right is another Telita folded for viewing. Note that the shape of this Zeiss binocular has assumed the look of the early Möller glass possibly as a result of Zeiss' access to the Möller design. Unlike the Möller Tourix and Tourox, the Zeiss glasses are of two distinct sizes but clearly retain a common design.



Zeiss Theatis. Example of a Zeiss Theatis from the early 1950's in gilt and lizard finish with a fancy case suitable for the opera. While the Zeiss Theatis carried the same name as the original Möller glass it is clear that there is only a family resemblance to the original.

least two variations. The earliest in the author's collection (s/n 1250147) is finished entirely with glossy black enamel while a later sample (s/n 1252259) is finished with black enamel on one side and synthetic leather on the other.

By 1926 Zeiss offered a new compact 6×18 Telita binocular which, while not a direct copy of the Möller glass, shows a distinct connection with the original design. In 1928, this model was augmented with the 8×24 Turita, followed in 1929 with a 3 ½×15 design that not only looked like the original Möller, but even carried the same Theatis name. All three of the Zeiss glasses were available in center-focus only. Production of the Telita and Turita continued into World War II, and the Theatis was still in

production in Jena until 1980. One interesting feature of the Theatis is its ability to focus as close as eighteen inches. The Telita and Turita were available in black finish, and the Theatis was offered in standard black as well as gilt- or silver-plated versions with red, green or brown lizard leather. Available cases included the standard snap-fastened hard leather version as well as an assortment of zippered pouches and fancy opera cases with vanity mirrors for the Theatis.

References

- 1. Seeger, Hans T. Feldstecher im Wandel der Zeit, Bresser Optik, 1987.
- 2. Schumann, Wolfgang (as head of authors' collective), *Carl Zeiss Jena, Einst and Jetzt*, Rutten and Löning, Berlin, 1962.





Post War Möller Tourox

A Walking-stick Telescope



For many years, long-time ZHS member and legendary Contax collector Allen Numano traveled the world as the marketing manager for Yashica and later for Yashica/Contax. Since he is always alert to see and find Zeiss items, during one of his travels to Indonesia, he came across and was able to acquire one of the strangest of Carl Zeiss collectibles



that I have ever seen.

It is depicted in the two accompanying pictures. It is the top to a walking stick, which has long since disappeared. In addition to being a walking-stick handle, it is a small Carl Zeiss telescope with the familiar Zeiss achromat logo. It is versatile in that it can be a straight-up handle or a right-angled handle. As can be seen

in the pictures, there is a lens cap that protects the objective and a small removable fixture to protect the eyepiece and attach to the walking stick.

In our second pilgrimage together to last Fall's Photokina, Numano and I went to the museums and archives in Jena and Oberkochen and talked to all of the acknowledged old hands about it but found not a clue to its history. I have since looked in every available catalog to find a clue to its heritage. So, without the slightest hint, we continue to look for something together from thousands of miles apart. I have no doubt that we will eventually find it but, now we are asking you to help. Let us know.

—LG

The Jena Contax: Brief History and Spotter's Guide

Charles Barringer, Haddonfield, NJ

Collectors love to look carefully for the minor variations that distinguish one unit from an ostensibly similar one. Zeiss Ikon collectors are often frustrated by the absence of such variations in the magnificent Contax II (and derivative Contax III with selenium meter) of 1936–1943.

The landmark Contax I was new and relatively untested when it came to market in 1932. As such, a series of mostly unheralded design changes made during its life generated several variations, avidly discussed to this day. However, the Contax II was a thoroughly mature design at its 1936 introduction and remained essentially unchanged over its seven-year effective life as a Zeiss Ikon product.

The existence of a postwar "prewar" Contax has been known for some time, but details were shrouded in mystery. This missing link is the Jena Contax, born in 1946–47 in the historic home of Carl Zeiss, Ernst Abbe and Otto Schott. Enough examples have now been studied to let us list their most salient characteristics. And while waiting for the definitive version of this camera's brief heyday, now under study, let me offer some ideas about the turbulent period surrounding its creation.

History

How did a Contax come to be made in Jena in the first place, when all prewar Contaxes are thought to have been made in Dresden? While the Zeiss Ikon Contax production lines were located in the old Ica location on Schandauer Strasse, the Reika plant on the outskirts of Dresden was

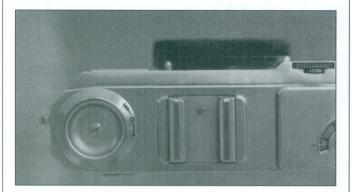
where the designer's plans were taken from the blueprints into the tools and dies that were used in the manufacturing process. When Dresden's center was bombed into oblivion in February 1945, surrounding areas (including this plant), were not as badly damaged. This effectively stopped camera production (probably only Contax in this plant), which had continued well into the war, although possibly not up to the time of the bombing. It was a signal to take the plans and materials for the Contax into a mobile state.

Zeiss Ikon management, perhaps anticipating that Dresden might be a target for Allied bombardment, had at some point prior to the bombing transferred a useful portion of the production drawings, machinery, dies, tools, sub-assemblies, etc. to Jena, traditional home of lens and instrument (but not camera) production. Or maybe the bits that survived the bombing were picked out of the wreckage and shipped to the Jena area, where several well-protected underground "dispersal locations" had been prepared for the production of equipment in "very difficult times." No one knows for sure. American troops arrived in Jena in April 1945. According to the terms of the Yalta conference of February 1945, the State of Thüringia, including Jena, would be in the Soviet Occupation Zone. Due to the strategically important nature of the Zeiss (and Schott Glass) operations, American military and political leaders were anxious to assure the removal to the American

sector of key personnel and equipment prior to the arrival of the Red Army in Jena. When the Americans withdrew in June 1945 on their way west, their convoy included a closely selected group of Zeiss and Schott managers, employees, their immediate families, a large amount of documentation and a small amount of hardware deemed essential to the reestablishment of a Zeiss operation. Conspicuously absent was production equipment, judged impractical to select and carry, on one hand, and inconsistent with the spirit of the Yalta accord, on the other. Thus, when the Soviet troops arrived in Iena shortly after the Americans had left they came into possession of a damaged but serviceable Zeiss works. including (whether they knew it or not) the essential apparatus for limited production of the Contax.

Here things get cloudy. There are so many versions of what happened during this turbulent period that this article is not the appropriate forum. Suffice it to say that during the 15 months or so between the arrival of the Red Army and the transshipment of the Contax production apparatus to Kiev in October 1947, a small series of Contax cameras, among other items, was produced in Iena. In this light, the Jena Contax appears not as the orphaned product of a desperate postwar effort to generate hard currency, but as the true "missing link" between the prewar Zeiss Ikon Contax and the long-lived Kiev that survived into the mid-eighties.

An eclectic range of equipment began to be produced in Jena in the



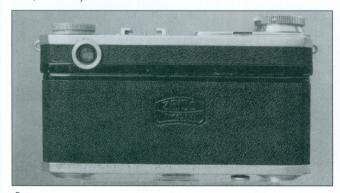
Prewar



Jena, sn 14691



Jena, sn 6070/470010



Prewar



Prewar



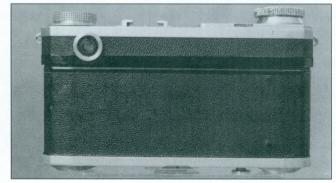
Jena, sn 6070/470010



Jena, no sn



Jena, sn 14691



Jena, sn 14691

Features

TOP:

- Accessory shoe: engraved Carl Zeiss Jena "achromat" logo; below it, 4 or 5-digit serial number without letter prefix.
- Corners of accessory shoe: often straight cut, instead of bevel cut.
- Contax logo: heavy engraved characters; longer top branch of letter
- Protuberance under self-timer: black enamel instead of bright chrome finish.

BACK:

- Absence of Zeiss Ikon logo; unmarked leather.
- Often made of brass instead of aluminum, thus heavier (approximately 180g instead of 115g.)

BOTTOM:

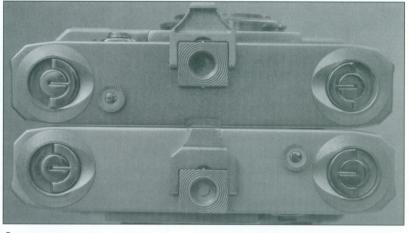
- Balance foot: solid, with different striations.
- Tripod bushing: finer concentric circles around thread.
- Rewind clutch release button: smooth with circular lines.

GENERAL:

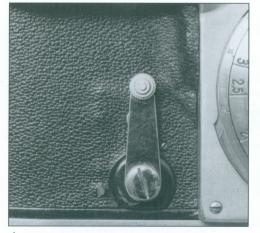
- Metallic surfaces: often duller, grainier chrome.
- Combined view/rangefinder: primary and secondary images are bright and clear, without color. (View through the Dresden Contax has a distinct greenish tint overall, with a gold-hued secondary rangefinder spot.)
- Screws holding the film guides to the camera chassis: cylindrical (instead of countersunk) heads.



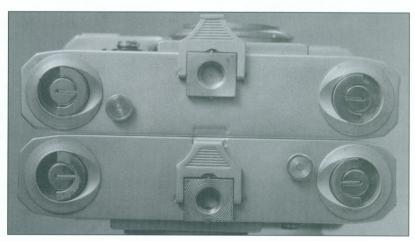
Prewar



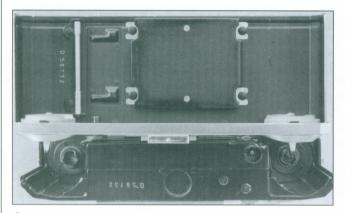
Prewar



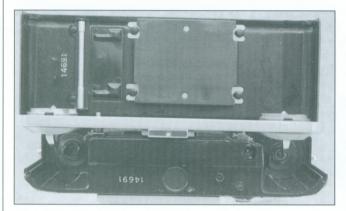
Jena



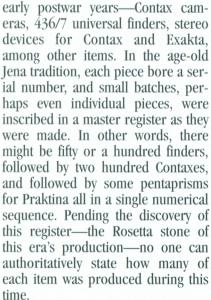
Jena



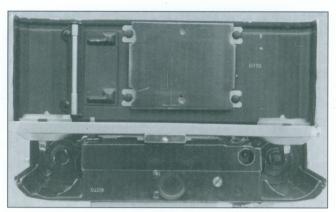
Prewar



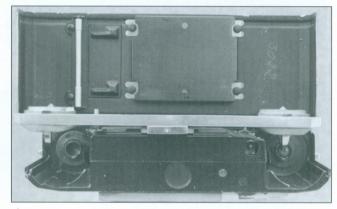
Jena, sn 14691



Suffice it to say that authentic Contax cameras made in Jena are extremely rare. Approximately 100



Jena, sn 6070/470010



Jena, no sn

cameras have been logged into a central database in Germany. There appear to be seven distinct batches of up to 300 units each. The lowest number is around 6,000; the highest just over 30,000. The estimated total is around 1200 units, but such estimates are themselves based on untested suppositions about allocations of the numbers.

All units under discussion are Contax II. There are however, four known Jena Contax III models, one of which, appropriately, is on display at the Optical Museum in Jena near its birthplace.

Characteristics of the Jena Contax

Since these were essentially handmade cameras, created from

whatever materials were available, the Jena Contax has been spotted with several variations. The backs are sometimes made from brass, thus making the camera appreciably heavier. The "Contax" lettering is not uniformly thick from camera to camera—the earlier ones seem to have heavier letters than the later ones. The chrome quality, indeed the leather quality, is not absolutely uniform among Jena Contaxes, and is visibly different from that of the Dresden Contax when the two are placed side by side.

Some cameras have not one, but two serial numbers in the accessory shoe, located above and below the logo. These are presumed to reflect the Carl Zeiss Jena register number and the Soviet-style numbering, in which the year of manufacture is indicated in the first two digits of the serial number. However, these are the early production units, something of a logical inconsistency. Fewer than 100 of these were made.

One has been reported without the word Contax on its front plate: another is labeled Kiev but has the CZJ logo in the shoe! The location of the interior serial number varies, as the pictures show. Some do not even have a logo or a serial number; these are thought to be "lunch-box specials," built from purloined parts taken from the factory prior to their having been marked with numbers. Complicating matters further, the earliest Kiev cameras share most, but not all, the characteristics discussed below. Secondary characteristics become essential in recognizing these, and in determining their authenticity.

Any Contax exhibiting all or most of the characteristics listed on page 11 was probably made in Jena. Some features are relatively easy to counterfeit, and if this has not been tried it certainly will be soon. However, even the most dedicated artisan is unlikely to be able to reproduce each item in the list below. *Caveat emptor* is the watchword, as the rarity and concomitant higher collector value of these cameras becomes more widely known.

Conclusion

So, armed with this knowledge, you will be able to distinguish the Jena Contax from its more common sibling. Unfortunately, until a breakthrough occurs, the history of this fascinating camera and of the circumstances leading to its short production run will have to be pieced

together by assembling the loose ends of many threads. I would greatly appreciate your contacting me with any observations, comments, anecdotes or documentary evidence you may have.

Observations and opinions expressed are my own. I received great help from Joachim Arnz and Kurt Jüttner (Germany), Gérard Mougenot (France) and Archivist Larry Gubas. Further material comes from the Carl Zeiss Archives. Jena (under the care of Dr. Wolfgang Wimmer), and from the books Zemke's Stalag, by Col. Hubert Zemke as told to Roger A. Freeman (Smithsonian Press. Washington DC, 1991) and Zeiss Cameras 1945-1975, by Bernd K. Otto and Kurt Juettner (privately printed by the authors).

Charivari



This Ernemann advertisement, which appeared in the Illustrated News of Berlin in April 1916, was sent to us by Joe Brown of San Antonio, Texas. Joe tells us that he has one of the 4.5 by 6's, which he calls "a cutie", and adds that he doubts the World War I German soldier would have had many opportunities for photography.



This large-format catalog (C473) carries the words "Zeiss Ikon" in Cyrillic script on its cover. Thanks to Lars Sundberg for sending the illustration to us.

Carl Zeiss Jena Photographic Lens Production Figures

Larry Gubas, Randolph NJ

The Table accompanying this short article has been developed as the result of research in the records of the firm that had long since been lost to interested photographic collectors. With the opening of East German sources and new museums in Dresden, we now have a much better picture of the relevance of prewar serial numbers than in years past. Notice that I have not claimed the Table to show serial numbers. It shows only the number of photographic objectives manufactured in given years, which does closely relate to Carl Zeiss serial numbers.

I have compared these numbers to the collection of relevant numbers that was published by our late associate, Ed Kaprelian, some years ago. Ed's numbers were based on the engravings on Versuchs (experimental) lenses developed by Zeiss, which had the serial number *and* the date of manufacture engraved in the usual location. This dating can also be found on some of the aerial camera

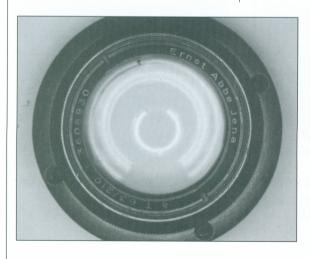
lenses for the military. These new numbers are consistent with those that Ed compiled, and so we have relatively close corroboration.

As I mention in the Table, Zeiss ran their business year from 1 October to 30 September, and so there is a little variance of the data. but it is well within the tolerances for estimating the date of a lens and possibly the associated camera. I have also tried to bring additional relevance to the Table and the numbers by identifying significant accomplishments in relation to those years. These dates are also slightly variable for the same reason. If the Tessar f/6.3 is listed in your histories as 1902 or 1903. I agree that I have seen and read first-hand materials that use both years. It is difficult to separate fiscal years and patent data from manufacturing, business expositions and introductory dates. However, this is surely more accurate than most material heretofore available, and so we gladly offer it to you.

Now, to add to the unusual, to accompany this information on lens serial numbers is a very rare item. It is known to some extent to European collectors but not to us here in the US. It is a Carl Zeiss lens but one without the Carl Zeiss trademark. There was a short period when the East German collective had thought that it had forfeited the trademark in the Western markets and in the early 1950's produced a small number of products with the name of Ernst Abbe substituted for Carl Zeiss. I first encountered this substitution with regard to a microscope in private hands and found it to be a variation of a basic pre-war microscope. The materials were decidedly post war but the trademark had Ernst Abbe in the top of the lens cell logo and Jena in the bottom. It was confirmed to me that it was a legitimate East German product, and when I ran into this version of a Tessar, it was yet another step in proving that the use of Abbe's name was more legitimate.

As we look closely at the engraving of this lens, certain things become clear. It is done in exactly the same style and form as the Carl Zeiss lenses, it has an appropriate serial number for the period and already, it was using the abbreviation T for Tessar since that was one of the trademarks called into question at this point in time. The red T is there representing the trademark for "T coating" and the 1 superimposed on a Q designates the high-quality level of the production.

If anyone has any comments or further evidence on this topic, please forward it to the editor.



A "Carl Zeiss" Tessar with an "Ernst Abbe" identification

Carl Zeiss Jena Production of Photographic Objectives from 1891 to 1944

Fiscal Year*	Cumulative Production	Year's Production	Comments
1890	0		Paul Rudolph develops the Zeiss Anastigmat (this design is trademarked as Protar some 10 years later)
1891	0 941	0 941	Production begins temporarily subcontracted to Voigtlander
1892	3105	2164	Troduction begins temporarily subcontracted to voighander
1893	6203	3098	
1894	9354	3151	
1895	12668	3314	October 26: 10,000 th Zeiss Photo Objective produced-Double Protar introduced
1896	17493	4825	Rudolph's Planar introduced
1897	24272	6779	Rudolph & Famat Introduced
1898	30069	5797	
1899	37134	7065	Rudolph's Unar introduced
1900	44434	7300	nadospiro cina introduced
1901	51392	6958	
1902	57305	5913	The Palmos Camera Department is opened; Rudolph's f/6.3 Tessar introduced
1903	64420	7115	The Fullion diameta Department to opened, radiophi of oil, resolat introduced
1904	69309	4889	Zeiss introduces yellow glass filters
1905	75012	5703	Magnar Telephoto Lens/Camera introduced
1906	82615	7603	Wandersleb and Rudolph advance Tessar to f/4.5 and (for cinema cameras only) f/3.5
1907	91353	8738	white the same that the same t
1908	100472	9119	Low cost symmetrical lens (Amatar) introduced to succeed the Double Protar. Dukar color filter
1909	111686	11214	Wandersleb designs Tessars of various focal lengths with interchangeable front cells - used 40 years later
1910	126564	14878	
1911	157696	31132	Palmos closed. Ica founded. Rudolph retires. Wandersleb's first Triplets for aerial photography
1912	195635	37939	Wandersleb heads department, introduces Triotar
1913	260175	64540	
1914	311422	51247	Distar supplementary lens introduced
1915	327980	16558	Proxar supplementary lens introduced
1916	335983	8003	
1917	349090	13107	
1918	361289	12199	Rudolph licenses his new Plasmat design to Meyer of Gorlitz
1919	387934	26645	
1920	438295	50631	
1921	479030	40735	Dr. Merte introduces the Tele-Tessar
1922	531556	52526	
1923	597067	65511	A-Ducar filter for Agfa color film
1924	635802	38735	Tessar f/2.7 (Merte) - Bertele's f/1.8 Ernostar at Ernemann
1925	676845	41043	
1926	725677	48832	Merte's Biotar and Orthometar for aerial photography introduced. Bertele joins Zeiss Ikon from Ernemann
1927	791551	65874	Tessar to $f/3.5$ by Merte
1928	890473	98922	Merte introduces Biotar lenses at $f/1.0$ and 0.85
1929	1014022	123549	September 1929-manufactures 1 millionth photographic objective
1930	1174108	160086	Three Goerz Lenses are now manufactured at Carl Zeiss: Dagor, Wide Angle Dagor and Hypergon
1931	1249797	75689	
1932	1325571	75774	Merte Tessar to $f/2.8$. Contax lenses: 50mm Sonnar $f/2$ and 1.5, 135mm $f/4$, 50mm Tessar $f/2.8$ and 3.5, Triotar 85mm $f/4$
1933	1384582	59011	Contax: Bertele's 85mm Sonnar f/2.8 and Merte's 40mm f/2 Bio Tessar 28mm f/8, Tele Tessar K 180mm f/6.3.
1934	1496663	112081	Richter's Topogon; Contax: 300mm Tele Tessar f/8, Fernobjective 500mm f/8
1935	1627316	130653	
1936	1807788	- 180472	Contax: Bertele's Biogon 35mm f/2.8, 180mm Sonnar f/2.8-Dr. Smakula invents lens coating process
1937	1993215	185427	Contax: Merte's Orthometar 35mm f/4.5; Flektoskop is introduced and larger lenses reconfigured.
1938	2149589	156374	
1939	2369527	219938	Bertele's 300mm Sonnar f/4 introduced late in the year
1940	2470111	100584	
1941	2542148	72037	Severe reduction of lens production based on wartime economy
1942	2583535	41387	
1943	2602049	18514	
1944	2616749	14700	

^{*} To make things slightly more complicated, the Carl Zeiss fiscal and consequently manufacturing year ran from 1 October to 30 September.

Zeiss Personalities

In the Fall 1998 issue we initiated this series with short articles on Erhardt Glatzel and Kurt Michel. Here are some notes on two more of the Zeiss innovators. —LG

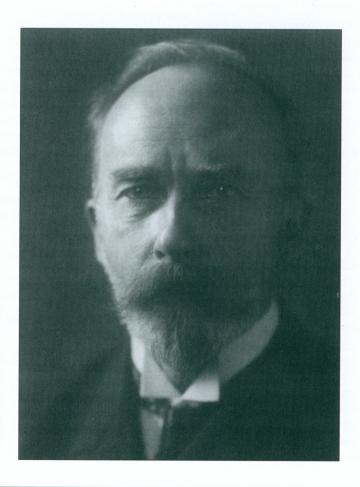
Dr. Rudolph Straubel (1864–1943)

Straubel was the last of the Zeiss board of management to have a direct link to the Zeiss Stiftung's founder, Ernst Abbe. He joined the firm at age 38 in 1901 after a successful academic career and a close personal association with Abbe. He was older than most of Abbe's prior scientific recruits, but he became a member of the Board of Management two years later when Abbe retired. He oversaw the major growth of the firm until 1933 at age 69. At that point, his retirement was forced because of the Nazis hatred of the fact that his wife was Jewish. The family survived, with difficulty, under the Nazis for the next ten years. But in 1943, when Straubel was 79, he and his wife committed suicide rather than allow themselves to be taken to a concentration camp and to face a worse death there.

He held 32 patents, which he assigned to the firm, and helped to implement many of the manufacturing processes necessary for profitability. It was Straubel who brought the physical plant in Jena into the modern ages, with his upgrades to the plant in terms of space, lighting, heating, electricity and other facility issues. He remained a member of the university faculty and helped support the university in accordance with Abbe's specified wishes in what would be very difficult economic times.

It was he who was the force behind the purchases of nearly all of the firms that became a part of the Carl Zeiss collection of optical firms (Busch, Hensoldt, Winkel, Wolf, etc.) and which would have failed without his financial and technical aid. He also visited the US and negotiated the pre-World War I joint venture here with George Saegmuller and Bausch and Lomb.

Straubel was the leading player in the formation of Ica in 1909 and Zeiss Ikon in 1926 and was instrumental in its organization and management until 1933. Like Abbe he became preoccupied with the business end of the enterprise and left his very promising technical career to be a part-time effort. Yet, he was the foremost expert of his time with regard to the diffraction properties of optics.



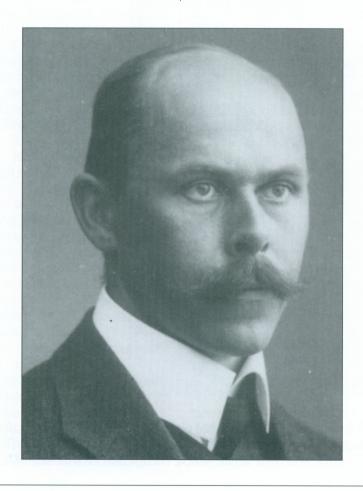
Ernst Wandersleb (1879-1963)

Ernst Wandersleb joined the photographic division of Carl Zeiss, Jena in 1901 and became department manager, at the age of 33, when Paul Rudolph retired in 1911. It had been Wandersleb who had brought the aperture design for the Tessar from f/6.3 to f/4.5 in 1907 and refined it into a wide range of focal lengths from 50 to 500 mm. He had

tried to bring it to f/3.5 but was successful only in doing this for projection and cinematic lenses. He also developed the Distar (1914) and Proxar (1926) as supplementary lenses for the Tessar. He developed a new lens in the Triotar, which was a more simple design and less expensive alternative to the Tessars. He was able to bring into the firm such excel-

lent designers as Merté (who did bring the Tessar to wider openings at f/3.5 and later to 2.8) and Richter, and managed a rich portfolio of diverse high-quality photographic lenses to the market. He and Merté were highly energetic men who reveled in the science of their day and were highly involved in the infancy of aerial photography. Wandersleb was among those who pioneered the mathematical functions of lens designs and built pre-computer models of the properties of lens design. He absorbed the great Sonnars and Biogons of the young genius, Ludwig Bertele, into the Contax family of lenses.

He also brought to the firm a friend and classmate, Emanuel Goldberg, who acted first as a consultant but later became the head of both Ica and, later, Zeiss Ikon. Wandersleb managed the Photo department until 1939, when he was finally forced out of the plant by the Nazi government since his wife, too, was Jewish. Thankfully, he and his wife did not suffer the threat of the concentration camps that followed Straubel and later Dr. Schrade. Wandersleb was able to continue his theoretical and experimental work on aspheric lenses privately underwritten by Zeiss. Since he was 66 and frail in 1945, he was not among those evacuated to Heidenheim. Even at this age, he was returned to participate in post-war Zeiss in Jena in 1945, eventually retiring in 1957 at 78. He died in Jena in 1963.



The Zeiss Cartel

Nicholas Grossman, Rockville, Maryland

This article was prompted by the author's discovery of a book written in 1944 by Wendell Berge, the then Assistant Attorney General of the United States, on the subject of International Cartels or Monopolies that affected the contemporary war effort. Much of the material is newly discovered in that we have not considered it since that time and that the two companies involved have greatly evolved, as have their businesses. We know that Bausch & Lomb licensed many aspects of the Zeiss product lines (microscope design, photographic lenses, prism binoculars, etc.) beginning in 1892. This relationship was formalized in 1907 and broken in 1915 due to various situations having to do with World War I.

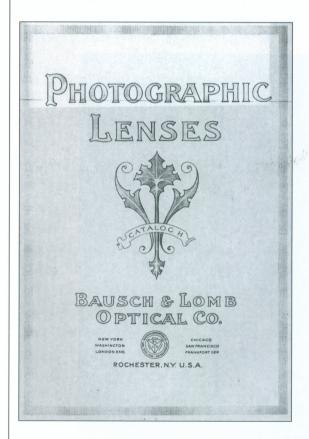
History in Retrospect

There are many aspects of the history of Zeiss that surface when we study the factors that have shaped the policy of the Carl Zeiss Stiftung (Foundation). Most of us are familiar with the goals and achievements of Carl Zeiss, Ernst Abbe and Otto Schott. These achievements have been recorded and preserved in books, technical journals, catalogs and oral presentations covering Zeiss microscopes, telescopes, binoculars, photographic lenses, planetaria and other Zeiss products. In recent times many of us have become interested in recording and preserving camera serial numbers, production figures, and plant locations. The achievements of Zeiss scientists and engineers have carved an admirable place in technical history. A lesser-known aspect of Zeiss history deals with the Foundation's top management's marketing strategy to maintain the cutting edge of technology and achieve profitability.1 To meet these goals top management attempted at various times to monopolize the market by forming cartels.² This also is history.

Expand the Market

In 1907 the Bausch and Lomb Company (B&L) of Rochester, New York entered into a commercial agreement with Carl Zeiss Stiftung. This cooperation was initiated by Bausch and Lomb to mitigate potential competition because Carl Zeiss (Schott) was planning to establish a glass manufacturing plant in the United States. The reference states that Zeiss management sent Professor Tschopski (sic) to negotiate an agreement under which B&L would use optical glass exclusively imported from Germany in the manufacture of

military optical goods. The Fauth Instrument Company, of which George Saegmuller was president, was absorbed by B&L, and Saegmuller became a Vice-President of B&L. In the next step Carl Zeiss acquired one-fifth of B&L's capital stock and obtained representation on



Bausch & Lomb lens catalog from the period discussed in the accompanying article. The wording around the circular logo at the bottom reads: BAUSCH & LOMB OPTICAL CO - CARL ZEISS JENA - G.N. SAEGMULLER. In its center we see: OPTICAL TRIPLE ALLIANCE and the letters B, L, Z, S.

B&L's board of directors. In turn Zeiss abandoned its plan to establish a factory in the United States. The next complication surfaced in 1915 when Zeiss refused to continue to supply B&L with glass, because B&L was supplying military instruments to countries then at war with Germany. (The U.S. did not enter the war until 1917.) The book then proceeds to describe how B&L was forced to terminate the alliance and obtain the badly needed glass from other sources for the production of its optical goods.

Post World War I Period

German manufacturing industry, especially the German optical industry, was suffering from the severe restrictions imposed by the Versailles Treaty. To get around these restrictions Zeiss management returned to B&L in 1921 to work out an agreement (a "secret" agreement according to the author) to overcome some of the obstacles facing Zeiss. Zeiss would provide its "know-how" to B&L. In turn B&L would pay royalties to Zeiss as specified in the agreement. B&L denied that there was anything "secret" in this cooperative agreement, and stated that the original contract was shown to the U.S. Naval Observer stationed in Berlin. Yet the agreement stipulated that the two companies would divide the world market for military optics. Furthermore B&L would not sell military optical goods outside of the United States and Zeiss would not sell military goods in the United States. Other territories would be discussed as needed. This agreement was confirmed in a letter dated January 1927 signed by Edward Bausch and concurred by Carl Lomb. To facilitate the cooperation B&L in 1929 established under August Lomb the Bausch and Lomb GmbH in Frankfurt A/M., Germany.

Another provision of the agree-

ment specified that Zeiss had the authority to pass on who would be chosen as directors of B&L's "Military Department." There are more detailed and specific stipulations concerning this marketing policy—and readers whose curiosity is titillated by these agreements should refer to the book. In May 1921 B&L's vice-president traveled to Germany to seal the agreement with Zeiss. One outcome of these discussion was that Zeiss and B&L set up a new corporation in Holland, called N.V. Nederlandische *Instrumente Compagnie* and known by its acronym *Nedinsco*. The parties honored these stipulations. When the Greek Navy contacted B&L December 1930 expressing interest in buying military instruments from B&L, the response was that B&L's priority is to provide the U.S. Government with military optics. Then it suggested that the Greek Navy could contact "our friends" the Nederlandische Instrumente Compagnie, Den Haag, Holland, who has been manufacturing military optical instruments previously produced by Carl Zeiss, Germany. A similar excuse was given to the Mexican Government by B&L.

Military binoculars were exempt from these cartel agreements. What did this mean? In 1931 B&L submitted a bid to the U.S. Navy for 600 binoculars, at an asking price of \$39.50 each. Carl Zeiss also submitted a separate bid asking \$26 for each pair of binoculars. Obviously this angered B&L management—but there was no violation of the agreement, and the information exchange continued. informed Zeiss in October 1934 that it lost a bid submitted to the U.S. Government for 13 feet high military finders. The successful bidder was Keuffel and Esser (an American competitor of B&L). Based on these statements in the book, in appears that B&L scrupulously observed not only the letter but the intent of their agreement with Zeiss.

The New Era

With the formation of the Third Reich the freedom of action by Carl Zeiss Management was curtailed. Zeiss Management was reluctant to disclose these restrictions despite the agreements between the two companies. In a memorandum of April 1938 Carl L. Bausch, a Vice-President of B&L, complained to Zeiss Management that despite one of the basic agreements that stipulated the sharing of the technical know-how he was denied permission to visit the Jena plant. Furthermore he complained that despite the fact that he had been sending the royalties to Zeiss, B&L was excluded from all new technical developments. It does not take too much imagination to sense B&L management's frustration. When B&L caught on to the drastically changing political environment, it was too late for corrective measures. In March 1940 Bausch & Lomb and Carl Zeiss, USA were indicted for violation of the antitrust laws. Pleas of nolo contendere were made, fines paid and thus a trial of the indictment was avoided.

Who Benefited

This book was published in 1944 and obviously reflected the political mood and the atmosphere of that period. Did these two large and powerful firms benefit from these agreements in the long run? It is left to the reader to read the book and then decide. It certainly is in character with the mergers and acquisitions of today.

References

- 1. "Zeiss in the Netherlands" and "Zeiss—Bausch & Lomb Chronology," in *Zeiss Historica Journal*, 9 (1), Spring 1987.
- 2. Wendell Berge, Cartels: *Challenge to the Free World*. Public Affairs Press, Washington DC, 1944. See Chapter 10, "Optical Industry."

Early Zeiss Microscopes

Larry Gubas, Randolph NJ

Zeiss microscope catalogs after 1880 were hardcover books, with wonderful illustrations of the various scientific instruments that the firm offered for sale. However, before that era, the catalogs were largely not illustrated due to the cost of the art work necessary and the additional printing costs. For this reason, today it is very difficult to put together any material documenting these early products of the Zeiss major product line from 1846 to 1880.

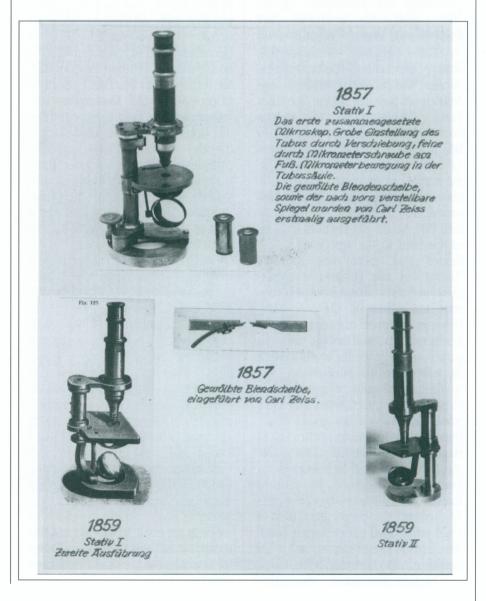
Similarly, most of the firm's records were locked away in East Germany during the growth of the collecting societies, and so our ability to document the serial numbers and their associated production dates accurately was largely encumbered until recently. Thanks to the help of Dr. Hinkelmann in Oberkochen, we are finally able to take a good look at both of these issues.

Accompanying this text are clear examples of the first major compound microscopes produced by the firm and the reason that Carl Zeiss sought the help of Ernst Abbe to compute the objectives of such optics scientifically.

A typical microscope produced by most firms, including Carl Zeiss, in 1846 was not much more than an advanced magnifying glass. However, the market was clearly moving toward compound microscopes by the mid-1850's. I will not try to define the earlier simple microscopes at this time but rather concentrate on the compound instruments, which have both an eyepiece at the top of the tube and an objective at the bottom.

Remember, at this time, it was customary for an apprentice or a senior worker to work on each and every part of the instrument and deliver a product to the proprietor of the business. Indeed, this was a requirement of the system of employment and training of workers. Yes, a master could help his pupils, but it was their responsibility to produce the instrument. The most difficult part was the grinding and placement of the optics. The creation of the entire package also included the fine hardwood case for the instrument. The variants of such instruments were numbered with Roman Numerals and were called Stativ (or "Stand" in English). Since each was totally hand produced, using turning devices or early treadle lathes, there were common elements and differences in almost every stand.

In the accompanying illustrations, consisting of a mixture of photographs and drawings, the major



early stands are documented.

1857 Stativ I is the first Zeiss compound microscope with fairly sophisticated design for the period. The tube was adjusted by sliding it up or down in its sleeve for coarse adjustment (this means getting it close to focus for us unscientific collectors). Fine or detailed focussing was accomplished by means of the little knob at the base of the pillar that

mechanically adjusted the tube.

Zeiss also designed a light-regulating device, shown in the other 1857 illustration, that opened and closed the opening beneath the specimen via a little sliding track. Later versions would have interchangeable plug-type devices or the equivalent of a "Waterhouse stop."

In 1859 two newer models were developed. There was a redesigned

Stativ I and a new Stativ II. They were largely similar except for the design of the pillar and substage. They both moved the fine focussing up from the base to under that top section of the pillar. The bases of all of these stands were either solid or scooped out partially or completely in the middle of the base. The new Stand I had a unique C-shaped first section of the pillar, which carried over to later Stand I designs.

In 1861, three new stands were added to the catalog and were numbered Stativ 0. III and IV:

Stativ 0 was based on some innovations seen first by a Parisian manufacturer named Oberhauser, who pioneered the horseshoe base and the pillar was broken into two pieces. This permitted the stand to be inclined and the fine-focusing device to be separated from the base.

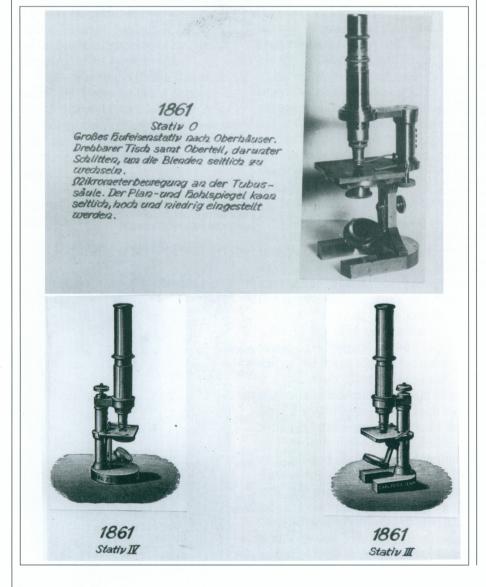
Stativ III and IV were very similar in the united pillar with the fine focussing knob mounted on top of the pillar. The major difference was the shape of the base of the stand.

Optics on all of these stands were individually hand-crafted with no formula and no standardization. The best optical glass of the day had to be imported from France or England. The coupling was also not standardized, and each manufacturer made an interchangeable screw mounting to his own specifications until the Royal Microscope Society of England specified a particular standard.

References

The Billings Microscope Collection of The Medical Museum Armed Forces Institute of Pathology, 2nd Edition, Washington, DC 1974

Dippel, L. *Grundzuge der allgemeinen Mikroskopie*, Braunsweig: F. Vieweg, 1885



Carl Zeiss Microscope Serial Numbers 1847 - 1900

Year	Simple Microscope	Compound Microscope	New Preparation Microscopes	Yearly Total	Cumu- lative	Comments
1847	1 to 23			23	23	
1848	to 62			23 39 27	23 62	
1849	to 89			27	89	
1850	to 111			$\frac{27}{22}$	111	
1851	to 149			38	149	
1852	to 187			38	187	
1853	to 240			53	240	
1854	to 272			32	272	
1855	to 320			48	320	
1856	to 374			54	374	
1857	to 422	1 to 10		58	432	Zeiss's first compound microscope
1858	to 434	to 20		22	454	zeiss s hist compound interoscope
1859	to 454/481	to 27		$\overline{27}$	481	New Stands I and II introduced
1860	to 472/507	to 35		26	507	Tien build I all II littotacea
1861	to 496	to 63		52	559	New Stands 0 III & IV introduced
1862	to 502	to 117		$\overline{60}$	619	The Country of the Co
1863	to 533	to 164		78	697	
1864	to 563	to 230		96	793	
1865	to 614/912	to 298/906		119	912	Combination numbers: first is serial of
					7	particular microscope; second is Zeiss
						cumulative serial number
1866	to 651/1102	to 477/1127		216	1127	Abbe agrees to assist Carl Zeiss
1867	to 689/1234	to 567/1254		128	1254	
1868	to 729/1406	to 677/1399		150	1406	
1869	to 743/1433	to 737/1486	1/1477 to 9/1485	83	1486	
1870	-	to 810/1600	10/1487 to 32/1509			
			33/1516 to 35/1518			
			36/1526 to 43/1530			
			44/1558 to 55/1569	118	1600	
1871	to 749/1629	to 919/1701	57/1605 to 62/1616			Abbe's formulas are the basis for all Zeiss new
			63/1656 to 74/1667			microscope optics and construction
			75/1684 to 78/1687			* *
			79/1691 to 86/1698			
			87/1735 to 98/1746	156	1746	
1872	-	to 1028/1846	99/1760 to 122/1823	133	1846	First immersion objective computed by Abbe
1873	-	to 1168/2031	to 167/2028	184	2028	
1874	to 755/2456	to 1472/2405	to 237/2393	379	2456	Abbe offers refractometer and spectrometer
1875	to 771/2720	to 1793/2770	to 259/2574	358	2770	Introduction of Abbe's drawing Device
1876	to 793/2917	to 2127/3145	to 291/3094	387	3145	Introduction of Abbe Condenser
1877	to 811/3552	to 2580/3558	to 367/3561	546	3561	
1878	to 830/3931	to 2843/3949	to 395/3882	309	3949	A series of immersion objectives is marketed
1879	to 866/4388	to 3248/4433	to 438/4386	468	4433	
1880	to 870/4713	to 3694/4920	to 476/4921	487	4921	
1881	to 891/5020	to 3762/5024	to 491/4999			In mid-1881, all microscopes were combined
1001		5005 to 5/00t		-(-	=/00	into one single consecutive serial numbering system
1881		5025 to 5489*		567	5489	
1882		5490 to 6397*		909	6397	
1883		6398 to 7275*		878	7275	
1884		7276 to 8054*		779	8054	The state of the s
1885		8055 to 9675*		1621	9675	First photomicrographic designs from Roderich
1006		0676 to 11222		1647	11200	Zeiss
1886 1887		9676 to 11322		1647	11322	Abbe's apochromats introduced
1888		11323 to 12118		795	12118	C17-1 1:
1889		12119 to 14383		2265	14383	Carl Zeiss dies
1890		14384 to 15982		1599	15982	Allo assessment and a California and allower and allower
1891		15983 to 17890		1908	17890	Abbe concentrates on the Stiftung and other products
1891		17891 to 20080 20081 to 22140		2190 2060	20080	
1893		22141 to 23450			$22140 \\ 23450$	Abba's comparator introduced
1894		23451 to 24400		1310 950	24400	Abbe's comparator introduced
1895		24401 to 26110		1710	26110	Abbe introduces prism binoculars
1896		26111 to 27840		1730	27840	The Carl Zeice Stiftung Statute is approved
1897		29871 to 29870		203	29870	The Carl Zeiss Stiftung Statute is approved Zeiss introduces Greenough stereo prism microscope
1898		29871 to 29870 29871 to 31710		1840	31710	Berger Micrometer Fine Focussing
1899		31711 to 32720		1010	32720	beiger interometer the rocussing
1900		32721 to 34380		1660	34380	
2,00		J=/=1 tO J1J00		1000	54,500	

^{*} All three types are combined into a single sequential number with no further use of double numbers. After 1886, no more simple stands were produced.

Letters

Zeiss Balilla

The simple Baldur Box of Zeiss lkon is a well known camera for 16 exposures 4.5×6 on 120 film. In the mid 1930's a special version of this camera was built for the Italian market, and it was named "Balilla."

Balilla was the nickname of a young boy, Giovanni B. Perasso, who in 1746 in Genova started the rebellion against the Austrian Army, which finally drove the Austrians out of his city. As an aside, during the time of Italian Fascism, Balilla was the name of a youth organization for Italian boys from 8 to 14 years old.

The lens of the Balilla Box is, as usual, the Goetz Frontar. Although I live in Italy and I am a long-time Zeiss collector, only recently could I find this rare camera, which I bought from a private collector for a very low price.

Pierpaolo Ghisetti, Modena, Italy



We thought that we would share one of the letters that we think hits the mark of what we all do this for. This is a letter from long-time member Jerry Page. We also are including a photograph of where he wants to go—me, too.

There are constant pleas from Charlie Barringer, Larry Gubas et al. for articles to fill space in the Journal. I've hesitated because I'm neither a historian nor a photographic technician, and so feel I have little to contribute. The fact that I am and have been pleased with results from the use of Zeiss cameras and lenses didn't seem, to me at least, noteworthy: anyone with a better command of language could (and probably did) say it better than I. And this kiss doesn't have to be included in the Journal; I thought only to re-iterate and reinforce what most of us Zeiss users already know.

In 1956 I bought my first IIA with a 50mm f/3.5 lens. I reveled in the results. I'd finally got rid of an Argus 3C with Cook lens, and the very first batch of slides with the Contax showed me what I'd been missing. The depth, the sharpness were outstanding. Indeed, in a couple of slides of my boys on the Cape Cod dunes, they seemed to be "coming out" of the frame toward the onlooker. Talk about three-dimensional! I used a hand-held meter and (in those days) Kodachrome 10, and each roll of film returned only heightened the joy I got from projecting the slides. I went out and bought an auditoriumsize screen, set the projector back 25 feet, and the edge sharpness made me feel on an even footing with Cartier-Bresson. Then my evesight went a bit soft and, coupled with the rangefinder's little green oblong,



Zeiss Hologon mounted in a Contax G1.

made focusing difficult, time-consuming and frustrating.

So when a friend told me that Leica had a bigger range/viewfinder image, I traded the Contax. Without "knocking" Leitz, who make a fine product, the results I got back were never quite in the same league with the IIA. I stayed with Leitz for a while, but when Contax came out with its 167SLR. I tried that. Much better. Again, the separation of subject from background was palpable. My annoyance stemmed from the weight of the camera and the number of lenses I felt I needed. When the Gl and then the G2 came out, I was "back in hog heaven." The G2 weighs next to nothing and the lenses are featherweights. And the results! Oh my! My eyes haven't improved and I tend to shake a bit more then I used to, but a slight pressure on the shutter release and the distance and settings are locked in, and I've never been so happy.

I'm putting aside money now, I want to get the Hologon. When I get it, if you don't think this essay too puerile, I'll be happy to tell you the results achieved.

Jerry Page Santa Ana, CA

