

ZEISS HISTORICA

Journal of the Zeiss Historica Society • Volume 36 • Number 1 • Spring/Fall 2014



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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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Material for the journal can be sent to the Editor at 4507 Mountain Path Drive, Austin TX 78759 USA, or to john.t.scott@sbcglobal.net. Annual membership dues: \$40 (USA), \$50 elsewhere. Credit-card payment option (Mastercard, Visa) is available. Dues include subscription to *Zeiss Historica*, airmail postage overseas.

Website: www.zeisshistoricasociety.org

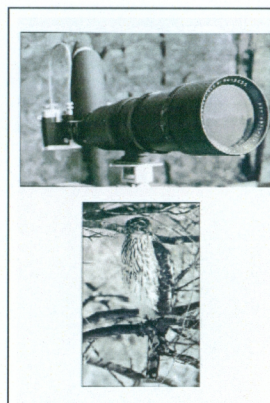
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Printing by Minuteman Press, 3007 Longhorn Blvd, Suite 110, Austin, Texas 78758 USA.

Front Cover: Several of the "Goddess of Light" logos used by Ernemann, and discussed by Larry Gubas in his article. The key is on page 13.



Back Cover: Wes Loder coupled a 500 mm Zeiss lens to a Contax rangefinder, via a Panflex mount to get this photograph of a female Cooper's hawk, resting about 7.5 meters (25 feet) from his window.



President's letter

Greetings!

It is now December and, as you can read in the accompanying letter, our society had problems putting out an issue of this Journal until now. We have come up with a solution to be fair with the membership and attempt to continue our presence for years to come. The details are in a separate letter included in this mailing.

As our membership ages, the contributions from the membership have slackened. In fact, two of our contributors, Fritz Takeda and Joe Brown, who were charter members since the late 1970s, have passed on. I spent most of the year trying to get my book printed with constantly frustrating results as my printer and his contacts have all entered bankruptcy. Bob Carter was sent a preliminary copy of the book and forwarded to us a review (page 21) that will precede the actual printing by a couple of months. For those who would be interested, you may contact me via email to be informed of the available date.

In this issue a Zeiss retiree, Fritz Schulze, has fashioned a visual and verbal chronicle of the growth of the Zeiss postwar production site in Oberkochen as the firm has migrated into new lines of business and reorganized the analog optical world into the current vogue of digital optics. This does not include other expansions in Germany as well as joint ventures around the world. While Fritz is reviewing the more modern eras, my article discusses and shows, visually, the rapid expansion of the earliest days of the 1900s when the firm was just beginning to be a major player on the world stage.

A new member (Wes Loder) has presented us with a critical eye on the use of the 500 mm Fernobjektiv with the Zeiss Ikon Panflex reflex housing. It is a unique view of this housing and the use of the longest of the optical creations of the period from the 1930s to the 1950s. I know of no one else who

has attempted to use this combination of the reflex housing and the long lens.

Simon Worsley is bringing my fledgling article on the Sdynamic Ikoflex family of Zeiss Ikon twin-lens reflex cameras from the 1980s into the knowledge base that he has developed now — more than thirty years later.

Ialso discovered on the Internet some relatively new material on the trademark used by one of the Zeiss Ikon predecessor companies, Heinrich Ernemann. A huge mosaic of what they called the "Goddess of Light" that was dominant from the early 1900s to 1920, which covered the corner of the building where manufacturing was ongoing. There, the mosaic had been exposed to the weather and industrial pollution for more than 90 years. It was removed and repaired by the mosaic artist Klaus-Peter Dyroff and returned to the external corner of the building.

Pictorially, we are presenting some of the early images of the Zeiss Astro department with their displays of Zeiss telescopes that were on display at the prime visual locations around Europe.

The new website has received some positive remarks from outside the society since we are now documenting most of the past issues of our Zeiss Historica Journal to the world at large. Interesting original Zeiss Ikon and Carl Zeiss catalogs are available there as well, with an excellent selection of the 1894 – 1900 Zeiss prism binocular catalogs available in both German and English.

As always, you can contact me via email on any issue or situation with regard to the Society. I would particularly welcome manuscripts or ideas for future articles as well as for possible future membership dividends.



The Growth of Carl Zeiss Oberkochen 1947 – 2013

Fritz Schulze, Vineland, Ontario, Canada

The company's newly established postwar location and its subsequent growth is traced through contemporary illustrations, together with an eyewitness account from an early employee.

Soon after World War II the original Carl Zeiss Company was transplanted from Jena in the eastern (Russian) occupation zone of Germany to Oberkochen in the west. I found myself in a position to experience personally the growth of the new site. More recently I have been

following the continued growth through publications by the company, press releases, internal information, and books. Here I will be particularly aiming to demonstrate that growth as a pictorial record. Most of the pictures I include in the following article refer back to the

company archives; some are copied from post cards or brochures, a few are from originals, and the print quality varies accordingly. I have shown the dates as given by the date of the publication, and they are therefore approximate.

1. This map of Germany shows the locations of the Carl Zeiss founding factory (Stammwerk) in Jena, Thuringia, the new plants in Oberkochen and Aalen in Southern Germany (Baden-Württemberg), the factories in Göttingen (Lower Saxony) and Wetzlar (Hesse). Since the re-unification of Germany, the original factory in Jena is, of course, again an important location on a level with Oberkochen. In what follows I will concentrate on developments at Oberkochen.

Considerable damage was caused in Jena by air raids on 17 and 19 March 1945, yet the Commanders of the American 80th Infantry Division, who arrived in Jena on 13 April 13, were surprised to find the factory working at 60% of capacity. Knowing that according to the Yalta Agreement this part of Germany had to be handed over for Russian occupation on 1 July, and finding this time limit too short to transport any production equipment as "reparation or war booty" to the West, the Americans decided in the end to "take the brains" only. That is, 84 of the top managerial and scientific personnel and their families happened to end up in the small south German town of Heidenheim, my home town, to be housed in a delapidated former police academy that had served until then as temporary accommodation for refugees and displaced persons from the East.

Virtually all of the Zeiss people withstood tempting offers to accept promising positions in the US or Britain. (Some of those remaining in Jena had no such choice when they were later forcefully moved to Russia for "voluntary" five-year contracts.) They were determined to build a new Zeiss factory in the



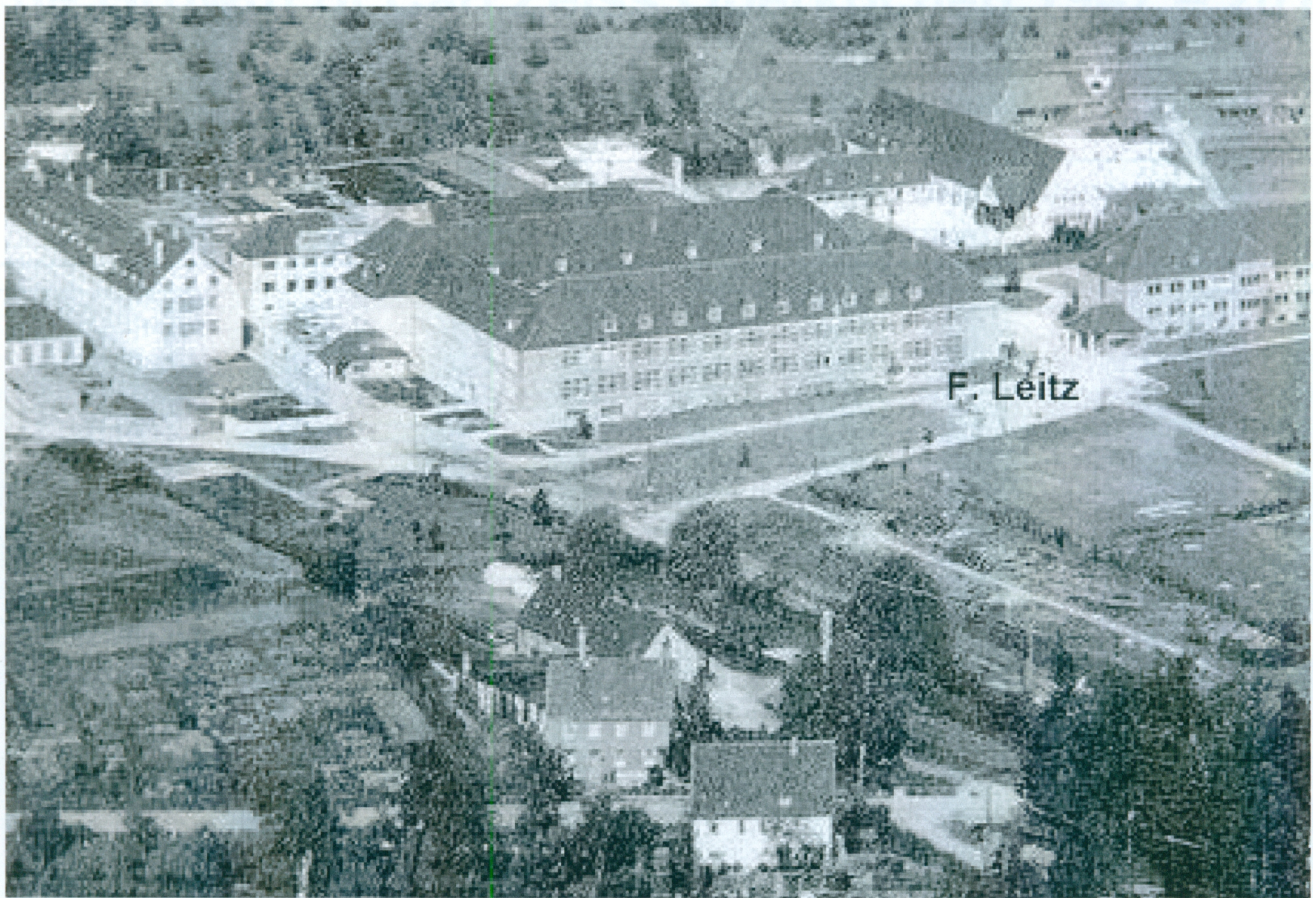
West as soon as possible, once it became obvious that a return to Jena in the foreseeable future was not possible. They had every right to do so because among their number were the directors appointed for life.



2. Heidenheim, the first location. At the time, everything was in short supply — food, housing, material — during these very difficult times in Germany. Everyday life was based on the barter principle, with American cigarettes as the main currency. The first embryonic signs of a new beginning for the Zeiss people took place in empty attic space offered generously by J.M. Voith, a local large factory. With slide rules, drafting equipment, and logarithm tables brought along from Jena, work began until, after long and exhausting discussions with the authorities, on 25 February 1946, the military administration finally granted

permission to start an “optical repair shop” in an empty floor of the Gebr. Schaefer Cigar Factory. That factory ceased production in 1981 and has since been demolished to make room for the expansion of the Voith company, one of the world’s largest manufacturers of paper machines. Thus began the Optische und Feinmechanische Werkstätte GmbH, the nucleus for the new plant in the West. Several former Zeiss Jena employees had since joined this Zeiss group and, despite the extreme shortage of any material, the repair shop was successful, not least because the local manufacturer of precision tools, Piltz & Co., who had been a

supplier for Carl Zeiss Jena, provided a number of machine tools. Meanwhile, negotiations to obtain permission to start production and to find a suitable location continued. Empty factories in four cities were considered, including the Zeiss Ikon Contessa Factory in Stuttgart. The French occupying authority, however, refused permission. The location finally chosen had several advantages: Oberkochen, a small village of 2500 inhabitants was only 15 km from Heidenheim, its administration welcomed the Zeiss people and offered whatever help was needed, and, last but not least, there was an empty factory available.



3 - Oberkochen, dating as far back as circa. 80 AD to Celtic, Alemannic, and Roman settlements as has been proven by excavations that show the famous Limes, the Roman wall against the northern Teutons, was located only a few kilometers away. By 1337 AD Oberkochen was a typical Swabian village with well balanced agriculture and a small industry specializing in wood-working tools.

In 1938 two brothers Albert and Fritz Leitz (no relation to Ernst Leitz of Wetzlar, the famous optical firm) had decided to separate their business, founded in 1876, with Albert Leitz retaining the woodworking tool part and Fritz Leitz starting a "*Maschinen und Apparatebau*" factory, soon heavily involved in army contracts, essentially manufacturing retractable landing gears for the Me 109 and Me 112 fighter planes. It was the latter's factory that

had now become empty and available.

Albert Leitz's high-performance woodworking tools factory is now, as Leitz GmbH & Co. KG, an international company with production facilities and affiliates in many countries, employing some 5000 people worldwide, with its headquarters and technology centre in Oberkochen. Its old building still borders the south side of the Zeiss complex.

By the time production permission was finally granted, about 300 former Jena employees had found their way to Heidenheim. On 10 October 1946 the Opton Optical Works was formed and moved into the former Ernst Leitz factory in Oberkochen. These buildings in the heavy Teutonic style of the period had to be cleared of unusable machines, the water and electricity supply restored, and windows replaced. Some of the new machinery then installed came

from other Zeiss production locations in the western part of Germany that had been established during the war; others had been designed since and had to be built — as Zeiss historically built their own specialized machinery, particularly for optics production.

The permission covered only the production of eyeglasses, of which there was great need, ophthalmic instruments and microscopes. Later on photographic objectives were added.

The premises consisted of a U-shaped block, of which one wing contained the optics production and the other the mechanical one. A separate building housed the administration and construction/computing department and a central former *Gefolgschaftshaus* called the "Martha Leitz Haus," a social center for the employees, now housing the canteen and the financial department.



4 - In July 1947 the young company's name was changed to Zeiss Opton GmbH, and actual production started in 1948. I was the 1756th employee, hired as an apprentice in October 1949. Already in 1950 the first expansion took place with the construction of the "shed hall," a large open-space factory hall with a stepped glass roof, housing the mechanical production, while the optical production took over the remaining part of the U-block. Two five-storey wings on the south and east side of the shed hall contained the assembly departments, the development labs, and the sales departments. The apprentice workshop was located outside the main complex.

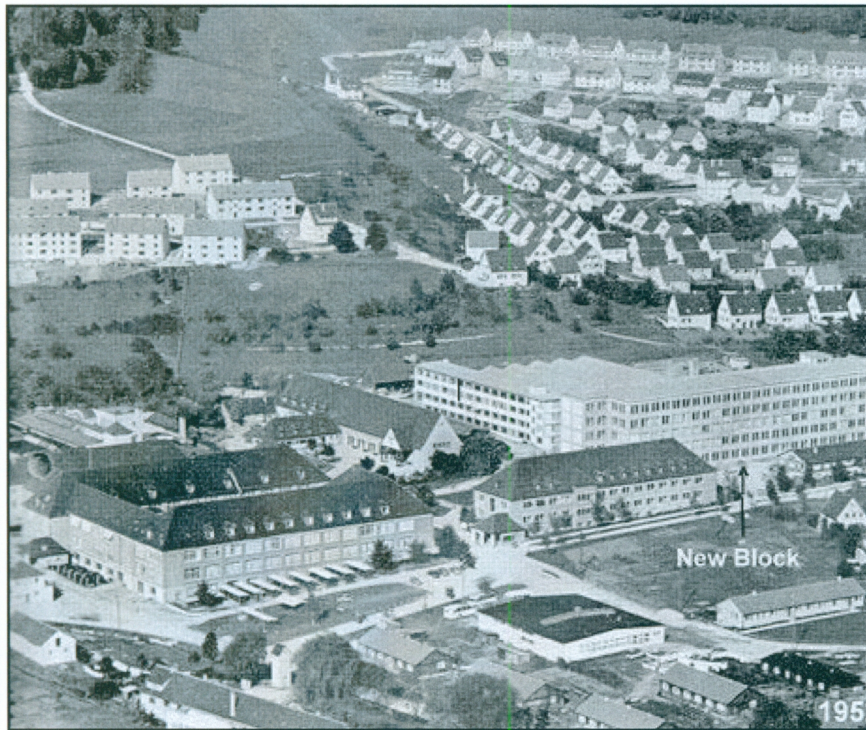
By 1952 the number of employees had grown to 3000, some finding accommodation in Oberkochen while the majority commuted from sur-

rounding communities by bus or train. It is interesting to follow the change from bicycle stands to car parking lots over the ensuing years! Roughly one third of the work force were former Jena employees, one third local people, and one third refugees. To accommodate this influx of people to the small Oberkochen community an intensive building programme was initiated with the cooperation of the local administration as seen in the upper half of picture number 5. Many Zeiss employees found accommodation in company-supported housing.

The currency reform on 20 June 1948 with the introduction of the D-Mark put an immediate stop to the black market and the barter economy and marked the beginning of the "German Economic Miracle." Reconstruction of the destroyed infrastructure of

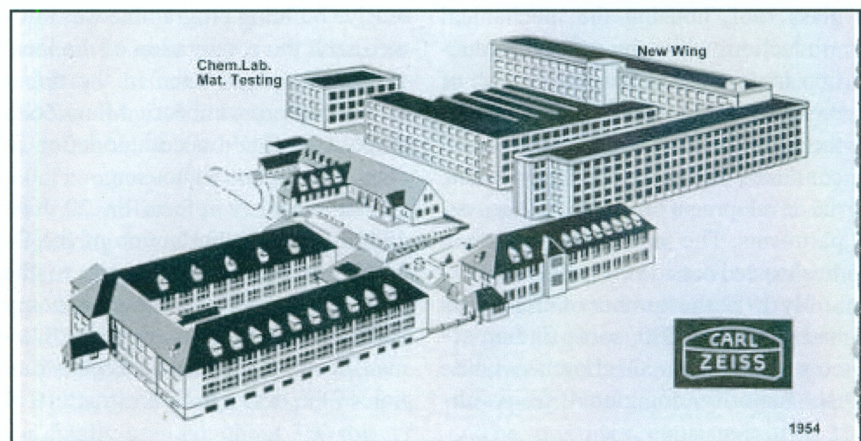
Germany and its industry began now in earnest. The population of Oberkochen had by 1950 grown to 3700.

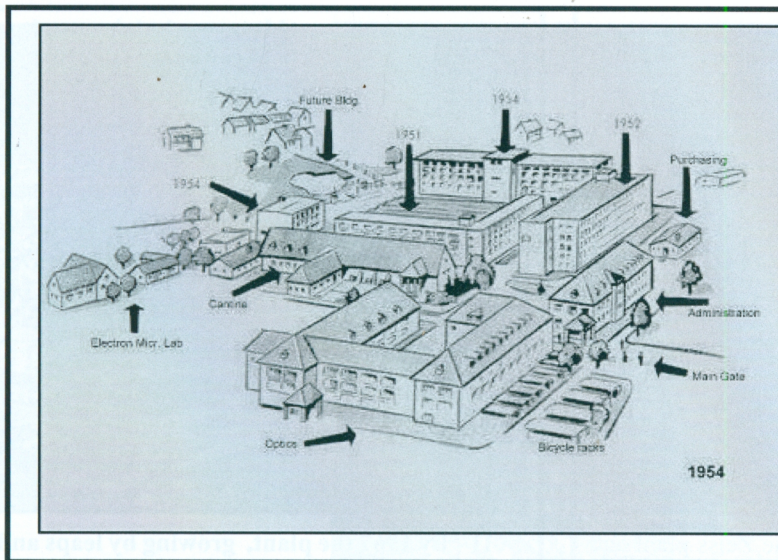
In these first post-war years the main goal was to rebuild and produce, no matter what. The environment was secondary, hardly thought about. I remember several small chemical plants, established by chemists returned from the war, happily producing saccharin and other chemical products and generously polluting the environment. A textile dyeing company in Heidenheim caused the local river one day to be blue, the next day red or green. In Oberkochen the Kocher river was turned red from the "French Polish" (iron oxide) polishing compound used by Zeiss. Soon, however, appropriate measures were taken and the clear river is again the home of healthy trout and other fish.



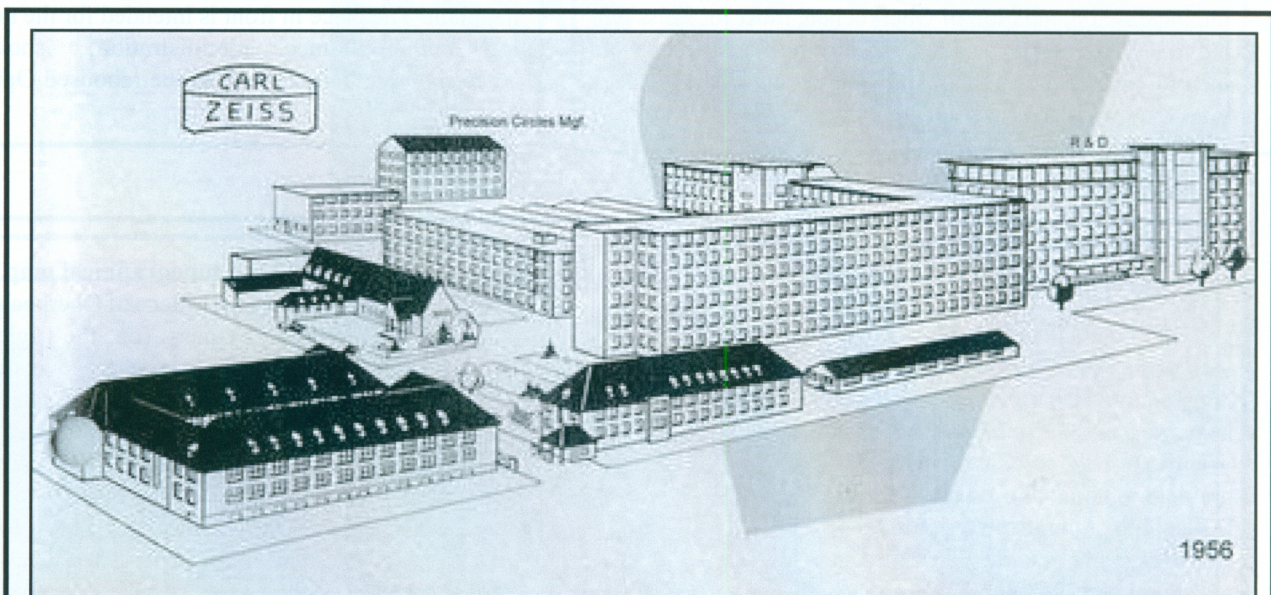
5. New in 1952. The young company actively developed new products. Surveying instruments, ophthalmic instruments, binoculars, photographic objectives, photogrammetric instruments, analytical instruments, industrial measuring instruments and so on all appeared in short order. The second expansion took place in 1952 with the construction of a new five-storey building housing now most assembly shops. This latest building was supported to some extent by the Marshall Plan. This "European Recovery Programme," named for the American Secretary of State George Marshall, was an American initiative to aid the recovery of the European economy. West Germany would not have been able to rebuild as quickly as she did without this assistance..

6 - Further expansion took place in 1954 with the addition of a large new wing and a smaller building for the chemical and materials testing labs (top center). The Carl Zeiss Foundation was "reestablished" in West Germany on 1 May 1954 (after the Government of East Germany had expropriated the Jena factory). This special event was celebrated by the visit of the German Federal President Theodor Heuss and by the re-naming of the company to Carl Zeiss with the traditional achromatic-lens logo.





7. The factory as it stood in 1954



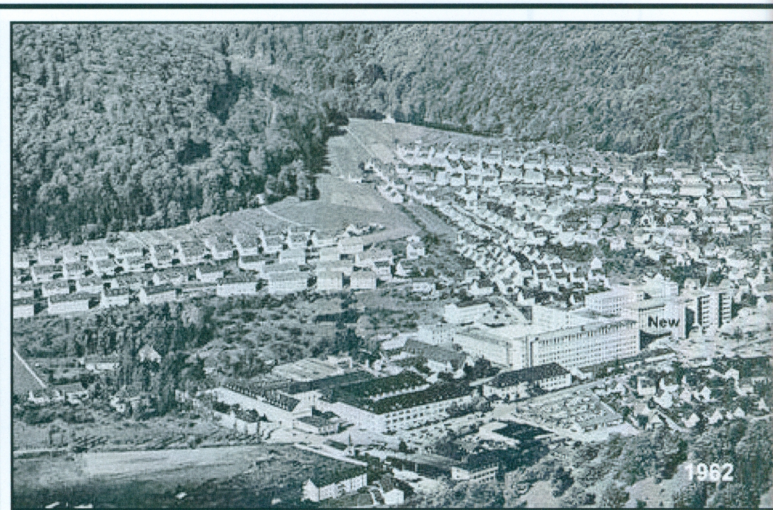
8 - Two years later in 1956 another new wing at the North side was inaugurated. This one was mainly for the research and sales departments. About the same time a sixth floor was added to the two recent buildings. A new small building on the east side, beside the chemical/material testing lab, contained the production facility for precision circles and scales. It stood "vibration-free" partly in the hillside.



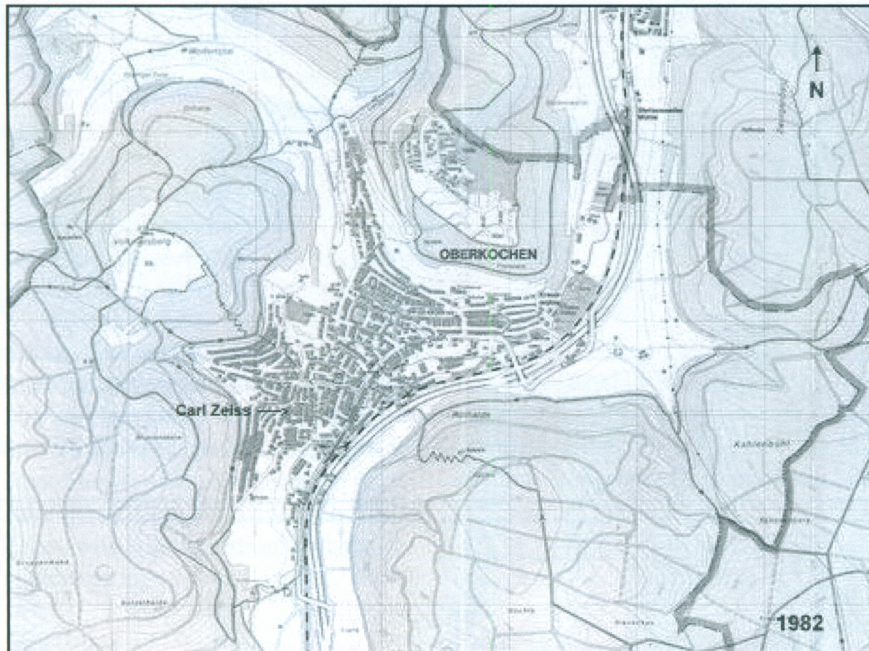
9. "Block 9" after the addition of the sixth floor in 1956



10 - An aerial photo from 1964 of the Zeiss plant and surroundings shows the new houses built to accommodate the increased population of Oberkochen, most for Zeiss employees. The existing local industry also profited greatly from the presence of the Zeiss plant by supplying castings, steel, tools, and wooden crates and containers.

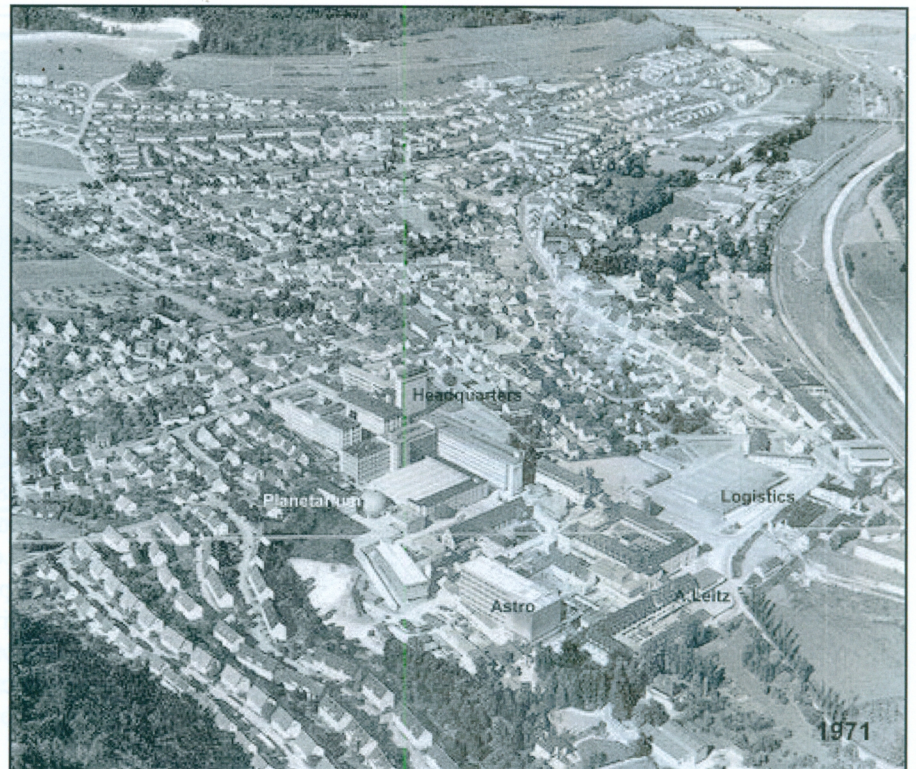


11 - By 1967 the plant, growing by leaps and bounds, now includes two new large buildings at the north end of the plant. The place in front is intended for the next building: main entrance, administration, show room, cafeteria/large hall, as well as the rehoused Optical Museum.

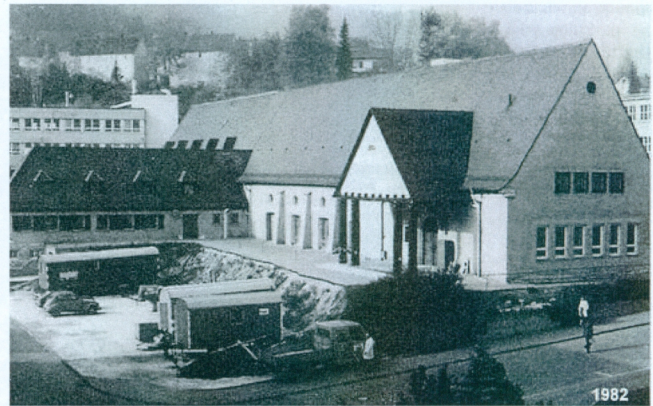
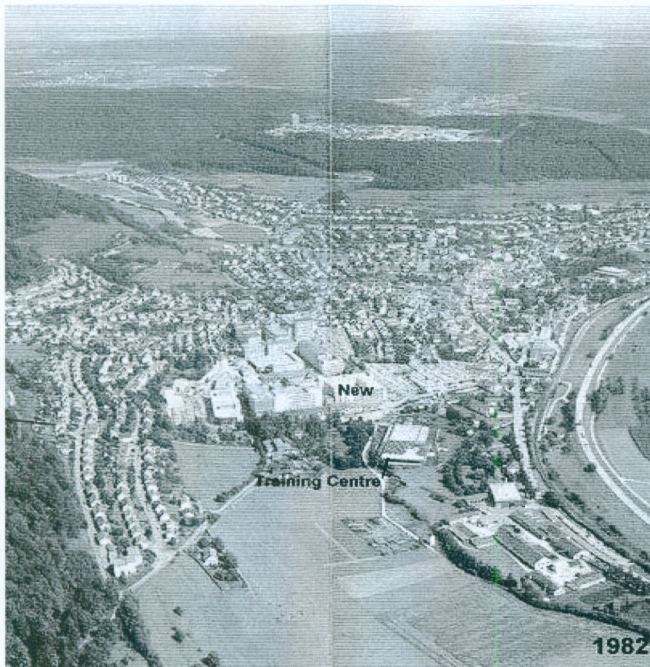


12 - A topographical map from 1982 shows the village of Oberkochen with the new by-pass (on the right), nestled among the surrounding wooded hills, not unlike Jena. Three years later the Village of Oberkochen was upgraded to a Town, population about 8700. Most of the farmers' yards have been relocated outside the town, nearer to their fields. In their place new stores appeared, a pharmacy, hotel, library and so on. Zeiss also supported, among other things, a new school, day-care centre, and sports facility. The new city hall was inaugurated in 1967.

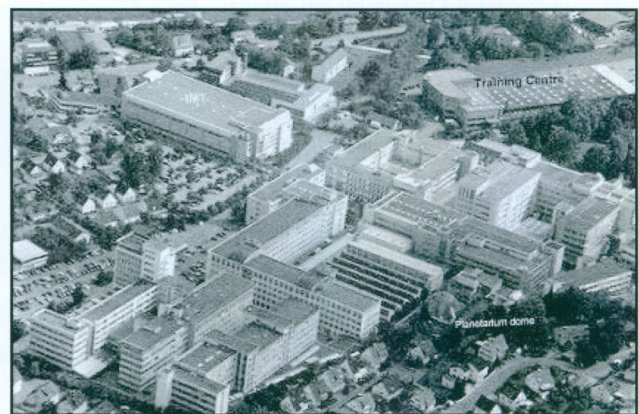
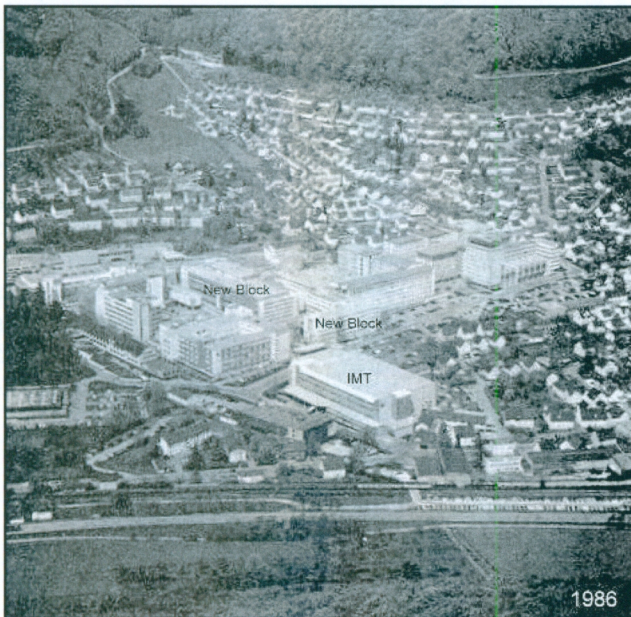
13 – Another aerial picture, this one from 1971. There is a new large building for the Astro-division, particularly the large telescope mirrors. The logistics department is now outside the main plant, and the new administration building with the main entrance can be seen in the center. Also clearly visible is the spherical planetarium dome.



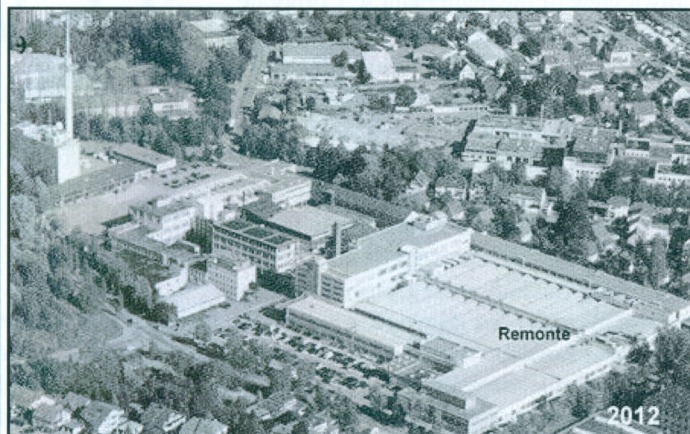
14 – By 1979 the main building with the large hall was firmly established, as we see on the extreme right. The Astro-building has been enlarged to accommodate the electron microscope division, and another building has sprung up behind the old, gabled administrative block. The parking lot is full of cars, the old bike-racks are long gone. Some departments, such as advertising, public relations, and technical training, have moved to individual buildings in town.



15 and 16 – In 1982 modern blocks have replaced the old original gabled buildings of the optics production and the central “Martha Leitz Haus” is about to be demolished. With them a major piece of the postwar history of Carl Zeiss in Oberkochen has gone. The young town has also expanded out of the valley into the hill to the north. (Since then a large new block has appeared at the location of the Martha Leitz Haus.)

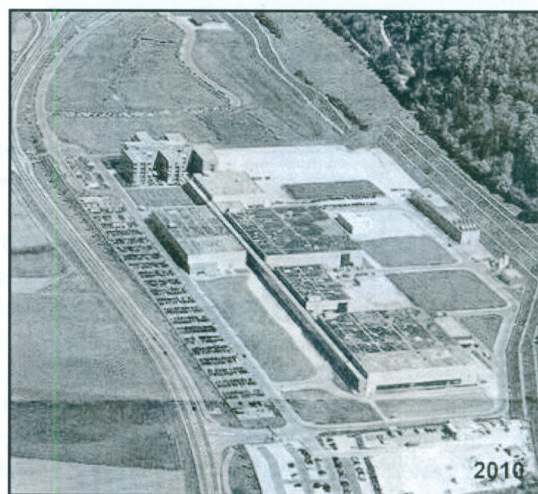


17 and 18 – In 1986 the rapidly growing Industrial Measuring Technology (IMT) division moved into a new and spacious building with a striking blue facade on the southeast corner of the plant. The training center has been enlarged, as you can see on this next view (right) from a totally different angle. The old shed hall in the center appears lost among the new blocks. The available space in the town has by now been almost totally used up; future expansion will take place outside the town, towards the south.

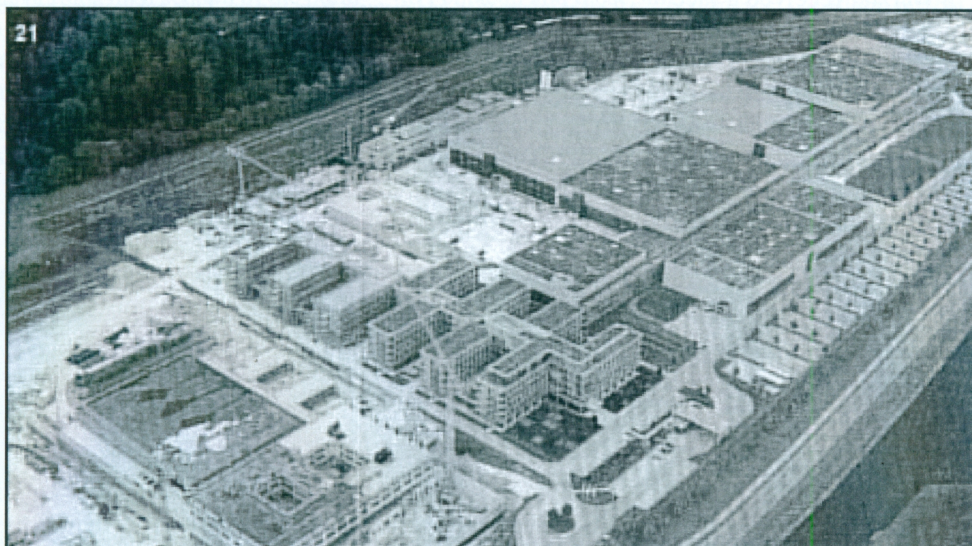


19 – Already in 1957 part of the eyeglass production was moved to a small plant in the neighbouring town of Aalen, 10 km away. An old cavalry barracks, the Remonte, had been converted to a factory. By 2012 this production facility, Carl Zeiss Vision, had been enlarged and modernized to house a most sophisticated and efficient manufacturing plant for the wide range of high quality eyeglasses.

20 – In 2006 a new manufacturing facility for Semiconductor Manufacturing Technology (SMT), dubbed the South Plant, was built about 2 km south of the town. This site is a newly developed industrial area shared between the towns of Oberkochen and Königsbronn.



21



21 – The latest project, which consolidates all development and production of Medical Technology (operating microscopes) in one location, is the group of buildings in the center and bottom half of this picture. They were finished in 2013. The large five-storey parking garage adds 770 parking spaces to the open-air ones. This complex also features its own cafeteria.

22



22 – Finally a view of the main plant’s “Corporate Headquarters” erected in the early 1970s. Next to it is the main gate and behind it used to be the cafeteria and meeting hall. In 2013 plans got under way to replace these with a large modern hall suitable for conventions and performances (probably also for public use). A supermodern “company restaurant” was opened in 2012, located centrally in the factory complex. The number of employees of the Zeiss Group in Germany (including the factories in Jena, Goettingen and Wetzlar) has grown to over 11,000, worldwide to over 24,000.

Parallel to the developments in Oberkochen, other important events occurred for the Zeiss Group: In 1957 the Carl Zeiss Foundation took full possession of the Winkel factory in Goettingen. Since 2010 the entire production of laboratory and research microscopes is concentrated in the newly built Winkel Works.. Only one of the old buildings was left standing: the one where it all started. (By the way, Dr Kurt Michel, who designed the popular Standard series of microscopes, originally came from Winkel.)

Likewise, the Hensoldt factory in Wetzlar received a face lift. The manufacture of the Zeiss binoculars and telescopes is now consolidated there in the Hensoldt Works..

The Town of Oberkochen has over the years morphed into a fine well balanced town with a new look, a redesigned Main Street lined with modern shops, and a host of cultural centers as behooves a community that houses one of the world’s best known companies. A symbiosis has developed between the town and the Zeiss company, much as it had originally in Jena. Despite all the original nostalgia for Jena, Oberkochen has now long been accepted as the new Carl Zeiss Concern Centre.

The last time I visited Oberkochen and the Carl Zeiss plant in 2013, I hardly recognized the place: so much had changed for the better. □

Sources

Armin Hermann: *Carl Zeiss – Die abenteuerliche Geschichte einer Deutschen Firma*. Piper Verlag ,München, 1992, ISBN 3-492-11265-X for the immediate postwar dates.

Harald Gentsch: *Oberkochen, Geschichte, Landschaft, Alltag* ISBN 3-9801376-1-9

Picture number 2: Courtesy Ernst Elsenhans, Heidenheim

Picture number 12 is copyright Marzahn Verlag, Esslingen

All other information and pictures from various Zeiss publications and press releases.

Variations on Ernemann's "Goddess of Light"

Larry Gubas, Las Vegas, Nevada

Since 1905 the famous trademark has appeared in many versions, including the large mosaic on the firm's building in Dresden.

Heinrich Ernemann had a variety of artists create many images to help him sell his wares. Most were illustrations for advertisements, but he selected one image as his trademark in the early 1900s. In 1905, Hans Unger designed a large mosaic for the tower of the Ernemann contemporary factory building in Dresden at the corner of Junghans and Schandauer streets, shown on the right and in color on the cover of this issue. The mosaic portrayed what would be called a *Lichtgöttin* (Goddess of Light). The factory would be complemented with the larger and the now more famous Ernemann tower building in 1923. Both buildings still exist in the Streisen section of Dresden. These two buildings suffered only minimal damage during the Allied bombings in 1945.

This large mosaic covered more than a floor-high section of the building, but the image was adapted for trademarks on advertisements, decals for the wooden cameras, pressed images on metal surfaces and leather as well as on the boxed packages for

each individual camera. There were slight differences, but the basic trademark survived until 1920 when a joint venture with the steel firm of Krupp brought a new trademark of a reel that was used to transfer movie film from one reel to another.

Recently I came across a picture (also shown below and on the cover) of the large mosaic sitting inside an artist's studio being either repaired or replicated, and that is what precipitated this collection of images on the cover. I could not find text to inform me of the current status, but it is clear that the mosaic was mounted on a curved surface to be placed on the corner of the building, and it would be difficult to remove and replace.

During the days of East Germany, the mosaic remained while the factory migrated from VEB Zeiss Ikon to Pentacon and those single-lens-reflex cameras were made within the walls of this factory. Most of the current building space is being used for the Technical Collections of the Museum of the City of Dresden



Versions of the Ernemann trademark shown on the cover of this issue:

Left, top and middle — Two versions of an advertising stamp that would have been placed on the camera boxes for shipping.

Right, top — The trademark used in the earliest days on boxes for the HEAG cameras.

Right, middle — the Goddess of Light as she appeared isolated and impressed on the end cover of a larger Ernemann catalog for cinematic products.

Right, bottom — The new trademark of the "movie reel" that was used after 1920 based on the agreement with Krupp. It is to the right of the focal-plane camera on this porcelain advertising sign.



The 500 mm Fernobjektiv in a Panflex mount

Michael Wescott Loder, Kutztown, Pennsylvania.

*This very long lens can be coupled
to a Contax rangefinder camera via a Panflex.
But watch out for vignetting!*

The 500 mm (50 cm) f/8 Fernobjektiv is one of those lenses that many Zeiss users may have read about, while only a few have ever seen. This is particularly true for this optic in a mounting for use on a Contax rangefinder camera; even more unusual and rare is a Fernobjektiv in a mounting for the Panflex reflex housing such as the one illustrated in figure 1, below.

Carl Zeiss Jena first offered the Fernobjektiv in a direct mount for use on the Contax I, possibly as early as 1934. Use in the field must have been slow and cumbersome. It would have been focused off the camera, with a tube the depth of the Contax body and a ground glass mounted on the back of the lens to allow focusing. Then the camera

would have to be substituted for the tube.

In a short mount and using a Flektoskop (543/91), reflex viewing was possible if one did not mind trying to work with an upside-down and laterally-reversed image. Nor should one forget that the front mount of the Flektoskop is a fine 84 mm thread that would require a user to take 19 turns to get a lens on or off. (See Charles Barringer's article on the Flektoskop in the Spring 1989 issue of *Zeiss Historica*.)

Two Panflex models

But there was an alternative: the Panflex reflex housing (5522/23). Figure 2 shows, on the left, details of the mounting on a Contax rangefinder camera. The

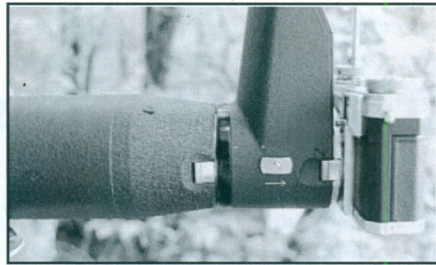
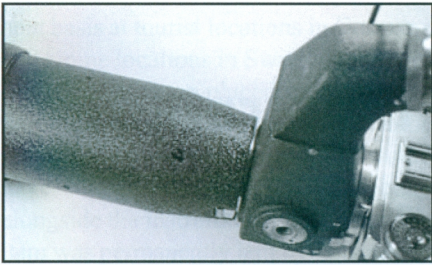
view through the first model was not an improvement, being also upside-down and reversed, but the housing is smaller and the front mount is a standard Contax external bayonet. That had to be a convenient improvement. We do not know if Zeiss ever sold any of its long-focus lenses in the Panflex mount prior to World War II.

In the late 1940s, as Zeiss was trying to figure out what company it still was and what market it should aim for, the Jena factory completed a run of 40 Fernobjektives, supposedly all in the post-war Flektoskop mount (serials 3412641—3412680, order no. 907, 8 August to 15 November, 1948). When the Jena facilities finally got around to some kind of regular production, new Fernobjektives



The 500 mm f/8 Fernobjektiv mounted via a Panflex on a Contax Ila. An alternative view of the combination appears in color on the back cover of this issue.

Figure 1



Details of the mounting to two different Panflex models. On the left is the prewar model 1, with the improved postwar model 2 on the right. Figure 2

came out in mounts for the East German Zeiss Flektometer housing or in mounts for Exakta or in the M42 thread. Production continued into the early 1960s.

So far—so good. But by 1951, West German Zeiss was selling the new Contax IIa and IIIa. For these cameras, it was soon offering a new Panflex (seen in the right-hand part of figure 2) with the same depth and mountings as the pre-war Panflex, but with a number of improvements, including a finger-tip release and an upright, unreversed view. But the new Zeiss Ikon only listed a 115 mm f/3.5 Tessar as available in the Panflex mount.

So how did the 50 cm Fernobjektiv pictured here end up in the Panflex mount? The serial number (3412655) is within the same 1948 batch that were supposed to be in Flektoskop mount. So it must have been intended for the pre-war Pan-

flex. Were a few of that batch made and sold in the Panflex mounting? If so, how many? Were any of the later short-mount lenses for the Flektometer also sold in the Panflex mount, or did East German Zeiss make a Panflex adaptor available for the Flektometer-mount Fernobjektiv? Does anyone else have any records of any other 50 cm Fernobjektivs in the Panflex mount? This particular lens showed up on eBay in Oregon with the Contax mount correctly identified, but I know nothing of its prior history.

The lens itself is a single component achromat doublet in a long-focus design. Such a simple design is capable of excellent sharpness and contrast particularly in the center of its field—provided the lens is confined to a modest aperture and narrow coverage. The famous long-focus lenses offered by Novoflex use a similar

optical design. The finish of this particular lens is good if not spectacular. A nice modern black crinkle finish was applied over a smooth black coating with the exception of the diaphragm and focus rings. The glass is T-coated. It takes readily-available 77 mm accessories. Apertures close down to f/45 with a manually-controlled iris mounted nearly 16 cm (seven inches) behind the glass. The focusing helicoid is set forward and just behind the glass. The lens focuses as close as six meters (19.1 feet) with a nearly 360 degree turn of the focus ring. Only the glass moves; the diaphragm remains stationary.

Mounted on a Panflex with a Contax attached, the lens balances on its rotatable tripod bushing. Weighing only 1.63 kg (4.5 pounds), the lens should be hand-holdable. However, the focusing ring is set so far forward and has such a long turning that focusing while trying to hold a camera steady becomes an exercise in frustration. This is particularly true if one is trying to follow a moving object.

A more practical solution would be to mount the lens on a modern SLR. The depth of the short mount happens to match that of the BR-1 ring that Nikon made for mounting its 135 mm Barrel-mount Nikkor on a bellows. I shot the portrait on the back cover of an immature female Cooper's Hawk (*Accipiter cooperii*) as she perched to digest her meal outside my kitchen window—using a Nikon D80, BR-1 ring and the Fernobjektiv focused at about 7.6 meters (25 feet) and set to f/11.

Vignetting

There is one problem that all users of long lenses mounted on a Contax (or Nikon rangefinder camera) should be aware of. Lenses longer than 250 mm will vignette. This is true for not only the Fernobjektiv, but also for the longer short-mount Nikkor, Kilfitt and Noflexar lenses mounted on their respective housings.

The problem lies not in the lens mounts, but in the small throat of the cameras' mounts themselves. It is not observable on the ground glass, nor do these lenses vignette on a Nikon reflex camera. Note the landscape image (figure 3), taken using the Fernobjektiv on a Panflex and a Nikon SP. □



Vignetting in this landscape view taken using the Panflex. The problem occurs when longer short-mount lenses are used on a Contax or Nikon rangefinder camera. Figure 3

Zeiss terrestrial telescopes illustrated

Larry Gubas, Las Vegas, Nevada

*To raise public awareness and help develop a market
for these instruments, the company took care
to spread pictures, wherever possible, showing them in use.*

In the 1890s, after Zeiss' development of photographic lenses and the prism binocular, there was a new clamoring market for large astronomical projects at universities and large national museums.

Zeiss responded with the hiring of Dr Max Pauly, who became responsible for a large family of telescopes and supplementary devices of various sizes. The natural outgrowth of these massive products gravitated at first to smaller terrestrial telescopes for the military and

soon after for civilian or personal use.

This was a market that had not been developed until then on the size and scope of what Zeiss would undertake. Since Zeiss developed these sorts of personal products on a scientific basis, they would be far beyond the contemporary small optical shops. They would be expensive, and advertising and publicity would be needed, to develop a market. To reach this goal the company used the ever-present Zeiss catalog as well as much smaller and intriguing materials.

For purposes of this short essay, I

will concentrate on advertising and, strangely enough, postal cards.

Since the general public had probably never seen a telescope in the flesh in the early 1900s, the resulting materials had to be pictorial and informative. For the purposes of this discussion, I will display examples of this material and will discuss that Zeiss needed to place their products in public places so that they could be seen and used. As a result, the firm invested in the manufacture of examples to be placed at special locations where they could be used and displayed. Many of the earliest examples were placed on a near-perma-



One of the smaller terrestrial telescopes such, as the Starmorbi or Asembi, in a very crowded location with interaction between the pictured participants. Conceived without a pictorial scene, it thus conveyed participation in its use.



Zeiss Catalog Cover theme, the cover of a special catalog dedicated to the observation or terrestrial telescope that could be purchased by a hotel or an individual. The catalog showed the product in the forms for astronomical as well as terrestrial use. This was an unusual catalog, since it had captions in German, French and English.

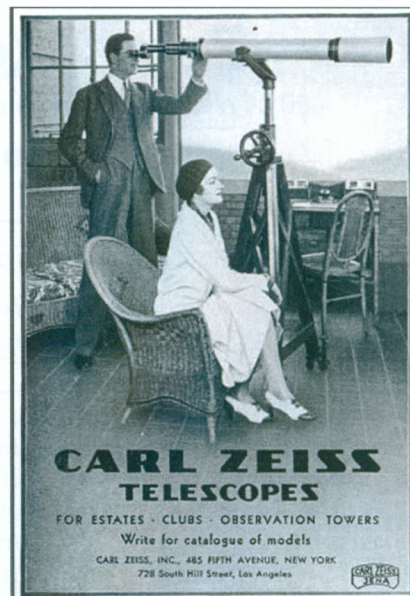
nent basis at tourist locations in Germany and alpine locations in Switzerland, Italy and Austria. Once placed in these locations, the firm's logo would need to be graphically displayed and signage would have to be developed for placement alongside the instrument. Sometimes, the item was permanently lent by Zeiss to the location or, in the case of a placement at a hotel, a coin-fed system on a pay-per-view that allowed the telescope to be used for a certain period of time.

Pictures, with a spectacular scenic background, of visitors using the instrument were incorporated into the usual catalog, and these pictures could also be used in advertising and also used on postcards that would be available for sale in a location very close to the instrument itself. The cards could be taken as souvenirs or sent to relatives and friends. Although the

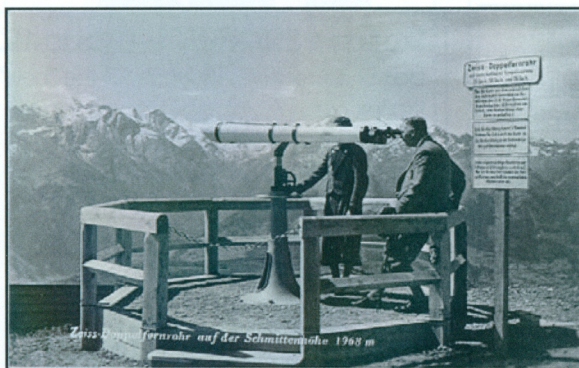
telescopes were not affordable for the average worker of the day, the postcards themselves would be items for discussion once a traveler arrived back home.

This sales tactic became very successful, and soon some limited examples were sent about the world-wide sales offices. Examples began to appear in places such as national parks in the United States. Catalogs show examples of such terrestrial telescopes in Yosemite and the Grand Canyon parks here in the US.

The great enemy of these placements was the two world wars, when countries would appropriate them for military use; most often they were not returned after the end of hostilities. I show here some examples of advertising that were seeming directed at hotels, country clubs and "estates" and some of the better postcards that came into my possession. □



A 1930 American ad shows a telescope with a prism-based eyepiece on what could be a country-club terrace.



A permanently installed *Doppelfernrohr* (twin or stereo telescope) on a mountain named Schmittenrohe in the Kitzbühel Alps in Austria. Descriptions of the instrument appear on the sign to the right.



An observation station on the Uetliberg, a point on the Swiss plateau with a panoramic view of Zurich. The rotating metal base for the instrument is of Zeiss manufacture.



"Greetings from Forst" (a resort near Jena) with the caption "Im Vordergrund Zeiss-Aussichtsternrohr" ("In the foreground is a Zeiss observation telescope"). This older image appears to show a telescope without the lens cell logo, suggesting that it was manufactured before 1904.



This 1905 picture shows the terrace of a resort's restaurant with a spectacular mountain view. The base of the telescope is more complex than most and was a Zeiss design.



This picture from a catalog shows a large Zeiss Stereo observation telescope at the Eiger Glacier, a famous mountain climbing location

Zeiss Ikon Ikonflex, 1934 to 1945

Simon Worsley, Nottingham, England

An update to previously published material on these twin-lens cameras adds some detail on estimated production numbers and dates, and the ranges of lens and shutter combinations offered on each model.

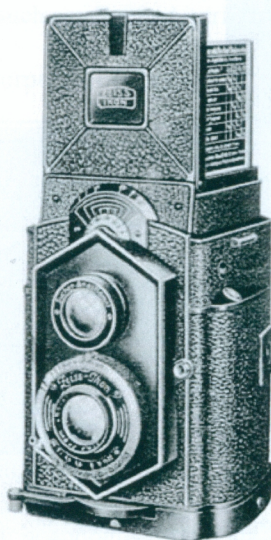
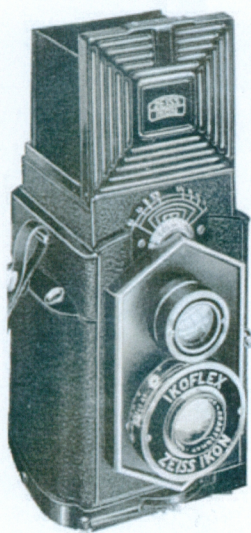
In these three pages I have attempted to give clarity to the confusing issue of the pre-War Zeiss Ikon Ikonflex series of 6×6 cm twin-lens reflex cameras; it may be superfluous because the Ikonflex range was comprehensively covered by Larry Gubas in the Spring 1983 issue of *Zeiss Historica*. However, by looking at contemporary Zeiss Ikon promotional literature to note dates, coupled with my research (hobby?) into the Zeiss Ikon camera serial numbers

(the *Fabrikationsnummer*) to establish production estimates and finally collating all observed (from catalogues and actual examples) variations of lens and shutter, I hope this adds some small value to Larry Gubas's original work. The covers of brochures from 1934 and 1939 appear on page 20.

As ever, I welcome corrections, comments and even criticism! I can be reached at simon_worsley@yahoo.co.uk.

Ikonflex 850/16, mid-1934 to 1936

Nicknamed the "coffee can." Unusual horizontal film transport, taking both 120 and 620 film. Estimated total production 16,000, of which the first 3,500 had the "art deco" hood (left image).



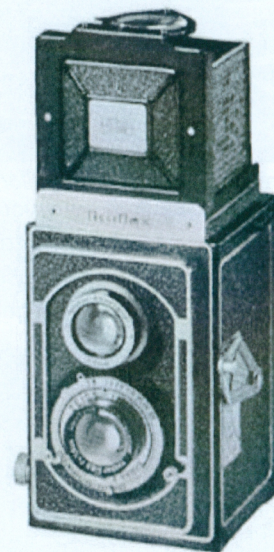
Lens and shutter choices

Novar, f/6.3, 8 cm with Telma
Novar, f/6.3, 8 cm with Derval
Novar, f/6.3, 7.5 cm with Derval
Novar, f/4.5, 8 cm with Derval
Novar, f/4.5, 8 cm with Klio
Novar, f/4.5, 8 cm with Compur 00R

Ikonflex II 851/16, late 1935 to 1938

Box shaped, lever focus. With the "new" Ikonflex I, made with either chromium or nickel plated metal parts.

Estimated total production 15,000

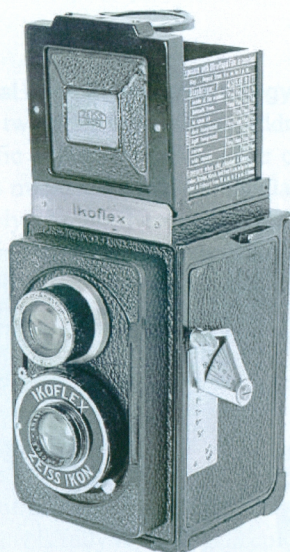


Lens and shutter choices

Novar f/4.5 7.5 cm with Derval or Klio
Novar f/4.5 8 cm with Klio
Triotar f/3.8 7.5 cm with Compur 00
Triotar f/3.5 7.5 cm with Compur 00 or 00R
Tessar f/4.5 7.5 cm with Compur 00R
Tessar f/3.8 7.5 cm with Compur 00
Tessar f/3.5 7.5 cm with Compur 00R

Ikoflex I 850/16, 1936-1937

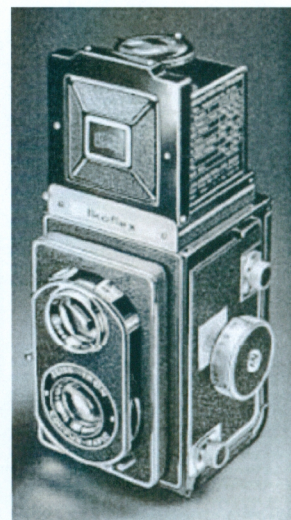
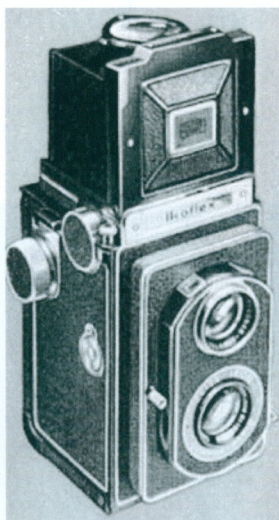
Simpler version of, and made in tandem with, the Ikoflex II 851/16. Estimated total production 5,000. No illustration noted in any contemporary catalogues; photo below is of an actual camera.

**Lens and shutter choices**

Novar f/6.3 8 cm, Telma or Derval
Novar f/4.5 8 cm, Derval or Klio.

Ikoflex III (II) 852/16. 1938 to 1945

Originally called Ikoflex III but changed to Ikoflex II when the 853/16 was introduced. Knob focus. Estimated total production 20,000

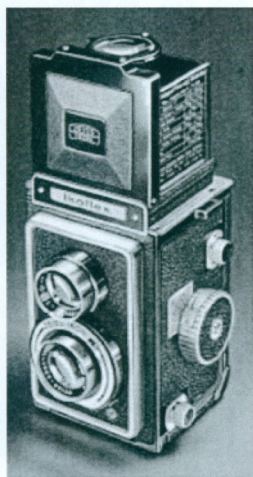
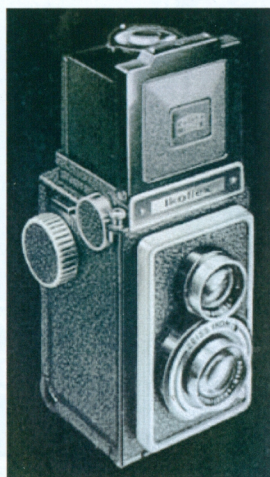
**Lens and shutter choices:**

Triotar f/3.5 7.5 cm, Compur 00

Tessar f/3.5 7.5 cm, Compur 00R

Ikoflex 850/16, 1939 to 1945

Similar to 852/16 but no sports finder and simplified lens housing. Introduced at the same time as 853/16. Estimated total production 10,000 up to 1945; production resumed after the war.

**Lens and shutter:**

Novar f/3.5 7.5 cm; Compur 00

Ikoflex III 853/16, 1939 to 1945

Body based on Ikoflex 852/16 but with new lens housing, film-winding mechanism and large albedo finder. Estimated total production 8,000.

**Lens and shutter:**

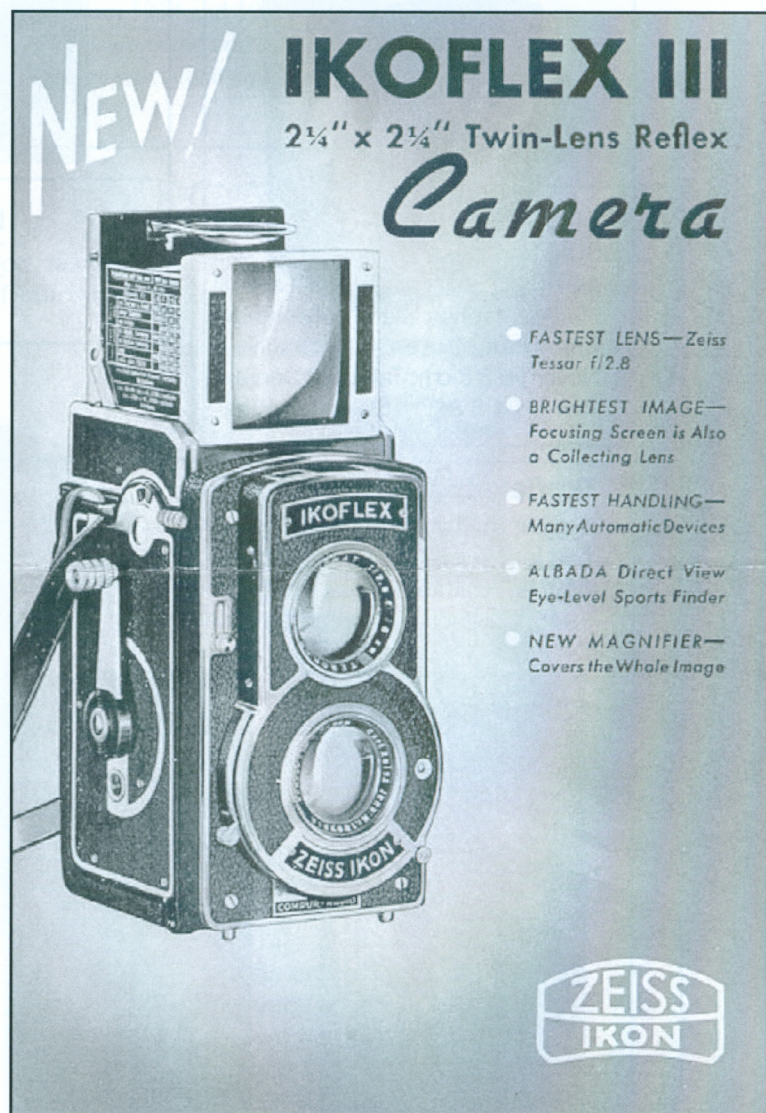
Tessar f/2.8 8 cm. Compur OSR



Eine
Spiegelreflex-
Camera
6×6 cm
für RM 59.-

sechsmal sechs
IKOFLEX!

The first brochure for the new IkoFlex, dated July 1934



NEW! IKOFLEX III
2 1/4" x 2 1/4" Twin-Lens Reflex
Camera

- FASTEST LENS—Zeiss Tessar f/2.8
- BRIGHTEST IMAGE—Focusing Screen is Also a Collecting Lens
- FASTEST HANDLING—Many Automatic Devices
- ALBADA Direct View Eye-Level Sports Finder
- NEW MAGNIFIER—Covers the Whole Image

ZEISS IKON

For the American market: a brochure dated August 1939

***Zeiss and Photography*, by Lawrence J. Gubas**

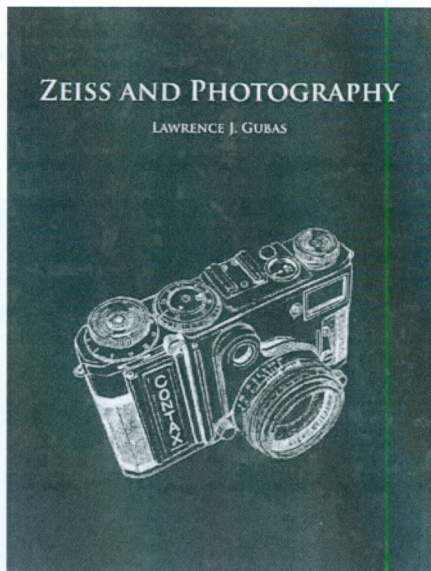
Reviewed by Robert Carter, Toronto, Canada

This final book in the Zeiss trilogy, like the first two titles in the series, addresses a specific aspect of Zeiss. (The others were on microscopes and binoculars respectively.) Author Larry Gubas, a long-time Zeiss enthusiast and member of the Zeiss Historica Society, is now the Society's President. He began collecting Zeiss items in the late 1960s and joined the ZHS a decade later, just a few months after it was formed.

Last year a final draft of *Zeiss and Photography* was completed after extensive proofreading. The draft that I used for this review is fully illustrated in color and includes the appendices on a CD. Only minor changes and page numbers are missing. Gubas has a fondness for photography, but even so, he found the range of Zeiss and Zeiss Ikon cameras, lenses, and accessories daunting. This massive opus is a record of the multitude of camera makes, models, and variations created over the years, both before and after the formation of the umbrella organization. It is also a fascinating history of Zeiss from a photographic perspective as well as the companies that became Zeiss Ikon.

Unlike Leitz, that other famous German marque, Zeiss and Zeiss Ikon factories were bombed and torn apart during the Second World War. Worse, Jena fell in the Russian zone forcing a hurried migration of key staff to West Germany and re-establishment of the tattered company. These factors make it phenomenally difficult to pull together a reliable reference to Zeiss and Zeiss Ikon cameras and accessories. Reading this book, one can see that Gubas stepped up to the challenge and has produced a historic reference that belongs in every collector's and historian's library.

Gubas has not stinted on his methodical research of Zeiss from its very beginning until modern times. He visited well known Zeiss collectors, Zeiss designers, Zeiss executives, archives and museums in both America and Europe. The history of Zeiss and its importance



Zeiss and Photography, Lawrence J Gubas, 890 pp, letter-size. CD included. Self Published.
Retails for \$150.00 at camerabooks.com. Available in November 2014.

to photography is covered in loving detail. Most of the cameras and lenses created by Zeiss and the companies that formed Zeiss Ikon are illustrated and described at length. Gubas's writings include histories of the prime pre-Zeiss Ikon camera makers such as ICA, Contessa, Ernemann, and Goerz in much detail.

For example, on Ernemann, Gubas begins:

"My favorite firm that merged into Zeiss Ikon in 1926 is Ernemann. It is a perfect example of a single proprietor making something out of nothing. While Heinrich Ernemann became an experienced tradesman in the city of Dresden as a seller of textiles and cloth goods when he had taken responsibility for the yarn and ribbon business of his wife's mother. He would expand that business but in 1889 at the age of 39, with no experience in the photographic business, he purchased an interest in the carpentry shop of Wilhelm Matthias. Among other things Matthias manufactured the wooden components of professional photographic cameras. Prior to Ernemann's entry into this business, all of the other camera parts





were purchased from other firms. With his assertive business persona, Ernemann quickly developed a talent in the technology for this expanding industry and as a signal for what was to come, in 1891, he applied for a patent for a new camera shutter (German patent Nr. 62274) and began to grow his business. This same year, Matthias who had been the firm's master carpenter decided to leave the business."

He goes on to show Ernemann's contribution to photography in its cameras, lenses, and cinema apparatus. This innovation continues after the merger into the 1930s and the famous Ermanox 35 mm camera with its f/2 Ernostar lens, which looks as big as the camera itself. We all remember Erich Salomon's famous available-light photographs with an Ermanox, such as his picture of diplomats meeting in Lugano, Switzerland in 1928.

The impact of WW2 and the disastrous post-war formation of East Germany with its Soviet rule is covered in great detail, as is the eventual collapse of the Soviet Union and the merger of Zeiss Jena and Zeiss Oberkochen. Post war, Zeiss Jena produced one pre-war Zeiss Ikon camera model, the Jena Contax. Meantime, Zeiss Ikon began production on other new cameras. Eventually Zeiss Ikon was swallowed by the nationalization of the photographic industries. The West German Zeiss organization struggled with replacing and modernizing the old camera line. Japan became a growing force with rapid increases in innovation and quality combined with cheap labour.

Gubas describes how the West German company of the day was still stuck in old ways and means, ill-suited to economic manufacture of modern camera designs.

How Zeiss overcame these problems, successfully merged with its East German counterpart, and thrived makes for a fascinating tale beyond offering such a wealth of camera, lens, and manufacturing information. This third and final trilogy component gives a good insight into the German photographic industry and the influence of Zeiss on that industry and on photography in general. □

Illustrations on pp 21 and 22 are taken with permission from Zeiss and Photography.

Eine Einblicköffnung
für Sucher und Entfernungsmesser
erstmalig in einer Großformatcamera
der **Super Ikonta 6×6** von **ZEISS IKON**

Zeiss factories and sales offices prior to World War I

Larry Gubas, Las Vegas, Nevada

Some evidence survives of Zeiss's activities in Europe and beyond in the early part of the twentieth century.

Some months ago, I was pleasantly surprised by an email from Eastern Europe that opened a discussion I was unprepared for. It was about Russian binoculars, including the locations that Zeiss opened in the years between 1906 and 1910. My new contact was Andriy Tsymbal, and he knows far more than I do about Russian binoculars and other binoculars directed toward the Russian market in the years that began the twentieth century. The difference in our spoken language was huge but he began to supply images that piqued my interest.

The building in Latvia

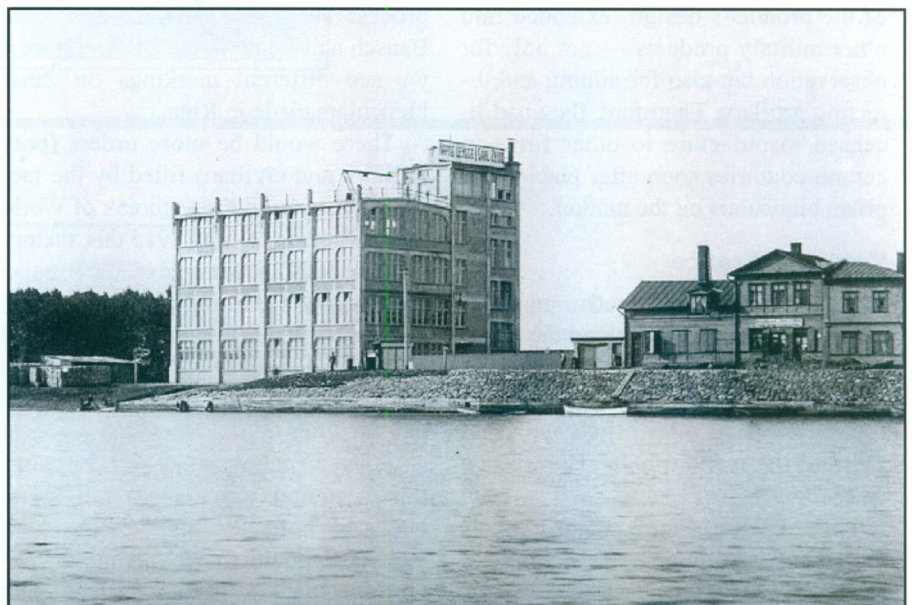
The first were images of a building in present day Riga in Latvia that he said had once been the site of a satellite factory of Carl Zeiss Jena used to construct binocular and other military-based products for Czarist Russia (figure 1). It was similar to small factories and repair locations that appeared in the city of Győr in Hungary and Wien (Vienna) in Austria.

Andriy sent me a number of pictures of that factory building in Riga as it stands today, which show that it has been largely abandoned for a great number of years but there are plans to renew the building as evidenced by the pictorial coverings on scaffolding outside the present building. Later, he forwarded to me a series of pictures of what the building originally looked like (figure 2). Later, I was able to find a reference that I had copied from the Carl Zeiss Jena Archives that showed the factory in a second location.



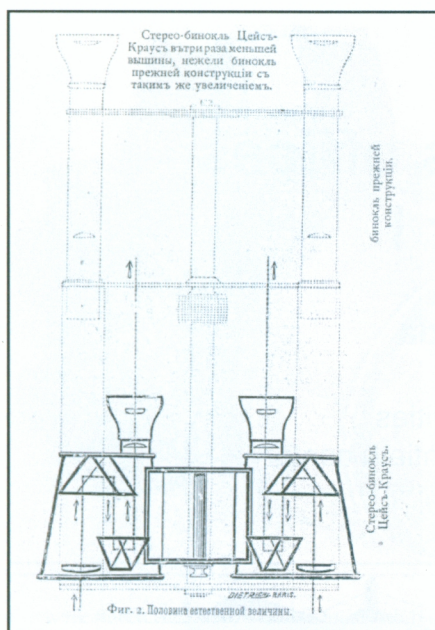
The factory in Riga as it appears today.

Figure 1



The same building as it appeared soon after construction.

Figure 2



A page from an E. Krauss catalog that shows the Zeiss prism binocular with text in Russian, before Zeiss declared that the Kraus license for their products covered only France and its colonies. Figure 3

Clearly Zeiss was interested in selling to Latvia, Hungary and Austria, and the military market of that time required them to base an operation in the home territory of those countries. When Zeiss began the manufacture of prism binoculars in 1894, it was operating with a shortage of trained manufacturing personnel for that product. Soon, the basis of the product's design extended into other military products — not only for observation but also for aiming and directing artillery. Therefore, they had licensed manufacture to other firms in certain countries soon after placing the prism binoculars on the market.

Krauss in France

One of those firms (Krauss of Paris, France) was already active in the Russian market and so they had already presented copies of their catalogs (figure 3) to their Russian sales office and beat Zeiss to the market there. This lasted only a few years because Zeiss wanted to control sales in most major markets via manufacturing or a licensee in that country.

Zeiss would soon open these small factories at these Eastern European loca-



Markings on two Zeiss binoculars made in Riga. The lower one of the two shows the city changed to St Petersburg, although the factory was still in Latvia. Figure 4

tions: Vienna, Austria in 1906, Riga, Latvia, in 1908 (Latvia was in the Russian sphere of influence at that time), Győr, Hungary in 1909 and also, in a non-Eastern European country, London, England in 1910.

The firm had originally begun operation in Riga in a rented space based on an order for 360 Trench Telescopes (*Scherenfernrohr*) with the requirement that manufacture and repair support be situated in a location within the boundaries or near the boundaries of the Russian homeland. Clearly, this was similar to the basis for the other factories in Vienna and later in Győr. This demand existed for all of the important governments not covered by the licensing process such as Krauss in Paris and Bausch and Lomb in the US. In figure 4 we see different markings on Zeiss binoculars made in Riga.

There would be more orders (both military and civilian) filled by the factory in Riga until the outbreak of World War I when on 20 May 1915 this factory was officially sequestered by the Russian government and occupied by the police. Russian Colonel Loiko took command of the management of the factory and later moved the manufacturing and repair facilities to St. Petersburg.

These events account for the additional versions of the lens-cell trademarks for both Riga and St. Petersburg that are sometimes encountered on various binoculars (as in figure 4) and other military products, as is also true for the locations in Austria and Hungary.



A pre-WWI building in Vienna intended for occupation by Zeiss; after the War, the Treaty of Versailles resulted in new regulations, and the firm never occupied the building. The design on the wall visible in this picture still carries the initials "CZ." Figure 5

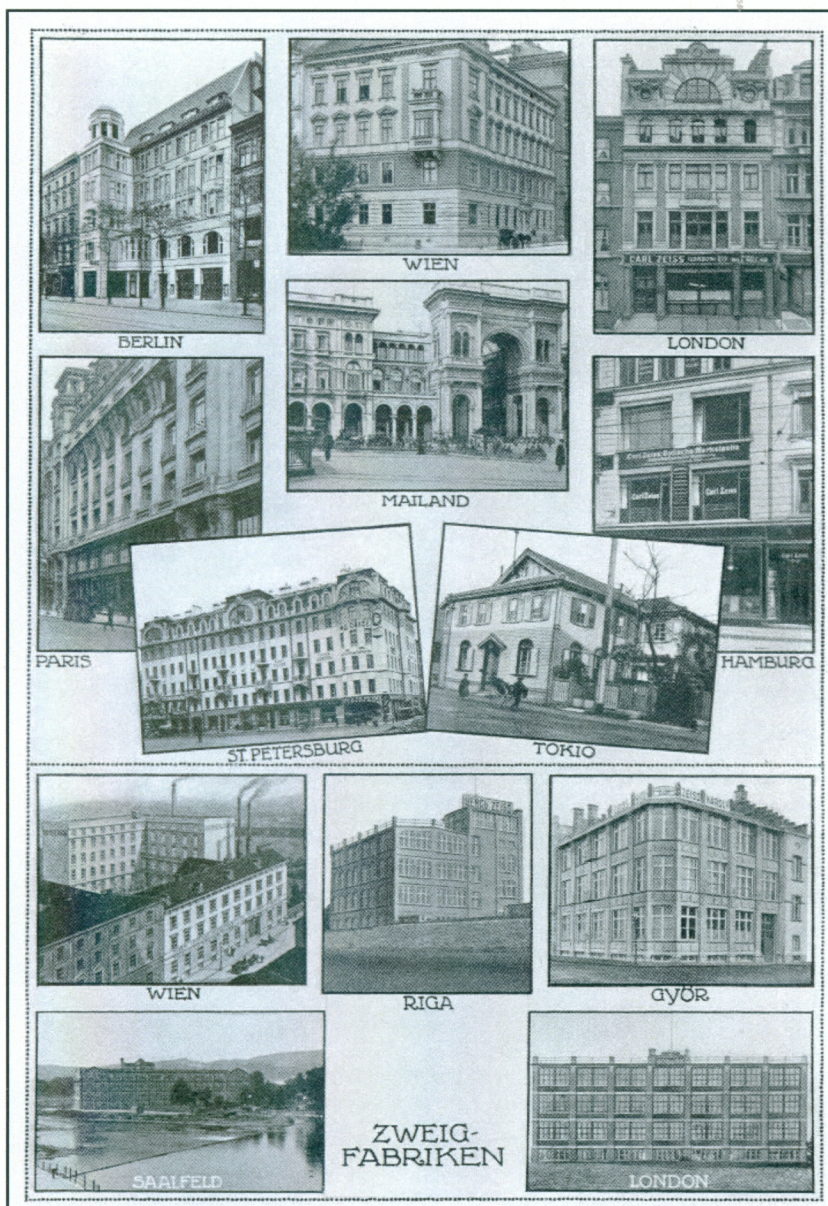
However there are binoculars, directly ordered in the years before 1908, that have the Latin character markings for Carl Zeiss Jena with some having additional markings engraved in Cyrillic script. Some of these were done in Jena but others were done after-market in Russia.

Some additional research brought me to the Fourth Edition (1914) of the book *Zeissworks* by Professor Felix Auerbach, where I found a detailed pictorial illustration showing all of the important Zeiss sales offices and satellite factories on page 123 (reproduced on the opposite page, top left). I explain the differences in the caption to the illustration.

All of these locations (except for Saalfeld which was close to Jena in Germany) would be lost after the beginning of World War I. In fact, there were plans, and construction began in Vienna for a fairly large facility but it was never used. The building stands today with architectural features showing the initials CZ but it was never occupied by Zeiss (figure 5.)

After the treaty of Versailles, Zeiss was greatly hindered in manufacturing military products, and consolidated such manufacturing in a single location just across the border between Germany and the Netherlands in a new facility in the town of Venlo, just a few miles from the German city of Köln (Cologne). The location used the trademark of Nedinsco Venlo in tandem with the Carl Zeiss Jena lens-cell logo on its products (see the illustrations opposite, top right).

A detailed article regarding the Zeiss London office appeared in the Spring and Fall issues of the Zeiss Historica Journal in 2011. □



▲ The building in Venlo, in the Netherlands, top, solely to make and market military products for countries around the world under the new trademark, shown below, thus easing the restrictions on the export of such products from Germany after the war.

◀ Zeiss locations in 1914. The top part of this page shows the eight major Zeiss sales offices, while the lower part, below the line, shows all the satellite factories and repair facilities. The page includes, at the lower left, the new factory in Saalfeld — close to Jena inside Germany — and, top right, the building occupied in London from 1910.



A commemorative ten-Deutschmark coin issued by the Federal Republic of Germany on 3 December 1988 to mark the centenary of the death of Carl Zeiss.

The face of the coin (designed by Carl Vezerfi-Clemm) shows a portrait of Zeiss with one of his polarizing microscopes. Actual size is about 33 mm diameter; 8.35 million were issued.

(Coin provided by Fritz Schulze)

