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Leitz Special Edition



Leica Camera AG headquarters in Leitz Park resembles camera lenses. Designed by Gruber + Kleine-Kraneburg Architekten, the building has a 5-meter tall Guardian SunGuard SuperNeutral 70/41 curved glass facade that balances solar control, light transmission and thermal insulation.

1772. Goethe slept here. Well, actually, he stayed a couple of kilometers down the road, in lodgings less lavish than you'll find today at the Ernst Leitz Hotel in Leitz Park, Wetzlar.

September 5 – 8, 2022. Camera crews from around the world stayed here. The team at Ernst Leitz Wetzlar invited a group of cinematographers and camera assistants to visit, with eyes-to-eyepiece and hands-on-lens time with Hugo, Elsie and six other lines of Leitz lenses. There were lectures, factory tours, Sattmacher's Airstream barbecue, fine food and refreshments.

It was a like a wizarding confabulation. We sat transfixed during a lecture by the grand wizard of Leica optical design Peter Karbe, watched lenses being assembled and gathered in the lens projection room. Rainer Hercher, Raimund Bayer, Laura Kaufmann and their worldwide Leitz emissaries hosted the festivities and events in Wetzlar.

Meanwhile, back at young Goethe. With themes reminiscent of the *Shakespeare in Love* (1998), *Young Goethe in Love* is a 2010 German film, loosely historical, "about a tempestuous aspiring writer, who, having failed his law exams, is sent by his father

to the provincial town of Wetzlar to mend his ways." Goethe predictably falls in love with Lotte who is otherwise engaged.

The novel behind the film is *The Sorrows of Young Werther*, written by Goethe in 1774, based on his unrequited love of Charlotte (Lotte) Buff. It was an 18th century blockbuster.

Few poets have written more about wandering than love-lorn, long-suffering Johann Wolfgang von Goethe. "I am a poor, wretched, lovelorn creature," Goethe wrote in his second novel, *Wilhelm Meister's Apprenticeship*. The author clearly had issues. He possessed a depressing habit of falling in love with women who were married or unavailable, and then writing poetry to drown his sorrows on long journeys.

If your long journey has been unrequited in the search for a decisive look, you may have missed Ernst Leitz Wetzlar's burgeoning portfolio of diverse cine lenses. Leitz now offers an eclectic choice of 8 lines of cine lenses—with different qualities and styles—that appeal to the cinematographer's quest for the right lens with the right look for the right story. While some brands strive for uniform looks across the lines, Leitz has

Leitz Park



The architectural concept Leitz-Park III is a counterpoint to the round shapes across the street. Andreas Kaufmann described it as “reminiscent of Montalcino or Sienna. The buildings are related, but look different, and surround a square or marketplace. Leitz (Cine) is at right.

been steadily coming out with a broad range of impeccably crafted lenses that possess different looks, with different styles, different tastes and different approaches.

Leitz Park is like Legoland, a Leica Land destination for Leica lovers, aficionados and professionals worldwide. The architecture is unique. Leitz Park II, where Leica cameras are built, has the curved shapes of lens barrels or analog Leica cameras' film cassette chambers. To the right of the bright white lobby are galleries of photographs. Book a tour to see the latest cameras being assembled in a vast clean room and to see an exhibition of Leica history and products from the past hundred years. Café Leitz is strategically placed in the center of the campus. Try the Zwetschkuchen (plum cake) and fresh fruit smoothies.

Across the street is the architectural counterpoint to the curves of Leica Camera AG. The cubist buildings here contain the headquarters of Ernst Leitz Wetzlar (Cine), the Ernst Leitz Museum and Shop, Leica Welt (World), Archives, Leica Store, corporate office tower, the Ernst Leitz Hotel and OSKARS (as in Oskar Barnack) Restaurant.



Gavin Finney, BSC, looking at Hugo on VENICE 2, in focus at T1.5 with a Leitz Hugo on a Leica SL2-S and L to LPL mount. Gavin has shot at least 3 major productions with Leitz cine lenses.



Leitz Cine Confab



Left to right: Po Liu, Raimund Bayer, Ben Ross, Lena Altintop, Robert Höft, Rainer Hercher, Lisa de Carvalho, Osamu Tsukada, Kevan Parker, Seth Emmons, Laura Kaufmann.





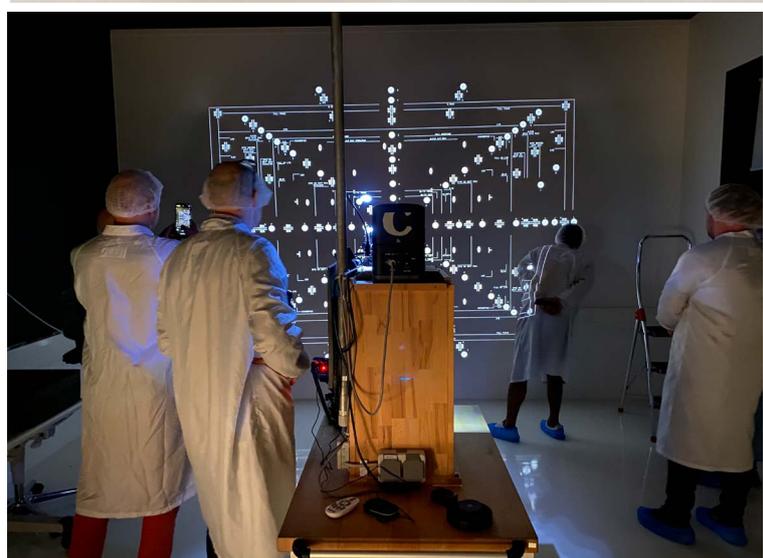
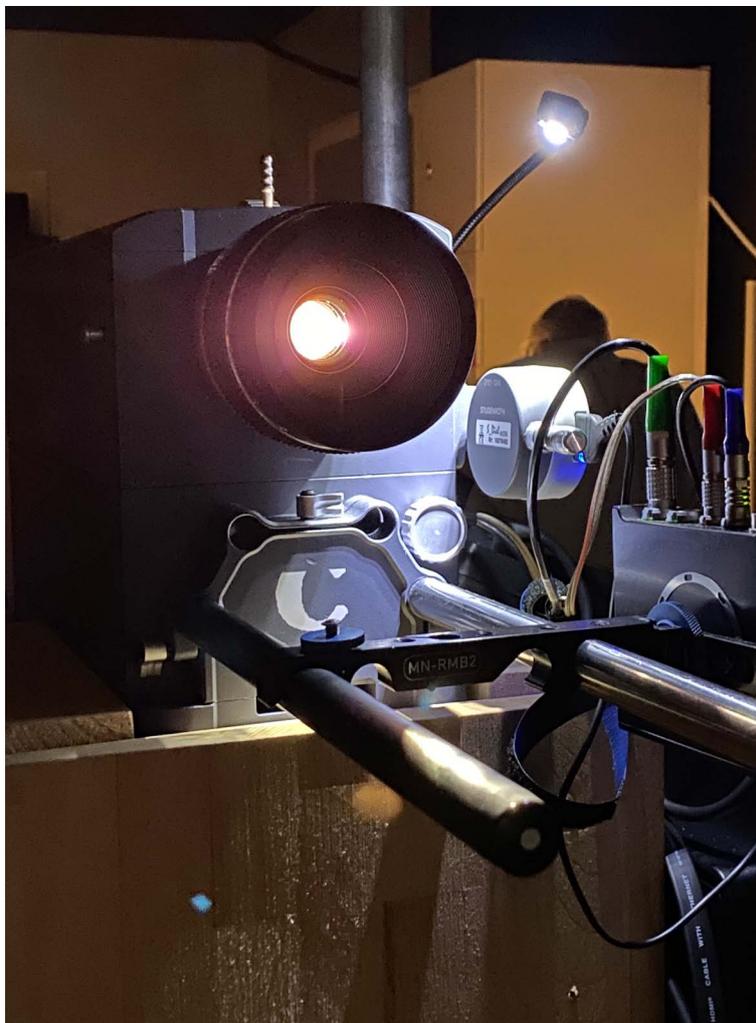
Above: Osamu Tsukada with Leica SL2-S, Leitz L to LPL Mount, and an L-Mount Hugo 24mm T1.5.

Below Left: Taken with Leitz Hugo 90mm at T1.5, writer, photographer, filmmaker Ariane Damain Vergallo taking a close-up of Christine A. Maier, BVK, AAC with a Leica Q. The Leica Q has a dedicated 28mm Summilux f/1.7 that focuses to 30 cm (11.8") and 17 cm (6.7") in Macro.



Leitz Henri DP/
Directors Finder
with SL2-S and
an L-Mount Hugo
24mm.

Assembling Hugo



Leitz Cine Lens Lines



Summilux-C
Super35



Summicron-C
Super35



Leitz PRIME
Full Frame



Leitz ZOOM
Full Frame

by Seth Emmons

There are now eight sets in the Leitz Cine Lens lineup. Each set has its unique characteristics. To help simplify what they do and how they look, we can assign them to three categories.

- Performance: Leitz PRIME, Leitz ZOOM, Summilux-C
- Character: Elsie, Summicron-C
- Legacy: Hugo, M 0.8, Thalia

Performance

Leitz PRIME, Leitz ZOOM, Summilux-C

- An accurate image on which to build your individual look.
- Fast, consistent aperture.
- Uniform high resolution and illumination across the entire frame.
- Almost no distortion or aberrations.

Cinematographers and lens designers historically have valued lenses with optimally corrected optics that perform equally well across the entire image field and are as fast as possible. Leitz Cine continues the tradition of outstanding Leica optical and mechanical innovation with its Leitz Performance lens family.

Leitz Summilux-C Super35 format primes were the first cine lenses by the company founded as CW Sonderoptic, now Ernst Leitz Wetzlar. Leitz PRIME and Leitz ZOOM are the Full Frame members of the Performance family. They exhibit even field illumination, negligible loss of resolution towards the edges of the frame, preservation of detail in low light and low contrast scenes, almost imperceptible chromatic aberrations through the entire aperture range. They represent the technical best that Leitz Cine lenses can achieve while remaining humane, gentle, and never clinical or mechanical in image look and feel.

The bokeh of the Performance lens family maintain clarity, separation and depth. Well-controlled flaring enables strong in-frame light sources with minimal image degradation. These lenses provide cinematographers a naturally beautiful, clean canvas on which to build their images with composition, lighting, filtration, set design and wardrobe without worrying about the lenses shouting out the rest of their efforts. The clean, undistorted image also aids in VFX, compositing, virtual production, and post production work.

Leitz ZOOM lenses cut beautifully with Leitz PRIME and Summilux-C lenses—color matched, with no ramping, breathing or distortion. These parfocal zoom lenses can closely replicate the images of most prime lenses in performance while maintaining the skin tones and color rendition that Leitz is known for.

Character

Elsie, Summicron-C

- Dimensional field with fall off toward the corners.
- Unique bokeh.
- More flaring.
- Smaller, lighter and budget-friendly.

The lenses in the Leitz Character family introduce more of their own look to the image by fashioning imperfections into elegant characteristics. They build off the technology of the Performance series to offer a “rounded” image where resolution and illumination can fall off gradually toward the corners to help center the audience’s attention. Combined with a soft and smooth focus roll off, these lenses provide a point of view that can be further accentuated with lighting and framing.

Both lens sets in the Character series offer their own unique mix of minimal distortion, barely perceptible aberrations, and special bokeh that give them a life of their own. The Full Frame Elsie

Leitz Cine Lens Lines



Thalia
65mm Format



Elsie
Full Frame



M 0.8
Full Frame



Hugo
Full Frame

lenses closely resemble the bokeh of traditional Leica still lenses. Elsie lenses were designed for Full Frame but illuminate well beyond that image circle and may be useable in certain formats on the Alexa 65, although further testing is needed.

The Super35 Summicron-C lenses offer a more classic, traditional cine lens bokeh.

Each of these sets feature their own flare characteristics to give cinematographers more to work with when directing light into the lens. These Character lenses are generally smaller and lighter than the Performance lenses in the same format category and cater to a larger range of budgets and projects without compromise.

Legacy

Hugo, M 0.8, Thalia

- Interesting and unique among other cine lenses.
- Hugo and M 0.8: center-weighted, iconic Leica look.
- Thalia: Medium Format portrait look.
- The most compact and lightweight Leitz lenses.
- Based on classic Leica glass.

Leica lenses have created many of the most memorable images of the past century. The Leitz Legacy lens family applies this ethos to some of the most stunning and coveted still photography lenses ever developed: the Leica M Leica Format (Full Frame) series and the Leica S Medium Format series.

Many cinematographers have dreamt of using these lenses to create moving pictures. Now the iconic look of these lenses can be used to tell their stories.

Leica M glass sits at the heart of both the Hugo and M 0.8 series. Their intention is to preserve not only the iconic M im-

age characteristics but also the small size and weight that have made them the choice of photographers intent on capturing decisive moments. The optical elements are hand-selected from Leica's photography lens production line for optimal performance.

M 0.8 lenses are modified for a traditional cine camera configuration with lens gears, stepless irises and minimal adjustment.

As with Leitz M 0.8, the new line of Leitz Hugo lenses also have Leica optical elements. But, their housings are built from scratch with a completely new cine lens mechanical design. Focus and iris travel are expanded and have smooth cam mechanisms. Furthermore, Hugo lenses focus much closer than M 0.8.

Hugo lenses have a robust cine-style housing just like other Leitz lenses, while the M 0.8 lenses retain the compact size of the Leica M lenses with the addition of properly pitched gear rings and uniform 80 mm front diameters.

The look of Hugo and M 0.8 consists of dynamic bokeh that combine with center-weighted performance to create a dimensional image that seems to pop off the screen and stands out as being something truly special.

Leitz Thalia lenses reimagine Leica's S lenses in familiar, compact and lightweight cine lens housings. They maintain an enormous 60 mm image circle that covers through ALEXA 65 format and beyond. These lenses present a fair amount of fall-off toward the corners reminiscent of Medium format portraiture to create an intimacy that feels natural and special. They combine flare-friendly coatings with sensational bokeh.

Leitz Cine Lenses: Comparison Chart

	Leitz PRIME	Leitz ZOOM	Summilux-C	Elsie	Summicron-C	Hugo	M 0.8	Thalia
Classification	Performance	Performance	Performance	Character	Character	Legacy	Legacy	Legacy
Image circle (mm)	46.5 mm	46.5 mm	33 mm	46.5 mm	36 mm	43.3 mm	43.3 mm	60 mm
Format coverage	Super35	Super35	Super35	Super35	Super35	Super35	Super35	Super35
	Full Frame	Full Frame		Full Frame		Full Frame	Full Frame	Full Frame
								ALEXA 65
Field Curvature / Illumination, Resolution Fall-Off:								
- on S35	Flat	Flat	Flat	Very Mild (Illumination)	Very mild	Mild	Mild	Very Mild
- on FF	Flat	Very Mild		Mild (Illumination)		Moderate	Moderate	Mild
- on A65								Moderate
Aperture / T-stop	1.8	2.8	1.4	2.1	2	1.5	f/1.4 & f/2	2.2 - 3.6
Focal lengths in set	13	2	12	12	11	10	8	10
Focal lengths (mm)	18, 21, 25, 29, 35, 40, 50, 65, 75, 100, 135, 180, 350	25-75 / 55-125	16, 18, 21, 25, 29, 35, 40, 50, 65, 75, 100, 135	15, 18, 21, 25, 29, 35, 40, 50, 65, 75, 100, 125	15, 18, 21, 25, 29, 35, 40, 50, 75, 100, 135	18, 21, 24, 28, 35, 50, 50-N, 70, 90, 135	21, 24, 28, 35, 50, 50-N, 75, 90	24, 30, 35, 45, 55, 75, 90, 100, 120, 180
Lens mounts	PL	PL	PL		PL			PL
	LPL	LPL		LPL		LPL		LPL
						M	M	
						L		
Close focus (ft / m)								
at 18mm (or nearest)	1'2" / .35	on 25-75: 3' / .91	1'6" / .45	1'2" / .35	1' / .3	(21mm) 1' / .3	(21mm) 2'3" / .7	(24mm) 7.8" / .2
at 35mm	1'6" / .45		1'6" / .45	1'2" / .35	1'2" / .36	1'2" / .36	2'3" / .7	1'8" / .5
at 75mm (or nearest)	2'2" / .75	on 55-125: 3'5" / 1.05	2'6" / .79	2'6" / .75	2'7" / .8	2'6" / .75	3'3" / 1	(70mm) 1'8" / .5
Metadata	/i	/i	—	/i	—	—	—	/i
Weight (lb / kg)								
at 18mm (or nearest)	7.1 / 3.2	on 25-75: 8.2 / 3.7	3.6 / 1.6	5.3 / 2.4	2.9 / 1.3	(21mm) 1.85 / .84	(21) 1.1 / .51	(24mm) 3.1 / 1.4
at 35mm	6.3 / 2.87		3.6 / 1.6	4.4 / 2.0	2.9 / 1.3	1.78 / .81	.8 / .38	3.1 / 1.4
at 75mm (or nearest)	6.2 / 2.83	on 55-125: 9.7 / 4.4	3.5 / 1.6	4.4 / 2.0	2.7 / 1.2	3.09 / 1.40	1.3 / .57	(70mm) 2.3 / 1.0
Made in	Germany	Germany	Germany	Germany	Japan	Germany	Germany	Germany
Front diameter	114 mm	114 mm	95 mm	95 mm (most)	95 mm	95 mm	80 mm	95 mm
Breathing	None	None	None	Very Little	Very Little	Some	Some	Some
Iris shape	Round	Round	Traditional	Round	Traditional	Round	Scalloped	Round
Flaring	Controlled	Controlled	Controlled	Dynamic	Moderate	Moderate	Moderate	Dynamic

Mounts and Adapters

Lens Mounts

Seth Emmons continues:

Several Leitz cine lenses have user-swappable mounts. As cameras and formats continue to evolve, so do the design parameters and options for mounting Leitz lenses. We see a growing use of LPL mounts not only on ARRI cameras, but on Sony, RED and others. Leitz has embraced the creation of the LPL mount standard by ARRI. The shallower, wider LPL mount made the cine housing of the Hugo lenses possible and was used as the basis for the Elsie lenses design, saving size and weight while maintaining optical performance. Offering Leica's M mount and L mount for Hugo, and M mount on M 0.8, allow these already compact lenses to fit on even more compact cameras—giving productions more creative options for camera mounting and movement.

Format	Lens	PL	LPL	M	L
65mm	Thalia	X	X		
Full Frame	Leitz PRIME	X	X		
	Leitz ZOOM	X	X		
	Elsie		X		
	Hugo		X	X	X
	M 0.8			X	
Super35	Summilux-C	X			
	Summicron-C	X			

Camera Mounts

Many professional cine cameras and almost all the smaller production-capable hybrid mirrorless cameras in the market today come with either user-swappable mounts or very shallow flange focal distances that allow almost any lens to be used with adapters.

Leitz has created a series of mounts and adapters to make it easier for crews to use Leitz cine lenses in different mounts on a variety of camera systems.

Leitz Camera Mounts

LPL Mount for Sony	with /i metadata: VENICE, VENICE 2
M Mount for ARRI	ALEXA 35, ALEXA Mini LF, ALEXA Mini, AMIRA
M Mount for Sony	VENICE, VENICE 2

Leitz Lens Mount Adapters

LPL to PL Adapter	with /i metadata
L to PL Adapter	for L Mount cameras: Leica SL2 / SL2-S,
L to LPL Adapter	SIGMA fp L, Panasonic S1H



Leitz Prime
PL Mount
also available in LPL



Elsie
LPL Mount



Hugo
LPL Mount
also available in M or L

Leitz LPL Mount for Sony VENICE 1 and 2



Sony VENICE 2 with Leitz LPL Mount attached (instead of the PL Mount that comes with VENICE)



Front view of Sony VENICE LPL Mount with LPL to PL Adapter, available from Leitz. Electrical contacts for ℓ lens data are at 12 o'clock position, both for LPL and PL mount lenses.

Rear view of LPL Mount (the side that attaches to the Sony VENICE body with six screws. Lens data contacts are at the 6 o'clock position.) Above right: rear of LPL to PL Adapter, showing PL lens data pass-through.



At left and right: side views of Sony VENICE LPL Mount and LPL to PL Adapter by Leitz.

If you are working with both LPL and PL mount lenses on Sony VENICE cameras, this combination is a big time-saver. The mounts are rock-solid. Your flange focal depths will not vary.



Leitz Elsie



Leitz Elsie Lens	15mm	18mm	21mm	25mm	29mm	35mm	40mm	50mm	65mm	75mm	100mm	125mm	150mm
Aperture	T2.1	T2.1	T2.1	T2.1	T2.1	T2.1	T2.1	T2.1	T2.1	T2.1	T2.1	T2.1	
Close Focus (ft)	1'2"	1'2"	1'2"	1'2"	1'2"	1'2"	1'2"	1'8"	2'2"	2'6"	2'10"	4'2"	5'
Close Focus (m)	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.5	0.65	0.75	0.85	1.25	1.5
Horizontal angle of view, Full Frame, 36 x 24 mm	100.4°	90.0°	81.2°	71.5°	63.7°	54.4°	48.5°	39.6°	31.0°	27.0°	20.4°	16.4°	
Horizontal angle of view, Super35, 24.9 x 18.7 mm	79.4°	69.3°	61.3°	52.9°	46.5°	39.1°	34.6°	28.0°	21.7°	18.8°	14.2°	11.4°	
Weight (lb), approx		5.3	5.3	4.4	4.4	4.4	4.4	4.4	4.4	4.6	4.6	5.5	
Weight (kg), approx		2.4	2.4	2	2	2	2	2	2	2.1	2.1	2.5	
Front Diameter (mm)		114	114	95	95	95	95	95	95	95	95	114	
Length (in / mm)		6.3" / 160 mm											
Image Circle Diagonal	46.5 mm												
Lens Mount	LPL Mount (44 mm flange focal depth) with /i Technology and LDS-2 lens data												
Barrel Rotation	Focus: 270° / Iris: 51.45°												
Focus and Iris Gears	Matched locations for all focal lengths / 0.8 M gears												
Front Filter / Rear	M 92 mm x 1 mm screw-in: 25 mm - 100 mm; M 112 x 1.5 mm screw-in: 125 mm / Rear Net holder												
Focus scales	Quick change from Imperial to Metric—just flip the focus ring												
Iris Blades / Shape	The number of blades varies to match the look through all focal lengths Circular through all stops												



Leitz Hugo



Leitz Hugo Lens	21	24	28	35	50	75	90	50-N
Focal Length	21mm	24mm	28mm	35mm	50mm	75mm	90mm	50mm
Aperture	T1.5	T1.0						
Close Focus (ft)	1'	1'	1'2"	1'2"	1'8"	2'6"	2'10"	1'8"
Close Focus (m)	0.3	0.3	0.35	0.36	0.5	0.75	0.85	0.5
Weight (lb)	1.85	1.9	1.83	1.78	1.9	3.02	3.04	2.45
Weight (kg)	0.84	0.86	0.83	0.81	0.86	1.37	1.38	1.11
Length (in / mm)	2.7"	2.7"	2.7"	2.7"	2.7"	4.4"	4.4"	3.2"
Length (mm)	68	68	68	68	68	112	112	82

Image Circle: 43.3 mm
 Lens Mount: LPL, Leica M, Leica L Mounts
 Front Diameter: 95 mm
 Front Filter: M 92 mm x 1 screw-in
 Gear Rings: Matched locations for all focal lengths
 Focus Rotation: 270°
 Iris Rotation: 70.5° (except 50-N rotates 81°)
 Focus Scales: Imperial or Metric, easily swapped
 Iris: 11 Blades, Circular Shape



Hugo 50mm T1.5 and 50-N T1.0

“Shoot wide open, no excuses”



Peter Karbe, Leica Camera AG Senior Managing Expert Optics and Platform/ taken with Leitz Hugo wide open at T1.5, no excuses.

Leica optical designer Peter Karbe presented a lecture on optics.

“The properties of the Leica M-Lenses are compactness, light intensity, imaging performance and robustness. Each of these aspects has specific design requirements. We also try to design for the best performance with the fewest number of optical elements. possible. We try to minimize aberrations and avoid ‘nervous backgrounds’ that accumulate as you add more elements. The backgrounds have pleasing bokeh.”

Peter Karbe trained as a photographer before studying physics and optics at university. When he started work at Leica Camera, he studied old designs. “The design process is evolutionary, not revolutionary,” he said. “Along the way, we implemented floating elements, aspheres and new ideas.

Peter’s comments at the Leitz barbecue, during several lectures and an interview on the Leica Camera Blog are summarized here:

“Sometimes [there are] contradicting design requirements. Lens speed and compactness, for example, are opposing. To design faster lenses, you need more lens elements, but more lens elements means larger optical systems. Such challenges force us to look for solutions that didn’t exist before.

“The performance must not only be there theoretically, but the M-Lens has to deliver it in practice. A lot of manual work is nec-

essary for that, and a lot of know-how considering lenses and lens production. This is how we ensure the high level of performance, the tolerances and, above all, the durability of the M-Lenses. It is a fact that you can still easily use lenses that were on the market 65 years ago. We also have special production processes for the glass as it requires special care to manufacture these lens elements. The glass elements that are processed are very sensitive and must be handled with particular care. And this degree of care is simply not possible under time pressure.

“My inspiration partly comes from the fact that I take a lot of photos myself. Not in order to exhibit my images, but to try out where the strengths and weaknesses of our optical systems are. A lot of inspiration also comes from the feedback of our customers. We are always looking for answers that enable us to meet their wishes and at the same time correspond to our values.”

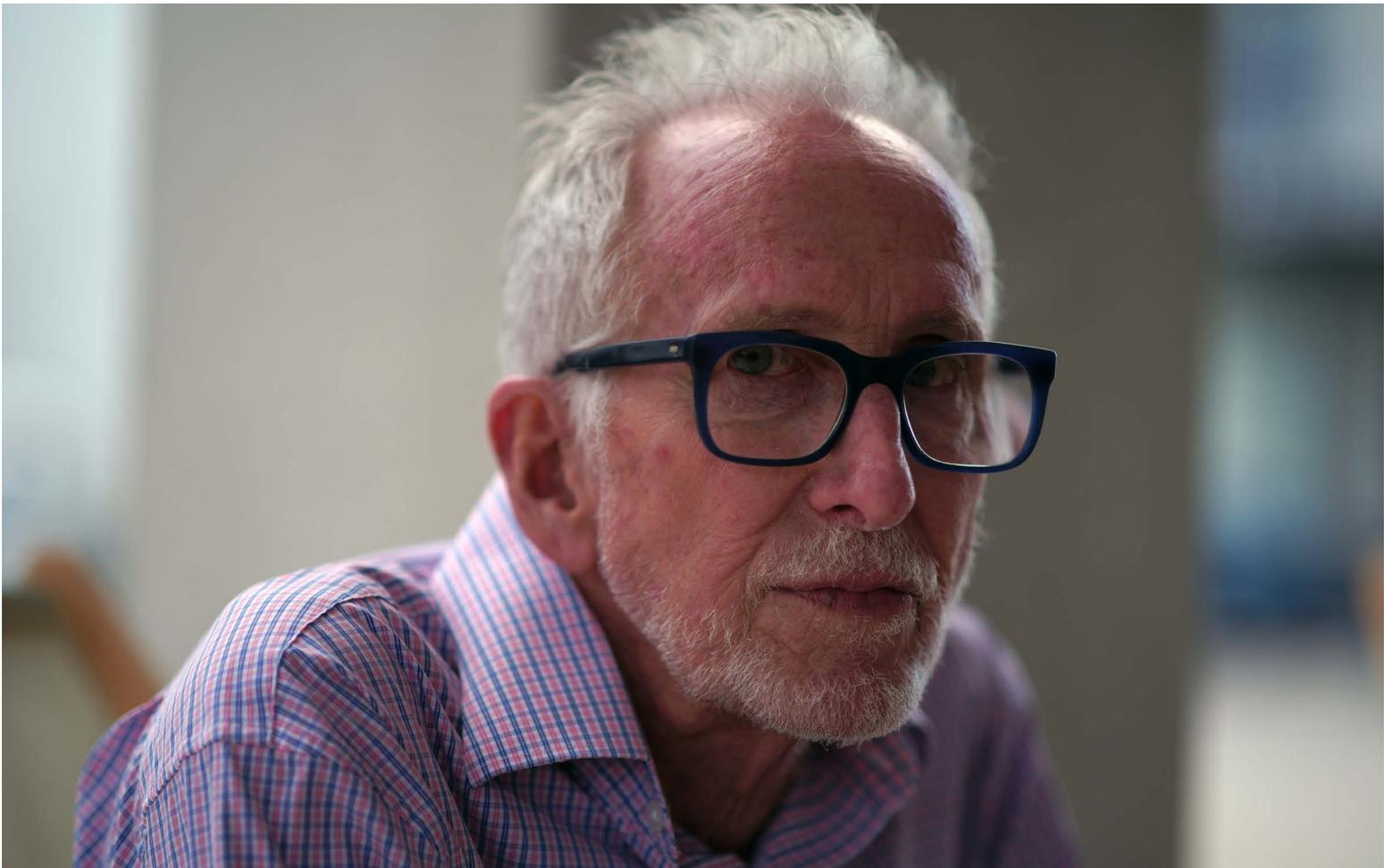
“Shoot wide open, no excuses,” Peter said. And so I did, all wide open “with a wrench” at T1.5 on the Leitz Hugo lenses.

To see how Hugo lenses look, here are some portraits, on the following pages, taken with 90mm and 75mm Hugo primes on a Leica SL2-S and SIGMA fp L with the Leitz L to LPL Mount Adapter. Hugo Primes have a familiar look—from 100 years of Leica photography and 70 years of M lenses. I hope my enthusiasm shines through.

HUGO 75mm and 90mm: Eyes Wide Open at T1.5



Laurie Rose, BSC (above). Tom Stern, ASC, AFC (below)





Salomé Rapinat, Cinematographer (above). Gavin Finney, BSC (below).





Rainer Hercher, Leitz Managing Director and Lena Krause, Cinematographer (above). Tommaso Vergallo, Key Account Manager, Leitz (below).





Laura Kaufmann, Leitz Marketing Manager (above). Balazs Bolygo, BSC (below).



As seen with Hugo at T1.5



Stephan Schultz, Head of Product Management, Leica Camera (above). Christine A. Maier, BVK, AAC (below).



As seen with Hugo at T1.5



Peter Karbe, Senior Managing Expert Optics and Platform, with Leitz Managing Director Raimund Bayer (above). Jean-Noël Ferragut, AFC (below).



As seen with Hugo at T1.5



Seth Emmons, Leitz Director of Communications (above). Florian Bode, Development, Leitz (below).



As seen with Hugo at T1.5



Po Liu, Leitz Regional Sales Manager Greater China (above). Robert Höft, Leitz Customer Care (below).



As seen with Hugo at T1.5



Lisa de Carvalho, Leitz Customer Care (above). Uli Schröder, Leitz Process Planning/Technology (below).





Kevan Parker, Leitz Regional Sales Manager EMEA, India (above). Ben Ross, Leitz Regional Sales Manager Americas (below).





LEICA WELT

ERNST LEITZ MUSEUM

MUSEUM SHOP

LEICA WETZLAR

ANDY SUMMERS





CINE





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FILM AND DIGITAL TIMES

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