

WOLFGANG F. KERSTEN

FROM DIGITAL CAMERA TO HYBRID PRINT

Translated by Michael Thomas Taylor

Sabina R. and Kenneth C. Korfmann-Bodenmann, in their long-term photo project *Through Different Lenses*, use digital cameras from Leica. This choice for their photographic inquiries and explorations represents a leap into the realm of digital technology, where hardly anything corresponds to reality as it is seen, even as artistic visions can be effortlessly realized on a display. The portfolios they ultimately create nevertheless contain twenty-four actual “prints”—photos which invite us, in the spirit of understanding art in the making, to reconstruct and analyze the artistic experience and photographic work the artists perform in the visible world to create these images. This is made possible by digital technology, as each image file contains essential production information that is accessible despite being invisible in the print itself. The information can be found in the captions of the 384 photographs—detailing the location, time, camera type, focal length, aperture, exposure time, and ISO setting¹—and in the commentaries. The brief text that follows here supplements these facts with basic information about the photographic equipment that was employed, the process of photographic creation, and the portfolios’ composition and characteristics. Detailed descriptions of technical equipment and materials used are omitted, as they can be readily found online.

PHOTOGRAPHIC EQUIPMENT

Kenneth C. Korfmann worked with two digital cameras: first, a medium format DSLR Leica S2 with the Leica Summarit-S 1:2.5/70 mm asph. high-performance standard lens; and then a Leica SL2, a (mirrorless) full-frame system camera with the Vario-Elmarit-SL 1:2.8–4/24–90 mm asph. lens (fig. 1).² In the 1980s he worked predominantly with a large-format camera, a Toyo 8 × 10 inch, a device ultimately derived from the Graflex made by the New York-based Folmer & Schwing Manufacturing Company from 1901 (fig. 2). As he explains in the

1] Sabina R. Korfmann-Bodenmann,
photographic equipment used by
Kenneth C. Korfmann, Herrliberg,
March 9, 2023, 11:04 a.m.,
Leica D-Lux 7, 31.5 mm, f/5.0,
1/125 s, 200 ISO.



2] Sabina R. Korfmann-Bodenmann,
large-format camera Toyo 8 x 10 inch,
used by Kenneth C. Korfmann,
Herrliberg, March 6, 2023, Samsung
smartphone (SM-G990B), 26 mm,
f/1.8, 1/1 s, 320 ISO.



3] Kenneth C. Korfmann,
photographic equipment used by
Sabina R. Korfmann-Bodenmann,
Herrliberg, March 9, 2023, 11:47 a.m.,
Leica SL 2, 63 mm, f/22, 1/20 s,
400 ISO.



images and texts in a book he published in 2016, at that time he saw himself, too, as being “derivative”—technically, thematically, and aesthetically—from the modern tradition of classical photography and its protagonists, among whom he explicitly names Ansel Adams, Eugène Atget, Paul Strand, and Edward Weston.³ Korfmann has maintained this fundamental attitude despite switching from analog to digital photography.

Sabina R. Korfmann-Bodenmann works in *Through Different Lenses* with a digital camera, the Leica D-Lux 7 (fig. 3). She received her first compact camera as a Christmas gift from her husband in 2014: a Leica D-Lux (type 109) with the corresponding Leica DC Vario-Summilux 1:1.7–2.8/10.9–34 mm asph. lens. She began the systematic practice of photography in India during a visit to a marble mine north of Udaipur. She is an autodidact who draws from her social background and educational history: shaped by her time at a Rudolf Steiner school and the “exemplary significance of artistic creativity” cultivated in her parents’ home in Basel,⁴ she possesses both broad and specific cultural knowledge, in addition to artistic talent.

Parallel to her work as an independent consultant with a doctorate in psychology, Korfmann-Bodenmann has published two books with her own photographs and texts, which appeared in 2016 and 2017.⁵

TECHNICAL CONSIDERATIONS AND MATERIALS

As soon as the two artists conclude one of their meticulously planned photo campaigns, they sit down for a collaborative review to make an initial selection of images for a portfolio, using rush prints for discussion. The entire production process for these portfolios, from the initial edit of the RAW digital photos through an Adobe Photoshop Lightroom Classic review process to the production of fine prints, is conducted in partnership with Alex Goldsmith at Tricolor Photoprint GmbH, based in Adliswil, Switzerland.⁶

For black-and-white printing, a double-sided, plastic-coated (polyethylene) photo paper from Ilford is used (RC paper). It contains image silver and is exposed with laser beams in such a way that one image pixel corresponds to one print pixel. This is achieved using a Lambda 131 Plus Large Format Digital Laser Imager from the Italian company Durst Phototechnik AG in Brixen (figs. 4, 5, 6). This machine, “introduced in 1994, uses a single blue, green and red laser exposure system to expose the image point by point directly into the molecular structure of the photographic paper.”⁷ It enables a skilled specialist, such as Alex Goldsmith, to achieve the highest artistic quality:

“Durst Lambda 130 Series combine the advantages of classical silver halide photography with the potential of the latest laser and digital technology, without an intermediate film stage—and without the compromises of CMYK output. This new technology offers superior color saturation and fidelity, better image quality, more details and sharper type than other alternatives (customer statement). It also provides a number of advantages over conventional enlargements, including improved image quality with no image distortion and no loss of image sharpness, perfect edge to edge sharpness and evenness, a reduction in time spent handling images, and a decrease in the cost of materials. The Durst Lambda 130 Series operate with a full 36-bit RGB color space (68 billion colors) to ensure excellent control over the light source and to produce faithful color reproductions.”⁸

The digitally exposed papers are developed in a wet-chemical process, which is why the overall photography production process is described as “hybrid.” For the black-and-white images, a machine from the LL series by Hostert Pro GmbH is used (figs. 7, 8). The color photographs are developed on Fuji Crystal Archive DPII paper using the Contimat SW 130–200 device from AutoPan (figs. 9, 10).

The fine prints have a lifespan of approximately sixty to eighty years under optimal conditions.

The introductory texts for the sixteen portfolio themes were collaboratively developed by Sabina R. and Kenneth C. Korfmann-Bodenmann. The texts for the individual photo series were written individually by the respective artist. These documents are printed using the Inkjet Fine Art process on museum-quality 310 g/m² Canson Infinity Rag Photographique paper, known for its high white shade,⁹ and are included with the respective portfolios of photographs.

4 Models to meet your Requirements

Lambda 130 Plus
The Lambda 130 is the top of the line version featuring a 5-position turret for the unexposed media (paper, backlit, clear film, flex media) or different media widths or surfaces from 50.8 cm (20 in.) up to 127 cm (50 in.). This allows very fast access to the required media without the need to physically load and unload it. You can handle mixed orders or calibrate a new emulsion without slowing down or interrupting production. The requested media is menu-selected from the computer (Auto-load-Function) and the turret will automatically move into the right position and start with the exposure with almost no media waste.

Lambda 131/Lambda 131 Plus
The Durst Lambda 131 Large Format Digital Laser Imager offers exactly the same features as the Lambda 130 with the only difference of a single position instead of the 5-position paper turret. It is fully upgradeable to a Durst Lambda 130 with 5-position paper turret. Lambda 131 Plus features a two times higher linear imaging speed at 200 ppi compare to Lambda 131 (60 cm/24 in. per min. instead of 30 cm/12 in. per min.).

Lambda PI 50
The budget-priced Durst Lambda PI 50 offers exactly the same features as the Lambda 130 with the only differences being a single position instead of the 5-position paper turret, a take-up tray instead of an automatic take-up unit and a lower power green laser; it also uses a slightly lower powered computer. The only limitations to the Lambda PI 50 are the maximum print length of 14 m (46 ft) and that it can print to RA 4 media only. It is fully upgradeable to a Durst Lambda 131 with a fully automatic paper take-up system and powerful green laser to expose any media or to a Lambda 130 with a 5-position paper turret.

Lambda RS
Version for Direct Digital Remote Sensing
All Durst Lambda versions can be factory-adjusted to meet the exacting standards of the Geomatics community.
The Durst Lambda RS Imaging Technology for Remote Sensing, Aerial Photography and Cartography offers the highest sizing and geometric precision of plus or minus 0.03 %, corresponding to plus or minus 0.4 mm (millimeter) over a writing area of 127 x 127 cm (50 x 50 in.).
The unique and patented Durst Lambda continuous roll to roll single beam, 3-laser (RGB) exposure system offers total size flexibility and achieves an image quality which is superior to all large format printers - photographic, inkjet and electrostatic. The Durst Lambda exposes digital information (raster pixel) directly to conventional photographic media at full continuous tone with a linear writing speed of up to 60 cm (24 in.) per minute with the choice of two resolutions of 200 and 400 ppi (equal to an apparent resolution of 4000 dpi). The Lambda produces images with the highest possible resolution (8 billion colors) and with a radiometric repeatability of 0.025 D per color.

Automatic paper take-up device.

Roll paper in the widths from 50.8 cm (20 in.) to 127 cm (50 in.). Print sizes exceeding the max. paper-width are automatically divided-up and exposed in strips.

5-position paper turret for unexposed materials to allow a quick access to various media.

Patented Durst Lambda continuous roll to roll single beam, 3-laser (RGB) exposure system.

Powerful Compaq (DEC-Alpha) workstation with Compaq Tru64 (Digital UNIX) operating system (64 bit) and integrated high performance PostScript-RIP by Durst Dice America (400 MB in approx. 1 minute with automatic CMYK to RGB conversion).



The Durst Lambda can print all files created with standard application programs, such as QuarkXPress, Adobe Pagemaker, Macromedia Freehand, Adobe Illustrator, Photoshop, etc. Already existing files for offset-printing (advertisement, etc.) can be printed to any size on the Durst Lambda without modification.



4] Information about the exposure machine Lambda, from a brochure published by Durst Phototechnik AG, Brixen, 1994–2001.

5] Kenneth C. Korfmann, exposure machine Durst, Lambda 131 Plus, Tricolor Photoprint GmbH, Adliswil, February 28, 2024, 12:40 p.m., Leica SL2, 24 mm, f/13, 1/25 s, 1600 ISO.

6] Sabina R. Korfmann-Bodenmann, exposure machine Durst, Lambda 131 Plus, Tricolor Photoprint GmbH, detail, February 27, 2024, 1:03 p.m., D-Lux 7, 20.8 mm, f/2.6, 1/100 s, ISO 1250.

7] Kenneth C. Korfmann, developing machine for black and white photography from the LL series of Hostert Pro GmbH, Tricolor Photoprint GmbH, Adliswil, February 28, 2024, 12:53 p.m., Leica SL2, 30 mm, f/14, 1/25 s, ISO 800.



8] Sabina R. Korfmann-Bodenmann, impression, Tricolor Photoprint GmbH, February 27, 2024, 1:19 p.m., D-Lux 7, 20.8 mm, f/2.6, 1/100 s, ISO 1250.



9] Kenneth C. Korfmann, developing machine Contimat SW 130-200 from Autopan for color photography, Tricolor Photoprint GmbH, Adliswil, February 28, 2024, 1:06 p.m., Leica SL2, 43 mm, f/14, 1/20 s, ISO 800.



10| Sabina R. Korfmann-Bodenmann,
impression, Tricolor Photoprint
GmbH, February 27, 2024, 1:29 p.m.,
D-Lux 7, 34 mm, f/3.2, 1/125 s,
ISO 200.

PORTFOLIOS

The Zurich company Format Guggenbühl has produced the sixteen black portfolio folders measuring 40.5 × 30.5 cm. Each portfolio is offered for sale in an exclusive edition of five copies. They are bound in a classically woven fine linen from the brand Toile du Marais in the color Noir d'encre produced by the Basel firm Winter & Company.¹⁰ Each portfolio contains twenty-four museum quality fine art prints. The size of the portrait formats varies slightly between 34.5 and 36.0 cm in height and 24.0 to 26.0 cm in width, while the landscape formats measure 24.0 × 36.0 cm.

The term “portfolio” was chosen by the photographers themselves. This word, originating from Latin, is used not only in the art world and in publishing but also in fields including law, business, and finance.¹¹ It probably gained traction in the history of photography during the crisis of photojournalism as described in detail by Joachim Sieber.¹² The Swiss magazine *Du* was the first to employ the German term “Photoportfolio” to describe a collection of photographs, in 1971. A hallmark of this format is its total omission of “text specific to each image”¹³—a characteristic that also applies to the images in the portfolios created by Kenneth C. and Sabina R. Korfmann-Bodenmann.

Each portfolio has thirty sheets which are organized as follows:

- Title page
(one sheet, not paginated)
- Description of the conceptual framework
(one sheet, paginated)
- “Photographers’ Foreword,” general introduction to the specific project
(one sheet, paginated)
- Foreword by Kenneth C. Korfmann for the specific project
(one sheet, paginated)
- Twelve photographs by Kenneth C. Korfmann
(twelve sheets, not paginated)
- Foreword by Sabina R. Korfmann-Bodenmann for the specific project
(one sheet, paginated)
- Twelve photographs by Sabina R. Korfmann-Bodenmann
(twelve sheets, not paginated)
- Biographies of Kenneth C. and Sabina R. Korfmann-Bodenmann
(one sheet, paginated)

NOTES

- 1 No digital information about location is available in the files, as the cameras' GPS function was not used; the time stamps all refer to Central European Summer Time, as the cameras were not adjusted for Winter Time. All digital information was ascertained by the author from the data in the photo files and was graciously verified by Alex Goldsmith, Tricolor Photoprint GmbH, Adliswil.
- 2 Technical details about the digital cameras and lenses can be found on the relevant Leica company web pages.
- 3 "There are four photographers whose thinking and work are especially recognizable in my large format body of work. They are: French documentary photographer Eugène Atget and American photographers Paul Strand, Edward Weston, and Anselm Adams." Kenneth C. Korfmann, *Derivatives* (New Delhi: Roli Books, 2016), 9; see also Korfmann, *Beliefs: Secular/Spiritual* (New Delhi: Roli Books, 2014), and Korfmann, *Derivatives II* (New Delhi: Roli Books, 2018).
- 4 See Dieter Koepplin, "Nachruf Hans U. Bodenmann," *Basler Zeitung*, February 5, 2016, 17. Dieter Koepplin (b. 1936) was curator of the Department of Prints and Drawings of the Basel Public Art Collection from 1966 to 1999.
- 5 Sabina R. Korfmann-Bodenmann, *Living Heritage: Centuries in Business* (New Delhi: Roli Books, 2016), and Korfmann-Bodenmann, *Brooklyn: Heritage Reclaimed* (New Delhi: Roli Books, 2017).
- 6 See <https://www.tricolor.ch>. Accessed February 12, 2024.
- 7 Swiss Camera Museum, *When the Digital Image Lives Side by Side with Conventional Photography*, <https://www.cameramuseum.ch/en/discover/permanent-exhibition/the-digital-revolution/the-digital-image/>. Accessed February 12, 2024.
- 8 See the brochure from the manufacturer Durst Phototechnik AG, *Lambda 131 HS. Large Format Digital Laser Imager* (August 2006), [3], <https://www.minilab.ca/dat/files/247.pdf>. Accessed February 9, 2024.
- 9 The product description on the company website reads: "Canson® Infinity Rag Photographique is a 100% cotton museum grade white Fine Art and photo paper. The exceptional smooth white tone is achieved during manufacturing by introducing natural minerals to the process. It has been developed to address the need for continued longevity requirements in the Digital Fine Art market. Rag Photographique offers a unique extra smooth surface with a sensual feel. It also provides one of the highest achievable Dmax currently available on the market, making it ideal for fine art photography as well as fine art printmaking." Canson Infinity, <https://www.canson-infinity.com/en/products/rag-photographique>. Accessed March 4, 2023.
- 10 See Winter & Company, *Toile*, <https://www.winter-company.com/de/produkte-a-z/toile/du-marais/?upc=TDM035009>. Accessed February 12, 2024.
- 11 Harry M. Markowitz established the so-called portfolio theory in 1952; see Markowitz, "Portfolio Selection," in *The Journal of Finance* 7, no. 1 (March 1952), 77–91, <https://doi.org/10.2307/2975974>. Accessed February 13, 2024.
- 12 See Joachim Sieber, *Vorgänge der Etablierung: Medien und Orte zeitgenössischer Fotografie in Zürich, 1970–1990* (PhD dissertation, University of Zurich, 2023), 48–49, <https://doi.org/10.5167/uzh-235697>. Accessed February 28, 2024.
- 13 See *ibid.*