



Sophie Wietlisbach (Hrsg.)

**Impact Type.**

**Manufacturing Type for Typewriters  
in Switzerland, 1941–1997**

Englische Ausgabe: ISBN 978-3-03863-088-3

**Caractères.**

**La fabrication des caractères pour  
machines à écrire en Suisse, 1941–1997**

Französische Ausgabe: ISBN 978-3-03863-089-0

Buchgestaltung: Sophie Wietlisbach

224 Seiten, 162 Abbildungen, 16 × 24 cm,

Klappenbroschur

Euro (D) 29–, Euro (A) 29.90, CHF 29.–

Mit Texten von Sophie Wietlisbach, einem Vorwort von  
Roland Früh und einem Nachwort von Davide Fornari

**Buchvernissage: 19.2.2025**

im Rahmen des Symposiums «Automatic Type 3» im  
ANRT (Atelier National de recherche typographique),  
Nancy (Frankreich)

→ [https://automatic-type-design.anrt-nancy.fr/colloques/  
automatic-type-design-3](https://automatic-type-design.anrt-nancy.fr/colloques/automatic-type-design-3)

Neuerscheinung Januar 2025

## Eine Schweizer Industrie- und Typografiegeschichte

- Geschichte und Rolle der Schweizer Schreibmaschinen-  
schriftenhersteller Caractères SA, Setag und Novatype

- Eine Schweizer Industrie- und Typografiegeschichte –  
reich bebildert mit zahlreichen bisher unveröffentlichten  
Dokumenten

- #5 der Reihe Visuelle Archive, in Kooperation mit ECAL

Zwischen den 1940er- und den 1990er-Jahren stellten drei Nord-  
westschweizer Unternehmen Schriften für Schreibmaschinen her:  
Caractères SA, Setag und Novatype. Über fünfzig Jahre lang  
beliefernten sie die grössten Büromaschinenhersteller in Europa  
und auf der ganzen Welt, wie IBM, Remington, Olivetti, Paillard-  
Hermès oder Triumph-Adler.

Die drei Unternehmen, die eine führende Position auf dem Welt-  
markt innehatten, waren massgeblich an der Gestaltung, Ent-  
wicklung und Herstellung von Schriftkomponenten und Schrift-  
bildern für Schreibmaschinen sowie alle Arten von Anschlag-  
druckern beteiligt. Diese optisch unverwechselbaren Schriften  
nehmen in der heutigen typografischen Szene eine bedeutende  
Rolle ein.

Die reich bebilderte Publikation mit den detaillierten Porträts  
von Caractères SA, Setag und Novatype erforscht die Geschichte  
hinter den Schriften und den historischen Kontext, in dem sie  
hergestellt wurden. Als die drei Schweizer Unternehmen in den  
1990er-Jahren geschlossen wurden, sind die meisten ihrer Archive  
vernichtet worden. Dieses Buch, das die in jahrelanger Recherche  
an zahlreichen Orten gesammelten Dokumente und Informa-  
tionen zusammenführt, enthält unveröffentlichtes Bildmaterial  
und beleuchtet einen wenig bekannten Teil der industriellen und  
typografischen Geschichte auf lokaler und internationaler Ebene.

«Visuelle Archive» (Visual Archives, Archives visuelles)  
– eine Reihe in Zusammenarbeit mit der ECAL / Ecole  
cantonale d'art de Lausanne (HES-SO)

#### Ebenfalls in dieser Reihe erschienen:

Sarah Klein (Hrsg.)

**Hermann Eidenbenz' Grafikunterricht.**

**Dokumente 1926–1955**

Deutsche Ausgabe: ISBN 978-3-03863-035-7 (2. Auflage)

Englische Ausgabe: ISBN 978-3-03863-036-4 (2. Auflage, vergriffen)

Giliane Cachin (Hrsg.)

**Bobst Graphic. 1972–1981**

Englische Ausgabe: ISBN 978-3-03863-040-1

Französische Ausgabe: ISBN 978-3-03863-041-8

Anniina Koivu (Hrsg.)

**Vico Magistretti. Stories of Objects**

Englische Ausgabe: ISBN 978-3-03863-049-4 (vergriffen)

Italienische Ausgabe: ISBN 978-3-03863-050-0 (vergriffen)

Simon Mager (Hrsg.)

**Worte formen Sprache. Über konkrete Poesie, Typografie und die  
Arbeit von Eugen Gomringer**

Deutsche Ausgabe: ISBN 978-3-03863-068-5

Englische Ausgabe: ISBN 978-3-03863-069-2 (2. Auflage)

## Über die Herausgeberin

**Sophie Wietlisbach** ist eine selbstständige Grafik- und  
Schriftdesignerin in Fribourg. Ihre Arbeitsschwerpunkte sind  
Editorial Design, Type Design und Illustration. Sie studierte  
Visuelle Kommunikation an der Hochschule der Künste Bern  
(HKB) und schloss 2020 mit einem Master in Type Design an  
der ECAL/University of Art and Design Lausanne (HES-SO)  
ab. Von 2020 bis 2022 arbeitete sie als Lehrassistentin für  
den Master in Type Design an der ECAL und ist derzeit an  
mehreren Designforschungsprojekten beteiligt.

## Inhaltsverzeichnis

Roland Früh / Preface

The Magician and the Surgeon – the Role of the Designer  
in the Age of Mechanical Reproduction

Deep in the Neuchâtel and Jura Mountains

Type Manufacture

Striking

Plastic Revolution

Drawing Preparation

Machines and Manufacture

Caractères SA, Setag and Novatype

Watchmaking Crises and Swiss Neutrality

Caractères SA, Le Locle and Neuchâtel

Setag, Bassecourt

Novatype, Delémont

Typewriter Typefaces

Keyboard Composition

Typestyles

Copiers Copied

In the Offices of the Forensic Police

Creation of a New Archive

Treeview of Archival Catalogue

Davide Fornari / Postface

Visual and Material Archives

References

Benjamin 1969 (1938)  
Walter Benjamin, *The Work of Art in the Age of Mechanical Reproduction*, in: *Illuminations. Essays and Reflections*, edited by Hannah Arendt, Schocken Books, New York 1969 (1938).

Früh & Kaufmann 2021  
Roland Früh and Ueli Kaufmann, 'Chronological Diagram', in: Sandra Büschler, Sarah Klein, Jonas Niedermann, Michael Benner (eds.), *Swiss Graphic: Design Histories – Visual Arguments*, Scheidegger & Spieser, Zurich 2021, pp. 63–65.

Frutiger 1980  
Adrian Frutiger, *Type: Sign Symbol*, ABC Verlag, Zürich 1980.

Kinross 2004 (1992)  
Robin Kinross, *Modern Typography*, Hyphen Press, London 2004 (1992).

Marshall 2003  
Alan Marshall, *Du plomb à la lumière: la Linotype-Platon et la naissance des industries graphiques modernes*, Editions de la Maison des sciences de l'Homme, Paris 2003.

Savoie 2014  
Alice Savoie, *International Cross-currents in Typefaces Design: France, Britain and the US in the phototypesetting era*, doctoral dissertation, University of Reading, 2014.

Scotford 1994  
Martha Scotford, 'Messy History vs. Neat History: Toward an Expanded View of Women in Graphic Design', in: *Visible Language*, vol. 28, no. 4, Autumn 1994, pp. 367–387.

van der Keur 2019  
Nicolien van der Keur, 'Carbon Copy: The Production of Typewriter Type Styles and Their Influence on Letterpress Typefaces', in: *Footnotes*, issue C, no. 3, 2019, pp. 116–127.

## Deep in the Neuchâtel and Jura Mountains

Typewriters and typefaces are now obsolete but remain embedded in the fabric of our global social and industrial history. Over the course of the 20th century, they became a vital adjunct to modern life, and every office, administration and household had to have its own for its documents, for both professional and private use. This technology, nowadays only found in museums or the homes of devotees, left a clear mark on graphic design and typography, and indeed, on wider society.

From the 1940s onwards, the bulk of the type used on typewriters around the world was manufactured in the Neuchâtel and Jura mountains in north-western Switzerland. Three companies were based in this area: Caractères SA, Setag and Novatype. Their customers included leading office machine manufacturers such as Remington, IBM, Triumph-Adler, Olivetti, Paillard-Hermes and Facit. For more than 50 years, between 1941 and 1997 to be precise, astronomical quantities of type left their factories to go throughout Europe and all around the world. Together, these factories probably shared more than two thirds of the world market for impact type.<sup>5</sup> They initially specialised in metal type slugs and then, as technology progressed, went on to produce millions of plastic balls and discs. They also manufactured type components of all kinds for other devices (e.g. calculators, card printers and high-speed printers) using impact printing mechanisms. *L'Impartial*, a Swiss daily newspaper, wrote in 1962: '(The manufacture of type is the result) of the technical developments of the time, in particular the boom in calculation and statistical tools. Our contemporary world is full of typewriters and calculators, robots churning out increasingly accurate forms, tables, sums, and even translations and statistics at an alarming rate. To meet this new demand, our need for type (letters and numbers) has increased exponentially!'<sup>6</sup>

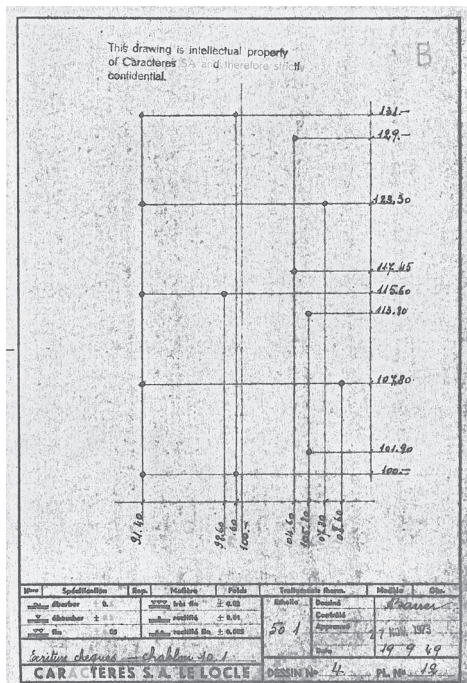
Specialised skills, tools and personnel were required to manufacture these small parts: type slugs for impact printing were not produced in the same way as printing type, where metal was cast in moulds. They would not have been sufficiently hard-wearing. Instead, they were cold formed. Furthermore, tooling had to be extremely precise, meeting

<sup>5</sup> In our account, we exclude producers of office machines that make their own type slugs (Bauer & Wolfenbüch 2022).

<sup>6</sup> *L'Impartial* 1962. Our translation.

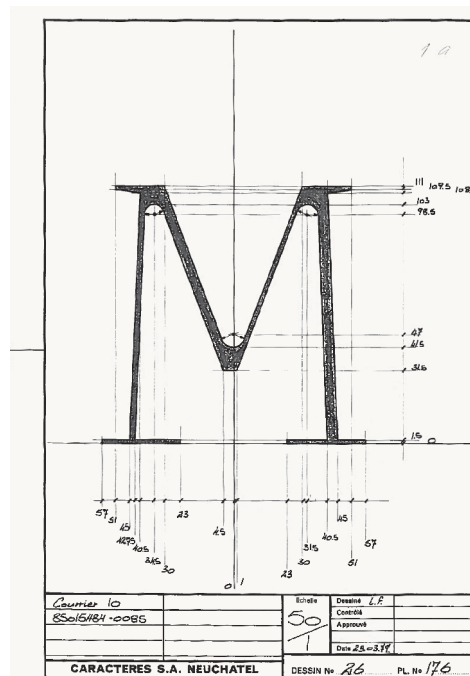






Dimensioned drawing at 50:1 scale for the letter 'B' in Chèques typestyle, 1949.  
Drawing by Alfred Bauer, Caractères SA

48



Dimensioned drawing at 50:1 scale showing the cutter path for the letter 'M' in Courier 10 typestyle, 1979.  
Drawing by L.F., Caractères SA

49



The Caractères SA factory at Rue du Parc, Le Locle, in an advertising brochure from Caractères SA for injection-moulding tools and parts, 1987.  
Unknown photographer

The Caractères SA factory at Rue du Plan, Neuchâtel, in an advertising brochure from Caractères SA for injection-moulding tools and parts, 1987.  
Unknown photographer

The Caractères SA factory at Rue de la Jaluse, Le Locle, in an advertising brochure from Caractères SA for injection-moulding tools and parts, 1987.  
Unknown photographer

64

## Caractères SA, Le Locle and Neuchâtel

Caractères SA, often referred to by the acronym CSA, was a family business founded in 1942 by industrialist Alfred Bauer (1907–1991). In just a few years, the company became one of the global leaders in this field and maintained its top spot for nearly 50 years. They supplied customers such as IBM, Triumph, Facit, Olympia, Olivetti and Remington.<sup>82</sup> According to an account by managing director Sergio Tatasciore in an article in 1986, some newspapers saw the company as the world's leading type manufacturer, estimating that it held 75% of the world type market.<sup>83</sup> In 1973, the company itself claimed to cover 65% of this market.<sup>84</sup> Caractères SA clearly occupied a dominant position in the industry.

Alfred Bauer was from a peasant family who owned a small farm and six cows in Les Bénéciardes, a few kilometres from La Chaux-de-Fonds. He wrote:

"We weren't ever hungry, but we had to make sure that everyone got their share."<sup>85</sup>

He was the only one of six children to continue his education after primary school. At the age of 14, he entered the La Chaux-de-Fonds Business School. After he graduated, his family could no longer afford to pay for him to go on to university. He worked first as a commercial employee, then in charge of accounting restructuring and eventually in sales. In 1932, he married Madeleine-Lina Guyot (1910–1998),<sup>86</sup> a woman from Le Locle, and they had three children, Eric, Lucienne and Jean. In 1933, he accepted the post of director at Huguenin Frères et Cie SA, a company based in Le Locle specialising in the minting of medals. He was offered the job

by a bank to see if he could turn around the business, as the watchmaking crisis was affecting the entire region. He wrote:

"[...] I had to cope with market difficulties, strikes, and ever-increasing competition."<sup>87</sup>

He managed to develop new products, such as stainless-steel watch cases and tableware and diversify the company's revenues and customers. Business quickly picked up.

During this time, Alfred Bauer developed a keen interest in type design and manufacture. He was aware of the country's advantageous geopolitical location and had an inkling of the industry's economic potential especially as Huguenin already possessed all the necessary machinery and technical know-how. In 1938, he began trials of type production at the factory in Le Locle, with a view to further diversification. After some time, he successfully produced his first type slugs, but unfortunately no office machine manufacturer showed any interest. They were all happy enough with their German suppliers. Alfred Bauer had to wait until 1941, before Precisa SA, a Swiss manufacturer of calculators, placed its first orders. However, shortly afterwards, Georges Huguenin-Sandoz, the president of the

<sup>82</sup> Questionnaire sent by the Zurich forensic police to Caractères SA and their responses, 23 August 1973, FORZ, 83 *L'Impartiale* 1986.

<sup>84</sup> Questionnaire sent by the Zurich forensic police to Caractères SA and their responses, 23 August 1973, FORZ, Bauer 1990b, p. 2. Our translation.

<sup>85</sup> *L'Impartiale* 1925.

<sup>87</sup> Bauer 1990c, p. 1. Our translation.

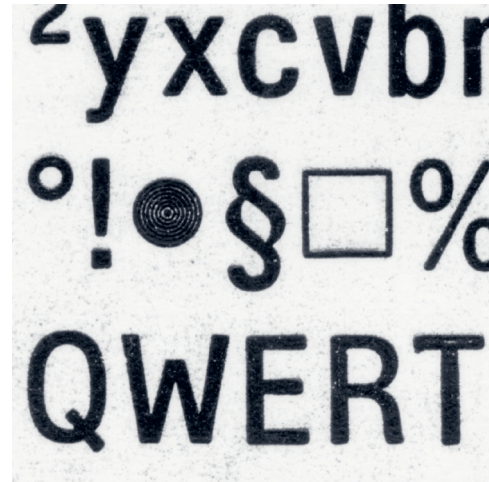
65



Detail of a sample of the IBM Mid Century proportional typeface manufactured by IBM from 1950 and by Caractères SA from 1968 for the IBM El Executive typewriter, in the original copy of the *Atlas der Schreibmaschinenschriften*, 1998.

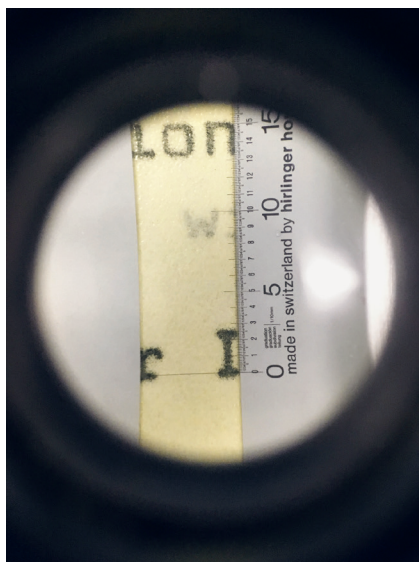
Detail of a sample of the Detail PS proportional typeface manufactured by Setag, taken from a Wang machine in 1986, in the original copy of the *Atlas der Schreibmaschinenschriften*, 1998.

86



Detail of a bullet on a sample of the Zurich PS 876 proportional typeface manufactured by RaRo from 1987, in the original copy of the *Atlas der Schreibmaschinenschriften*, 1998.

87



Measuring the height of a letter using a macroscopic magnifying glass at the Zurich Forensic Science Institute, 2019. The letter is measured from the middle of the stroke to the middle of the next stroke. Photo by Sophie Wietlisbach

108

## In the Offices of the Forensic Police

The forensic police took a close interest in typewriter typefaces. As typewriters were increasingly used in everyday life, the police needed to be able to recognise and identify typefaces in many of their investigations. The police services wanted to be able to identify and date all typed documents accurately for legal purposes. Over the course of the 20th and early 21st centuries, experts developed multiple systems for classifying and recognising typefaces, collected samples by the thousand, compiled a wealth of documentation and developed appropriate methodologies to differentiate accurately between different variants.

In most cases, a microscope was used to identify typefaces by comparison. Forensic experts first measured the height and width of the characters and then identified the style: Pica, Elite, Courier, Cubic or other. They then consulted their type samples and listed all the typefaces that matched the design and dimensions so that they could compare them under the microscope. One of the most important publications in the area of identification was, and still is, the one compiled by German police officers Josef and Bernhard Haas. It is commonly referred to as the 'Haas Atlas' and came in the shape of four ring folders in which over 300,000 samples of typefaces are systematically catalogued. It is arguably the world's leading reference work in this field and offers a virtually exhaustive compendium of all the typewriter typefaces available in Europe from 1920 until the end of the 20th century.<sup>169</sup> Other widely recognised classification systems are those provided by Ordway Hilton, David Crown, Gerry de la Durantaye and Interpol. A special microscope was used to superimpose two of the same letters and compare

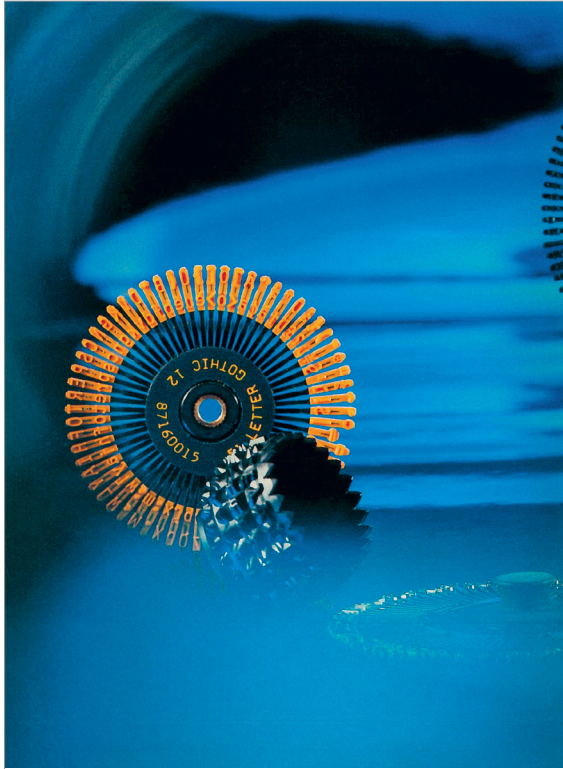
their shapes. When placed side by side, any differences are often imperceptible to the naked eye. They would only become apparent with the superimposition. If the character in the type sample matched the character on the typed document in every respect, forensic experts moved on to the next letter and so on until all the characters had been checked. Each glyph had to be checked carefully, as it was not uncommon for two typefaces to be absolutely identical, except for a single character.

To get their information first hand, the forensic police contacted the type manufacturers directly. The Zurich forensic police regularly asked manufacturers to send them their latest catalogues so that they could extend their range of type samples and keep their documentation up to date. They also visited the three Swiss companies on several occasions and corresponded with them about specific cases. In 1972, for example, the Zurich forensic police had difficulty in identifying the typeface used for a threatening letter typed on a Hermes machine. The typeface corresponded in every respect to *S<sub>0</sub>*, Setag's

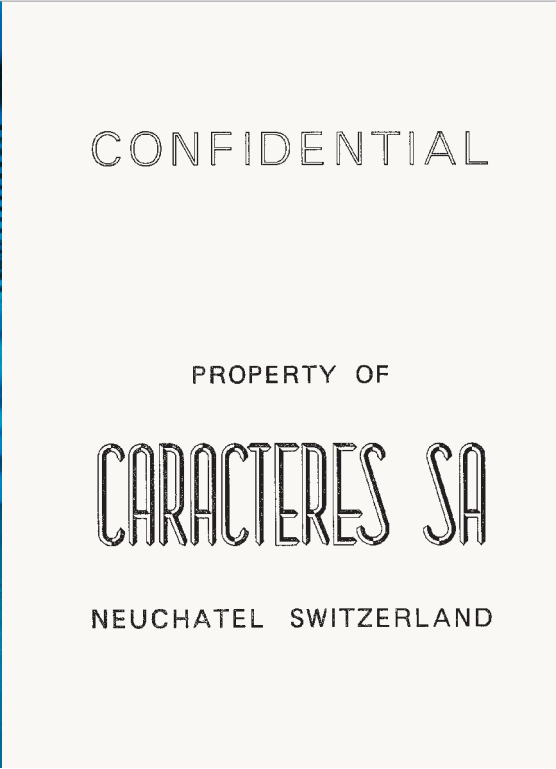
<sup>169</sup> The first folder, *Atlas der Schreibmaschinenschriften Pica*, written by Josef Haas and published in 1972, was entirely devoted to the Pica typestyle (Haas & Haas 1987 [1972]). The second part, *Atlas der Schreibmaschinenschriften*, extended to three folders. It was co-written by Josef and Bernhard Haas and published in 1986. (Haas & Haas 1986 [1985/1986]). The Pica Atlas was updated in 1987 and the non-Pica part was completed in 1988 by Bernhard Haas. In 1988, Philip D. Bouffard converted the atlas database to the TYPE software (Bouffard 1999b). In 1994, Bernhard and Josef Haas again published the *Schreibmaschinenschriften-Katalog*, also known as the 'Haas catalogue' in which they reorganised the contents of the atlases according to typewriter model rather than typeface (Haas & Haas 1994).

109





156 Caractères SA (1942-1994)  
Typelace catalogue, 1990.  
Back cover with a double-material plastic printwheel, a metal printwheel and a typball.  
Unknown photographer



157 Caractères SA (1942-1994)  
Digital Chinese characters ECR 217 folder, undated.  
Cover page stating the intellectual property rights of Caractères SA.



168 Caractères SA (1942-1994)  
Programme de fabrication folder, 1980.  
Folder introductory page.



169 Caractères SA (1942-1994)  
Programme de fabrication folder, 1980.  
Illustration of typewheels.  
Unknown author