

26

26

UNDERWARE

FOR GERARD UNGER

When Gerard Unger started his career as an independent type designer in the 1970s, he depended on the willingness of a large company to develop and publish his type designs, namely the German company Hell, inventor of the Digiset typesetting machine. At that time, the process of designing a new typeface for a specific purpose or application was costly and not very common. It wouldn't be until the introduction of the Macintosh computer in 1984 that the type design process and distribution of fonts would be radically transformed. Type designers no longer had to depend on large companies.

After Unger published five families for Hell, times started to change and a new era within type design had dawned. Suddenly, everything required to design, produce and distribute a type family was available to anyone because the personal computer became affordable. Never have more fonts been published than in the past three decades: any flavor, any style, almost any kind of font is now available for an extremely low price. Type foundries are popping up around the world. Limitations for type designers in creating what they love most were thought to be consigned to history.

However, now this era also seems to have come to an end, with the increasing influence of large software firms in the distribution and access to fonts, and the

field is about to go through another transformation. Gerard Unger was already a type designer when this new era in type design started, and spent most of his career in – what some people call – the golden age of type design. This made him a precursor of a new generation, and automatically an example for many. But it wasn't just the period he happened to be active in which determined his influence: he also developed a very personal idiom. A character designed by Unger can be recognized easily as coming from his hand. The strong, outspoken shapes – present in almost all of his fonts – became his trademark, and helped him embroider his own artistic path. At the same time, his typefaces were used on a grand scale, printed millions of times a day by newspapers over the world, building Unger's relevance for the following generations of type designers.

Throughout his whole career, Unger actively taught, lectured, and above all wrote about characters and type design. When writing on his beloved subject, in his many articles and books, he writes for a broad audience because he didn't consider characters to be an independent subject. Instead, type is a way for people to communicate and participate in society. Unger often placed type design within a wider narrative. His final book *Theory of type design* was presented on 6 September 2018 in Rotterdam, one week before the ATypI conference in Antwerp where he would also present his book, and two months before

he would pass away. His brief explanatory remarks on his book at the TypeAmsterdam symposium on 18 October 2018 turned out to be his last public appearance.

It's intriguing how Unger describes the basics of type design in his own way in the 25 chapters of the book. But there is also something flabbergasting. Why would a highly-praised, tried and tested Dutch type designer, who spent his entire life drawing the 26 letters of the Latin alphabet, only write 25 chapters? This cannot be a coincidence. Perhaps it is a kind of implicit and subtle request towards the reader. One might argue that many books on (Latin) type or typography have been published on the occasion of a 25th anniversary, instead of their 26th anniversary, but this is also strange. What's up with those typophiles who spend their entire life with 26 letters, and then stick to the number 25 when publishing about these letters? And no, it's not the first time a type designer in the Western world has written a book in 25 chapters. The English type designer, sculptor and printmaker Eric Gill spent a large part of his life drawing the 26 letters of the Latin alphabet. But the book he published in 1938 with nude studies is titled "25 nudes" and only includes 25 drawings of unclothed ladies. It's almost impossible to imagine that he ran out of naked women to model for him, so why 25 nudes instead of 26? The feeling of a missing chapter remains, because in the Latin type world the number 26 will always be a benchmark. With

Unger's book, it is the same. But even more so, it can be considered a progressive statement in his case, because the book is *about* those Latin letters; progressive not in a provocative way, but more in an empathic way: inviting the reader to start a dialogue, and to reflect on the ideas mentioned in the book.

When presenting the book at TypeAmsterdam, Unger drew attention to the title of the book. Instead of calling it 'A theory of type design' or 'The theory of type design', he chose very deliberately for the apparently simple and undefined title 'Theory of type design'. However, within this indefiniteness an invitation for the reader to reflect on the ideas is implied. One could even argue that by anonymizing the authorship of the content of the book (whose theory is it after all?), it is questioning the authorship of ideas or theories in general. Can someone really speak about his or her own ideas or theories? Or are we all part of something bigger, some kind of universe, the world, or god? To whom does our body and personality belong anyway? Does it belong to the same entity, which is also the author of our ideas and theories?

In the prologue of *Theory of type design*, Unger writes "theory should not be merely descriptive; it should certainly not be prescriptive, but investigative and reflective. Such a theory should also be critical, an enquiry into the concepts, notions and ideas we use in making sense of let-

terforms". Gerry Leonidas describes this book even more clearly in his foreword: "it offers a reference point for the design community to respond to, and, not least, for other authors to contribute further." So did Gerard Unger deliberately not include a 26th chapter? Is this book actually a request for other type designers to respond to? Can Unger's choice for writing 25 chapters be regarded as an open invitation for anybody to write their own version of the missing 26th chapter themselves? We hope to read many 26th chapters by other type designers in the future, which will keep Unger's spirit of writing on type design alive. Bring on the responses. Here is ours.¹

26

The first thing which comes to mind, when speculating about a supplemental 26th chapter, is its content. What should it be entitled, and what should it be about? The future? Emojis? Hinting? Variable fonts? The author's hand? Should it contain answers? Or only questions?

NEW ALPHABET

It's September 2011. On a sunny beach in The Hague in The Netherlands a few hundred people got together for a day full of calligraphy workshops, lectures on type and design, music concerts, typography seminars, mini pop-up talks and some swashbucklers even taking the opportunity to have a swim at this type & music crossover event. It's the first and only *Now we are talking Festival*, organized by Typeradio. The grand opening was a live interview with Wim Crouwel, conducted by Gerard Unger. Both had known each other for many years. When Crouwel published his ideas on programmed type design in 1967, his well-known New Alphabet, it was his then young employee at Total Design, Gerard Unger, who wrote a counterproposal as a reaction to Crouwel's idea.² This was the beginning of Gerard Unger as a type designer.

On the beach in The Hague, both men were summarizing their careers, discussing type, and looking back on their discussions that they had had in the past. This time

however, Unger was carrying a secret weapon: a broad nib pen, black ink, and a special request: could Crowwel do some calligraphy live on stage? There he sat, the internationally renowned designer, widely known for his progressive typographic views, at the age of 82, doing the first calligraphy of his life. Obviously calligraphy, just as its name implies, is the art of writing in a specific way, which we regard as beautiful. It is not so much about expression, but about capacities, gathered through practice. One cannot expect somebody to immediately pro-



▲ Unger happily observing Crowwel, who shows his first calligraphy piece to the audience; The Hague, 2 September 2010

duce a sophisticated creation when writing for the first time in his life. When Wim Crowwel produced his first calligraphy ever, the result wasn't mature calligraphy. But it was a distinctive handwriting: his own handwriting, using a new tool for the very first time.

Whenever we are writing something by hand, we can look at the result from two perspectives. We can just look at the text and read the words. Or we can look at the form of the writing as an illustration of the writer's brain. As something which is revealing someone's inner personality. Give somebody a pen, and ask them to write, and you will see what this person is really about. Wim Crowwel's calligraphy is an especially sharp imprint of his personality, because as an un-trained calligrapher, there was little trained capacity he could hide behind. It is not very surprising that his calligraphic letterforms resemble the letterforms of the New Alphabet, with strong horizontal and vertical emphasis. Both are characteristic expressions of the same brain, the same personality, and the same human being. Whereas with the New Alphabet, Crowwel tried to find a new way of designing letterforms that could be easily read by computers, the author's hand still remains visible in the shapes of the letters. 44 years after designing the geometric New Alphabet, the letterforms in his first calligraphy ever were not very different than those strongly geometric shapes. How is that possible?

SUPERFONT

The year 2016 marked a turning point in the history of writing and of our understanding of letterforms, including how they are designed, produced, distributed and used. The introduction of the OpenType Variable Font format confronted type designers with a new concept of letterforms, pointing to new possibilities which weren't previously possible. Instead of wrapping old ideas into new technologies, new technologies require new ideas. But to come up with new ideas, we first need to understand the new technology. A trick to achieve this, and one which is often used in physics, is to look at the edges of a phenomenon. While trying to apply this approach for Variable Fonts, we ended up with the most variable font possible: the SuperFont™ (which was firstly publicly shown at the conference TypoLabs 2017 in Berlin). Because it is the most variable font possible, it contains all other variable fonts which can be built with this technology. It also contains every static font, because any static font can be converted into a variable font. This actually means that the SuperFont™ contains any font which can be designed with the current technology, including not only all the fonts which have been designed already, but also all the fonts that will be designed in the future. In short, every font that is possible is included. Although this is already hard to imagine, it becomes even harder once we recognize that we are not yet aware what those possibilities might be.

We could also consider the SuperFont™ as a typographic analogy to *The Library of Babel* by Jorge Luis Borges. In this short story, Borges describes a library in which every book consists of 410 pages, every page has 40 lines, and each line has 80 letters. The books in this imaginary library contain any possible letter combination. For example, the first book reads “aaaaaa...”, the second book “baaaaa...”, the third “caaaaa...”. Continue this method until you've created every possible combination of letters, and the result is a massive amount of books of which the vast majority is useless. However, and this is the interesting part, any literary masterpiece which has even been written in the past, is also automatically included. Further, any future literary masterpiece is also already present in this library. Just realize that any future masterpiece is already written, it just needs to be discovered within the Library of Babel. The job of an author within such a gigantic library is no longer to write a book, but to discover that book within the massive collection.

In the same way the SuperFont™ contains all fonts which will be made in the coming years, although the vast majority of fonts within the SuperFont™ universe are useless (at least from our current understanding of letterforms). Nevertheless, the SuperFont™ puts us in the apparently ridiculous situation that any font which can be made by any type designer, in the whole world, in any script, has already been made, even if those scripts do not yet exist.

Unger probably deeply regretted not being able to be a part of the OpenType Variable Fonts era. He described variable fonts as “a big challenge, which changes the game quite a lot”. Unfortunately, he didn’t have the time to wrap himself around that new technology. In *Theory of type design*, he gives the following definition of variable fonts:

OpenType Variable Fonts – (2016) a substantial extension of OpenType, which makes it possible to contain almost unlimited variations of a type family within a single, compactly packaged font file. A variable font is a single font file that behaves like multiple fonts.

Conspicuous in this description is the term ‘almost unlimited’. What did Unger mean with *almost* unlimited? Certainly, he must have known that something is either limited, or it’s not. So what is he trying to say with ‘almost unlimited’? He certainly had a plan. Might it have to do with the missing chapter? Or is there a link with the title, also a subtle game with words? Is this a reflection on the limitations of human understanding? We all know that humans can’t really understand the meaning of infinity due to our mortality. However, we can understand something which is very, very big. And probably the biggest we can really imagine is something which is ‘almost unlimited’?

GERARD GALAXY

In 2017, Gerard Unger had the honor of receiving the TDC Medal, first awarded to Hermann Zapf in 1967, to honor his contributions to typography. When the Type Directors Club in New York presented their prestigious medal to Unger, we contributed a short movie titled: ‘Up to now, type designers were remembered by the fonts they designed. In the future, they may above all be memorized by the ones which will arise later. Welcome to the Gerard Galaxy.’ The Gerard Galaxy is a small part of the universe within the SuperFont™, the part in which Gerard Unger’s fonts live, relatively close to each other.³ If you navigate through the Gerard Galaxy, you not only come across Unger’s existing typefaces, but also encounter typefaces which have not yet been made by Unger but could have been made by him. Because the SuperFont™ contains any possible font, it also includes all fonts by Gerard Unger. Including the ones he designed himself, but also all those which he did not find the time for. Everything is there, in the Gerard Galaxy. But how do we get there? Didn’t Einstein once say that logic brings you from A to B, and imagination brings you everywhere? Imagine the following: let’s map those hundreds of dimensions of which the SuperFont™ consists, onto a two dimensional plane. Then let’s take the four corners of this plane to define the mapping of all dimensions. Just imagine. Let’s take Alverata, Vesta, Hollander & Coranto and put them into the four corners and explore the plane. Look here, a

a a a a a a a a a a

Coal Swv Hollal Vesh Swv Alverat Alveho Swalv Hollco Swve

a a a a a a a a a a

Vesc Swco Coras Hollands Alvers Coral Covho Vesw Alvesw Alverco

a a a a a a a a a a

Hollands Veco Alvers Swhc Cora Veshc Alves Hollan Ves Holls

a a a a a a a a a a

Swh Alvho Hollco Swif Swv Swh Alvho Hollco Swif Swv

a a a a a a a a a a

Alvesh Coral Hollanc Alvhol Vesw Alverat Alveho Swalv Hollco Swve

a a a a a a a a a a

Ves Coran Swho Swia Coal Vhoa Vesw Alverac Swial Hollana

a a a a a a a a a a

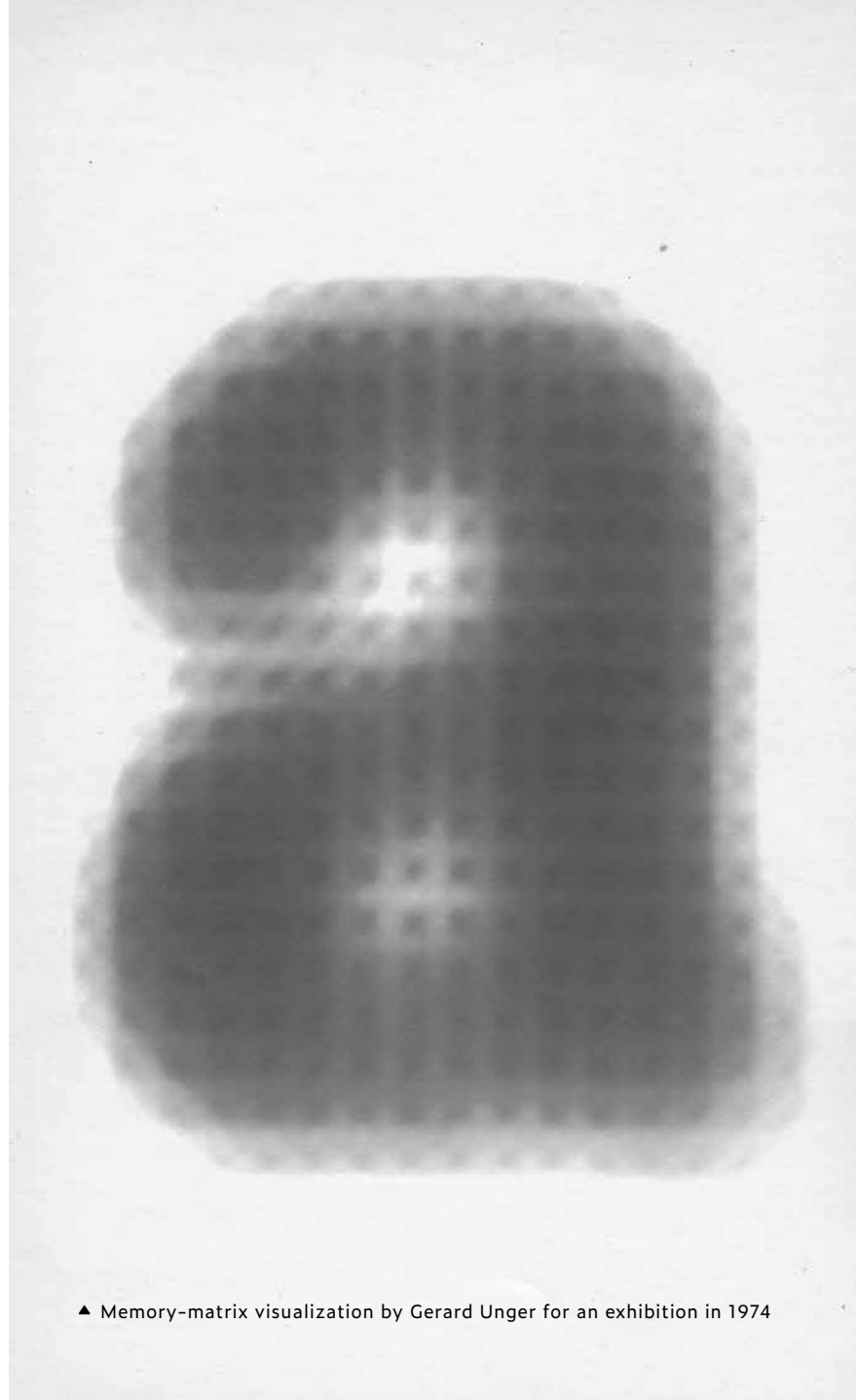
letter. Our navigation tells us that the current location is subject to the gravity of the four corners. Precisely: 5% Alverata, 3% Vesta, 35% Hollander and 57% Coranto. Look at the letterforms.

What do you see?

This font was not a font which Gerard Unger designed himself, but it's definitely something which he could have designed. And maybe in the future, more, yet unknown fonts from the Gerard Galaxy will arise, and will be released as a new typeface design by Gerard Unger.

THE LETTERBOX

Among the subjects discussed in *Theory of type design*, the *letterbox* is captivating. "Inside everyone's head, behind the left ear is located 'the brain's letterbox', one of the many parts of the brain that enables us to read. The letterbox extracts 'invariant representations' of letters and ignores all kinds of specifics such as type size, weight, and thick and thin parts, roman or italic, probably also capitals and lowercase and all details. 'The ... area seems to be a mosaic of ... element detectors'. It seems that the recognition of letters and other typographic signs is based on abstractions of letterforms and not on complete and very detailed signs. The multiplicity of letterforms many readers encounter daily is reduced to essentials detected and recognized by the brain's letterbox."



▲ Memory-matrix visualization by Gerard Unger for an exhibition in 1974

The letterbox is an interesting thought: a collection of abstract letterforms that enables us to read. It's a small nerve center that supports letter recognition located on the left side of the brain, behind our ear. It's not the first time that Unger posed the idea of a letterbox inside everybody's brain. Already in 1975, he wrote, "fonts can vary strongly because in our memory we have stored a *body of alphabets*". He was wondering which characteristics have been stored in our brain like a 'memory-matrix' to which we refer while reading. Combining these ideas with those of Marshall McLuhan, we could say that we only look at letters through a lens, which has been refined by all the other letters which we saw before. Having the letterbox is implicit to being human, what's inside however can be influenced.

THE PENBOX

So if the *letterbox*, which is behind our left ear, allows us to read, what's behind the right ear? A *penbox*, which allows us to write?⁴ A collection of shapes unique to every person, which is responsible for the way we make letterforms? A box that is natural to every human, just like a tail is to a cat? There must be a reason why everybody's handwriting is different. Could this reason be located behind the right ear?

Why do all type designers draw very different letterforms? Where do all those shapes originate? Many type

designers have asked themselves this question. Adrian Frutiger superimposed eight of his type designs in 1980 in a well-known attempt to visualize his *general idea of a letterform*. Frutiger hoped to arrive at a shape that all his typefaces have in common, to reveal the effect that a single mind and the hands of that individual would have on a letterform. Frutiger's superimposition experiment shows the penbox of Adrian Frutiger, which is different to other people's penboxes.

Once we are aware of our own penbox, it could become a tool to improve our design skills, and also to find a much more personal, unique style as a creative person. Once we are aware of the penbox as a new tool, more opportunities become available. For example, if we look again at the SuperFont™. Remembering that this is a font which contains all other fonts, all fonts ever made, as well as the ones which still have to be designed, it not only includes all outlines of all fonts by any individual type designer, but also contains that type designer's penbox. By including the penbox as additional input, it becomes easier to automatically generate a new font by a specific type designer without requiring the presence of that person.

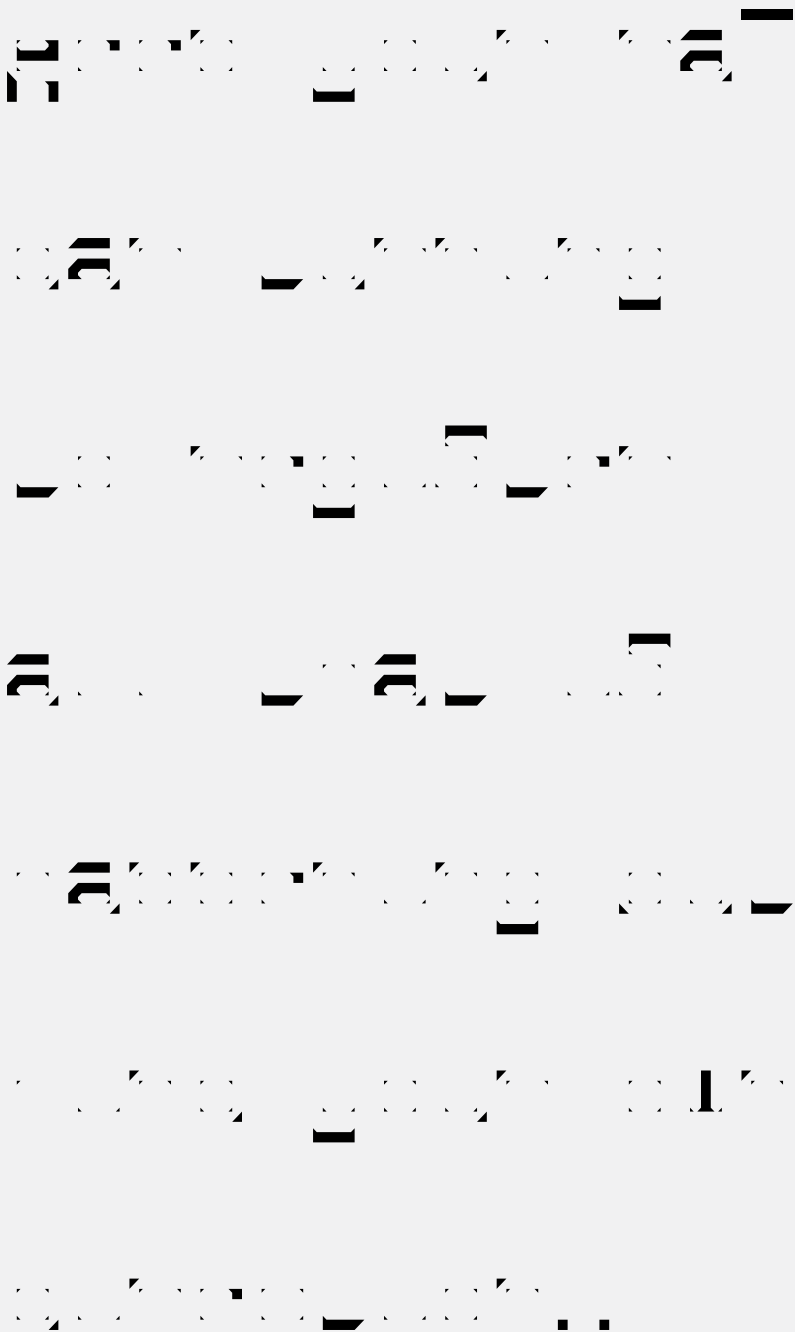
If the brain's letterbox helps us to recognize letters, the brain's penbox could be one of many parts of the brain that enables us to write and draw letters. The penbox unconsciously defines the style, the limitations as well

as the unique capacity of a type designer to draw letters. Once we are aware of our penbox, can we then also actively include new pens into our penbox? In the same way as we have to develop all our skills by practicing, for example becoming a better calligrapher by writing a lot, we need to practice our skills to recognize our own penboxes. Maybe this is the best way for a designer to develop their own idiom, to find their own artistic direction. Maybe the reason Crouwel's first calligraphy resembles the letterforms of the New Alphabet he designed 44 years earlier is that his penbox is so specific. Maybe Crouwel was actually already aware of the existence of his own penbox. Maybe this also explains the text which Crouwel wrote upon his first calligraphic attempt: "*Keep your radar turning to register all that is happening but find your own direction.*"

Within the 25 chapters of *Theory of type design*, Gerard Unger shares a lot of great ideas and insights registered on his own turning radar over the years. This approach explains the title of the book: it's an overview of selected registrations. A careless reader might assume that everything that needed to be said is said within the book. But, confronted with our speculations about the 26th chapter during the official presentation of *Theory of type design*, Unger surprisingly confessed the existence of an additional chapter. He even attempted to interrupt the laudation to prove it with some prints out of his suitcase

which he was carrying that night. Considering that the book was printed, bound and presented for sale during that evening, it made the missing chapter more than just speculative. At least there was 'something' in Unger's suitcase, which was for some reason not included in the book. But why did he admit it? Was this an emotional moment? Do we actually always fully understand why we are doing what we are doing? What about the 'unknown knowns'?

Perhaps there is a kind of 'unknown known' connection between the missing chapter and Unger's encounter with Wim Crouwel on that sunny day in September 2011. Did Unger perhaps unconsciously create another counterproposal to Crouwel's calligraphic statement? It is striking to see that Unger only needed 4 pages for his first counterproposal in 1969. Did he even go one step further this time? Could it be possible that there was really a 26th chapter of *Theory of type design* in his suitcase? Perhaps he got inspired by the spontaneous idea to not include his own version of the last chapter, but to create space for the reader to write their own final chapter, so that they can find their own direction? Perhaps this was his very personal grand finale: a decision made in silence after long consideration of his book, that, in order to tell the story right, some things need to be left unwritten.



NOTES

- 1 According to Donald Knuth, this publication was made by *Ungerware*, the name he proposed if Underware and Unger were to fuse.
- 2 The New Alphabet was hard to read for humans when it was first presented. As Unger writes: “A type design will certainly be seen as unconventional when the letterforms are difficult to recognize, as in the New Alphabet (1967) by Wim Crouwel (1928–2019). Between this design and the letters made by Garamond is a sliding scale without a clear point where conventionality ends and unconventionality begins.” More than 50 years later, perception of its conventionality might have changed, but in 2008 Ryan Gander & Rasmus Spanggaard Troelsen created the New New Alphabet, an alphabet designed to overprint Crouwel’s New Alphabet for better legibility.
- 3 Gerard Unger wasn’t very amused by the idea that all his future typeface designs already exist within the SuperFont™, and took this as a challenge to design something which is “definitely not in there”. Theoretically, this is impossible of course, but maybe this was another reason why Unger describes OpenType Variable Fonts as “almost unlimited”? He was convinced he would succeed in drawing a typeface outside the universe of the SuperFont™: “I don’t know yet how, but I’m convinced I’ll manage.”
- 4 Unger would disagree. According to him, the neuronal connections, which enable designers to draw their own letters, are spread across the brain. “Some designers lack these, and therefore only copy what others did.” But giving these neuronal connections a specific location and name makes it much easier to imagine their existence and how they could become elements in the design process.

26

was written and published by Underware on the occasion of the one-day symposium TypeAmsterdam on 3 October 2019, organised by Mathieu Lommen at the Allard Pierson Institute of the University of Amsterdam.

This publication is an elaboration of the talk Underware held during the book presentation of Gerard Unger's *Theory of type design* on 6 September 2018 at *Het Nieuwe Instituut* in Rotterdam. *Theory of type design* is the last book by Gerard Unger (22 January 1942 – 23 November 2018).

The text in this publication is set in the typefaces Dolly & Zeitung.

Editors: Baruch Gottlieb & Marie Gallagher

A limited edition of 26 copies is hand-bound by Tessa Bekker, each of them features a different speculative, unpublished typeface by Gerard Unger on its cover.

We would like to thank Mathieu Lommen for making this publication possible.

This PDF is downloaded from www.underware.nl

Underware
Groenewegje 137
2515 LR Den Haag
The Netherlands
www.underware.nl

Under
ware