





**Peter
Matthias
Noordzij
PMN Caecilia**

Alessandra Marchiori

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Library of Congress Catalog Number: x000111000
ISBN: 1-000000-xx-0

Cover Image
Detail, list content

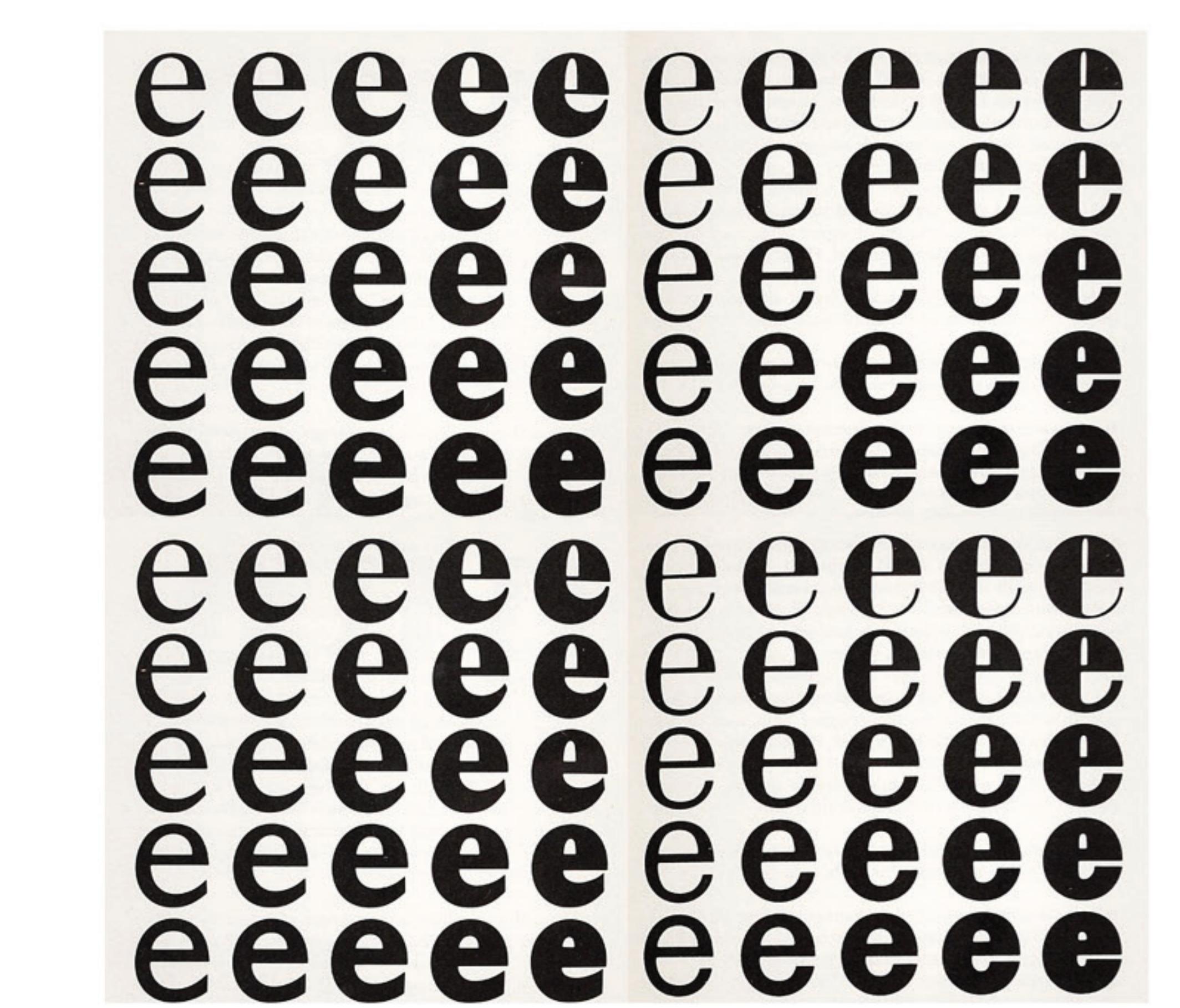
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Published in 2018 by Art 430: Typography III
The Art 430: Typography III class produces books related to
the history of type design.
Printed in the United States of America
Distributed by SM Publishers, Baltimore, MD.

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Aa Bb Cc Dd Ee
Ff Gg Hh Ii Jj Kk
Ll Mm Nn Oo Pp
Qq Rr Ss Tt Uu
Vv Ww Xx Yy Zz

Introduction



Dutch Designer Peter Matthias Noordzij was born in 1961 in The Hague, The Netherlands (**Fig 1**). Gerrit Noordzij, his father, typographer, type designer, and author had a major influence on Noordzij becoming a typographer himself (**Fig 2**). Adrian Frutiger's Univers and the work of Edward Johnson also gave Noordzij inspiration for his new typeface. After Noordzij and Frutiger's first interaction in 1984, Linotype released Noordzij's first typeface PMN Caecilia in 1991.¹ Noordzij's motivation to design type was based



Fig 1 Noordzij Drafts

Fig 2 Peter Matthias Noordzij

on the various functions the font could adapt to. Unlike black letter typefaces with many aesthetically pleasing parts of its anatomy, Noordzij designed a clean, simple, geometric type face used in both small and large print. In 2017, with the age of technology rapidly changing, Noordzij was once again motivated to design a sans version of PMN Caecilia for various digital uses.²

¹ Middendorp, Jan. *Dutch Type*. Rotterdam: 010 Publishers, 2004. 204

² "Font Designer – Peter Matthias Noordzij." Linotype. <https://www.linotype.com/741-35944/interview.html>.

What is the Anatomy?

It was seen that slab-serif letter forms as an idea was very flexible in adapting to the changing communication and technological needs and aesthetics of different periods.

— Keith Tam, Digital Image: Type Design

When gazing upon a typeface, the eyes immediately notice whether or not the font has serifs, whether the font is straight and simple or has serifs that are aesthetically pleasing. How did people come up with names such as grotesque, humanist, or geometric? Taking a look back at the history of slab-serifs, how they began and how they were revived, will give insight to how Peter Matthias Noordzij came to the conclusion that combining type styles will become functional.

Surprisingly, slab-serifs are relatively new and only began to appear in the nineteenth century. The need and demand for display typefaces began to emerge during the industrial revolution for posters.³ These new fonts had to become bigger and bolder. Grotesque, antiques, and Egyptian typefaces began to appear. The origin of slab-serifs is unknown, although, the first typeface to be named an antique was printed by Vincent Figgins in 1817 (Fig 3).⁴ There was much controversy on

slab-serifs that by the mid nineteenth century they slowly died into disuse while the sans serif took its place. At last, by the beginning of the twentieth century the slab-serifs were revived with the help of Eric Gill's Solus in 1929. Solus and Joanna were the start of the revival although they were both more useful as book typography rather than advertising.⁵ The progression of time followed with the progression of slab-serifs from geometric to humanist. Slab-serifs repeatedly adapted to the changing of time and need.⁶

Fig 3

Antique

A B C D E F G H I J
K L M N O P Q R S
T U V W X Y Z À
Å & 1 2 3 4 5 6 7
8 9 0 (\$ £ € . , ! ?)

³ Keith Tam. "The 'Revival' of Slab-Serif Typefaces in the Twentieth Century." TypeCulture. January 2003.

⁴ Tam. "The 'Revival' of Slab-Serif Typefaces in the Twentieth Century." 15

⁵ Tam. "The 'Revival' of Slab-Serif Typefaces in the Twentieth Century." 15

⁶ Tam. "The 'Revival' of Slab-Serif Typefaces in the Twentieth Century." 15



A J Q H

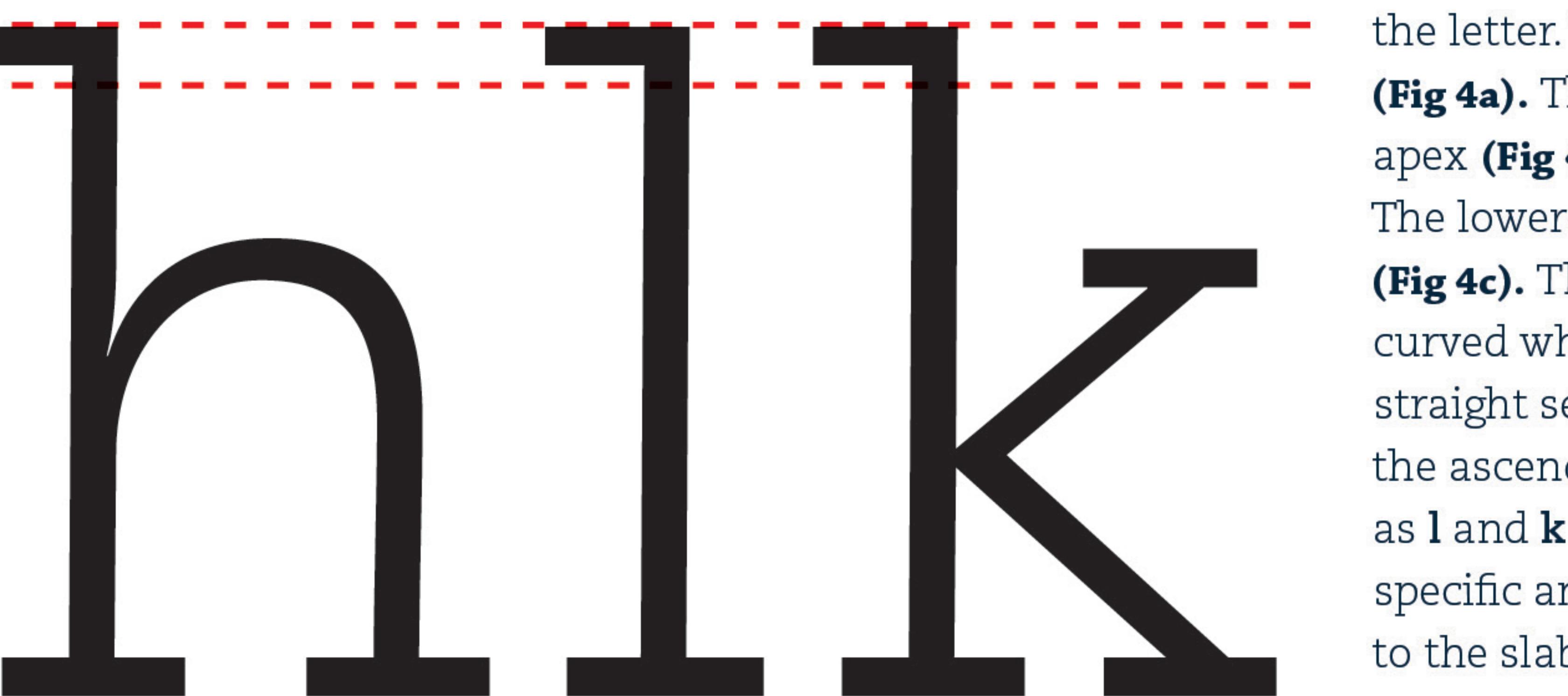
Fig 4a Features of PMN Caecilia



W V

Fig 4b Serifs on W and V

Fig 4c Round Tittle **Fig 4d** Cap Line



i j g h l k

What is the Anatomy?

According to Maximillien Vox's ATypI system, PMN Caecilia has characteristics of an Egyptians Slab Serif and Humanist typeface. As a result, PMN Caecilia is classified as a Neo-geometric slab serif.⁷ This combination of unique styles was intended to create the look and feel of the use of a broad nib pen.

The classical Humanist typeface imitates the old style of handwriting during the renaissance era. Humanist characteristics include the slanted stroke on the lowercase e, slanted serifs on the ascenders, and a low contrast strokes. Modern Geometric typefaces have properties of simple geometric shapes such as circles and rectangles and then used repeatedly throughout the letters.⁸

The outcome of PMN Caecilia's blend of styles consist of large x-heights, the width of the strokes were low-contrasting, and large open counters. The A has a flat apex with no serif and high bar consisted with the large x-height. The J follows through below the baseline. The Q has an especially long tail that descends below the letter. The H has long, tall, lean stems (**Fig 4a**). The W and V have serifs at the apex (**Fig 4b**). The serifs are unbracketed. The lowercase i and j has round dots (**Fig 4c**). The v vertex has a flat vertex while curved when italicized. The g has a short straight serif ear. Lowercase h extends over the ascender line to the cap line as well as l and k (**Fig 4d**). PMN Caecilia contains specific and unique traits relating back to the slab-serif and classical old-style.

Many of PMN Caecilia's elements are similar to the font Chaparral designed by Carol Twombly in 2000 (**Fig 5**). Chaparral is also a very functional font. It is legible in both small text setting and large display sizes. Similar to PMN Caecilia, Chaparral is an amalgamation of type styles. The result is a hybrid between slab serif and roman lettering. There are four optical masters in the family and unlike PMN Caecilia, Chaparral has more energy with the clear calligraphy style inspired anatomy.⁹

Although both PMN Caecilia and Chaparral were both created for the purpose of functionality, they have subtle differences in their look and anatomy. The J of PMN Caecilia drops below the baseline whereas the uppercase J in Chaparral sits with the I and K on the baseline. A major overall difference in Chaparral anatomy is that there are many more serifs within the alphabet. Both the uppercase F and E have a serif at the end of their center bars. Furthermore, the lowercase q has a small but visible spur at the top whereas the PMN Caecilia q has no spur or serif.¹⁰

PMN Caecilia is relatively simple and geometric compared to Chaparral. The two typefaces both are classified as slab-serifs but the typographers executed each font differently. Peter Matthias Noordzij went the route of a more mathematical with rectangles and circles to produce his font. Carol Twombly took the direction of calligraphy adding many more serifs to her font. Both typographers incorporated humanist characteristics but each went down a different track to create a functional typeface.



E F I J K Q f y
E G K R a f t r h k y

PMN Caecilia Roman and Italic



E F I J K Q f y
E G K R a f t r h k y

Chaparral Pro Regular and Italic

Fig 5 Comparison of PMN Caecilia and Chaparral Pro

⁷ "Vox-ATypI Classification." Wikipedia. https://en.wikipedia.org/wiki/Vox-ATypI_classification. (October 28, 2018)

⁸ "Font Designer – Peter Matthias Noordzij." Linotype. <https://www.linotype.com/741-35944/interview.html>.

⁹ Cees W. De Jong, Alston W. Purvis, and Friedrich Friedl. *Creative Type: A Sourcebook of Classic and Contemporary Letterforms*. (Laren: VK Projects, 2005)

¹⁰ Friedrich Friedl, Nicolaus Ott, and Bernard Stein. *Typography: An Encyclopedic Survey of Type Design and Techniques throughout History*. (New York: Black Dog & Leventhal: Distributed by Workman Pub. Co., c1998)

EGQRafgjy

Memphis Light

EGQRafgjy

Schadow Light (Schadow Werk)

EGQRafgjy

Schadow Roman

EGQRafgjy

Schadow Bold

Fig 6 Georg Trump's Typeface Schadow

Peter Matthias Noordzij took inspiration from other slab-serif, humanist, and calligraphy typographers. In the early 1900's, British type designer Edward Johnston created calligraphy style type and was mentioned as a reference that Noordzij kept looking back to.¹¹ His serifs reached high over the cap line and contains numerous serifs. Johnston also created a simple sans-serif font that is now recognized all over for the London Underground railway signage. As Noordzij would sketch his ideas, he kept looking at drafts of Johnston's work for his calligraphy style penmanship.¹²

¹¹ "Font Designer – Edward Johnston." Linotype. <https://www.linotype.com/733/edward-johnston.html>.

¹² Middendorp. Dutch Type. 204

During the mid twentieth-century, Georg Trump designed Schadow. This six weighted slab-serif font exhibited tall x-heights and short square serifs that are also seen in PMN Caecilia (**Fig 6**). The variety in weights in Schadow, however, do not make it reasonable for different on-screen publications.¹³ One would have to choose from the existing weights for print and commit to it. There is a condensed and a black version that would not do well in small type due to the thickness of the strokes. The light and roman would be best for small text while the bold, black, and condensed would be for large text and headers.

Noordzij recognized this trouble with the dramatic differences in each weight and accounted his typeface for these issues by opening up the counters and making the strokes with low-contrast. He was able to deconstruct the differences in each typeface that influenced him and with his background knowledge of typography, Peter was able to design an elegant slab-serif of his own.

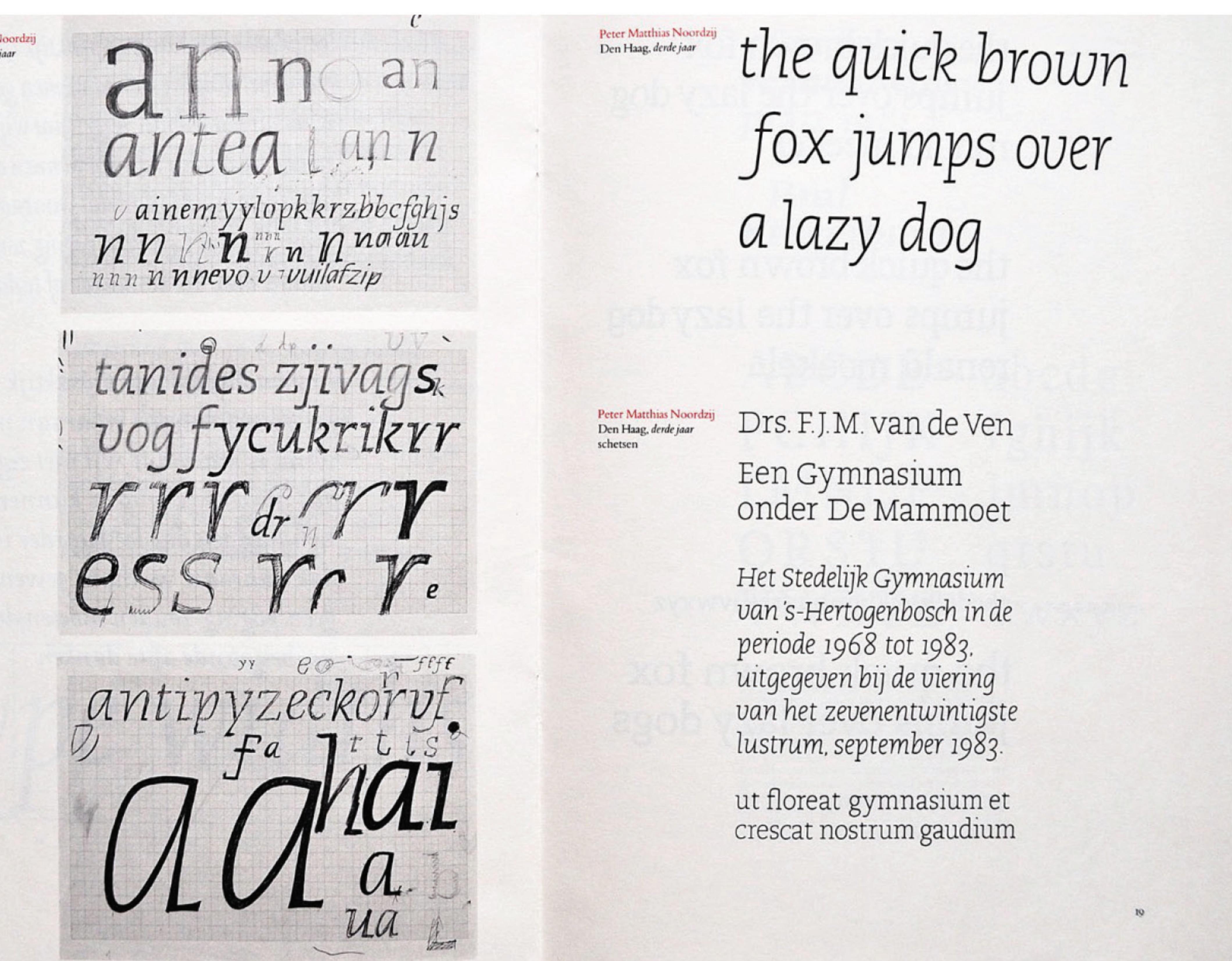


Fig 7 Letters in Studie

It was no accident that Peter Matthias Noordzij became such a talented artist. Gerrit Noordzij, his father, was already a type designer and typographer and taught at the Royal Academy of Art in The Hague. Noordzij senior heavily influenced both Noordzij and Christoph, his brother, into the creation and art of letter forms. Beginning at a young age, Noordzij senior would have his sons work on exercises studying different typefaces and sketching them out by hand. By doing so, Noordzij and Christoph gained knowledge on the strokes, divets, and widths of numerous typefaces. Both the boys did not view it as a chore but rather began being intrigued by the subtle difference in every font.¹⁴

Noordzij senior loved teaching his sons so much that he began teaching part time in the school in their area. Later, the boys followed their father and studied at the Academy. Noordzij noted that his father taught in an obscure way and only a handful of students

were able to grasp the idea of letter forms in their various structures.

In 1983, Noordzij was in his third year studying at the Royal Academy of Art in The Hague. That year Noordzij senior edited a booklet called *Letters in Studie*, Studying in letterforms, that highlighted up and coming Dutch Designers such as Frank Blokland, Petr van Blokland, Jelle Bosma, Martin Majoor, Albert-Jan Pool, Fred Smeijers and Wim Westerveld (**Fig 7**).¹⁵ In the booklet there was a double page dedicated to his son. The spread in the booklet included sketches of Noordzij's new type face which at that point was named *Academia* (**Fig. 8, 9**).

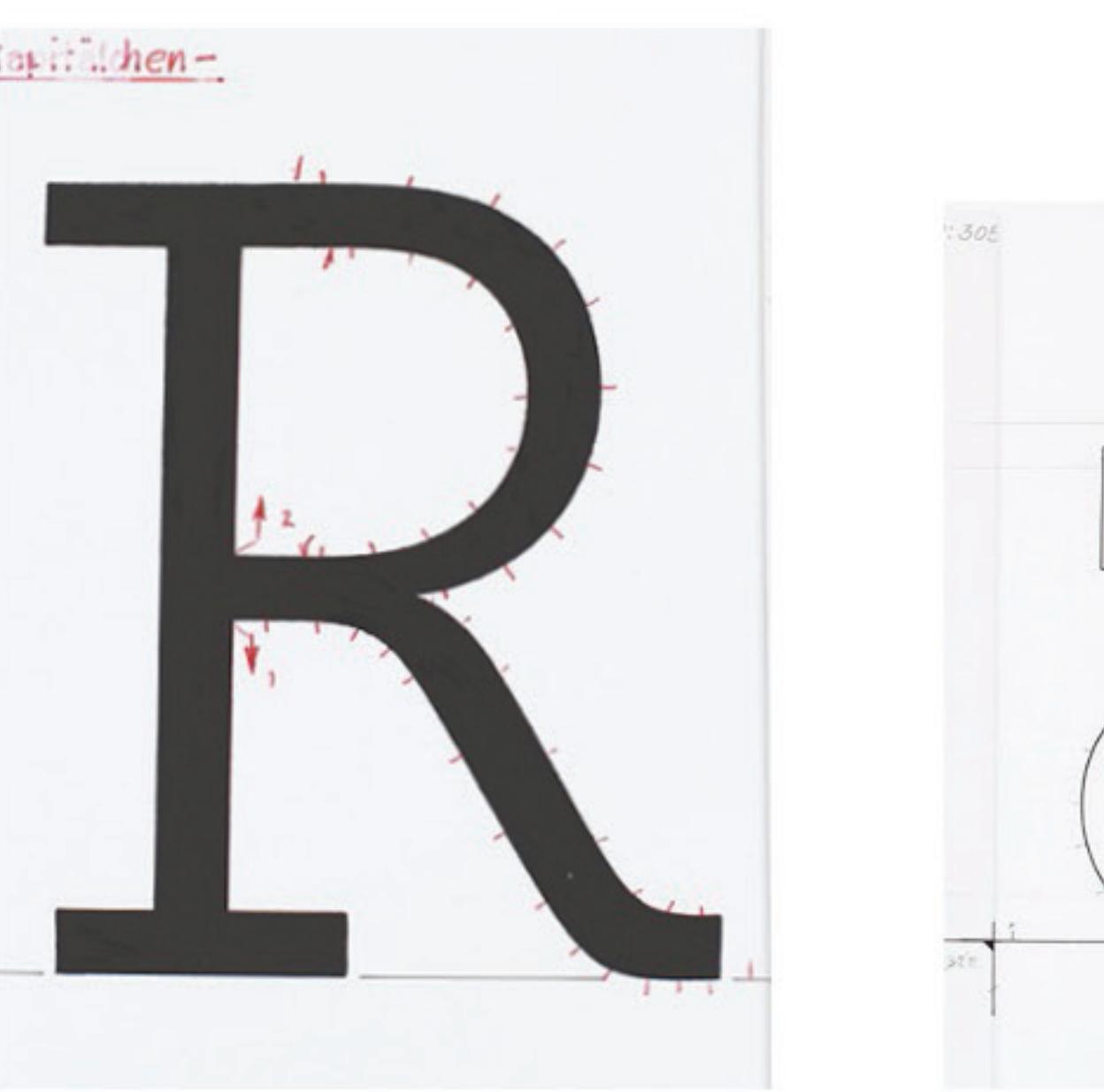


Fig 8 Academia Letter Drafts

¹³ Paul Shaw. "12 Overlooked & Underappreciated Typefaces." Print Magazine. February 10, 2011.

¹⁴ Middendorp. Dutch Type. 204

¹⁵ Middendorp. Dutch Type. 204

I had found
a solution to
a problem that
no-one had been
able to solve
before. Now in
those days, you
totally depended
on the goodwill
of the big type
foundries.

— Peter Matthias Noordzij

A1BCDEFGHIJKLMNOP
NOPQRSTUVWXYZ
äbcdeñghijklm
nopqrstuvwxyz
1234567890

Fig 9 Academia
Alphabet

Push Back from Foundries

During an ATyp conference in London in 1984, Noordzij met with numerous foundries who were interested in his new typeface. Adrian Frutiger at the time was a consultant for Linotype and persuaded the company to review Noordzij's work. There were many thoughts and concerns about the mixture of the two type styles. Referring back to slab-serif history, there was already much controversy and critics would say it "has nothing new to offer except more coldness and impersonality" (Tam 12).¹⁶ Noordzij saw type differently than most people. He viewed it as a tool, a use for functionality and not always an aesthetic for the eyes. He believed that there was a need for a functional use of type that could be used with multiple size and weights.

Eventually, Linotype picked it up in 1986 after a year of reviewing more sketches and saw the potential of Academia (**Fig 10**). While working on PMN Caecilia, Noordzij also was working at the Enchande Font Foundry. Werner Schimpf was asked to help design Academia but due to Noordzij's perfectionism the typefaces wasn't released until 1991.¹⁷ Noordzij examined the outcomes of combining slab serif with humanist styles. Due to the harsh angles, geometric forms, and "humanist style" Academia began to be described as "neo-geometric slab." The drafts were initially called Academia. Later when it was released, Noordzij re-named it to PMN Caecilia after his initials and wife Marie-Cecile (**Fig 11**).

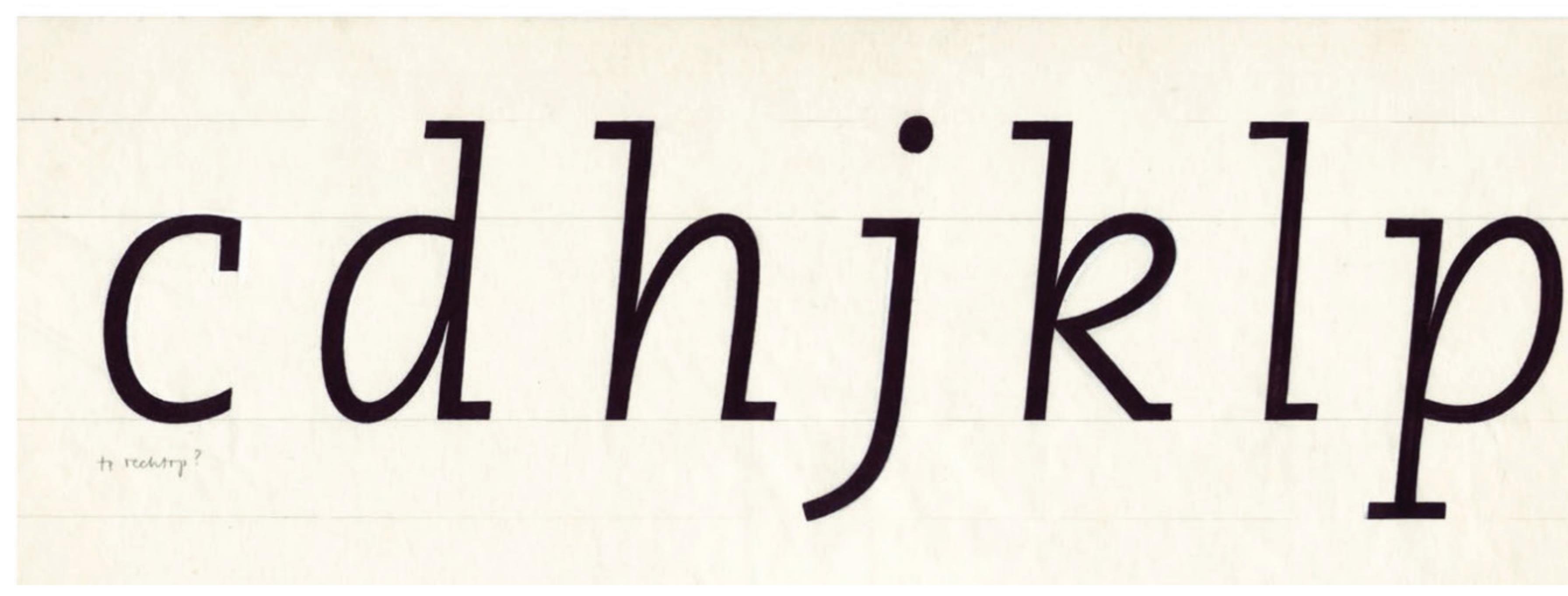


Fig 10 PMN Caecilia
handwritten draft

kay

Fig 11 PMN Caecilia
draft sketch

¹⁶ Tam. "The "Revival" of Slab-Serif Typefaces in the Twentieth Century." TypeCulture. 15

¹⁷ Middendorp. Dutch Type. 204

PMN Caecilia

PMN Caecilia 75 Bold

PMN Caecilia

PMN Caecilia 56 Italic

PMN Caecilia

PMN Caecilia 46 Light Italic

PMN Caecilia

PMN Caecilia 45 Light

PMN Caecilia

PMN Caecilia 55 Roman

At first Noordzij created Academia for the functional use at various sizes suitable for an easy read. His sketches were created in the 80's and then were fully released in the 90's when technology was just starting to slowly progress. Computers and phones at that point in time were not as advanced as today and there was not a great demand for on-screen type. In the early 1990's, Linotype suggested making a sans-serif version for PMN Caecilia. Noordzij was already running the business of the Enchande Foundry and did not see the need or urgency for a new version and focused on finishing his first typeface.¹⁸

Werner Schimpf and Noordzij worked on PMN Caecilia going back and fourth and adjusting the specific weights, strokes, serifs, and subtle improvements. One slight altercation made a huge difference in the way they proceeded to design the typeface. To differentiate the italics and the romans, the italics were slanted slightly more by 1 to 2 degrees (Fig 12).¹⁹ In doing so, the weights had to be adjusted while the serifs had to become thinner. The outcome of the italics were greatly measured by the elegance the slab-serif carried.

Fig 12 PMN Caecilia Weights

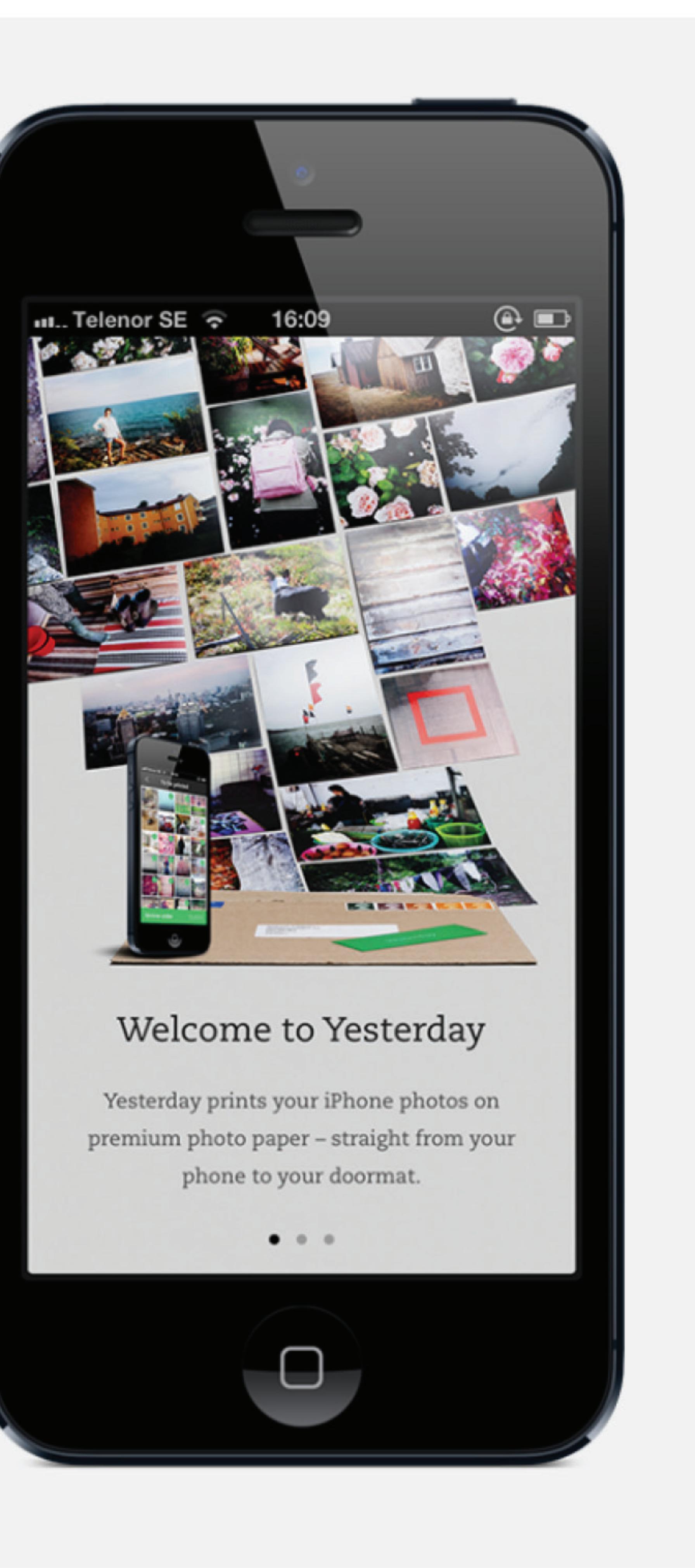


Fig 13 Yesterday App using PMN Caecilia

Fig 14 Publican Beer Can using PMN Caecilia



Fig 15 Publican Beer Bottle using PMN Caecilia

Another small but significant request that Noordzij insisted on was the addition of small capitals and medieval figures. Noordzij's attention to the small details, family influence and knowledge of past typographers impacted his view of the anatomy of letters. Noordzij was able to solve the problem of the lack of fonts able to become a chameleon and look readable for numerous uses.

As the years went on and technology progressed, PMN Caecilia was used more frequently. PMN Caecilia consisted of four different weights including an accompanying true italic for each. Text fonts became the most prominent use for PMN Caecilia. As Noordzij hoped for the typeface, PMN Caecilia began to be used in multiple different ways and across different medias as well.²⁰

The app "Yesterday" integrated and uses PMN Caecilia as its main font. The low-contrast in strokes of the slab serifs are ideal since they are legible on-screen and no information becomes lost in the small text settings (**Fig 13**). Publican Beer, a lager, uses the font for the sleeve of the can type and for the brand name. Even at a

small size on a beer can, PMN Caecilia can be well-read (**Fig 14,15**). Magazines such as "Golf Digest" uses PMN Caecilia for the headliner name and throughout. Moving to a whole different type of audience, PMN Caecilia was even used for the drink and food labels. Larger than apps on a phone, the typeface works well as a headliner with clean lines, open counters, and simple serifs. Finally, the typeface also proceeded to be useful for TV. Sweden television channel SVT2 uses PMN Caecilia for their news headers, subheads, and time (**Fig 16**).²¹

It was unexpected that technology would expand and increase in the short amount of time that it did, however, PMN Caecilia was a success and was able to perform on all different types of media platforms. Whether it be small on paper or continuing in the age of technology on-screen, Peter Matthias Noordzij designed a well functional font.



Fig 16 STV2 using PMN Caecilia

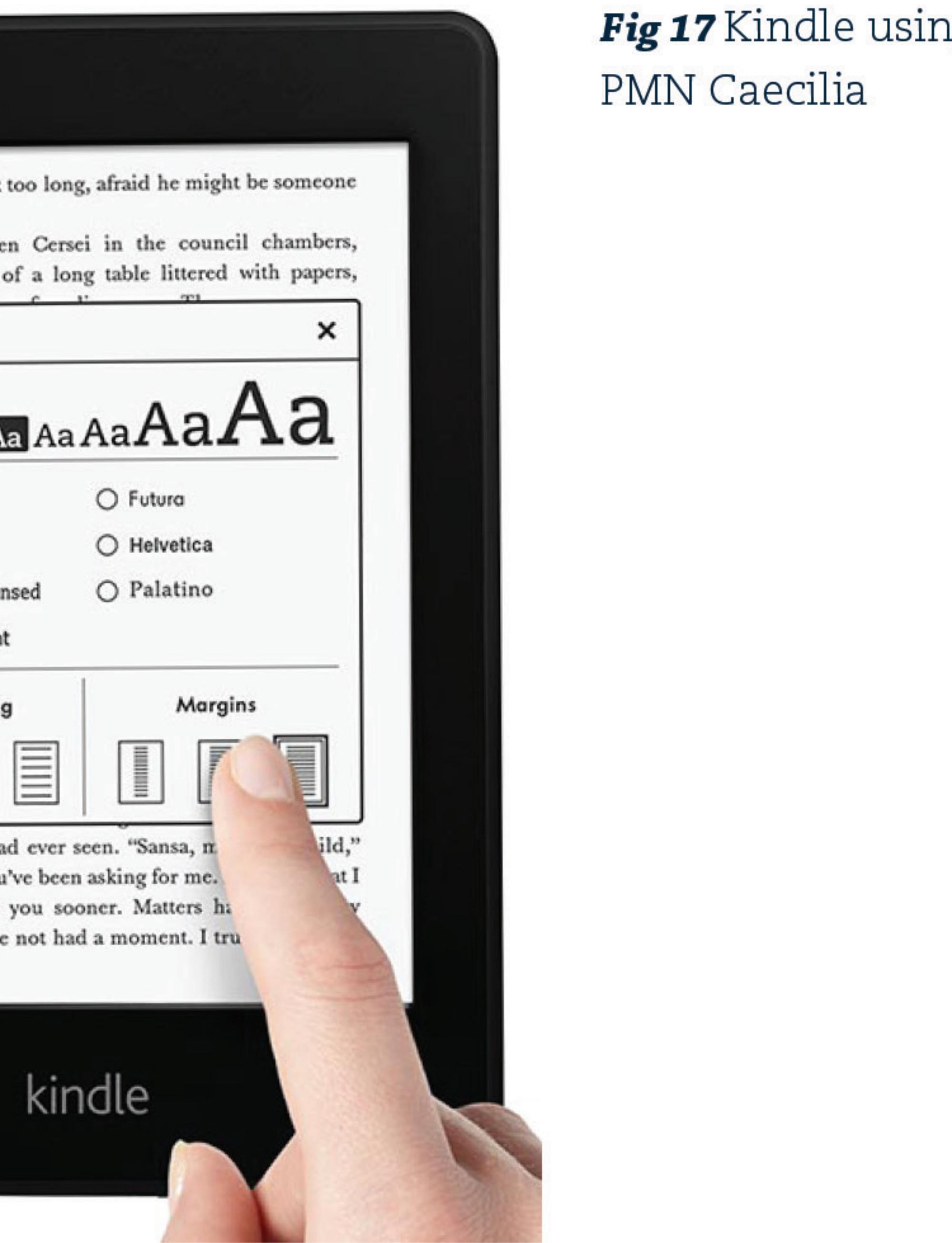


Fig 17 Kindle using PMN Caecilia

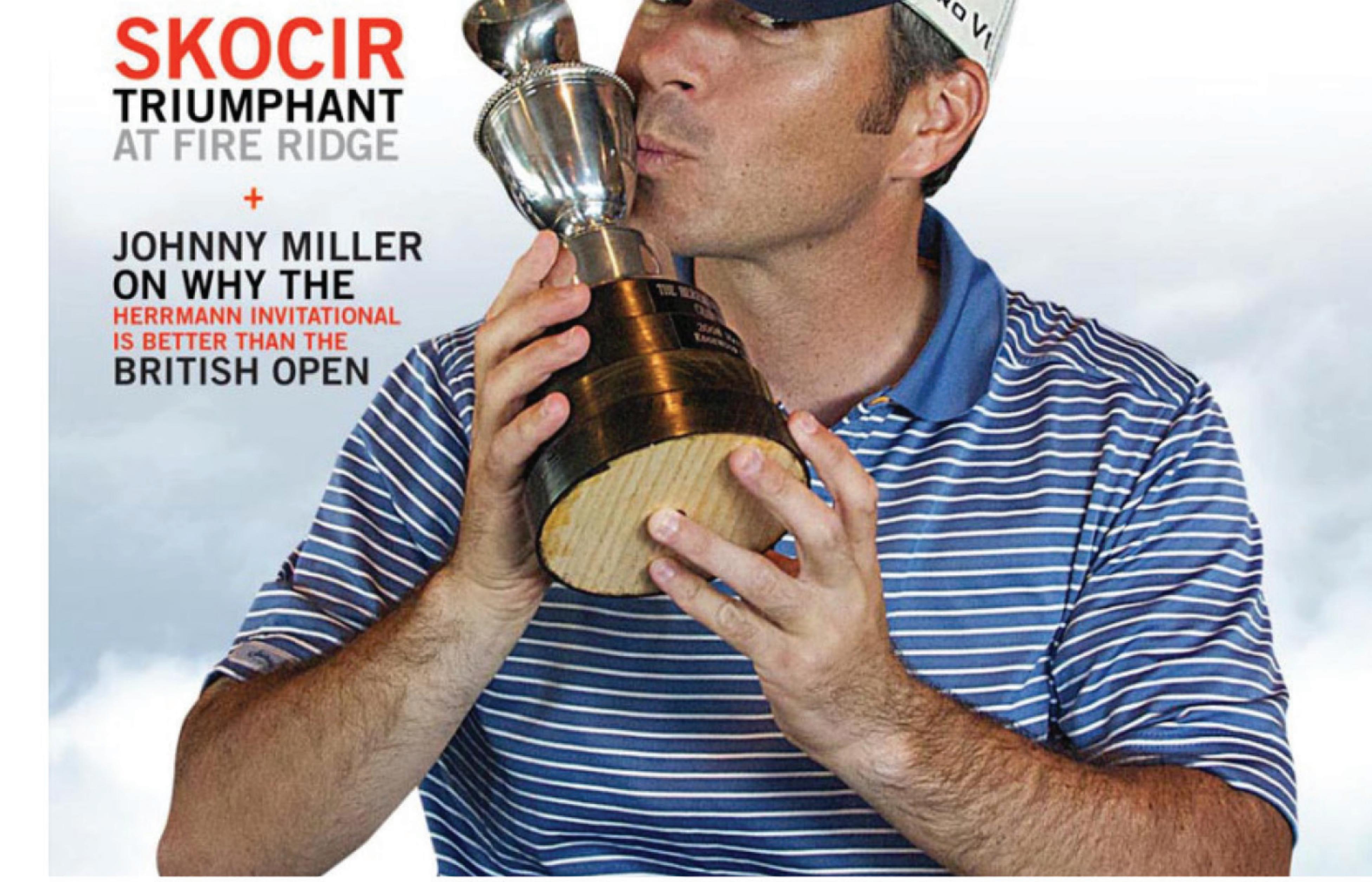
As technology progressed, Noordzij began to gain motivation to once again produce a variation of his previous typeface. Although originally made for print, the openness of the letter forms made it function well for on-screen as the years went on and technology grew. Due to the humanist style of the PMN Caecilia, it became iconic for the default font on Amazon Kindle (**Fig 17**).²² The low-contrasting widths of the strokes, open counters and accompanied by a large x-height made PMN Caecilia very reader-friendly and suitable for various sizes and lengths.

The new challenge of creating type for on-screen, a new environment, gave Noordzij the motivation to create a sans version of PMN Caecilia. Creating type for books was relatively easy compared for screen. Printed books have a set size and set type of paper used (**Fig 18**). For screen, people are able to change the size super easily pinching in or enlarging it. Noordzij took this into consideration and had to account for the various resizing of his typeface would encounter.

/GET LONGER/GET STRAIGHTER/
MICKELSON'S NEW SWING+SNEDEKER'S PAR SAVERS+CALC'S 10 RULES
+GOLF AND DESIGN+JUSTIN TIMBERLAKE THE GOLF DIGEST INTERVIEW

GolfDigest®

golfdigest.com



20 Friedrich Friedl, Nicolaus Ott, and Bernard Stein. *Typography: An Encyclopedic Survey of Type Design and Techniques throughout History*.

21 Ben. "Font Study: PMN Caecilia." Forrest Media. <https://forrestmedia.org/2014/01/23/typeface-study-pmn-caecilia/>. (February 25, 2014)

22 "Font Designer – Peter Matthias Noordzij." Linotype. <https://www.linotype.com/741-35944/interview.html>.

Spacing and kerning for the new version was biggest issue that he had to solve. As the type would shrink to a small size the kerning had to become wide enough to distinguish each letter but not too much space. On the other hand, as the font would be magnified larger, the spacing between each letter and word would have to become smaller to account for the white space around the letter (**Fig 19**).

Looking back at the original version, italics helped Noordzij discover how to improve the specific typeface. Noordzij struggled with the classic version and how to space out the italics. With this new sans-serif, the italics again seemed to had lost the grace of the handwritten element. This issue resulted in an additional oblique set. The obliques were slanted at the exact same angle as the italics so they could be combined together. Noordzij also added an alternative for the **a** and **g** in the obliques set for a more reader-friendly view (**Fig 20**).²³ Both the italics and obliques were optically corrected to keep the openness and legibility similar to the classic PMN Caecilia.²⁴

By the release date of 2017, Noordzij created an additional heavy weight and two new light weights. On top of that he decided to design obliques as well as italics (**Fig 21**). All the new variations of PMN Caecilia was for the adjusting the typeface for any circumstances that could occur on screen and as technology progresses.

Fig 19 Amazon Kindle Magnification

Fig 20 Added Oblique Set



²³ "Font Designer – Peter Matthias Noordzij." Linotype. <https://www.linotype.com/741-35944/interview.html>.

Evolutionary Influence



Petter Matthias Noordzij is a relatively new up and coming designer, artist, and typographer. Born in 1961, this Dutch Designer is a baby compared his slab-serif predecessors. Although generations apart, Peter concluded that large x-heights, low-contrasting stroke widths, and large open counters was the first steps towards a functional font. His hope was to design a typeface that would work over multiple medias at different sizes and lengths.

The combination of a humanist, slab-serif, and geometric styles was seen as incompatible. However, Peter studied

typefaces throughout his childhood and adult life and was able to pinpoint the different elements that worked and didn't in various print circumstances. As a result, Peter concluded that large x-heights, low-contrasting stroke widths, and large open counters was the first steps towards a functional font. His hope was to design a typeface that would work over multiple medias at different sizes and lengths. Step one of his dream came true when Linotype released PMN Caecilia in 1991. Although created for the purpose of print, PMN Caecilia popularized and grew as the years and technology moved forward.

How could any of us know that technology would soar in the early twenty-first century? PMN Caecilia was one of the few font that was perfect for the technological era. The typeface could be seen on beer cans, default fonts, magazine headers, even television. Peter sought out to develop a new version, sans version, of PMN Caecilia that would once again take his font to a new level of functionality and adaptability.

What will Peter
Matthias Noordzij
design next?



Fig 21 PMN Caecilia Sans new Weights

²⁴ Ferdinand Ulrich. "Type Historian Ferdinand Ulrich Shares the Story of PMN Caecilia Sans." Monotype. <https://www.monotype.com/resources/font-stories/type-historian-ferdinand-ulrich-shares-the-story-of-pmn-caecilia-sans/>. (September 7, 2017)

Glyphs

Aa Đѣ Bb Cc
Dd Ee Ff Đϙ
Gg Hh Đѣ Ii Jj
Kk Ll Mm Nn
Oo Đѣ Pp Qq
Rr Ss Tt Uu
Vv Ww Đѣ Xx
Yy Zz

Diagonal Forms



Aa Vv
Ww Xx
& Đѣ

At the science of
today
is the technology
of tomorrow

Peter Matthias Noordzij

Square Forms

M M

Mm Nn
Kk M
Zz Yy

The only constant
in the technology
industry is
change

Marc Bentoff

Rounded Forms

D P

Qq Cc
Gg D P
Oo Ss
Uu

Type design is
about function.
Drawing pretty
shapes isn't
enough.

James Todd

Rounded-Square Forms

Bb Dd
Ee Øø
Hh Jj
Pp Rr

Ø

Ø instead of solving typographic problems of the past, I'd rather face Ø typographic challenges of the future

Edward Teller

Diagonal Square Forms

Ff Ll Ii
Tt Þþ

Þ

Þpen, paper and my eyes are my design tools, computers and printers are my production and proofing tools

Peter Matthias Noordzij

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Fig 4a Marchiori, Alessandra. *Features of PMN Caecilia*. 2018.
Fig 4b Marchiori, Alessandra. *Serifs on W and V*. 2018
Fig 4c Marchiori, Alessandra. *Round Tittle*. 2018
Fig 4d Marchiori, Alessandra. *Cap Line*. 2018
Fig 5 Shaw, Paul. "Over Under." Print 71, no. 2 (Summer 2017): 71
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Fig 6 Shaw, Paul. "12 Overlooked & Underappreciated Typefaces." Digital image. PrintMag. February 10, 2011. <http://www.printmag.com/imprint/overlooked-typefaces/>.
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Fig 8 Digital Image. Monotype. September 7, 2017. https://www.monotype.com/media/189889/pmn-caecilia-sans_img_04.jpg
Fig 9 Middendorp, Jan. *Dutch Type*. Rotterdam: O10 Publishers, 2004
- Push Back from Foundries**
Fig 10 Digital Image. Monotype. September 7, 2017. https://www.monotype.com/media/189888/pmn-caecilia-sans_img_03.jpg
Fig 11 Middendorp, Jan. *Dutch Type*. Rotterdam: O10 Publishers, 2004.

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Fig 13 "Yesterday App." Digital Image. Forrest Media. January 23rd, 2014. <https://forrestmedia.files.wordpress.com/2014/01/in-use-app-1.png?w=682&h=1066>
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Fig 15 "Publican Beer Bottle." Digital Image. Forrest Media. January 23rd, 2014. <https://forrestmedia.files.wordpress.com/2014/01/in-use-publican-2.jpeg>
Fig 16 "STV2." Digital Image. Forrest Media. January 23rd, 2014. <https://forrestmedia.files.wordpress.com/2014/01/in-use-tv-1.jpeg>
Fig 17 "Amazon Kindle." Digital Image. Monotype. September 7, 2017. https://www.monotype.com/media/189890/pmn-caecilia-sans_img_06.jpg

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Fig 19 "Magnification." Digital Image. Monotype. September 7, 2017. https://www.monotype.com/media/189890/pmn-caecilia-sans_img_05.jpg
Fig 20 "Handgloves." Digital Image. Monotype. September 7, 2017. https://www.monotype.com/media/189893/pmn-caecilia-sans_img_07.jpg

- More to come?**
Fig 21 "Oblique and Italics." Digital Image. Monotype. September 7, 2017. https://www.monotype.com/media/189893/pmn-caecilia-sans_img_08.jpg

Book Design, Cover Design and Typography by
Sasha Marchiori

Produced using a 2015 Mac and InDesign 2018
Typefaces used are Chaparral Pro, PMN Caecilia,

Printed by
Common Vision,
Baltimore, MD

Printed on 80lb White Matte Paper

