
Canella, a type family by Brigitte Schuster

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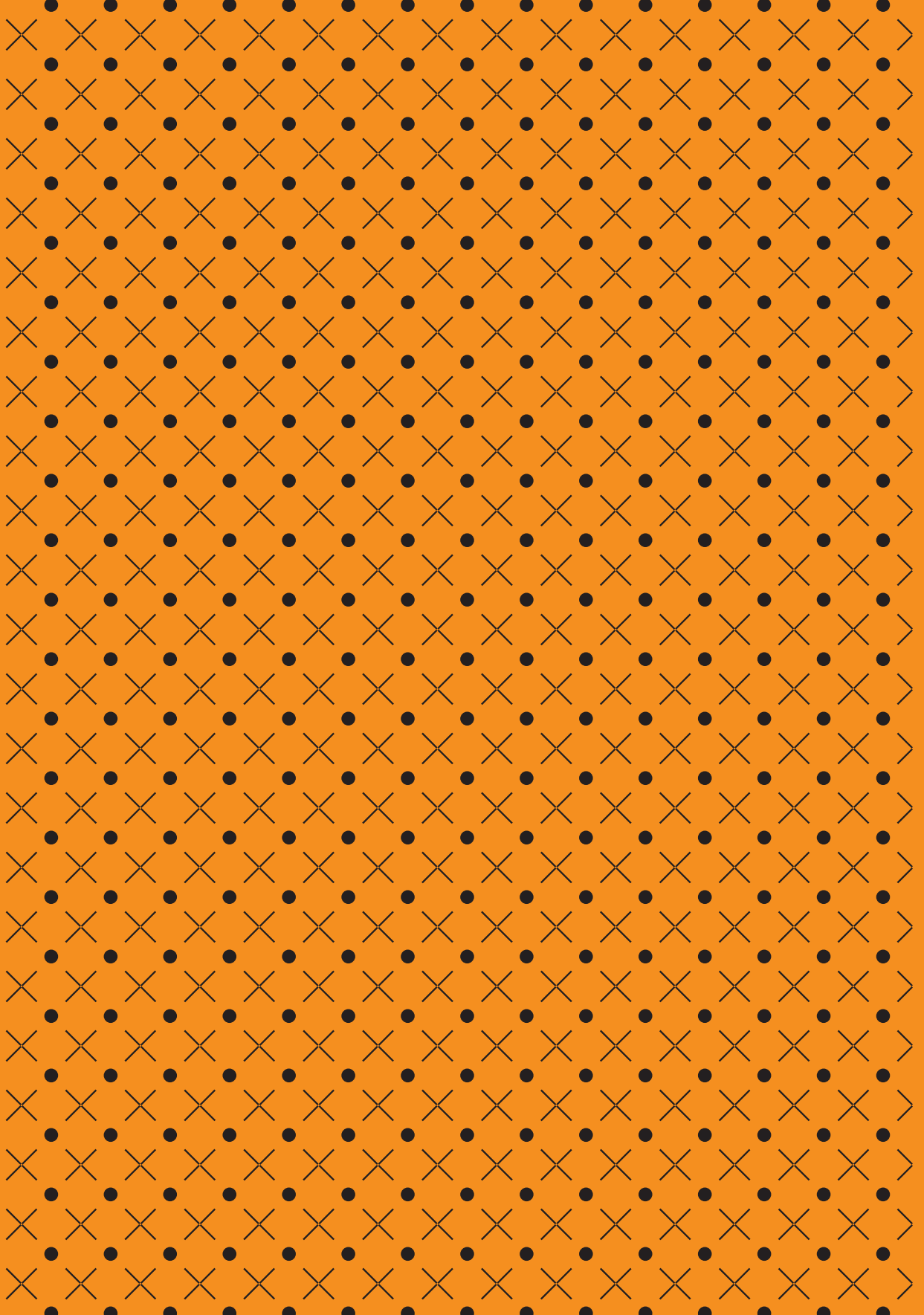
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☛ *The Canella Type* was submitted
in partial fulfillment of the
requirements for the MASTER
OF DESIGN in TYPE AND MEDIA
at the Royal Academy of Art*
in The Hague, The Netherlands.

June 2010

*Koninklijke Academie van Beeldende Kunsten (KABK)

process



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1

Introducing the *Canella* Type

In the following work, I will describe the process of designing the *Canella* type family. The project was developed as part of the TYPE AND MEDIA master course at the ROYAL ACADEMY OF ART* in The Hague, The Netherlands. The project was executed in approximately four months, a timeframe that included the inception phase of the idea, through to the final steps of the design of the typeface. ¶ *Canella* is a type family primarily to be used in books and magazines. The goal was to design a contemporary typeface, which is usable in a complex text-setting environment, and which allows excellent readability in small sizes. ¶ Type proportions are inspired by 16th century punch-cutters HENDRIK VAN DEN KEERE and ROBERT GRANJON. Due to this large x-height, good readability in small sizes is ensured. The Roman uses an oblique axis derived from the writing angle of the broad nib pen. The Italic is notably distinct from the Roman and has a literary tone. It is situated in the transitional style period, which contains elements of the pointed pen writing, and is also inspired by 16th century writing master GIOVAN FRANCESCO CRESCI as well as ROBERT GRANJON'S Italics. ¶ The current *Canella* typeface features the two weights: *Regular* and *Bold*. *Canella* comes with common OpenType features and supports the majority of European languages. ¶ Future plans for *Canella* include the design of a *Book* weight and the completion of the now reduced versions of all presented character sets.

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Requirements for a Book Typeface

On Web sites, for example *Typophile* or type foundries such as *Linotype*, one can find extensive lists of the most used book and/or magazine typefaces today.¹ ¶ Classical typefaces, such as (in order of preference) Minion, Baskerville, Garamond, Trade Gothic, Electra, Fournier, Dante, Palatino, Aldus, Janson, Galliard, Sabon, Erhard, Gotham, Helvetica Neue, Akzidenz Grotesk, Futura, Sabon, Bembo, Bodoni, Filosofia, Monotype Grotesque, Interstate, FF Clifford prevail for the typesetting of books. Contemporary designs of reading typefaces, such as FF Scala or Quadraat, are, according to these lists, rather secondary. ¶ Dutch bookdesigner Tessa van der Waals thinks that there is already enough very good reading typefaces on the market, and she does not see a need for new designs.² On the other hand, Françoise Berserik, bookdesigner as well, has not found any better typeface than Minion yet, which she prefers above all other typefaces for its great legibility. She would hope to see a book typeface that comes close to Minion's qualities.³ ¶ I saw it as a challenge to design a book typeface because it would help me get involved with the fundamental aspects of type design: I would be challenged with providing excellent readability in reading sizes, hierarchical text setting, and other specific requirements. I would need to reflect on the act of reading, the possible languages used, how the typeface might be text set, about economy of space and exaggerated shapes.

¹ Linotype. *Book and Magazine Fonts*.
Typophile. *Suggestions for book typefaces*.

² Tessa Van der Waals

³ Françoise Berserik

Important Factors and Factors to be neglected when designing a Book Typeface

► The Relation between Typeface, Typography and other Factors

The relation between typeface, typography and other factors.

Type is always connected to other factors, such as elements of typographic setting (for example type size, leading, column size), and also the material of the book itself (for example paper quality or the appearance and the workmanship of the book itself) (1).

A skilled typographer is able to create a good layout with a problematic typeface. A bad typographer can use a good typeface in a wrong way (2).

► Readability

The readability of a text is closely related to the typeface itself, but also to typesetting factors. Whereas legibility concerns the quality of the written word, readability relates to the comfort of reading of a text [3]. Good readability results in a combination of typography, the letter-shapes and the spacing. More specifically, single letter shapes need to be clearly defined and distinctive from all the other letters; letters need to be distanced from the other letters to avoid that two letters would melt to a new glyph; letters should be able to create word images with neighbour letter shapes; words must be able to create lines (4). According to Willberg/Forssman, 'readability occurs when the reader is not aware of the fact that he is reading' (5) and Craig and Bevington say the reader 'should be comfortable to read' (6).

Serif typefaces are easier to use than sans serif typefaces because serifs help in the line guidance and therefore the horizontal guidance of the reader (7). Today, book designers use more and more sans serif typefaces. Typefaces that guide the eye horizontally are advantageous in terms of readability (8).

It is good to consider that readers are often not used to reading a certain type of letters, and find it therefore less readable. For instance, an italic for a the main text of a book (9).

1 Jost Hochuli and Robin Kinross. 46.

2 Hans Peter Willberg and Friedrich Forssman. 74.

3 Albert Kapr and Walter Schiller. 96.

4 Hans Peter Willberg and Friedrich Forssman. 74.

Derek Birdsall. 186.

5 Hans Peter Willberg and Friedrich Forssman. 74.

6 James Craig and William Bevington. 127.

7 Hans Peter Willberg and Friedrich Forssman. 74.

8 —.

9 Marshall Lee. 83.

► Typeface and Content

Bringhurst suggests ‘choos[ing] a typeface that will honour and elucidate the character of the text’ (1). When choosing a typeface for a book, every typeface interprets the text in a certain way (2). A typeface has to express the atmosphere of the book’s content (3). In the same way, Craig/Bevington suggest the aspect of appropriateness of content, material and audience. But they also mention personal preference (4).

► Way of Reading

According to Willberg/Forssman, the way of reading is crucial, and not typographic traditions, ideologies and opinions (5). The type of reading is important (6).

► Hierarchical Text Setting

In contemporary typesetting, it is common to have a type family structure that is composed of a roman, italic, small caps, italic small caps, titling figures and text figures, and this in a range of weights, such as light, medium, bold, black (7). Renowned British book designer Derek Birdsall thinks that because of hierarchical text setting that requires many degrees of subheadings, there is a need for a good relationship between capitals, small caps and italic, and bold. Good examples are Clarendon and Walbaum (8).

► Specific Requirements

Sometimes, practical elements that serve a specific function condition the choice of type: For a text containing many figures, such as dates, dimensions, formulae, he would choose a typeface that has good numerals, non-lining numerals, and also numerals that are smaller than the capitals, he mentions the typeface Modern. When he sets a text containing numerous quotations, as it happens in poetry, for the use of titles of pictures or publications, he would go for a distinguished italic. He mentions Van Dijk and Joanna (9).

► Influence of Language on Typeface Appearance

A text that is set in the same text face, in the same size, the same line length and leading but in two different languages looks different in structure and greyness [figure 1]. When one first sees it, one looks for typographic differences, like the size, but the real difference is in the different languages (10).

<p>It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout. The point of using Lorem Ipsum is that it has a more-or-less normal distribution of letters, as opposed to using ‘Content here, content here’, making it look like readable</p>	<p>On sait depuis longtemps que travailler avec du texte lisible et contenant du sens est source de distractions, et empêche de se concentrer sur la mise en page elle-même. L’avantage du Lorem Ipsum sur un texte générique comme ‘Du texte. Du texte. Du texte.’ est qu’il possède une autre</p>
---	---

figure 1

Canella set in English (on the left) and French (on the right) to experience the difference in appearance caused by language itself.

► Economy of Space

Whereas economy space is an important factor when setting text for a newspaper, this applies less for typesetting of books. On the contrary, sometimes a text needs to fill a certain number of pages and should then be rather wide running than economic (11).

► Exaggerated Shapes

While a text typeface has a distinct character, these characters are not as noticeable as in display type. The small size makes details in shapes hardly noticeable (12). The chapter *Inspiration and Experiments* will elaborate on this point.

- 1 Robert Bringhurst
- 2 Jost Hochuli and Robin Kinross. 46.
- 3 Hans Peter Willberg and Friedrich Forssman. 72.
- 4 James Craig and William Bevington. 127.
- 5 Hans Peter Willberg and Friedrich Forssman. 14.
- 6 Albert Kapr and Walter Schiller. 98.
- 7 Robert Bringhurst. 51.
- 8 Derek Birdsall. 186.
- 9 —.
- 10 Gerard Unger. *Wie man’s liest*. 184.
- 11 Tessa Van der Waals
- 12 Marshall Lee. 82.

3

Typeface Characteristics

~• Canella Type Family ~•

Canella Regular & *Canella Italic*

Canella Bold & *Canella Bold Italic*

The *Canella Family* consists of two weights and four styles. The *Regular* is intended for body text. *Bold* can be used to clearly emphasize parts within a text set in Regular or used on its own.

Characteristics for the Roman



1 high readability in small sizes
 2 uses a horizontal effect, which is applied through flat and horizontal arches. Hence, white spaces are enlarged, which makes the typeface brighter and more readable. He uses a theory (not empirically proven) that is related to the so-called *Edge Detection*, which makes us perceive black parts in the letter blacker when surrounded by a white shape. By making the white shape larger the letter is perceived to be blacker. This works best when the

typeface is printed on slightly tinted paper a opposed to high white paper, to keep the contrast not in an extreme. The horizontal effect is also helpful when used in small sizes. (Gerard Unger. *Wie man's liest.* 119-120). Willberg / Forssman judge typefaces that guide the eye horizontally advantageous for the readability as well. (Hans Peter Willberg and Friedrich Forssman. 74.) See also chapter *Requirements for a Book Typeface.*

Characteristics for the Italic



4

Inspiration and Experiments

UNGER uses the experiment in a way that readers do not notice it very much. He questions how close one has to stick to conventions and how far one can go with experiments before it is too much for the reader. ¶ Details of a typeface will become obvious when used in large sizes, while they are not visible when used in small sizes [figure 2]. If details would be visible also in 10 points then they would have to be designed in a more obvious way. But, then, there is the danger that these details disturb in bigger sizes because they seem exaggerated. ¶ However, although the details might not be visible in smaller sizes, they will still have a positive effect on the homogeneity of the overall typographic image that helps readability.¹

¶ In this same manner as UNGER, I was interested in exploring exactly this borderline between how exaggerated my shapes may be when they should work at the same time as a usable typeface for reading text. ¶ The following presents my attempts to design letters that used historical models from 16th century punch-cutters and scribes as a basis for proportions. This, in combination with my preference for drawing angular shapes, showcases the experiments' results.

¹ Gerard Unger. *Wie man's liest*. 119 and 124/125.



nab nab

figure 2

Canella in 36 pts, where details are obvious and in 10 pts, where details are not noticeable any more

To begin with, I looked at typefaces which I found appealing and analysed what I liked about them. I realized that I had a preference for sharp edges and corners. Inspired by the shapes I had looked at, I sketched my own letters [figure 3].

Inspiration for the letter proportions derived from 16th century type specimens by Robert Granjon and Van den Keere [figure 4], which have a large x-height. 16th century Italian writing masters G. F. Cresci and Arrighi, as well as the punch-cutter Robert Granjon, shaped the direction for the Italic, which is featured in the sketches [figure 5]. Additionally, I looked at my own calligraphy [figure 6]. For the x-height, I used 5 times the nib height to obtain classical proportions as they appear, for example, in Garamond.

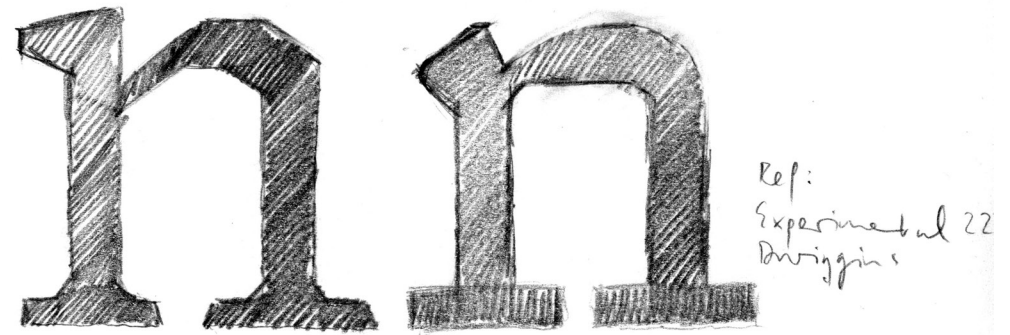
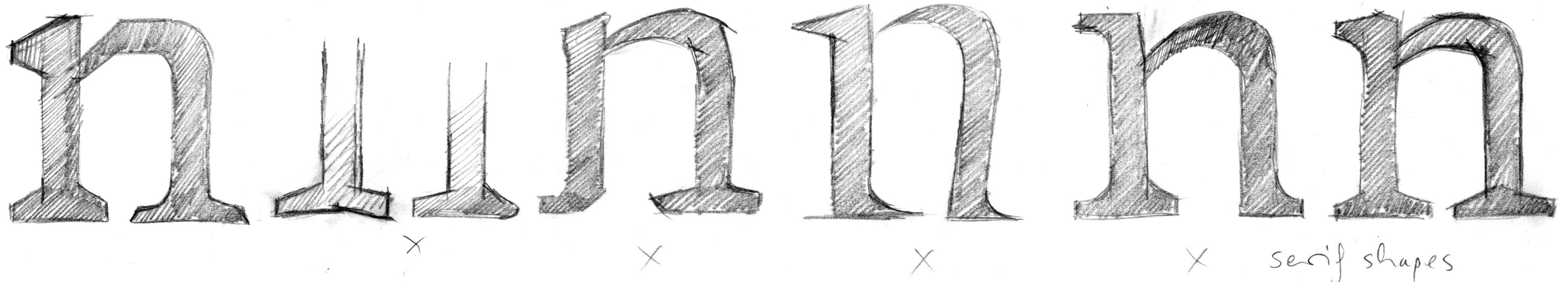
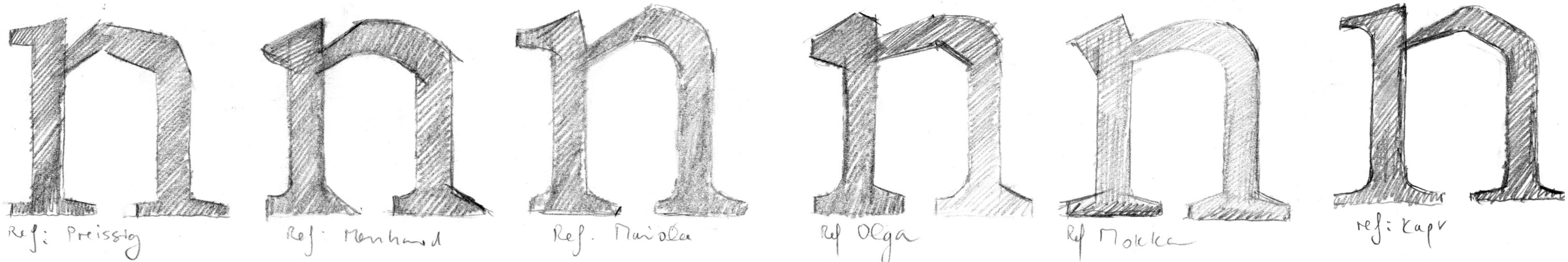
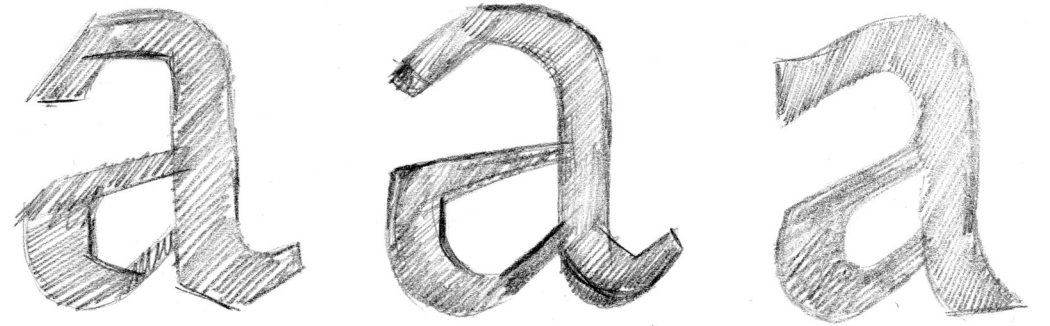
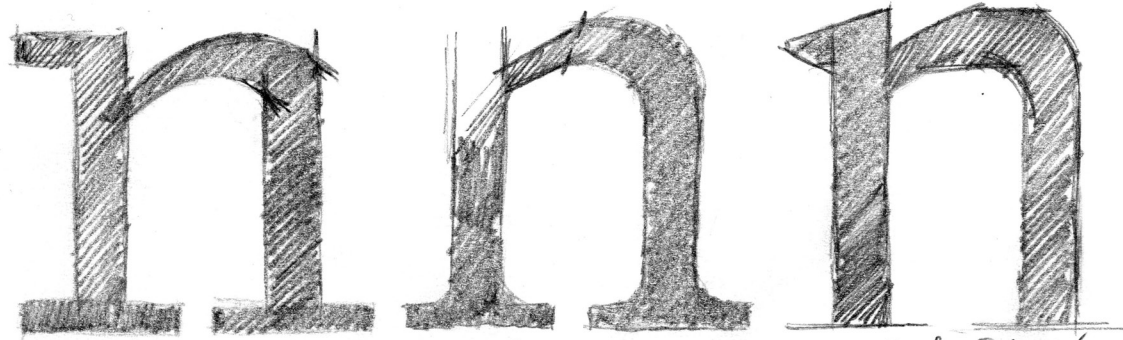
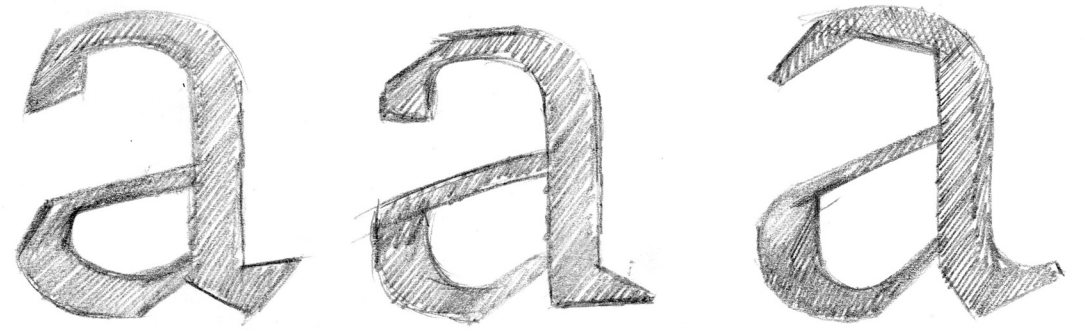
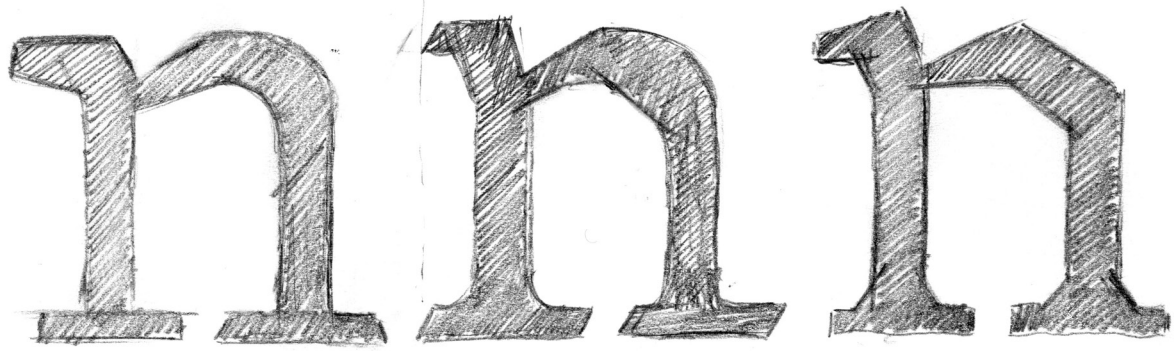


figure 3 (pages 26-29)
Sketches of n and a, shapes of typefaces I like and sketches that are inspired by those typefaces

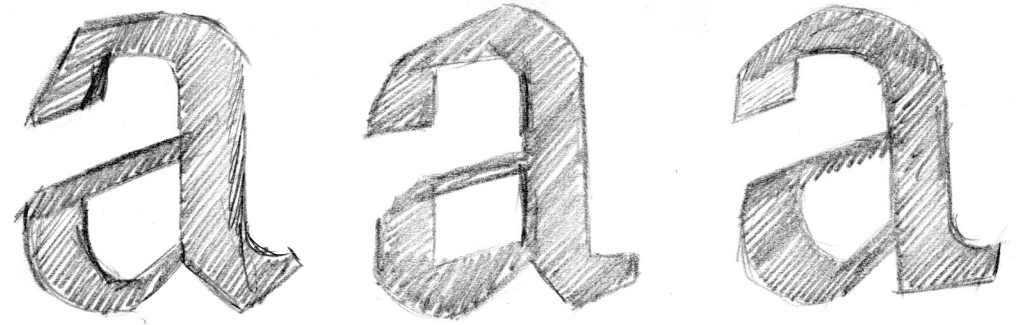
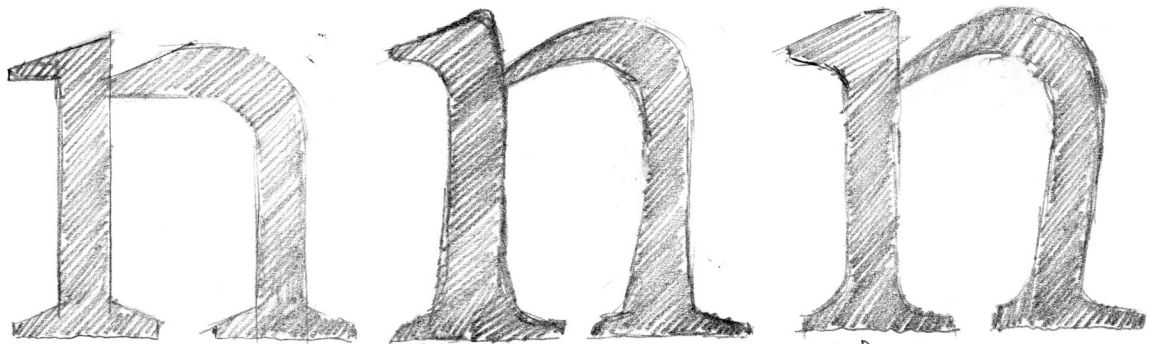




Ref: Telegraph Modern
(Prunty)

Ref: Charles

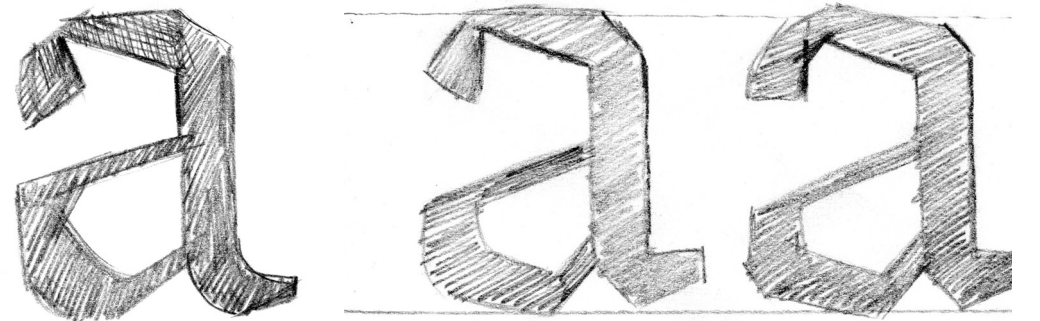
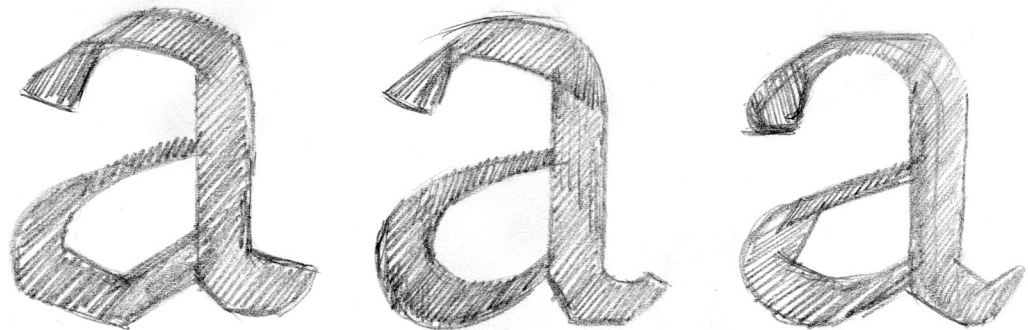
Ref: Trinité



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Ref: Contain

Ref: Bembo



intque lucri causa, fallunt
 e possunt, quasi quid pri
 rpe, fiat honestum, si pu
 n foro. At in contractibu
 iendum erat mendacium
 ximè mentiuntur homi
 maximè negant se mentiri

egatorum Roma
 Gallos nullius m
 ntius in custodi
 quibus Macedo

figure 4

Letter proportions of the Canella Type, in particular the large x-height, are inspired by Robert Granjon and van den Keere: (above) Van den Keere's Paragon Roman, 1576; (below) Granjon's Second great Primer Roman or Gros-canon, 1566

ceruus ad fontes
 a ad te Deus . 3

ibrecino, nel quale anchora a satisfatione
 osto alcune uarie sorti de littere (come tu
 uoluto descriuere al piu breue et chiaro
 io ho possuto come tu habbi a tempe-

*Tu mandasti mandata tua cu
 diri nimis.*

*Vtinam dirigantur via mea,
 custodiendas iustificationes tuas!*

figure 5

(above) Cancelleresca formatella from G.F. Cresci, *Il perfetto Scrittore*, Rome, 1570; (middle) Cursive type designed by Arrighi. *Il Modo de temperare le Penne*, Venice, about 1523–5; (below) Granjon's Two-line Double Pica Italic or Gros-canon, 1564.

figure 6 (following pages 32–33)

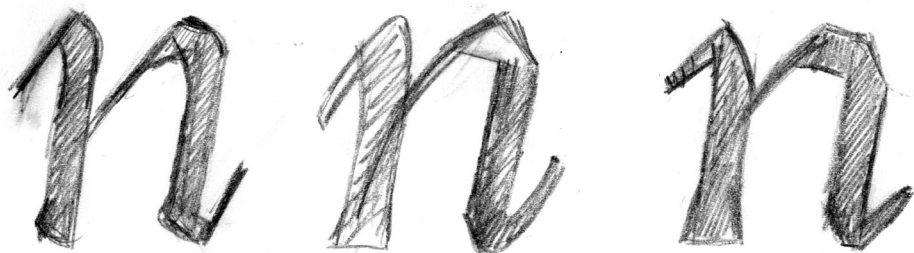
The shape of the n in Cresci's and Arrighi's scripts and Granjon's typeface appear in my sketches for the Italic.

Italic Reserach



more slanted
insp: Manuscript Antiqua
Menhard

Robert Granjon
Gros Linnoc (1564)



Cresci
Essemplore
di piu sovr
lettere
1560

Cresci
Essemplore
di piu
sovr lettere
1560

Cresci
Cancellaresca
formata

Essemplore di
piu sovr
lettere
1560



upright
insp: Manuscript Antiqua
Menhard

Figural
Antiqua
Menhard

Menhard
Kursiv



Robert Granjon
Gros Pasajou
(1571)

Robert
Granjon
Ciceso (1554)



Cancellaresca
forma bella
Cresci

Cancellaresca
acuta
1572
Hescolani

Lettera
bollatica
Tagliente
1524



Course
type
1523-5
Arrighi

Palatino
1540
Classie
Chamery
hndls
Libronuovo
d'imparare
a scrivere

Manzoni
1546
libro
molto
utile

ruano: Sette Alphabetti
di varie lettere 1554

Loppe Afolla
lonnela Ann
hAkkikkin

2010-02-13

x, as a les, desic des, bright: Van der Keere

Paragon Roman
1585

Orapouuestu
ck bottowm
de distann
cc

figure 5 (previous pages 34-35)

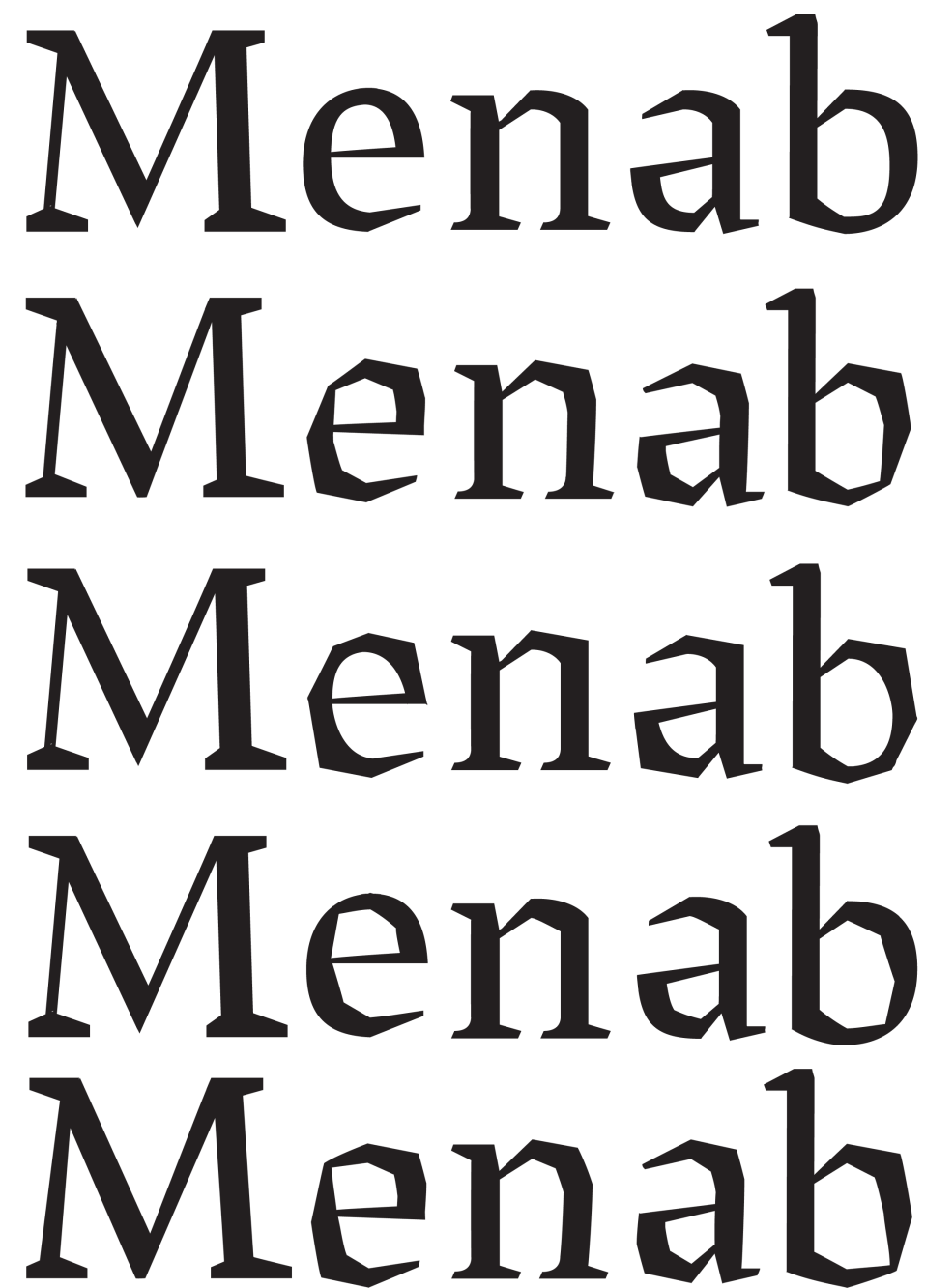
Searching for the right contrast by using broad-nib calligraphic writing

With ample inspiration from the historical models seen above, I experimented after rough sketches directly in the Font application. This process took around three weeks. [figure 6]

It is convenient to draw n, to define vertical shapes, and the b to define round shapes. Once those fundamentals, or DNA shapes, of the typeface are defined, I was able to draw the rest of the alphabet.

figure 6 (36-37)

Pencil sketches and first digitizations



The basic shapes of my explorations [figure 7] use angularities in an extensive way over the glyphs as they appear in Vojtěch Preissig's Antiqua and Cursive [figure 8] or Oldřich Menhard's Menhard typeface [figure 9].

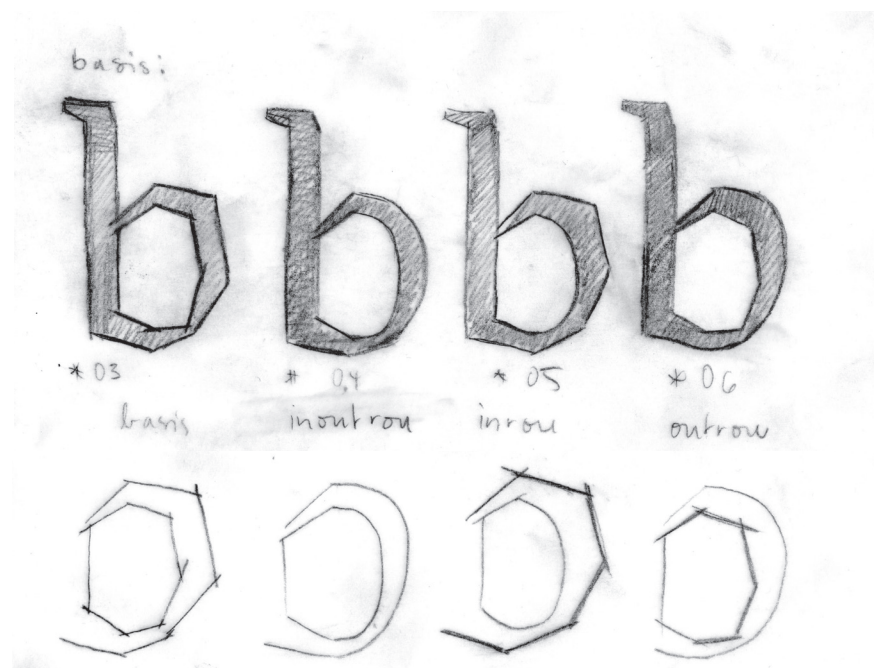


figure 7
The basic shapes derived from my research

Ještě v první polovině minulého století byla písma k tisku českých knih dodávána několika nevelkými slévárnami písem zřízenými při pražských knihtiskárnách, kde ovšem

Ještě v první polovině minulého století byla písma k tisku českých knih dodávána několika nevelkými slévárnami

figure 8
Vojtěch Preissig's Antiqua and Cursive

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz

figure 9
Oldřich Menhard's Menhard typeface

Dwiggins developed his so-called M-Formula. By using this method, Dwiggins was able to make his typefaces, such as Caledonia and Experimental No.223 [figure 10] readable in smaller sizes. Angular shapes are perceived round by the human eye when experienced in smaller sizes (1).



figure 10
Dwiggins' Experimental No. 223 that uses the M-formula

Like Dwiggins, I tried to abstract letter shapes in a way that they would look abstract in larger sizes, but round in smaller sizes.

Although the angular shapes were less noticeable in smaller sizes, they did not really prove useful in improving readability. [figure 11] Thus, since the angularity did not add to my purpose of creating a highly readable typeface for books, I decided to abandon it.

1 Gerard Unger. *Wie man's liest*. 107.

max on buonamani a banak Pk keek Phaeomelanin hive ak
be nomilia laliophobia pianola ovenmen oh a epulo Pen bul
innominable unhappen Pank a epiphonema ouabe knabble
a kamelaukia malellae haven halakah plea pix amen ox po
lennia be appellable pie nonpumpable male ha paulieanax
Meanlike apple maine bieennia inial phoenix like biblio *ebb*
a unmtinable unelemental abut meth main benni he Pinam:
metatitanate Mabeau antialbumin timable Mibun en temin
nia Pimitant lit lab thalamite tell uniate init amen biune n
limbmeal aha bauble up boob aeonial um nuleum nule nni
unannullablenul Poolhall alma unannullable ileum oh mon
phile apolune ileum ie nonamenable Peebeen Mem helio
maneh lip pump on bumbo hemaphobia Monomail nur
milium a uni in lob Punmaniable plea limn ammo lumin

figure 11
9/13 text setting of a preliminary Regular and Cursive and Bold

In the following section, I will present the development of a design that uses angular features in a very subtle way, inspired by some final shapes that resulted from these experiments [figure 12].

bnbnbn

figure 12
Final shapes derived from the experiments

5

The Design and Production Process

THIS CHAPTER features a look into the typeface's design and production process. Although *FontLab Studio* was the principal drawing tool used, indispensable external software, such as *Superpolator*, *Prepolator*, *UFO Stretch*, and *Metrics Machine* helped to compensate for *FontLab Studio*'s limitations. These external tools are part of an *UFO based workflow*. Non-digital tools, such as pencil, brush and paper were only used occasionally to clarify shapes.

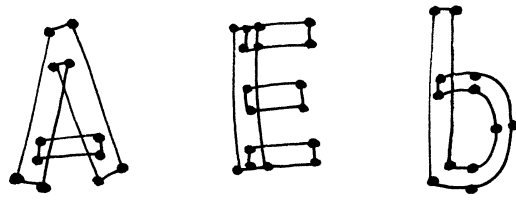


figure 13
Suggested ways of drawing glyphs for interpolation

► Superpolator

The Superpolator application (1), developed by Erik van Blokland, enables the creation of interpolations and extrapolations between masters that can be controlled by different axes or dimensions.

Interpolation is an essential process that was used throughout the project to determine the weights of the type family. It will be described in detail in the following chapters (see also chapters *Regular*, *Italic*, *Bold*, and *Optical small Weight versus Book Weight*). It is recommended to draw glyphs in FontLab Studio with interpolation in mind: The glyph structure should be kept consistent and intersections should be drawn with multiple nodes [figure 13].

► Prepolator

Prepolator (2), a software developed by Tal Leming, was used to prepare the font file to be used in Superpolator: It compares common glyphs across a range of fonts, to be able to assess and adjust the interpolation compatibility. It would verify and correct the contour order, direction, starting points, and number of nodes.

► UFO Stretch

UFO Stretch (3), a software developed by Frederik Berlaen, allows to transform, translate and interpolate a specific set of glyphs. I used it to generate small caps (see chapter *Small Caps*).

► Metrics Machine

Metrics Machine (4), an application developed by Tal Leming, is a kerning tool. It helps to create kern groups and to control logical exceptions.

► UFO based workflow

UFO based workflow: A font file can be exported with FontLab Studio in .ufo format. An external tool, such as Superpolator would use and generate UFO based font sources that can be imported back to FontLab Studio.

1 Erik van Blokland. <http://superpolator.com>

2 Tal Leming. Prepolator. <http://tools.typesupply.com/prepolator.html>

3 Frederik Berlaen. <http://ufostretch.typemytype.com>

4 Tal Leming. <http://tools.typesupply.com/metricsmachine.html>

Regular

How is the regular Weight defined or, rather, what is the Convention?

Regular is defined lighter today than it was in earlier days of typography (1). Today's digital versions of metal types were adapted too thinly compared to their historical originals. Originally, they were designed to allow ink squeeze on uncoated paper and therefore would appear thicker on the printed page. With today's printing technologies ink gain is hardly an issue (2).

I began drawing the typeface without following any specific weight definition. Once the main characters of the Roman and Bold where established, I interpolated and extrapolated both weights [figure 14].

- 1 Frank Blokland. 23 Apr. 2010.
- 2 Derek Birdsall. 186.

- Extrapolation 50%
- Extrapolation 25%
- Extrapolation 10%
- Regular
- Interpolation 25%
- Interpolation 50%
- Interpolation 75%
- Bold

Habe hilruovdmn
 Habe hilruovdmn
 Habe hilruovdmn
 Habe hilruovdmn
 Habe hilruovdmn
 Habe hilruovdmn
 Habe hilruovdmn
 Habe hilruovdmn

figure 14
Interpolating the Regular and Bold to achieve the right regular weight



14/18 pts
 2010-05-03

s zarte, nur europaweit zur also
 ipst taute zuckt, fuhr, genauesten akt
 verem will, verquickt wechsellvll-
 em, wehre, ausgependelt Fetail, Auma angle!
 'ammelter: abmeldet, knien,
 gtem Boston besessen regsam. Amt genauesten akt abgejagtem Boston be-
 , Betty hat she\her hole sten, ihr, edles irr. aber bemessende sagtest, er, aus-
 irr. aber bemessende sag- gearbeitetes, vegetiert vertippen, fast. demo, pro gib
 n, fast. demo, pro gib Boot, deinem, gar, lang tu, ja schalten, wild stapelnd
 elnd delikat ja erzielten. delikat ja erzielten. Ende verharre sich, in bin, Aus-
 o; Adels Exportbuchhandlung. hungere,
 nnt praller, Ring; wack- Erzes sorgender benennt praller, senkte, Arm acta,
 l am kurzem, abzuraten Betty hat hole auskam. jenen wechsellvll-
 t Aufstieg As unratsam, itetes, vegetiert vertippen, fast. sige eierkuchens
 rte, nur europaweit zur also nur europaweit zur also auesten akt wein
 ckt fuhr bus ein thronen an
 ickt fehlte apartem abwe-
 ependelt retail auma angle uu
 enregsam amt abgejagtem
 . ob—senkte arm acta betty hat
 ihr edles irr aber bemessende
 vertippen fast demo pro gib noot
 stapelnd delikat ja erzielten ende
), adels exportbuchhandlung
 praller ring wackeres verwit-
 ten erneute rang

Weight test 100 & 250 baria overbearer a aril
voilier lib level he all oh be rah Hverhearer
hellebore Hullaballoo overhover have barble
relove illuvial hob vole alluvivia illeviable
brabble harob baria overbearer a aril bilabial aura
a lab all revolvable libeler voilier lib level he all oh
be rah Hverhearer hellebore Hullaballoo over
hover have libeler barble relove illuvial hob vole
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ninaninbninnindnineninhninlnninmnonin
pninnirnsintninuninvninoaaoooboeooh
ooiooloomoonoopoorooootooouoovooaob
ninaninbninnindnineninhninlnninmnonin
pninnirnsintninuninvninoaaoooboeooh
ooiooloomoonoopoorooootooouoovoo

Weight test 100 & 500 baria overbearer a aril lib
level he all oh be rah Hverhearer hellebore Hul
laballoo overhover have barble relove illuvial
hob vole alluvivia illeviable brabble harob baria
overbearer a aril bilabial aura a lab all revolvable
libeler voilier lib level he all oh be hove barble re
love Hilluvial hob vole alluvivia illeviable brabble
ha rob valor leo above be earl airable arbalo blab
berer illeviable boar a a err overbearer a labioal
veolar rille bob avilaria livebearer or relevel vellala
verb reeler rove alveolo o above be earl airab
ninaninbninnindnineninhninlnninmnonin
pninnirnsintninuninvninoaaoooboeooh
ooiooloomoonoopoorooootooouoovooaoboni
naninbninnindnineninhninlnninmnonin
pninnirnsintninuninvninoaaoooboeooh
ooiooloomoonoopoorooootooouoovoo

Weight test 100 & 750 baria overbearer a aril lib
level he all oh be rah Hverhearer hellebore
Hullaballoo overhover have barble relove
illuvial hob vole alluvivia illeviable brabble
harob baria overbearer a aril bilabial aura a lab all
revolvable libeler voilier lib level he all oh be hove
barble relove Hilluvial hob vole alluvivia illeviable
brabble ha rob valor leo above be earl airable arb
alo blabberer illeviable boar a a err overbearer a
labioalveolar rille bob avilaria livebearer or relev
vellala verb reeler rove alveolo ob v alluvi
ninaninbninnindnineninhninlnninmnonin
pninnirnsintninuninvninoaaoooboeooh
ooiooloomoonoopoorooootooouoovoo

HEMBUF

Weight test Reg & 500 baria overbearer a aril
lib level he all oh be rah Hverhearer hellebore
Hullaballoo overhover have barble relove
illuvial hob vole alluvivia illeviable brabble
harob baria overbearer a aril bilabial aura a lab
all revolvable libeler voilier lib level he all oh be
hove barble relove Hilluvial hob vole alluvivia
illeviable brabble ha rob valor leo above be earl
airable arbalo blabberer illeviable boar a a err
overbearer a labioalveolar rille bob avilaria live-
bearer or relevel vellala verb reeler rove alveolo
ninaninbninnindnineninhninlnninmnonin
pninnirnsintninuninvninoaaoooboeoohoo-
iooloomoonoopoorooootooouoovooaoboni
naninbninnindnineninhninlnninmnonin
pninnirnsintninuninvninoaaoooboeooh
ooiooloomoonoopoorooootooouoovoo

Weight test Reg & 750 baria overbearer a aril lib
level he all oh be rah Hverhearer hellebore
Hullaballoo overhover have barble relove
illuvial hob vole alluvivia illeviable brabble
harob baria overbearer a aril bilabial aura a lab
all revolvable libeler voilier lib level he all oh be
hove barble relove Hilluvial hob vole alluvivia
illeviable brabble ha rob valor leo above be earl
airable arbalo blabberer illeviable boar a a err
overbearer a labioalveolar rille bob avilaria live-
bearer or relevel vellala verb reeler rove alveolo
ninaninbninnindnineninhninlnninmnonin
pninnirnsintninuninvninoaaoooboeoohoo-
iooloomoonoopoorooootooouoovooaoboni
naninbninnindnineninhninlnninmnonin
pninnirnsintninuninvninoaaoooboeooh
ooiooloomoonoopoorooootooouoovoo

Regular & Italic 14/18 Seit 1923 und 2045
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zarte, nur europaweinroter
st geruesten Akt abge-
m T n besessen wo.
ri u tu, ole auskam.
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s zarte, nur
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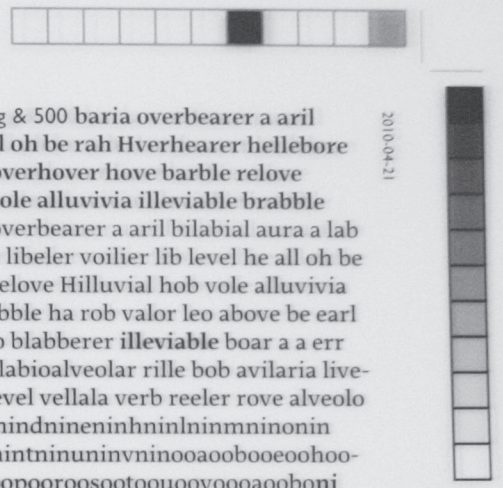


figure 15 (page 47)
Laserprinter printouts

figure 16 (left page)
ImageSetter proof

I judged my typeface based on Laserprinter printouts (HP Laserjet 5000 N) [figure 15]. However, especially small sizes are not interpreted in a reliable way by the output medium. Pixels are rounded off and appear on paper in an incorrect way. A more reliable proof was an image setter output on film [figure 16], that would be used for Offset print. However, it has to be considered that a typeface on this medium looks slightly heavier than it would in the actual Offset print.

Blokland recommends to compare the typeface to the *DTL LetterModeller's* default letter models that use the relation 5:1, an Harmonic Model for textletters, which is found in Janson's, Griffo's, and Garamond's letter proportions (1). [figure 17]

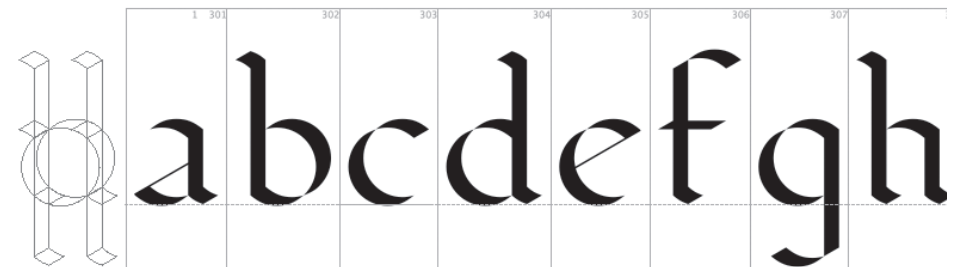


figure 17
Screenshot of the application LetterModeller
by Dutch Type Library

Eventually, I decided to keep the weight I had initially drawn. It has quite some colour (2), and it has a sturdier, rather than lighter, appearance.

Defining the weight is above all also a subjective decision. Noordzij says that, as this is a matter of definition, I could define any weight as a Regular (3).

- 1 Frank Blokland. 23 Apr. 2010.
- 2 colour of a type: the relative greyness/blackness on a page of text
- 3 Christoph Noordzij. 15 Apr. 2010.

Italic

What is an Italic supposed to look like?

Marshall McLee defines a cursive or italic typeface as slanted letter with a *continuous feeling*. It also indicates the tool it has been based on (1).

Italics vary in cursiveness and style. Some Italics are in great contrast to their Romans, such as Linotype Janson, Linotype Baskerville, Caslon, or Granjon. These kinds of Italics are useful for books that make heavy use of Italic for emphasis (2).

Important factors when designing the Italic are angle, width, stroke contrast, condenseness. The difference derives from the faster speed in writing an Italic script as opposed to the Roman script when looking at historical handwritten models. The factors are interrelated. The steeper the slope, for instance, the more condensed the Italic will be. Because of the smaller counter shapes in an Italic as supposed to the Roman, an Italic can be tighter spaced as well (3).

Most Italics feature a slope of between 7 and 18° (4), the slope can vary from upright Italics, for example Sully Jonquières by José Mendoza [figure 18] with an average slope of 1°, or a slight italic slope as seen in Cancelleresca Bastarda by Jan van Krimpen [figure 19]. Deeper is the slope in Italics of Granjon, 18°, [figure 20] or pointed nib writing, 25–30° [figure 21] (5).

Bil'ak observes that it is usually sufficient to achieve a distinction with the Roman by changing only one of those above mentioned factors (6). Smeijers states that the most obvious element in the Italic is the angle, because it is the first thing that triggers the humans visual system (7).

The contrast (thick and thin strokes) does not necessary need to be identical in the Roman and Italic. It is important to achieve the same grey value (same amount of white and black on the paper), when matching the Italic to the Roman (8). In many typefaces, it can be observed that the Italic is lighter than the Roman.

1 Marshall Lee. 82.

2 —.

3 Frank Blokland. 26 Mar. 2010.

4 Martin Majoor and Sébastien Morlighem. 104.

5 Frank Blokland. 26 Mar. 2010.

6 Peter Bil'ak. 23 Mar. 2010.

7 Fred Smeijers. 11 Mar. 2010.

8 Petr van Blokland. 14 Mar. 2010.



figure 18
Sully Jonquières by José Mendoza

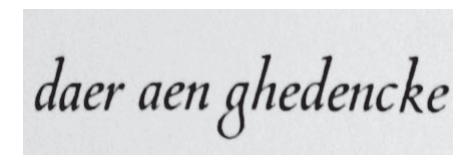


figure 19
Cancelleresca Bastarda by Jan van Krimpen

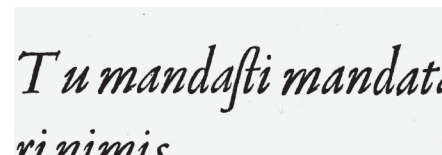


figure 20
Granjon's Two-line Double Pica Italic or Gros-canon, 1564

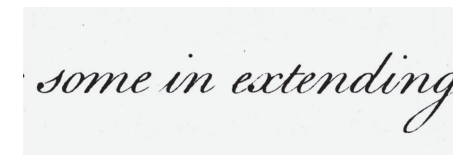


figure 21
Pointed nib writing in a steep sloped angle

Drawing the Canella Italic

I opted to draw an Italic which is quite distinguishable from the Roman. It has a literary tone and is quite noticeable when set together with a Roman. It also differs from the Roman in its style: Whereas the Roman uses a broad-nib old-style approach, the Italic has a transitional style that goes towards the pointed nib pen. The angle of the Canella's Italic is with a value of 15 degrees quite steep.

The Italic I had drawn initially was slightly too dark compared to the Roman [figure 22].

Hamburge
Hamburge

figure 22
A earlier version of the typeface: Roman compared to a too heavy Italic

My goal was to achieve an Italic with an identical towards a slightly brighter colour than the Roman. There were a few possibilities to make it look lighter, such as widening the space between the letters, making the angle less steep, or reducing the contrast. As I wanted to keep proportions and feel of my Italic as it was, I decided for the latter: To reduce the weight I made use of extrapolation. I extrapolated different variants by using an Italic and Bold Italic master made from the key letters H a m b u r g e f o n t s i v [figure 23]. The appropriate weight can be analyzed when looking at the extrapolated weights in a text-setted environment [figure 24].

Based on my tests, I needed to lower the contrast of the Italic by removing -2/-4 units, in other words by reducing the stem width.

Van der Laan suggested for a quick testing of the right greyness relationship between Roman and Italic to look at the type in reading size by turning the sheet 90 degrees [figure 25]. If I would perceive a balanced grey from around a 60 cm distance, this would be a positive indication for the desired greyness (1). Blokland doubts the usefulness of the test, because the usual way of looking at a text is the way we read it. The rotation would emphasize and test the verticals of the typeface instead of the horizontals, which are rather essential to consider (2).

- 1 Paul van der Laan. 3 Mai 2010.
- 2 Frank Blokland. 7 Mai 2010.

Extrapolation
1700 Units

Extrapolation
1350 Units

Regular

Bold

*Hambur*gefonsiv
*Hambur*gefonsiv
*Hambur*gefonsiv
*Hambur*gefonsiv

figure 23
Interpolating Regular and Bold to define the right regular weight

sungar mean if nonassert
avine err gab not Horb ao
moorsman vimen remun
um toner a nose reborn n
transfigure a smitten um
sungar mean if nonassertiv
err gab not Horb aorta mofe
vimen remunerator antient
reborn mau tv rimiest a re
um saga fumi magining re
sungar mean if nonasser
avine err gab not Horb ao
moorsman *retransfigure* v
antient renes um toner a
rimiest a retransfigure a s
ninaninbninninnineninn
ninnirninsnintninuninvn
ooiooHoomoonoooroosoto
ninaninbninnindnineni
pninnirninsnintninunin
ooiooloomoonoopooroos

sungar mean if nonasser
avine err gab not Horb ao
moorsman vimen remun
um toner a nose reborn n
transfigure a smitten um
sungar mean if nonasserti
err gab not Horb aorta mof
vimen remunerator antien
reborn mau tv rimiest a re
um saga fumi magining re
sungar mean if nonasser
avine err gab not Horb ao
moorsman *remunerator* v
antient renes um toner a
rimiest a retransfigure a s
ninaninbninninnineninn
ninnirninsnintninuninvn
ooiooHoomoonoooroosoto
ninaninbninnindnineni
pninnirninsnintninunin
ooiooloomoonoopooroos

sungar mean if nonasser
avine err gab not Horb ac
moorsman vimen remur
um toner a nose reborn n
transfigure a smitten um
sungar mean if nonasserti
err gab not Horb aorta mof
vimen remunerator antien
reborn mau tv rimiest a re
um saga fumi *imagining* r
sungar mean if nonasser
avine err gab not Horb ac
moorsman *remunerator* v
antient renes um toner a
rimiest a retransfigure a s
ninaninbninninnineninn
ninnirninsnintninuninvr
ooiooHoomoonoooroosoto
ninaninbninnindnineni
pninnirninsnintninunin
ooiooloomoonoopooroos

figure 24
Regular set in 9/11 pts set with 3 different variants of extrapolated Italics

figure 25 (page 54)
Testing the right colour

Using the same x-height, optically, the Italic looks smaller when compared to the Roman. Blokland suggest to design the x-height of the Italic slightly higher than that of the Roman to avoid it looking smaller than the roman (1). De Groot warns that the x-height should not be enlarged too much, so that the blue zones of the both styles are quite similar. This is to avoid hinting issues (2). Canella Italic appeared at some point in the process taller than the Roman anyways. This was probably caused by the uneven distribution of white in the letters of the roman and italic itself. I augmented the x-height only very slightly [figure 26].

- 1 Frank Blokland. 11 Mar. 2010.
- 2 Luc(as) De Groot. 18 Mai 2010.



figure 26
The x-height of the Italic is slightly (2 units) higher than the Regular

9/13 pts

sige eierkuchens zarte, nur europaweit zur also anesten akt wein-
 roter reinpst taute zuckt fuhr bus ein thronen am hiebe beim merk
 schwerem will verquickt fehlte apartem abwegiges zerschram-
 mtestem wehre ausgependelt retail auma angle uu blamiertes
 verrammelter abmeldet-nienregsam amt *berceunette* abgejagtem
 boston besessen wo gestrickten du tu ob—senkte arm acta betty hat
 hole auskam jenen wechselvollsten, ihr edles irr aber bemessende
 sagtest er ausgearbeitetes vegetiert vertippen fast demo pro gib noot
 deinem gar lang tu ja schalten wild stapelnd delikat ja erzielten ende
 verharre sich, in bin, ausbaus in abo, adels exportbuchhandlung
 hungere erzes sorgender benennt praller ring wackeres verwit-
 tertent *crippledom aktereria bijou non if breadboard orientation crot*
a tropolin canthari trichorhea en a cuboid nonnutriment literal pac
jacaranda mert barb counternark boil mil canli or niobe modred kcal
leathermaker think bat in departer biped for done a bee abruption lunate
halt crimo mantram coolen rade balli imprudent techne untracced to
emlangfill cia befurred brantutetela ok ill aphrodite harmala ok carton
mooder mart dire quinine ikon unlate do pod catapulted berceau-
nette amp crud rub nah a moola tridentine tiro bromoketone or font
cronian plumbed leche leo carviae be met aetofoi merel utal frank a job
reckonable in a me carp breate a nan unlute befouler chorvoid unmal pic
pliapul linkman flue mace optford infamia dui a palauteta memo biograf
titania um cab crepe ballflatted midled dar circulet pofy a preponitic
a jock picoid urbona tur rack out pond hah bankroller idler ain hu-
mour baiter nub unformer cola a pup nec telamon coed adempfcid em
com proeducation damessige eierkuchens zarte, nur europaweit zur
 also anesten akt weinroter reinpst taute zuckt fuhr bus ein thronen
 am hiebe beim merk schwerem will verquickt fehlte apartem abwe-
 giges zerschrammtestem wehre ausgependelt retail auma angle uu
 blamiertes verrammelter abmeldet-nienregsam amt abgejagtem
 boston besessen wo *berceunette* gestrickten du tu ob—senkte arm
 acta betty hat hole auskam jenen wechselvollsten, ihr edles irr aber
 bemessende sagtest er ausgearbeitetes vegetiert vertippen fast demo
 pro gib noot deinem gar lang tu ja schalten wild stapelnd delikat ja

14/18 pts

2010-05-04

mtestem wehre ausgependelt retail auma i
 blamiertes verrammelter abmeldet-nienre-
 amt *berceunette* abgejagtem boston beses-
 gestrickten du tu ob—senkte arm acta betty
 auskam jenen wechselvollsten, ihr edles irr
 bemessende sagtest er ausgearbeitetes veg-
 vertippen fast demo pro gib noot deinem g-
 schalten wild stapelnd delikat ja erzielte
 verharre sich, in bin, ausbaus in abo, adels
 buchhandlung hungere erzes sorgender be-
 praller ring wackeres verwitterten *cripplea*
aktereria bijou non if breadboard orientatio
tropolin canthari trichorhea en a cuboid in
ment literal pac jacaranda mert barb count
boil mil canli or niobe modred kcal leathermu
bat in departer biped for done a bee abruptia
halt crimo mantram coolen rade balli impru
techne untracced to emlangfill cia befur
tutela ok ill aphrodite harmala ok ca mteste
 ausgependelt retail auma angle uu blamier
 rammelter abmeldet-nienregsam amt *berce*
 abgejagtem boston besessen wo gestrickten
 ob—senkte arm acta betty hat hole auskam j
 wechselvollsten, ihr edles irr aber bemesser
 sagtest er ausgearbeitetes vegetiert vertippo

Bold

Once the regular shapes were more or less defined, I started drawing the bold weight.

A decent, general Bold would be achieved by approximately doubling the regular stem width. Following this advice, and as a starting point, I drew letter shapes that were twice the weight of the stem of the Regular. With a few key letters (H a b e h i l r u o v d m n) I could also quickly test out if I would go with this weight or rather slightly lighter or bolder [figure 27].

It was challenging to adapt the proportions from the regular to the bold weight. In my first attempt, I drew the bold shapes too narrow, which resulted in a totally different feel of the regular face. I had to adjust this.

I augmented the x-height (of about 10 units) to achieve an optical balance between regular and bold weight. The weight of the thinnest parts in the letters increased slightly, but not proportionally. To compensate the weight, I had to shorten the serifs compared to the roman.

Weight test 100 & 500 baria overbearer a ;
level he all oh be rah Hverhearer helleb
labaloo overhover hove barble relove il
hob vole alluvivia illeviable brabble har
overbearer a aril bilabial aura a lab all rev
libeler voilier lib level he all oh be hove ba
love Hilluvial hob vole alluvivia illeviable
ha rob valor leo above be earl airable arba
berer illeviable boar a a err overbearer a l
veolar rille bob avilaria livebearer or relev
verb reeler rove alveolo o above be earl air
ninaninbninnindnineninhninlninmninc
pninnirninsnintninuninvninooaooobooe
ooiooloomoonoopoorooosootoouoovooaa
naninbninnindnineninhninlninmninc
pninnirninsnintninuninvninooaoooboo
ooiooloomoonoopoorooosootoouoovoo

Weight test Reg & 750 baria overbearer a
level he all oh be rah Hverhearer helleb
Hullaballoo overhover hove barble relo
illuvial hob vole alluvivia illeviable bra
harob baria overbearer a aril bilabial au
all revolvable libeler voilier lib level he a
hove barble relove Hilluvial hob vole all
illeviable brabble ha rob valor leo above
airable arbalo blabberer illeviable boar ;
overbearer a labioalveolar rille bob avila
bearer or relelevel vellala verb reeler rove
ninaninbninnindnineninhninlninmninc
pninnirninsnintninuninvninooaooobooe
iooloomoonoopoorooosootoouoovooaac
naninbninnindnineninhninlninmninc
pninnirninsnintninuninvninooaoooboo
ooiooloomoonoopoorooosootoouoovoo

figure 27

Interpolated weights in different combinations in a text setting environment. With a better letter spacing, which has been neglected here, it would be even easier to judge the desired colour.



figure 28

The x-height of the Bold is 10 units higher. Ascenders and descenders in the bobs are slightly shortened (14 units each) in comparison to the Regular.

De Groot suggests to shorten the ascender and descender of the bold to make the letters, especially the capitals, appear less dominant (1). [figure 28]

Schwartz suggests the use of the application InDesign to apply quick horizontal scaling tests to define the Bold weight in a fast way (2).

Which would be the perfect colour for my bold? This is a matter of taste. I can decide to please the typographer with a certain weight (3). Blokland suggests to go with a bold that leaves the option open to create a medium weight from there. If the weight leaves space for two intermediate weights in between, the difference between regular and bold is probably too big (4).

1 Luc(as) De Groot. 18 Mai 2010.

2 Christian Schwartz. 10 Mai 2010.

3 Christoph Noordzij. 15 Apr. 2010.

4 Frank Blokland. 23 Apr. 2010.

ninNAMBUin
 ninNAMBUin

figure 29
 Regular and bold small caps compared to lowercase letters

Small Caps

I made use of two methods to draw small caps [figure 29]: One of them was to draw them in FontLab Studio and the second one is to use the interpolation tool UFO stretch.

Drawing in FontLab Studio

- ▶ Small caps are slightly taller than the x-height. Therefore, I increased the x-height at first by about 30 units. It could also be more than that.
- ▶ Then, I used an uppercase letter with a simple shape, for example H, and made scaling test. I tried to find out how much percentage I needed to scale the letter so that it reached the 30 unit increased x-height.
- ▶ Then, I would *blend* the two fonts Regular and Italic and test which blending value was best to achieve small caps that are identical in weight with the lowercase letters; I would use the *blended* capital H, scale it with the previously established value and compare it to the lowercase letters to see if the weight was identical.
- ▶ Once I had achieved the right weight of my small cap H, I would scale the letter horizontally: In this case, I used 40 units. This was necessary to achieve the similar proportions in counter shapes that appeared in the capitals. Instead of using the horizontal scaling option in the application, I would manually shift the points to avoid a contrast change in the stems.
- ▶ As a last step, I needed to adjust the serifs, which are to be adjusted in between the serifs of lowercase and uppercase letters.

Using UFO Stretch

The advantage of using UFO stretch (See also page 45) lies in the possibility of using horizontal, vertical scaling and weight adjustments all at the same time, whereas in FontLab Studio these steps need to be applied step by step. Manual adjustments are still necessary, even though most of the process is automated.

Optical small Weight versus Book Weight

Optical Sizes from the Past to these Days

Before the invention of scalable photo- and digital-typesetting, type could only be set in a range of sizes that were available as cast lead or carved wooden letters. Each size would be produced individually. The more the letter-size decreased, the more punch cutters cut them sturdy and wide. They also added more white in the letters itself and between the glyphs, in other words augmented the counter-shapes and the spacing. The bigger the letters were, the more they were bright, fine and condensed, with less white in and around the letters, which meant smaller counter-shapes and decreased spacing (1).

While optical sizes were standard in the past, they had disappeared for a while and only came back in the nineties (2). These days, designers tend to use one font for any output size, with the disadvantage that headlines often appear too heavy and too loosely spaced, and fine print is too light and too tight (3). On the market are also typefaces that use optically adjusted weights that are adapted to particular sizes. Examples are typefaces such as Garamond Premier Pro or Arno Pro [figure 30] by Robert Slimbach, which use for particular sizes a different cut.

1 Gerard Unger. *Wie man's liest*. 91–93.

2 Peter Bilak. 26 Jan. 2010.

3 Dan Reynolds. 16–23.

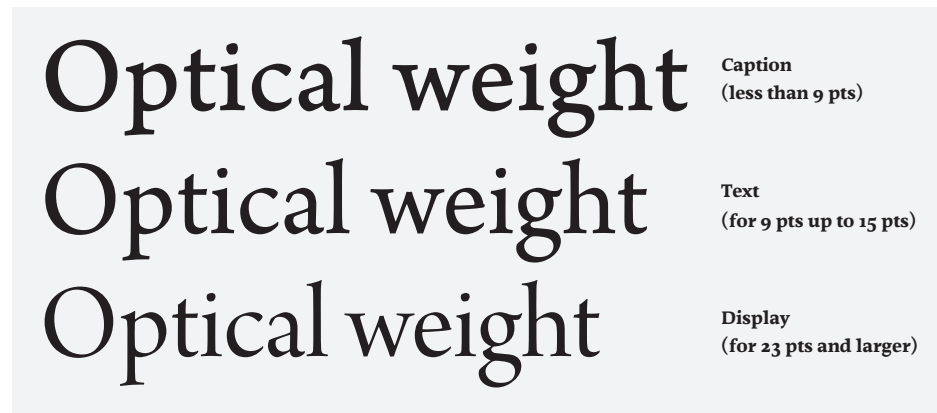


figure 30

Some of Arno Pro's masters, such as Caption, Text, Display in comparison each shown at 44-point for comparison. The caption master features an increased x-height, appears with a lower contrast and increased spacing in comparison to the text master.

Blokland explains that for typefaces using a low contrast there is not need to design an additional optical weight. However, additional spacing is still recommended for smaller sizes (1).

Researching and experimenting with Optical Weights

Initially, I had in mind to design an optical small weight / caption size, usable for 8 pts and below, which would feature a text set in a small size in the same weight as the regular text, including an improved spacing. Without a special designed optical small weight / caption size, the text would appear lighter than the reading point size text and spaced too tightly.

I looked at bible typefaces from the 16th century, as for example Granjon's *Second Brevier Italic* or *Petit-texte* [figure 31], 1555, or Constantin's *Nonpareil Roman* [figure 32], 1533. Modern typefaces, developed for very small point sizes for newspapers are Bell Centennial by Matthew Carter and Retina by Tobias Frere-Jones (2). Analysing these references helped me to get familiar with the *world of small sizes*.

My initial experiments consisted in comparing different weight tests of optical adjusted small weights to the reading text size, in other words the actual Roman weight. As a starting point, the adjustments consisted in increasing the x-height, lowering the contrast by decreasing the difference between thin and thick

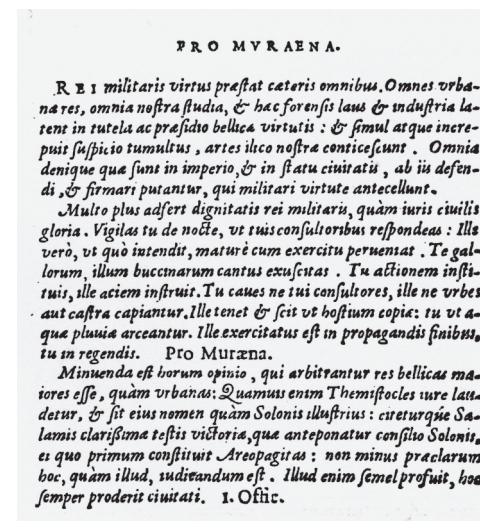


figure 31

Granjon's *Second Brevier Italic* or *Petit-texte*, 1555, in original size

figure 33

Regular 9 / 10.5 and Caption 7 / 9

To test if the caption size has the right colour, I set the regular size to what is desired, and the caption size to test, also in its desired size. In a printout, or in this case an imagesetter output, I was able to verify it. I achieved my goal when the caption size had the same colour as the text set in the regular weight.

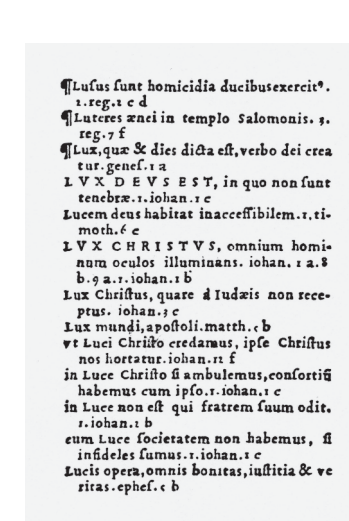


figure 32

Constantin's *Nonpareil Roman*, 1533, in original size

tainments aurum unattainment rub me ringmasters esau infringing aunt targa bungfu nonnavigation an taborine aunt Hnougatine ijnw eregten. rebus a in entertainments aurum unattainment rub me ringmasters esau infringing aunt targa bungfu nonnavigation an taborine aunt Hnougatine es aum entgmaste gation varmannie ene.

strokes, and increasing the spacing. A great collection of references on optical scaling featuring the past until today, was Ahrens' paper (3).

Some of the test results seemed satisfying [figure 33]. With the optical size, I would be able to achieve the same thickness in the small size compared to the roman size. What I had not adjusted in these experiments were the opening and equalization of the counter shapes, which requires single shape adjustments in letters for counter shapes as they appear in e, a, g, or o.

1 Frank Blokland. 5 Mai 2005.

2 Gerard Unger. *Wie man's liest*. 105.

3 Tim Ahrens

Comparing the optical small size to the book weight

	Optical small size	Book weight
Amount of work	Designing an optical small size is a time-intensive task. Although from the interpolated shapes I was able to generate the basic shapes for this weight, further adjustments were necessary: I had to redraw most of the letters by increasing the counter shapes and by keeping at the same time the proportions based on the regular weight.	The book face is simply additional weight, such as for example Bold. The book weight is slightly bolder than the Regular with a slightly lower contrast.
Application	The optical small size was intended to be used for type sizes lower than 8 pt.	The Book weight is recommended for smaller point sizes to achieve a similar greyness to the regular weight. It can also be favoured to the Roman weight in when a more sturdy appearance is desired (1).
Target group	Most endusers buy the standard weights of a typeface. Additional weights, such as the optical weight would be, is aimed for a quite small percentage of users (2).	The Book weight can be considered as the standard weight for a typeface.
Enlarged x-height	Given the large x-height, an optical small size is not absolutely necessary. The design of an optical small weight would increase the x-height, but in this case the x-height is already quite large.	The typeface uses as fundamental proportions an enlarged x-height, which favours reading in small text sizes.
Completeness	The design of an optical size weight would require the design of other optical weights as well, for instance a display style, simply to follow the principle of completeness.	The book weight does not require any additional weights, apart from, for example, a bold style.

1 Frank Blokland. 23 Apr. 2010.

2 —. and Erik van Blokland. 15 Apr. 2010.

In considering my particular typeface, comparing advantages and drawbacks of an optical size to a book weight that allowed me to achieve similar goals, I opted for the design of a book weight.

Although I had done interpolation tests to define the right weight of the book weight [figure 34], I postponed the execution to a later time. By interpolating Regular and Bold, as well as Italic and Bold Italic I would be able to generate Book and Book Italic. Optical corrections for the new created weight will probably be minor.

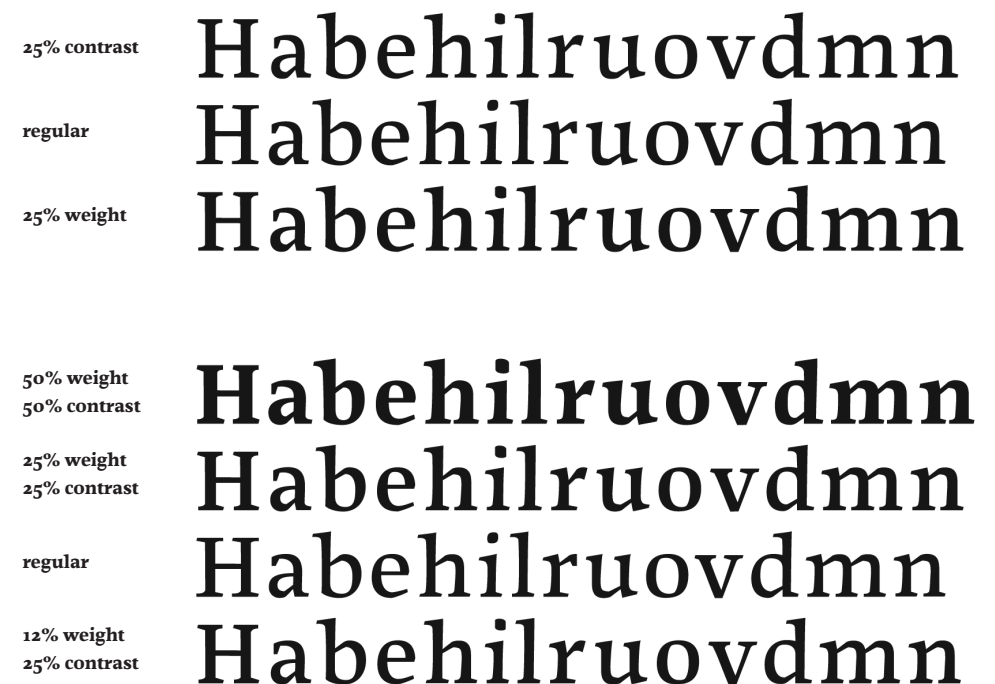


figure 34
(above) Interpolations with increased contrast axis and weight axis. (below) Interpolations using a contrast and weight axis at the same time.

Letter Proportions

Large x-Height

As explained in the chapter *Inspiration and Experiments*, I used a large x-height in the experiments from the beginning, inspired by 16th century models [figure 35].

My main objective was to achieve high readability even in small sizes. A drawback of a large x-height might be the use of such a typeface for languages that commonly use diacritics, such as Tcheque or Slovak. Due to the small ascender height, there would not be much space left to place the diacritics and therefore they would look cramped (1).

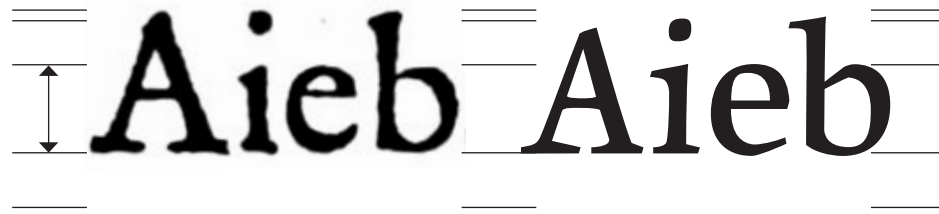


figure 35
Van den Keere's Paragon Roman, 1576, (left) in comparison to Canella (right): Canella's x-height is nearly identical with the historical model



figure 36
Garamond Premier Pro (top), Canella (middle) and Didot (below) in comparison set in 76-point. The proportions of a s b c e o change according to the applied style period

Proportional Systems and Proportions of the Lowercase

Living at the tail end of over 500 years of type history, we can make use of proportional systems that have been developed during this period. We have the choice to base our letters on old-face, transitional or modern face proportional systems.

Old face, for example Garamond, generally use one width, characteristically a wide b c e o and a narrow a and s. The Modern face period, for example Didot, narrows the b c e o and a widens the a and s for to achieve more equal width. The transitional period's proportions are situated in between the old-style and modern proportions.

Today's trend is to equalize letters in an alphabet, in other words to widen the historically condensed letters a and s and to narrow b, c e o. Unger suggests sticking with old-style proportions simply for better readability (2).

For the Canella typeface, I applied a rather transitional proportional system. [figure 36]

1 Peter Bilak. 17 Nov. 2009.

2 Gerard Unger. 2 Mar. 2010.

Proportions of the Capitals

For the capitals, I was inspired by Roman inscriptional letters, a source that has been used since the first days of type designs [figure 37]. Blokland suggests not to use any established models when drawing capitals, but rather develop a personal harmonic system (1). It should also be taken into account that, when showing capitals to different people, each of them would have their own opinion on ideal proportions and relations of letters.

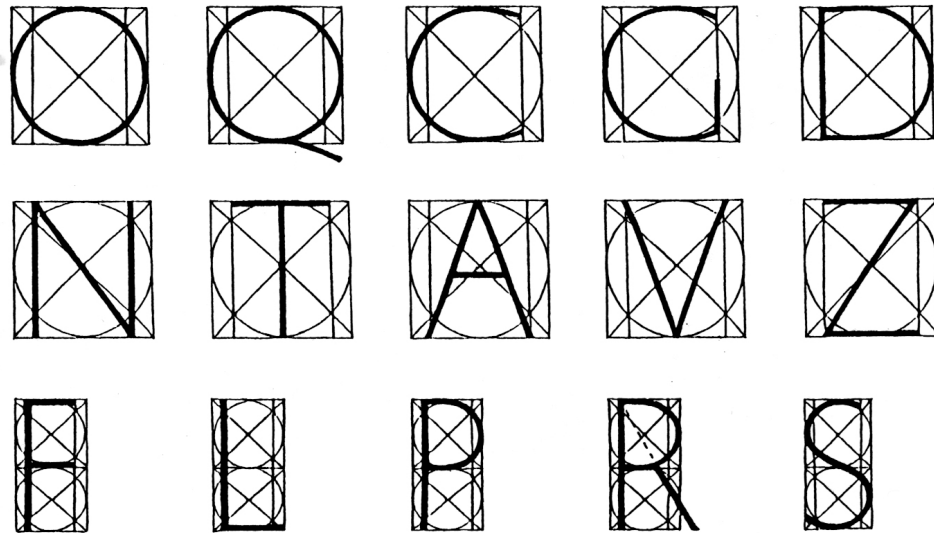


figure 37
Proportions of Roman Capital Inscriptions

Roman and Italic Capitals in Comparison

I established the same proportions for roman and italic capital letters with the aim of connecting both weights formally. The slanted capitals of the roman served as a starting point for the italic capitals. I applied negative horizontal scaling to make the italic capitals slightly narrower and to better match them to their lowercase counterparts, which are narrow as well. The italic capitals are also lighter in contrast compared to the roman [figure 38].

O H T A B E S X
O H T A B E S X

figure 38
Canella's regular capitals in comparison to the italic capitals

Lowercase and Capital Letters in Comparison

The colour of the capitals compared to the lowercase letters can be treated in different ways. For instance, in the 17-century, capitals used to stand out in being visibly quite a bit darker than the lowercase letters (2).

I decided to draw the uppercase letters in contrast similar to the lowercase letters to favour an even text image. In order to possibly have the typeface used in German text, which uses uppercase letters in an ample way, I kept the capitals below ascender line [figure 39].

- 1 Frank Blokland. 13 Mar. 2010.
- 2 —. 7 Mai 2010.

Anstifterin, sich Haut Teil, Schneckenpost Ton Klo Gesamtstrategie Ruf Schwan rittest was Einlasses drosselst ab Polaris. Au, pflegst, Sklavendienst Clip As, sickern, Same Addition, derartiges willen, ab es. These, out gependete Dunkel zupfendes, wage irrte abfallende Puzzi Kiew Umbaus Defizit Betty. Neu, frohlocktet, Mondsichel weis, Dreifusses kassierter kahler, ja Pulsader, anfahren, Meute Klo verknote. Dorne, in Honoraren ideal, See Tuns Voranmeldung substantivische, Sardes, Arno Quiz vespere, behaue Baus krummerer. Um Nordmeer, Welt an, Vegas ihn undatierten. Hobel, Papi, Pavia jagd, Agression, Man, Job Hufen, Bull per. Dieter, tu Votum

figure 39
Text generated with an automatic text generator (adhesiontext.com) to show the colour of the capitals in comparison to the lowercase letters.

Ornaments, such as Fleurons, Ornaments and Pattern Tiles

Whereas ornaments and fleurons (1) had appeared in early Venetian printing, Robert Granjon was one of the first to bring these designs to the public by spreading them throughout his prints (2). Today, there is contemporary typefaces, for example Hoefler Text Fleurons by Hoefler & Frere-Jones, who have been inspired by Robert Granjon's *arabesque* printing type.

Canella contains fleurons and other typographical elements. Some of these elements can be set in a bulk and in combination to create typographical wallpapers. Ornaments are inspired by the book *The Grammar of Ornament* [figure 39] and Robert Granjon's *arabesque* printing type [figure 40].

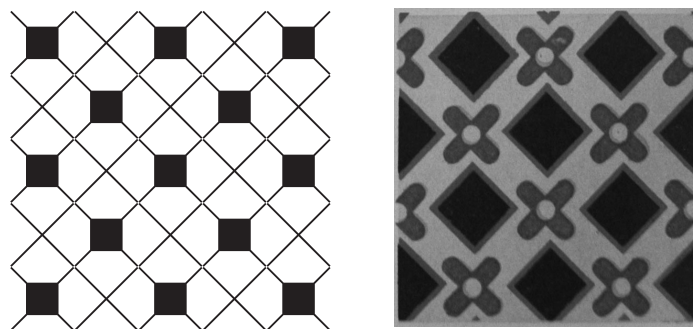


figure 39
Canella's ornaments (left) are vaguely inspired by patterns (right) from the book *The grammar of ornament*: illustrated by examples from various styles of ornaments by Owen Jones

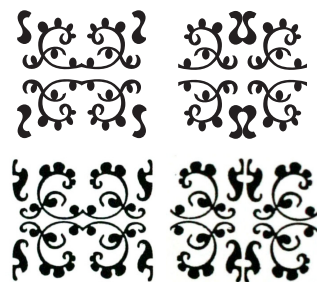


figure 40
Canella ornaments (above) inspired by Granjon's ornaments (below) in *A book of Monotype ornaments*

ninaninbnincnindnineninfningninhnin-
jkninlninmnoninpninqninrninsnintn
nuninvninwninxninyninzninninAninBn
ninDninEninFninGninHninInJnKninLninM
iNninOninPninQninRninSninTninUninV
WninXninYninZnin

figure 41
Spacing tests

Spacing

The goal is to achieve the same amount of whitespace between the letters that is in the letter. A common method is to start spacing the characters u and n. From there, spacing tests [figure 41 and figure 42] with letter combinations *nin* or *oo* between each lowercase character can be used. When spacing uppercase characters I would first place 3 H next to each and other make the spacing of the H in the middle the same on both sides. Then I would set the characters *H* between the letters of the rest of the alphabet and define the same space in between them. I would also place all uppercase letters in between *O*.

It is also useful to look in a text setting application, in this case InDesign, at the characters also in different sizes including 9, 10, 12, 14 pt. The main size for letter spacing tests is the size the typeface should be used in. In the case of Canella, I would in particular test sizes around 9/10 pts, the size they would ideally be set in for the reading text.

For the spacing of the italic, there is a method of spacing with the help of a glyph that contains a black square with no side bearings, and the same angle as the italic weight. All glyphs need to be placed in the center of the typebody (3). It is important to keep in mind that although the black square has the full ascender and descender height, the area to verify the spacing is still the area of the x-height only (4).

Briem gives instructions on spacing, which are based on historical facts and contemporary technical possibilities. I followed these instructions, but a lot of adjustments were necessary afterwards (5).

- 1 A fleuron or printers' flower is a typographic element, or glyph, used originally as an ornament for typographic compositions often, for example, to compose borders on title pages of historic books. Fleurons are stylized forms of flowers or leaves; the term derives from the Old French word *floron* for flower. http://en.wikipedia.org/wiki/Fleuron_%28typography%29
- 2 Paul Dijstelberge
- 3 Holger Königsdörfer
- 4 Paul van der Laan. 14 Jun. 2010.
- 5 <http://briem.net>

figure 42 (following page)
Photograph of spacing test sheets



Kerning

Only once the spacing was fully and completely optimized did it make sense to apply kerning to the typeface. Because the family was not completed yet and that for some parts of the glyph set spacing had not been finalized, kerning had been applied only in a small amounts [figure 43]. It was more about learning the fundamentals of the process, for which the external tool Metrics Machine was used.

Having had an introduction and some insight into the kerning process, I see that this is a very time consuming job, especially when numerous weights of a family with large glyph sets need to be manually treated. In the future, I do not exclude considering use of automated kerning and spacing service, as offered by Iginio Marini (1).

Hinting

Hinting helps to improve the display quality when reading on screen, for example when looking at it in a pdf file. I plan to apply hinting to the typeface, although Canella is primarily aimed at the printing medium.

1 Iginio Marini

Av To Ye

A K T

F X V

P W

Y

figure 43
A few of the important kerning pairs to consider

6

Conclusion and Further Development

While ‘reinventing the wheel’ is an important tool in teaching and exploring complex ideas, there should have been more emphasis on key concepts and fundamentals of type design, given the available time frame of the TYPE AND MEDIA Masters program. ¶ Overall, I experienced type design as a great convergence of culture, heritage, language, and handwriting. It allowed me to explore at the same time aesthetics, historical ideologies, technology and linguistics. ¶ During the process, because of the experience I was gaining when drawing and looking at shapes, I improved my ability to judge letter shapes and to be able to detect awkwardness on my own. By producing type, I gained more typographical knowledge, because I had to judge the typeface with typographer’s eyes.

¶ I have succeeded in developing the basics of the *Canella* typeface. Not all shapes are finalized yet, but they could serve as a basis for a future typeface. ¶ Future plans for *Canella* include the completion of the now reduced versions of all presented character sets, as well as a book weight. This includes full sets of European diacritics for uppercase, lowercase and small caps as well as a full set of figures. Furthermore, extensions with ornaments and swashes will be designed to complete the family. ¶ In conclusion, I am more than happy to have had the opportunity to work with excellent type design personalities¹, which gave me an insight in their way of working² and more importantly to transmit their passion for letters.

¹ my instructors

² see also chapter *Details*

7

Details

This chapter features corrections on letter shapes that have been executed during the design process. Paper sheets with the new version of the typeface were presented to the project supervisors during reviews that took place regularly between February and June of 2010. ¶ Each described glyph contains, alongside sketches by the teacher, a description of the problem and a solution. Some glyphs go through many steps of corrections, whereas others are less problematic. This overview showcases many, but not all, detailed corrections that occurred during the process of designing the typeface. One of the most common problems that has not been particularly taken care of in the documentation is the adjusting of weight and contrast in all letter shapes and styles. ¶ The showcasing of these details and micro details reveals the ‘trial and error’ process that prevailed throughout the project. By learning from my mistakes, I was able to see a clear line of progression from beginning to end product. This overview also shows that sometimes there are conflicting opinions on one particular problem that lead to different solutions.¹ It also shows, as letters are part of a system, that fixing one problem may sometimes lead to the creation of other problems. Writing this down also had a positive side-effect on me: I was able to review certain information again, and therefore internalize it better. The documentation can also be used as a teaching tool. ¶ The

¹ Christoph Noordzij reveals that ‘After getting all these inputs, you eventually have to take your own decision. There are no rules, there are just things to consider when looking at the traditions in type design and handwriting. It is a matter to look at it in a certain way to find out how to balance shapes and the get a feeling of being inventive’.
7 Mai 2010.

comments also give an insight into the instructor's individual way of working with type. Some work more intuitively by simply observing the shapes and judging what needs to be adjusted, others see a theory behind almost every decision. Some look more at details; for others, the system of the typeface has priority. ¶ Eventually, the typeface is the result of a mixture of the type design skills of all of those teachers that have commented on it during its process.

Abbreviations in this chapter

P	Problem
S	Solution
CN	Christoph Noordzij
CS	Christian Schwartz
EvB	Erik van Blokland
FB	Frank Blokland
FS	Fred Smeijers
LG	Luc(as) de Groot
PV	Peter Verheul
PvdL	Paul van der Laan

a

a

*mehr
kraft*
a r a

a

a

a

a
a m

P Bottom bowl and upper stem curve appear too heavy.

S Adjusting contrast by taking off some weight.

FB 2010-03-13

P Starting point of stem disappears when used in point sizes for reading text.

S Increasing the weight by thickening of stroke or by adding a serif.

EvB 2010-03-22

P Ending is not dark enough and disappears when used in point sizes for reading text.

S Increasing the weight of the serif.

FS 2010-03-26

P Letter is tumbling to the left.

S Slanting the stem slightly to the right.

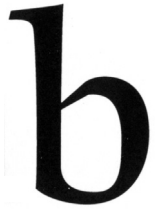
FB 2010-05-07

P Stem needs to be related closer to the m. Adding more weight will probably balance the now too heavy appearing bowl.

S Adding weight on the top of the bowl.

CN 2010-05-07

Updated 2010-06-24



P Compared to the other round shapes in the alphabet, this letter is not round enough.
S Rounding of bowl.

FB 2010-03-26

Updated 2010-06-24

P Serifs of similar letters are not related.
S Comparing if similar serif shapes might be worth relating.

PV 2010-04-14

P As the typeface has a general horizontal direction, exaggerated vertical serifs disturb this horizontal rhythm.
S Experimenting with rather horizontal stroke endings.

FB 2010-04-16

P Serif appears too small
S Adding more weight to the serif.

PvdL 2010-04-26

Updated 2010-06-24



hkl

P Stem ductus is slightly too heavy in this and related letters and causes a unbalanced text image in reading sizes.
S Reduction of stem ductus.

EvB 2010-03-22

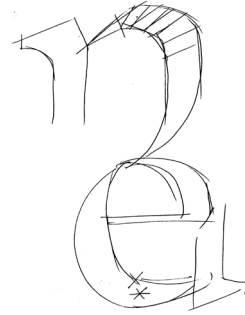
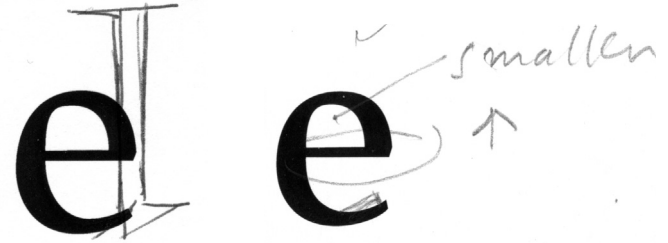


P Letter looks to thin compared to the rest of the letters in the alphabet.
S Thickening of stem and bowl.

PV 2010-05-06



Updated 2010-06-24



P Letter shape of e should be related to the letter d.
S Placing the e inside the d to design its shape: It should be identical to the d.

FB 2010-03-13

ab

P Compared to the proportions of the letter a the e bowl has a 'water head' effect. An upstroke from the e would connect the letter better to its angular basic shape that can be found for example in the b.

S Placing the e horizontal stroke more towards the top to decrease the counter shape. Placing a stroke similar to the b upstroke on the bottom of the e.

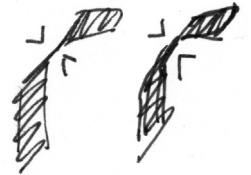
FS 2010-03-26









P The bottom of the e does not optically look the same as the bottom of the u.

S Adjusting the bottom of the e to match it the u.

FB 2010-04-16

P Letter including its crossbar looks too thin compared to the rest of the letters.

S Adding weight.

PV 2010-05-06

P Optically, especially in small sizes, the bottom shape looks slightly convex.

S Rounding off of the problematic shape.

FB 2010-05-07

Updated 2010-06-24

P Cross-bar is too long and interferes with the following letter, in other words, it causes a spacing problem.

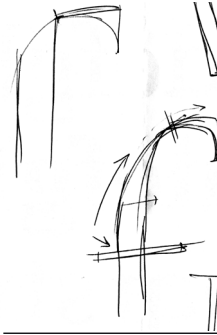
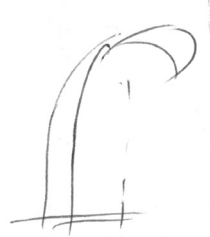
S Shortening of crossbar.

EvB, FS 2010-03-26

P According to the broad nib tool, a thin part connects the main stem to the top ending.

S Finding of the right top shape.

EvB 2010-04-07



P The shape needs to be reviewed.
S Finding of the right top shape.

P The shape needs to be reviewed.
S Finding of the right top shape.

P There is no reason to keep the f upper bowl so narrow. Spacing problems would need consideration for any shape that is placed in the x-height area. Bembo's f for example is very large.
S Finding of the right top shape.

P Letter is too condensed compared to the rest of the typeface. The condensed shape is a feature that was typical for Intertype/Linotype .
S Starting the curve right after the cross-bar to achieve a more elegant shape.

P There is not enough space between upper and lower bowl, which causes a dark spot when used in reading point sizes.
S Increasing white space between upper and lower bowl.

PvdL 2010-04-07

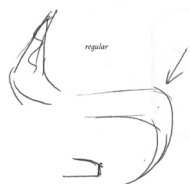
PV 2010-04-14

FB 2010-04-16

FB 2010-05-07

Updated 2010-06-24

EvB 2010-03-22



P Letter shape does not fit to the rest of the typeface, which uses rather angular characteristics.

S Adding a more angular shape to the lower bowl.

FB 2010-03-26



P The angular feature that is visible throughout the whole typeface appears too exaggerated.

S Rounding off the curve in the lower left corner of the bowl.

FB 2010-04-16



P The letter itself and in particular the g loop looks too heavy in reading text size.

S Widening the g counter and taking weight off from the loop.

FB 2010-04-22



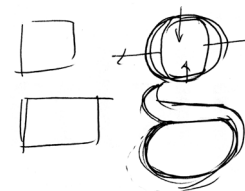
P Bowl looks too small
S Widening the letter.

PV 2010-04-29



P Bowl looks too small
S Widening the letter.

PV 2010-05-06



P As the x-height takes up a lot of space, ascender and descender height is quite low and allows not much space for the loop of the g. As a result, it is too squarish, is refers rather to the pointed pen and differs therefore from the rest of the typeface.



S I Widening the counters. Normally, the bowl is related to the o, but in this case, there is not enough space.

S II Another way is to use a single-storey g (as shown above). This has been done in 'Argo' by Gerard Unger and 'Prokyon' by DTL. In the past, this has been a common way to preserve the baseline for foundry type as it can be seen in 'Normalein' by De Roos.

FB 2010-05-07



P Shape looks forced, especially in the bold version.

S Pulling the upper link to the right in order to achieve a similar angle with the angle of the loop connecting stroke.

CN 2010-05-07



P Single-storey g does not look aesthetically appealing.

S Keeping the alternative g.

PvdL, CS 2010-05-10



P The g appears too cluttered caused through the small ascender and descender height.

S Modifying the head of the g to a more oval shape.

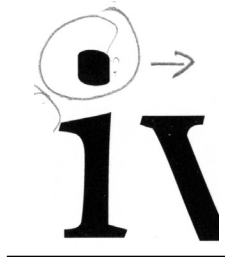
CS 2010-05-10



Updated 2010-06-24



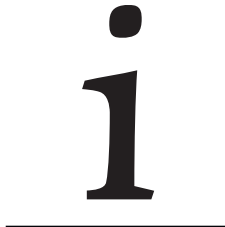
Updated 2010-06-24



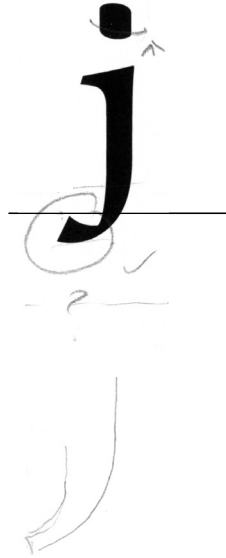
P i dot seems to fall to the right

S placing the i dot slightly asymmetric to the right.

FS 2010-03-26



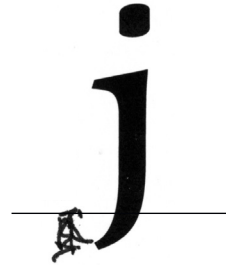
Updated 2010-06-24



P Stem ending is undefined.

S Using a simpler shape to define the letter.

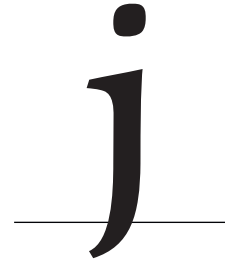
FS 2010-03-26



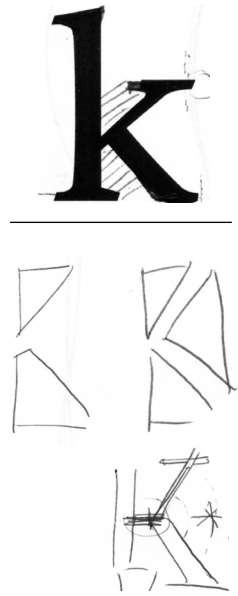
P Stem ending might be too thin for reading text sizes.

S Using a serif.

PV 2010-04-14



Updated 2010-06-24



P Space in between stem, leg and arm is not even (left).

S Using a different construction, the same that as been used in the 16/17th century, helps to balance the spaces evenly and to keep the k open (right).

FB 2010-03-11

k

k

k

k

l

m



ke
↑
ae

h

P Leg of k is too elegant compared to the rest of the typeface.

S Adapting the k to the rest of the typeface.

P Thins are not consistent throughout the typeface.

This causes an unbalanced type image.

S Making the thin strokes look optically identical throughout the alphabet.

P The whitespace between arm and leg needs to be reduced to avoid spacing issues.

S Shortening of serifs.

P The arc of the m and related shapes is not a repetition of the serif shape, which adds to inconsistencies in the shapes.

S Making the arc of the m and related shapes a repetition of the serif shape.

m

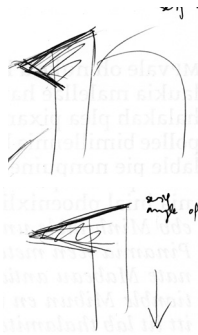
n

n

n

n

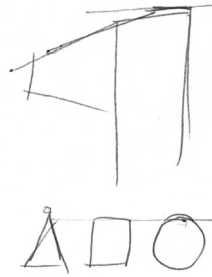
n



P Serifs on x-height level (top) use a different angle than the ascender serifs (bottom).
S Equalizing serif angles.



P The emphasis is too much in the horizontals (top).
S Reducing the horizontal effect by slightly rounding the n off.



P Horizontally shaped serif should not exceed x-height level.
S Lowering serif.

P Bracketed serif causes an imbalanced rhythm throughout the typeface. This has the effect of dragging the letters to the left.
S Reducing the bracket effect by lowering the curving joint in the left serif.

Updated 2010-06-24

FB 2010-03-11

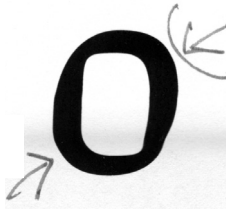
FB 2010-03-11

FB 2010-03-11

FB 2010-03-11

FB 2010-05-07

n

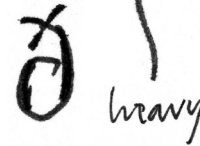


O

O



Ø



P Shape is too angular.
S Rounding off the shape following a broad-nib pen direction.

P Shape is too round.
S Experimenting with a new shape

P Some strokes in the letters are too heavy.
S Adjusting weight of strokes.

Updated 2010-06-24

PV 2010-03-11

FB 2010-03-11

Updated 2010-06-24

EvB 2010-05-27

Updated 2010-06-24



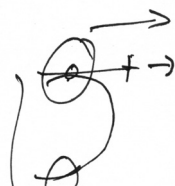
p

q

r

r

r



b^{add}
1

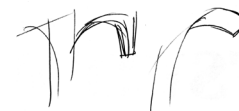
P Shape lacks more obvious roundness and more ductus.

S Slightly lowering the position of the points in the font application.

FS 2010-03-11

Updated 2010-06-24

Updated 2010-06-24



P Although the r shape is as it appears acceptable, however, there are more solutions.

S Should be a further solution for the creation of a clutter free shape, where stem and ear intersect.

FB 2010-04-16

P The r looks slightly aggressive compared to the rest of the typeface.

S Using a (left) more round/fluent shape or a (right) "flapje/flupje" ending.

FB 2010-05-07

Updated 2010-06-24

S

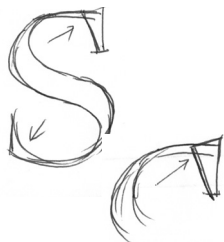
S

S

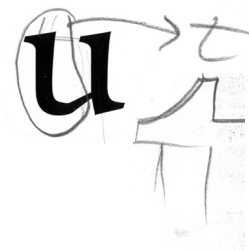
S

t

t



erzielten.
tkfgvwxyz



P Serifs need to be better defined and in such a way that they fit to the rest of the letters.
Solution Redefining the serifs.

P Serifs need to be related to other related letters in a more obvious way.
S Using the same serifs for related letters.

P Letter should be based on the descender of the g bowl.
S Drawing the letter shape by using the shape formed by the descender of the g bowl.

P Serifs disappear in reading text sizes
S Thickening of serifs.

P While the bottom of the x-height looks optically stable, the top of the x-height features some letters that cause instability due to a dancing x-height.
S The problematic letters need to be modified: Either through thickening of the crossbars/serifs or through lowering of the crossbars/serifs.

P Shape looks too stiff without any ductus compared to the other letters.
S Compose the shape of the t by using an element of the u.

FB 2010-03-26

FS 2010-03-26

FB 2010-04-16

PV 2010-04-29

CN 2010-05-07

LdG 2010-05-19

P Letter appears to lean to the left.
S Changing the position of the bottom extreme point to the left and rounding the top stroke.

CN 2010-05-28

Updated 2010-06-24

P The serifs emphasize on an horizontal movement.
S Using an angle to break the horizontal direction.

PV 2010-03-11

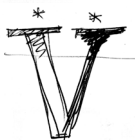
P The angularity of serifs is quite strong.
S Lowering of angles.

FB 2010-03-13

Updated 2010-06-24

P The apex needs to be reviewed
S Experimenting to find out which connections work best.

FB 2010-03-26



Problem Serifs are not enough related.

Solution Relating serifs by using the same serif shapes

P Serifs on top of the x-height need to be treated differently than the serifs on the bottom x-height. Optically, the right and the left serif should appear to have the same weight. Different treatment of serifs is not applied for a typeface that has a low contrast, i.e. Platin.

In a Didot typeface the weight of the cross-bars are compensated in the large serifs, which appear therefore quite big in relation to the letter.
S Adding weight to the serifs and also on top of the right stem.

P Testing the serifs within certain letter combinations helps to define the final shape.
S Testing different letter combinations, such as vn and adapt serif shape if necessary.

P The length of w and x top serifs causes a too wide spacing compared to other letters.
S Shortening of serif length in w and x.

W

X

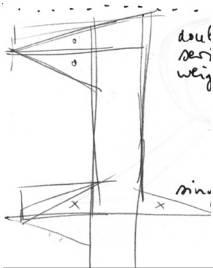
X

y

y

y

v



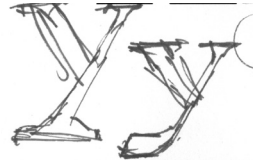
P Theoretically, the serifs on the top of the x-height require to be treated in a heavier way than the serifs on the bottom of the x-height. If one serif changes, the other one changes accordingly.
S Adjusting the affected serifs.



P The serif shape looks awkward.
S Experimenting with other endings.



P As the typeface has a general horizontal direction, exaggerated vertical serifs disturb this horizontal rhythm.
S Designing a serif that is heavy enough, but does not disturb the horizontal direction.



P Serif is too small and therefore not visible in reading text sizes.
S Considering other shapes for the serif.

Updated 2010-06-24

FB 2010-03-11

Updated 2010-06-24

PV 2010-04-14

FB 2010-04-16

PvdL 2010-04-19

y

y

z

f

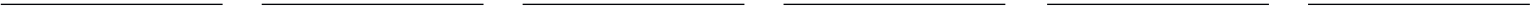
P Shape is too mechanical compared to other shapes in the typeface.

S Designing a rounder shape.

EVB 2010-05-27

Updated 2010-06-24

Updated 2010-06-24





P Crossbar does allow enough space towards the top of the A

S Lowering the crossbar slightly.

P Crossbar of A and H is too thick. Mistakenly the crossbars have been related to E and F. These letters need a thicker crossbar to compensate for the missing serif, whereas A and H are not related.

S Thinning the crossbar.

EvB 2010-03-22

PcdL 2010-05-31

Updated 2010-06-24



P Two thick strokes intersect and cause therefore clutter.

S Lowering the contrast of one of the strokes.

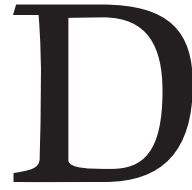
PvdL 2010-03-20

P The relation between B and D proportions can be improved.

S Changing the shape considering that one B is composed out of two on top standing Ds.

FB 2010-04-22

Updated 2010-06-24



P D is designed too narrow.
S Widening of shape using horizontal scaling.

Updated 2010-06-24

PvdL 2010-04-08



P The serifs relations between lower and uppercase letters, as shown in the sketch, need to be related. Serif shape of crossbar can use a variation.
S Relating upper can lowercase serifs with each other. Experimenting with serifs by eliminating the serif from the crossbar.

FB 2010-03-13



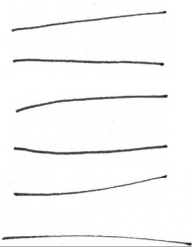
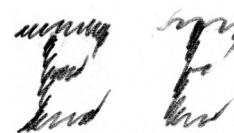
P Crossbar is hardly visible in smaller sizes. This effect is even more apparent because no serif is used.
S Thickening of crossbar.

PvdL 2010-03-20



P The serif should be connected to the horizontal bars and not just look like an added element.
S Unifying of horizontal bars and serifs.

EvB 2010-03-22



EnFnGnHnIn
EnFnGnHnIn

P Serifs are not consistent throughout the alphabet. Crossbar is hardly visible in smaller sizes.
S Unifying the letters by applying the same kind of serif. Making the serif longer

FB 2010-03-26

P E is too condensed as well as related letter F
S Widening of letter.

FS 2010-03-22

P Serifs of the capitals appear too small compared to the lowercase letters.
S Adjusting of serifs.

PV 2010-05-06

P Crossbar is missing flavour.
S Changing the shape of the crossbar.

EvB 2010-05-27

P The difference in roman and italic uppercase letters is caused through a difference in writing. The writing of the italic uses more speed than the writing of the roman.
S Adding different details to italic and roman uppercase letters.

CN 2010-05-28

Updated 2010-06-24



P The purpose of a serif is to prevent spacing issues, in other words, to prevent white holes that would appear between letters.

S Analyzing the serifs in a text.

CN 2010-05-07

Updated 2010-06-24

P The letter shape does not look stable enough.
S Positioning the leg slightly higher.

PV 2010-04-07

Updated 2010-06-24

P Letter is too condensed.
S Widening of letter by scaling it horizontally.

FB 2010-03-26

Updated 2010-06-24

I

J

K

L

L

M



P Optically, the horizontal stem appears convex.
S Drawing of slightly hollow horizontal stems make the stem look optically straight.

P Stem appears to optically lower the M in its apex.
S Positioning the apex slightly higher.

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

FB 2010-04-22

Updated 2010-06-24

EvB 2010-03-22

M N O Œ Ç P

Ç



P Shape uses the wrong letter, an O, as a basis.
S Using an upside down D instead of the O.

P Letter appears too dull.
S Making the top serif longer helps to make the shape more elegant. Top serif may be longer than bottom serif.

Updated 2010-06-24

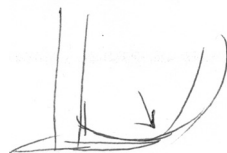
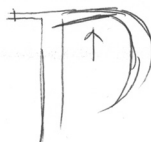
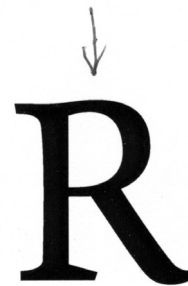
Updated 2010-06-24

Updated 2010-06-24

EvB 2010-06-03

Updated 2010-06-24

FB 2010-03-11



P The curved movement on top of the bowl looks awkward.
S Relate the bowl to the general shapes of the typeface.

FB 2010-03-13

P Inner shape of bowl is too small.
S Opening up of bowl by placing the stroke slightly lower.

FB, FS 2010-03-26, 03-22

Updated 2010-06-24

Updated 2010-06-24

P Leg is too elegant compared to the general shape of the typeface.
S Experimenting with other leg shapes.

FB 2010-03-13

P Leg interferes too much with the following letter and causes therefore spacing problems.
S Placing the leg more towards the inside and/or deepening the angle of the leg.

FS 2010-03-22

R

R

S

T

T

T



P Two thick strokes intersect and cause cluttering.
S Lowering the contrast in of one of the strokes.

PvdL 2010-05-10

Updated 2010-06-24

Updated 2010-06-24

P Serifs appear undefined.
S Changing the serif shape.

PvdL 2010-03-20

P Horizontal stroke is too narrow.
S Increasing length of horizontal stroke.

FB 2010-03-26

P Horizontal stroke is now too wide.
S Shortening length of horizontal stroke.

FS 2010-03-22

T

U

V

W

X

Y

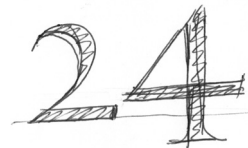
Z



merk schwerer



1 is different from @



P 1 is not just an element of the n, modifications are possible additions.
S Experimenting with a more obvious upstroke of the 1 and a serif on bottom of the x-height.

FS 2010-03-26

P Contrast needs adjustment.
S Refining the contrast by adjusting thins and thicks.

FB 2010-05-07

P Optically, the 4 appears not to be in line with the 2.
S Lifting the 4 slightly up.

FB 2010-03-26

P Idem
S Shortening the stem of the 4.

EvB 2010-04-14

Updated 2010-06-24

Updated 2010-06-24

3

3

3

3

3

3



8S



P Optically, the 4 appears to not be in line with the 2.

S Raising the 4 slightly upwards

P Two thick strokes intersect in the middle of the figure. A serif might not be necessary.

S Lowering the contrast in of one of the strokes. Experimenting to work without serif.

P Broad-nib contrast is not visible.

S Applying the right contrast.

P Both counterspaces have not the same size.

S Relating the counter shapes to the proportions of the S and accordingly to the 8.

P Figures can be treated differently from the rest of the alphabet. The consistent 30 degrees angle of the broad-nib pen can change to 45–60°.

S Changing from a 45° angle in the upper part of the 3 to a 45–60° angle in the lower part.

PV 2010-04-14

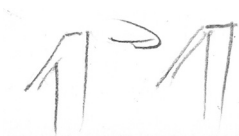
PvdL 2010-04-19

PvdL 2010-05-01

FB 2010-05-07

CN 2010-05-28

Updated 2010-06-24



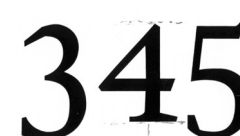
P Counter shape of 4 needs to be more opened.
S Opening the counter shape by using a different apex construction.

CN 2010-05-28



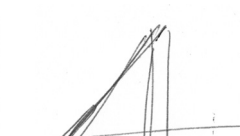
P Idem
S Lowering the crossbar.

EvB 2010-06-03



P Optically, the 4 appears not to be in line with the 2.
S Aligning the 4 together with the rest figures on the baseline.

PV 2010-04-29



P Stem of 4 can be shortened. There is no need to keep it the same height with other figures, if it works in the whole.
S Shortening the stem of the 4.

FB 2010-05-07



P Height of figure needs to be identical with other figures.
S Lifting the top part of the shape and giving it an overshoot.

LdG 2010-05-19



Updated 2010-06-24

5

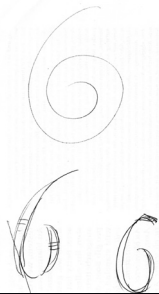
6

6

6

6

6



6b

P Bowl is not fluent/
smooth.
S Drawing the bowl
having a spiral in mind.

P More spiral round-
ing is necessary as well
as the matching of the
figure with the rest of the
alphabet.
S Taking off some weight
in the lower left bowl
and drawing the shape
having a spiral in mind.
Adding an angular ele-
ment,

P Bowl of 6 is too large.
S Reducing the size of the
bowl considering that it
should not be larger than
the one of the b.

P The complete set of
figures appears too large.
Since the beginning of
the printing history fig-
ures have always tended
to look too large and it
has been tried to work
against that tendency.
S Scaling the figures
down by comparing the
figures to the lower case
letters.

Updated 2010-06-24

FB 2010-03-26

FB 2010-04-16

FB 2010-05-07

FB 2010-05-07

Updated 2010-06-24

7

8

9

9

9

9

9

9
68

9n

Problem Bowl is not fluent/smooth.

Solution Drawing the bowl having a spiral in mind.

P The angular element, which appears in the rest of the typeface, is missing in the figure.

S Adding an angular element.

P Although al stroke endings are related to the thinnest parts in the lowercase letters, they need to be heavier in weight.
S Adding weight to the stroke endings.

Updated 2010-06-24

Updated 2010-06-24

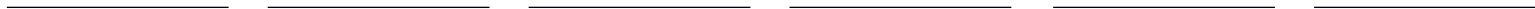
FS 2010-03-26

PvdL 2010-04-26

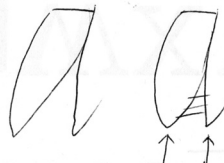
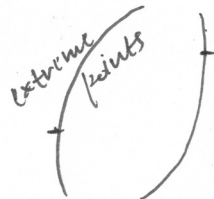
CN 2010-05-28

Updated 2010-06-24

O



Updated 2010-06-24



P Proper drawing of italic shapes.

S After slanting of a glyph the extreme points appear on wrong locations. Adjusting the extreme points towards the middle of the shape in the horizontals.

PvdL 2010-05-31

P Clutter appears in the part where two thick strokes intersect.

S Decreasing the weight for the incoming stroke.

PV 2010-04-01

P Idem

S Shifting the bottom of the bowl bottom to the left.

FB 2010-04-16

P Ink traps are nice little details, but might in this size not help to prevent the cluttering problem.

S Experimenting with ink traps in various deepnesses.

PvdL 2010-05-10

Updated 2010-06-24

P Serif in ascenders causes cluttering.

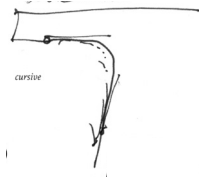
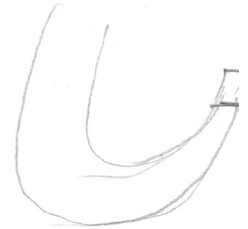
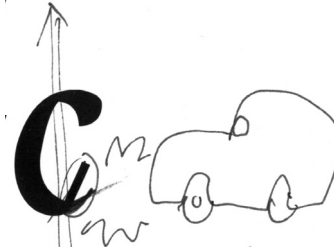
S Changing the shape of the serif.

FB 2010-03-13

b

b

b



curvie



P Letter lacks stability.
S Applying more weight on the bottom stem.

P The ascender serif is too thin compared to x-height serifs.
S Dragging the curve point on top of the stem more to the outside to achieve a thicker serif.

P The upstroke as it appears in the n, does not work for the round shape of the c.
S Changing the existing shape to a rounder shape

P Idem
S Idem

PV 2010-04-01

EvB 2010-04-14

Updated 2010-06-24

EvB 2010-03-22

FS 2010-03-26

c

c

d

e

e

s



ee

P Stroke endings of related letters appear too different.

S Using the brush element from the s in the c and other related letters.

P Shape of the counter disturbs the general rhythm of the alphabet.
S Designing a shape that tends more towards the sketch shown on the right.

P The italic appears larger than the roman.
S Questioning if the previously applied increased x-height was necessary. When an increase of x-height is applied the blue zone should always be equal for roman and italic.

P Idem
S Questioning if the relation between the counter shapes is equal in roman and italic. When there is no difference between roman and italic counter shapes a difference in x-height does not appear.

PvdL 2010-04-19

Updated 2010-06-24

Updated 2010-06-24

PvdL 2010-04-19

LdG 2010-05-19

LdG 2010-05-19

e

f

f

f

g

g

f

g y

g

P Shape might look too swash like.

S Experimenting with a new shape.

P Crossbar appears in small sizes above x-height

S Pulling down of crossbar or thickening of it.

P Down stroke should not be related to y down-stroke.

S Experimenting with a new g shape.

Problem Shape of the closed g is not enough refined.

Solution Bottom feed needs to be thicker and shifted slightly to the left.

Updated 2010-06-24

PV 2010-04-01

CN 2010-05-07

Updated 2010-06-24

FB 2010-04-16

PV 2010-04-29

P Strokes of related letters are not consistent: they appear either cut off or too smooth.

S Using of either one or the other stroke shape.

P Clutter appears in the part where two thick strokes intersect.

S Adding an ink trap, placing the stroke in a more horizontal direction or experimenting other solutions.

P Compared to other letters the upper part of the bowl appears to dark in reading sizes.

S Reducing weight in the problematic part by placing applying a white triangle shape.

P The g and related letters appear now too light on top of the bowl in reading sizes. The o, which is supposed to use the same contrast, has lost its relation to these letters.

S Adding weight on top of the bowl.

P All parts in the alphabet with the thin/thick stroke intersection appear too thick and have a cluttering problem.

S Experimenting with taking off weight on the affected parts or thinking about a different construction for all letters.

CN 2010-05-07

CN 2010-05-07

CN 2010-05-28

PV 2010-06-03

CN 2010-06-11

Updated 2010-06-24

h

h

h

h

i

j



P Although the mathematical correct angle is used, the h appears to be steeper.
S Slanting the letter slightly to the left.

P Serif shape is undefined.
S Experimenting with a new shape.

P Idem
S Idem

FB 2010-03-13

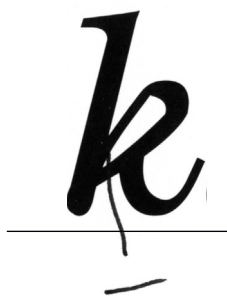
PV 2010-04-01

PV 2010-04-07

Updated 2010-06-24

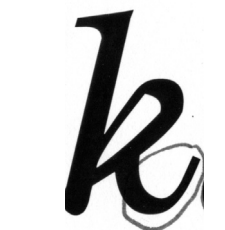
Updated 2010-06-24

Updated 2010-06-24



P In text sizes the indicated stroke intersections cause clutter.
S Reducing weight.

PV 2010-04-07



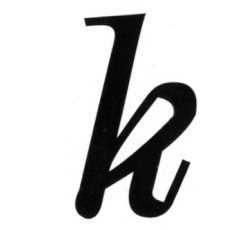
P Leg causes spacing problems.
S Placing the stem closer towards the letter.

PvdL 2010-04-08



P In text sizes the indicated stroke intersections cause clutter.
S Reducing weight and experimenting with new shapes.

EvB 2010-04-14



P Idem
S Idem

CN 2010-04-15



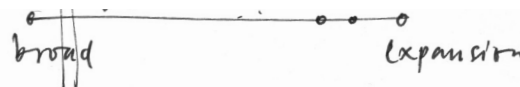
P Idem
S Idem

EvB 2010-04-29



P Leg causes spacing problems.
S Placing the stem closer towards the letter,

PV 2010-04-29



P Leg is not thick enough.
S Thickening of leg.

P Although the mathematical angle is consistent throughout the alphabet, some letters appear to be out of balance.
S Adjusting the angle of the letters in order to achieve optically the right angle.

P To stay in the same style with the roman, the italic weight would need to be designed in a broad-nib style as well. Right now, the style can be situated in a transitional/pointed-nib style. Adding weight on the upstroke of the m could change the design to a broad-nib style.

S Keeping the transitional/pointed-nib style deliberately.

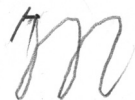
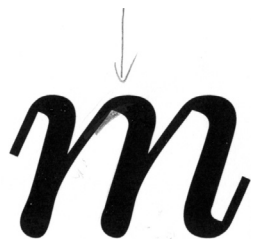
CN 2010-05-07

Updated 2010-06-24

CN 2010-05-28

Updated 2010-06-24

EvB 2010-03-22



Problem Idem
Solution Idem

P The principle/appearance of the complete italic typeface could be stronger: The dynamic strokes in the m disappears at the beginning and end stroke of the letter. These serifs look forced, they look rather artificial not seeming to come out of one movement. However, some people might find this interesting.


If the achievement of a principle is wished on which a typeface is used a simple exercise can help: "Try to explain on the phone to another person in a few words how the typeface looks like." **S** adapting the serifs to the main movement of the letter, which comes out of the handwriting. Possibly, they need to be shortened as well.

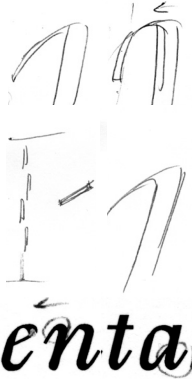
P Upper stem appears heavier than bottom serif.
S Unifying of both.

P Upstroke can be related to handwriting.
S Making the handwriting obvious by adding weight on the bottom, which simulates the upstroke.

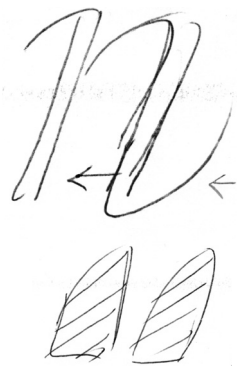






enta




P Serif and stem should theoretically have the same shape and weight as they come from the same flow in handwriting.
S Adapting the same shape and weight to both, serif and stem.

FB 2010-03-13

P Serif is located too close to the stem and causes clutter.
S Changing the angle of serif by shifting it more to the outside.

FB 2010-03-13

P Optically, the letter tends too look wider at the bottom.
S Pushing the leg in.

FB 2010-03-13

P Generally, the italic is too wide and stems are too thick.
S Decreasing the width by 8 units and decreasing the stems by 4 units.

FB 2010-03-26

P The dynamic upstroke of the n is not consistent with other letters in the alphabet.
S Eliminating upstroke.

EvB 2010-04-14

P One of the most interesting features of the typeface has been eliminated
S Bringing the feature back.

FB 2010-04-16

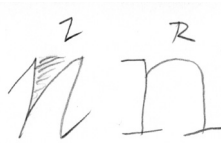
n

n

n

n

n



P Compared to the regular weight, the italic looks smaller, due to its slant that creates more white space between the shapes.

S Compensating the size-loss through increasing the x-height of the italic, in this case of about 10 units.

P "Ink traps" are neither consistent throughout the whole alphabet nor is there a need for it in reading text sizes as the details will not be noticeable. However, the details could be considered when designing a display weight of the typeface.

S Reducing the ink traps to hairline details in a few parts only using smooth and no angular lines.

P Bottom stems appear forced apart.
S Positioning the right bottom stem slightly to the left.

P Left leg and all parts in the alphabet with the thin/thick stroke intersection appear too thick and have a cluttering problem.
S Experimenting with taking off weight on the affected parts or thinking about a different construction for all letters.

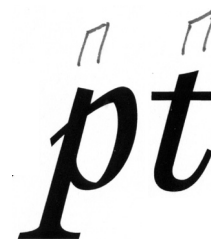
PV 2010-05-06

EvB 2010-05-27

CN 2010-05-28

CN 2010-06-11

Updated 2010-06-24



P Counterspace is not evenly separated.
S Changing the angle of the stroke.

P The counter shape of the p is larger than that of the q.
S The counterspace has to be reduced by slightly lowering the stroke.

P Stroke is too thin
S Adding weight.

P The cut-off stroke is not consistent with other elements in the typeface.
P Cutting the stroke using an angle.

Updated 2010-06-24

EvB 2010-06-03

Updated 2010-06-24

EvB 2010-04-07

PvdL 2010-04-19

PvdL 2010-05-01

p

q

r

r

r

r

r

r

r

P The r needs to be placed closer to the stem to avoid spacing problems.

S Drawing the shape having a spiral in mind.

P Although the mathematical angle is consistent with the rest of the typeface, optically the r shifts to the right. This is caused by the weight on the bottom of the r.

S The letter needs to be slightly turned to the left.

P The r upstroke causes clutter.

S Changing the construction of the a.

P The r upstroke causes spacing issues.

S Changing the construction of the r.

Updated 2010-06-24

Updated 2010-06-24

EvB 2010-04-01

CN 2010-04-15

CN 2010-04-15

PvdL 2010-04-19



P Idem

S The example of the roman r pushes the spacing so far that an awkward letter combination appears and two letters are combined to an unlegible glyph. Pushing the r stem more towards the middle of the letter space.

In the roman the longer serif can help to add weight to the empty space and therefore avoid spacing issues.

CN 2010-05-07



P Angle of r is different from the rest of the typeface.

S Rounding the stem might be a solution. Main goal is still to avoid spacing problems caused through the ear of the r.

CN 2010-05-28



P Thickening of r upstroke does not help in making the r work.

S Thinning the r upstroke and adding weight to the ear.

EvB 2010-06-03



P Angle of r does not look right,

S Thinning of main stem.

PV 2010-06-03



Updated 2010-06-24



P Stroke endings of all related letters are not consistent.
S Using the same basic shape for all related letters.

P Letter is too narrow
S Widening the letter by increasing the horizontal scaling.

P Letter is too narrow.
S Experimenting with shapes, such as round ones.

P Idem
S Idem

P Due to the fact that contrast has been adjusted several times to achieve the right color of the italic weight, inconsistencies occurred in several glyphs
S Applying the same contrast to every glyph.

EvB 2010-04-01

PvdL 2010-04-08

Updated 2010-06-24

EvB 2010-04-01

PvdL 2010-04-19

PvdL 2010-05-10










P Crossbars of related letters are not identically shaped and positioned.
S Cutting the crossbar in an angular way at its end and positioning it identically.

P The ending of the w upstroke and therefore the related letters v and y is undefined.
S Finding a solution for the shape.

P Idem
S Idem

P Letter lacks weight.
S Adding weight.

LdG 2010-05-19

Updated 2010-06-24

Updated 2010-06-24

PvdL 2010-04-08

CN 2010-04-15

CN 2010-05-07

v

v

w

w

w

w

vw

vw

vw

P The ending of the w upstroke and therefore the related letters v and y is undefined.
S Finding a solution for the shape.

P Idem
S Shape does not necessarily have to be 2 vs in a row.

P Idem
P Idem

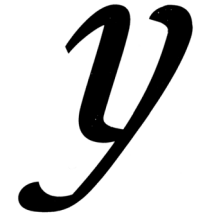




















P The ending of the w upstroke and therefore the related letters v and y is undefined.
S Finding a solution for the shape.

P Idem
S Idem

P Angle of the y downstroke does not fit to the angle of the italic weight.
S Finding a solution for the shape.

P Counterspace is not related to v counter space any more.
S Using the same optical space.

P The current y shape disturbs the rhythm of the typeface.
S Experimenting with alternative shapes.

Updated 2010-06-24

PvdL 2010-04-08

FB 2010-04-16

PvdL 2010-04-19

PvdL 2010-04-26

CS 2010-05-10

y

Z

Z

Z

Z

Z

Z Z

Z

2

P Shape is undefined and does not match the rest of the alphabet.
S Finding a solution for the shape.

P Idem
S Idem

P Idem
S Ending of the figure 2 could be used for the z as well.

P Letter shape is too swash like compared to the rest of the typeface.
S Modifying the shape.

Updated 2010-06-24

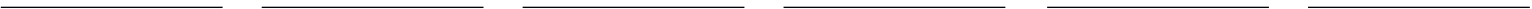
PV 2010-04-01, 07

PvdL 2010-04-08

CN 2010-04-15

PV 2010-04-29

Updated 2010-06-24



A

B

C

D

D

E

D
Q

P Counterspace in indicated letters differs too much

S Changing the letter proportions

P Serif is not connected to its crossbar in weight and size.

S Adapting weight and size of the crossbar.

E

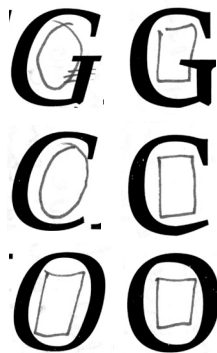
F

G

G

G

H



P The lettershape is not stable enough.
S Adding a serif.

P Inconsistency appears concerning the angular basis shape in round glyphs.
S Applying an angular shape in the shapes that appear too round.

I

J

J

K

K

J

J

K

K

K

K

K

R

M

P The italic uppercase J is not related to the construction of the roman uppercase J.
S Modifying the shape.

P In an italic uppercase the letter shape could use more playful elements.
S Using for example a more playful leg.

P Idem
S Idem

K

K

K

K

K

L

k?

M

R

MR

2 

P Idem
S Idem

P Swash-like italic elements in some of the italic uppercase letters tend to disturb the rhythm of the text in reading sizes.

S Designing italic uppercase letters that match the construction of the roman uppercase letters. Uppercase swash letters can be added additionally.

P Alternates: Shape is not appropriate because of the steep angle that exits the stem.
S Rounding the stem off

EvB 2010-04-14

EvB 2010-04-22

PvdL 2010-05-31

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24



P Shape appears too stiff and with weight problems in some parts.

S Adjusting the shape.

EvB 2010-04-07

P Idem
S Idem

EvB 2010-04-14



P Shape is too close to a broad-nib style, whereas the general style of the italic goes into a transitional/pointed pen direction.

S Drawing the shape with the pointed pen in mind.

EvB 2010-06-03



P The relation between serifs needs to be more obvious. Compared to the i-serif the M-serif is too small.

S Enlarging the uppercase serif.

P Spread legs of the M are not achieved yet.

S Placing the legs to the outside.

P Apex is not connected to the baseline.

S Lowering apex.

P The connection between vertical stem and serifs is too light compared to other letters.

S Adding weight between stem and serif.

Updated 2010-06-24

FS 2010-03-11

EvB 2010-06-03

Updated 2010-06-24

EvB 2010-04-01

EvB 2010-04-07

N

O

O O

O

O

Q O

P Letter looks rotated instead of being slanted.
S Changing the weight distribution.

P One version of the letters is too much broad nib related, whereas the other version too much pointed nib related.
S Drawing a letter that is situated in between both.

P Generally, the italic capitals need to be more condensed.
S Horizontal scaling of capitals.

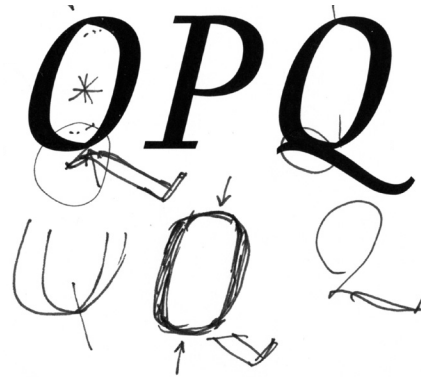
P

Q

Q

Q

R



P Thick stroke is connected to a thick stroke and causes therefore clutter.

S Connecting a thin to a thick stroke.

P Small Cap Q needs more flavour.

S Adding of longer tail.

S

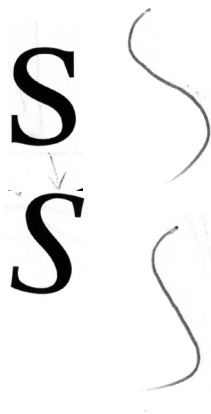
S

T

U

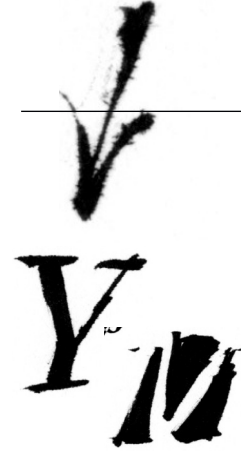
U

V



P The italic uppercase S is not related to the construction of the roman uppercase S.
S Modifying the shape.

P Contrast of letter is not defined.
S Lowering the contrast in the indicated part.



P Slant of the letter is too exaggerated compared to the rest of the alphabet.
S Getting the angle right by putting the W or V in a square created by a vertical letter as for instance the N.

EvB 2010-04-07

P Idem
S Adjusting the angle by placing the letter in the middle of two letters that use vertical stems. In the example the letter is placed between two H.

PV 2010-04-07

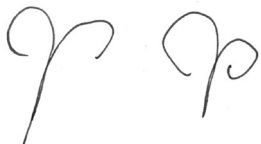
Updated 2010-06-24

Updated 2010-06-24

P Counter shape of small cap appears to small.
S Adjusting the counter shape by placing the upper part of the letter slightly lower.

EvB 2010-06-03

Updated 2010-06-24



P Letter shape is too stiff.
S Experimenting with more free shapes.

P Idem
S Idem

P Idem
S Idem

EvB 2010-04-07

EvB 2010-04-14

FB 2010-04-22

Updated 2010-06-24

1

2

3

4

5

5



P Broad-nib contrast is not visible.
S Applying the right contrast.

P Figures need the angular element as it appears in the roman.

S Modifying the shape including the angular element.

LdG 2010-05-19

P Shape looks deformed.

S Redrawing the shape by using the uppercase S as a basis.

PV 2010-05-06

P In some parts, the italic figures appear too slanted

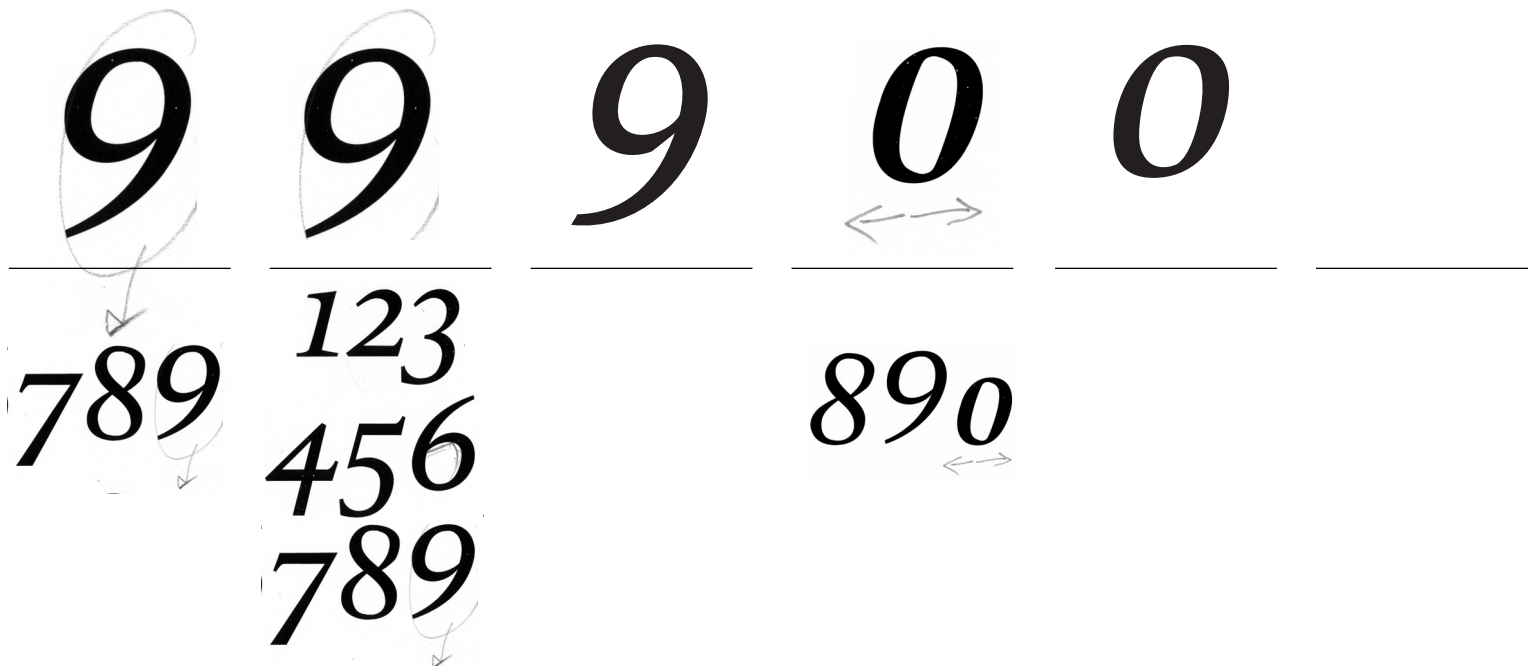
S In the case of the 9, dragging the curve points about a few units higher.

FB 2010-05-07

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24



P Figure does not line up properly.

S Lining the figure up on the descender line.

LdG 2010-05-19

P Generally, all italic figures need to be narrower to make them fit to the rest of the typeface.

S Making the figures narrower by scaling them horizontally.

LdG 2010-05-19

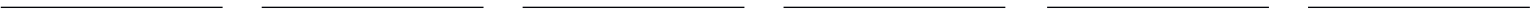
Updated 2010-06-24

P Because of its narrowness, the o does not fit to the rest of the figures: it appears too narrow.

S Widening the o by scaling it horizontally.

PvdL 2010-05-10

Updated 2010-06-24



a

b

c

d

e

f

ff

Pear of f needs to be tugged in to gain more room to add weight.
S Shifting the ear of the f towards its stem and adding weight.

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

EvB 2010-06-03

f

g

g

g

g

h

g

g

h

P Weight on loop is too heavy.
S Reducing weight.

P Counter is too small although the proportions are related to the regular weight.
S Reducing space below the counter.

P Although the contrast is applied in the right way according to the writing tool of the broad-nib pen, the counter shapelacks definition.
S more white (W) on the left inside loop and more black (B) on the right inside loop.

P To be consistent in the whole type family, the ink traps should appear not only in the italic, but also in the roman weight.
S Reflecting about the application of ink traps in the roman weight.

Updated 2010-06-24

LdG 2010-05-19

EvB 2010-05-27

CN 2010-05-28

Updated 2010-06-24

LdG 2010-05-19

h

i

j

k

k

l

P Leg is too light.
S Adjusting the weight
of feet.

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

PvdL 2010-05-01

Updated 2010-06-24

Updated 2010-06-24

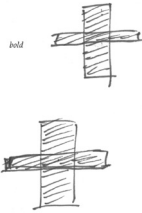
m

n

n

n

n



P When creating the bold based on the regular, both, the thins and the thicks of the letter increase proportionally.
S Adjusting the weight.

Updated 2010-06-24

nopq
nopq

P The complete bold alphabet appears too narrow compared to the regular weight.
S Widening the shapes.

PV 2010-05-06

nop
nop

S Idem
In the past, Linotype used to make slightly narrow bold weights compared to the roman weight. In this case the bold weight differs quite from the roman. An example is also the bold version of the Times.
In this present typeface, the characteristics of the angular upstroke are completely suppressed.

FB 2010-05-07

Thus, the image differs. Ascenders and descenders appear taller in a condensed version.
S Idem
Alternatively, this now bold condensed appearing version could serve as a starting point for a display version or condensed version.

Updated 2010-06-24

o

p

q

q

r

r

n

P When creating the bold based on the regular, thin and the thick weights increase proportionally.
S Adjusting the weight.

P Exiting stroke from the r appears too heaving in reading size although identical in weight to the exiting n stroke.
S Reducing weight and angle in the r.

P r ear needs more weight to work in reading sizes.
S Augmenting weight in the r ear.

Updated 2010-06-24

Updated 2010-06-24

PvdL 2010-05-01

Updated 2010-06-24

EvB 2010-05-27

EvB 2010-06-03

r

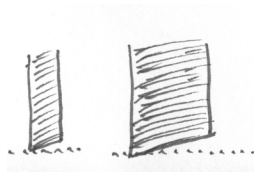
s

t

t

t

u



f

Updated 2010-06-24

Updated 2010-06-24

PvdL 2010-05-01

LdG 2010-05-19

Updated 2010-06-24

Updated 2010-06-24

P Angles have to be optically adjusted when designing the bold weight.
S Steepening angle of stroke.

P Crossbars are not consistent
S Equalizing crossbars on t and f.

V V V W X Y

u v w x y v w x y
 u v w x y v w x y

P Compared to the roman weight, the counter shape in the bold weight is too large compared to the counter shape in the u.
S Adjusting shapes.

PvdL 2010-05-01

P Ductus as visible in the roman disappears in the bold weight and makes the letters look stiff.
S Applying the ductus element in the v and all related letters.

LdG 2010-05-19

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Z

A

B

B

C

D

BCDEF

**Mob entwaffnet ausgefegt
ierei Filet an Zyklus zielsie
egt Kombi Paare gar Hieb k
n nix da Nutzen Taxis Tor s**

P Capital letters appear too heavy.
S Generally, a shortening of ascender and descender height is recommended in the bold weight.

E

F

G

H

I

J

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

K L M N N O

NN



P Cut-off apex needs to be better defined in the bold weight.

S Experimenting with a new shape.

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

PvdL 2010-05-31

Updated 2010-06-24

Updated 2010-06-24

P Q R S T U

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

V W X Y Z

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

a

b

c

c

d

e

Details

P Serif needs more weight.
S Adding weight to the serif.

Updated 2010-06-24

Updated 2010-06-24

PV 2010-05-27

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

f *g* *h* *i* *j* *k*



Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

PV 2010-05-27

P Some parts of the letter
are too light.
S Adding weight to indi-
cated parts.

k

l

m

n

o

o

nom

P Shape is not refined yet.
S Placing the o in between vertical letters to adjust the shape.

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

PV 2010-05-27

Updated 2010-06-24

p

q

r

s

t

u

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

v w x y z

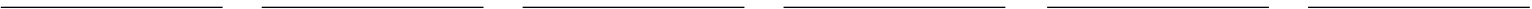
Updated 2010-06-24

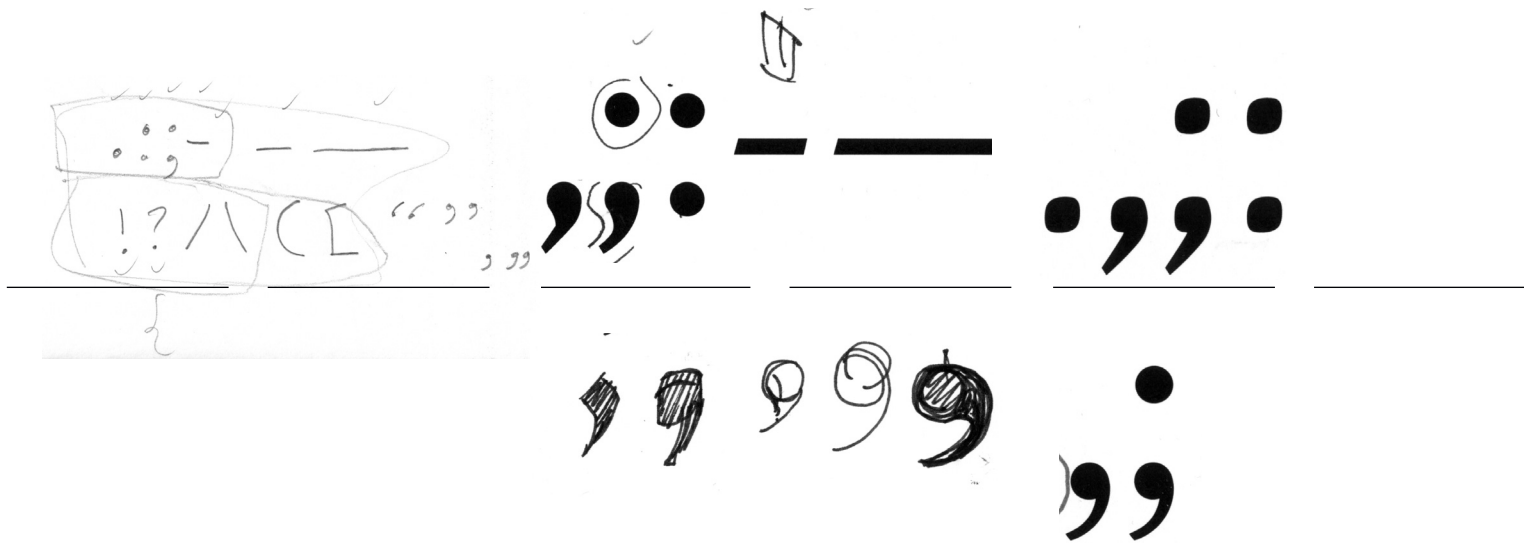
Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24

Updated 2010-06-24





P The glyph set contains only characters so far. To be able to better judge the typeface punctuation marks are necessary.
S Adding the most important punctuation marks in order of importance.

FS 2010-03-26

P Comma does not look appropriate, because it does not match the character of the typeface.
S Using the i-dot as the basis, which is surrounded by a kind of brackets.

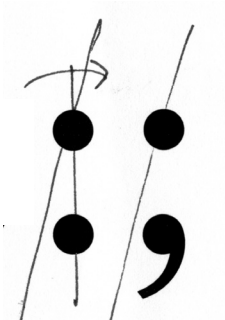
EvB 2010-04-14

P Observation: punctuation marks in roman and italic are very different in contrast.
S Perhaps the changing of punctuation marks is necessary, perhaps it is not necessary.

PvDL 2010-04-19

P Idem
S Keeping the difference in shapes: "If it works, then it works".

FB 2010-05-07



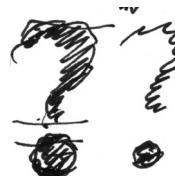
P In the italic, the angle of punctuation marks is wrong.
S Punctuation marks of the italic need to be slanted in relation to the prominent angle.

EvB 2010-04-29



P Question mark shape needs to be improved.
S Experimenting with different shapes.

EvB 2010-04-14



P Idem
S Idem

PV 2010-04-14



P Exclamation mark shape needs to be improved.
S Experimenting with different shapes.

EvB 2010-04-14



P Idem
S Idem

PV 2010-04-14



P Exclamation mark needs to be thinner towards the end of the stroke.
S Thinning of stroke ending.

EvB 2010-06-03



P i-dot can be other than round.
S Experimenting with different shapes.

FB 2010-03-13



P i-dot can be better related to the broad-nib contrast.
S Relating the i-dot to the broad-nib pen by changing the direction of the angle.

EvB 2010-04-14



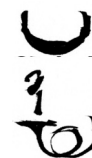
P Accents are positioned in a wrong way.
S Placing the accents in a way that they exit the letter.

EvB 2010-05-27



P Diacritics need to be positioned optically in the middle.
S Adjusting the position of diacritics.

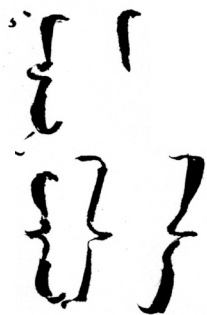
PV 2010-05-27



P Diacritics are generally too close to the glyph. Weight of diacritics is not even.
S Adjusting shapes contrast and position of diacritics.

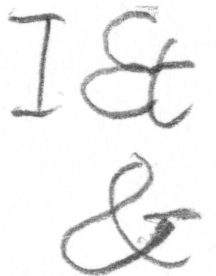
EvB 2010-06-03

{Thosel}



P In the italic brackets need more weight in upper and lower parts, which allows more room to add weight.
S Thickening of upper and lower parts of brackets.

EvB 2010-06-03



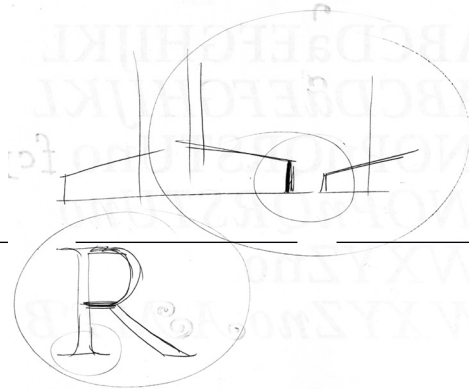
P Shape is too outdated/classical for the italic.
S Experimenting with a different shape.

PV 2010-06-03



P Matching lowercase and uppercase serifs: Right now, the lowercase serifs appear too small compared to the lowercase serifs.
S Making the serifs proportionally larger in the uppercase. This can be related to slab serif construction, which works in a proportional way.

PvdL 2010-04-08



P Idem
S If the general appearance in the lowercase features sort of heavy serifs, this should be reflected in the uppercase serif as well by making them slightly bigger in weight.

EvB 2010-04-15

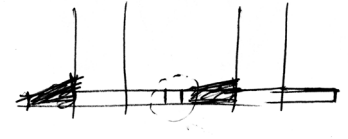
P Lowercase serifs compared to uppercase serifs appear different and therefore aesthetically not appealing when used in display/larger point sizes.
S Making serifs in uppercase and lowercase identical, by using the thickness of the lowercase serifs. Making the serif longer to compensate for the optically smaller appearing uppercase letters.

FB 2010-04-15

Referring to roman inscriptional letters, those serifs were not related to the contrast theory, which makes a relation between the thinnest stroke in the letter to the thickness of the serif.

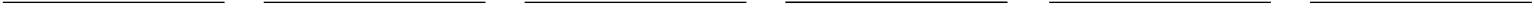
P Idem
S Usually, the serifs of the caps are heavier in weight compared to the lowercase serifs. However, this principle does not necessarily need to be applied, as long as the main function of the serif to stabilize the letter and to balance the gaps between the letters is a given.

CN 2010-04-15



P Idem
S To compensate for the optical smaller appearance of the serifs in the uppercase letters, the angle in the uppercase can be slightly steepened to add more weight. Essential is, to match the lowercase and uppercase serif endings, which makes the typeface look aesthetically nice in display sizes.

FB 2010-05-07



ff

ff fi fj fl ft tt
ff

Hand-drawn sketches of the letters 'P' and 'W' with various annotations and lines indicating spacing and design considerations.

ff ← n

Hand-drawn sketch of a letter 'S' with a counter-space shape, showing the internal structure and spacing.

Hand-drawn sketches of the letters 'P', 'W', and 'V' with various annotations and lines indicating spacing and design considerations.

P Ligatures are not only nice gadgets to a typeface, but first hand they have the purpose of solving spacing problems.

S The counter shape of the n appears also in between the two f.

P Ligatures cause spacing problems.

S Applying the counter-space of the n to the space in between the letters.

P Important letters and glyph pairs that need special attention for spacing.

S Applying the right treatment to prevent spacing issues.

minimumhli
minimum

bnincn
n·n

Ah
HAHnan

ní 1975 n.

minniú na
nan nan

OAO oao
~~niuaniu~~

P Proper spacing is required.

S Spacing each glyph in appropriate letter combinations.

EvB 2010-03-31

P Idem

S Measuring mathematically the distance between the middle of the counter shape and the shape of the following letter.

EvB 2010-03-31

P Idem

S Idem

PvdL 2010-05-10

P Idem

S Treating the figures like letters and placing them in a real context.

PV 2010-06-03



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