

Capoeira

Reflection on practice

Submitted in partial fulfilment for the
requirements for the Master of Arts in Typeface
Design, Department of Typography and Graphic
Communication, at the University of Reading.

Contents

Introduction

1 Defining a brief - 5

2 Design Process - 7

- a) Getting familiar with the design process*
- b) Finding personality*
- c) Refinements and adjustments*
- d) Building an italic*
- e) Getting familiar with foreign scripts (Greek & Cyrillic)*
- f) Adjusting the spacing (test documents)*

3 Expanding the character set and adjusting the spacing - 17

- a) Small caps/caps*
- b) Designing figures*
- c) Diacritics*
- g) Metrics classes and kerning pairs*

Conclusion

Introduction

This reflection on practice relates my year of study at the MA Typeface Design of the University of Reading. It covers the development of Capoeira, a typefamily intended for bilingual publications such as brochures, leaflets and magazines, and that includes Latin, Greek and Cyrillic.

Through a constant testing and revising process Capoeira was slowly and gradually refined, improving both its efficiency and personality. In a first part, I'm explaining the brief and the purpose of such a typeface. The second parts relates the developement of the typeface: the first constraints I had to face and the choices I had to make. And finally, the third part is related to the additional characters and the last adjustment that were done in order for the typeface to be operational.

1 Defining a brief

At the beginning of the year, we were asked to think about a brief that would define the purpose of the typeface we were about to create. Not having thought about any particular direction for my design, I tried to think about ideas in order to come out with a brief precise enough to draw an outline of the future typeface. The only thing I knew was that I wanted to experiment as much as possible, and tryout some unusual shapes through the survey of a non-latin script. Having recently worked on a graphic design project linked with phonetic writings, I first thought about creating a typeface that would include characters of the International Phonetic Alphabet (IPA) and used in publications (e.g. linguistic books, dictionaries, etc.). However, due to various reasons, I decided to create a typeface that would include Greek and Cyrillic, along with Latin, and intended to be used in bilingual publications such as airline magazines or design magazine but that could also work for brochures, leaflets, city guides, etc.



In order to do so, it was first necessary for me to take note of the requirements for a typeface designed for magazines: first, as for newspapers, typeface design in magazines needs to be capable of running lengthy texts (although in magazines articles tend to be shorter and more often interrupted by other elements on page such as illustrations and/or photographs). Again, in magazine layouts the text hierarchy is much more important, and the fonts that are chosen tend to be fairly playful, with a strong identity (and even more when the magazine is supposed to represent a brand, like for airline companies). Finally, being a typeface including several scripts, the challenge would be for them to work nicely together when used in the same text or on a same page [Fig.1].

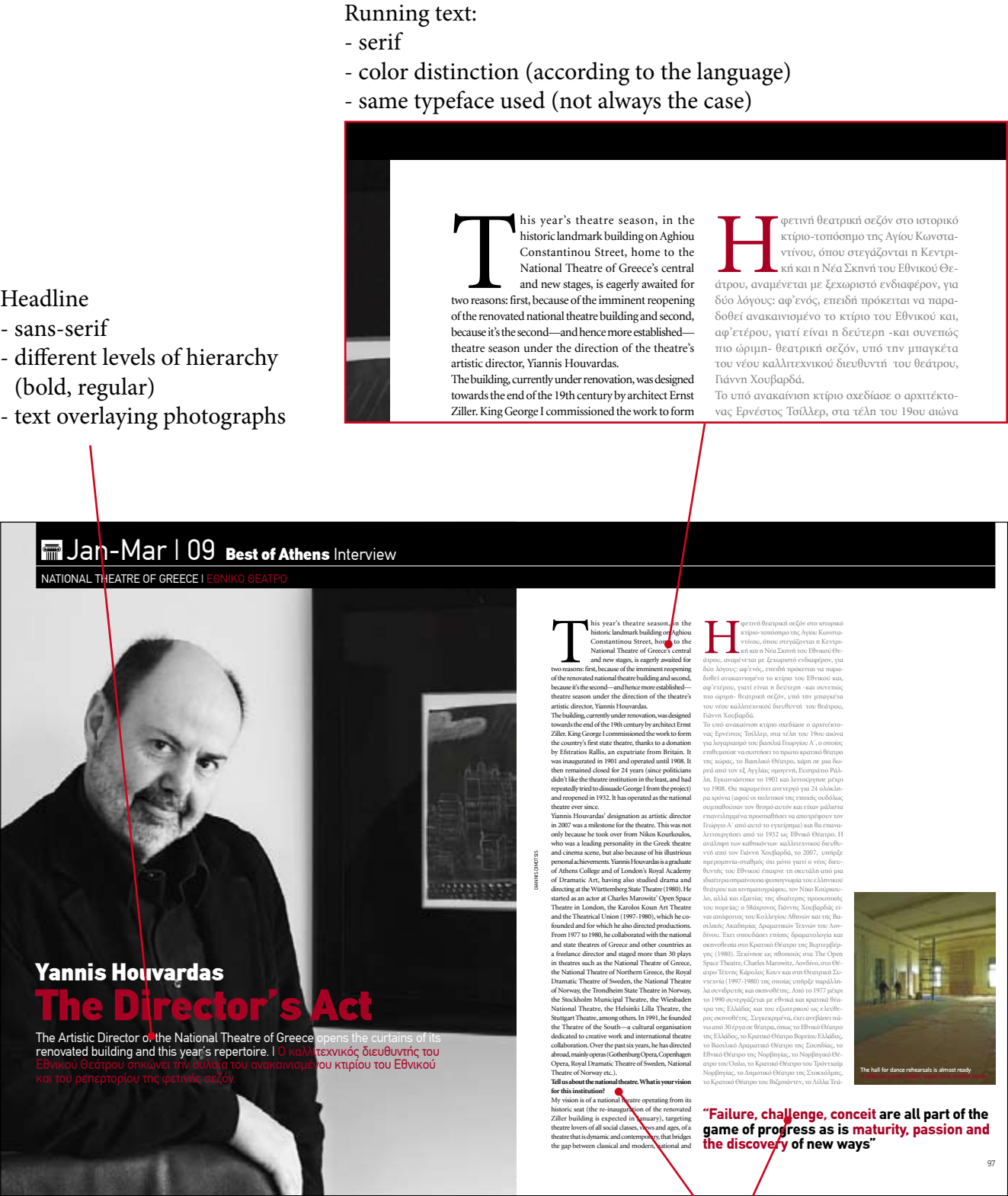


fig.1. Details of a double page spread of the bilingual magazine «2BOARD» (Greek/english)
Scale: 41%

Epigraph and highlighted text:
- sans serif
- use of bolds to highlight some passages.

2 Design Process

a) *Getting familiar with the design process*

In order to get an idea of the features of this future typeface, I first started re-drawing characters of various existing typefaces, selecting features that pleased me, and paying special attention on proportions and consistencies between characters [fig.2]. Those first sketches were made without any specific idea of how the typeface would later look like, trying out as many combinations as possible.

As an introductory workshop at the end of October, we were asked by Gerard Unger to draw a first set of letters by hand, in order to test its efficiency at very small sizes (as one can see in dictionaries). Using the usual MATD (Master of Arts in Typeface Design) test word “adhesion”¹ allowed us some very fast interventions, constantly reducing the scale at various stages with a photocopier. [fig.3] This practice helped us understanding the appearance of alterations due to scale (details disappearing, others appearing heavier, dark spots, spacing issues, etc.) as well as measuring the limits of customizing details. [fig.4]

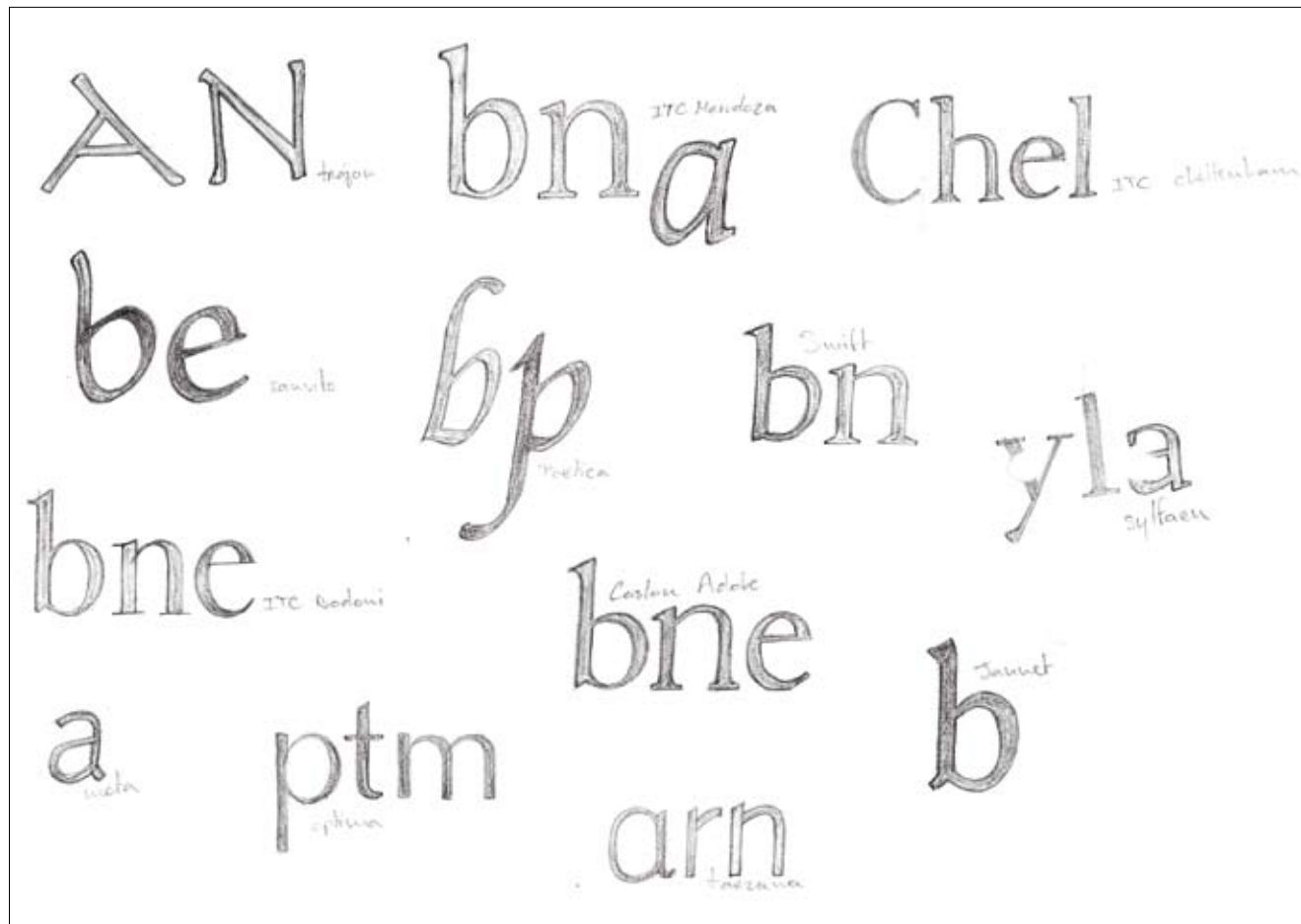


fig.2. Pencil reproduction of characters from various existing typefaces .Scale: 70%



fig. 6. First test document (with the letters “adep”). Scale: 95%



fig. 3. Early sketches using “adhesion” letters. Scale: 93%



fig. 4. First sketches for Gerard Unger's first workshop, experimenting with the joining strokes. Scale: 60%

fig.5. First glyphs drawn in FontLab after Gerard's workshop.

This workshop was also an opportunity to get familiar with FontLab, trying to reproduce the shapes of the drawn letters [fig.5] (the sketches were not used in FontLab as a background, in order to gain confidence using Bezier curves and for the eye to get used to the features of each letter). In addition to that, a first test document was created, with a selection of words using the same letters as “adhesion”: this way, it was even easier to identify the main problems created by the scale variations. [fig.6]

Once I started building my own design, one of the first features I wanted to give to my typeface was a calligraphic aspect (as seen on

1.this word has been chosen because it combines enough characteristic shapes to define an important number of features and proportions of a whole typeface (like “Hamburgerfontiv”).

adhesion
adhesion
adhesion

fig.7. From top to bottom: early digital versions from the 8th, 21st & 22nd December 2009.
Scale: 46%

b c d e o

fig. 8. Illustration of the diagonal stress (round shapes) [126/151,2 pts]

adhesion

fig.10. Actual serifs of Capoeira roman. [111/133,2 pts]

some italic shapes) in order to translate liveliness and speed.

b) Finding personality

Even if the first attempts looked considerably unbalanced it was already possible to spot the early features of the typeface. In order to stick to the brief, it was therefore necessary to define appropriate characteristics for this typeface, the main goal being to develop an original design that would distinguish it from the existing typefaces, but also legible and functional enough to be used in a magazine. Consequently, it would be a typeface with relatively low contrast, fairly pronounced serifs and a certain dynamic stroke movement.

The contrast the lettershapes was added progressively. The first letters had almost no contrast at all. Once I added contrast, I had to balance it between the letters, to give them a general homogeneity when they are set in a text. [fig.7]

In the meantime, in order to insist on this dynamic feeling, strong bracketed serifs were added and I started playing with the modulation of the curves, so that they became thinner when joining with the stems.

During one of the several feedback sessions we had with Gerry, he pointed out that the nice thing about my design was this dynamic stroke movement that is noticeable in the bowl of the “d” [fig.8], and that I should try to reproduce this effect on the other letters.

As a result, the shape of the serif changed as well: in order to balance the “swinging effect” created by the stroke’s movement, both sides of the serifs have been designed differently (one side bracketed, and the other with a soft angle). [fig.9 & 10]

c) Refinements and adjustments

At some point, I started developing the rest of the character set, based on the 8 letters I already had. This helped me distinguish the inconsistencies and the lack of contrast between the letters. Bearing in mind that the typeface had to be legible and functional, I then started to set up a system connecting the letters in terms of look in feel: adjusting the contrast, the proportions, harmonizing the stroke widths.

One of the main issues was the deep cuts in the strokes connections where the round stroke met a straight one (e.g. lowercase “n” or “d”) introducing a shifted and pointy angle in the counters (even more noticeable at small sizes). Therefore, I was advised to apply a shallower joint (I noticed later that it would also help the distinction between the roman and the italic). [fig.11]

n n n n n

fig.11. Evolution of the letter «n» throughout the design process.

adhesion
adhesion
adhesion
adhesion
adhesion

fig. 14. Interpolation using multiple masters: the previous version being the first, and the new being the third. Scale: 33%

adhesion
adhesion

fig.17. Comparing the first version of the italic with the last one. [63/75,6 pts]

hand

fig.18. Illustration of the main features of Capoeira italic. [201/241,2 pts]

b d p q c e s
r a f g h j k l t
v w x y z

fig.15. Drawings made with two pencils taped together. Scale: 25%

b b b
a s a a a
d b n d n

fig.16. Trying to introduce liveliness and speed in the drawings of the italic. Scale: 46%

s a f y c r j
s a f y c i j
s a f y c r j
s a f y c r j
s a f y c r j

fig.12. Terminal trials (pencil over printout). Scale: 30%

a c f j r y

fig.13. Current terminals of Capoeira regular. [84/100,8 pts]

Besides, I had to adjust the general weight of the typeface, which was too light when set as a text. On his second visit, Gerard suggested I should therefore use the multiple master technology, interpolating between the actual weight and a bolder version of it, in order to find a suitable weight. [fig.14]

d) Building an italic

The design of the italic was introduced during a workshop held by Victor Gaultney. We were taught how to give a cursive aspect to the roman, reproducing the movement and the change of direction of a broad nib pen. To do so, we used two pencils taped together, drawing on a slanted version of the existing roman and adjusting over the curves' transition. [fig.15] At the mean time, it was also an opportunity for me to reintroduce some of the features of the roman abandoned earlier, like the deep joints smoothly connecting to the stem. In addition to that narrow counter, and large instrokes and outstrokes were applied as well (losing the serif of the roman, except on the descender of the letter "p"). [fig.16,17 & 18]

Thus, after adapting the overall contrast when set next to the roman, the italic ended up looking much more lively and speed, still matching nicely with the roman. [fig.19 & 20]

six big devils from japan
quickly forgot how to
waltz. portez ce whisky au
juge blond qui fume.

n

fig.19. Unlike the lowercases of Capoeira roman, the italics are strongly influenced by a handwritten movement: deep joints, smooth connections, narrow counters and large instrokes and outstrokes. [190/228 pts]

fig.20. Comparison of Capoeira roman and Capoeira italic as it is now. [29/34,8 pts]

Η εμφάνιση του υπουργού Άμυνας Geoff Hoon ενώπιον της επιτροπής του δικαστή Hutton που διερευνά τα αίτια του θανάτου του καθηγητή David Kelly, ήταν το προσωρινό αποκορύφωμα στις εργασίες της επιτροπής, καθώς αύριο κατά- θέτει ο πρωθυπουργός Tony Blair. Mr Hoon said he did not believe Dr Kelly had been poorly treated. The defence secretary acknowledged he was aware of the media strategy whereby Dr Kelly's name would be confirmed if it was put to officers of the Υπουργείο Εσωτερικών. Ну, здравствуйте, здравствуйте. Je vois que je vous fais peur, садитесь и рассказывайте. Так говорила в июле 1805 года известная Анна Павловна Шерер, фрейлина и приближенная императрицы Марии

Федоровны, встречая важного и чиновного князя Василия, первого приехавшего на ее вечер. Eh bien, mon prince. Gênes et Lucques ne sont plus que des apanages, des поместья, de la famille Buonaparte. Non, je vous préviens, que si vous ne me dites pas, que nous avons la guerre, si vous vous permettez encore de pallier toutes les infamies, toutes les atrocités de cet Antichrist (ma parole, j'y crois). He said he did not see how the government could resist calls for Dr Kelly to appear before the Commons foreign affairs committee. Mr Hoon said he asked the committee to restrict Dr Kelly's appearance before it to minutes out of concern for the scientist. Asked about suggestions that he didn't want Dr Kelly to be questioned on

his views about the dossier, γείου του, και τα οποία θα μπορούσαν να οδηγήσουν ενδεχομένως στην αποκάλυψη του David Kelly. Σειρά πάντως σήμερα να καταθέσει στην επιτροπή έχει ένας μάρτυρας που χαρακτηρίζεται κλειδί για την υπόθεση. Πρόκειται για τον επικεφαλής της επιτροπής που συντονίζει την New Scotland Yard, John Scarlett. отвечал, нисколько не смутясь такою встречей, вошедший князь, в придворном, шитом мундире, в чулках, башмаках, при звездах, с светлым выражением плоского лица. Он говорил на том изысканном французском языке, на котором не только говорили, но и думали наши деды, и с теми тихими, покровительственными

fig.21. Greek, Latin and Cyrillic set in a same text [9/10,8 pts]

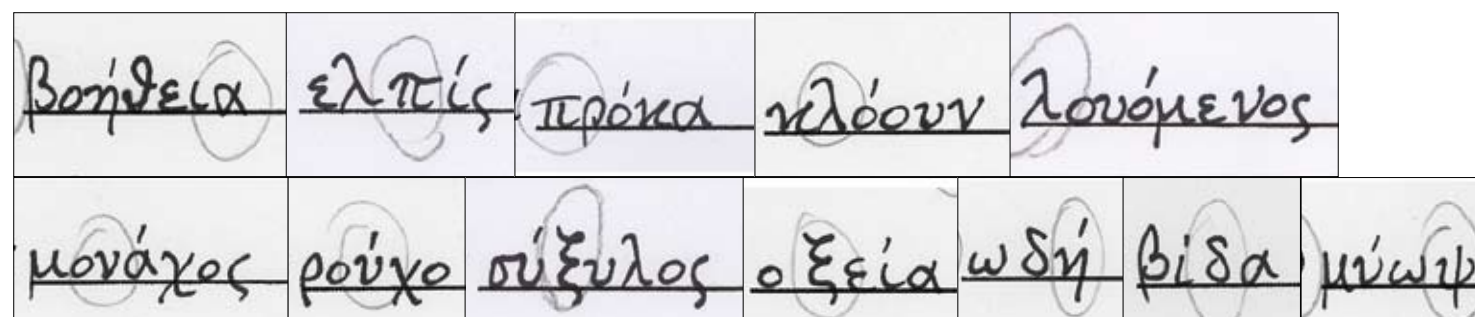


fig.22. Handwritten letters selected by Gerry. Scale: 140%

α ε η ι μ ρ
α ε η ι μ ρ

fig.24. First experience, and last result of Capoeira Greek, using the letters of the Greek "adhesion". Scale: [105/126 pts]

η η υ μ
κ κ κ
Η Π Ι
Ц Р Њ

fig. 26. A selection of related shapes between Latin, Greek and Cyrillic. [50/60 pts]

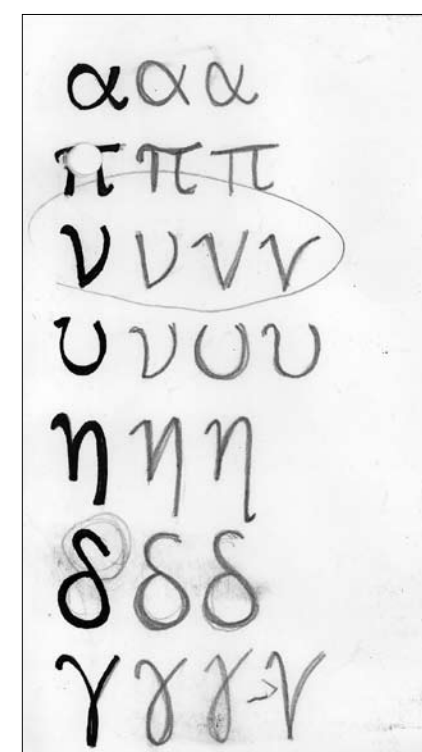


fig.23. Analysis of selected shapes. Scale: 71%

e) Getting familiar with foreign scripts (Greek & Cyrillic)

The design of the Greek and the Cyrillic started independently but through the design process they both influenced the design of the Latin. Preserving their singularity, they still share some similar features (serifs/terminals, relative proportions), which allow them to appear equally important when set together on a same page. [fig.21]

First of all, we had in the last week of November, a workshop on Greek held by Gerry Leonidas, that had a great impact on the later design developments. We were first asked to copy by hand series of letter combinations in order to get familiar with the script and it's important influence of the tool. After selecting the letters that had the right shapes and proportions [fig.22 & 23], we were quickly encouraged to digitalize a group of letters (used is the same way as "adhesion"). The result was that the first attempts designing Greek letters showed a very naïve comprehension of the script, being too influenced by the shapes of existing Greek typefaces (that are often considered as being "too Latinized", losing of their handwriting influence) [fig.24]. So I went back to my first drawings, and tried to reproduce the shapes that translated the best the use of the tool and the stress of the stroke (instrokes/outstrokes, uninterrupted connections, etc.). And once I got familiar with the script and stopped focusing on isolated shapes, it became easier for me to adjust the proportions and build a common movement throughout the whole typeface. Still, when set together with Latin, this latter appeared more geometric because of rhythm created by the repeated vertical strokes. That's why I had to compensate this effect in Greek, by condensing some of the round shapes first, and then adjusting the spacing that needed to be optically balanced (in order to reduce the condensed effect created by the round letters, frequently clashing against each other).

α β γ δ ε ζ η θ ι κ λ μ ν
ξ ο π ρ σ τ υ φ χ ψ ω

fig.25. Preview of the actual Greek lowercases. [48/57,6 pts]

2. The reform of the Russian alphabet underwent a change when Tsar Peter I of Russia ("Peter the Great") introduced the Civil Script between 1708 and 1710. The main aim of this reform, was to make easier the printing of non-Church books essentially by simplifying some letterforms, introducing some news forms and dropping redundant letters and shapes peculiar to Church writings. Consequently, the letterforms were westernized and adopted by the other languages that were already using the alphabet.

Even if historically, Latin, Greek and Cyrillic scripts are closely related, Cyrillic has no calligraphic tradition. And since Peter the Great's reform², many characters in Cyrillic look very similar to Latin (some of them are almost identical, while others are strongly influenced by Latin) [fig.26]. Cyrillic lowercases for example, look very much like Latin small caps, and have much fewer ascenders and descenders. Therefore, I decided to try to distinguish the Cyrillic from the two other script insisting on its strong formal aspect (the Greek being fairly calligraphic and the Latin sharing both aspects).

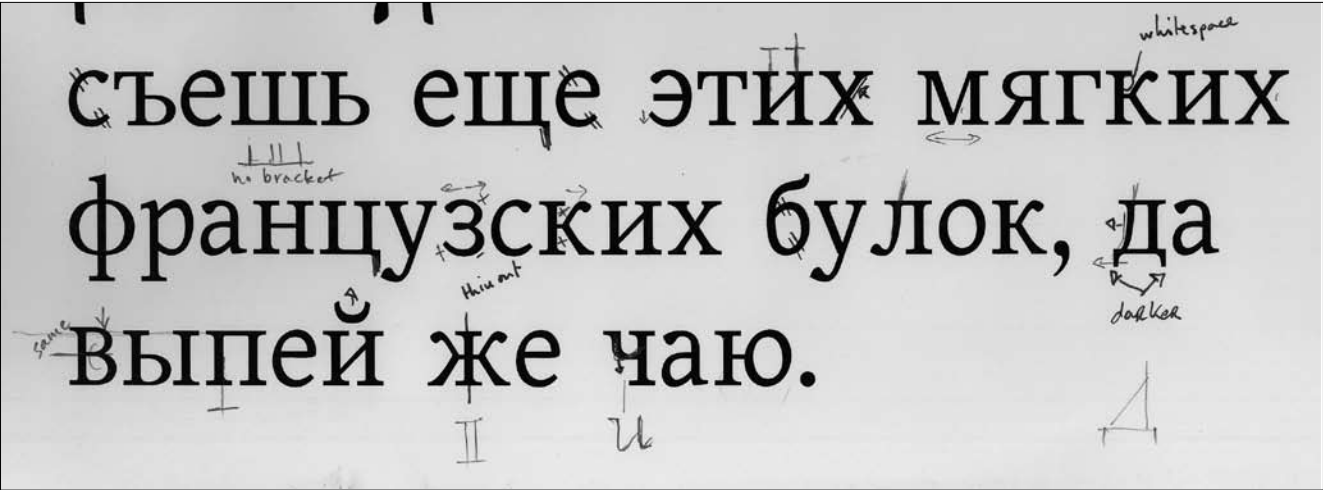


fig. 27. One of Victor's correction on Cyrillic. Scale: 74%

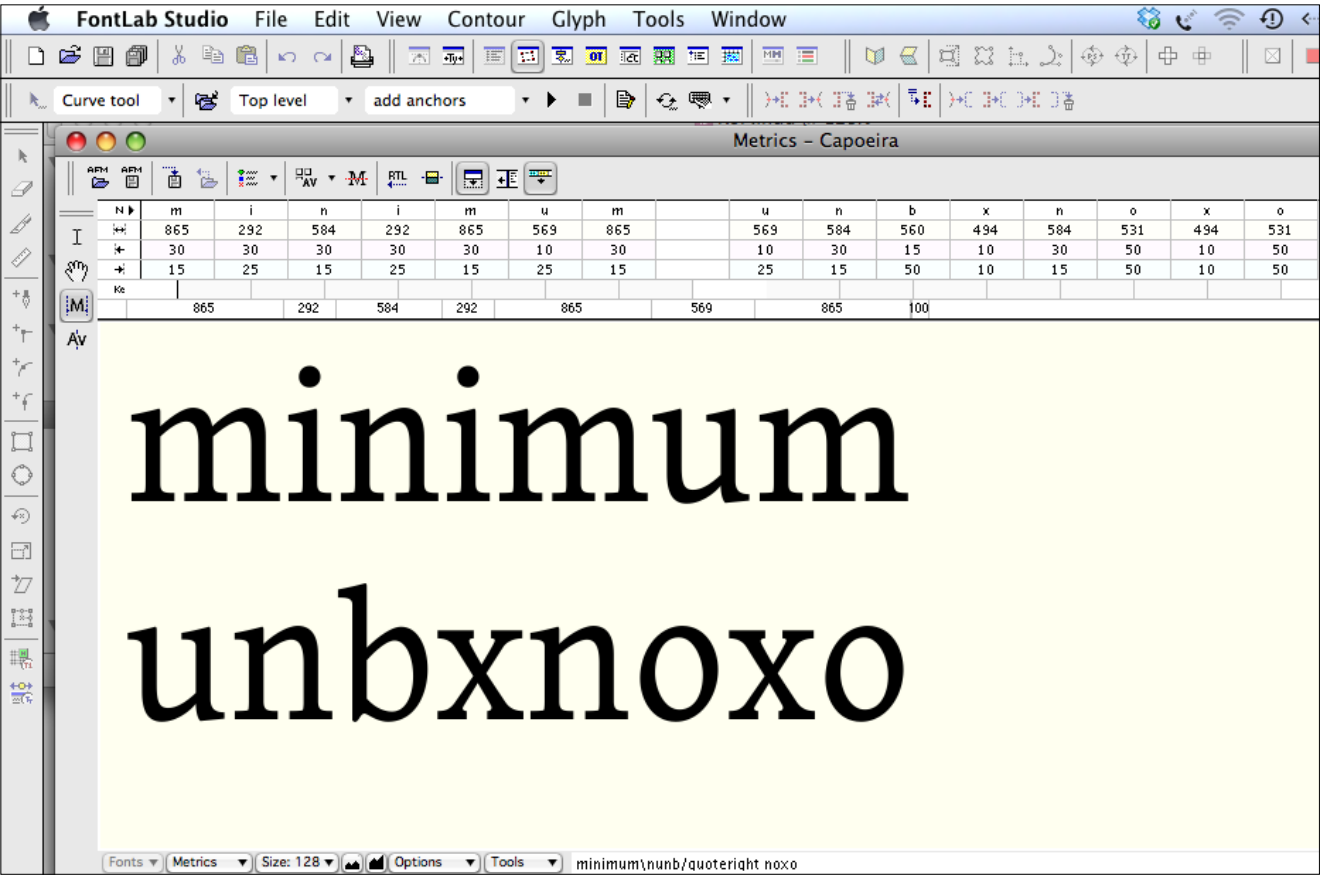


fig. 28. Screenshot of FontLab's metrics window with the letter combination that allows adjusting the spacing ("x" being successively replaced by "a", "b", "c", "d", etc.). Scale: 53%.

Thanks to Victor Gaultney's visits, I could get regularly feedbacks from him, which helped me understanding the peculiarities of Cyrillic letterforms [fig.27]. For example, I was advised to pay attention that not all lowercase letters have to be on the x-height, that letters that looked very similar shouldn't have necessarily the same shapes nor the same thickness, that the letters that look like reversed Latin characters need to be balanced accordingly, etc.

Again, while designing the Cyrillic, I was sometimes going back to Latin, trying to establish a relationship between the two scripts, one script getting inspired by the other. This way, I managed to improve much quicker both designs, making decisions for one script or the other.

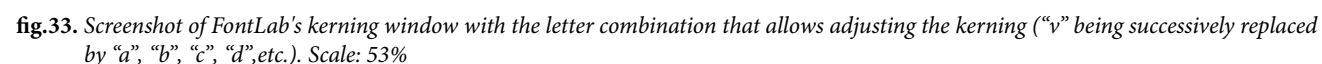
f) Adjusting the spacing (test documents)

On a visit, Gerard also showed his method of spacing the letters. In order for the words to look even in a sentence and therefore improving the overall colour, it was necessary for them to be correctly spaced. Using several combinations of letters [fig.28], each letter spacing was adjusted placing the letters between a straight shape and/or a round shape (in this case, next to the letters "n" and "o"). Then, series of tests documents were used to check the spacing between lowercases, capitals and small capitals.

fig. 28. Extract of one of the spacing test documents, each word using successively the letters from "a" to "z" as a first letter. Scale: 150%.

apple absolute acronym aorta askew agent
afternoon agj abracadabra big badger box
clamor cedar dank dvorak democracy dh
ephemera eggs ebbey equalize eyed foreign
grand ghost goblin gentleman hitter hell
porate january jump kleptomaniac khaki k
lexicon lull light lazy llama lacquer lawyer
een never google opera orca ossify once op
panacea qatar quit quorum query rand
ck size salty sea squash softist stipple sax
their trombone trampoline typography un
ar vick valerie vladimir vagabond vera voo
er wrapper weight werewolf xray xiu yessir
ini 1234567890 Are Apple Absolute Acron
zure Aluminum Autumn Afternoon Agj Ab
ezier Brashest Coda Chuck Clamor Cedar
nsive Echo Evict Effort Ephemera Eggs Ebl
y Fissure Fax Facts Fudgy Grand Ghost Go
s Igloo Impish Inundate Incorporate Janua

fig.30. Capoeira has two sets of figures: old style (default) and lining. An italic variant has also been added. [92/110,4 pts]



a) *Small caps/caps*

HHhXq2323

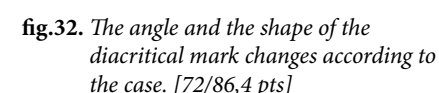
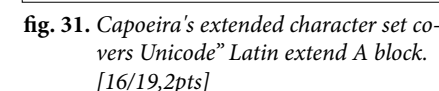
fig. 29. *Capoeira's proportions.* [65/78 pts]

b) Designing figures

c) Diacritics

g) Metrics classes and kerning pairs

Once the spacing was fixed for the majority of the letters, there were still some pairs where the space between two letters was either too big or too small. To fix this problem, kerning was applied on a selection of problematic combinations. In order to keep the number of kerning pairs to a minimum, and given that a number of glyphs shared similar shapes, they were gathered together in kerning classes. [fig.33]



Conclusion

Capoeira, as it was designed during the MA course was not a finished project. In order to achieve the goals defined in the brief, it still needs refinements and adjustments. Many possible improvement and extensions could be added: spacing issues still need to be fixed, the italic variant should be expanded, a selection of different weights could be added (going from thin to black) as well as a caption and a display version, tabular figures,...the list could never stop!

Nevertheless after this year, I consider that I've acquired enough historical, theoretical and technical knowledge, to get confident enough to complete the type family and eventually develop a professional project on my own.

[illegible]

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The typeface, the specimen and the RoP were submitted in partial fulfilment of the requirements for the Master of Arts in Typeface Design, Department of Typography and Graphic Communication, University of Reading.

Thanks to: Fiona Ross, Gerry Leonidas, Gerard Unger, Michael Twyman, James Mosley and all the visiting lecturers for sharing their knowledge. My fellow students with whom I shared all these hours of work. To my family for encouraging me in my choices.