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DESIGN ENGLISH ROUNDHAND TYPEFACE

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This project is to design English round hand style typeface based on the study of the seventeenth century French writing master Lucas Materot's writing by calligrapher's interpretation.

English round hand was developed from the mid sixteenth century from the Italic hand. However it has not been considered as a calligraphic hand until recently. One of the purposes of this project is to extend my study so that it can be used in practical way.

There are many calligraphic typefaces on the market. Although many of them are beautifully designed, they have not designed from the real writing done by hand. They have supposedly been made from the designers' sketches or copy of old manuscripts or writing manuals of the time.

Calligraphers do use the typefaces for their work and business. When they design the artwork it is convenient because it can be done in much shorter time than writing the text by hand. However when calligraphers follow the computer made samples they often find it does not go well. What often happens is, the strange conjunctions, incorrect spacing—often it is too tight, and incorrectly placed thicks and thins.

English round hand is one of the most popular scripts for a calligraphy business. This project is to solve this prolonged problem in my work as a calligrapher and to produce something unique out of my study.

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1 THE PROJECT

The project was based on my study. It was for my calligraphy work.

Calligraphers use fonts. They use fonts for both personal work and commissioned work. They use fonts in order to have ideas of how the work will look, or play around with the elements on a computer to have better ideas of the work in shorter time. For business calligraphers can make digital samples for clients. The sample made on the computer, although each detail cannot be made, will give both a calligrapher and a client a rough idea and can be altered or updated easily without much hassle. The computer generated sample also helps calligraphers communicate with clients quicker and smoother, and sometimes protect them from demanding clients.

As calligraphers do not have to write the text each time they can save a lot of time. I made a piece of calligraphy work last year, which had more than 400 words and in A2 size. I did not use the computer for the work at all. I worked on it in a very simple way, wrote the texts, cut and pasted. Then changed the styles, colours, weight and layout, and cut and pasted again. I repeated this process. It took me a year and a half to reach the final idea. Calligraphers do not spend that much for the commissioned work every time.

Calligrapher can design the work on a computer quicker, however he needs to use the fonts which represent his writing. Unless he has his own font installed he has to find a font close to his writing or the style which he is goind to use, which often is not easy. If the font is far from his writing he cannnot make a good sample. Recently there are more and more fonts based on calligraphic styles being created. This situation may be convenient for calligraphers. Those fonts often have handwriting looks and are not rigid. The font made based on real writing, especially done by calligraphers have natural movements of the pen. If someone tries to follow it with a pen it is almost possible whereas if it is made from a designer's sketch, or if it has been modified too much on the computer it is difficult to write like it. The lines' thick and thins are in strange positions and often spacing is very tight. In terms of spacing the font and handwriting are quite different.

For calligraphy business Roundhand, in other word Copperplate hand, is one of the most popular hands today. Because it looks like more handwriting. People now want something close to handwriting more.

Roundhand developed from Italic hand from the mid sixteenth century. Intaglio printing, in other words engraving, had already been introduced in Europe. The writing masters of the time capitalised on the opportunity to reproduce their exemplars by copperplate engraving, therefore Roundhand is also called Copperplate hand. The Roundhand and intaglio printing technique influenced each other and developed together. Unfortunately the Roundhand evolved into a business hand and mere handwriting in the late eighteenth century in Britain and lost uniformity and its charm of the contrast of thick and thins. However it survived in the country such as France and has been used in commercial field. It also developed into another style called Spencerian hand in the United States

I have studied Roundhand a coupe years prior to this project. My model was French writing master Lucas Materot's style. I had been thinking if I could use this study for something useful. The study was the starting point of this project. Therefore firstly I explain the evolution of the hand and then describe how I studied the Roundhand.

2 ROUNDHAND

2.1 Materot's style of writing

At the beginning of the seventeenth century writing masters sought a simple, clear and practical script, whereas various gothic cursives were still being used for daily business. According to professor Ewan Clayton, there were four styles of chancery hand developed from gothic hand: Ronde, Coulée, Financière and Bastarde Italienne.(Clayton 2013, 164)

Bastarde Italienne originally came from Italy and had been developed out of an Italian scribe Francesco Giovanni Cresci's (1534–1614) italic Cancellaresca Moderna. It is said that the change started with Cresci. He criticised the writing masters of the time, which are Arrighi, Palatino and Tagliente. Cresci's claim was that those masters' letters were too narrow and pointed, which made it difficult to join up. The italic pen was too wide and square and was held at too much of an angle. Finally the letters did not slope enough. Instead, he recommended a narrower pen, held only at a slight angle and an increase in the slope to 10-15 degrees rather than 5-7 degrees. Letterforms should be opened up and be rounded, and to use more joins and speed. He combined the chancery hand with the legal gothic hand to develop distinctive Bastarda, which was called Bastarda Moderena.

As a calligrapher and designer Donald Anderson described: 'After 1523 writing manuals [Arrighi's *Il modo de temperare le penne*] were produced in a combination of wood-cut and metal type relief images, until [a Spanish scribe]Giuliantonio Hercolani issued his *Lo scrittor utile* in 1574 with writing specimen cut intaglio in copper plates.'(Anderson 1971, 6) The development in prointing process was brought about partly by the development of the writing, as Osley points out: 'It is also to be noted that the use of a narrower pen coincided with the spread of the copperplate process in Italy in the 1550s.'(Osley 1980, 115) As they pointed out whilst the pen became narrower, woodcuts gradually gave way to engraved copper plates where an engraver was able to cut the details of thin strokes, hairlines or flourishes. Before that engravers struggled with reproducing masters' writing in actual size by wood blocks. Writing manuals were no longer reproduced from woodblocks.

Bastarde Italienne was then popularlized by Lucas Materot in his copy book *Les Œuvres*(1608). Materot, a French scribe who worked in the papal chancery, appreciated its simplicity and legibility (Fig. 1).

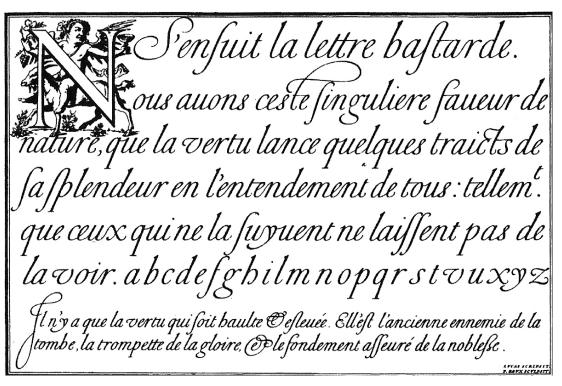


Fig.1 Materot's Bastarde Italieene from Les Œuvres (1608).

This is the copybook I used for my study. My focus of the study were not only his letterforms but his way of using of letters, such as ligatures and flourishes. Alongside Bastarde Italienne his book included various styles of chancery hand. As those styles are based on the same style as Bastarde Italienne and only some aspects of the letterforms are different, I first analysed various his styles and identified the key fundamental shapes of his writing (Fig.2).



Fig.2 The page I analysed from Materot's Les Œuvres.

The letterform is based on an oval. It has angled writing slope which is approximately 70 degrees. Quite a few ornaments and flourishes were employed. There are common usages of ligatures and flourishes. Ligatures were not only used between the letters in a word, but also used between the words themselves, as a consequence, at times the words were joined up without space. Capital sizes vary, with the average at about three times the x-height, sometimes reaching more than seven times the x-height(Fig.3).

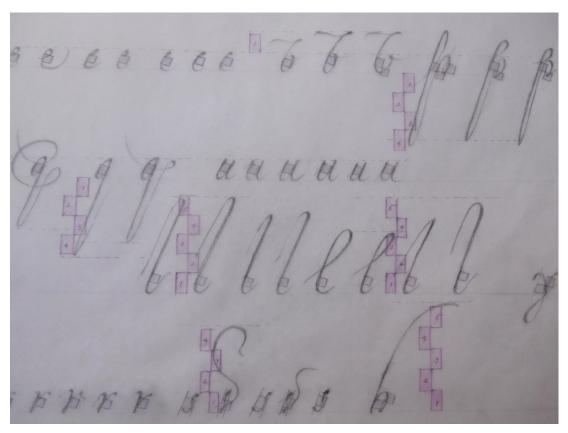


Fig.3 A page form analysis on Materot's style and its detail.

2.2 Towards English Roundhand

While Materot's Bastarde Italienne was influential in the beginning of the seventeenth century, other masters showed their interpretation of the hand in their books. A Flemish writing master Jan van der Velde, one of the most eminent scribes of the time, took Bastarde Italienne into his *Spieghel der schrijfkonste* (Fig.4). An English scribe Martin Billingsley, who later became Prince Charles' writing master, showed similar traces in his book *The Pen's Excellence* (Fig.5).



Fig. 4 A page from Jan van der Velde's Spieghel der schrijfkonste(1609).

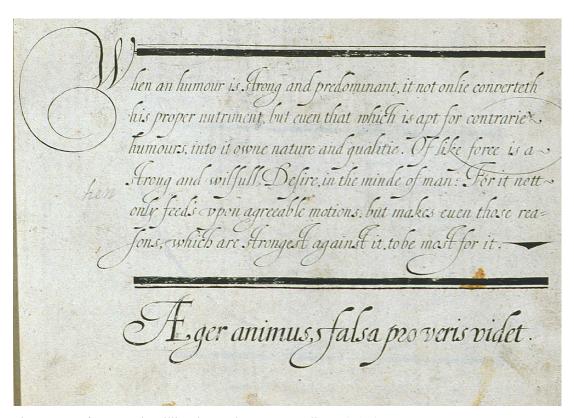


Fig.5 A page from Martin Billingsley's The Pen's Excellence (1618).

In the seventeenth century the Netherlands dominated in trade, industry, science, and art. Calligraphy also flourished there. French calligrapher Claudia Mediavilla descri-

bes this period as: 'the golden age of calligraphy in the Low countries' (Mediavilla 2004, 215), in the Netherlands the writing was taught in primary school and it produced many calligraphers of the very highest quality. Jan van der Velde and other Dutch writing masters' work were at the highest level, and were copied and used as models in the countries where their work was particularly admired such as Spain and Britain. With the decline of the Netherlands' commercial domination and Britain's commercial expansion in the mid seventeenth century, English style of writing, English roundhand became dominant.

English roundhand was established by English scribes who were hugely influenced by precedent writing masters. Mediavilla states: 'John Ayres (1680–1700) and Charles Snell (1670–1733)...first brought Bastarde Italienne to England and to derive inspiration from the work of Lucas Materot and the Dutch writing masters.' (Mediavilla 2004, 242). George Shelley (1666–1736) and George Bickham (1684–1758) also helped popularize the hand. Bickham published his famous writing book *The Universal Penman* (Fig.6), which contained contemporary English writing masters' engravings as well as his own work. He was also a skilled engraver.

By the end of the eighteenth century English roundhand was being copied and adapted, spreading throughout Europe under various different names.

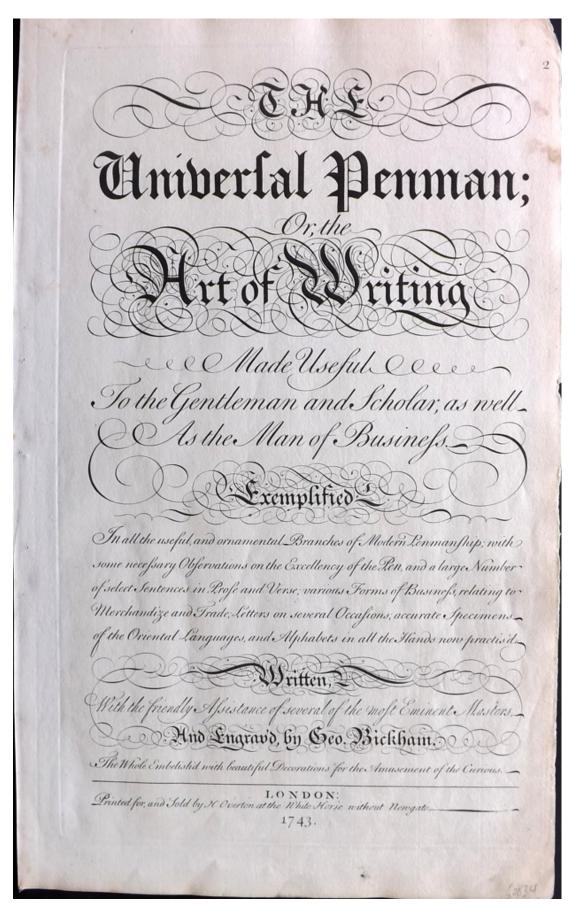


Fig. 6 A page from George Bickham's The Universal Penman (1733).

The shape of English roundhand is similar to that of Bastarde Italienne: based on an oval shape with letters that are joined up. However the writing angle is approximately 54 degrees from the horizontal, this is more slanted than Bastarde Italienne which has an angle about 70 degrees from the horizontal. This means English roundhand can be written more rapidly. It is simple, clear utilitarian writing, as Clayton points out: 'this simple script answered the needs of the age where swift and accurate written records had become crucial to many enterprises.' (Ewan 2013, 165). An author and editor Joyce Whalley also described Englisih roundhand as: 'essentially a good business hand, plain and clear, and it was taken up by merchants in other countries,' (Whalley 1980, 243).

2.3 Development of English Roundhand

Industrial revolution in the beginning of the nineteenth century invented a steel nib. Quills were gradually replaced by it. Because of the pace of business of the time there were increased demands on clerks and business hand. Although it was appreciated for business while it was written with speed, the quality of Roundhand deteriorated. It lost the uniformity and beauty of thick and thins. On the other hand, because of its ornamental aspects it was successful in publicity. Much design work such as signs, product labels, and book covers were made by written, drawn, or engraved letters.

The English roundhand spread throughout Europe and reached to the United States in the nineteenth century. There was a new trend of teaching. An English calligrapher Joseph Carstairs emphasized movement of the arm, hand and fingers (Fig.7). His method was adopted particularly in France and the United States. In the United States it was adopted by writing master Franklin Benjamin Foster (ca.1803-1859) and developed into Spencerian hand by Platt Rogers Spencer (1800 –1864), who was inspired by Carstairs work. Spencerian hand is originally relatively simple and closer to hand writing, however, with greater speed it developed dynamic as well as decorative aspects, especially in capitals.

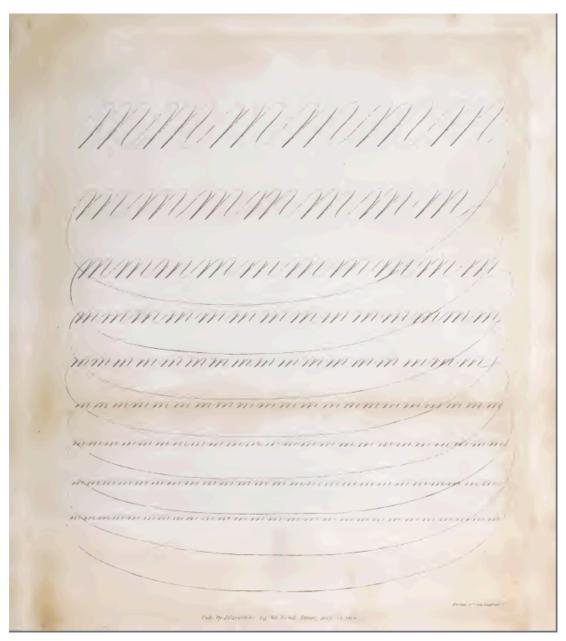


Fig. 7 A page from Lectures On The Art Of Writing, by Joseph Carstairs (1822).

3 MATERIALS FOR ROUNDHAND

3.1 Study Materot's materials

After analysing I started to practice Materot's style. In order to write his hand as close as to the original I had to examine the materials he used for writing. Obviously Materot wrote the hand with a quill on paper, and then they were engraved and prin-

ted. Most of the Roundhand exemplars seen today are only prints, and so is his writing. His original work has not been found yet.

It is also assumed that most of the people's idea of Roundhand is not the one form original writing, but the one form the engraved and printed writing manual or copybook. Whereas we take different approaches towards many old manuscripts written on the vellum by hand.

From printed copybook we do know the style of writing however we do not know what the actual writing was like. We see the real writing and study it. We need to know what ink and paper were being used. We need to know the sharpness and rhythm of the writing. This is the most interesting and crucial points to study a hand.

As Joyce Whalley said a skilled engraver was able to copy a writing master's hand in such intricate details and sometime the writing was refined and improved(Whalley 1980, 181), I wondered if the engraver refined the original writing in the process of engraving, how the original writing would look like, if it is the same as print or better or worse.

Although they were written slightly later than Materot's time luckily I found some original writing by other scribes. I also consulted some of the other scribes' manuals written of his time. Firstly, from the rare original writing of other scribes I tried to identify some key technical elements, ink, paper and quill and writing.

3.2 Ink and paper

Ink colour is light or dark brown—faded black.(Fig. 8, 9) It is believed that it was written with Iron gall ink by the fact that it was the standard writing and drawing ink in Europe from about the fifth to the nineteenth century. In addition, many writing masters introduced their recipes in their manuals. The basic ingredients of the ink were iron salts and tannic acids and often caused discoloration or corrosion of the paper on which it was applied over time.

The paper is quite distinct – it is a rough laid paper. Until woven paper developed in the mid eighteenth century laid paper was being used.

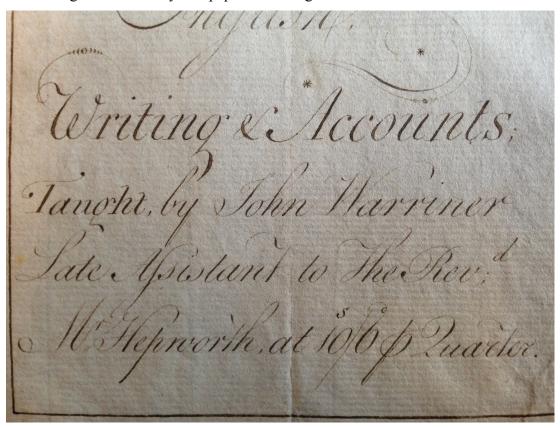


Fig.8 Original Roundhand writing.



Fig.9 Original Roundhand writing and the paper surface.

3.3 Quill

The crucial aspect in reproducing Materot's style as close as to the original is the quill. What quill was used and how it was cut. Although the style was written with a quill and in capitals and big size writing thicks and thins are recognized, it is hard to tell what the pen size is and what angle the pen is at. As the information about the quill is not provided in *Les Œuvres*, it is neccessary to draw on other masters' method in the same period.

There are various writing manuals from the sixteenth to nineteenth centuries which describe how to prepare a quill. A page from Jan van der Velde's manual shows hot to cut the quill step by step (Fig10).

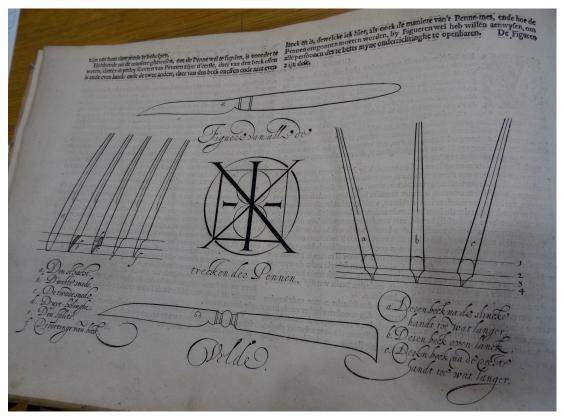


Fig. 10 A page on how to cut the quill by Jan van der Velde.

The quills illustrated in many manuals are not very small and appears to be a goose quill. However, after trying to cut the quills in many different ways to reproduce Materot's style I detected the quill could be very tiny, cut very pointed and in oblique, as it is not possible to cut it with a very sharp point by hand. Even though the quill is hardened with hot sand or with heat, it is extremely hard to maintain the quill's

sharpness while writing for long hours. Also whilst experiencing writing with the quills, I became aware of the importance of the relation of the quill and the paper.

Initially I was using today's printmaking paper which is soft and smooth. However, after having discovered the paper of the period which is rough laid paper, I realized the combination of the quill and the paper – the paper of the time might not have required the hard quill. First I used the quill prepared very hard to write on a soft paper, however for the rough paper it might be better that the quill still has some softness.

4 FROM STUDY TO THE PROJECT

4.1 The project

I spent a year on the study, analysed the hand and examined materials, and wrote a hundred page practice book as other students did. Finally I finished a small piece of work in this hand(Fig.11). This study helped me improve my pointed pen writing, but not only that. It did give me ideas of various letterforms, ligatures and flourishes.

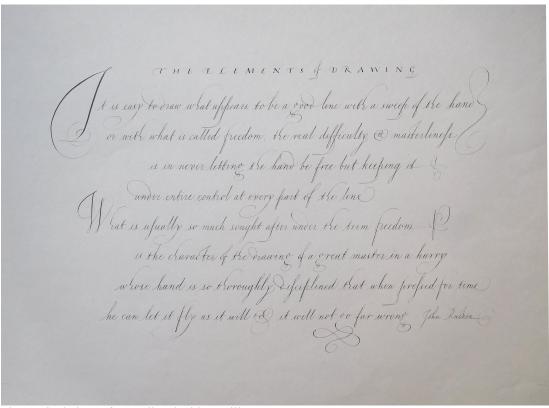


Fig.11 Final piece of Roundhand with a quill.

Although I struggled with the quill a lot this study was so interesting and I kept working to improve my wtriting and to adopt his styles more. I had never experienced this kind of excitement of the study. I also tried to find a way where I could use this study practically. I made a small logo using this style(Fig.12) and I was thinking a new project based on the study.



Fig.12 A logo based on Materot's style, written with a quill.

The model I based on for the study was written in seventeen centuries therefore it has a little classical feeling and an interesting distinctive character. I thought if I made a font of this hand, one is in this classical style and the other in its modern interpretation. I had not found any good Roundhand fonts so far, mainly because of spacing problems. In addition after the study and almost having consolidated my style I thought there are no such unique fonts. Now I know that I know what I want, because I write. I decided to design a font of this hand.

4.1.1 Digitising program

Font designers use FontLab program to design fonts. I do not have FontLab on my computer and it was assumed that there would be a huge amount of work. Furthermore I was not much familiar with digitising process therefore I thought I needed a help. I asked a friend of mine who was a designer and had FontLabt to help this project.

4.1.2 Paper and pen

What I had to do first is to write model letters to scan and digitise. They are models therefore need to be as close to my image as possible. Initially I intended to use the written model letters themselves without drawing or correcting the details with a pen or pencil. I preferred to keep the nuance of being done by hand rather than mechanically perfect. I thought I was able to obtain the best results from the original writing. Although I used quills for my study, as I wanted to develop it in slightly modern way I decided not to use quills for writing models. Now I had to think what nib and what paper to use.

The paper for Roundhand is always tricky. Although I had been trying many papers and discussed with many friends about it I had never come up to satisfactory results. The paper must be white or off-white for scanning; smooth and not bleeding; thin enough to see the guidelines underneath, as I would use a guide sheet for writing. I

tried many papers such as photocopy paper, BCR Bond paper, layout paper. I finally chose Conqueror laid paper which although had texture on the front, it was smooth on the back and decided to use the backside(Fig.13).

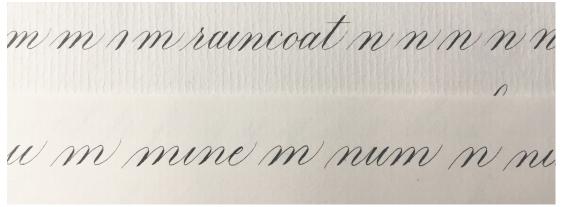


Fig.13 Conqueror papers, back and front.

The next thing to decide was the nib. There are incredible amount of nibs in the market. I had to write the letters bigger than usual for digitising. As the size is bigger I ruled out the nibs for small wiring. However it must be the one which I was familiar with. My favourite was Gillott 303 and after trying several nibs I decided to go with it (Fig.14).

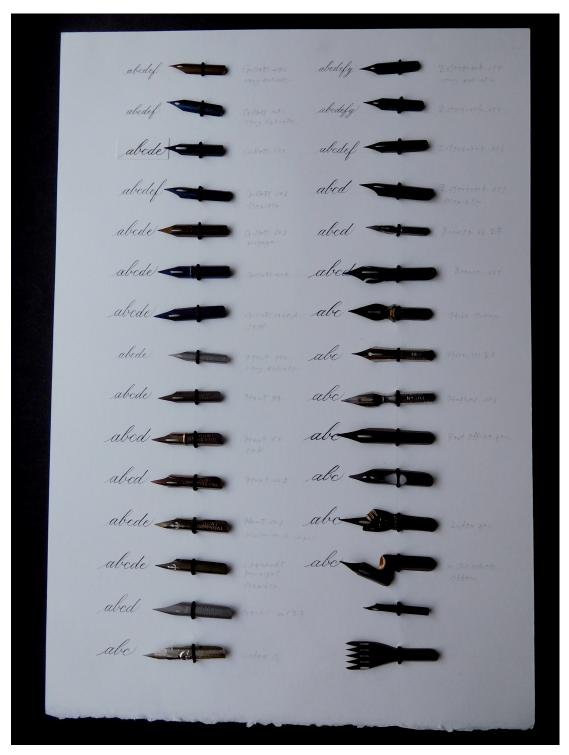


Fig.14 Pointed nibs sample.

4.2 Lowercase letters

After finding the materials I set out to examine the letterforms. I wrote them slightly bigger, 6mm in x-height for the purpose of scanning. Normal x-height is approximately 3mm. Writing model letters meant that I needed to clarify each details for digi-

tising; how thick the thick line is, how wide the (lower case) letter is, how high the ascenders and the descenders are; what the curve and arch shapes are like; where the strokes of branches meet, in the middle or higher point of the stem; what the termination is like, natural, square cut, or point cut; what the loop shape is like.

Although I studied Materot's hand I did not write his styles exactly. His style has slightly classical feeling and the first style I started with was modern interpretation. I have mixed my study with existing knowledge of 'copperplate hand' and developed into my own style. As I planned I followed the letters almost as exactly as the y were when digitising. I spent hours to examine the details. I needed to decide each details mathematically as all is grid in FontLab (Fig 15), for example, x-height is 200, and ascender is 600 and descender is -400. However it must look natural and not like mechanical, and attractive.

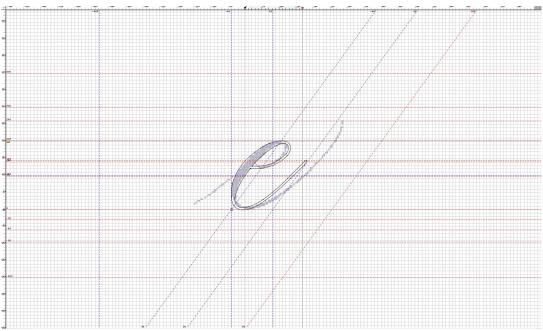


Fig.15 A working stage in FontLab.

My friend started digitising them when I finished basic lowercase letters. As I was not familiar with digitising process I asked him to do it for me first. He was a really good help however as he was not much familiar with the letterforms, some misunderstanding or confusion happened, especially with the letters which were not done perfectly. I assume even if he had been familiar with them it would have been really difficult to understand other people's writing clearly. I tried to write letters as perfect

as possible to my image however perfectness is not something absolute. Something looks perfect today may not look perfect tomorrow. We met up and discussed the details, and then he modified the letters in the way I asked. This way was not efficient. We thought we could do it quicker with less frustration. We changed the way, I do the changes after he has done rough digitising, and then again he does the final refining with technical issues such as line thicknesses.

When I worked on the computer I always kept a pen or pencil in my hand and imagined how the pen moved, or actually drew the shapes on the paper again. The strange thing was that although the letters were done with a pointed pen therefore there were supposed to be no thick or thins in hairlines, once it was enlarged there were. I needed to think of the angles of the terminations of the hairline. I did not want it to finish like being chopped. I tried to end it in a diagonal way so that it looked natural. However each time I needed to think which end, left or right, would go higher or longer (Fig.16). Also when the letter had a curve, for example letter 'o', I found that the inner curve and the outer curve shapes were different. Demonstrating them correctly to my images was the challenging.

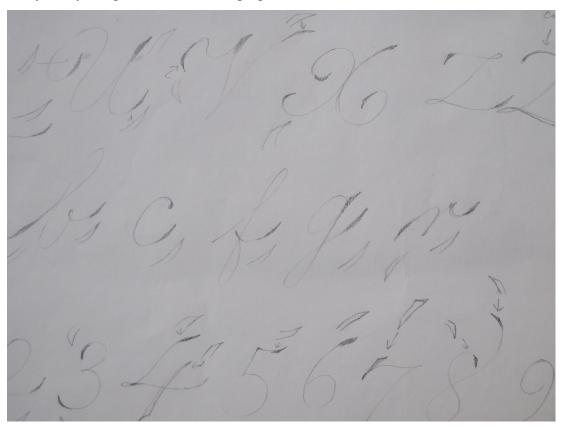


Fig. 16 A sketch for the teminations.

I did not copy and paste the same elements of the letters, which usually designers do in digitising process. For example I slightly changed all the loop shapes(Fig 17). It is risky as this is font and unless there are some alternatives it could not be adjusted according the combinations. Calligraphers do this adjustments naturally by hand. However I did not make them the same. If I had done so it would have been too mechanical look.



Fig.17 Different ascender loop shapes.

4.3 Capitals and punctuation marks

First I worked on lowercase letters then moved onto capitals. As generally capitals have more variations than lower cases my initial plan was to design three different versions of Capitals. I started with very simple modern interpretation with almost non flourish. However I found I needed to speed up after I finished the first version. I modified the first version and mixed with the second version, which was with some flourishes, and made simple but with slight flourishes Capitals. Eventually this was the right way as this was the closest style to my usual writing

I had to do one more version of capitals however I left it later and moved onto the punctuation marks. Punctuation marks were another tricky stuff. Firstly I needed to fully understand their functions and usages. Some marks were not familiar with. Deciding the sizes mathematically was again challenging (Fig 18).

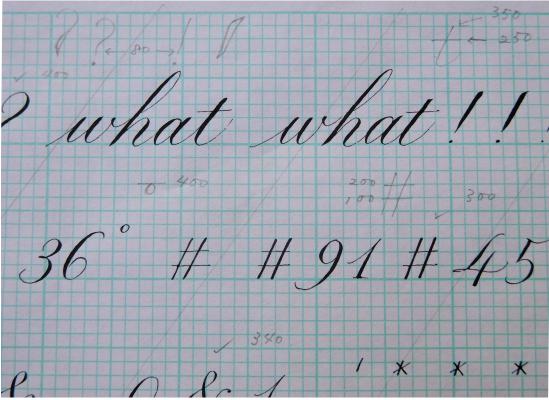


Fig. 18 Model writing of the punctuation marks and notes for the positioning.

For example quotation marks, if they are written by hand the position can be adjusted depending on the letter which comes after or before the marks, however, as a font they need to be fixed unless there are some alternations. The example of quotation marks below, if there is an ascender letter before the second mark, the mark wants to be kept at slightly below the ascender top line, however, if there is non ascender letter the mark want to be written slightly lower, closer to the letter (Fig.19). The mark position wants to be adjusted naturally but it cannot be done as a font. In addition, especially this style has long ascenders and descenders careful examination was required to decide the positions. We discusses this issue over and over again. We changed not only the positions, but the sizes and the shapes. For the quotation mark case, we changed the size and the curve of the wriggles. Regarding the positions we decided to take at the 'middle' and if necessary it is adjusted by hand like kerning. We also looked at other fonts of the same style. We realised that the punctuation marks may not always have been done carefully.



Fig. 19 The issue over the position of punctuation marks.

4.4 Problems in making fonts

Through the process of digitising what I found most surprising and disappointing was that: I worked on all the letters so that they looked perfect on Illustrator and almost they were for my eye. However when they were taken into FontlLab and became a font, and some texts were typed out with them they looked awful. It was very strange to look at that kind of awkward and inharmonious texts. Probably people rarely see them. We needed to examine what was wrong and how they needed to be corrected.

Firstly we picked up the letters of which slants were not right. However even though some letters were done in 54°slant and perfectly correct, for some reason they didn't look right. We looked at the text and marked them more upright or more slanted, by eye. We repeated this process. Eventually they were adjusted by eye. All the combinations needed to be looked into. We didn't do all however we typed out many texts and found the 'wrong' letters.

Minor issues sometimes affected to overall look too. A subtleness of the curves or the beginning and ending the thick lines made the text looked odd. Loops were often problems. Some combinations such as 'gg', the bottom loops were too close and needed a change.

However the most difficult part of this type of font was conjunction. As all the letters are joint up not only spacing but nice conjunction were required. We naturally adjust when we write by hand. Where the spacing gets wider we write the letters close to-

gether, like 'nn' and 'mm' conjunctions (Fig.20). Those conjunctions want to be kept tighter as they are written by hand. However for example if letter 't' comes after 'n', 'n' end curve cannot be made too narrow. Later I learnt that in addition to normal 'n', alternatives such as 'n' with narrower end curve could be made according the combination. However at that time we did not know about it.



Fig.20 A working process. Conjunctions.

Also we focused on English combinations however in the future we would have to think of other language combinations. Difficult combinations were with 's', 'r', and often 't'.

4.5 Making samples with the fonts

We needed to sort them out as a font, although we had only one lower case and capital version, numerals and main punctuation marks. We made sure if the typed text looked natural and if there was no letter oddly standing out. We also checked if the spacing, conjunctions and punctuation mark positions were ok. We typed the texts, printed out, checked and correct, and typed, printed out and checked. We repeated this process over and over again. Although they were far from perfect they became a 'font' at last. I decided to name this font 'Materot' after the French writing master Lucan Materot

Last thing I had to do for this project was to make samples with Materot. As this is a purely practical text font and not decorative display font I made practical stuff such as a wedding vow, an invite and a menu as samples. The most important thing to make and use Materot is simple and easy to read (Fig.21).

Quentin's Vours Today I am making a life commitment to you. Giselle, the vous I make here today will be forever. I take you to be my partner in life. I promise to love you without reservation, and to continue to laugh with you every single day. I promise to offer you my warm shoulder in times of comfort. Our adventure is only just beginning, and throughout our life journey I promise to support you, as we grow as both individuals and as a couple in love. I give you my hands, my heart, my love, from this day forward, as long as we both shall live.

Fig.21 A part of sample made with Materot.

Later I had advice from a professional type designer on what the good font was. He pointed out that it is a good font if the font is suitable for the purpose and if the letters, especially the shape of the words are beautiful. For example of the former, specifying the size, if used in 3mm size it is easy to read and also is beautifully printed out. Or even if the font has rather thick stem, if the spacing is generous it is easy to read in a small size.

What I had to think at the very beginning was what this font was for and what the originality of this font was. Obviously this is for my calligraphy work, however I needed to specify the purpose more. Also what the originality of this font is.

My friend who helped me with this project found that as this font is very light weight a text was printed out beautifully in small size. I have been thinking that this font was too light weight but now it can be a feature of Materot.

Due to lack of experience and time confinement I was unable go deeper level, however I have still been working on this font to improve what already existed and to make a new version, which is Materot's style (Fig 21).



Fig.21 New version of Capitals.

As my previous capitals' thick part was as same thickness as lowercase letters' therefore looked slightly weak. This is one of the things I am working on now. Also the first strokes were a little too long. Although the long first strokes were effective when the capital comes at the beginning of the line, if it comes in the middle of the line it crashes with previous letter(Fig.22).

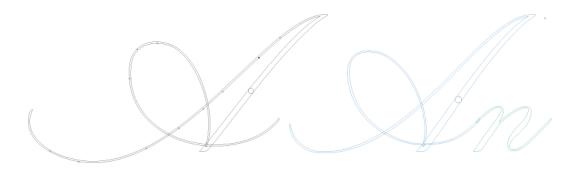


Fig.22 Previous 'A' and updated slightly bolder 'A' with shorter first stroke.

Apart from the thickness of capitals what I am trying to improve is the beauty of the shape and natural movement (Fig 23).

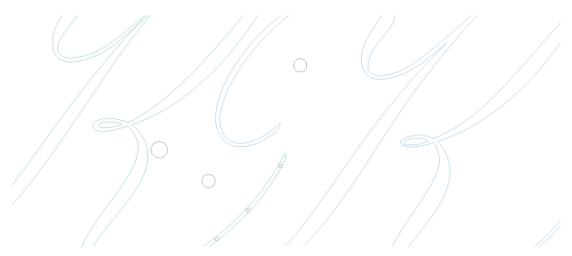


Fig. 23 Previous 'K' and updated 'K'middle loop

I had not realised however I now realised that I learned about the letterforms a lot through the process. I had to think a lot of letterforms in such details, now if something goes wrong I find it soon and correct it without much thinking. The more you study the more you improve your eyes and skills. I am updating the letter shapes partly because of that reason.

I am still working on this font to achieve higher level. I hope I will be proud of Materot some day.

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