

Transitions of Typeface Based on the Evolution of Different Writing Tools (1400s-1900s)

Introduction

This poster aims to demonstrate how the design of typeface has been inspired by the different writing tools in history. The instruments effected how people wrote, which in turn, effected the fonts based off of handwriting. This project looks at the Quill Tip, the Steel Pen and Fountain Pen. Under each category, you will find information about the tool, handwriting using the tool, a old font based of this handwriting, than a digital font.

Quill Tip

In the western world, quills were the main writing instrument from the 6th, all the way to the 19th century. It is made from the primary wing feathers of a large bird, typically a goose, swan or turkey. The quill would be hand cut to form a flat tip at the end of the feather. In order to write, the quill would have to be dipped into ink, which would travel down the hollow inside of the feather, to the tip through capillary action. The feather would have to be re-dipped into the ink quite often, making writing a tedious procedure.

Quills made it easy to write on parchment and vellum and were the primary writing tool for hundreds of years. However, with the invention of the steel pen, the use of quills began to decline. The steel pen began to be mass produced in the 1820s. Once this occurred, the decline of the quill began. Today, the main users of quill pens are professional scribes and calligraphers.



FIGURE 1: The quill and ink. Each of these tools were necessary to write and could not be used without the other.

Steel Pen

Rather than relying on birds to make writing instruments, people thought of creating their own from scratch. This led to the invention of the steel pen in the 1790's. People had been creating steel nibs for sometime before but they were far and few between. At the beginning, the 1700's and early 1800's, some pens were made by hand. But the popularity never took off until the creation of steel became easier with the industrial revolution. In 1803, Bryan Donkin patented his metal pen point but no one was interested. However, in 1823, after the patent had ended, John Mitchell of Birmingham, England began to mass produce the steel nib.

Popularity soured and the industrialization of pen making began. The rise of the industrial revolution led to changes in many aspects of life. One of these things was writing. Steel and iron became easier and cheaper to produce so it became more and more common to see these materials in everyday items. And so, it was only natural for steel to be used in creating a very common item, the pen. As a result of the steel pen's creation, new writing styles became popular, such as Round Hand (FIGURE 6).

The pen consisted of two parts: a "nib," or the metal point of the pen, and the handle which holds the nib. The handle would be made out of anything, from metal, glass or even bone. In FIGURE 5, the handle is made out of wood. However, the nib was traditionally made out of steel. Similar to a quill, the pen has a slit that leads the ink from a vent hole to the tip without gravity and capillary action. The pen would have had to be used with ink, and would be re-dipped into the ink pot frequently. However, it lasted last much longer than a quill would and they did not need to be re-cut or sharpened.



FIGURE 5: An example of the steel pen. It consisted of the "nib," which is the metal tip of the pen (seen in the top left) and the "holder," which is the main body of the pen (the brown/wood material)

Fountain Pen

In some ways, the fountain pen can be considered similar to the Steel pen. However, it has one dramatic difference, it contains the ink in which you use to write rather than relying on a separate container of ink to the side. Petrarche Poenaru patented the fountain pen on May 25th, 1827. As a student in France, he wanted to find a way to continue note taking without having to stop for ink. However, it wasn't until 1884 when Lewis Waterman patented an improvement to the existing pen that the fountain pen became practical. Lewis created a design that allowed for constant flow of ink with no flooding. Waterman's fountain pen's were some of the most popular (as seen in FIGURE 9) and can even be found today.



FIGURE 9: A Vintage Waterman fountain pen from the early 1900s. Mr. Waterman patented the pen in 1884 and was the main producer for many years.

Handwriting

Letter Batarde

Before the invention of the printing press, scribes were the main sources of book and manuscript creation in Europe. The style of fonts they used varied from location to location. However, three common styles we see often in medieval documents are, Letter Batarde (from France), Angular Gothic or Blackletter (from Germany) and Rotunda (from Italy).

Almost all writing before the metal pen was done with quill. So, medieval manuscripts, written by scribes, are a great source of information to see some of the best writing styles with a quill pen. An example of one of the most popular styles in Europe was Letter Batarde from France, as seen in FIGURE 2.

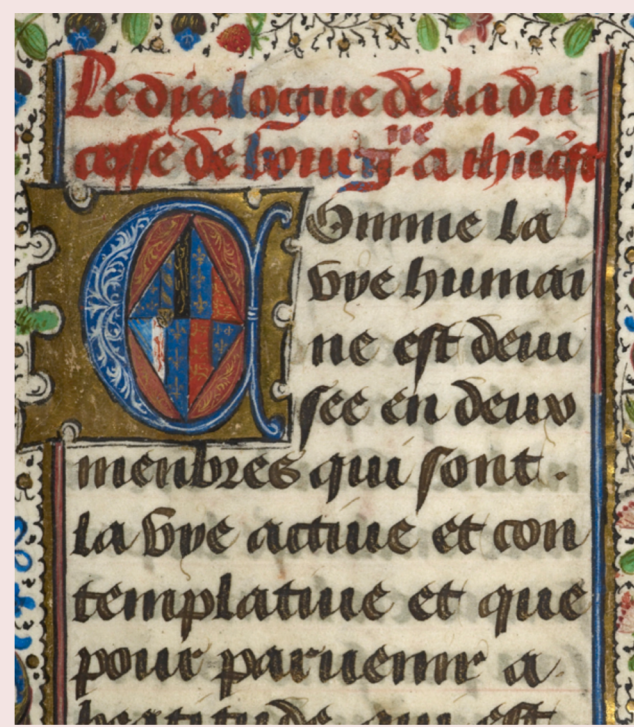


FIGURE 2: Above is an example of Letter Batarde, a font that was commonly used by scribes in France. Ascenders and descenders are common characteristics of the writing, as well as a combination of very straight strokes and slightly rounded strokes.

FIGURE 6.1: Example of writing using a steel pen. This was done in cursive. Due to the detail and extravagant nature of the letters, this would have taken some time to produce. It is not common to see intricacy in all the material. This type of effort would be restricted to mainly titles or headers.

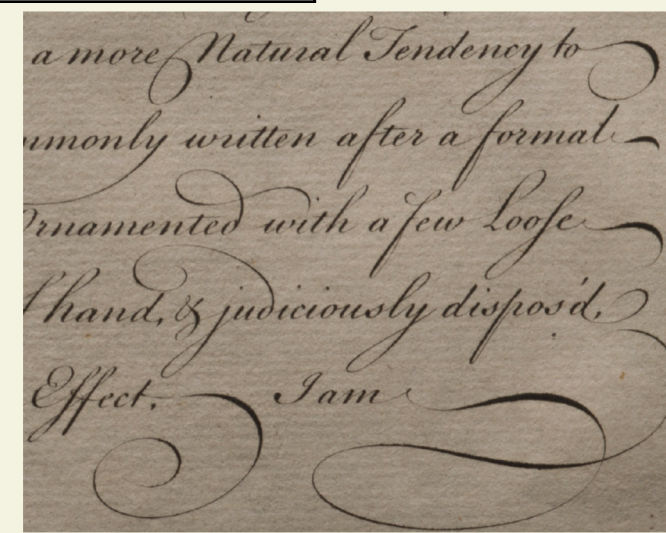


FIGURE 6.2: An example of Round Hand Calligraphy

Round Hand

The Steel pen made writing much easier and more accessible. The steel did a better job than quill to allow the ink to flow than the quill. This meant the people were able write with more a flowing and curvature manner without the rush edges of the feather's shaft. Making curving letter forms became easier, resulting in more use of cursive. Cursive, also know as script or longhand, is a type of writing in which characters are joined together in flowing strokes. The main purpose of this was to make writing faster and more productive. However, the pen still had to be dipped into ink every few letters or so. This meant that the use of cursive would be limited.

Cursive could also be used for esthetic purposes and to make the writing look more elegant (FIGURE 6.1). This would in turn, make the writing time even longer than the traditional un-connected letter writing. The most efficient way to write for most was a combination of cursive and non-connected letters.

Round Hand handwriting and calligraphy style originated in England. It is characterized by flowing style and contracting thick and thin strokes, as seen in FIGURE 6.2. It is done with large swooping strokes and the words are written in cursive. The font was inspired by *italic circumflessa*, an italic cursive script from the southern France, which was than adapted into the French *ronde*. This style of front became very popular in France and was used as the main style for legal and government documents. John Ayres and William Banson refined *ronde* even further and developed it into English Round Hand. George Bickham may not have invented Round Hand but he greatly helped to promote its popularity.

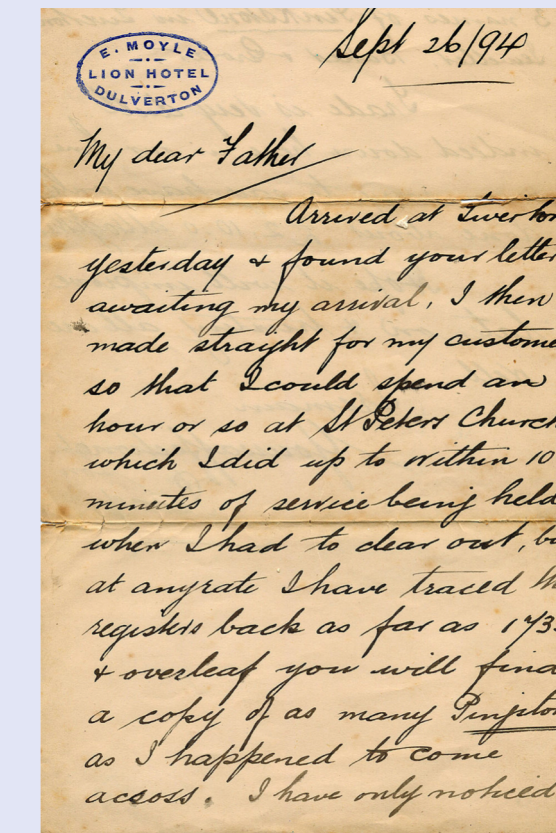


FIGURE 10: A letter that traveled from Dulverton to Bristol England in 1894. It is addressed to the writer's father. The letter was done with a Fountain pen and is a great example of the use of cursive to write quickly..

The Fountain pen made writing even easier. The biggest reason for this was the elimination of the need to re-dip the tip into ink. With the ink already in the pen, all that was needed to write was a pen and paper. This also dramatically cut down the amount of time needed to write as recasting and testing the ink on the pen took a large amount of time. The internal reservoir of ink can either be filled manually as needed or is loaded into the pen with pre-filled cartridges.

The fountain pen lead to an even large increase in the use of cursive. A great example of cursive written with a fountain pen can be seen in FIGURE 10. Now that people would only need to lift their hand to indicated spaces between words, cursive was by far the fastest way to write. These beautiful swooping motions and words that were completely connected are what we commonly associate cursive today.

Old Font

Civilite

Once Gutenberg invented the printing press and the system of moveable type, there was a need to design fonts for creating documents. Naturally, designers began by creating type that resembled the hand writing at the time. So, most of the early fonts, such, Gothic and Civilité were handwriting-based fonts.

Civilité (FIGURE 3) was based off of the French Letter Batarde and is a beautiful example of how handwriting inspired moveable type. It was invented by Robert Granjon, a French type designer and printer, in the mid-1500s. Even the font shows characteristics of the tool that was used to create the writing, a quill pen. It mimics the quick and sharp strokes that were needed to write with a pen. Similarities between the two fonts can be seen in the use of ascenders and descenders in almost every word. Another resemblance to Letter Batarde is the letter *d*, who's upper stroke stretches back and over to the left of its bottom circle. It was common to see extensions of letters (such as the *fin if* on the first line) in Civilité. This characteristic is directly inspired by the dramatic ascenders and descenders of Letter Batarde.

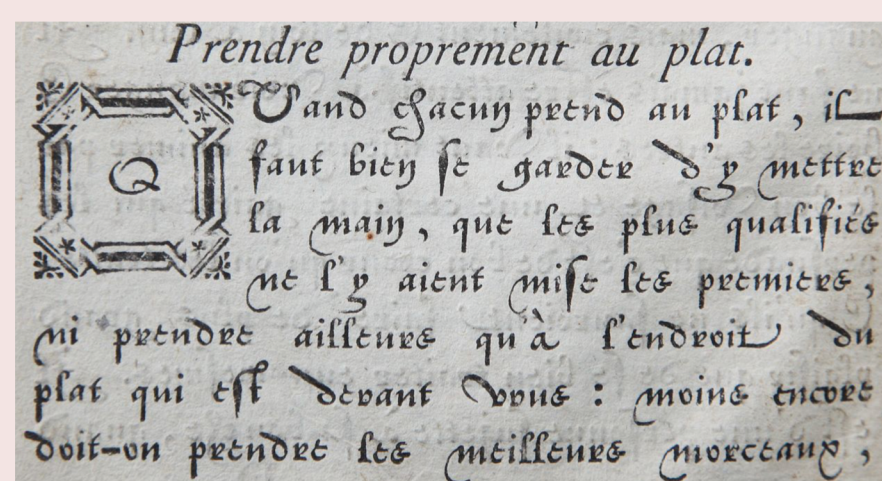


FIGURE 3: An example of printed Civilité type, which was used in a French courtesy book in 1785. The book was called *Dialogue de la vie et de la mort* and was the French version of Innocenzo Ringhieri's own dialogue. Civilité was based off of the French Letter Batarde and was invented by Robert Granjon.

Novelty Script

FIGURE 7: Novelty Script, is designed by Nicholas J. Werner and Gustave F. Schroder in 1890. The font is based off of characteristics of the steel pen.

Novelty Script

Novelty Script was patented by Nicholas J. Werner and Gustave F. Schroeder in March 1893. Their foundry, under that name Central Type Foundry, operated out of St. Louis Missouri. Their design for the Novelty Script was based off of the use of a steel pen, which had been vastly produced throughout the century. The font is fluid but does not completely flow as well as a constant stroke would, as seen in FIGURE 7. This is a sign that the writer would have had to lift up the pen and re-dip the nib into ink, then start again.

Monoline Script MT

Monoline Script MT

FIGURE 11: FIGURE : *Monoline Script MT*, designed in 1933 is based off of the characteristics of writing with a fountain pen.

Monoline Script MT is a beautifully simple cursive font that was design in 1933 for the Monotype Corporation. Fountain pens were the most popular style of pen at the time and this greatly influenced the design of this font. Characteristics of writing with a fountain pen, such as close together letters, many loops and curving connection of letters, can be seen in Monoline Script MT (FIGURE 11) as well.

Digital Font

Civilite No12 Modern

FIGURE 4.1: Civilite No12 Modern

Civilite No14 Pro

FIGURE 4.2: Civilite No14 Pro

Civilite No14 Historic

FIGURE 4.3: Civilite No12 Historic

P22 Civilite

P22 has created an entire family of Civilité fonts based off of Robert Granjon. The entire package consists of 25 beautifully designed digital fonts which imitate the Civilité font created hundreds of years ago. Richard Kegler, the founder of P22 Foundry, and Colin Kahn, a graphic designer, as the major players in this font revival. Similarities between original Civilite and P22's are very obvious. At a glance, the fonts look almost identical. P22 Civilite even comes in over 20 variants. FIGURES 4.1-4.3 show some of these variants.

Bickham

The quick brown fox jumps over the lazy dog.

FIGURE 8.1: An example of *Bickham Script*, designed by Richard Lipton. It mimics Round Hand and was inspired by the man who popularized that type of calligraphy, George Bickham.



FIGURE 8.2: An example of *Bickham Script*, designed by Richard Lipton

Bickham script was created by Richard Lipton after being inspired by reading *The Universal Penman*, a calligraphy book mostly done in Round Hand. The book, was created by George Bickham after gathering together five talented calligraphers to help with the designing. George Bickham was created with the population of Round Hand. Bickham Script (FIGURES 8.1 & 8.2) is almost identical the Round Hand except for a few obvious differences.

The most obvious one is the elimination of extremely large, dramatic strokes done for design, typically at the end of words. In FIGURE 6.2, this can be seen for about every other word. Although it is absolutely beautiful and strong characteristic of Round Hand, it is hard to translate it over to a typeable font. Fonts tend to be written and stay on line. Having designs of letters that cross over line and margin boundaries posed challenges. However, even though this element of Round hand might be lost in its inspired font, the distinctive elements, such as the beautiful flowing strokes of cursive that are contrasted between thick and thin lines, remain.

After designing the font between 1996 and 1997, Bickham Script became quite popular. Lipton influenced the increased demand for Bickham Script, similar to how Mr. Bickham influenced the attrition of Round hand almost 300 year ago.

Marcel

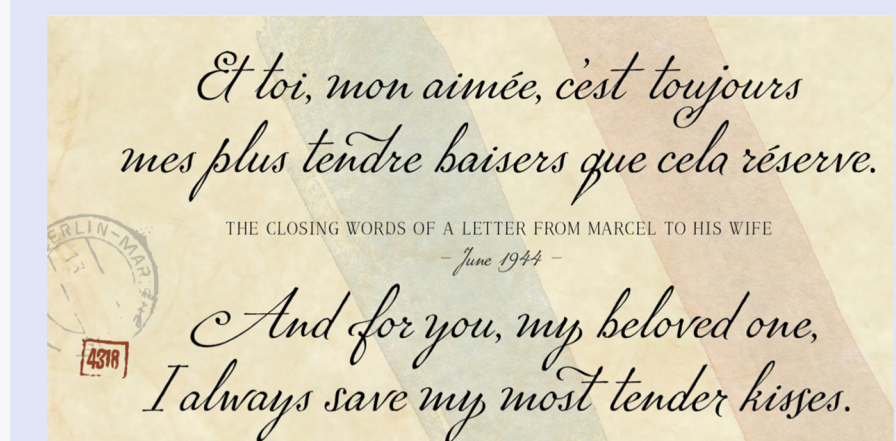


FIGURE 12: Above is an example of font called *Marcel*. It was designed by Carolyn Porter and published by P22. It is a handwriting based font that was designed after the writing of a Frenchman enlisted in a Labor camp during World War II.

Marcel is a beautiful example of how handwriting based fonts are inspired and created. The font is named after Marcel Heuze. He was a Frenchman who was enlisted in World War II. During his time at war, Marcel was located in Germany but still communicated with his wife and daughters back home. He wrote beautiful letters of his time in a labor camp and describes his love for the women in his life. These letters were the main source of information used by Carolyn Porter, a designer, who created a script containing the characters of Marcel's handwriting. Although the letters were stained, damaged and full of censor marks, Carolyn, through years of research and design work, was able to create P22 Marcel Script as seen in FIGURE 12. The font is cursive based and yet easy to read and even captures the effects of ink on paper.