

When Gutenberg discovered a way to mechanically reproduce writing through metal type, he did not only shaped the future of information, but also invented the first typeface. Inspired from calligraphy, Gutenberg's first typeface is classified as the Blackletter (fig. 1). Blackletter became the official style of Germany and continued to be officially used even after the humanist typefaces were invented. Apart from Germanic lands, Roman style lettering coexisted with blackletter. Like blackletter imitating calligraphy, Roman characters imitated human handwriting. The invention of letterpress is a crucial part of the history of human civilization. But some of the benefits are often forgotten and is worth mentioning. Through this invention, Europe was introduced to a very important conflict that tingled the mind of philosophers and artists up until late 20th century. The human versus the machine. In letterpress, the beauty of calligraphy, which is an organic mark making form was forced to be translated in to a standardized system. The concept of standardization and mechanization pushed the publishers, artists and typographers (in the case of early Renaissance these roles were played by a single person) to also think about standardization in punctuation and grammar. Historians actually discovered a significant increase in the usage of the exclamation mark and the parentheses.

Humanist to Transitional

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I am very interested in investigating how politics and social movements forced printing and printers to travel in order to advance this technology further. In a summarized form, it looks like printing moved from Germany to Italy and then traveled to France spreading over to Britain. A very important detail that should be mentioned is the fact that these advancements were led by a minute community of printers between 15th and 17th century in Europe. The craft of typography, printing and publishing stayed in this niche community until the production and distribution of handbooks teaching the steps of letter press.

Gutenberg invented the printing press around 1450 in Germany. However the advancement of Typography quickly moved down to Italy. This has mainly two reasons. First, and most importantly, Germany was behind in entering Renaissance and Venice was quickly becoming the center of art and culture in Europe. After mid 15th century, we see that a lot of Artists from Germany traveled south to Venice to catch up with the latest trends. This also meant that the huge invention of Gutenberg had to quickly travel south. The second reason is that, when the printing pressed traveled south—this took about five to ten years—people in Venice had a hard time reading Blackletter. The first attempts to creating more humanist forms came from two German typographers, Arnold Pannartz and Konrad Sweynheim, who moved to Venice around 1460. When you look at their specimens, the roots of blackletter and calligraphy is still highly evident but they were trying to lighten up the texture. This can be accepted as the initial effort to introduce more whitespace to movable type through creating more minimal forms with larger counters.



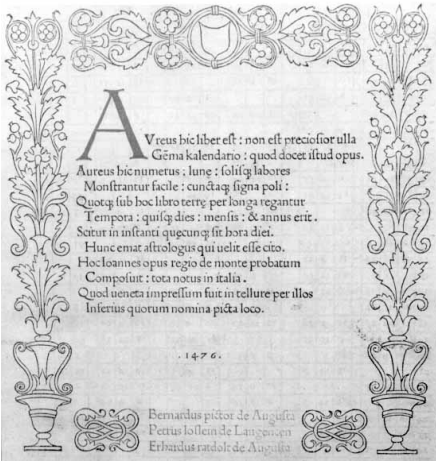
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One other important thing that must have inspired people for finer strokes in typography is the popularization of engraving over woodcut. Engraving allows for hairline strokes and fine details when compared to woodcut. Seeing this new and elegant form of mark making must have pushed people to match the typography style to the engraving style.

One of the most important humanist typefaces was carved by Nicolas Jenson. He is a French typographer that was sent to Minz, Germany around 1450 to learn the technology of printing press from Gutenberg himself. He worked for King Charles VII and was in a mission to bring new technologies back to France. King Charles died at 1461, and Jenson wasn't happy with the new political situation in France. He had the privilege to master typography and printing, learning the craft from the inventor himself. Like most of the artists, he decided to move down to Venice rather than going back to France. Jenson carved his first humanist typeface around the same time as Arnold Pannartz and Konrad Sweyeehim. They must have known and inspired each other since their typefaces looked very similar. Jenson opened his own shop and printed more than 150 books in ten years and never stopped developing his groundbreaking typeface. Shifting from Blackletter to humanist typefaces was a big advancement but there were other important improvements that effected the distribution and publishing. One of these inventions were the introduction of Title page with colophon, name of the book, author and printer along with printing year and location. Like the typography, this invention took place in Venice by a German Printer named Erhard Ratdolt in 1476. This was an important step for organizing books in a library setting since they used to be organized according to the first letter of their first paragraphs.

Ratdolt pushed the new book form away from calligraphic arts by replacing the illustrative initial letter of the chapters or paragraphs by woodcut designs. He also introduced the concept of four color printing through his innovative woodcut illustrations. His work Eclipse of Moon is breath taking.

Andre D'Asola took over Jenson's shop after his death at 1480. What D'Asola brought to the world of printing was the technology of pagination, which was an efficient way to orginze pages for biding purposes. He also started to print Advertisements in the books, creating more funds for more books to be printed. These were early movements to serious publishing of information. It is not a surprise that D'Asola was the father-in-law of famous Italian printer and publisher Aldus Manutius.



Ratdolt introduced the first colophon page in 1467.



Famous Italian printer and publisher Aldus Manutius.

Geoffroy – Tory *Making Letters*

Aldous Manutius—he was the son-in-law of D’Asola, a student of Jenson, which was a student of Gutenberg—introduced the italic typeface. Italic typeface is a result of a design problem. Manutius wanted to publish small sized books but it was hard to fit enough type in the pages. In order to solve this problem, he hired Griffo, a type designer and a printer. Gruff and Aldus investigated script style writings and invented the italic typeface that fell beautifully on to the “little books of handy size.” To this day, we still use Griffo’s typeface which is known as Bembo.

The Renaissance approach to arts and science had a crucial impact on typography. The urge to draw mathematical connections between the human proportions and letter forms initiated a new focus on the capital roman letter. Through the 15th century and into the 16th century, there were 3 artists who approached the letterforms in this manner. The initial effort came from Felice Feliciano, Around 1460’s. He deconstructed letters and tried to understand their proportions and relationships of line lengths to diameters of circular shapes. A more refined and systematic approach came from Albrecht Dürer, a mastermind, around 1525. He was a German artist who made multiple major trips to Italy throughout his life and produced a wide breadth of work during his stays. He invented a system where he reconstructed every capital letter by using elementary geometric shapes such as circles, squares, and rectangles. He even applied the same approach to blackletter. His work was an effort to standardize proportions of Letters and build an efficient system for both punch makers and stone carvers for architecture work. This was also an advancement that pushed typography away from calligraphic arts and its organic roots. The third person who had similar ideas was Geoffroy Tory. He closely looked how letterforms can be drawn by looking at human body proportions. He was directly overlaying capital letters on top of human figures in a Leonardo Da Vinci manner. There was one more important element that made Tory a key personality in the advancement of typography. He was French. Although Tory finished two universities in Italy and lived there for a long time, he carried his work to Paris where he also opened up his own printing shop. His studies with the human body versus roman capitals also fed his desire to institute a universal system

of measurement. All the advancements and efforts through standardizing mass printed material caused a major split in people’s vision of typography. One half of the group agreed, worked for and celebrated the mechanization and standardization of type whereas the other half strongly believed that writing should always come from the aesthetics of hand.

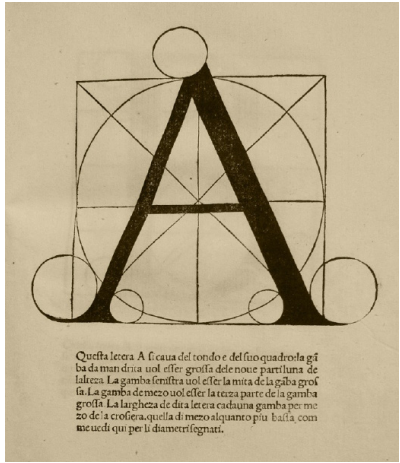
Printers of 16th century were also playing the role of publishers. This meant that they had full control over the content. Occasionally printers would deny printing something that they do not believe. Conversely, they would encourage publications that they felt passionate about.

One of the most important characters that changed the destiny of typography is Francis I (François Premier), the king of France. He was the king between 1515 and 1547. He was known as the Francis of the Large Nose due to his massive nose or Francis, father of all letters due to his efforts in bringing printing presses to France.

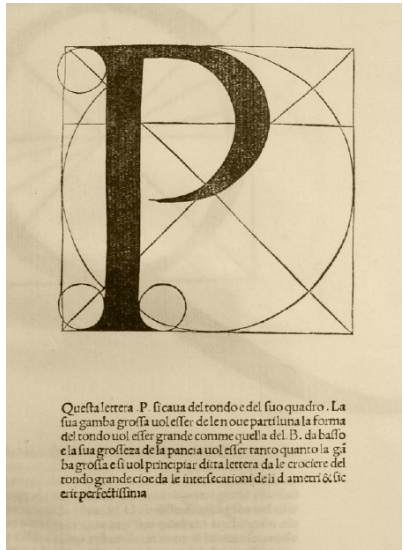
Francis I fell in love and quickly comprehended the importance of movable type during his visit to Germany. After he came back he wanted to have reforms on printing and language. First of all he said “send me one copy of every book that is being printed in France and it will be stored in the Royal Library.” He also changed the official language of France to be French from Latin. This separated them from other European countries and caused the government and scholars to focus on grammatical standardizations of French language. This was actually a crucial move towards the advancement of typography since it encouraged more production. Following these, he invited three major printers from Germany and funded them to open their own printing presses in Sorbonne.



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Garamond, Monotype
Garamond Light, ITC
Garamond, Adobe
Garamond, Stempel
Garamond #3, Linotype
Garamond, Simoncini

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During these revolutions, Tory was teaching at University of Paris, publishing groundbreaking work and was running his own printing press, probably the most famous one of its time. Tory was an intellectual person. Aside from being an important educator, he was also respected in many areas such as printing, illustration, typography and philosophy. Therefore, he became the official printer of the King and changed the history of type design by hiring one of the best type designers ever lived. Claude Garamond.

Garamond, an artist who closely studied and was interested in the work of Felice Feliciano, Albrecht Dürer, and Tory was responsible of designing an typeface official typeface for the King to use for official government documents. He was highly inspired by Tory’s work but he knew that his work was missing something. The biggest problem with Tory’s drawings were their dense concentration on a single letter form. He was able to create beautifully proportional letters but his mathematical approach fell short when it came to combining these letters. Until Garamond, not many type designers paid close attention to microtypography. This is the study that is concerned with spacing between characters and lines. It deals with math but also needs optical aligning. Since, Dürer and Tory was approaching the subject through pure mathematics, they failed to crete a harmonious family of letters. Garamond’s design was revolutionary in many ways. Each letter was beautifully proportioned. Lower case characters had large counters, this was a design solution that is still used today. By increasing the x-height, or the counter size, Garamond made his typeface legible even in very small sizes. The typeface he created for official use was called Grecs du Roi. His design became so important that his original punches and matrices are officially considered historical monuments. So his work literally became monumental. His typeface is still one of the most popular and widely used typefaces in the contemporary age.

So by the end of 16th century there was a new understanding of a book. It became more lighter, legible, contained more advanced page layouts, less hand illustrations, it had more negative space, type was justified for the first time, punctutation and grammar started becoming more and more standardized. And, last but not least, title pages and colophone was introduced.

The 16th century became a darker age in terms of printing and advancements in movable type technology. Just think about all the uncontrolled information spreading vastly. The book freed information and opinion which created huge concerns for the governments and the conservative. In France, there were a lot of book and library burnings, censoring and violance towards the new information age.

But things figured itself out moving in to the 17th century since people started moving out of Paris due to high censorship. We see artists moving to Netherlands, Switzerland, England and even back to Germany. In 1648, Spain experienced freedom from dominion and freedom of religion. So science (this include printing) started to move smoothly again. [1640 was the first book printed in Cambridge, Massachusetts.]

After Germany, Italy and France, Netherlands became the new center of development. In 1937 Decartes’ Discourse on Method got printed and published there.

Most important thing happened to printing in 17 century is the production of handbooks explaining how to print and utilize the movable type system. If you noticed, almost every printer between 15th and 17th century is somehow connected to Gutenberg. That is a long time. And this took 2 centuries to shift in to a more populous craft. The second biggest advancement happened to printing is the popularization of zines and news papers. This started to clearly separate typography, printing and publishing. Now there are more areas to concentrate and push the technology forward.

There were huge advancements on type design in the Netherlands. Not very surprisingly, type designers in 17th century Netherlands were strongly influenced by Garamond’s ground breaking work. But they started a conversation to push this “perfect” typeface even further. To a point where history books will define as the “transitional” state. The ending of Renaissance and acceptance of Mechanization pushed the aesthetic of type designed to be more mechanical and refined. By refined, I mean cleaner lines, sharper edges, defined serifs and detail towards legibility. One of the most important Dutch type designers of 17th century is Christoffel Van Dijck. His work heavily influenced the British type designers Caslon and Baskerville.

Lastly, it would be a shame to end without the advancements of typography in Britain during the 18th century. Clearly inspired by Dutch style, England became the new hub of typography during this time. There are two masters in



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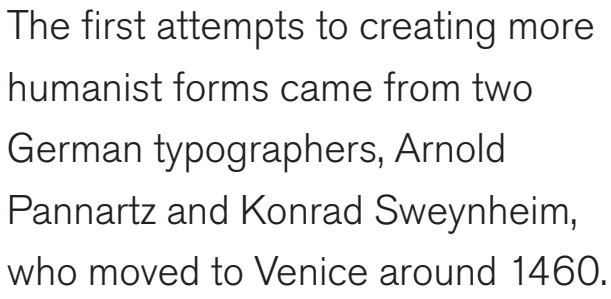
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England that really pushed typography one step further. William Caslon and John Baskerville. The advantage of Caslon was that there were not too many printers left in that geography due to the censorship. But early 18th century, censorship was loosing its grip. Caslon was not only a great type designer but was also a very intelligent business man. His contribution to typography was to have a fully developed character set with multiple languages like arabic and sanskrit. He is the first person to print out a specimen sheet displaying all his typefaces at his shop. His typeface later became the official typeface of England. Another fun fact is that his typeface traveled overseas to North America, became a personal favorite for Benjamin Franklin. A lot of official publications in North America at that time was done with Caslon. This includes banknotes and a document that you might heard of before: The Decleration of Independence. Caslon lived a wealthy life. His foundry continued by family members until the Modern times, eventually becoming the first foundry to print sans serif type.

Conversely, Baskerville was more of an innovator but a bad businessman. He openednew doorsthroughpushingthelimits ofcontrastandinspiredpeoplelike Bodoni and Didot. He developed a new kind of ink and was the first person to usewoven paper.These advancements made his work sharper then ever.People accused him of creating a typeface that could make someone blind.

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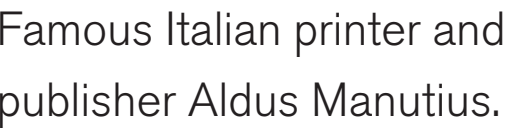
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Griffo



Geoffroy Tory

Making Letters

Died of flu.

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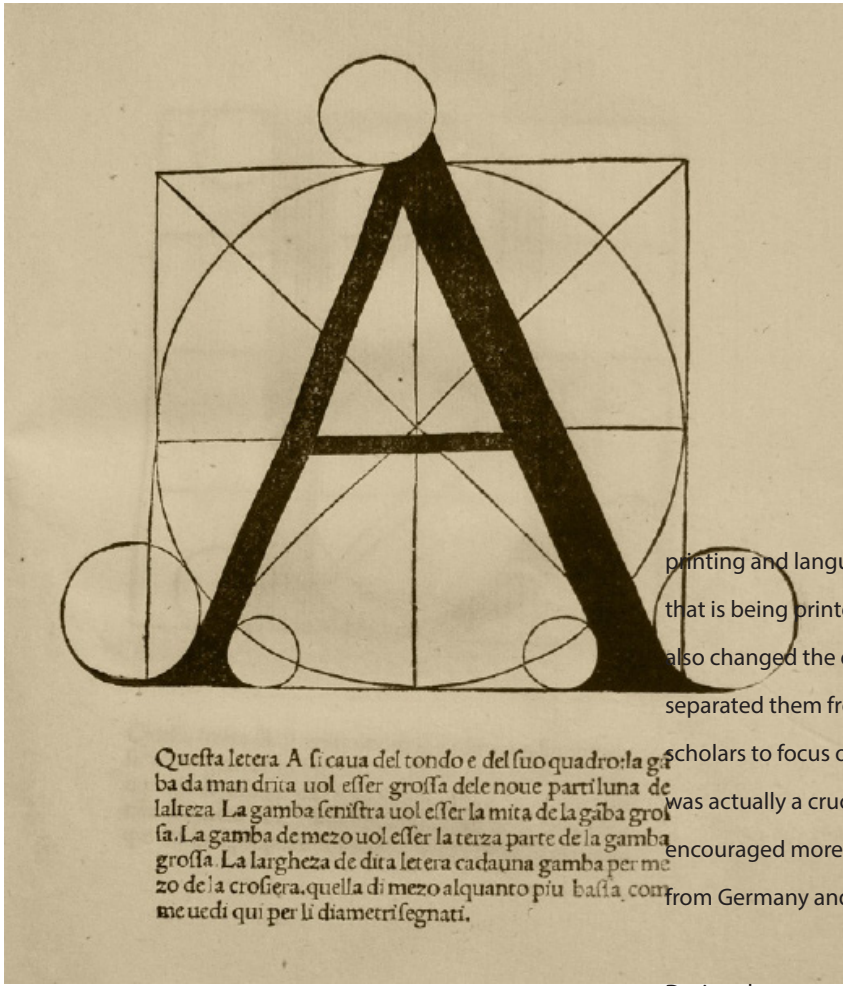
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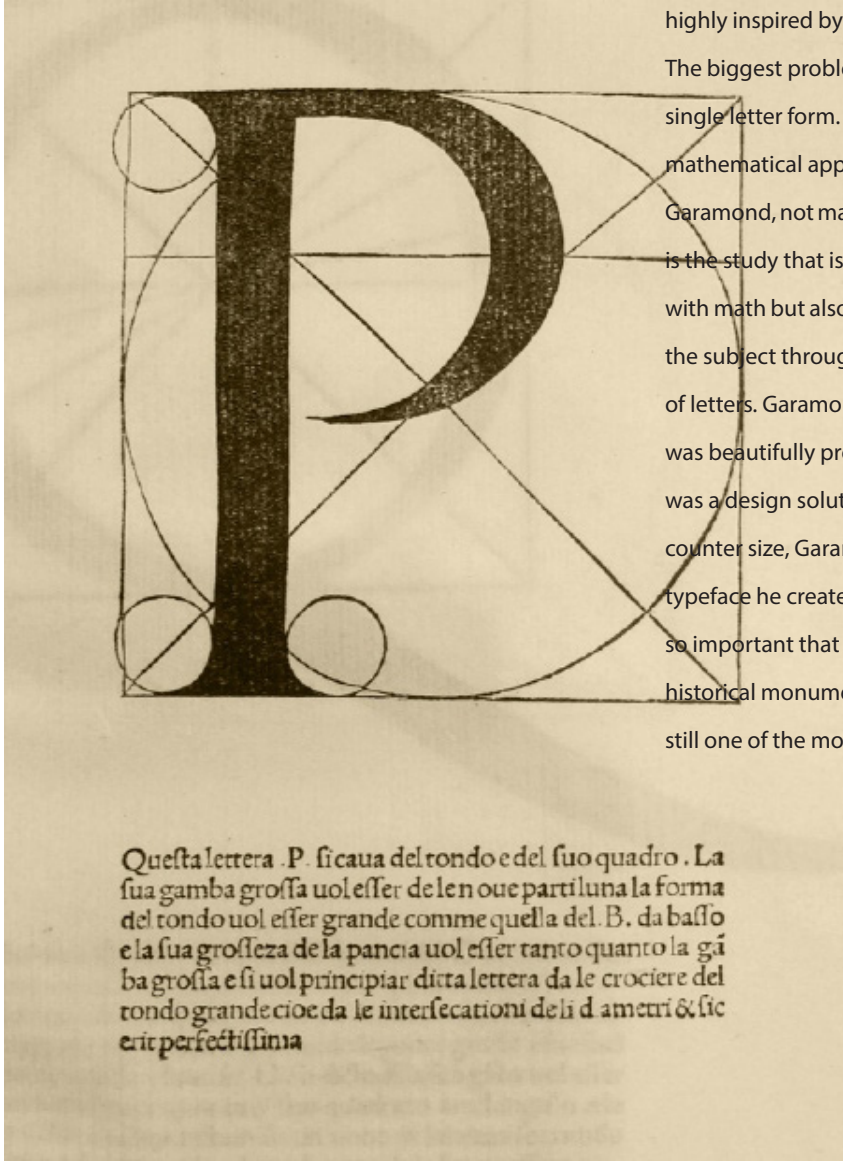
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