

This project attempts to bring more insight to the approach of designing type for different sizes in western Europe during 16th century by making a comparative analysis of seven different sizes of roman type (three display and four text sizes) cut for the print-house of Christophe Plantin in Antwerp by the Flemish punch-cutter Hendrik van den Keere in the period between 1570 - 1580. The aim of the comparison is to gain knowledge about the historical design of small/text and large/display type sizes that might be useful in the production of type today.

### Keywords –

letterform font design research methods legibility readability typography

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### Introduction

The project was developed as part of the 2017-2018 group project of the Expert class Type design (EcTd) course offered by Plantin Institute of Typography in Antwerp. The course is held at the Museum Plantin-Moretus and is taught by Dr. Frank E.Blokland.

The subject of the group project was to work on a revival of Hendrik van den Keere's text type Philosophie Romaine (aka Small Pica Roman), cut in 1578. Hendrik van den Keere was a Flemish punchcutter based in Ghent (through his father a successor to Joos Lambrecht) and the main supplier of blackletter, roman, and music type for Christophe Plantin's print-house (the biggest in Europe at that time) in the second half of the 16th century, up to his death in 1580. He is probably best known for his series of Flemish blackletter, ranging in sizes between 150 up to 5 ½ points. His roman type, however, is considered to be his most important work. Those letters have strong character and appealed to Christophe Plantin with their practicality. They were sturdy with large x-height and increased counters.

The size of the type selected for our project (Philosophie Romaine) is equivalent to 10.3 pica points. Part of the project was also to make a comparative analysis of van den Keere's Philosophie Romaine with his display type Reale Romaine with an approximate size of 18.5 pica points, cut earlier in 1575. The aim of the comparison was to examine the approach of one of the most prolific and gifted Renaissance punch-cutters on the production of small/ text vs. large/display letterforms and make conclusions which could be of use today in the production of digital type.

Different stages of the revival project were separated between all participants, and I had the privilege to work on the comparative analysis. Prior to starting with the research, I thought that it would be better to expand the scope of the comparison by including two additional roman typefaces of the same style, cut by Hendrik van den Keere. These are the display type Ascendonica Romaine (aka Parangone Romaine, 1576, 20 pt.) and the text type Jolie Romaine (1575, 6.1 pt.). Preparing the current article, I decided to add to the comparison the last three roman faces from the chosen style – Nouveau Texte Romaine (1570, display – 15.5 pt.), Mediane Romaine sur la Philosophie (1574-80, text – 11.3 pt.) and Coronelle Romaine (1570-73, text – 6.5 pt.).

In the end, there were a total of seven typefaces (including Nouveau Text Romaine and Mediane Romaine sur la Philosophie, which include only characters with shorter extenders in order to adopt them to Garamond's Text and Garamond's Mediane for smaller text body), all cut by Hendrik van den Keere in the period between 1570 till 1580. These are all his roman faces from his second style (probably based on Garamond and Granjon) containing lowercase

characters. Three of them are large/display (Ascendonica Romaine, Reale Romaine, and Texte Romaine) and the other four are small/text types (Mediane Romaine; Philosophie Romaine; Coronelle Romaine and Jolie Romaine).

It is important to mention that for two of the display (Ascendonica Romain and Texte Romain) and one of the text faces (Mediane Romaine sur la Philosophie) there are no capitals included in their sets and based on that, the comparison deals only with the lowercase characters. Ascendonica Romaine was commissioned by Christophe Plantin as a bolder modification/ substitution of Rober Granjon's Ascendonica Romaine (1569) lower case and punctuation, so it did not contain capitals. Nouveau Texte Romaine was commissioned by Plantin in order to adopt Garamond's Texte Romaine for smaller body, so only letters with ascenders and descenders were recut with shorter extenders and Van den Keere stayed very close to the original Garamond shapes. For example, one of the 'g's (there are two different one's in the set) exactly copied Garamond's slanted axis of the head (though the other one is with a vertical axis). Mediane Romaine sur la Philosophie was probably also ordered by Plantine as a modification/substitution (with shortened extenders) of Garamond's Mediane (1574-80), which was one of his workhorse-types, used extensively.

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The research started with taking digital photographs of all available original hardware material. That included punches, matrices, and printed matter from books and type-specimens. Punches took the crucial role in the research because they clearly show the letterforms and because the biggest of all types size, Ascendonica, does not have matrices preserved. Matrices were used for characters with damaged punches, especially for Coronelle Romaine in which most of the punches are in not very good condition. Matrices were also used to compare details that were broken and worn out on some punches or because punches were lost. For example, Reale Romaine matrices are used for 'æ', 'c\_t', f\_f, and f\_l ligature. In Philosophie, the matrix of 't' revealed that the right part of the horizontal stroke of punch was either chipped or worn our. Only matrices are used for Text Romaine because punches were lost. For Jolie Romain, matrices were use for 'j', 'y', f\_f and 'f\_l' ligature etc.

In some of the sets there are missing characters. For example, there is no lowercase 'a' in the Ascendonica set of punches. Unfortunately, as mentioned earlier, there are no matrices preserved for that typeface. For Reale Romaine, matrices are used for 'æ' and 'c\_t' ligature because the punches were lost. In the Philosophie Romaine set, the lowercase 's' is missing both in the punches and matrices. However, for some characters there are more than one punch/matrix in the set (e.g. Reale Romaine – 2e,2u; Philosophie Romaine – 3a, 2c, 2d, 2m, 2o, 2p, 2q, 2u; Jolie Romaine – 2e, 2n, 2u, 2v, etc.).

A digital microscope was used for the photographs in order to take high-resolution micro images. After all material was collected, some Photoshop corrections were made (colour mode, brightness, contrast, exposure, darkening the background etc.) as well as mirroring the punches in order to compare the letters in the direction we are used to see and read them. After that, all lowercase characters were compared one by one taking Acsendonica Romaine (the biggest display size) as a reference. Attention was put on characters' width, stem thickness, contrast, length, and thickness/weight of serifs and terminals, length of ascenders and descenders. Overlapping is used as a method as well in order to show similarities and differences. The visual comparative analysis is presented in the following pages.

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Visual Comparative Analysis: Width and Weight of Characters





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Ascendonica Romaire (display)	
Reale Romaine (display)	
Philosophie Romaine (text)	
Mediane Romaine sur Philosophie (text)	
Coronelle Romaine (text)	
Jolie Romaine (text)	



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**Contrast of Characters** 





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### Length of Ascenders







А

### Length of Descenders

R

т

Т



М

Ρ

С

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### Shape and Length of Serifs and Terminals





Display sizes
A = Ascendonica
R = Reale
T = Texte

Text sizes M = Mediane sur la Philosophie P = Philosophie C = Coronelle J = Jolie \* ls (long s)



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### Display sizes A = Ascendonica R = Reale T = Texte

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Text sizes M = Mediane sur la Philosophie P = Philosophie C = Coronelle J = Jolie

\* ls (long s)



**Overlapping:** dispaly type

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**Overlapping:** text type

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### Text sizes

Mediane

Milli Philosophie

Coronelle

Jolie Jolie



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Text sizes Mediane Philosophie Coronelle Jolie



**Overlapping:** dispaly and text type

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Display sizes	Text sizes
Ascendonica	Mediane
Reale	////// Philosophie
Text	////// Coronelle
	Jolie

Conclusions

Based on the close observation of the selected seven typefaces cut by Hendrik van den Keere in the period between 1570-1580, three of which are display (Ascendonica Romaine, Reale Romaine, Texte Romaine) and the other four are text typefaces (Mediane Romaine sur la Philosophie, Philosophie Romaine, Coronelle Romaine and Julie Romaine), some interesting revelations were made.

1. Character Width

Similarities in character width between the seven research typefaces cut by Hendrik van den Keere are astonishing. Differences are minute. They refer to the: slightly wider 'm' second 'u' and 'æ' in Realle; narrower 'x', 'z', 'c\_t' and terminal of 'c' in Philosophie; wider 'p' and 'q' in Mediane sur Philosophie; narrower 'b', 'c', 'g', 's', 'x', 'y', '&' and wider 'm', 'n', 'o', 'u', 'æ', 'c\_t', 'f\_f', 'f\_i', 'f\_l' in Coronelle; wider 'b', 'e', 'e-ogonek', 'æ', 'k', 'm', 'u' and narrower 'g', 'n', '&' in Jolie.

2. Counters

The counters of some of the text-size faces are larger than the display ones. That is very clearly visible on the overlapping in letters like 'a' and 'e' where the volume changes vertically. In letters like 'n', 'm', 'æ' and ligatures 'f\_f', f\_l the counters increase their width. Those changes are most visible in Coronelle and Jolie Romain, which are the smallest of the four text typefaces.

3. Contrast

The contrast is toward high in all display types (Ascendonica, Reale and Texte). In Philosophie (the second large text type), it is almost identical to the mentioned display types, but slightly reduced with one idea heavier serifs and less crisp details. The two smallest text types, Coronelle and Julie differ most with middle contrast, longest chunky serifs and less detail (in Jolie those differences are more obvious).

4. Stem Thickness

The stem thickness' are almost identical for all display and text types. Only in Texte Romaine they are slightly thinner while in Jolie Romaine they are a bit thicker. The difference are very subtle.

5. Ascenders And Descenders

In all typefaces there are inconsistencies within each set e.g. the ascender of 'k' is the shortest (the 'h, l' in Jolie Romaine as well). On the other hand in 'd' the tendency is toward longer ascender. The descender of 'q' in most of the typefaces is shorter than the one in 'p'. In Texte Romaine it is almost grotesque especially considering that the extenders of that size are the longest )probably because it is following closely Garamond's Median).

Despite all inconsistencies within each set, the length of the extenders is one of the most obvious difference between all selected text and display types. Observing the comparison on

pages 16-17, the general impression is that ascenders are getting shorter with the reduction of the size. That is also visible following the dot of the 'i'. That of course suggests an increase in the x-hight of the smaller text sizes, which is quite logical. Descenders, on the other hand do not show tendency of getting shorter with the reduction of size. Exception is 'q', which descenders are shorter in three of the text faces (excluding Julie).

6. Serifs And Terminals

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Serifs and terminals within each of the typefaces are not of similar form, length and weight. For example if we compare the drop terminals of 'c', 'f' and long 's' in Ascendonica Romaine, we will see that the volume/weight in 'c' is substantially less. Some of the inconsistencies are probably caused by damage or excessive wear. The most substantial differences are in the smallest text-types Coronelle Romaine and Jolie Romaine, where both head and foot serifs become heavier/stronger and longer in comparison with the rest. However the same can not be said about Jolie's terminals with the exceptions of those in 's, z' and to a certain extend the drop terminal of 'f' which in weight is almost identical with the one in Ascendonica but more closed/slanted (facing down).

The comparison of the selected typefaces cut by Hendrik van den Keere leads to the conclusion that his approach to display and text type sizes was identical. The main differences in the text-sizes were the subtle reduction of contrast, increase of x-height (shorter extenders), increased counters, character width (in some cases) and length/weight of serifs. The smallest face Jolie also has the heaviest stems. All that suggest that it is probable the same model (construction, proportions, weight, width etc.) was used for all seven selected types, which may support Dr. Frank E. Blokland's theory about the standardization, systemization, and utilization in the production of type during the Renaissance. It would be interesting to continue this comparative analysis with types from other punchcutters (e.g. Haultin, Garamond, Granjon etc.) as well as making cross comparisons in order to find out more on how close those 16th Renaissance types follow the archetypal roman models of Nicolas Jenson and Francesco Griffo.

On the next page a brief summery of similarities and differences are presented in a table format.

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### Summary of Conclusions

name	Ascendonica (display)	Reale (display)	Philosophie (text)	Jolie (text)
year	1576	1575	1578	1575
Didot points	18.5	17.3	9.5	5.6
pica poits	20	18.5	10.3	6.1
E	7	6.5	3.6	2.2
width	normal (x-height = 6.25 stem widths)	identical with Ascendonica c and g are slightly wider	identical with Ascendonica	similar to Ascendonica exceptions: a, b, m, r, x
weight	regular	identical with Ascendonica	slightly less than Ascendonica	one idea heavier than Ascendonica
contrast	toward high	identical with Ascendonica	slightly less than Ascendonica	slightly less than Philosophie
stem thickness	≈%of x-height	identical with Ascendonica	slightly less than Ascendonica	similar to Ascendonica exceptions: e, g, h, o (thicker)
ascenders	7/oof x-height (4 ½stem thickness)	identical with Ascendonica	identical with Ascendonica	identical with Ascendonica
descenders	g, y – same as ascenders; p – shorter; q – shortest; j – longer	identical with Ascendonica	identical with Ascendonica	identical with Ascendonica
serifs	triangular with bracket	identical with Ascendonica	almost identical with Ascendonica (a bit heavier)	longest and heaviest

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Photographs by Krassen Krestev and Wouter van Nes (characters "f\_i from matrix-box MA20c [Text Romaine]; characters "v, x, y, z, æ, œ, c\_t, f\_i, f\_l" from punch-box ST21 [Coronelle Romaine]; characters "&, a, c, e, f, f\_f, f\_i, f\_l, g, j, n, o, p, q, s\_long, u, v, y, z, e\_ogonek" from matrix-box MA161 [Coronelle Romaine]; characters "œ, f\_i" from matrix-box MA70 [Jolie Romain]).

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All photographs by courtesy of the Museum Plantin-Moretus.

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Krassen Krestev (Sofia, Bulgaria, 1971) is a typographer, type designer and lecturer. He holds the following degrees: 2018 – Expert class Type design (Plantin Institute of Typography, Antwerp, Belgium); 2004 – TypeMedia (MDes, KABK, the Hague, the Netherlands); 2003 – Graphic Design (MDes, St. Joost Academy, Breda, the Netherlands); 1998 – Book and printed graphics (MFA, National Academy of Art, Sofia, Bulgaria). Currently he works as brand consultant, lecturer and runs his type-design studio TypeFarm (Sofia, Bulgaria).

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