Serial **type** *families*

(from Romulus to Thesis)

by Alejandro Lo Celso

Introduction

The idea of taking on a particular group of type designs inside the whole universe of typeface families seems to demand a constitutive argument. In fact, this can in advance be thought of as the essential device in the act of classifying types: how to group species by comparing and contrasting their constitutive aspects. But since these aspects can be considered from their historic, stylistic, technological or (more frequently) formal qualities, the resulting classification will unavoidably refer to the idea of a particular approach. [1] Thus the history of typeface classification can be thought of as the history of successive attempts to deal with the new variety of typeforms through an innovative point of view. [2]

But let us face our own topic. The title of this essay is the result of a particular discernment among some typeface families according to a particular, small universe. This universe clearly involves concepts such as: family and subfamilies, superfamily, patterns, interrelation, declension of a basic form, alternation, program, series. [3] 'Seriales' is in fact the name proposed by Muriel Paris in her *Petit manuel de composition typographique* (edited by the author, Paris, 1999), for describing these new families that contain more than one style (also 'multiform'). It is basically sans and serif, though some families have introduced intermediate, blended subfamilies or simply alternative subfamilies. Thus for instance Otl Aicher developed four groups for his Rotis: Grotesque, Semi-grotesque, Semi-antiqua and Antiqua; besides its Sans and Serif, Stone also has a third face called Informal; and the vast program Thesis by Lucas de Groot involves three systems as well: TheSans, TheSerif and TheMix. Therefore it seems reasonable to postulate that we are facing new subject matter.

It is intended in this essay to offer a discussion of these kinds of families. But since each case – as well as its circumstance – is a particular one, the purpose has mainly been to try to determine the type designers' impetus towards creating them. Although many type families will be mentioned here, only a selection of them have been considered more relevant for this particular discussion.

PHILHARMONISCHES KONZERT
Gold- und Silberscheideanstalt

HAMBURGER ILLUSTRIERTE
Typographische Vereinigung

Offenbacher Lederwaren
Letzte PariserNeuheiten

1. Thus James Mosley, in his article "New approaches of classification of typefaces" (*The British Printer*, 1960), emphasizes the need of revising and restandardising the actual terminology used to describe typefaces, something that could be successfully employed by users of types. This very real and urgent desire to establish a more precise set of words for describing all the specimens while trying to avoid the natural asymmetry between countries, languages and different historical interpretations, indicates the insufficiency of every past attempt.

2. That variety is the result of successive changes in technology and the constant desire for innovation by type designers. Hence the problem does not seem to have a definitive solution since we are constantly dealing with new types. Moreover, those different approaches to typeface classification have added more complexity to the subject, which would allow us to suggest that typeface classification is something that is 'alive' and requires a constant process of updating and rethinking.

3. It would however be possible to say that these concepts are inherent to all type design, since each individual letter is a note in harmony with the whole melody or, in Sumner Stone's words, "a variation on a basic dance step". Though more apparent this idea, which draws upon an historical connection to the "writing hand" of calligraphers and scribes, is still constitutive of type design in terms of uniformity: each sign has been made by the same tool or, at least, there is a common principle that governs the 'consistency' of the whole alphabet.

4. Walter Tracy, *Letters of credit, a view of type design*, Gordon Fraser, London, 1986, p.108.

5. Stanley Morison, "Type reviews: the Bernhard roman, italic and script", *The Fleuron* VII, 1930, p.189-90. "Bernhard roman is frankly a precious type" said Stanley Morison in *The Fleuron* VII. And added "(it) can join the collection of types called a complete fount". Bernhard roman, italic and script were produced by Bauer Giesserei in 1930. It probably was an inspiration for Jan van Krimpen.

"Bernhard roman is frankly a precious type" said Stanley Morison in The Fleuron vii. And added "(it) can join the collection of types called a complete fount". Bernhard roman, italic and script were produced by Bauer Giesserei in 1930. It probably was an inspiration for Jan Van Krimpen.

First precedents: Lucian Bernhard and Jan Van Krimpen (1926 - 1934)

Probably the earliest idea of conceiving a 'serial' type family has been the ambitious Romulus typeface designed by Jan van Krimpen for the firms Enschedé and Monotype at the beginning of the 1930s. But as Walter Tracy suggested,[4] he was probably influenced by the faces of the German designer Lucian Bernhard, which had received a very favourable review by Stanley Morison in *The Fleuron*. [5]

Advised by Beatrice Warde, who persuaded him to change the design's original name ("Epiphania"), Jan van Krimpen started the Romulus roman alphabet in 1932, based on the fine drawings of his own Lutetia (1924). Tracy refers that this first member of the family was a success, though due to its lack of contrast between strokes, its shapes were more beautiful in display sizes. However the italic immediately became a sloped roman instead of the historical cursive – influenced at that time by Morison's opinion as to what a more logical companion for

ABCDEFGHIJKLMNOPQRSTUVWXY
abcdefghijklmnopqrstuvwxyz   Z&
1234567890

ABCDEFGHIJKLMNOPQRSTUVWXY
abcdefghijklmnopqrstuvwxyz   Z&
1234567890

Romulus roman and its italic (sloped roman), 1931.

Cancelleresca Bastarda, 1934.

Α Β Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ρ Σ
Τ Υ Φ Χ Ψ Ω
A B C D E F G H I J K L M N O P Q R
S T U V W X Y Z

Romulus roman and Greek alphabets combined.

αβγδεζηθικλμνξοπρςτυφχψω
abcdefghijklmnopqrstuvwxyz
fbffffifflfhfifkfl
1234567890

6. Morison espoused it extensively in his famous article "Towards an ideal italic" that appeared in *The Fleuron* v, 1926, pp.93-129.

7. But unfortunately, explains Walter Tracy, the technical limitations of metal setting prevented the original plan from being realized. In order to be practical while setting, the very long ascenders and descenders of Cancelleresca made Van Krimpen decide to place the type on a different body (one-quarter larger) than that of the corresponding size of the roman. This would allow the typographer to maintain a constant type height in the line, but some sizes could not have companion fonts because it would have resulted in "unnatural sizes". Due to the costs of cutting the fonts in a wider quantity of sizes, the Cancelleresca family has been used more as an individual type rather than as a member of the Romulus family.

8. According to Walter Tracy, Van Krimpen neglected to recognise the different origins between the roman and Greek alphabets and thus erroneously modified the calligraphic spirit of some Greek letters. Moreover the proximity between both alphabets in proportions, weight and shapes, made them confusing to use in the same text.

a roman type should be. [6] Later on, according to Tracy, when Morison and Van Krimpen seemed to agree that the sloped roman was a fallacy, Van Krimpen was already busy with the next member of the family: a script type he called Cancelleresca Bastarda, a graceful swashed face that has been widely used in bibliophile's books since it appeared in 1937. [7] The variations in the scheme which followed, a semi-bold and a semi-bold condensed, have been criticised, asserts Tracy, since Van Krimpen's intent in creating them is not very clear. Though the semi-bold condensed alphabet is a finer type design, it does not seem to perform well as the other members of the Romulus family. However considering that at that time the idea of a series of interrelating alphabets was still rare, perhaps our contemporary viewpoint is demanding too much consistency in his work.

The intended similarity in the treatment of shapes that Van Krimpen put in his Greek version has been criticized as well, says Tracy. [8]

But then came the Romulus Sans-serif faces: light, normal, semi-bold and bold, which are undoubtedly interesting designs since they are the first attempt to outfit a serif face with a companion sans-serif. According to Tracy again, Van Krimpen gave to these types a monoline effect and obtained a four-scaled system of proportions, though he did not apply the system to the 'x-height' of the lowercases. This results in the counters of the bold weight becoming too small. At this point Van Krimpen has demonstrated real innovation, though the Enschedé

3

Foundry was probably not so confident about it, refers Tracy, and the four weights he drew were actually produced after his death. Finally, the last member of the family was the Romulus Open Capitals, beautifully made by P. H. Raedisch, the famous punch-cutter at the Enschedé foundry, who engraved a white line in the large sizes of the roman capitals.

ABCDEFGHIJK
LMNOPQRS
TUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
12345 fbffffifflfifhfkfl 67890

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
12345 fbffffifflfhfifkfl 67890

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
12345 fbffffifflfhfk 67890

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
12345 fbffffifflfhfk 67890

Romulus Sans in its four weights. Left: the Romulus Open Capitals.

First related Sans and Serif type families: Gerard Unger and Edward Benguiat (1976 - 1979)

Although it is reasonable to think that type designers have historically been exploring the formal possibilities of their own designs, for instance by adding or subtracting serifs to their drawings, or speculating with different extensions of their alphabets (something that has become a natural practice with computers since the 1980s), it must be said that there had been no cases of 'serial' typeface families (in sans and serif declension) until the Dutch type designer Gerard Unger designed his Demos for Rudolf Hell GmbH in 1976. Its rounded-off forms account for the low resolution of electronic environments at that time and has three weights: medium, medium italic and bold. The following year Hell manufactured a sans-serif family related to Demos: Praxis. It has a strong character and consists of four weights: light, medium, bold and heavy. It was suggested to make an italic for the font by electronic slanting, but in 1980 Flora was born as a genuine italic for Praxis. It has two weights (medium and bold) and its cursive rhythm is inspired by F.H.E. Schneidler's Graphik (1934) and Unger's own lettering. Although Demos, Praxis and Flora were not originally conceived as a serial family, they can be thus considered since they are the first contemporary attempt (images on p.5).

    A second attempt was immediately made by the New York type designer Ed(ward) Benguiat. Commissioned by ITC in 1978, he designed a type very personal in shape and with a clear 'Art Nouveau' reminiscence, including a wide range of weights. [9] In 1979 he developed a complementary sans-serif version called Benguiat Gothic (with eight weights), which consists of a monoline typeface with round strokes, like a 'bond' structure of the serif version. The lowercase a, e and g, and capitals are particularly distinctive (images on pp.5-6).

A technology-concerned approach: Lucida (1984)

The Lucida family (serif and sans) is the result of the work of two partners: Kris Holmes and Charles Bigelow. After doing research on legibility in low resolution devices, they developed the type to strictly match the limitations of laser printers. [10] This quality is expressed in the characteristics of sturdiness ("erosion-resistant serifs"), simplicity ("polygonal"

4

9. With the condensed versions completed in 1979 there were twelve designs altogether: book, book italic, medium, medium italic, bold, bold italic, book condensed, book condensed italic, medium condensed, medium condensed italic, bold condensed and bold condensed italic.

10. Although the manufacturer Imagen was happy to say that the typeface could survive almost every kind of process.

Demos medium

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 1234567890 &£$.,:;!?"

Demos medium italic

*abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 1234567890 &£$.,:;!?"*

Demos bold

**abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 1234567890 &£$.,:;!?"**

Praxis light

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 1234567890 &£$.,:;!?"

Praxis medium

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 1234567890 &£$.,:;!?"

Praxis bold

**abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 1234567890 &£$.,:;!?"**

Praxis heavy

**abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 1234567890 &£$.,:;!?"**

Flora medium

*abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 1234567890 &£$.,:;!?"*

Flora bold

***abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 1234567890 &£$.,:;!?"***

Benguiat book

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890&£$.,:;!?"

Benguiat bold

**abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890&£$.,:;!?"**

Benguiat Gothic book

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 &£$.,:;!?ˇ

Benguiat Gothic book italic

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 &£$.,:;!?ˇ

Benguiat Gothic bold

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 &£$.,:;!?ˇ

Benguiat Gothic bold italic

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 &£$.,:;!?ˇ

shapes for avoiding the noise of printer marks), rationality (modular and predictable units for the raster) and averaging (screen resolution resistance). Bigelow (also designer of Apple Chicago and Apple Geneva) is a professor of digital typography at Stanford University and has been prolific in articles through the 1980s, when changes in technology succeeded each other at a dizzying pace. In fact, the seriffed subfamily had to be provided in specific point sizes (6, 7, 8, 9, 10, 11, 12, 14, 18 and 24) which indicate the very first limitations of dtp publishing.

In terms of aesthetics the type is an interesting example for analyzing, since its forms are purported to be the result of an interaction between those technical needs and particular intentions of the designers in relation to type-historical issues. Thus Kris Holmes, while describing the text 'colour' of Lucida, mentions as an inspiration Jan Tschichold's singular taste for the "open text rhythms" of 16th century book types. And later on she touches on Francesco Griffo's types to historically support the fact that the capitals of Lucida are slightly shorter than the ascenders. [11] The simplicity of Lucida Sans is personally more suitable

11. Holmes Kris, "Lucida: the first original typeface designed for laser printers", *Baseline* no 6, 1986, pp.12-13.

Lucida regular

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Lucida italic

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Lucida bold

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Lucida bold italic

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Lucida Sans

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Lucida Sans italic

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Lucida Sans bold

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Lucida Sans bold italic

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

6

in the roman than in the italic. Perhaps the angle used in the italic sans, which seems to be the same as that of the serif version, results here in a slightly forced appearance and also accounts for a very 'speedy' effect. On the other hand, the serif italic design naturally combines modularity and angularity and thus a handwritten character is better achieved. The family was developed until 1995 with more than fifty different variations.

A "genetic" approach: Stone (1987)

Sumner Stone developed his family of types as director of typography at Adobe Systems Inc. in California between 1985 and 1989 – a period during which the desktop publishing was born and rapidly spread out. It is for this circumstance and also for his historical consciousness, probably stemming from his background in both calligraphy and sociology, that he has been one of the most relevant references in digital typography in the 1990s. In his book *On Stone, the art and use of typography on the personal computer* (Bedford Arts, San Francisco, 1991) he provides readers with some interesting points of view on the history of letterforms and on computer technology, as well as a good commentary on the evolution of typographic techniques. [12]

12. Although the section dedicated to promoting the use of his own typeface seems to me slightly insistent.

STONE abcdefghijklmnopqrstuvwxyz
STONE abcdefghijklmnopqrstuvwxyz
STONE abcdefghijklmnopqrstuvwxyz

Stone Serif afegk *afegk* **afegk** *afegk*

Stone Sans afegk *afegk* **afegk** *afegk*

Stone Informal afegk *afegk* **afegk** *afegk*

The Stone family, thus the first original typeface of Adobe Systems, consists of three sub-families: Serif, Sans and Informal, in roman and italic alphabets, all of them declined in three weights: medium, semi-bold and bold. This first idea of a superfamily cannot be but the result of the 'biological' nature of Stone's approach. He talks about the 'family trees of letterforms', remembering D.B.Updike's subtitle for his *Printing Types:* "A Study in Survivals" (which touches on the Darwinian idea of 'the survival of the fittest'). New types come from old types in a way that is reminiscent of the relationship between child and parent. Maybe for this reason, he says, the history of typeforms has frequently used the language of biological evolution. This results in the particularly interesting harmonic proportions of the lowercases in the sans version, especially in the medium weight. An innovative aspect of the family is also the introduction of an informal face, which basically consists of an italic form adapted to an upright structure. This is more visible when taking a look at the informal italic. The concept includes leaving some parts of letters without serifs where they would normally be expected. This version of the family has probably not been used as much as its companions but has undoubtedly constituted an influence in type design since it opened some new room for designers to experiment. [13]

The really huge variety of new faces that appeared in the late 80s and the 90s with the introduction of the Macintosh – and which impetuously developed under more irrational paradigms such as illegibility, fusion, metamorphosis, fun, imitation, irony and scepticism – has been frequently seen as a return to an 'emotional' or 'pictorial' (instead of

7

13. The idea of an informal kind of typeface is not as clear as he seems to assume, even though he derives it from the idea of informal writing (he mentions typewriters and personal documents).

functional) typography. However, some type designers have kept their sights trained on extensive text reading (which seems to be a 'purely functional' area) and have reached very good results, that by the way also became very popular in the market. One of the most rational approaches was done in Germany: the Rotis program.

The philosophy of austerity: Rotis (1988)

"The crisis of modernism lies in the fact that thought and criteria concerned with making are replaced by an aesthetic vision" (Otl Aicher).

Perhaps nobody has worked in visual communication as much as German designer Otl Aicher with such a committed ideological way of thinking, the origins of which go back to his participation in the aggressive strivings of the Hochschule für Gestaltung in Ulm, of which he was a founding member in the early 1950s. His extremely radical points of view, sometimes also obstinately polemic, have been reflected in his book *The World as Design* (1991), a very interesting collection of essays rich in political and cultural opinions. It was unfortunately set in his cold Rotis Sans, without uppercases and alternative weights (say) bold or italic, which makes the reading of it very difficult. [14] Of course it would be hardly possible to inscribe this phenomenon under the category of "third modernism" for which Aicher had spent his life toiling away. [15]

14. The reason for this clearly 'anti-functional' idea has to be found in the dogmatic respect the editors gave to Aicher's preference for all-lowercase: "Perhaps it underlined his scorn for the pompous" says Norman Foster in his preface.

15. Thus, when he refers to Norman Foster's buildings, he claims: "...there is a new sort of aesthetic. It also appeals to the mind. These buildings can be read, understood. You discover them. What you see is what it is because it is more reasonable than the other way round. You discover ideas, logic, wit. It is not pure mood aesthetics, dull feeling. There is also no *zeitgeist* expressed here, no world feeling, one sees one of the best possible solutions to a set of questions".

*Rotis Sans
(light and light italic,
regular and italic,
bold and extrabold)*

Hamburgefonstiv *Hamburgefonstiv*
Hamburgefonstiv *Hamburgefonstiv*
Hamburgefonstiv
Hamburgefonstiv

*Rotis Semisans
(light and light italic,
regular and italic,
bold and extrabold)*

Hamburgefonstiv *Hamburgefonstiv*
Hamburgefonstiv *Hamburgefonstiv*
Hamburgefonstiv
Hamburgefonstiv

*Rotis Semiserif
(regular and bold)*

Hamburgefonstiv
Hamburgefonstiv

The complete program of Rotis that was manufactured by Agfa Compugraphic in 1988.

*Rotis Serif
(regular and italic,
and bold)*

Hamburgefonstiv *Hamburgefonstiv*
Hamburgefonstiv

This rather 'aseptic' idea of design was the axis of the just mentioned concept of a 'third modernism' which he passionately defended against cosmetic design and aestheticism, and that is visible not only in his work but also in the particular integrity of his life. In the middle 80s Aicher was commissioned by the printing firm of Maack in Lüdenscheid to settle in the village of Rotis and develop a typeface family that could cope with a new high standard of "recognizability, legibility and reading speed". The result of that project is well known, though it would be hardly possible to ascribe its commercial success to any real advantages in the design. Perhaps the very pronounced methodical nature of such a rational approach that resulted in a type program of seriffed, sanseriffed and hybrid faces was in itself an effective promotion for the fonts. [16]

The entire system has four variants: sans, semi-sans, serif and semi-serif (original names: Grotesque, Semigrotesque, Antiqua and

16. On describing that project, nothing really essential has been said in his book, except that he was aware of the impossibility of controlling two decisive factors in every future application: distance to the reader and available space.

Semiantiqua) and dissimilar alternatives in weights. Of the whole family, the semiserif personally seems to me the best balanced face since its slight contrast between thicks and thins tempers the general stiffness of the structure. Unfortunately this subfamily lacks the wider variety of the sans and semisans versions. In the general design, that holistic, strict approach to life is perhaps best expressed in the c and particularly the e, which seems to flaunt a very high waist as if it were an old fashioned man who has tightened his belt too close to his neck.

Other related sans & serif families

Stone and Rotis have particularly been the inspiration for several 'serial' type families, since the idea of creating compatible and interrelated serif and sans faces became a natural event in typeface design. The following are just some examples:

Quay (1985) and ITC **Quay Sans** (1990) designed by David Quay (UK).

Corporate A.S.E. (1985-1989) designed by Kurt Weidemann (Germany). As a part of a corporate identity project for Mercedez Benz, he developed three interrelated typeface families and associated the 'serial' nature of the program to the three classic orders: Doric, Ionic, and Corinthian.

Officina Sans and **Serif** (1990) designed by Erik Spiekermann with Just van Rossum (Germany). One of the most successful couples of the 90s.

abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ &!(".,:;){}
abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ &!(".,:;){}

Scala (1991), **Scala Sans** (1993) and **Scala Jewels** (1996) designed by Martin Majoor (The Netherlands). Scala Jewels is a curious program of four decorated typefaces based on the capitals of Scala bold. It includes Crystal, Diamond, Pearl and Saphyr. [17]

17. This essay has been typeset in Scala and Scala Sans.

9

abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ &!(''.,:;){}
abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ &!(''.,:;){}

Thesis (1994) the largest type program ever made, created by Luc(as) de Groot (Holland) between 1989 and 1994. The family is divided into three sub groups: TheSans, TheSerif, and TheMix and consists of eight different weights, which results in 144 alphabets. The glyphs are particularly 'rhythmic' and have a forward stress.

aaaa**aaaaa**aaaaa**aaaa**
aaaa**aaaaa**aaaaa**aaaa**
aaaa**aaaaa**aaaaa**aaaa**

Le Monde (1995) originally designed by Jean-François Porchez (France) for the famous newspaper, expanded afterwards into some alternatives: Le Monde Sans, Le Monde Titre, Le Monde Livre, etc.

Quadraat and **Quadraat Sans** (1992) designed by Fred Smeijers (The Netherlands).

Conclusion

It would be difficult to review all cases of 'serial' type families around the world, but a representative overview at the very least has been intended here. As a conclusive thought, I would like to emphasize again the idea that the 'serial' concept naturally suits typeface design, mainly for two reasons.

Firstly, type design has a 'serial' nature by itself. This follows my initial speculation by which this characteristic would be an inherent aspect of type. Letterforms, one by one, have to attain the desirable uniformity within the alphabet, and the different alphabets that compose a typeface family have to be interrelated as well. The resulting total characteristic we call 'consistency' constitutes one of the basic parameters by which to judge the quality of a typeface. Therefore the idea of 'series' would be an inherent aspect, regardless of the direction in which the series can be extended: weights, seriffed, un-seriffed or mix versions, condensed or expanded, ornaments, math signs, phonetic or musical notation systems, alternatives characters, swashes and ligatures, in sum: series extended through all kinds of qualities of typeforms. In fact type designers have nowadays to deal with an enormous amount of glyphs. Not only because of the standardised wider characters sets, due to the increase of cultural and language exchange in the world, but also because perhaps there seems to be an unwritten rule about how a contemporary typeface family should be in terms of the alternatives it offers. A complete font nowadays is not a really complete if it does not include – apart from lowercases, caps and their italics – small caps, ranging and non-ranging figures and all the correspondent weights, usually not less than four (something that is not a big issue since type design softwares developed algorithms of interpolation).

And here we arrive at the second reason for explaining the success of 'serial' ideas in type design: the possibilities offered by computer technology. Let us take as an example Thesis, made by Luc de Groot. It has probably reached the limits of designers' endurance, since 144 variations in just one type family do not appear as a palette of clear alternatives. [18] But such a vast program, even if developed over a long period of time, would be inconceivable without computers.

Adobe's Multiple Master is another example of 'serialization' allowed by technology: how to exploit the idea of manipulating a wide range of alternatives (in weight, in style, or even in 'body' sizes) as a typesetting tool, although the limits are already established by the type designer.

Computer technology has therefore been playing a decisive role in this new concept of 'superfamilies'. Words such as 'program', 'series', 'sequence', 'variations' perfectly suit the logical world of computing. [19] However, it is difficult to ascertain if this approach to type design, which can be seen as a 'boom' in the last fifteen years, will remain an approach in the future or will be remembered as a characteristic of our age.

18. So the users have to know the system very well in order to manage such a variety of alternatives and then to be able to take real advantage of them.

19. If we think of people like Peter Karow, Charles Bigelow or Donald Knuth, who in some way can be considered as authorities in the field, they have taken a clearly mathematical or computing approach to type design. And in fact, the incorporation of this relatively new knowledge (mathematics, computing, programming) has apparently contributed to a more 'professional' idea of the trade. Maybe this is also the reason why 'serial' typefaces families have become so popular.

References

Aicher Otl, *The world as design*, Ernst & Sohn, Berlin, 1994.

Bigelow Charles and Jonathan Seybold, "Technology and the aesthetics of type – maintaining the tradition in the age of electronics", *The Seybold Report*, vol.10, no.24, 1981, pp.3-16.

Friedl Friedrich, Nicolaus Ott and Bernard Stein, *Typo, an encyclopedic survey of type design and techniques throughout history*, Black Dog & Leventhal, Köln, 1998.

Holmes Kris, "Lucida: the first original typeface designed for laser printers". *Baseline*, no 6, 1985, pp 12–13.

Krimpen Jan Van, *A letter to Philip Hofer on certain problems connected with the mechanical cutting of punches, a facsimile reproduction with an introduction and commentary by John Dreyfus*, David R. Godine, Boston, 1972.

The aesthetic world of Jan van Krimpen, book designer and typographer, brochure of an exhibition, Museum of the book, The Hague, 1995.

Lucida, the first typeface family designed for Laser Printers, presentation of the typeface by Imagen, Santa Clara (CA), 1985.

Morison Stanley, "Type reviews: Bernhard roman, italic and script", *The Fleuron*, number VII, 1930.

Morison Stanley, "Towards an ideal italic", *The Fleuron*, number V, 1926.

Mosley James, "New approaches to the classification of typefaces", *The British Printer*, March 1960.

Paris Muriel, *Petit Manuel de Composition Typographique*, edited by the author, Paris, 1999.

Stone Sumner, *On Stone, the art and use of typography on the personal computer*, Bedford Arts, San Francisco, 1991.

Tracy Walter, *Letters of credit (a view of type design)*, Gordon Fraser, London, 1986.

Wiedemann Kurt, *Corporate A.S.E. – Eine Schrift-Trilogie im klassischen Kanon für den Einsatz in den elektronischen Medien und für die Ansprüche einer corporate culture*, Stuttgart, 1990 (leaflet provided by Dr. Christopher Burke).