

Cover Page



Universiteit Leiden

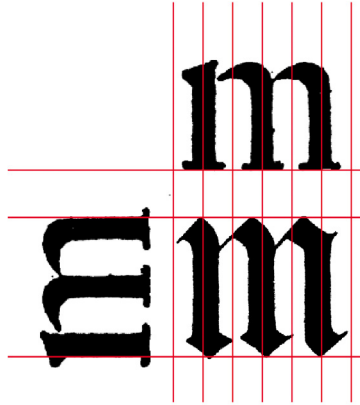


The handle <http://hdl.handle.net/1887/43556> holds various files of this Leiden University dissertation.

Author: Blokland, F.E.

Title: On the origin of patterning in movable Latin type : Renaissance standardisation, systematisation, and unitisation of textura and roman type

Issue Date: 2016-10-11



**ON THE ORIGIN OF PATTERNING
IN MOVABLE LATIN TYPE**

*Renaissance standardisation, systematisation,
and unitisation of textura and roman type*

Proefschrift

Ter verkrijging van de graad van Doctor
aan de Universiteit Leiden
op gezag van Rector Magnificus
Prof.mr. C.J.J.M. Stolker,
volgens besluit van het College voor Promoties
ter verdediging op 11 oktober 2016
klokke 11:15 uur

door

Frank Eduard Blokland
geboren te Leiden in 1959

Promotores

Prof.dr. Adriaan van der Weel

Prof. Frans de Ruiter

Promotiecommissie

Prof.dr. Yra van Dijk

Prof.dr. Paul Hoftijzer

Dr. Roy Millington
University of Sheffield

Prof.dr. Bert Willems
Universiteit Hasselt

This dissertation is typeset in DTL Haarlemmer and DTL Haarlemmer Sans.

The serifed type was designed by the author –based on drawings by Jan van Krimpen– in 1995.

The sans-serif version was added by him a couple of years later.

TABLE OF CONTENTS

I. Glossary of terms	9
II. Glossary of punchcutters	32
III. Introduction	39
Note on perception and interpretation	40
IV. Theoretical context, hypotheses, methodology, and dissertation structure	45
Theoretical context	45
Putting the dot on the i	45
Hypotheses	52
Research methodology	53
Dissertation structure	55
Chapter 1	57
1.1 The role of the pen	58
1.2 The Foundational hand model	60
1.3 Comparing handwriting and type	64
Chapter 2	69
2.1 Historical development	69
2.2 From the Carolingian to the Humanistic minuscule	73
2.3 Morphologic relationship	77
Chapter 3	81
3.1 Roman type and Humanistic minuscule differences	81
3.2 LetterModeller application	91
3.3 Parameterisation of type design processes	97
3.4 Templates	98
3.5 Systematised writing	100
Chapter 4	107
4.1 Optical spacing	107
4.2 Advantages of width standardisation	112
4.3 Comparing widths in textura and roman type	112
4.4 Comparing textura and roman type fitting	115

Chapter 5 *121*

- 5.1 Unitisation in textura type *121*
- 5.2 Unitisation in roman type *124*
- 5.3 The unit-arrangement system *128*
- 5.4 Comparing unitised and optical type fitting *133*

Chapter 6 *143*

- 6.1 Historical artefacts *143*
- 6.2 The typefounder's mould *145*
- 6.3 Width standardisation of matrices *151*

Chapter 7 *155*

- 7.1 Renaissance foundry type *155*
- 7.2 Evidence of standardisation in matrices *157*
- 7.3 Unitisation of matrices *162*
- 7.4 Unitisation and optical spacing *165*

Chapter 8 *169*

- 8.1 Geometry and roman type *169*
- 8.2 Width-height relationship *173*
- 8.3 Standardised proportions in textura and roman type *175*
- 8.4 The dynamic em-square model *180*
- 8.5 Distilling evidence of frameworks in Renaissance type *182*
- 8.6 Underlying unitisation in vertical proportions *188*
- 8.7 Digital dynamic frameworks *192*
- 8.8 Details and optics *193*

Chapter 9 *195*

- 9.1 Increased freedom in type design *195*
- 9.2 Set patterns *197*
- 9.3 Technical and aesthetic considerations *202*
- 9.4 Conventions *203*
- 9.5 Pictures of things *204*
- 9.6 Software *206*

Conclusion *211*

Appendices 213**Appendix 1: Typographic conventions and conditioning** 214

- A1.1 Introduction 214
- A1.2 Conventions 214
- A1.3 Deviations 216
- A1.4 Typographical microcosm 218
- A1.5 Conditioning 219

Appendix 2: Jensonian gospel 221

- A2.1 Introduction 221
- A2.2 Roman type 221
- A2.3 Jenson's ground plan and Griffo 221
- A2.4 Variants on a theme 223
- A2.5 Gothic details and weight reduction 224
- A2.6 Standard 225

Appendix 3: Basic ingredients of Latin type 227

- A3.1 Introduction 227
- A3.2 Alphabet 227
- A3.3 Scripts 228
- A3.4 Alphabet and letterforms 228
- A3.5 Form sorts 229
- A3.6 Contrast sorts 231
- A3.7 Skeleton (heart) line 233
- A3.8 Broad nib 234
- A3.9 Flexible-pointed pen 236
- A3.10 Rotation 237

Appendix 4: Details of type 239

- A4.1 Introduction 239
- A4.2 Sum of particles 239
- A4.3 Building blocks 240
- A4.4 Consistency 243
- A4.5 Dissonances 248
- A4.6 Serifs 250
- A4.7 Serif structures: broad nib 251
- A4.8 Serif structures: flexible-pointed pen 258
- A4.9 Polyform and Monoform 258

- A4.10 Serifs and spacing 259
- A4.11 Serif lengths, heights, and thickness 260
- A4.12 Classifications 262
- A4.13 Rotating counter 264
- A4.14 Idiom 268

Appendix 5: Details of the Renaissance type production 271

- A5.1 Introduction 271
- A5.2 Production of matrices 271
- A5.3 Tricks and trade secrets 275
- A5.4 Empirical testing 278
- A5.5 Measurement results 281

Appendix 6: Frameworks, grids and units 284

- A6.1 Introduction 284
- A6.2 Em-and en-square 284
- A6.3 Grids 287
- A6.4 Artificial units 290
- A6.8 Unitisation and design 292

Appendix 7: Geometry in the Renaissance 294

- A7.1 Introduction 294
- A7.2 Theory and practice 294
- A7.3 Geometry and type 298
- A7.4 Geometry and quality 300
- A7.5 Divine proportion 301
- A7.6 Golden section/ratio/mean controversy 305

Appendix 8. Proportions of capitals in roman type 309

- A8.1 Introduction 309
- A8.2 Optical harmony 309
- A8.3 Fence-posting 311

Appendix 9: Systems and models in type 317

- A9.1 Introduction 317
- A9.2 Systems and models 317
- A9.3 Grapheme system 320
- A9.4 Harmonic models 322
- A9.5 Capitals 324
- A9.6 Uncial 325

- A9.7 Latin book-hand minuscule 326
- A9.8 Latin cursive minuscule 327
- A9.9 Relational system 330
- A9.10 Proportional system 333
- A9.11 Monoform and polyform 334
- A9.12 Relative proportional system 336
- A9.13 Using systems and models for measurement 337

Appendix 10: Spacing and casting 338

- A10.1 Introduction 338
- A10.2 Historical background 338
- A10.3 Spacing and rhythm 339
- A10.4 Stem interval 340
- A10.5 n- and m-widths 343

Appendix 11: Parameterised fitting results 346

- A11.1 Introduction 346
- A11.2 Brief recapitulation of the cadence-units concept 346
- A11.3 Kernagic tests 351
- A11.4 Bold variants 354
- A11.5 Italic variants 355
- A11.6 Environmental setting Kernagic tests 356
- A11.7 LS Cadencer tests 359
- A11.8 Environmental setting LS Cadencer tests 361
- A11.9 LS Cadenculator tests 361

Bibliography 443

Curriculum vitæ 451

Acknowledgements 454