

**Leon Battista Alberti and the revival of the roman
inscriptional letter in the fifteenth century**

Giovanni Mardersteig

translated by James Mosley

Copyright © 2005, 2022 *Typography papers*, the author(s),
and the Department of Typography & Graphic Communication,
University of Reading.

This PDF file contains the article named above. All rights reserved.
The file should not be copied, reproduced, stored in a retrieval system,
transmitted, or distributed in any form or by any means without
the written permission of the copyright holder or the publisher.

Typography papers 6 was edited, designed, and prepared for press
in the Department of Typography & Graphic Communication,
University of Reading (www.reading.ac.uk/typography) and
published by Hyphen Press, London (www.hyphenpress.co.uk).

This file is compatible with Adobe Acrobat 7.0 or higher.

Colour and greyscale images downsampled to 240 ppi with 'high'
image quality JPEG compression; monochrome images downsampled
to 400 ppi. Printing is enabled to 'high resolution'.

Minor copy-editing faults that may have occurred in the article,
as printed, have been silently corrected. Substantive corrections,
if any, are listed below.

Corrections

None.

Giovanni Mardersteig
translated by James Mosley

Leon Battista Alberti and the revival of the roman inscriptional letter in the fifteenth century

In an essay of 1959 Giovanni Mardersteig proposed that the work of L. B. Alberti and his collaborators at Rimini, around 1450, as central in the revival of the roman capital letter. That essay, 'L. B. Alberti e la rinascita del carattere lapidario romano nel quattrocento' (*Italia medioevale e umanistica*, volume 2, 1959, pp. 285–307) appears here in English for the first time, in James Mosley's translation. We warmly thank Sgr Martino Mardersteig for permission to publish it in *Typography papers*.



Figure 1. Rome. Inscription from the tomb of Cecilia Metella. Early Augustan period.

The history of *litterae lapidariae*, Latin inscriptional capitals, has not yet been written, nor have we a detailed account of their genesis, their essential forms, nor of their decline, nor – above all – of their recovery during the Renaissance. Although the art and literature of the fifteenth century have been thoroughly explored in many forms, and great attention has been paid to the development of handwriting, there has been little study of the different phases of the revival of Roman capital letters.¹

The present essay is intended as an appeal for more thorough study of the roman inscriptional letter during the second half of the fifteenth century, and as an attempt to set out the factors that influenced its successive forms.

The Roman *litterae lapidariae*,² which achieved perfection at the beginning of the imperial era, and which in their symmetry and harmony were to some degree based on a geometrical structure, owed their elegance to the use of so-called *grazie* or serifs at the end of the strokes, a feature that was derived from the gradual evolution of writing (figure 1). The classical form was dominant for a few centuries, but every great ascent conceals within the danger of a falling-off. With the slow decline of the Roman empire, its inscriptional lettering changed. The noble forms, the harmonious proportions, the spacing of the letters, all deteriorated. At the same time the serifs were steadily shortened, sometimes being hardly present, until the style returned to that of early Rome and the stark form of the sanserif.

In the first decades of the fifteenth century, after the great flowering of gothic forms, this primitive roman capital reappeared, but we often find that roman and gothic forms are used indifferently in the same inscription. So the form *A* appears together with *A*, *€* with *E*, even into the second half of the century. Letters are narrow and crowded, and their structure is considerably altered. For example, in *M*, in distinction to the classical *M*, the two interior strokes appear not as a *V* descending to the base-line but as a shallow *V* which descends no more than halfway or even less. The outside strokes are mostly vertical and have the same weight, like those of *N*, while the strokes between are much thinner; whereas in the lettering of the imperial

1. The unpublished paper of Augusto Campana, 'Studi epigrafici ed epigrafia letteraria nell'umanesimo italiano', delivered at the 'International conference on humanistic studies', La Mendola, 1957, examined two of the themes of the present study: the inscriptions of the Malatesta family, with special attention to their literary form, and

the first phase of revived Roman capitals before the use of geometrical construction.

2. In his *Satyricon*, Petronius distinguishes between *lapidarias litteras* cut in stone (chapter 58) and *quadrata littera* (chapter 29), which designates written or painted capitals. cf. M. Maiuri, *Cena Trimalchionis* (Naples, 1945).



Figure 2. Florence, baptistery. Inscription on the tomb of the anti-Pope John XXIII (Donatello and Michelozzo).

era the strokes of M were successively thin-thick-thin-thick, and those of N, thin-thick-thin. The crossbar of A and the bowls of P and R were hitched up like the waists of the dresses of the women of Piero della Francesca who wear the fashions of the period. Pointed serifs are wholly absent, except that in the better examples the strokes gradually widen towards the terminal.

Similar letterforms can be seen in Florentine inscriptions: for example on the tomb of Leonardo Dati, by Ghiberti (1423), in Santa Maria Novella, on the almost contemporary monument to the anti-Pope John XXIII by Donatello and Michelozzo in the baptistery (figure 2), and on the pulpit by Brunelleschi in Santa Maria Novella, designed in 1443 and executed after his death in 1448.*

The rebirth of the Roman capital letter takes place almost exactly in the middle of the century, but it only achieves its classical form after two decades of gradual development. The first step takes place in Rimini with the conversion of the church of San Francesco into the *Tempio Malatestiano* or Temple of the Malatesta, a project to which are attached the names of Matteo de' Pasti, Agostino di Duccio, and Leon Battista Alberti, who made the greatest contribution to this notable building.³

Matteo de' Pasti, who came from Verona, may have arrived in Rimini by 1445 together with Antonio Pisanello, or in 1446, in order to help with the execution of the latter's medals, and he rapidly acquired the favour of Sigismondo Malatesta, becoming his advisor and, in due course, his architect.⁴ In the years 1446–7 he executed various medals portraying the Lord of Rimini and Isotta degli Atti. Following in the footsteps of Pisanello (Ricci, figs. 33–55) he preserved his style of lettering, using a roman sans serif. But whereas the letterforms of Pisanello still follow the style used by Ghiberti, Matteo approaches that of the form found on Roman coins. Thus he returns frequently to and finally adopts the ancient form of M with slightly sloped outer strokes and with the V descending to the baseline, and his letters tend towards a wider proportion.

In 1446 Sigismondo had completed his castle at Rimini. His pride in it is demonstrated by the inscription over the entrance:

* *editor's note*: The Dati tomb was probably made in 1425: R. Krautheimer, *Lorenzo Ghiberti*, 1956, Princeton, p. 138 & pl. 75. Brunelleschi died in 1446.

3. For the history of the *Tempio*, see the study, amply documented and illustrated, by Corrado Ricci, *Il Tempio Malatestiano* (Milan, [1924]). However the author is not concerned with the letterforms used in the

various inscriptions.

4. His date of birth is not known. He died at Rimini in 1467, a few months before Sigismondo Malatesta.

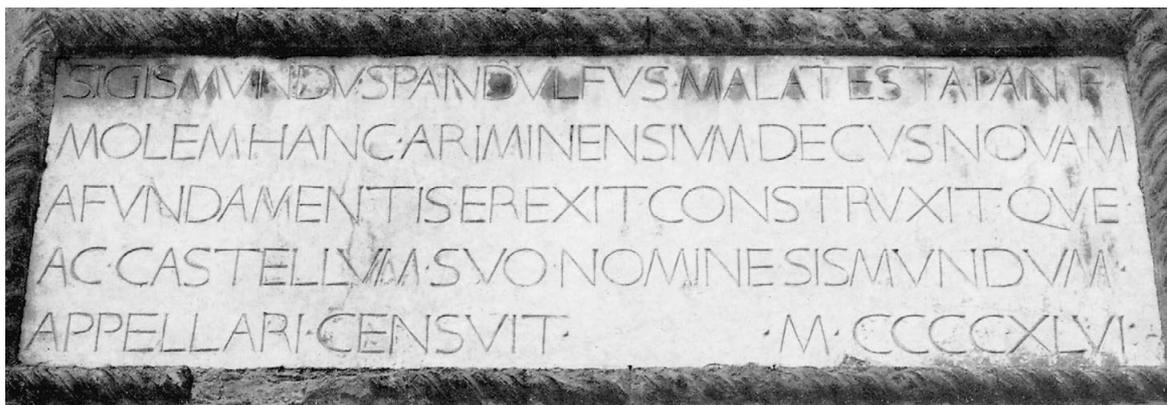


Figure 3. Rimini. Inscription over the entrance to the castello of Sigismondo Malatesta (Matteo de' Pasti).

SIGISMVNDVS PANDVLFVS · MALATESTA · PAN · F ·
MOLEM · HANC · ARIMENESIVM · DECVS · NOVAM
AFVNDAMENTIS · EREXIT · CONSTRVXIT · QVE ·
AC · CASTELLVM · SVO · NOMINE · SIGISMVNDVM ·
APPELLARI · CENSUIT · · M · CCCC · XLVI ·

In his work *De re militari* (Verona, 1472, book I, 3, f. 14^r&^v), Roberto Valturio wrote that this marble tablet was cut in *litteris aureis*, golden letters. The tablet is still intact (figure 3), but the gilding has vanished over the course of the centuries.⁵

If the tablet was already cut by 1446,⁶ this inscription must be considered one of the first works by Pasti in his employment in Rimini. I believe that at least the style of the lettering should be attributed to him. The letterforms resemble, in their remarkably wide proportions (see E F M S T), the lettering of the inscription cut on the arches of the chapels that he built in the church of San Francesco: SIGISMVNDVS PANDVLFVS · MALATESTA PAN · F · FECIT · ANNO · GRATIAE · MCCCC · L. The same letters, 5 cm in height, can be found in two distichs cut in about 1452 in the chapel of San Sigismondo on the wall below the statue of the saint (Ricci, fig. 443): SANCTE DICATA TIBI HAEC AEDES ET CONDITA SOLI.⁷ Three letters of this inscription which are characteristic of Matteo's work are reproduced in figure 4.

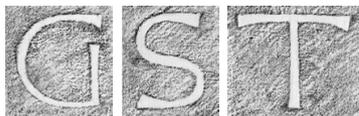


Figure 4. Rimini. Tempio Malatestiano. Rubbing of three letters of the inscription in the Chapel of San Sigismondo (Matteo de' Pasti).

A twin to the tablet by Pasti, with the same dimensions and letterforms, can still be seen on the external wall of the north side of the castle (Ricci, fig. 187). On the south wall there is a third version of the inscription (figure 5, overleaf) with the same text but executed by a different hand and with a slightly different arrangement of the words. I believe this to be the work of Agostino d'Antonio di Duccio,

5. A. F. Massera (*La Romagna*, 18, 1928) published a document from which it appears that in 1454, *sopra l'usso della torre* ('above the exit from the tower') of Carignano near Fano, Matteo was charged with making an inscription using *quelle parole che parerà a messer Roberto [Valturio]* ('words that were fitting according to the judgement of Roberto [Valturio]'). Pasti was also ordered to see to the placing of lettering on the Gate at Senigallia. (Information from Charles Mitchell.)

6. It must be noted that a date in inscriptions on buildings, in churches, and on

sepulchral monuments, is not necessarily that of its execution. It may be the date of building, or, in funerary monuments, the date of the death of the person commemorated. In many instances the inscription was made or added later. For this reason many dates that are currently believed to be valid should be supported by an examination of documents, and also by a critical assessment of the style of the lettering.

7. For these verses, see C. Mitchell, 'The imagery of the Tempio Malatestiano', *Studi Romagnoli*, 2, 1951, p. 88.

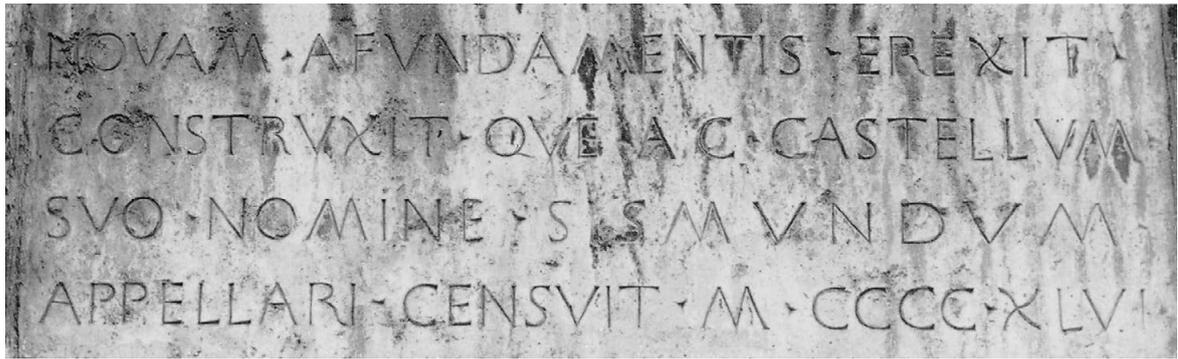


Figure 5. Rimini. Inscription on the north side of the castello of Sigismondo Malatesta (Agostino d'Antonio di Duccio).

but based on Matteo's model.⁸ Agostino came to Rimini at the same time as Pasti, was his closest collaborator, and created the most handsome of the sculptural ornaments of the chapels.⁹ The letters of the third inscription, from the hand of a more delicate artist, are slightly modified, more slender and delicate, especially the S. Note the curved strokes of the gothic-style X, which stands out among the roman letters. The same X appears in the epitaph on the funerary monument of Angelo and Elisabetta Geraldini in San Francesco di Amelia, which he made in 1476. Each artist who has been occupied in the reproduction of lettering and finds forms that suit him, preserves them and repeats them in his work for the rest of his life. I am thus of the opinion that the epitaph of Valturio under the third arch on the external wall of the Tempio (Ricci, fig. 347) is also by the hand of Agostino, with his typical S, M and X, even though we have no documents that confirm his presence in Rimini after the death of the author of *De re militari* in 1475.

It is worth examining Agostino in more detail. Among the few inscriptions of the Tempio that were not designed by Matteo there is one that is certainly designed by Agostino and, in my opinion, cut by him. It is on three sides of the base of the statue of San Sigismondo in the chapel bearing his name, which was completed and consecrated in 1452 as the first part of the re-making of the church. The letters S · SIG / ISMV / NDVS differ substantially in their elegance from those of Matteo. With them Agostino discovered the essence of his own style. This is evident in his different M, with its very oblique outer strokes and the little V that links them. The S has a fine swing and calls to mind the classic roman form. In the second S and in the I that follows serifs appear for the first time (figure 6), but the novelty is limited to this occasion. The G next to the I is cut like a C that has been converted into a G with the addition of a hooked form 7,¹⁰ whereas Matteo's G, like that of Pisanello, has only the short vertical stroke without a hook. The statue of the saint rests on two elephants (Ricci, fig. 450). Pasti had already used a similar motif in his medal of *Fortitudo* (fortitude) in 1446. Even if the idea was not his, it is



Figure 6. Rimini. Inscription on the base of the statue of San Sigismondo (Agostino d'Antonio di Duccio).

8. The first work signed by Agostino is the set of scenes from the life of S. Geminiano in the Cathedral at Modena: OPVS AVGVSTINI FIORENTINI 1442. The letterforms are still those of Florentine sculptors. He did not evolve his own style until he came to Rimini.

9. The signatures of the two artists, painted on the cornice between the two chapels,

Matteo's on the left and Agostino's on the right, were still visible to Ricci in 1912, but have now almost wholly vanished. (See A. Campana, 'Per la storia delle cappelle trecentesche della Chiesa Malatestiana di S. Francesco', in *Studi Romagnoli*, 2, 1951, pp. 18-19.) To the right the faint traces of the word LAPICIDAE [OPVS AVGVSTINI FIORENTINI LAPICIDAE] can be seen, in

letters with the shading of *trompe l'œil* cutting, similar to those employed by Pisanello in his Veronese frescoes. (See R. Brenzoni, 'L'annunciazione pisanelliana in S. Fermo Maggiore a Verona', *Per l'Arte Sacra*, 9, 1932, p. 18, fig. 9.)

10. The same type of G had already appeared in the signature AVGVSTINI at Modena. See note 8.

worthy of the inventive spirit of Sigismondo Malatesta (Ricci, fig. 40). However all the carved elephants in the chapels are most probably the work of Agostino.

In 1454 Agostino was staying at Cesena (Ricci, p. 589, doc. X) where from 1447 to 1452 Matteo Nuti had built the famous Biblioteca Malatestiana for Malatesta Novello, brother of Sigismondo.¹¹ Immediately by the entrance doorway is affixed the noted inscription in which under the date of 1452 Nuti is praised as the builder *ad unguem*. The letterforms of the inscription are very primitive: the N is cut backwards. These dates notwithstanding, I cannot believe that the gate is also by Nuti (Ricci, fig. 89). The inscription over the architrave of the entrance, MALAT · NOVEL · PAND · F · MALAT · NEP · DEDIT, and the device cut in the tympanum, on the wreath borne by an elephant, ELEPHAS · INDVS · CVLICES · NON · TIMET show that this is the lettering of Agostino. The same can be said of the device within the ornamental square frame with an elephant over the Gate (Ricci, fig. 389).

Today an inscription on the two wooden door panels states that it was cut by Cristoforo di San Giovanni in Persiceto in 1454. The stone cornice of the gateway, and especially the elephant in the tympanum and the exquisite bas-relief of the coats of arms at each end of the architrave suggest the hand of Agostino. It seems to me legitimate to suggest that in this same year 1454 he began the gateway or oversaw the work, giving final touches to the sculpture and cutting the inscriptions, which would explain his stay at Cesena.

But let us return to Rimini. There is an explicit and detailed letter from Leon Battista Alberti to Matteo de' Pasti dated 18 November [1454], which deals with the realization of the model for the Tempio.¹² In 1450 Alberti had been charged with planning the exterior architectural work for the church of San Francesco, which was to be completely remade. The work, which Matteo directed in the capacity of architect, went on slowly, and there were changes of mind concerning several details. In his letter Alberti insists, somewhat impatiently, that his plan should be executed in its entirety. But at the end of the letter he concedes that Matteo should consult his colleagues and he will be open to reasonable proposals. Indeed, he goes so far as to send him a copy of the text of his *Ecatomfila* and another work. It is not known whether Alberti had already planned in his wooden model the monumental inscription in roman inscriptional letters 50 cm high which runs across the whole of the entablature of the façade.

In the fourth chapter of the eighth book of his fascinating and fundamental work *De re aedificatoria*, written about 1450 and printed in 1485 with a preface by Poliziano,¹³ he mentions the *epitaffi che furono variamente usati de gli antichi, non pure nei sepolcri, ma etiando a che tempo ed a cui sono state dedicate. Il che mi piace . . .*¹⁴ Was Alberti already aware before he wrote his book of the chapels that were being built and of the inscriptions by Matteo on the arches, or had he seen them himself? At all events, an inscription that was visible at a distance met his own ideas. The inscription on the entablature of the Tempio is reminiscent of the bronze inscription in huge letters of the Pantheon in Rome, one of its most important models. In the letter to Matteo that has already been cited, he recalled that for him the

11. See Augusto Campana, *Origine, formazione e vicende della Malatestiana* (Cesena: Città di Cesena, 1954). Matteo Nuti of Fano had already worked for Sigismondo on the fortress of Fano, and subsequently we find him at Cesena and, from 1454 onwards, in the company of Matteo as one of the architects engaged on the Tempio.

12. Written from Rome. Now in the Pierpont Morgan Library, New York. It was published by the library in 1957, edited by Cecil Grayson.

13. This first edition was printed *Opera Magistrati Nicolai Laurentii Alemani anno MCCCCLXXXV, quarto Kalendas Ianuarias*. Alemani, printer in Florence, is noted for his edition of the *Divina comedia* of Dante (1481), with a commentary by Cristoforo Landino and copperplate engravings by Baccio Baldini after drawings by Botticelli.

14. Quoted in the Italian version of Pietro Lauro, *I dieci libri de l'architettura di Leon Battista de gli Alberti* (Venezia, appresso Vincenzo Vaugris, 1546). [*translator's note*: These phrases could be rendered as 'the inscriptions which the ancients placed variously, not only in tombs but also in their temples and their own houses. It has been our custom to write on our chapels when and to whom they were dedicated, a pleasing practice.']



Figure 7. Rimini. Inscription on the façade of the Tempio Malatestiano.

proportions of the cupola of the Pantheon counted more than the proposals of other architects. The nave of the church of San Francesco was to have been surmounted by a cupola, which was shown in his model and appears on a medal by Matteo of 1450 which shows the façade of the *Tempio* (Ricci, fig. 292).¹⁵

The monumental inscription on the façade, the first of its kind in the fifteenth century,¹⁶ reads: SIGISMVNDVS · PANDVLFVS · MALATESTA · PANDVLFII · F[ILIVS] · V[OTO] · FECIT · ANNO · GRATIAE · MCCCCL. The letters are derived from those of Pasti, but show a much more refined taste and a classical sensibility, which suggests that Alberti had a part in it, or had retouched the drawings (figure 7). For the first time we find the classical sequence of thick and thin strokes in M and N. Matteo had never achieved such harmonious forms in his inscriptions, whereas, judging from his inscriptions of later years, we can conclude that Alberti, with his keen eye, contributed to the creation of monumental inscriptional lettering which constitute an important innovation. It can be seen from his own later inscriptions, in which his characteristic forms appear, that Matteo did not alter his own style. It suffices to examine the epigraph on the sarcophagus of the poet Basinio Basini (died 1457) and that on the tomb of Giusto de' Conti under the first two arches of the south wall. In these there reappear the wide letters that are typical of Pasti, with strokes of even thickness. The same style is seen in the Greek inscriptions that appear on the first pilaster of each side wall (Ricci, figs. 341, 343, 259).

The large lettering of the entablature does not yet reach the beauty of the Imperial era, and serifs are barely present. It may be that it was cut by Agostino or, under his supervision, by his collaborators, since it formed part of the decorative elements of the façade. An almost identical inscription on the entablature of the doorway is in more or less the same style reduced to a scale of one fifth, and was probably executed a year or so before the other. In 1461 Agostino adopted the same style for the inscription on his façade for San Bernadino in Perugia, AVGVSTA PERVSIA MCCCCLXI, which lacks the triangular points between the words that are found at Rimini.

It is abundantly clear that the style of capitals continued to be modified and developed in the work of the many important Tuscan architects and sculptors, such as the brothers Bernardo and Antonio Rossellino, Desiderio da Settignano, Mino da Fiesole and others. But in the epigraphs of sepulchral monuments and in their sculpture, they essentially followed the workshop tradition of Ghiberti or Brunelleschi, without showing any significant awareness of the work

15. One of Alberti's maxims was that an architect should have due regard for the most important building of a city. At Rimini he drew inspiration, for the form of the three arches of the lower part of the façade, from the Arch of Augustus (27 BC) which bore a Latin inscription in large letters, of which only a part remains today.

16. Presumably executed in 1455–6.

achieved at Rimini. The Tempio Malatestiano was too far from the city of the Medici.

It was only in later years in Florence that Alberti produced a model that represented a true innovation. In the church of San Pancrazio, built close by the Palazzo Rucellai to his designs for Giovanni Rucellai in 1467, he created an imitation of the *Santo Sepolcro* (Holy Sepulchre) in Jerusalem: a charming little monument, with a sober and elegant ornamentation of inlaid work in colours (figure 8). The finest ornament is the inscription that runs below the moulding of the attic course ornamented with lilies that crowns the edifice: YHESVM QVERITIS N / AZARENVM CRVCIFIXVM SV / RREXIT NON EST HIC ECCE L / OCVS VBI POSVERVNT EVM. And here the serifs of Roman letters are deliberately adopted for the first time in the architecture of the fifteenth century.

The capitals, 16.8 cm high, are of black stone inlaid with admirable precision in the strip of white marble, lettering of a harmonious form, a genuine derivation from the antique model. Following the rules of classic roman construction without being a rigid imitation, they constitute in their forms a new creation full of the artistic spirit of the renaissance. Their size is more or less that of the inscriptions of the tomb of Cecilia Metella in Rome and the Porta dei Leoni in Verona, the lettering of which belongs to the finest tradition of classical

Figure 8. Florence. The Santo Sepolcro in the Capella Rucellai (L. B. Alberti).



inscriptional work. In these inscriptions the ratio of the thickness of the stroke to its height is 1 to 10, whereas in the inscription of the Santo Sepolcro it is 1 to 12, so that the effect is less monumental but more elegant, as befits the little edifice. The serifs, which project less than those of the classical *litterae lapidariae*, are the expression of a personal sculptural sensibility, but were perhaps also the result of a technical difficulty. Individual black letters had to be made from thin sheets of marble and then inserted into the matrix cut for them in the strip of white marble. Thin projecting strokes would have broken off under the chisel. It was necessary to add the barely emphasised pointed forms at the head and foot of the letter piece by piece to the thick and the thin strokes, something that the eye does not perceive at a distance. This technique became usual for making inlaid letters, and can be seen in the inlaid lettering of marble flooring, such as those in the Cathedral of Siena, where the originals partly survive.

One curious detail should be noted in the inscription in San Pancrazio. In the word NAZARENVS a widened N on its side is used in place of Z, as in the entablature of the Tempio Malatestiano. Either the workman confused the model for the Z with that for N (=Z), or – more likely – since the Latin alphabet lacks Z, a Greek letter, it was not in Alberti's design. This is why, forty years later, Luca Pacioli omitted Z from his alphabet when he printed it in the *Divina proportione*. Although the inscription does not contain all the letters of the alphabet that Alberti used, in figure 14 an attempt has been made to reconstruct it from the wording used so that it can be compared with the alphabets of 1460 to 1509 that we shall discuss later.

Like all new ideas conceived by great artists alone, the stupendous capital letters of Alberti must certainly have made an impression on architects, sculptors and painters. But they could only be seen by visitors to the little chapel. For this reason the contemporary inscription dated 1470 that Alberti had added to the façade of Santa Maria Novella in Florence – together with the Tempio Malatestiano his most celebrated work – must certainly have made a stronger effect on contemporaries (figure 9). This piece of architecture was also the product of the munificence of his friend Giovanni Rucellai. Beneath the weighty pediment, which resembles an antique temple, the inscription of black letters inlaid in white marble stands out strongly: IOHA[N]NES · ORICELLARIVS · PAV · F · AN · SAL · MCCCCLXX ·

The style of the letters, which are 50 cm high, is close to that of the Capella Rucellai but they are heavier, in order to be seen at a distance: the ratio of height to width is 10.5 to 1. In the course of enlargement of the original model, the M and R are less successful: the M is too wide and has lost the noble symmetry of the M used in the Santo Sepolcro. The tail of the R which is thickened indicates a reversion to the old tradition. And the letter-cutter made an unfortunate mistake by twice inverting the model for the S, putting S instead of S.

When the scaffolding came down and the inscription was visible, the effect must have been very powerful. Today the effect, although still considerable, is diminished by the loss of the brilliant surface and the fact that through the effect of weather many fragments of the black marble letters have broken off and fallen away.



Figure 9. Florence. Inscription on the façade of Santa Maria Novella (L. B. Alberti).

The figure of Leon Battista Alberti may be likened to a lighthouse: he left a profound impression, especially on artists. No one escaped the effect of his magical prestige. More than one artist, acknowledging the example that had been returned to use, used the inscription as a decorative element, having had the opportunity of examining the lettering of the Santo Sepolcro and of assimilating the beauty for their formality and novelty. The era of inscriptions in gothic or half-gothic capitals was over. During the following decade the use of Roman inscriptional letters was once more a part of the common heritage, even in painting.

Here it is not possible to examine paintings in detail. I shall mention briefly the frescoes of the church of the Eremitani at Padua which include several instances of painted inscriptions (c. 1454–60) in which Roman inscriptional letters are imitated or refashioned.¹⁷ The signatures OPVS ANSVINI and OPVS BONI were destroyed,* as were part of the Roman inscriptions by Mantegna, of which the only one to survive is that shown in the Martyrdom of Saint Christopher. In his house in Padua Mantegna owned a Roman inscription of which Feliciano has preserved a record in the collection of inscriptions that he dedicated to ‘his friend Andrea’.¹⁸

In this connection, it should be recalled that in the Gonzaga archive at Manuta there is a most interesting collection, consisting of the letters from the marchese Lodovico, written to the *lapicida Luca* (Luca the stone-cutter)¹⁹ from Gonzaga in 1470, the contents of which must have been known to Alberti, who evidently worked with Luca. From these documents we learn that Alberti promised to provide *la forma de lettere* (the forms of letters) for an inscription, of which the Marchese gave the first words: IOHANNES FRANCISCVS PRIMVS MARCHIO MANTVAE,²⁰ and that he supplied the letters that were requested.

17. See A. Moschetti, ‘Le iscrizioni lapidarie romane negli affreschi del Mantegna agli Eremitani’, *Atti Ist. Ven.* 89, 1929–30, part 2, pp. 227–339. [*Atti del Reale Istituto Veneto di Scienze, Lettere ed Arti*]

* editor’s note: by bombing, March 1944.

18. The little book (Bologna, Biblioteca dell’Archiginnasio, A. 186) is an incomplete autograph first draft of the sylloge, ‘Ad Andream celeberrimum pictorem nec non amicum incomparabilem’. It is not dated, but must have been written in 1462 or 1463. It does not include the famous *iubilatio ad vidarios celestes* that Feliciano put in his manuscript ‘Vita Kiriaci anconitani’ of 1465 (Treviso, Biblioteca Capitolare, cod. 1. 138, ff. 205^r–206^v) in which he tells of his excursion on Lake Garda with his friends Mantegna, Giovanni Marcanova and Samuele da Tradate. The *iubilatio*, which was published by S. Maffei (*Verona illustrata*, Verona, 1731, vol. 2, p. 521), must

certainly have been included by Feliciano in the second version of the sylloge, with a fuller dedication, that he presented to Mantegna. The original is lost, and we know only two copies in another hand (Verona, Biblioteca Capitolare, cod. CCLXIX, and Venice, Biblioteca Marciana, cod. lat. X. 196). Both have the text of the *iubilatio* with slight variants.

19. Luca Fancelli, who was introduced to architecture by the Marchese of Mantua, was his confidential assistant and was entrusted by him with other tasks. In 1460

he was sent to Padua to request Alberti to return to Mantua. In 1470 Luca was in Florence, where he assisted Antonio Manetti, who was executing the tribune of the SS. Annunziata for the Marchese, and there he probably helped Alberti with the plans of S. Andrea in Mantua. He carried out Alberti’s scheme for S. Sebastiano, and later for S. Andrea too.

20. The correspondence concerning the inscription for the castle was published by G. Braghirolli in the *Archivio storico italiano*, 9, 1869, pp. 11–18.

The inscription was intended to be painted in a space that was left blank for it in a part of the building that is not precisely indicated.²¹ Presumably it was painted on an external wall and required inscriptional capitals. News of the inscription on Santa Maria Novella had probably arrived in Mantua, and for this reason Lodovico turned to his respected architect and laid such importance on its form. The inscription is lost: it would have been instructive to compare its letters with those of the Florentine inscriptions.²²

But how did Leon Battista Alberti come to adopt the new style, that was so different from that of the inscriptions of the Tempio at Rimini? The eighteen letters used at San Pancrazio can be fitted perfectly into a geometrical construction based on ‘the circle and the square’. How did Alberti come to learn of this theory?²³

Alberti was a man of much reading and had a wide knowledge of antique literature. The possibility cannot be discounted that in his reading he had come across some early reference unknown to us concerning the methods once used for constructing the letters of the alphabet. But the stimulus may have come from elsewhere. Among the documents of monastic scribes and illuminators there were patterns for writing and for making gothic initials. These naturally became worn out, and were set to one side at the introduction of the humanistic script and the spread of roman inscriptional capitals. But some of these specimens of alphabets survive, and they are highly instructive. The earliest specimen that I am aware of is in the Biblioteca Comunale of Mantua. It consists of twelve wooden panels, 46 by 30.5 cm (Cod. B. V, 6). Leaves of paper bearing specimens of lettering are pasted on each side of the panels. Each side bears two gothic initials, generally the same letter in two different designs, so that there are 48 designs in total. Each initial is drawn in a large square divided into 16 smaller squares. The four central squares contain the design for the letter. Its construction is made with the assistance of many circles and segments. The internal space of the letter is painted pale yellow. Instructions for the use of the compass are written at the edge from time to time in a chancery hand.

There are similar constructions for gothic capitals and small letters in a little manuscript in the Newberry Library, Chicago (MS. fzw 141/46). These too are coloured pale yellow. In 1468 this manuscript was in the possession of the monastery of San Giovanni Evangelista at Parma. There are other gothic alphabets in Paris (Bibliothèque nationale, Lat. 8686) and Venice (Biblioteca Marciana, It. IV. 186 = 5606). The last of these is dated 1493. All these constructions derive from a prototype which must have been transmitted from an earlier period, since in all of them there are similarities both in the constructions and in the texts.

21. At this date the *Torre dell’Orologio* (Tower of the Clock) was under construction. It was painted all over, but there are no longer traces of painting or inscriptions.

22. At Alberti’s death in 1472, the rebuilding of the tribune that he had planned at his own expense for S. Martino in Gangalandi near Lastra a Signa, was still not completed. He had become priest at this priory in 1432. In his will he provided

for the completion of the tribune. In a frieze over the pilasters of the apse there is painted in inscriptional letters OP[ER]A · MARIAE · VIR[GINIS] · POPVLI · D · MARTINI · GANGALANDO · FACIVNDV[M] · CVRAVIT. It is doubtful whether this text was intended by Alberti. The letters are not in the style that he used. They cannot have been painted before 1475, and are probably later.

23. W. Suida (Thieme-Becker, *Kunstlexikon*, I. 204, col. 1, ‘Alberti, L. B.’) wrote that, ‘the magnificent capital letters [of the Santo Sepolcro] are reminiscent of Alberti’s constructed alphabet’. I have tried in vain to get confirmation of this claim: the author tells me that he cannot give a source for this statement.

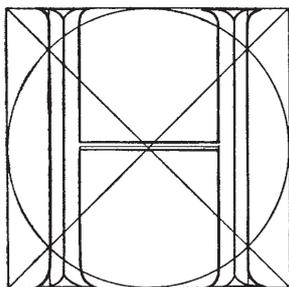


Figure 10. Felice Feliciano: construction of letter H.

24. See Felice Feliciano, *Alphabetum Romanum* (Verona: Officina Bodoni, 1960).

25. 'It was an old usage to form the letter from a circle and a square, the sum of which forms amounts to 52, whence is derived the perfect number, which is ten. And thus the thickness [of the main stroke] of your letter should be the tenth part of the height, and in this manner it will have as much of the circle as of the square; and the letter shown above must begin where the diagonals cut the circumference. And this is what I, Felice Feliciano, found in old letters by taking measurements from many marble slabs, both in the noble city of Rome and in other places.' Felice Feliciano, *Alphabetum Romanum*, ed. G. Mardersteig (1960, Verona: Officina Bodoni) p. 125.

26. The meaning of *antiquarius* has varied from age to age. In classical Roman literature the word meant a lover or connoisseur of literature that was even older, but it was also often used to mean a *scriptor* or *librarius* (see *Thesaurus Linguae Latinae*, Leipzig, 1900–6, col. 173–4). In his commentary on Psalm 64, verse 6, Saint Augustine writes, *laudat quidam antiquarii manum*, and this term is used by the scribe of the fifth-century manuscript *S. Hilarii in psalmos* (Verona, Biblioteca Capitolare, XII, f. 327^r), who writes *scribit Antiquarius Eutalius* in an uncial hand. In the fifteenth century however, the term meant an archaeologist. See A. Momigliano, *Contributo alla storia degli studi classici* (Rome, 1955) (*Storia e Letteratura*, 47), pp. 73–4, who also deals with Feliciano.

The construction of the roman inscriptional capital is very different, and more interesting from our point of view. The only design known to us which has a geometric construction – that is, a square containing a circle (figure 10) – is an autograph manuscript on vellum by Felice Feliciano in the Vatican Library (Vat. lat. 6852). The letters, which have clearly drawn serifs, are 8 cm high, and are painted in two colours to simulate the shading of letters cut with a v-section in stone. It is not dated but is about 1460.²⁴

Felice Feliciano, who was born in Verona in 1433 and is believed to have died in Rome in 1480, was a *scriptor* or writer, and was thus trained to have a close knowledge of the letters of the alphabet. From an early age he was a passionate collector of inscriptions, and became familiar with Latin epigraphy. The beauty of inscriptional capitals fascinated him to such a degree that he learned the theoretical principles of their construction in order to facilitate their practical application. In his alphabet each letter is accompanied by a brief explanatory note. The text beneath the A is especially detailed and in its sober precision it forms the introduction to his little books:

Suole l'usanza cauare la littera di tondo e quadro, la summa de le qual forme ascende al n. liij, del qual si caua il numero perfecto che è x. E cossi uol esser la tua littera grossa la x^a parte de l'alteza et per questo modo hauerà tanto del tondo quanto del quadro; et uolsi causare la soprascripta littera doue si tagliano le linee .+. con la circonferentia. Et per questo è quanto per misura io Felice Feliciano, habia nelle antiche caractere ritrouato per molte pietre marmoree, cossi ne l'alma Roma quanto negli altri [luoghi].²⁵

We do not know where Feliciano acquired the notion that it was 'the ancient practice to derive letters from the circle and the square'. The idea that ten was the perfect number goes back to Vitruvius, and before him to Pythagoras, and the proportion of 1 to 10 of the thickness to the height of the stroke corresponds to the Augustan inscriptions of Cecilia Metella and the Porta dei Leoni that have already been mentioned. The text says explicitly that the measurements were taken from inscriptions in Rome and other places.

Feliciano must certainly have been familiar with similar constructions of gothic letters, even if we do not find such letters among the large decorated initials that he drew in his own books. But in two of the manuscripts that date from the period of his alphabet, he uses his Roman capital letters which fill the column width of the page. Examples include the S and the Q of the *Apologia Socratis*, dated February 1460 (Venice, Museo Correr, cod. 314) and another smaller Q in his Lactantius, *De opificio Dei* (Vienna, Nationalbibliothek, cod. lat. 3231).

With his thirst for knowledge and passion for travel, Feliciano made several journeys to Rome, as the texts of his collections of epitaphs show (*Romae repperij* – 'I found this in Rome'). He described himself as an *antiquarius*.²⁶ In the epigram dedicated to Feliciano, his friend Mario Filelfo called him *antiquitatis egregium investigatorem* (the outstanding researcher into antiquity). At that period the number of those who were interested in the materials of antiquity was not great, and those who belonged to the little band of enthusiasts were

in constant communication. It would be strange if Feliciano had not met Alberti during one of his periods in Rome or Mantua. Among the papers of the *Antiquario* there is no evidence of a meeting between the two, but it was only after the death of Alberti in 1472 that Feliciano began to sort and keep his letters in the form of *epistolari* which he considered as models, and in which, according to contemporary practice, he made much use of his knowledge of classical literature.

However there are two circumstances that permit us to deduce that he made contact with Leon Battista Alberti. Three manuscripts written by Feliciano, two of which antedate 1472, contain *Hippolito e Lionora*, the *novella* by Alberti.²⁷ In the earliest of these (c. 1462–3, Florence, Biblioteca Nazionale, Magl. VI. 200) the *novella* is followed by the elegy *Agilita fanciulla molto ornata* and by the *Ecatomfila*, the last of which bear the name of Alberti. In the slightly later manuscript (Harvard Library, MS Typ. 24) there is, in addition to the *novella*, the only manuscript text of the *Egloga nomine Tyrsis*. And the following should also be borne in mind. Not long after the death of Feliciano there was published the little incunable of Jacopo Zaccaria *Libellus inscriptionum*, probably printed in Rome by Eucario Silber. In it there is a collection of models for letters to be addressed to men of the church, artists, writers and other important figures. The name of Feliciano is the only one which appears under three different headings (f. 25^r and 25^v). But the most interesting thing is that the recipients that precede and follow his name are friends of his that are known to us through his own letters and manuscripts. Here they are: Andrea Mantegna Patavino, Nicolaus de Bononia, Felicianus Veronensis, Ludovicus de Bononia, Iohannes Patavinus [Marcanova], Felicianus, Felicianus, Baptista de Albertis.

Felice used to carry his precious books with him on his travels. So either in Rome or in Mantua,²⁸ Alberti may well have seen the young man's geometrical constructions derived from the Roman inscriptions. We may see some confirmation of this conjecture in the lettering of the inscription in San Pancrazio, which has some similarity to Feliciano's alphabet. In every alphabet there are one or two letters that have personal details that distinguish them from others. Feliciano has a T in which the two serifs of the crossbar turn inwards. This curious T (see figure 12), which is rare in antiquity but of which some examples are found among the Roman inscriptions in Verona, is also found in work by Alberti (see figure 14). But it does not recur in later constructed alphabets and so far I have not found it in any other fifteenth-century inscription. There are other letters in common between the two artists, for example the unusual forms of M, C, the narrow H, the S and the P. The resemblance would be even more striking if the proportions of the strokes – 1 to 12 in Alberti, 1 to 10 in Feliciano – were the same. Alas, Alberti's designs for his capitals have not survived, nor does he mention an alphabet in his writings, or we should have some more reliable means of making the connection.

The geometrical roman letters of Feliciano were certainly passed from hand to hand and were used by architects or stonecutters, or at least gave them ideas. Only a year ago I discovered an inscription that is the first, and perhaps the only, inscription of which the design can be certainly attributed to Feliciano. It has escaped the notice of even

27. Any doubt whether Alberti was the author of this *novella* has recently been removed by the discovery by Miss J. Hammond of a fifteenth-century manuscript in which his name is the only one that appears (London, British Museum, Add. 38090). I am indebted for this information to Professor C. Grayson, Oxford.

28. Alberti made repeated lengthy visits to Mantua, certainly in 1459–60, 1463, and probably in the following years, while the church of S. Andrea was being built under the direction of Luca Fancelli.

Figure 11. Verona. Inscription on the central arch of the *pescheria* (Felice Feliciano).



the most careful observers because it is cut in the variegated red marble of Verona. It is on the central arch of the façade of the *pescheria* of Verona. This fifteenth-century building, free of gothic style, was erected as a slaughterhouse in 1467–8. The inscription reads ANNO · HVMANATI · DEI / M · CCCC · LXVIII / NONIS · SEPTEMB (figure 11). Every letter corresponds in detail to Feliciano's alphabet, and moreover there are the characteristic flowers that he used in his own manuscripts.²⁹

Even the text shows the marks of a humanistic cast of mind, and may well be the work of Feliciano himself. Verona did not derive much artistic influence from Florence, and if its lettering shows a certain independence from Tuscany, this can be attributed to Feliciano.

The geometrical construction of the roman inscriptional letter having thus been attributed to Feliciano in northern Italy and in Florence and Rome to Alberti, it is likely that other initiatives of the same kind took place. This can be deduced from a series of funereal epitaphs that were made during the decade 1470–80. An important influence must have been the lettering of the sepulchral monuments of Andrea Bregno (1421–1506), who produced them on the large scale that procured him a comfortable income, even though we do not know who drew the designs of the lettering that he used. Other models were used in Tuscany. There is the superb inscription on the tablet below the sarcophagus of Gino di Neri Capponi in Santo Spirito in Florence, a tablet added long after the death of its subject. And the bronze letters on the façade of the 'Loggia del Papa' (Pius II) in Siena, these too being added ten or twenty years after the completion of the edifice. These are derived from a design that has extraordinary rhythm and vitality.

The only other fifteenth-century construction of letters that has come down to us after that of Feliciano is the alphabet of Damiano da Moyle, which must have been published about 1480 and of which the author remains unknown.³⁰ Damiano was one of a dynasty of calligraphers who worked for the monastery of San Giovanni Evangelista, Parma. He was no great artist, and he drew only decorated initials for which he got the patterns from the monastery's book of models that has been mentioned above. He had an important workshop, in which he employed illuminators and binders, supplied the monastery and other clients with paper, acted as publisher, and had such wide business interests that he did relatively little printing. Nonetheless, the last page of the little book bears the colophon

Impresum parme per Damianum Moyllum :
: Parmensem :

29. Another inscription on the architrave of the same façade cannot be read because it is covered by a large commercial sign.

30. See S. Morison, *The Moyllus Alphabet*, facsimile printed by the Officina Bodoni, Montagnola di Lugano, 1927, and L. Testi in *La Bibliofilia*, 20, 1918–19, pp. 1 ff.

A B C D E F
 G H I K L M
 N O P R S T
 V X Y Z Q ʒ

Figure 12. Alphabet of Felice Feliciano.

A B C D E F
 G H I K L M
 N O P R S T
 V X Y Z Q

Figure 13. Alphabet of Damiano da Moyle.

A B C D E F
G H I L M N
O P R S T V
X Y Z Q

Figure 14. Alphabet of Leon Battista Alberti.

A B C D E F
G H I K L M
N O P R S T
V X Y O Q

Figure 15. Alphabet of Luca Pacioli.

The letters of Moyllus are within a square, and eleven have diagonals with an outline design 6.5 cm high. The arrangement of the letters within the square and the brief captions, which correspond more or less with those of Feliciano, give the impression that it is an attempt to make a printed version of his alphabet, notwithstanding some small differences. These letters, which are printed on one side of the leaf, were evidently intended as models and used as such, and this explains the rarity of the book, of which only one copy is known. The little book, or rather the sheets folded in the form of a book and placed in a cover, were also copied. There is a manuscript copy in the Biblioteca Casanatense³¹ from which it is clear that the letters were cut out and put to practical use. The captions are taken word for word from the printed edition. The humanist Hartmann Schedel also copied the alphabet, but in this instance the captions were translated into Latin.³² It is possible that the alphabet of Moyllus (see figure 13) served as a model for inscriptions, but there is no proof of it.

The construction of the alphabet was a matter of concern for some time to come: it suffices to mention the names of Pacioli, Fanti, Tornielo, Tagliente, Verini, Dürer, Tory and Amphiareo.

Here it is worth paying some attention to Luca Pacioli, given his connections with Alberti and his interest in the theories of the fifteenth century. His exquisite and harmonious constructed alphabet has had a considerable effect, and has been attributed to Leonardo da Vinci himself. But none of Leonardo's manuscripts contain the slightest evidence that he was interested in Roman capitals. It is true, however, that he drew a set of 'regular bodies' for the manuscript 'De divina proportione' of his friend and teacher of mathematics Luca Pacioli, but this was in 1498, when they were both in attendance at the court of the Sforza. The alphabet was added later and was only added to the printed edition of the *Divina proportione*, published in 1509 when the friends had been separated for some time.³³

Luca Pacioli came to Rome at the age of 27 in February 1471, having given up his employment as a teacher in Venice. At almost the same time Alberti returned there from Mantua. Pacioli tells how he was welcomed by Alberti and how he lived with him for some months.³⁴ It can be conjectured that it was Piero della Francesca who recommended him to his old friend Alberti. Piero was a compatriot of Luca, and in a certain sense his master, who perhaps began at this point to initiate him into the study of perspective. There is no evidence that he was ever interested in the construction of the letters of the alphabet. This is abundantly clear from the inscriptions that appear in his work, like the fragmentary capitals below the fresco of the Resurrection of Christ in his native town (about 1463, letter height 5 cm: HVMAN . . . RTE)³⁵ and the verse on the back of his portraits of Federico da Montefeltro and his wife Battista Sforza (about 1465). The two inscriptions were done a few years before the erection of the Capella Rucellai. In the verses, which occupy several lines, M is used with M, and E with E, and the letters are not far from the traditional forms adopted by Ghiberti, Brunelleschi and Pisanello.

Pacioli learned the new way of making the roman capital letter from Alberti, and he certainly absorbed this system, but it was only much later that he had the idea of adding a geometrical construction

31. Roma, Biblioteca Casanatense, cod. 120. I owe this reference to my friend Augusto Campana.

32. Hartmann Schedel, 'Ars Alphabetum', Munich, Staatsbibliothek, Clm. 961.

33. A facsimile of the alphabet, superbly printed, was published by Stanley Morison. See *Fra Luca de Pacioli of Borgo San Sepolcro* (New York, 1933), pp. 29–73.

34. L. Pacioli, *Divina proportione* (Venezia, Paganino de Paganini, 1509), part 1, chap. viii, f. 29^v. 'el nostro compatriota Leonbatista del alberti Fiorentino con lo quale più e più mesi ne l'alma Roma al tempo del pontefice Paolo Barbo da vinegia in proprio domicilio con lui a sue spesi sempre ben tractato, homo certamente de grandissima perspicacità e doctrina in humanità e rethorica . . .' (our fellow-countryman Leon Battista Alberti of Florence, with whom I was a guest in Rome, at his expense and well cared for, during some months during the pontificate of Paolo Barbo [Paul II 1464–71]. He was a man of great acuteness and learning in the humanities and rhetoric).

35. The fragment seems to have been neither observed nor commented on by critics.

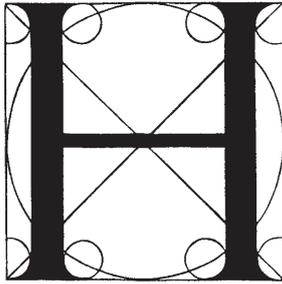


Figure 16. Luca Pacioli:
construction of letter H.

of the alphabet to the printed edition of his treatise on the *Divina proportione* in 1509. By this date the use of classical inscriptional capitals had become so general that it is difficult to show that Pacioli's work is derived directly from Alberti. There are naturally some resemblances, but Pacioli is independent. The construction of the alphabet was an inevitable problem for him to undertake, as a mathematician and a man who endeavoured to understand the *nobile* symmetry, in his role as the friend of all the important artists of his time. His woodcut letters are 9.5 cm high, printed in solid black, and their proportion is 1 to 9. They thus make a considerable and a monumental effect. As for their form, he outdoes all his predecessors. His models which are more precise and easier to construct, demonstrate with their many little circles (figure 16) his taste for geometrical designs. His captions follow existing models and do not differ much from those of Feliciano and Moyllus.

Feliciano, Alberti and Moyllus are the trio who were responsible for the initiation, the spread and the definitive form of a new type of alphabet derived from the Roman inscriptional letter under the influence of the spirit of humanism. The period was a short one, only fifty years, but we still experience the effect.

editor's note: After Giovanni Mardersteig's essay in 1959 a handful of contributions relevant to his subject appeared, some of which are listed on p. 4 of this volume. Among more recent scholarship, two studies of Alberti's later lettering are of special interest: C. M. Sperling, 'Leon Battista Alberti's inscriptions on the Holy Sepulchre in the Capella Rucellai, San Pancrazio, Florence' (*Journal of the Warburg & Courtauld Institutes*, 52, 1989, pp. 221–8 & plates 42–7); and R. Tavernor, 'I caratteri albertiani dell' iscrizione del Sepolcro Rucellai a Firenze', in J. Rykwert & A. Engel (eds), *Leon Battista Alberti*, Milan, 1994.