TOWARD A MORE COMPREHENSIVE RENAISSANCE PALAEOGRAPHY

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Of all the accomplishments of the cultural renewal in the fifteenth century the basic change in the symbols of writing has proved one of the most durable, for its results are still clearly with us today. Though the story of the abandonment of "Gothic" and the restoration of "Roman" has, of course, often been told, it has nevertheless been told briefly, with interest concentrated on the early stages of the development and on the design of type in the first printed books.[1] But even for the initial period at the beginning of the fifteenth century many of the important documents have not been published, so that despite a few valuable essays we are still not well informed about the sources or the contributions of the pioneers, such as Niccolò Niccoli and Francesco Poggio. This lack of close investigation is probably due to the weakness of a motive that usually serves as a powerful stimulant of palaeographical studies: the wish, indeed the need, to classify objects or documents on grounds of script. Our comparatively greater knowledge of the production of Renaissance art and history has checked the growth of interest in their script. This is regrettable for aesthetic as well as historical reasons, because few periods in Western history have produced writing of such great beauty.

The existing studies are centered on the early texts of the humanists (always unillustrated) and their correspondence, largely to the exclusion of contemporary or indeed later illuminated manuscripts, and almost all attention has been turned to the development of minuscules. Very little has been said about capitals, though we shall before long, I hope, learn from Dario Covi about their vicissitudes in the inscriptions on Quattrocento paintings.[2] Nothing however has been written or, so far as I know, promised on epigraphy. The inscriptions on buildings or, more important, on sculptures have simply been omitted from palaeographical discussions.

Without a consideration of the epigraphs of the time, studies of Quattrocento majuscules are especially incomplete because it was the Roman epigraph, not Roman script, that could and did communicate to subsequent ages the most refined and the most majestic specimens of the revered *litterae antiquae*, and the forms of these ancient epigraphs were in general studied by architects and sculptors rather than by humanist scribes. Though Renaissance scholarship is thus laggard in palaeography and nonexistent in epigraphy, yet it is not, curiously enough, in one respect far behind the long-established disciplines centered on the ancient world. For it is only in recent years that scholars have sought to draw Roman palaeography and Roman epigraphy together into a more comprehensive historical study.[3] This marriage of disciplines, or at least of fields, has occurred for a specific purpose: a more adequate history of Roman writing viewed aesthetically, as style.

1. See especially S. Morison, "Early Humanistic Script and the First Roman Type," *The Library*, XXIV, 1943, pp. 1-29; P. Lehmann, "Aufgaben und Anregungen der lateinischen Philologie," *Sitzungsberichte der philosophisch-philologischen und der historischen Klasse der Bayerischen Akademie der Wissenschaften*, 1918, pp. 16ff. (hereinafter referred to as Morison and Lehmann, respectively); B. L. Ullman, *Ancient Writing*, New York, 1932, pp. 140ff.; G. Battelli, *Lezioni di Paleografia*, Città del Vaticano, 1949, pp. 245-249; A. Hessel, "Die Entstehung der Renaissanceschriften," *Archiv für Urkundenforschung*, XXVIII, 1935, pp. 1-14; D. Thomas, "What is the Origin of the *Scrittura umanistica*?" *Bibliofilia*, LIII, 1951, pp. 1-10; F. Steffens, *Lateinische Paläographie*, 2nd ed., Treves 1909, pp. XXIIIff.

I feel grateful to Dr. James J. John and Rev. Edward W. Bodnar, S.J., for valuable suggestions and to Professor E. A. Lowe for the loan of books from his rich library.

2. Meanwhile see his brief "Lettering in the Inscriptions of 15th Century Florentine Paintings," *Renaissance News*, VII, 1954, pp. 46-50 (hereinafter referred to as Covi).

3. J. Mallon, *Paléographie romaine*, Madrid, 1952; J. S. and A. E. Gordon, *Contributions to the Palaeography of Latin Inscriptions*, Berkeley, 1957; J. Mallon, R. Marichal, and C. Perrat, *L'écriture latine de la capitale romaine à la minuscule*, Paris, 1939.

A similar union in Renaissance studies is much to be desired. In the art of this period, letters, for one thing, may become free-standing lapidary monuments, as I pointed out a few years ago.[4] They may assume a monumental scale on buildings, as in the handsome inscriptions *all'antica* inlaid in the friezes of Alberti's façade of the Tempio Malatestiano, of Santa Maria Novella, or of the *Sepolcro Rucellai* (Fig. 21). Artists themselves crossed the boundaries between palaeography and epigraphy by introducing into paintings the *simulated* epigraph (Figs. 23, 24, 26). It may be that the normal differences between writing (even formal) on the surface and cutting in stone, which reflect a difference of function as well as technique, are diminished during this time. Apart from "counterfeited" inscriptions, however, writing still tends to differ inherently from incision, so that a comprehensive palaeography is complex and difficult.

The present paper can of course do little more than stress the usefulness of this larger enterprise; the task itself will have to be undertaken by specialists. It does, however, seem possible even now to show that efforts in this broader field will be fruitful. That much seems indicated by the exploration of one problem, limited though the exploration be by the inexperience of a layman. The problem is one with which I had to deal in a still more benighted state three years ago: the emergence around the middle of the century of what I identified as a new type of majuscule. The considerations that follow were stimulated both by the recognition at that time of the inadequacy of our knowledge and by questions about sculptors' inscriptions put to me by H. W. Janson and Richard Krautheimer, who have generously helped me begin to answer them by supplying excellent detail photographs of statues by Donatello and Ghiberti.

There is no need to dwell here upon the early stages of the great palaeographic reform, upon Petrarch's modification of the current *bastarda* to produce a more legible and more beautiful—because more antique—script,[5] nor upon the creation in the early fifteenth century in Florence of the *scrittura humanistica* (Figs. 1 and 2). The humanists responsible for this innovation, chiefly Niccoli and Poggio, shaped their script upon models variously identified as Carolingian (Fig. 33), Ottonian, or Romanesque, all judged by the early Quattrocento to exemplify *lettere antiche*. The capitals developed by these humanists have a delicacy, attenuation, and simplicity that may be compared with early Quattrocento forms in sculpture or architecture. In the script of Niccoli (Fig. 1), as of his contemporaries generally, the letters are set closely, and the vertical accent is enhanced by raising L and occasionally other letters above the line. To produce a sparkle, small spidery horizontal serifs (or even pendant ones on L) are common, and the horizontal bars of E and F cross over the verticals. There is not much shading, that is, variation in the width of the strokes in the several parts of a letter. The foot of R in the specimen reproduced, for instance, is lighter than the vertical and the bowl, but the three strokes of N and the two legs of A are approximately equal in weight. F, curving above the other letters, preserves a little of the ornamental individuality of Italian *bastarda*, which Petrarch had characterized as *vaga ac luxurians* but tiring to read.[6]

Poggio's F was still more florid than Niccoli's, and he adopted a cross-barred I, which gave this letter a greater accent and a closer relationship to E, F, and other capitals.[7] Antonio di Mario elaborated these forms in the second quarter of the century, introducing occasionally for greater variety such a form as uncial E (Fig. 2). Amidst a considerable variety of manners in Florence at this time his script may represent for us the ornamental tendency, while an example of the

4. *Andrea Mantegna as Illuminator: An Episode in Renaissance Art, Humanism, and Diplomacy*, New York, 1957, pp. 52-78 (hereinafter referred to as Meiss).

5. See especially Morison. For comments on Petrarch see O. Pächt, "Notes and Observations on the Origin of Humanistic Book-Decoration," in *Fritz Saxl: A Volume of Memorial Essays*, London, 1957, p. 186.

6. Lehmann, p. 17.

7. Morison, p. 15, derives the cross-barred I from Byzantine models.

fifties from the shop of the great stationer Vespasiano da Bisticci, still in the same fundamental style, shows a greater clarity and simplicity (Fig. 3).[8]

If now after this thumbnail sketch of the advanced Florentine majuscule in humanist texts of the first half of the fifteenth century we turn to the first epigraphs of the great sculptors, we recognize in the words on the scroll of Ghiberti's *Baptist*, made in 1412-1416, a style basically related to humanist script (Fig. 4). The letters are equally light, closely set, and as tall as the written specimens we have reproduced. Still, there is a difference. Ghiberti's letters were not produced, like the script, freehand. They follow a studied, carefully drawn pattern, and they possess both greater regularity and stability and greater refinement. Each of the letters, including its delicate serifs, is endowed with internal symmetry and balance. They reflect a desire for a style that is, in the words of Lorenzo Valla, *planius, apertius*, and *distinctius*.[9] These beautiful capitals seem to presuppose a return to ancient sources themselves, to Roman epigraphs (Figs. 9 and 10).

In subsequent work Ghiberti somewhat modified his majuscules: on both the book of *St. Matthew* (1419-1422) and the signature on the North Door the letters gain in weight but not in character.[10] But when, later in his career, inscriptions assumed a special prominence on his monuments—the *Shrine of the Three Martyrs* (1426-1428)[11] and the *Shrine of St. Zenobius* (1439-1440, Fig. 5)—he rendered them in a style remarkably like that of the scroll of the *Baptist*. In his account of his own career he refers to the majuscules on the *Shrine of St. Zenobius* as *lettere antiche*,[12] and he would surely have characterized the inscription on the early *Baptist* in the same terms.

A palaeographic style similar to Ghiberti's, and like his possessing some of the general qualities of humanist script, may be recognized on the major monuments of Florence up to the late sixties. The light, attenuated, close-set capitals were employed by Luca della Robbia on the *Cantoria* of the Florentine cathedral (ca. 1435; Fig. 6), by Bernardo Rossellino on the tomb of the Beata Villana in Santa Maria Novella (1451-1452; Fig. 7), and by Benedetto da Maiano on the tomb of St. Savinus in the Cathedral at Faenza (1468-1470).[13] Each of these sculptors, and indeed each of these epigraphs, has of course a distinctive style. Luca della Robbia, for instance, uses a curling flourish to indicate the unusually numerous abbreviations on the *Cantoria* (Fig. 6). The capitals on Desiderio's epitaph on the Marsuppini tomb in Santa Croce (1453-1454) are somewhat stumpier, and the horizontal rhythm of the line is stronger.[14] But the similarities in these inscriptions are greater than the differences. They all possess what Ambrogio Traversari described as *puritas* and *suavitas*.[15] There is continuity and what may be called, I think, a strong palaeographic tradition.

This Florentine tradition of the early Quattrocento is best represented perhaps by an inscription that with regard to form as well as content was the subject of special consideration in Florence—the epitaph on the tomb of the great citizen and scholar Lionardo Bruni made by Bernardo Rossellino in the late forties (Fig. 8). In this beautiful inscription the grace and austerity of the Florentine epigraphic style are combined. The letters are tall, narrow, and closely set. Individually light in weight, they unite to form a compact word, which in turn fits tightly into the line. Within such controlled geometric simplicity whimsy and flourish have no place. There are only two ligatures, in MIGRAVIT and, partially, in GRAECAS. Even the animation of serifs is curtailed, and shading is limited essentially to the slight clubbing of the bar at its terminus. The several parts

8. For another specimen probably from Vespasiano's scriptorium, see Meiss, fig. 68. Here the capitals, laid in gold, are heavier.

A manuscript of the fifties from this scriptorium could, according to Morison (p. 17), still be influenced by Donatello's epitaph on the Pecci tomb (Fig. 12).

9. Lehmann, p. 23. Majuscules similar to Ghiberti's on the *Baptist* may be seen on the slightly later tomb of Maso degli Albizzi († 1417) in San Paolino, Florence (M. Lisner, "Zu frühen Bildhauerarchitektur Donatellos," *Münchner Jahrbuch der bildenden Kunst*, IX-X, 1958-59, fig. 12).

10. R. Krautheimer and T. Krautheimer-Hess, *Lorenzo Ghiberti*, Princeton, 1956, pls. 7, 27.

11. *Ibid.*, pl. 76.

12. J. von Schlosser, *Lorenzo Ghibertis Denkwürdigkeiten*, Berlin, 1912, p. 48. See Krautheimer, *op.cit.*, p. 147.

13. L. Dussler, *Benedetto da Maiano*, Munich, 1924, pl. 1.

14. L. Planiscig, *Desiderio da Settignano*, Vienna, 1942, pl. 23.

15. Lehmann, p. 23.

of a letter are quite even in weight: the two legs of H or of A, for instance, or the vertical and the three horizontals of E. The two serifs of T or of C are almost identical. Though the individual capital is not conspicuous for its independence in the line, each possesses an impressive symmetry and balance.

While the origin of the new book-hand of the early Renaissance has been traced to models produced during or in the wake of the Carolingian reform, it is generally assumed that the new epigraphy was derived directly from the ancient monuments themselves. It is assumed also that the ancient monuments presented to the Renaissance a single more or less invariable, paradigmatic style. Epigraphs were, however, produced throughout the course of Roman history, and the examples visible in the fifteenth century must have extended over a period of at least six or seven centuries. These extensive Roman remains differed considerably in character, and it is legitimate to ask whether the Quattrocento artists recognized these differences—whether, in other words, Florentine style resembles one era of Roman epigraphy more than another. The possibility of answering this question depends at the outset upon a developed history of the palaeography of Roman epigraphs. Though epigraphy is an old discipline, a stylistic history of this kind has only been proposed and begun in recent years, especially by A. E. and J. S. Gordon in publications of 1957 and 1958. The Gordons have published only their work on Imperial epigraphs in and around Rome from Augustus to Nerva; the volume on the Republican period is to follow.[16] Still, they have identified and partially characterized two periods: Republican, and Imperial to the end of the second century.

Early Renaissance epigraphs in their larger aspects seem to resemble Republican examples: Republican letters are equally light in weight, their module or proportion is similar, and they are set comparatively close in the line (Fig. 9).[17] Foreign to both these groups is the wide and even spacing of capitals in Imperial epigraphs (Fig. 10).[18] Shading in lapidary lettering—the varying width and depth of the members—is undeveloped in both early Renaissance and in Republican epigraphs, but it began to be employed in antiquity early in the first century A.D.[19] The use, indeed, of members of different breadth and depth in one letter is one of the major innovations of Roman epigraphy at the beginning of the Imperial age.

In all these qualities early Florentine epigraphs remind us of pre-Imperial ones, and there are some subtler relationships also, such as a symmetrical A. In detail, however, the similarities with Imperial epigraphs seem to be more numerous, although the range of variations in both periods remains to be established, and generalizations cannot now be based on very solid foundations. The second cross-bar in the Florentine E and F, usually as long as the first, approximates the slightly diminished Imperial bar more than the greatly reduced Republican one.[20] O is oval, closer to the Imperial oval than the Republican circle. In the Republican R the foot usually takes off from the vertical, whereas in the early Renaissance, as in the Empire, it drops from the bowl.

It would be gratifying to assert that the early Florentine humanists, who were greatly attracted by Republican Rome and who revised the date of the decline of that nation in accordance with their preference for the Republic over the Empire, manifested a corresponding preference for Republican epigraphy also. I know, however, of no contemporary statement that would suggest that the humanists had learned consciously to distinguish the style of the two eras. The early epigraphers, like their modern successors, were preoccupied with content and relatively indifferent to style. Neither the sylloge of Ciriaco nor—still less—those of Marcanova and Feliciano disclose,

16. J. S. and A. E. Gordon, *Contributions to the Palaeography of Latin Inscriptions*, Berkeley, 1957; A. E. Gordon in collaboration with J. S. Gordon, *Album of Dated Latin Inscriptions*, Berkeley, 1958, 2 vols.

17. For additional reproductions of Republican epigraphs see *Album*, nos. 3 and 60; J. E. Sandys, *Latin Epigraphy*, Cambridge, 1919, figs. 31, 33.

18. *Contributions*, p. 214. *Album*, no. 154, is cited as an example of the new spacing.

19. *Op.cit.*, pp. 80-81.

20. *Idem*, p. 210.

so far as I can see, an intention to attain a high visual fidelity to Roman models. More important, the facts of the relationship of Roman and Renaissance epigraphy would not seem to support the supposition of such a preference. The problem is greatly complicated, in addition, by the variations in Roman epigraphical style in regions distant from the metropolis.

The truth may be that the Florentines, with their strong convictions about style in all the arts, were translating Imperial epigraphy into an idiom that happened to resemble Republican. There is also the possibility that the style of another era played a significant role. I refer to pre-Gothic or Romanesque, especially Florentine (Fig. 11), which, despite occasional uncials, irregular lines, and intertwined letters, often has capitals of very similar weight, module, and symmetry.[21] Inscriptions of this character were to be found on the buildings of the eleventh and twelfth centuries which sculptors and architects such as Brunelleschi, Donatello, and Ghiberti were then studying intently, and the whole phenomenon of a connection between Renaissance and "proto-Renaissance" epigraphy would be an intriguing subject of study.

In the preceding account of the inscriptions of Quattrocento sculptors those by Donatello were omitted, for reasons that will shortly become apparent. One of the earliest, and the longest, is on his tomb of Antonio Pecci, who died in 1426 (Fig. 12). The artist's signature, strangely placed and a little cruder than the epitaph, seems to have been an afterthought.[22] The rather spindly letters of the epitaph look as though they had been drawn freehand, and they have indeed the shapes as well as the fluency of contemporary script (Figs. 1 and 2). I is barred in the manner favored by Poggio and Antonio di Mario (Fig. 2). The foot of R takes off from the vertical, as in early humanist script, and not from the bowl, as (usually) in epigraphs.[23] Inscriptions on the earliest Renaissance paintings—on the *St. Anne* of about 1422 by Masolino and Masaccio,[24] and above the skeleton by Masaccio in Santa Maria Novella (Fig. 13)—resemble the Pecci epitaph and seem to derive likewise from contemporary script, but the letters are somewhat heavier and more regular.

The two very similar signatures on the bases of the *Zuccone* (probably 1423-1425) and the *Jeremiah* (probably 1427-1435)[25] are more refined and more authentically epigraphic than the Pecci epitaph, and they resemble more the inscriptions of Ghiberti (Figs. 14 and 15). There are subtle differences between the two signatures and the one on *Jeremiah* shows a more open P, epigraphic evidence, it may be, that supports the later dating of this statue on grounds of style.[26] The character of the epitaph on the sarcophagus of Coscia (probably 1426-1429) is, however, quite different, showing more regular, exceptionally bold-faced, though still closely-set letters. Since we know that on this tomb Donatello had associates, Michelozzo, Pagno di Lapo, and others, it seems probable that one of them was responsible for the design of this rather cold and pretentious inscription.[27]

After the signature on *Jeremiah* the next extant inscription on a work by Donatello is the signature on the pedestal of *Gattamelata* (Fig. 16). Documents prove that the pedestal was under construction in 1448, and the signature must be of that date, or at most a year or two later.[28] The inscription has been photographed from below, so that the letters appear shortened, but it is nevertheless evident that Donatello's epigraphic style—there seems to be no good reason for

21. See also the inscription over the main door of the Badia at Fiesole (M. Salmi, *L'architettura romanica in Toscana*, Milan, n.d., pl. CCXXI).

22. H. W. Janson, *The Sculpture of Donatello*, Princeton, 1957, II, p. 77 (hereinafter referred to as Janson).

23. An earlier form of E is preserved.

24. U. Procacci, *Masaccio*, Milan, 1951, pl. 1. The inscription in the halo of St. Anne is much more traditional in character and related to the *bastarda*. S is reversed, reminding us of the reversed N in Ghiberti's signature on the *Gates of Paradise*.

25. The reference to the reproductions of these two signatures in Janson, II, p. 77, reverses their identity. For the dates of Donatello's sculpture I follow Janson's catalogue.

26. See Janson, II, pp. 38-39.

27. Janson, II, p. 65, concludes that the design of the sarcophagus may have been Donatello's but the execution must be attributed to a mediocre collaborator. For a reproduction see *ibid.*, I, pl. 86a.

28. *Ibid.*, II, pp. 151ff. The majuscules in the panel at the left in the *Heart of the Miser* of 1447 are crude and difficult to judge (*ibid.*, I, pl. 310). The A and N, rather broad and widely spaced, perhaps anticipate the inscription on the *Judith* as well as Mantegna's *St. Euphemia*.

questioning his authorship—has changed. While the signature is still reminiscent of the earlier Florentine tradition, the letters are broader and the serifs are larger. The shapes of the capitals, more carefully studied, are regular and geometric.

The new tendencies are more developed in the signature on the *Judith* of 1456-1457, the last inscription by Donatello that has come down to us (Fig. 17). In it we recognize a new style. The module has been radically altered to produce broader letters. The strokes or bars are wider and deeper, and shading has been greatly increased. In O, for example, the thinnest sections (as usual in Roman and Renaissance epigraphs, on an axis just to the left of the perpendicular) are not more than a quarter the width of the thickest sections. There is a crescendo of weight in the three bars of A, from the horizontal to the left leg to the right leg. N has a diagonal that is about twice the width of each of the verticals. The bowl of P, which is open, diminishes as it approaches the vertical. The vertex of A is not simply a ridge but notched on the left. Serifs are larger and they move out into the proportionately wider spaces between the letters. Altogether each of the letters possesses a novel weight and independence and also a novel linear and plastic energy.

Two or three years before Donatello signed the *Judith*, Mantegna wrote his name on a *cartellino* in his painting of *St. Euphemia* in Naples (Fig. 18). This is one of the earliest *cartellini* known to me. Perhaps the first surviving example is in Fra Filippo's *Madonna* now in the Palazzo Barberini, Rome. The panel was painted in 1437 shortly after the master had visited Padua and thus, though prepared by Trecento ventures into still life, the *cartellino* may have been inspired by an illusionistic inscription on a Netherlandish painting that Fra Filippo had seen in that city.[29] Mantegna, working in the same center, sought to give a similar but more effective facsimile of soiled and crumpled paper, though he preferred to keep the letters themselves free of such accidents of nature. One wonders whether Mantegna's *cartellino* was inspired by the same models that presumably affected Fra Filippo; indeed there are other aspects of the *St. Euphemia*, as we shall see below, that raise the suspicion of Netherlandish inspiration. Still, the illusionism of both Lippi and Mantegna assumes a different specific form: a *cartellino* rather than the simulated epigraph favored by Jan van Eyck. Jan's inscriptions frequently give the illusion of incision; they are identified, in other words, either with the frame or the architecture of the painting. Mantegna, on the other hand, gives the impression of adding to a finished "monument" of great durability a casual, temporary ticket of authenticity written on a scrap of paper he happened to have around the shop. A little later Pollaiuolo employed a related means of authentication, but with a more antique connotation (Fig. 10), in his *Battle of the Nudes*, hanging a *tabula ansata* incribed with his name on the branch of a tree. In this way the Italian Renaissance painter separates himself more from his handiwork.[30]

The palaeographic form of Mantegna's signature is remarkably similar to Donatello's on the *Judith* (Fig. 17). It possesses every one of the sculptor's qualities that we have enumerated, even the heavy diagonal of N, the notched vertex of A, the broad, tapering bowl of P, and the long, fine serifs. The only conspicuous divergence is Donatello's use of large interpuncts—stylistically consistent with the letters as sharply pointed rhomboids with concave sides. Otherwise, there are a few differences of detail: Mantegna's E has a shorter middle bar, and the two serifs on Donatello's T are oblique and parallel whereas the one at the right in Mantegna is vertical.

There would certainly seem to have been some palaeographic exchange between these two artists, both working in the same town until late 1453, when Donatello left Padua for good after about ten years of residence.[31] The known dependence of the young Mantegna's art upon Dona-

29. Meiss, "Jan van Eyck and the Italian Renaissance," in *Venezia e l'Europa*, Venice, 1956, pp. 62-63.

30. The illusionistic *cartellino* is adopted with enthusiasm by Squarcione and by members of his workshop (Zoppo from 1453, Schiavone from 1456), and from Padua it was diffused, like other elements of Mantegna's style, to Venice and all over North Italy.

I owe the photograph of Mantegna's signature on *St. Euphemia* to the kindness of Dr. Ferdinando Bologna.

31. Janson, II, p. 188.

tello's would lead us to suppose *a priori* that in matters of palaeography the relationship between the two was of the same order. Certainly an early stage of the new majuscules appears on the pedestal of *Gattamelata*, and Mantegna must have learned in this sphere too from the great Florentine sculptor. The refinement of the new letters was however in part at least the work of the painter. He strengthened, for instance, the soft P that still appears in Donatello's signature on the *Judith*, and he differentiated more decisively between the horizontals of E. It is in his letters that the new qualities are more consistently developed.

The signature on the South Pulpit in San Lorenzo is in the style of that on the *Judith*, but later, weaker, and disturbed by a curious graduated diminution from the top to the lowest row of letters. It is probably imitative and posthumous, as has been suggested,[32] but in any event it shows that the new style was established in Donatello's workshop. This style seems to have affected also the "signature" DONATELLO on the statue of "St. John" on the campanile.[33] The letters, though preserving much of the earlier Florentine character, are squarer and spaced more widely, so that the inscription would seem to have been applied, not around 1430, but after the late fifties, perhaps in imitation of the epigraphy of the twenties. Its style would thus seem to confirm the opinion, already advanced for other reasons, that it is not a genuine signature but was inscribed at the time of the rearrangement of campanile statues by the *operai* in 1464.[34]

In general Donatello's new epigraphic style seems not to have had much effect in Florence, either on scribes (Fig. 3)[35] or on sculptors. In the late Quattrocento in that city as elsewhere in Italy there was, it is true, a tendency towards squarer letters, wider intervals, and greater shading, as on Antonio Rossellino's tomb of the Cardinal of Portugal in San Miniato. Two superb inscriptions of the late sixties and early seventies—Alberti's on the *Sepolcro Rucellai* (Fig. 21) and Verrocchio's, probably influenced by Alberti, on the Medici tomb (Fig. 22)—show nevertheless the persistence of the restrained measure and spare elegance—the *puritas* and *suavitas*—of the Florentine tradition. The letters, with very small serifs and almost imperceptibly graduated variations of weight, very nearly fill the space in which they are placed. They have a new strength and majesty, and they seem to rise in the frieze like caryatids that support the cornice above. The majuscules of the greatest artist active at the court of Urbino are consistent with the palaeographic conservatism of central Italy. In the important inscriptions on his portraits of the Duke and Duchess, painted probably in the late sixties, Piero della Francesca still avoided serifs and employed uncial E as well as the non-classical M with the apex of the central angle high above the base line rather than in it.

We possess no inscription that can definitely be ascribed to Mantegna before the signature of 1454. The letters around the monogram in the fresco on the Santo have been repainted, but the epigraph below this fresco bearing the date 1452 is generally assumed to have been cut into the stone after a drawing by the painter (Fig. 19). Its content is pretentious, but the signature on the lost altarpiece of 1448—ANDREA MANTINEA PAT. AN. SEPTEM ET DECEM NATUS SUA MANU PINXIT. . . .[36]—is not without exceptional self-consciousness and pride either. The letters of the epigraph on the Santo are related to those of 1454, but taller, more symmetrical, and more closely set, in short more traditional. The straight serifs and the general rigidity may be due to the more refractory

32. *Ibid.*, II, p. 215.

33. *Ibid.*, II, p. 230 and I, pl. 434b.

34. The inscription on the figure's scroll, EGE AGNUS DEI, is likewise problematic. Mixed in with the roman capitals are archaisms such as uncial D, and four of the letters bear curling marks of abbreviation like those on Luca della Robbia's *Cantoria* (Fig. 6), but the words are not abbreviated. Capital N is reversed (a corruption found rather frequently, however, in the inscriptions of Ghiberti and some other Quattrocento artists). The words on the scroll were written by an ignoramus; probably, as has recently been suggested, in the late fifteenth century (in 1464 perhaps, at the same time as the supposed signature). A later "forger" would very likely not have thought of corrupting ECCE.

35. For two other examples of Florentine written majuscules at this time, see Meiss, figs. 67, 68. The inscription on Castagno's *Nicholas of Tolentino* of 1456 does show certain newer forms, including Imperial M (but not N), and there are telescoped letters, as in Donatello's and Paduan script. The majuscules are however spaced closely and they show clubbing rather than serifs.

36. E. Tietze-Conrat, *Mantegna*, New York, 1955, p. 3.

material, but the serifs are surprisingly large, the letters heavy, and R and G have forms which do not recur in Mantegna's majuscules. The design of this inscription cannot, I believe, be ascribed to Mantegna, nor even to the period of the painting, without further evidence. The artist's name may be read also in a simulated epigraph on the parapet of a *Madonna* that Professor Fiocco has recently ascribed to Mantegna and to the year 1453 (Fig. 36). The inscription need not detain us, because the date and authorship of this object are, it seems to me, quite different from those Fiocco proposed.

The inscription below the portrait of Marcello in the Arsenal *Passion of St. Maurice*, completed before June 1453, is interesting as one of the early Italian simulated epigraphs, but it is not very instructive palaeographically because, as a cryptogram, it is composed of deliberately outlandish letters.[37] The inscription below *St. Maurice* and the words on the scroll in the *Dialogue* of the same manuscript are written in gold and hence, like all gold letters, less refined than those written in ink. As Dario Covi has rightly pointed out,[38] they resemble closely the titling capitals on adjoining folios, and it seems probable that the scribe rather than the painter is responsible for these inscriptions. One would not expect Mantegna to permit this sort of invasion of his province, and its occurrence might be considered evidence against his authorship of the miniatures. It should, however, be said that the humanist patron Marcello, who composed the text, was unusually close to all aspects of the execution of this manuscript. The majuscules in question, furthermore, are far more Roman than those in the slightly earlier, main section of the manuscript, and they reflect a new experience of some sort.

The signature on the *St. Euphemia* thus remains the earliest certain example of Mantegna's majuscules, but it does not hold this honor alone. For the saint's name is written on the arch in this painting (Fig. 20), the letters somewhat displaced to be sure by the pendant festoons, but large and majestic. Now references to Mantegna's inscriptions have hitherto assumed the existence of only one style. But in *St. Euphemia* Mantegna has used different letters on the arch than on the *cartellino*. For whereas the capitals on the arch resemble in some respects those in the signature—see, for example, the lowest horizontal of E—their weight and shading are greatly reduced, their serifs are curtailed, and their height is increased.

Why, we wonder, should Mantegna have employed these two styles in the *St. Euphemia*? The very light capitals on the arch are certainly not intrinsically more monumental than those on the *cartellino*. Were they then intended as more appropriately Roman for the arch of this late Roman (early fourth century) martyr? Without implying an immediate answer we should say that capitals of similar style appear in the famous epigraph in Mantegna's fresco of the judgment of St. James, painted a little earlier, and this epigraph not only appears on a Roman triumphal arch but is a copy of a Roman inscription (Fig. 23). This inscription, we know, was on a votive stone that stood at Monte Buso, Este, and the whole was exactly the kind of monument that Mantegna and his friends, including the epigraphers Feliciano and Marcanova, hoped to find as they set out on the celebrated archaeological expedition of 1464.[39]

It is, in fact, Marcanova who, in his collection of Roman epigraphs begun in 1457 in Padua and finished in 1460 in Bologna (Fig. 32), informs us where the stone was.[40] The epigraph was used also by Jacopo Bellini, as is well known, for one of his more or less fanciful monuments in the Louvre codex.[41] Jacopo's version differs slightly from Mantegna's. One would of course expect Mantegna, the great antiquarian, to be more accurate, but—*caveant historici*—the opposite

37. Meiss, p. 27, fig. 6.

38. In a review of Meiss in *Renaissance News*, XI, 1958, p. 128.

39. Meiss, pp. 55-56.

40. Bern, Bürgerbibliothek, MS B. 42, fol. 405. See *Corpus Inscriptionum Latinarum*, V, part 1, no. 2528 (no reference is made here to Bellini nor to Mantegna; Meiss, p. 59, incorrectly states there is). A second sylloge by Marcanova, finished in 1465 for the Duke of Cesena, is in Modena, Biblioteca Estense, MS X.L.5.15.

41. V. Golubew, *Die Skizzenbücher Jacopo Bellinis*, Brussels, 1908, II, pl. XLIII.

in this instance is true. In the last line of the fresco S is reversed (shades of Ghiberti!), perhaps testimony to the presence of an assistant not yet initiated into the splendors of the *litterae antiquae*. In the fresco too Pullius Linus is qualified, perhaps accidentally, as IIIIII *vir*, that is, one of the *septemviri*, members of a Senatorial priesthood, whereas in Bellini's inscription he holds the lower and much more common office of the *seviri*.[42] Bellini concurs in this respect as well as in all others (except lineation) with Marcanova and later epigraphers.[43] Other epigraphs by Bellini, however, prove that he was not normally less inaccurate than Mantegna.[44]

Mantegna is again not quite correct in the epigraph on the arch in the fresco of St. James on the Way to Execution (Fig. 24). He has there inscribed in a medallion the signature of the architect of the so-called Arco dei Gavi in Verona, L. VITRUVIUS L. L. CERDO, whom he may have confused with a far better-known architect, Vitruvius Pollio. The actual signature of the architect is said to have appeared twice on the intrados of the arch, and one of the inscriptions, palaeographically related to Mantegna's, has even been tentatively described as a Quattrocento copy of the first-century original (Fig. 25).[45] Mantegna abbreviated the architect's name to L. VITRUVIUS CERDO, but while recorded in full it is corrupted to CAERDO by Marcanova (after Ciriaco?) in the Bern manuscript, to VITURVIUS in the Princeton copy of Marcanova's Modena manuscript, and to VITRURIUS in Feliciano.[46] Perhaps Mantegna's inscription was drawn directly from the original, which is in two lines. To adapt this to a medallion the painter used three lines. He made the letters in the lower lines much squarer than those above, he dropped L. L., and he separated, *horribile dictu*, ARC from HITETUS. Worse still, he shortened and, as it seems, italianized the last word by dropping a C.[47] This inscription is a year or two later than the one in the *Judgment* (Fig. 23). Its style is different, and the last two lines, with their squarer letters, resemble the signature on *St. Euphemia* (Fig. 18).

Because of Mantegna's error in the epigraph in the *Judgment* as well as the more obvious fact that many of the letters are concealed by the figures (Fig. 23), we can be certain that his inscription in the fresco was not the source of Bellini's. The reverse however is possible, especially because Bellini's inscription appears properly on a votive stone. The tall, light, close-set letters, on the other hand, though used elsewhere by Mantegna, are unusual among Bellini's simulated epigraphs. Bellini's other inscriptions show squarer, more widely-set letters, visible also in the signature on the Lovere *Madonna*, and if they can be dated before 1450 they are harbingers of the new style of the mid-century.

The sources of Mantegna's inscriptions, whether the Roman original or a sylloge, remain to be ascertained, but the fidelity of their *style* to the Roman model varies, in any event, according to another principle. Though the votive stone in Monte Buso no longer exists, the inscription on it can be dated in the late first or second centuries.[48] The epigraph as it appears in the fresco of the *Judgment*, however, is not characteristically Imperial (Fig. 23), at least not Imperial in the

42. J. E. Egbert, *Introduction to the Study of Latin Inscriptions*, New York, 1896, pp. 169, 187. This difference between Mantegna's and Bellini's epigraphs has been noticed by A. Moschetti, "Le iscrizioni lapidarie romane negli affreschi del Mantegna agli Eremitani," *Atti del Istituto Veneto di Scienze, Lettere, ed Arti*, LXXXIX, 1929-1930, part 2, pp. 227ff., but with the erroneous statement that the *septemviri* did not exist. Moschetti believes that Mantegna drew directly from the votive altar because he alone records the inscription on its base. There is, however, good reason to believe that this inscription was not on this votive altar but on some other monument. Moschetti's view that Mantegna drew his other epigraphs directly from the Roman original also is not substantiated. Moschetti is not concerned with palaeographical questions.

43. See *CIL*, *loc.cit.*

44. Golubew, *op.cit.*, pls. XLIII, XLIV. Thus in pl. XLIIId ACUTS should read ACUTIO (*CIL*, V, 1, no. 2553). In pl. XLIVa he dropped the D from D · MANIBUS (*CIL*, V, 1, no. 2623), and committed other errors.

45. This is the opinion of C. Anti, "L'Arco dei Gavi di Verona," *Architettura e Arti Decorative*, I, 1921, pp. 121-138, and fig. 11. See, however, P. Marconi, *Verona Romana*, Bergamo, n.d. (1937), p. 100. Prof. Raffaelle Brenzoni, who has kindly looked briefly into the confused question for me, reports that it is not certain that a second inscription ever existed. This arch was dismantled and the stones stored in the Arena until some thirty years ago, when it was reconstructed.

46. For Marcanova's Bern MS (1457-1460) and Feliciano see *CIL*, V, 1, no. 3464. See also the copy of Marcanova's sylloge of 1465 in the Princeton University Library, Garrett MS 158, fol. 105v. The Vatican copy of Feliciano's sylloge records the inscription correctly (Vat. lat. 5257, fol. 32).

47. In the inscription from the Arco the two letters T in ARCHITECTUS rise above the line, whereas in Mantegna's version the T in VITRUVIUS is elevated.

48. I am indebted for this date to Professor Johannes Straub.

sense of metropolitan Rome (Fig. 10). Letters very similar to those in the *Judgment* may however be seen on the arch of *St. Euphemia*, so that we may conclude that they represent Mantegna's majuscular style of 1453 (when the *Judgment* is often dated) and 1454. The signature of the architect Vitruvius in the *Way to Martyrdom* (Fig. 24), usually dated 1454-1455, exhibits two styles, that of the upper line similar to the inscriptions of the *Judgment* and the arch of *St. Euphemia*, that of the two lower lines closer both to the signature on *St. Euphemia* and, so it seems, to the Imperial epigraph itself (Fig. 25).

It was apparently in 1454-1455, then, that Mantegna made a palaeographic change, first in a small signature where he could be more venturesome, and then some months later on a larger scale in a fresco. The new style, more boldly announced in the signature, approximates Roman Imperial epigraphy not only with regard to details of shape but also in its module and shading (Fig. 10). In other words those qualities, identified above, that are novel in Mantegna's signature of 1454 and that relate it so closely to Donatello's signature on the *Judith* (Fig. 17), are characteristic of epigraphic style in Rome from approximately the beginning of the Imperial era, as we have described it above. May it suffice to point here to the particular fact that the Imperial ratio of the horizontals to the verticals in E, F, and L, ranging from 2:3 to 4:5,[49] is visible in the signatures on the *St. Euphemia* and the *Judith* but not on the arch of *St. Euphemia* or the *Judgment*.

Mantegna's third epigraph in the Chapel, in the fresco of *St. Christopher*, is in the style of the CERDO ARCHITETUS or the *cartellino*, though it is more refined (Fig. 26). Thus it contradicts the recently revived hypothesis that this fresco is relatively early[50] and it supports the usual view that this is the latest work by Mantegna in the Chapel.

While the similarity of the signature on the *St. Euphemia* with the later simulated epigraphs in the Ovetari Chapel is clear, the capitals of the signature retain a certain distinctiveness because they are intended to appear written rather than incised. They are not geometrically constructed but the work of a free hand. Their peculiarities as written letters are made especially evident by comparison with the incised letters that most closely resemble them, the signature on the *Judith*, even though here when choosing a cushion for the inscription Donatello wanted a rather informal effect (Fig. 17). The strong accents of Mantegna's capitals suggest the influence, alongside ancient epigraphs, of pre-Gothic written letters, perhaps Carolingian (Fig. 33). The originators of the Carolingian reform had already derived from late Roman models letters of considerable weight, strongly shaded. Their capitals possess details, such as T with asymmetrical serifs, that may be seen in our mid-fifteenth century examples. N has a very heavy diagonal and light verticals. In early mediaeval script too (Fig. 33) there appear many telescoped letters of the kind that Donatello introduced in the signature on the *Judith*. The scribe of the Strabo, presumably under Mantegna's influence, used them in the titles (Fig. 29), and Mantegna favored them throughout his career. Late instances may be seen in the *Madonna della Vittoria* in the Louvre.

It is the style of the signature on the *St. Euphemia* or the epigraph in the fresco of St. Christopher that prevails in Mantegna's later work. We may recognize the same module in the Greek signature on the pier of the Vienna *St. Sebastian* of about 1460,[51] and though there are some differences of detail (the bowl of P is closed), the shapes of the letters are very similar: T (with its asymmetrical serifs), O, A, and E (with the accented serif on the lowest horizontal). The same style is used for the trial letters written on the gesso of the St. Zeno altarpiece (1456-1459).[52] In the early seventies it reappears, heavier and more bold-faced, in the titles of the Roman emperors in the ceiling of the Camera degli Sposi (Fig. 27). The letters look as though they had been strengthened by a restorer, but they seem to preserve much of their original character. The axis

49. Gordon and Gordon, *Contributions* (see above n. 16), p. 83.

50. Tietze-Conrat, *Mantegna*, p. 7. For the epigraph on the arch see *CIL*, v, 1, no. 2989.

51. Meiss, fig. 58.

52. *Ibid.*, fig. 65.

of O, to be sure, is vertical rather than diagonal, T has more nearly symmetrical serifs, and there is a horizontal bar across the vertex of A, but the similarities with earlier majuscules by Mantegna are far more numerous than the differences. Well-preserved capitals in the same style from the later career of Mantegna may be seen in the print of the Entombment (Fig. 28),[53] on the scroll or banner of the Baptist in the *Madonna della Vittoria* and the Trivulzio *Madonna* from the late nineties. In the early years of the next century there are the inscriptions in the Louvre allegory, on the tree in *Samson and Delilah* in London,[54] and the scroll in the *St. Sebastian* in the Ca d'Oro,[55] all in a recognizably similar mold.

The most beautiful capitals of this kind are the initials in the Strabo of 1459 in Albi (Fig. 29). Though conceived as little monuments and more carefully contrived, these majuscules are clearly in the same style as the freer letters of the signature in *St. Euphemia* (Fig. 18). Beyond resemblances of weight, shading, and module, there reappear such peculiarities of detail as the long, curling lowest horizontal of E, the broad open bowl of P, and the slanted, concave vertex of A. The majuscules of the Strabo titles, exceptionally beautiful also, closely resemble the initials, though they are a little taller; and A, for instance, has a pointed vertex.[56] But they surely reflect the same exalted conception of the capital, and I have not yet found their equal in any other manuscript. A more precise estimate of the nature of the relationship of this excellent scribe to Mantegna, and of the extent of his contribution to the new majuscular style, awaits additional evidence.

The beauty and advanced character of the initials and the script of the Strabo now proves to be matched by its covering, for, as Anthony Hobson has pointed out recently, the original binding of the manuscript, still preserved in the Bibliothèque Rochegude, is the earliest known European binding tooled in gold.[57]

Among published manuscripts there is nothing datable in the fifties or sixties that matches these letters in character and strength. In a manuscript of Eusebius in the Marciana, dated 1450 and written in Padua,[58] we may surely recognize a style that anticipates Mantegna's of 1454 in module, spacing, shading, and other respects, though uncial E is used for an initial, E in the line shows horizontal bars of approximately equal length, A has a heavy mid-horizontal, the serifs are smaller, and the axis of the letters shifts constantly (Fig. 30). This text was written, it should be remembered, after the beginning of Mantegna's career. The indentations of the ground of the initial, probably suggested by Romanesque forms, anticipate those of the initials in the Strabo (Fig. 29).

Whatever the sources of the palaeographic change, it is clear that Padua was the center of it. Among the painters, the Vivarini were still employing conservative lettering in their polyptych of 1450 in the Pinacoteca at Bologna,[59] and Bartolommeo had "modernized" this very little in his altarpiece of 1465 in Capodimonte, Naples.[60] Squarcione, on the other hand, who was no scribal giant, to judge from the inscription on the Baptist's scroll in the altarpiece of 1449-1452,[61] shows a familiarity with the new style in his signature on the later *Madonna* in Berlin.[62] This style is reflected, too, in the inscriptions of Zoppo,[63] who entered Squarcione's shop in 1453, and

53. The T again has symmetrical serifs.

54. Tietze-Conrat, *Mantegna*, pl. 136.

55. *Ibid.*, pl. 121.

56. Covi, *Renaissance News*, XI, 1958, p. 128, incorrectly says that A in the initials, as in the titles, has a vertex with a sharp angle.

57. "Two Renaissance Bindings," *The Book Collector*, VII, 1958, pp. 265-266. The next example, interestingly enough, is Marcanova's Modena manuscript of 1465.

58. MS 3 [LIX.1] MK. See Meiss, p. 92 n. 15, and Pächt, "Notes and Observations," p. 190 n. 1.

59. L. Testi, *Storia della pittura veneziana*, Bergamo, 1915, II, fig. on p. 384.

60. *Ibid.*, pl. XI.

61. G. Fiocco, *L'arte di Andrea Mantegna*, Bologna, 1927, fig. on p. 117.

62. *Ibid.*, fig. on p. 129.

63. See the signature on the *Madonna* in the Collection of Lord Wimborne (A. Venturi, *Storia dell'arte italiana*, Milan, VII, part 3, 1914, fig. 5).

Schiavone, who arrived there in 1456.[64] In the early fifties, within the Ovetari Chapel itself, the signatures of two of Mantegna's collaborators, OPUS BONI and OPUS ANSUINI, clearly reflect his early manner. The remarkable similarity of these two inscriptions induces, indeed, some speculation about the actual author of them. Giovanni Bellini, too, had looked intently at Mantegna's inscriptions, and his interest in the signature on *St. Euphemia* is proved by his own signature on a somewhat crumpled and torn *cartellino* in the Frick *St. Francis*.

What is known of manuscripts of the time—and by now we may assume that nearly all the best illuminated manuscripts have been published—presents the same pattern of diffusion as panel paintings and frescoes. In manuscripts the new style was employed in humanist texts. While the titles of a pontifical for the cathedral chapter in Padua would, in 1455, still have a traditional character,[65] the *Cosmography* of Ptolemy written there in 1457[66] shows a style about midway between the Eusebius of 1450 and the signature of 1454 or the Strabo of 1459. Many of the new forms may be seen also in a Solinus, *Polystoria*, written in 1457, probably in Padua.[67] The script in this codex shows tilted letters and a rollicking movement that becomes characteristic of the Paduan scribe Bartolommeo San Vito, who in the sixties carried Paduan style to Rome.[68] A more formal manner is employed for the epigraph on a simulated monument in a manuscript of Synesius Cyrenensis, *De Laudibus Calvitii*, written in nearby Vicenza in 1461-1465.[69]

It seems possible that the most competent and the most passionate of the early epigraphers, Cyriac of Ancona, may have contributed to the formation of the new style. The capitals in his later manuscripts, such as Berlin, Hamilton 254, of the early forties (written with Bishop Pietro Donati of Padua), draw away from a calligraphic manner towards the formality of Roman epigraphs (Fig. 31).[70] While these majuscules in some respects anticipate the new Paduan style of the fifties, those in the next important dated sylloge, by one of Cyriac's followers, seem to reflect it. The beautiful capitals in the manuscript begun by, or at least for, Giovanni Marcanova in Padua in 1457 show the new module and spacing, and many of the new shapes—for instance, of C and D (Fig. 32).[71] The second sylloge made for Marcanova and completed in 1465 is in a related but inferior style, and the same may be said of the mediocre script of Felice Feliciano.[72]

Our review of monumental paintings and manuscripts made in the Veneto around the middle of the century points to Mantegna as the perfecter of the new majuscular style.[73] A major contribution by the painter is suggested also by the known fact of his study of ancient remains, and by his association with the epigraphers Marcanova and Feliciano. Feliciano, moreover, dedicated a collection of epigraphs to Mantegna in 1463 and praised the painter's knowledge of antiquity.[74] It is important also to remember that Feliciano said that he had made drawings of Roman majuscules, and he compiled, at a date not yet determined, the first treatise on the proper method of

64. See the signatures on the polyptych in the National Gallery, London; the Madonna in Berlin; or the portrait in the Musée Jacquemart-André, Paris (*ibid.*, figs. 22, 26).

65. A. Barzon, *Codici miniati della Biblioteca Capitolare della Cattedrale di Padova*, Padua, 1950, no. 40, pl. 44.

66. Meiss, fig. 28.

67. Oxford, Bodleian Library, MS Can. Class. Lat. 161; *Italian Illuminated Manuscripts from 1400 to 1550*, Bodleian Library, Oxford (ed. O. Pächt), Oxford, 1948, no. 20, pl. 5. See also Bodley 646, *ibid.*, no. 98, pl. IV, dated ca. 1460 and ascribed, with a question, to Padua.

68. For a specimen of his script see Meiss, fig. 76.

69. See F. Saxl and R. Wittkower, *British Art and the Mediterranean*, London, 1948, no. 36, fig. 1.

70. See D. Fava, "La scrittura libraria di Ciriaco d'Ancona," in *Scritti di paleografia e diplomatica in onore di Vincenzo Federici*, Florence, 1944, pp. 296-305. See also R. Sabbadini, "Ciriaco d'Ancona e la sua descrizione autografa del Peloponneso trasmessa da Leonardo Botta," in *Miscellanea Ceriani*, Milan, 1910, figs. 1-11.

71. Bern, Bürgerbibliothek, MS B 42. I owe the photostat of this manuscript, of which I was unable to find a published reproduction, to the kindness of the Rev. Edward W. Bodnar and Professor Benjamin Meritt.

72. See C. Huelsen, *La Roma antica di Ciriaco d'Ancona*, Rome, 1907, for reproductions of the drawings in Marcanova's Modena MS of 1465; also the articles on the Modena and Princeton MSS by E. B. Lawrence and H. V. M. Dennis in *Memoirs of the American Academy in Rome*, VI, 1927.

For a specimen of Feliciano's script, see Meiss, fig. 90. The usual view, advanced for example by J. Poppelreuter, "Zu Feliciano Felicianis römischen Schriftformen," *Repertorium für Kunstwissenschaft*, XXVII, 1904, p. 59, and even recently by Covi, p. 48, that Mantegna's majuscules were derived from those of Feliciano and other epigraphers has, I think, been disproved by the demonstration in my *Mantegna* and in the present text.

73. That Donatello may have been impressed by other aspects of Mantegna's work has been suggested by Janson, II, p. 216 n. 7.

74. MS 269, Biblioteca Capitolare, Verona. See Meiss, p. 71.

shaping them. His use of the square for the construction of the letters is bound up with their new broad proportion and with that of the Imperial letters which they reflect. The paradigmatic capitals that illustrate Feliciano's text are, however, only mediocre specimens of the style that appeared in Mantegna's signature of 1454 and then, in the prismatic version that Feliciano followed, the Strabo initials of 1459 (Fig. 29).[75] It is noteworthy that Mantegna also wrote a good humanist minuscule.[76] He was active near a great university and in a center famous since Petrarch for antiquarian interests. In this environment the painter was seized with a more passionate desire than any other artist of the century to bring antiquity back to life.

Until evidence to the contrary is produced, the best hypothesis remains now, as it seemed a few years ago, that Mantegna played an important part in the revival of the Roman Imperial majuscule.[77] Furthermore it seems to have been he who gave these letters a prismatic shape and set them like monuments before a patch of vines or other vegetation. This *littera mantiniana*, as I called it, was widely adopted in illuminated manuscripts and it became the standard initial in the Renaissance book. The majuscules themselves represent a late stage in the rapid evolution of modern letters. Though of course change is inherent in the history of majuscules after Mantegna as well as before—it is apparent already in the High Renaissance and in the treatise of Pacioli, as I showed—our Paduan capitals survive at the center of the Western tradition. Their descendants are still with us everywhere today—and not less so on the pages of THE ART BULLETIN.

The new majuscules are of course essentially Roman, but we have already observed the similarity, especially of the "written" versions, with Carolingian or Romanesque letters conceived *all'antica* (Fig. 33). We may ask also whether the strong accents and the large serifs, though not without precedent in this period and in antiquity, echo the Gothic letter and the Gothic wish for rhythmical continuity and vibrancy.[78] It would be consistent for Gothic animation to quicken Mantegna's roman letters just as it does his swaying figures or his curving compositions. If this is true, our alphabet, like other aspects of modern culture, though basically antique, bears memories of mediaeval experience.*

75. A Gothic ancestor of the Mantegnesque prismatic initial may be seen in the borders of the *Grandes Heures* of Jean de Berry, finished in 1409 (Paris, Bibl. Nat., Lat. 919).

Close study of Feliciano's manuscript in the Vatican (Vat. Lat. 6852) proves that he not only advocated geometric construction of the majuscule but applied his principles, in the case of many letters at least. Faint traces of circles, squares, and diagonals, as well as the central prick of the foot of the compass, may be seen on many folios. These geometric forms were drawn in the brownish ink used afterwards to outline the letters and they were erased after the shapes of the letters had been determined. Geometry had, however—as I pointed out in 1957—only a proximate meaning. Feliciano, for instance, preferred a narrow H and he produced it, even though it does not come near to filling the square with which he began.

76. A specimen is reproduced in Tietze-Conrat, *Mantegna*, p. 250.

77. Meiss, chapters III-IV. M. Bonicatti, "Aspetti dell'illustrazione del libro nell' ambiente padano . . . ," *Rivista d' Arte*, XXXII, 1959, pp. 120, 146, says that the present writer's view of the role of Mantegna and of the history of the prismatic capital is incorrect, but against this view he offers only vague and irrelevant generalities.

78. If this is true, the common understanding of the capitals of Mantegna and his period as simply "perfected" imitations of Roman models (a view held recently by, for instance, Covi, *Renaissance News*, XI, 1958, p. 128) is not quite adequate.

For specimens of late Roman written, as opposed to incised, capitals see the Virgil in the Vatican (Vat. Lat. 3256—S. Bassi, *La scrittura calligrafica greco-romana*, Cremona, 1957, pls. LI-LII).

* It is a pleasure to record the appearance of a paper on fifteenth century majuscules, G. Mardersteig, "Leone Battista Alberti e la rinascita del carattere lapidario romano nel Quattrocento," in *Italia Medioevale e Umanistica*, II, 1959, pp. 285-307, which became accessible to me just before receipt of the proof of this article. The author proposes that the first stage of the revival of the Roman *scriptura monumentalis* may be seen in architectural inscriptions in Rimini, beginning with a tablet by Matteo de' Pasti of 1446, and continuing with the monumental inscriptions by, or inspired by, Alberti: first at Rimini (1455-1456), then on the *Sepolcro Rucellai* (our Fig. 2:) and on the façade of Santa Maria Novella. This movement was influenced, he believes, by Felice Feliciano, to whom he rightly I think attributes a lapidary inscription of 1468 in Verona—a very interesting addition to our knowledge of this "*antiquarius*." The last important contribution, Mardersteig claims, was made by Luca Pacioli in the early sixteenth century.

The reader will recognize that this view differs from that presented in the pages above, as well as in the last two chapters of my book of early 1957, of which Mardersteig has remained unaware. I am troubled that I differ from so eminent a connoisseur of type, but I believe that the constriction of the frame of reference for the revival of the Roman letter to a few architectural inscriptions, even if by Alberti, and to two alphabetical treatises does not permit sound conclusions. Thus Matteo de' Pasti's majuscules of 1446 certainly have a place in the history of the revival because of their broad module and geometric shapes. But the M with central point in the base line, cited as novel by Mardersteig, was employed earlier by Cyriac (our Fig. 31), and Matteo's capitals are set very close and wholly lack shading and serifs, both prominent in Cyriac's script and in Paduan examples

APPENDIX: ADDENDA MANTINIANA

I

To be accused of overestimating the achievements of one's colleagues is a real and, I think, not a quite common satisfaction. It is just this, however, with which Miss Helen Franc now gently reproaches me. In 1957 I had characterized the decoding by Henri Martin of the cryptogram on the portrait in Arsenal manuscript 940 as "a feat of great virtuosity, whose results Martin records without a single word about the method he used!"[78] Miss Franc, who is adept at both the composition and reading of secret writing, judges Martin's accomplishment to be nothing extraordinary and the method of deciphering well-known, for a modern scholar at least. She cites, furthermore, the very interesting fact that the earliest known rules for decoding ciphers were compiled by a humanist in the circle of Jacopo Antonio Marcello, sender of the cryptogram, and Jean Cossa and René of Anjou, who received it. These *Regule ad extrahendum litteras ziferatas sine exemplo* were written in Pavia in 1474 by Francesco Simonetta, called Cicco.[80] He was honored by René of Anjou as early as 1448, and in 1449 he fought beside Marcello, Cossa, and Francesco Sforza for the conquest of Milan.[81] Simonetta entered the service of Sforza, an ally of René, and in 1474, when he wrote the little treatise, he was chancellor of the Duke.

Simonetta's method, like all methods of decoding ciphers in which a given symbol always signifies the same letter, depends upon probable frequencies. Thus he tells us that where the text to be recovered is Latin or Italian, a group of three symbols in which the first and last symbols are alike is probably the word *non*. Applying this rule to the cryptogram on the portrait, particularly to the fourth word in the first line and the first word in the second line, we can begin to create the key by identifying—correctly as it turns out—the letters *n* and *o*.

Though Simonetta's text is the first of its kind,[82] his concern with ciphers was not unique in the Quattrocento. Cryptography was known to the Greeks and Romans, but its practice became rare in the Middle Ages.[83] It began to be revived in the fifteenth century in humanist circles and in the chanceries. The oldest cryptogram of the period is Venetian, and Venetian diplomacy more than any other made use of this secret writing.[84] In the light of all this, then, we can understand better Marcello's use of the *litterae furtivae* for the inscription written below his portrait. The ciphers in fact confirm the diplomatic significance of his message.

II

The recent cleaning of Mantegna's *St. Euphemia* in Naples makes clearly visible to us the surface of a major work, unique in some respects among his early paintings (Fig. 20). It is painted on canvas, a ground that Mantegna occasionally employed later in his career. Partly for this reason it differs somewhat in color from the panels and frescoes; tempera on canvas is always less bright and transparent than tempera on wood. The saint's mantle is blue-black, the marble arch a somber gray veined in yellow-brown. Into these large, cool areas are introduced patches of warm glowing color: the salmon-pink base of the piers, the gleaming oranges and white lily above, the dusky golden brocade of the tunic. The whole looks as though it were struck by the light of the moon rather than the sun, and in these respects it resembles closely the initials in the Strabo at Albi (Fig. 29). At the same time the unusual large shadow cast by *St. Euphemia* on the inner surface of the pier at the right brings to mind the shadows of equal proportion on the wall behind each of the officers of the Order of the Crescent in the miniature of the *Congress*.

The new surface of *St. Euphemia* discloses to us also

from 1450 on. Similarly serifs are still lacking in the inscription on the façade of the Tempio Malatestiano (1455-1456), and the Roman Imperial types of M (with alternate light and heavy bars) and N (with a relatively heavy diagonal), which Mardersteig describes as innovations, had already appeared in inscriptions by Donatello and Mantegna. Small serifs do appear on Alberti's *Sepolcro Rucellai* of ca. 1467 (our Fig. 21), but the letters are still tall, close-set, and relatively unshaded. Furthermore a letter such as E is not advanced but still shows three bars of equal length. The letters seem to me in general very different from the Imperial majuscules on the Mausoleum of Cecilia Metella with which Mardersteig compares them.

The significant question about Alberti in my opinion seems to be rather: why should the great student of Roman architecture, who reintroduced the monumental inscription on the façades of buildings, not have approximated more closely the shapes and spacing of Imperial majuscules? The clue may perhaps be found in that aspect of Alberti's letters to which I have referred above. In each inscription by him they are exceptionally tall in proportion to their field, and Alberti assigns a structural function to them, as if they were —as I said—caryatids. This is a function sometimes given letters in Florence but not in ancient Rome. Alberti's letters are not nearly so close to these Roman majuscules as are earlier capitals by Mantegna and Donatello.

Mardersteig attributes great importance to Felice Feliciano, whom he considers one of the triad mainly responsible for the revival of the Roman letter. Feliciano's text had no doubt some influence but the geometric construction of majuscules was undertaken before he wrote it. Furthermore, the letters he produced, with or without geometric aids, were I think something less than exemplary. But I have emphasized Feliciano's mediocrity in this respect fully enough in 1957, and the uneven spindly letters of the new epigraph are a further proof of the point. I should say finally that Mardersteig's paper contains many interesting observations, and should help to stimulate studies in this neglected field.

79. Meiss, p. 13.

80. The text, in Paris, Bibl. Nat. Ital. 1595, was published by P. M. Perret in *Bibliothèque de l'école des chartes*, LI, 1890, pp. 516ff.

81. For the life of Simonetta, see C. Belgioioso, *Cicco Simonetta*, Milan, 1858; *Enciclopedia italiana*, XXXI, 1936, p. 813.

82. The first *printed* treatise was the *Polygraphia* of Abbot Trithemius of 1518.

83. Perret, *loc.cit.* (see n. 80 above), and Bibliophile Jacob (Paul Lacroix), *La cryptographie*, Paris, 1858, pp. 4ff.

84. L. Pasini, "Delle scritture in cifra," in *R. Archivio generale di Venezia*, 1873, pp. 292ff. The oldest Florentine cryptogram is of 1414.

the full splendor of the gold in the crown and the tunic, the exquisite goldsmithry of the sword, and the refulgent pearls and rubies of the crown, the brooch and the wristlets. The painting resembles more than anything else the work of Justus and Berruguete at Urbino twenty years later, and it seems almost inconceivable without a prior experience of Flemish painting. It thus supports the hypothesis of such an experience by the young Mantegna that I proposed, for different reasons, several years ago. To this matter I would like to return now.

In the miniature of the *Congress* in Arsenal 940 the iron grill in the large door of the hall provides for the assembled knights a nice combination of security and a splendid vista.[85] Outdoors they may see first a sturdy guard leaning on his lance, a more plebeian version of the statue of St. Maurice on the door overhead. The soldier's garb is violet in the light, purple in shade. His feet are planted on a narrow grassy knoll that sweeps down to a broad, deep valley, closed in the distance before the radiant sky by a row of hills. Now this is a form of landscape that was developed in the fifteenth century both in Florence and in the Netherlands, and which may be characterized as the "plateau type." In the *Congress* the foreground terrace is combined with an interior, and this interior-exterior version of the plateau composition seems to have been created in the Netherlands by Jan van Eyck (*Rolin Madonna*). It was adopted early by Petrus Christus and Roger van der Weyden. In a paper identifying the "plateau type" and outlining its history I observed that in Italy the fully developed interior-exterior version seems to have appeared first in Mantegna's *Death of the Virgin* in the Prado, painted in the sixties.[86] Mantegna, moreover, who was presumably familiar with one or more Eyckian paintings or drawings present in Venice or Padua, seems to have been the first North Italian master to adopt the pure landscape form, employing it for his *Crucifixion* in the Louvre and his *Madonna of the Rocks* in the Uffizi. The earliest of these plateau compositions by Mantegna is the *Crucifixion* of 1456-1459, so that to my knowledge the earliest extant example of a plateau landscape in North Italy is in the miniature of the *Congress*. The miniature is at the same time the earliest example of the interior-exterior version in all Italy. It is scarcely an inch high!

This community of a basic concept of form bears, of course, upon the problem of the authorship of this and the related miniatures. Since publication of the book, I have continued to test the attribution ot Mantegna, and I have observed other relationships that escaped me earlier. One or two are perhaps worth recording.[87] Large scrolls with inscriptions presenting the words spoken by a protagonist are not common in the work of the major painters of the later Quattrocento, so that it is interesting to contemplate the relationship between the *Dialogue* and the speaking Tree of Virtue in Mantegna's allegory in the Louvre. The grasses growing from the sward below St. Maurice recur, though with a more studied pattern, in the stones of the pavement of the fresco of the *Judgment*. The quality of the line should be compared with the linear fur in the border of Euphemia's dress (Fig. 18), and also with the hay in the Christ Child's basket in a remarkable miniature in the manuscript of Eusebius that was cited above (Fig. 34). This beautiful little vignette, hitherto I believe unpublished, should be brought into the discussion of Mantegna's very early style.

Professor Fiocco has recently attributed the Arsenal miniatures to the only mediocrity among the Bellini, Leonardo, the author of some pleasant but routine illuminations, none dated before 1463.[88] He is a genuine illuminator, fond among other things of richly ornamented borders, a form of embellishment conspicuously lacking in the four Arsenal miniatures. Professor Fiocco has proposed this attribution in a review of my book that contains several errors of fact, at least some of which should be corrected. He assumes, for one thing, that the book (the existence of whose fourth and last chapter on the alphabetical treatises is not recognized) ascribes the two Albi miniatures to Mantegna himself rather than to a follower probably guided by some indications of the master. This follower, whom I left nameless, he identifies as Marco Zoppo, none of whose striking extravagances seem to me visible in the Strabo. Professor Fiocco enunciates a general principle that no miniature may be ascribed to Mantegna without a signature or a document of commission or payment—a most surprising position for him to take, after a lifetime devoted to promulgating hundreds of undocumented attributions. It is noteworthy that at the same time he avoids all reference to the fact that the book does argue the relevance of a document of 1459 to the execution of the Strabo in Albi. Signatures themselves, furthermore, have been known to be snares. Indeed it would seem difficult to describe otherwise the name of Mantegna on a *Madonna* that Professor Fiocco in 1949 attributed to this painter (Fig. 36).

More serious than Professor Fiocco's distortions of the little book is his silent assumption of a new chronology of Mantegna's early work. In order to claim that the two frescoes in the Ovetari Chapel, *Way to Martyrdom* and *Decapitation*, are contemporary with the miniatures in the Arsenal manuscript (finished some

85. Meiss, pl. opp. p. 6.

86. "Jan van Eyck and the Italian Renaissance," in *Venezia e l'Europa, Atti del XVIII Congresso Internazionale di Storia dell' Arte*, Venice, 1956, pp. 65ff.

87. Also the fact that the gesture of the officer of the Crescent who addresses a companion to the left of the door in the *Congress* is repeated, exactly, by another speaker (accompanied by a listener) behind the Triumphal Arch in the *Judgment* in the Ovetari Chapel. And, similarly, the rhythmical movement of the arms of the two officers at the right of the door in the *Congress* may be seen again in the two figures in the medallion in the St. Zeno altarpiece just alongside the head of St. Lawrence.

88. *Paragone*, 99, 1958, pp. 55-58. In the same number of this journal the attribution to Leonardo has again been advanced, but more tentatively, by L. Moretti (p. 60).

time before June 1453) he says that in 1453 Mantegna completed all of the one fresco and part of the other. Now the documents on the Ovetari Chapel are neither informative on many important points nor are they entirely easy to read, and not one of the published accounts of the painting of this chapel, including several by Professor Fiocco, has distinguished definitely ascertainable fact from inference.[89] Most students of Mantegna, however, have inferred that Mantegna began to complete the frescoes of St. James only after the death of Pizzolo at the end of 1453, so that the two lowest frescoes would scarcely have been begun until some time during 1454. This is the opinion of Professor Fiocco too in earlier publications.[90] When he abandons this view, he is, it seems to me, obligated to offer some new evidence, at least to avoid the impression of advancing an *ad hoc* chronology for the purpose of polemic.

Some disagreement between Professor Fiocco and myself about an attribution to the early career of Mantegna was inevitable because we hold very different views of the painter's art at that time. He has long ascribed to Mantegna just after 1454 the design of the mosaic of the *Death of the Virgin* in the Mascoli Chapel, an attribution which I opposed because the composition seems to me, as to others, the work of an artist of a different gift and even a different school, Andrea del Castagno. Professor Fiocco has, moreover, proposed the addition of two other paintings to the oeuvre of Mantegna during the very years in question, 1453-1454. The first painting, a *Madonna* in the Museum of Fine Arts in Boston (Fig. 35), he ascribed to Mantegna and to the year 1454 before the purchase of the panel by the Museum in 1933,[91] and then he included it as the master's work in his monograph.[92] The publication and acquisition of this dubious work do not constitute a glorious chapter in the history of European scholarship or of American collecting. The Museum wisely relegated the object to its storeroom some time ago. The second painting, another *Madonna* that was mentioned above because it bears an inscription with Mantegna's name, was recently judged by Professor Fiocco to "fit perfectly" into Mantegna's oeuvre in the year 1453 (Fig. 36).[93] The painting was identified simply as in a "private collection in Basel," and I know it only from reproduction. This has not encouraged me to examine the object more closely.

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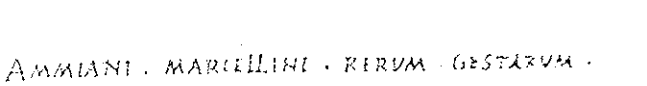
89. In Thieme-Becker (*Allgemeines Lexikon*, XXIV, 1930, *s.v.* Mantegna), for instance, Fiocco stated that the document of February 6, 1454 ascribed some frescoes to Pizzolo, and others (3 figures in the vault, cherubim and gigantic head on entrance arch) to Mantegna, but the document refers to no frescoes by Mantegna whatever (see E. Rigoni, in *Atti del R. Instituto Veneto*, Venice, vol. 87, 1927-1928, p. 1169).

90. For instance, in Thieme-Becker, *loc.cit.*; *Mantegna*, Milan (n.d.), p. 29; in *Enciclopedia italiana*, XXII, 1934, p. 160. The most recent monograph, by E. Tietze-Conrat (*Mantegna*, p. 193), places the two frescoes in 1456.

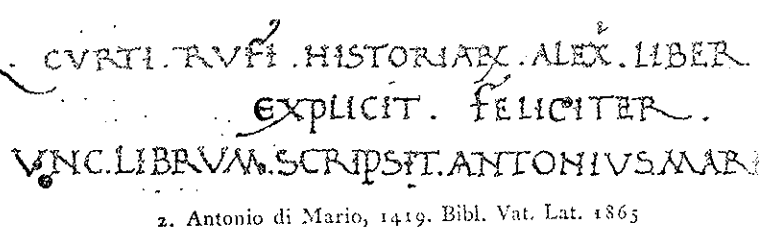
91. Fiocco's opinion is quoted in *Bulletin of the Museum of Fine Arts*, Boston, XXXII, 1934, p. 21; *Connoisseur*, vol. 93, 1934, p. 198; *Pantheon*, XII, 1934, p. 124.

92. *Mantegna*, Milan, n.d., pp. 32, 201, pl. 35.

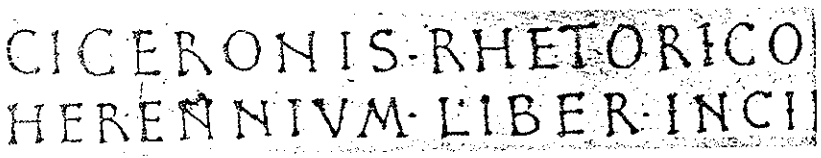
93. *Burlington Magazine*, XCI, 1949, p. 213.



1. Niccolo Niccoli. Florence, Bibl. Naz., Marc. 1. v. 43, fol. 1



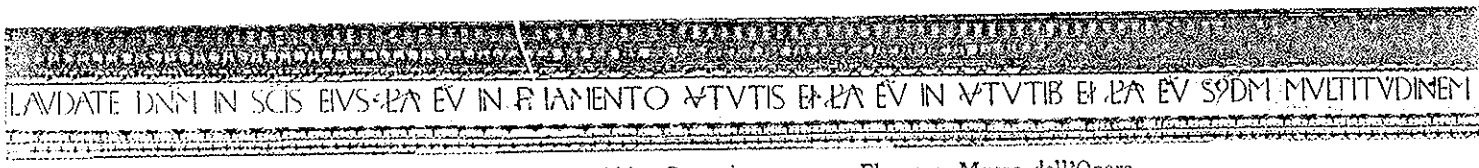
2. Antonio di Mario, 1419. Bibl. Vat. Lat. 1865



3. Scriptorium of Vespasiano da Bisticci, ca. 1455. Bibl. Vat. Lat. 1712, fol. 125

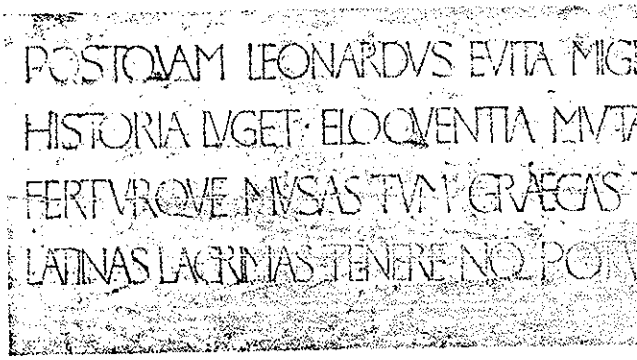
4. Ghiberti, *John the Baptist*, 1412-1416 (detail). Florence, Or San Michele (From R. Krautheimer, *Lorenzo Ghiberti*, pl. 112a)

5. Ghiberti, Shrine of St. Zenob 1439-1440. Florence, Cathedra (photo: Brogi)

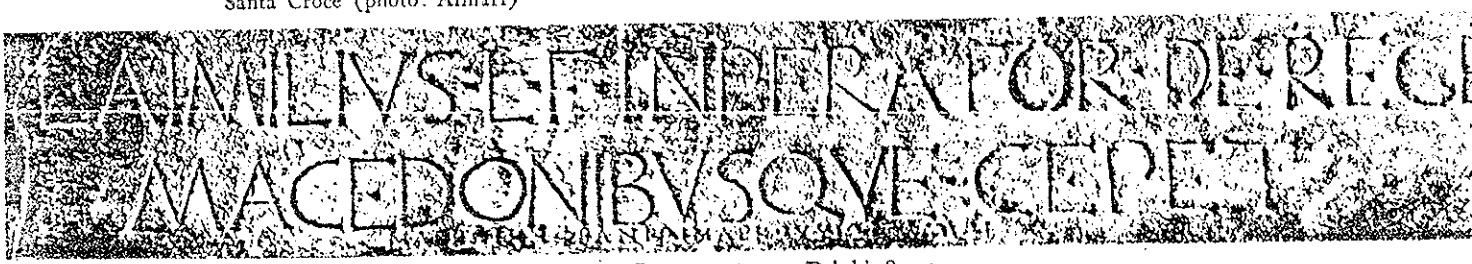


6. Luca della Robbia, *Cantoria*, ca. 1435. Florence, Museo dell'Opera del Duomo (photo: Alinari)

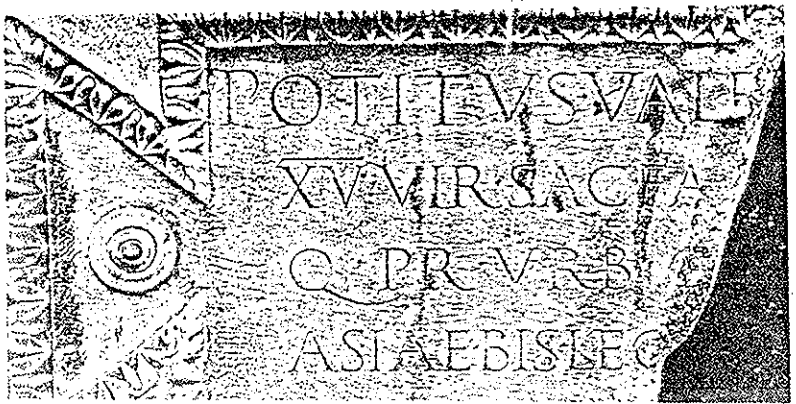
7. Bernardo Rossellino, Tomb of Beata Villana, 1452. Florence, Santa Croce (photo: Alinari)

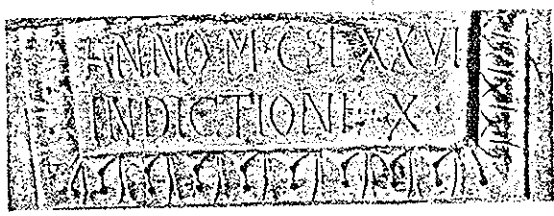


8. Bernardo Rossellino, Tomb of Leonardo Bruni, ca. 1447. Santa Croce (photo: Alinari)

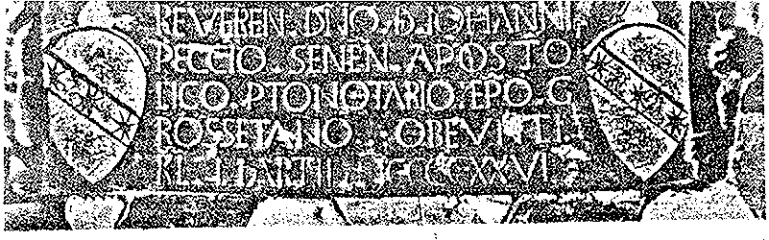


9. Roman, 167 B.C. Delphi, Sanctuary

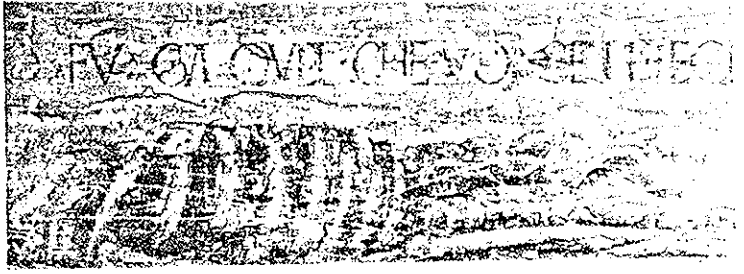




11. Inscription from Sant'Andrea di Candeli (Florence), 1176 Florence, Museo Nazionale

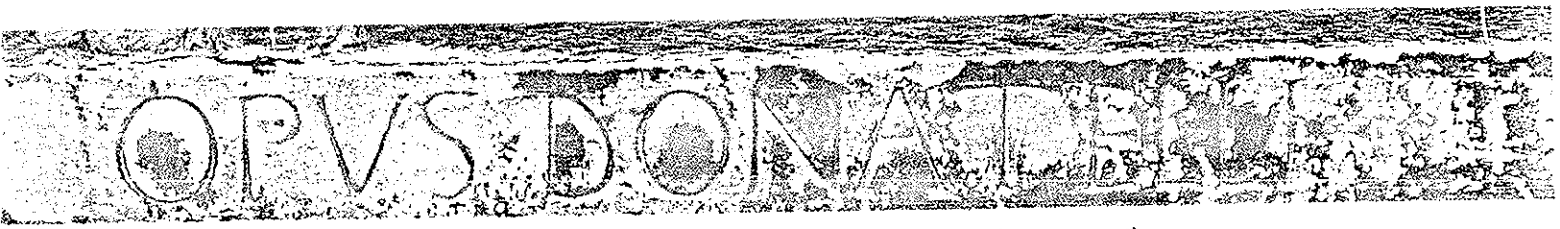


Donatello, Tomb of A. Pecci (+1426). Siena, Cathedral (photo: Alinari)



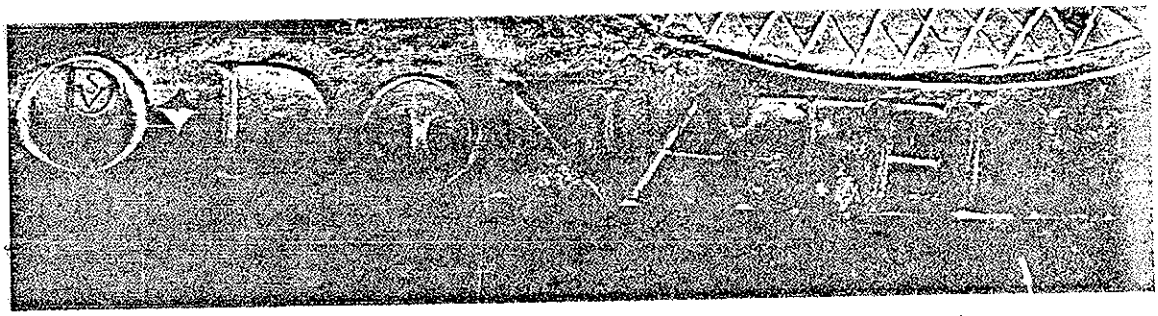
13. Masaccio, Inscription above Skeleton. Florence, Santa Maria Novella (photo: Soprintendenza alle Gallerie di Firenze)

14. Signature on *Zuccone*, ca. 1425. Florence, Campanile (photo: Brogi)



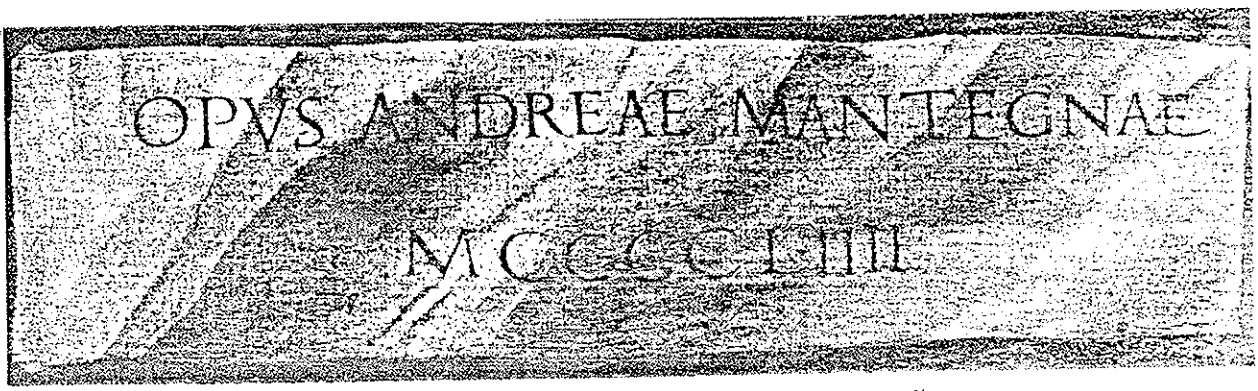
15. Signature on *Jeremiah*, ca. 1430. Florence, Campanile (photo: Brogi)

16. Signature on *Gattamelata* ca. 1448. Padua, Santo (photo: Museo Civico)

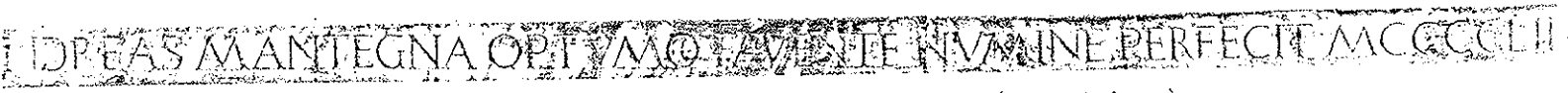


17. Signature on *Judith*, 1456-1457. Florence, Palazzo Vecchio (photo: Brogi)

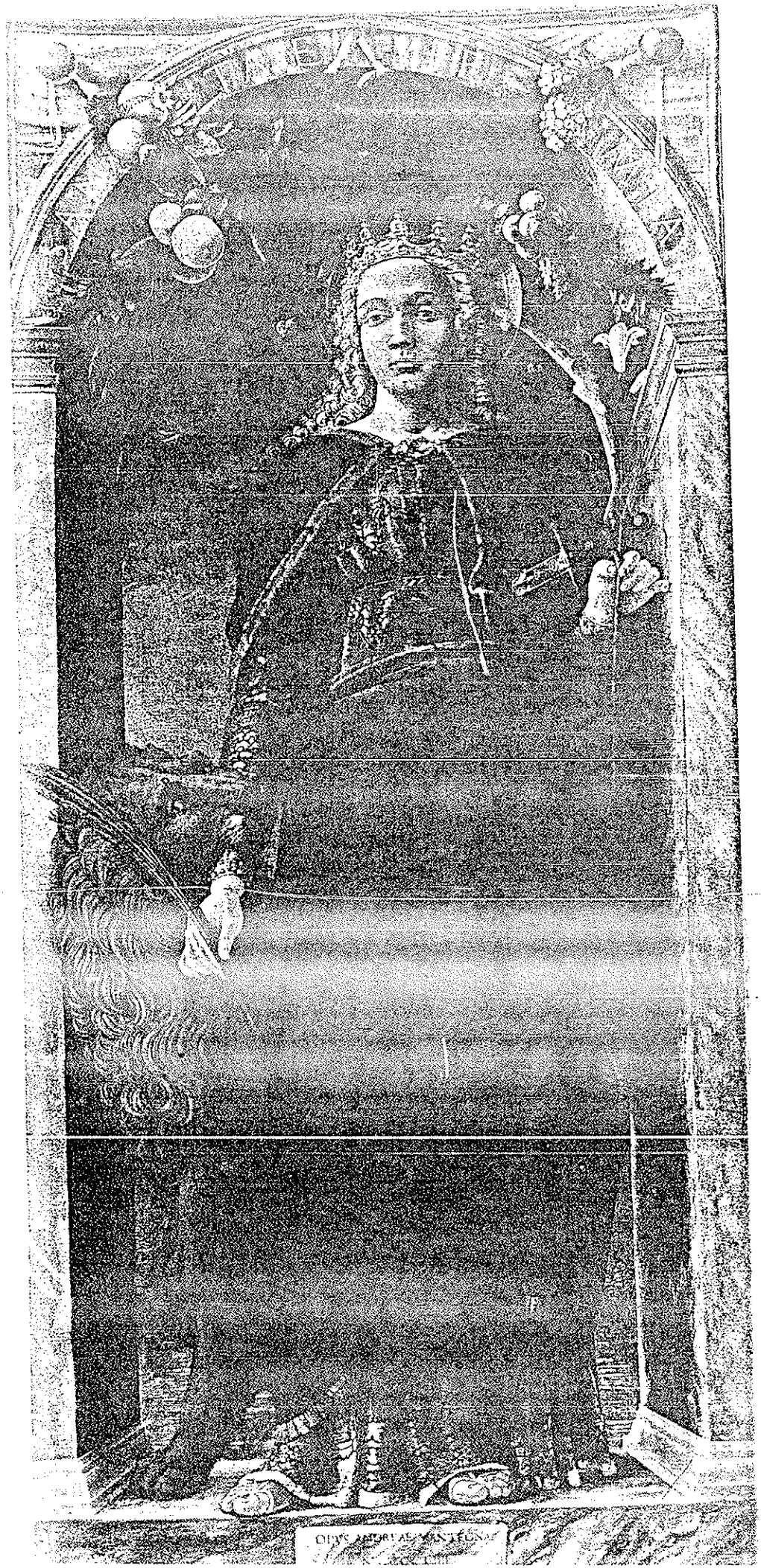
14-17. DONATELLO SIGNATURES



18. Mantegna, Signature on *St. Euphemia*, 1454. Naples, Capodimonte (photo: Soprintendenza Gallerie, Napoli)



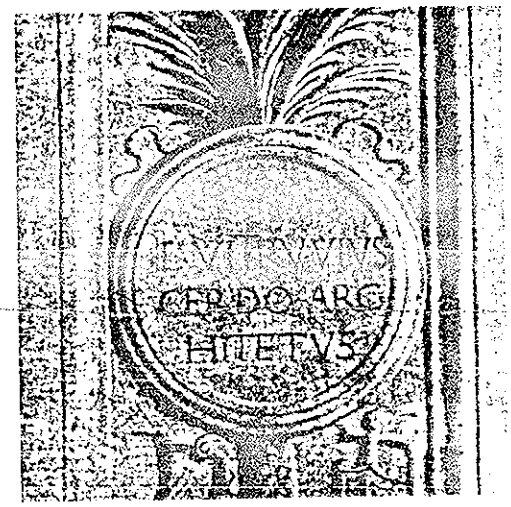
19. Inscription below fresco by Mantegna, 1452. Padu, Santo (photo: Anderson)



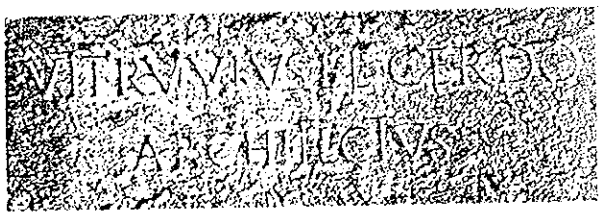
21. Alberti, Sepolcro Rucellai. Florence, San Pancrazio (photo: Alinari)

22. Verrocchio, Medici Tomb, 1472. Florence, San Lorenzo

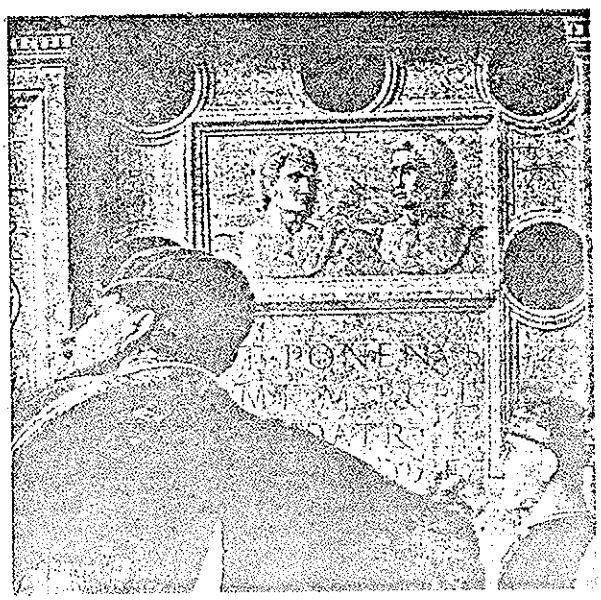
23. Mantegna, Epigraph on arch in the *Judgment of St. James*, ca. 1454 Formerly Padua, Eremitani (photo: Alinari)



24. Mantegna, *St. James on the Way to Execution*, ca. 1455 (detail). Formerly Padua, Eremitani

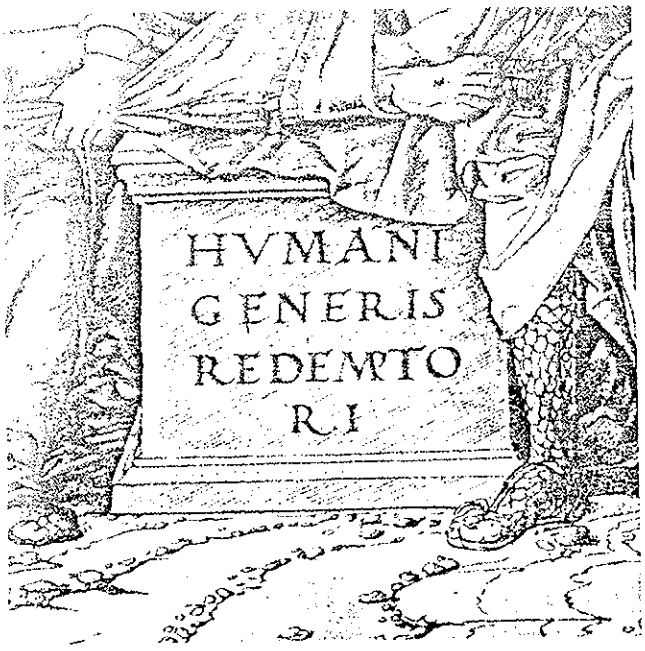


25. Signature of the architect. Verona, Arco dei Gavi. (From C. Anti, *Architettura e Arti Decorative*, I, 1921, fig. 99)

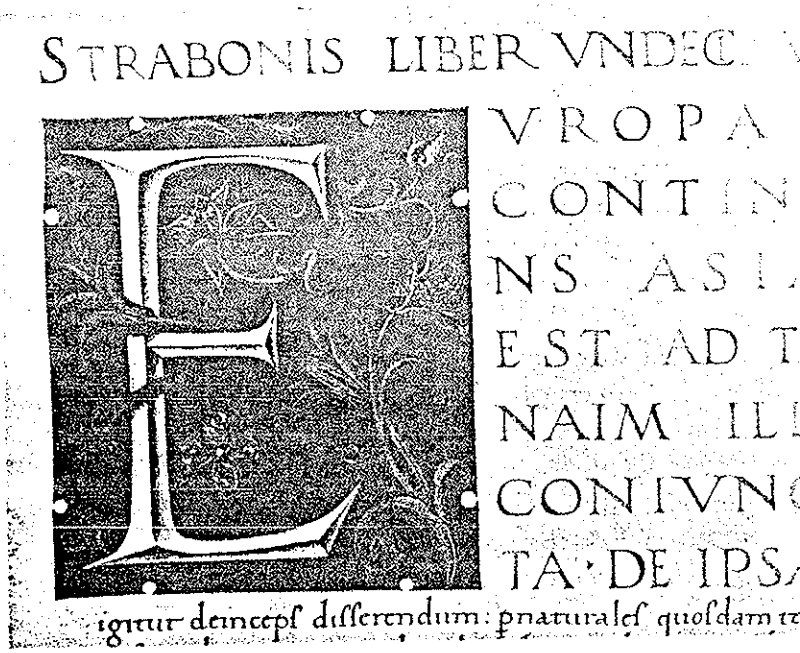


26. Mantegna, *Martyrdom of St. Christopher*, 1456-1457 (detail). Padua, Eremitani (photo: Anderson)

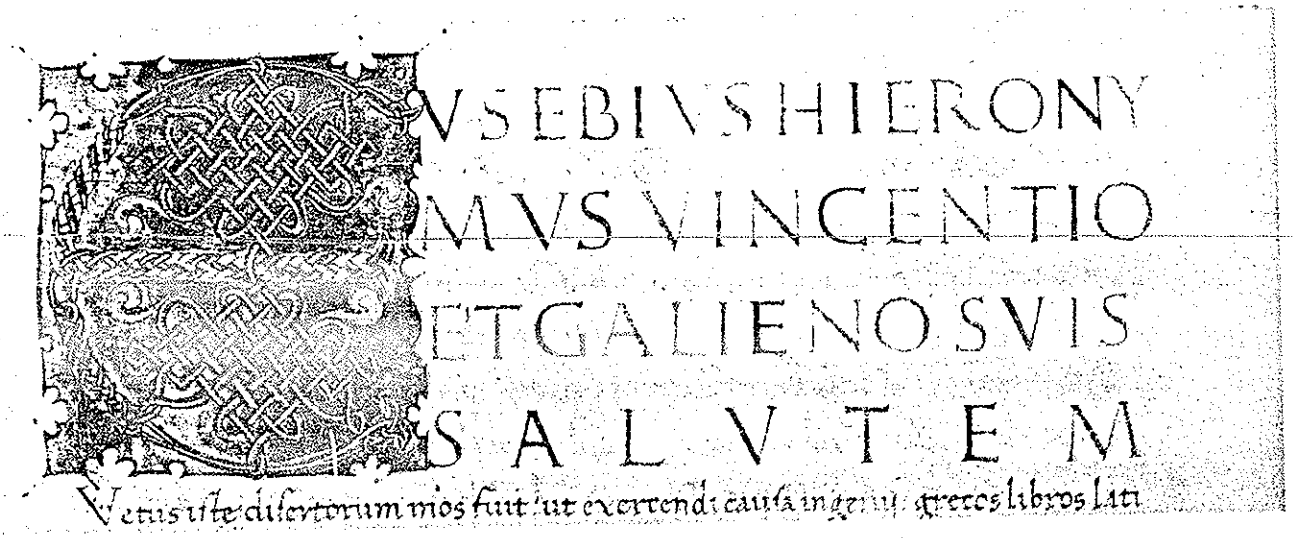
27. Mantegna, *Emperor Otho*, before 1474. Mantua, Ducal Palace (photo: Anderson)



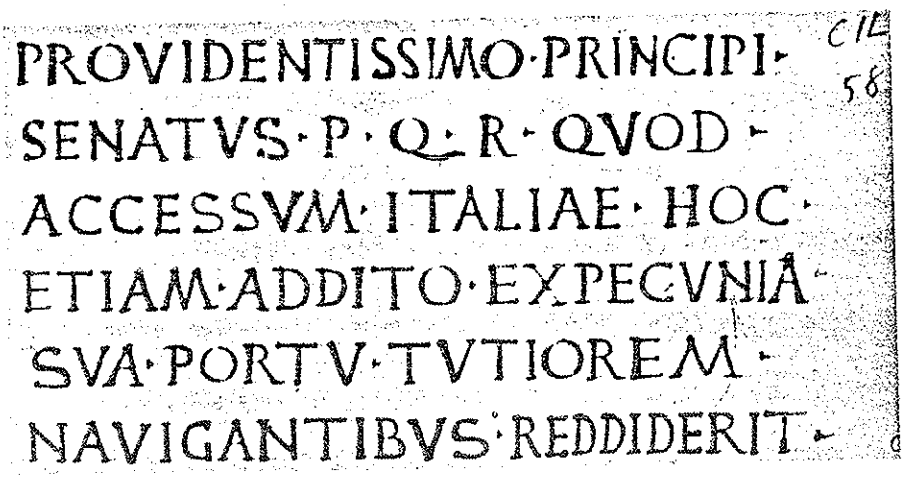
28. Mantegna, Inscription on print of *Entombment*



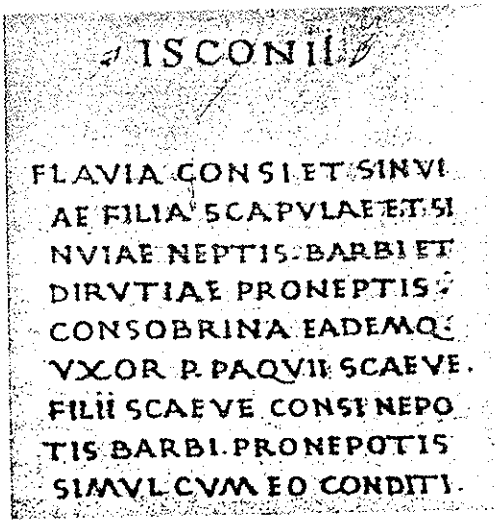
29. Mantegna and workshop, Initial, Strabo, *De Situ Orbis*, 1459
Albi, Bibliothèque Rochegude



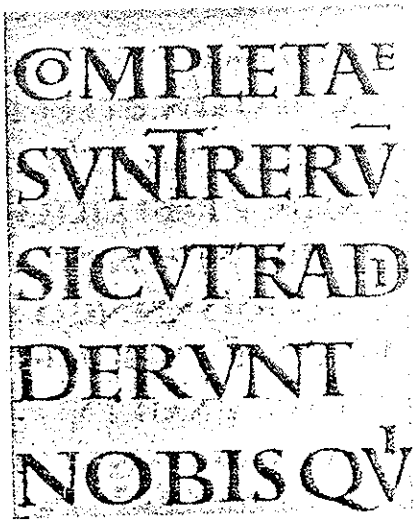
30. Initial, MS (Paduan?), dated 1450. Venice, Bibl. Marc. 3 [L.IX.1] MK, fol. 2



31. Cyriac of Ancona, ca. 1443. Berlin, Staatsbibliothek, Hamilton 254, fol. 81



32. Sylloge of Marcanova, 1457-1460. Bern, Bürgerbibliothek, B 42, fol. 22



33. Ninth Century Majuscules. Bibl. Vat. Pal. Lat. 50, fol. 8 (From W. Köhler, *Die Karol. Min.*, II, p. 109)

34. *Christ Child.* Venice, Bibl. Marc., 3 [L.IX.1] MK

35. *Madonna.* Boston, Museum of Fine Arts

36. *Madonna.* Basel, Private Collection