

The Decoration and Illustration of Venetian Incunabula From Hand Illumination to the Design of Woodcuts

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Abstract The paper summarises the decoration of Venetian incunabula from 1469-1500. In the early 1470s, illuminators experimented with schemes for ‘finishing’ the printed books, decorating the margins and spaces left blank for initials. The high numbers of hand-illuminated volumes indicate that numerous miniaturists must have come to Venice for this work. In the later 1470s and 1480s, incunabula continued to be illuminated, but greater numbers of each edition were printed, so the proportion that were decorated was lower. In the 1490s, miniaturists designed woodcuts that were printed with every copy of an edition. It is urged that historians of the book trade study the evidence provided by the hand-illumination and woodcut decoration of incunabula.

Keywords Incunabula. Hand-illumination. Illustration. Venice. Trade.

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1 Introduction

The phenomenon of the hand-illuminated Venetian incunabulum and the trajectory from hand-decoration of individual incunabula to the illustration of printed books with woodcuts is relatively well-known to art historians who specialise in the study of illuminated manuscripts and early printed books,



but less well-known to incunabulists. The following summary of this wide-spread artistic phenomenon will emphasise the usefulness of considering hand-illumination as an important component of Venetian incunabula production and trade.

2 The Early 1470s: Modes of Hand-illumination

As is well known, the first printing press in Venice, that of Johannes de Spira, opened in 1469, to be followed rapidly by others.¹ The period 1469-1474 was dominated by two presses, that of the de Spira brothers, Johannes and Vindelino, and that of Nicolaus Jenson.² Although printers soon began to develop aesthetic principles of their own, the initial publications echoed the layout of contemporary manuscripts. If one compares a Cicero manuscript written in Florence in 1411³ with an Augustine *De civitate Dei* printed by the de Spira brothers in 1470⁴ [fig. 1], one can see that scribes and early printers alike designed their pages with wide margins, gaps between significant segments of the text awaiting captions, and indented lines of text where large capital letters could be added by hand. For the Newberry copy of the printed Augustine, no large initials have been added to the spaces provided for them, although a scribe has already completed several rubrics, now faded.

If the Newberry copy of the 1470 Augustine is compared with a copy of the edition now in Treviso, it can be seen that an artist has painted decorative borders in three margins, consisting of white vine (*bianchi girari*) patterns isolated by background areas of red, green, blue and gold [fig. 2].⁵ As noted, the printer has indented lines of text awaiting capital letters to be added by hand, and the miniaturist has inserted two large gold initials, also entangled in white vines. In the lower margin, a pair of lively satyrs drawn in sepia ink support a circular green laurel wreath, providing a space for a potential owner's coat of arms.

I wish to thank Cristina Dondi and all the members of her team for the help and friendship they have given me over the years of the 15cBOOKTRADE project.

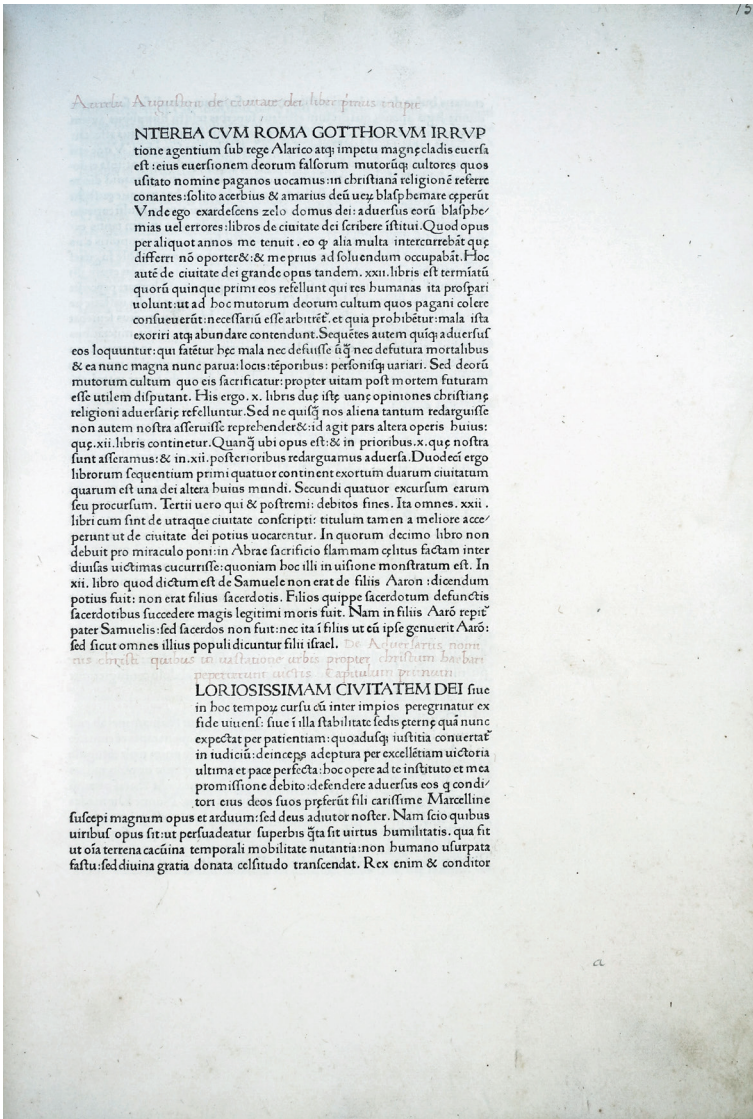
1 On Venetian printing cf. Scholderer, "Printing at Venice to the End of 1481". *The Library*, 129-52; Gerulaitis, *Printing and Publishing* (and Cozzi, "Review Article: Books and Society", 86-98); Zorzi, "Stampa, illustrazione libraria", 2: 686-702; Needham, "Venetian Printers", 157-200; Dondi, *Printing R-Evolution 1450-1500*.

2 Lowry, *Nicholas Jenson*; Hellinga, "Nicolas Jenson and Peter Ugelheimer", 152-65.

3 Cicero, *Orationes*, 1411 (Oxford, Bodleian Library, MS D'Orville, 78); Jensen, Kauffmann, *A Continental Shelf*, 40-1, no. 11, colour illustration.

4 Augustinus, *De civitate dei*. Venice: Johannes and Vindelino de Spira, 1470. Folio. GW 2877; ISTC ia01233000 (Chicago, Newberry Library, Pr 4019).

5 Augustinus, 1470, as in note 4 (Treviso, Biblioteca Civica).

Figure 1 Augustine, *De civitate dei*. 1470.

Venice: Johannes and Vindelino de Spira. Chicago, Newberry Library, Inc Pr 4019, [c1r]

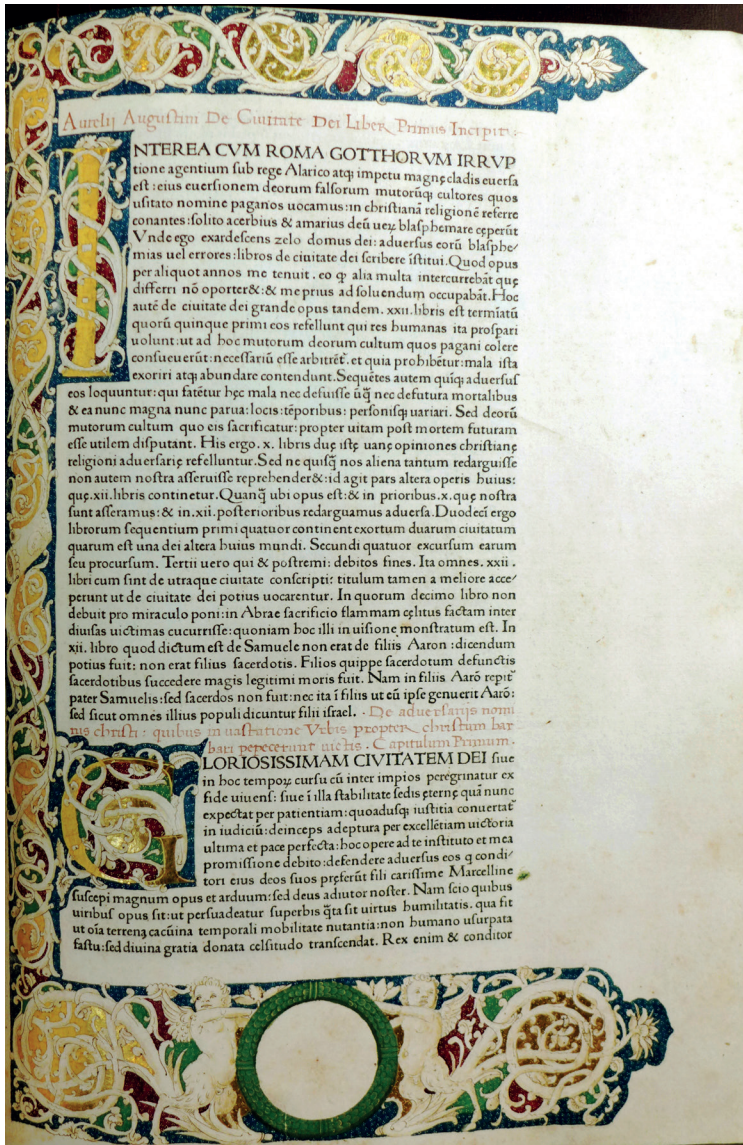


Figure 2 Giovanni Vendramin, white vine borders with infant satyrs, in Augustinus (as in fig. 1). Treviso, Biblioteca Civica [c17]

Thousands of the books printed in the period 1469-1500 were indeed ‘finished’ with similar initials and borders painted, that is, ‘hand-illuminated’, by artists known as miniaturists or illuminators.⁶ When I refer to ‘hand-illumination’ throughout this paper, I am restricting my study to those copies that have decoration added in gold leaf or shell gold, egg tempera paint (usually ‘glair’, pigments mixed with egg white) or water-based colours.⁷ It is critical to understand that this kind of decoration *must* have been executed by professional artists who were trained in draftsmanship, and in the technical processes of applying gold leaf and paint to paper or to parchment. These are artistic skills achieved through years of apprenticeship leading to full mastery, and cannot be explained as the product of untrained amateurs. For example, the distinctive draftsmanship of the Treviso satyrs enables an attribution to Giovanni Vendramin, a well-documented miniaturist who illuminated many manuscripts and incunabula for Jacopo Zeno, Bishop of Padua (1460-1481).⁸ The figures can be compared to satyrs found on the frontispiece of a Valturcius *De re militari* manuscript of 1472 in the Biblioteca Capitolare of Padua, or the paired centaurs of a copy of Plinius *Historia naturalis*, printed by Johannes de Spira in 1469, now in the Biblioteca Classense, Ravenna,⁹ both attributed to Vendramin. In the three compositions, the curly haired mythical creatures look back over their shoulders as they pause their vivacious movements to support a central object: a wreath, a vase, a shield.

Further investigation of the 1470 Augustine provides a rich snapshot of printers’ and miniaturists’ activities in relation to one of the earliest Venetian editions. Its colophon states that Johannes de Spira died during the production and that his brother Vindelinius complet-

⁶ On hand illumination of Venetian and North Italian incunabula, cf. Mariani Canova, *La miniatura veneta del Rinascimento, 1450-1500*; Alexander, “Notes on Some Veneto-Paduan Illuminated Books of the Renaissance”, 9-20; Armstrong, *Painted Page*, 35-47 (reprinted in Armstrong, *Studies*, 489-523); Baldassin Molli, Canova Mariani, Toniolo, *La miniatura a Padova dal Medioevo al Settecento*; Alexander, *The Painted Book in Renaissance Italy 1450-1600*, 177-97, ch. 6, “The Illumination by Hand of Early Printed Books in Italy”.

⁷ On these techniques cf. *Understanding Illuminated Manuscripts* by Michelle Brown, revised edition by Elizabeth C. Teviotdale and Nancy Turner. Los Angeles: J. Paul Getty Museum, 2018, 22, 58; De Hamel, *Manuscript Illumination*, 57-61.

⁸ For Giovanni Vendramin, cf. Mariani Canova, “Nuovi contributi per Giovanni Vendramin miniatore padovano”, 81-109; Bentivoglio-Ravasio, “Vendramin, Giovanni”, 982-8 (hereafter DBMI); and for his work for Jacopo Zeno, cf. Mariani Canova, “Bibliofilia nel Rinascimento a Padova”, 345-61.

⁹ Robertus Valturcius, *De re militari*. (Padova, Biblioteca Capitolare, MS. D.11, fol. 1r), illustrated in Mariani Canova, *Miniatura veneta*, pl. 18; Plinius *Historia naturalis*. Venice: Johannes de Spira, [before 18 Sept.] 1469. Folio. ISTC ip00786000. (Ravenna, Biblioteca Classense, Inc. 670, Vol. II, fol. 1), illustrated in Mariani Canova, *Miniatura veneta*, pl. 14.



Figure 3 North Italian miniaturist, white vine borders and unidentified coat of arms, in Augustinus (as in fig. 1). Williamstown, MA, Williams College, Chapin Library, Inc. A1092 folio, sig. [c1r]

ed the printing; it further noted that Johannes' editions of Cicero had 100 and 300 copies respectively, and his Pliny was issued in 100 copies.¹⁰ The Augustine edition was likely to have been on the higher end of this production; there are recorded 101 extant copies, of which at

¹⁰ The colophon is given in full in BMC V, 153. On print runs, cf. White, "A Census of Print Runs for Fifteenth-Century Books" (https://www.cerl.org/resources/links_to_other_resources/bibliographical_data#researching_print_runs).

least 9 were printed on vellum,¹¹ and I am aware of an impressive 39 copies that received some hand-illumination. In all these cases, the miniaturists have supplied gold or painted initials, and have decorated one or more margins with painted borders. If the book already had an intended buyer, the coat of arms of the recipient was added, usually in the lower margin surrounded by a wreath.

A hitherto unpublished copy of the 1470 Augustine in the Chapin Library of Williams College shows the splendid effect that the borders and initials can create [fig. 3].¹² The gold leaf of the initials has been burnished so that light reflects from its shiny surface; white vine patterns enliven the borders, and in the lower margin is a brightly blazoned shield of an unidentified owner. A scribe has already inscribed four lines of text with red ink, also filling areas left blank by the printer for the addition of rubrics. The dazzling overall effect is a far cry from the ‘unfinished’ appearance of the Newberry Library copy [fig. 1].

The early 1470s was also a period of intense experimentation as printers and miniaturists sought to ‘finish’ the massive onslaught of newly printed books. One technique that was probably intended to speed the process of decoration was to enhance the margins of individual copies of a given edition with woodcut borders stamped by hand. To create a woodcut, an artist must first make a design on the flat surface of a narrow strip of wood; the wood is then carved so as to leave the raised lines of the design, which can be inked and stamped; the resulting pattern could then be painted with colours. Four copies of the de Spira Augustine of 1470 are known to have been decorated with this technique, and they suggest its popularity.¹³ The technique can best be appreciated by comparing two of these examples, one in the British Library [fig. 4] and a second in the Bridwell Library of Southern Methodist University in Dallas, TX [fig. 5]. In the lower margins, the two putti, each with a rabbit at his feet, turn gracefully

11 The recorded vellum copies of the de Spira 1470 Augustine are: Chantilly, Musée Condé, XX, I, D. 7 [no. 185]; Milan, Biblioteca Trivulziana, Triv. Inc. A 11; Nysa, Seminarium; Paris, BnF, Vél. 296; Perugia, Biblioteca Augusta (information kindly sent to me by Maria Alessandra Panzanelli Fratoni); San Marino, Huntington Library, 104597xLF; Private Collection, Switzerland (cf. Armstrong, *Renaissance Miniature Painters*, Cat. no. 6, and Illus. 6); Ex-H.P. Kraus, *Early Printed Books on Vellum*, Catalogue 156, 1980, Colour Pl. II; ex-Manchester, John Rylands University Library (Sotheby’s, London, 14 April 1988, lot 13).

12 Williamstown, MA, Williams College, Chapin Library, Inc. A1092 folio (I thank Renzo Baldasso who brought the copy to my attention).

13 Examples of the 1470 Augustine with woodcut borders are: Padua, Biblioteca del Seminario Vescovile, Forc. L.1.9 (Armstrong, Scapecchi, Toniolo, *Gli Incunaboli della Biblioteca del Seminario Vescovile di Padova*, colour pl. 16); Dallas, Southern Methodist University, Bridwell Library, 06056 [Goff A-1233]; London, British Library, C.15.d.8; Dublin, Trinity College Library, LL.c.37.

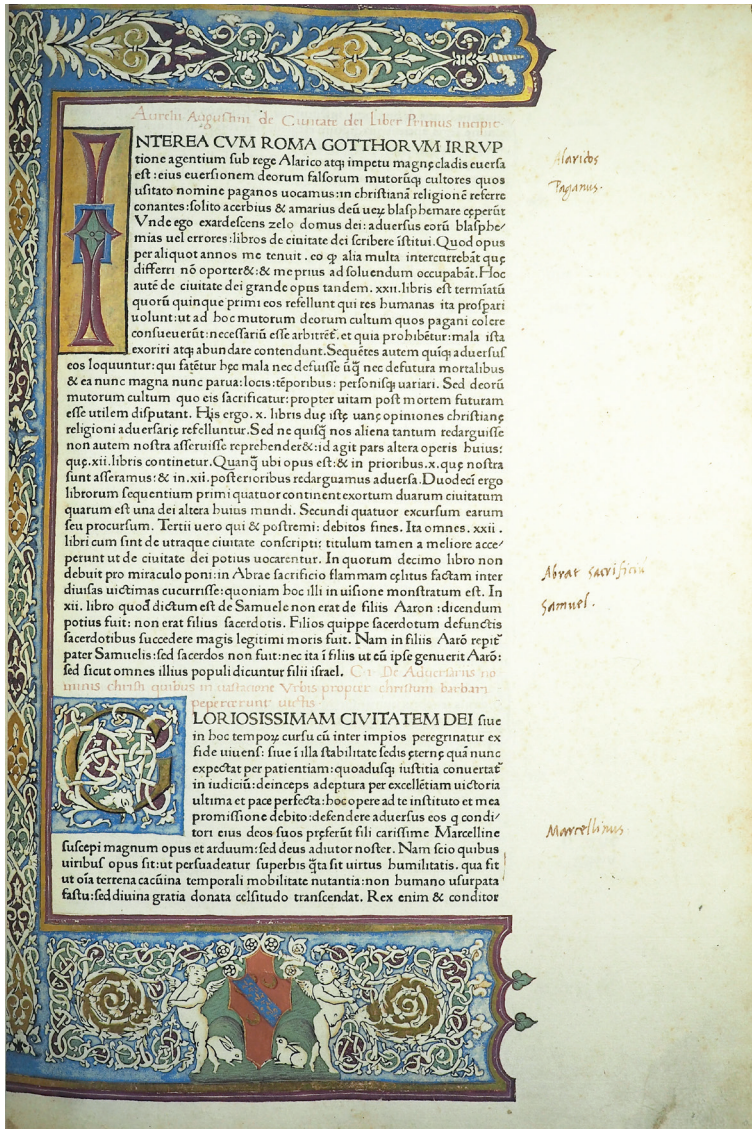


Figure 4 Venetian designer, woodcutter, and illuminator, hand-stamped woodcut borders with colour added. Macigni of Venice coat of arms, in Augustinus (as in fig. 1). London, British Library, C.15.d.8, sig. [c1r] © British Library Board



Figure 5 Venetian designer, woodcutter, and illuminator, hand-stamped woodcut borders with colour added, in Augustinus (as in fig. 1). Dallas, TX, Southern Methodist University, Bridwell Library, Special Collections, Perkins School of Theology, 06056 [Goff A-1233], sig. [c1r]

away from a shield, while grasping the end of a white vine over their shoulders. An artist has employed the same woodblock in each copy and then applied colours slightly differently. The inner margins reveal similar sequences of ovoid motifs that are also employed to form a partial border for the SMU example, while the outer margin of the British Library copy has been left blank.

Many of these woodcut motifs were catalogued by Lamberto Donati in the seventies, and were further explored by Susy Marcon in 1986.¹⁴ Remarkably, for the period 1469-1474, I now have records of 135 books that incorporate these borders: 80 in books printed by the de Spira brothers; 29 by Nicolaus Jenson; and 26 by other printers. Curiously, this technique for speeding up the production of ‘finished’ copies was abandoned after 1474.¹⁵

3 Magnitude and Implications of the Hand-Illuminated Incunable Phenomenon

The numbers of hand-illuminated incunabula executed in Venice in the early 1470s is strikingly high. I can present some figures for incunabula printed in Venice from 1469 through 1474 (the latter date chosen as a ‘cut-off’ because it is the year after which Vindelinus de Spira ceased regular publication).¹⁶ It may be remembered that I am defining ‘hand-illumination’ to include decoration in gold and coloured paints, or figural and architectural designs drawn in pen and ink, usually enhanced with watercolour tints. Not included are the thousands of incunabula containing rubrication, red and blue initials, or initials flourished in contrasting colours of ink.¹⁷ The sources of my numbers include personal observations of originals from

¹⁴ Donati, “I fregi xilografici”. *La Bibliofilia*, 74, 157-64, 303-27; and 75, 125-74; Marcon, “Esempi di xilominiatura”, 173-92; cf. also Armstrong, *Renaissance Miniature Painters*, 26-9.

¹⁵ The technique of creating a ‘master drawing’ that could be traced into the margins of more than one incunable, and then coloured, also occurs in a few cases; cf. McKitterick, *Print, Manuscript and the Search for Order*, 68-9; Armstrong, “Venetian Incunables in Cambridge Collections”, 233-43, esp. 234-5 and fig. 4.

¹⁶ Attributed to Vindelinus de Spira are three editions in 1475-76, and the editions he printed in 1477 (BMC and ISTC).

¹⁷ Any count of these rubricated and flourished incunabula is far beyond my powers. However, I do identify a style of flourishing that appears in copies of Nicolaus Jenson’s 1478 *Breviarium* (Armstrong, “Nicolaus Jenson’s *Breviarium romanum*”, 421-67; reprinted in Armstrong, *Studies*, 534-87). Valuable observations on rubrication, especially in books published in northern Europe, have been made by Smith “Patterns of Incomplete Rubrication”, 133-46; and “The Typography of Complex Texts”, 75-92.

1962 to date; illustrated printed sources;¹⁸ digitized facsimiles for which there are links in ISTC and GW; entries based on descriptions in MEI and Bod-Inc online; and examples that have been sent to me by many colleagues, to all of whom I am most grateful.¹⁹

For the years from 1469 to 1474, I have records of 351 incunabula printed by the de Spira brothers that were hand-illuminated, but it must immediately be acknowledged that there may be many more hand-illuminated copies among the extant books for which I have no information.²⁰ Of additional interest is that a startling 75 (21%) of these were decorated with the kind of woodcut borders noted above for copies of the de Spira Augustine of 1470. Of the incunabula printed by Nicolaus Jenson 1470-74, I record 279 hand-illuminated copies, of which 29 (10%) are known with hand-stamped woodcut borders. A significant number of books printed by the de Spira and by Jenson in these years were printed on vellum: 50 survive from the de Spira press, and 53 from Jenson, or about 16% of the surviving illuminated copies.²¹ Other early printers for whom I have been able to assemble some numbers for the years 1470-74 are Christophorus Valdarfer, Clemens Patavinus, Adam de Ambergau, Christophorus Arnoldus, Gabriel di Pietro, Bartolomeo Cremonensis, Alvise da Sale, Franciscus Renner, Federicus de Comitibus, Florentius de Argentina, Leonardus Aurl, Johannes de Colonia and Johannes Manthen, Jacobus Rubeus, and several anonymous printers.²² From this group at least 251 were hand-illuminated and 27 (11%) bear hand-stamped woodcut borders. If the totals from the de Spira, Jenson, and the printers just named are combined, the result is 881 hand-illuminated books, of which 131 had hand-stamped woodcut borders. Even if these 881 surviving books, hand-illuminated in the period 1469-74, represent

18 The numbers include many items from the following catalogues: Hermann, *Oberitalien: Venetien*; Pächt, Alexander, *Italian School*; Villani, *Un Tesoro nascosto*; Armstrong, Scapecchi, Toniolo, *Incunaboli... Seminario Vescovile di Padova*; Fumian, *Gli incunaboli miniati e xilografati*; Andriolo, Reynolds, *Books Printed in Italy*.

19 I wish to thank Jonathan Alexander; Renzo Baldasso; Martin Davies; Silvia Fumian; Scott Husby; John Lancaster; Matilde Malaspina; Sabrina Minuzzi; Laura Nuvoloni; Alessandra Panzanelli; Helena Szépe; Federica Toniolo; and Eric White. I beg to be forgiven if I have omitted the names of other colleagues who have been generous in this respect.

20 The same caution pertains for my numbers on copies from Jenson and other printers of this period.

21 ISTC records 2,261 surviving copies of De Spira books (1469-1474); and 1,482 surviving Jensons (1470-1474). It may be the case that a higher percentage of books printed on vellum (and decorated) have survived, in contrast to those printed on paper.

22 The anonymous printers for whose editions between 1470 and 1474 I have recorded hand-illuminated copies are: the Printer of Sallustius 1470, the Printer of Basilius, *De vita solitaria*; the Printer of Ausonius; the Printer of Duns Scotus, *Quaestiones*; the Printer of Brunus Aretinus (H 1565).

only half of an original total, then over 1,700 incunabula would have been hand-illuminated in Venice by professional miniaturists in a six year period, with some of the examples having been exported and decorated elsewhere. Regardless of what the mechanisms were for commissioning this work, there had to have been an influx of professional miniaturists to execute the illumination of these books.²³

A few efforts to calculate the expense of hand-illumination have been made, but more attention to this phenomenon is needed. The paper by Neil Harris in this volume documents the added expense of hand-illuminating a single volume, a copy of Franciscus de Platea, *Opus restitutionum* of 1474, now in the Boston Public Library.²⁴ The evidence appears in notations on a folio in the incunable, indicating relative payments for larger and smaller initials. Jonathan Alexander has discussed similar notations in anticipation of payment for a frontispiece and for initials found in a copy of Orosius *Historiae adversus paganos*, of around 1475, now in Trinity College, Cambridge.²⁵ Expenses incurred in the illuminating of contemporary manuscripts have been analysed by Anna Melograni, based on documents of payments for choirbooks of Ferrara Cathedral.²⁶ Although the evidence is at present extremely fragmentary, nevertheless even the roughest calculation of hand-illuminating 1700 incunabula in a six year period demands the attention of scholars who study the economics of the early book trade.

²³ For discussions of artists' workshop regulations cf. Favaro, *L'Arte dei pittori in Venezia*; Szépe, "Venetian Miniaturists", 31-60; Humphrey, *La miniatura per le confraternite*.

²⁴ Franciscus de Platea, *Opus restitutionum, usurarum, excommunicationum*. Venice: Johannes de Colonia and Johannes Manthen, 25 March 1474. 4°. ISTC ip00755000 (Boston BPL Q.404.8); cf. Neil Harris, essay in this volume.

²⁵ Orosius, Paulus, *Historiae adversus paganos*. [Vicenza]: Hermannus Liechtenstein, [about 1475]. Folio. ISTC io00097000 (Cambridge, Trinity College, Grylls.3.459). Cf. Alexander, "A Copy of Orosius", 289-300. The note reads: *148[?] lettere 7 doro i° principio'* and refers to the hand-illuminated frontispiece (*principio*), the gold and coloured initials, and the numerous rubricated initials in red and blue. The cost of these is not noted.

²⁶ Melograni, "La miniatura e i suoi costi", 151-80. More comparative data, for the high-end market, was published by Melograni in "The Illuminated Manuscript as a Commodity", 197-221; "Precisazioni sul costo di un codice di lusso", 123-28; "Quanto costa la magnificenza?", 7-24; "Manuscript Materials", 199-219; "Tipologie e costi della miniatura fiorentina di fine quattrocento", 111-24; "Oro, battiloro, orefici e la produzione libraria tra Medioevo e Rinascimento", 63-77.

4 Patrons and Miniaturists

Mention should also be made of several other editions from the early 1470s that are outstanding because of the high proportion of their illuminated copies, combined with indications of their ownership,²⁷ and with attributions to known miniaturists. An edition of Livy printed by Vindelinius de Spira in 1470 is known to have 26 of its 75 extant copies hand-illuminated (34.6%), several of which have elaborate frontispieces for two or three volumes.²⁸ It is also remarkable that of the 26 hand-illuminated copies, 14 (and possibly 17) were decorated with individually hand-stamped woodcut borders (at least 51.8%). Coats of arms in the Livy decoration show that copies were owned by members of the noble Venetian Priuli, Baffo, Trevisan, and Cornaro families, the non-noble *cittadini originari* family of the Friziero, and by the great Benedictine abbey of San Giorgio Maggiore.²⁹ Noble patrons also were pleased to possess copies decorated with hand-stamped and painted woodcuts: copies decorated in this technique were owned by the Dolfin, Donà dalle Rose, and Marcello families of Venice.³⁰

Even more decorated copies of Johannes de Spira's Pliny of 1469 are known. The print run is recorded at 100 copies,³¹ and at least 33 of these were hand-illuminated (over 30%). Thirty-one copies have decoration in Italian styles, primarily of Venice and the Veneto; of these two have woodcut borders hand-stamped and painted. Two other copies must have been exported undecorated to Germany where they were illuminated by miniaturists working in German styles. Coats of arms, inscriptions, and other evidence indicate ownership by Jacopo Zeno, Bishop of Padua (1460-1481) and Pietro Barozzi, Bishop of Padua (1487-1507), both members of noble Venetian families; other patrician owners were of the Corner, Erizzo, and Contarini families of Venice; Petrus Ugelheimer (c. 1442-46/1487-88), the aristocrat

²⁷ For provenance information cf. also the CERL databases which include a link to Paul Needham's *Index Possessorum Incunabulorum* (<https://www.cerl.org/resources/provenance/main>).

²⁸ Livius, *Historiae Romanae decades*. [Venice]: Vindelinius de Spira, 1470. Folio. ISTC il00238000.

²⁹ For the miniaturists mentioned in this note and in notes 32, 36, 38, cf. references in notes 44, 46-56. Copies of the 1470 Livy with identifiable owners and miniaturists are: Priuli (Wien, ÖNB, Inc. 5.c.9), Putti Master; Baffo (Houghton, Typ Inc 4023), Pico Master; Trevisan (Venice, BNM, Inc. Ven. 110), Pico Master; Cornaro (Venice, BNM, Inc. V. 98-99), Giovanni Vendramin (?); Friziero (NY, Morgan, PML 279 [Ck1st, ff 719 [ii]), Pseudo-Girolamo (?); San Giorgio Maggiore, Venice (ex-Christie's, London, June 5-6, 2013, lot 209), Pico Master.

³⁰ Copies of the 1470 Livy with hand-stamped woodcut borders and identifiable owners are: Dolfin (Oxford, Bodleian, Auct. L. I. 8-9), Putti Master; Donà dalle Rose (NY, Morgan, PML 266 [ChL ff719a]), Franco de' Russi; Marcello (Venice, BNM, Inc. Ven. 101-103).

³¹ For the print run of the Pliny cf. note 10 above.

cratic German merchant resident in Venice and sometime business colleague of Nicolaus Jenson; and the monasteries of Santa Giustina in Padua (with unidentified coat of arms); and San Giorgio Maggiore, Venice; and several copies containing unidentified coats of arms.³² These decorated copies show that from the first year of publication, Johannes de Spira enabled acquisition of a high proportion of his production with handsome hand-illumination.

Several editions printed by Nicolaus Jenson also have high numbers of hand-illuminated copies. For example, 22 of the extant 81 copies of Eusebius, *De evangelica praeparatione* of 1470, are known to have been illuminated, 6 of them with hand-stamped woodcut borders.³³ Likewise, 14 copies of the extant 52 copies of Tortellius of 1471 are beautifully decorated.³⁴ But the all-time winner in the hand-illuminated incunabula sweepstakes is Nicolas Jenson's 1472 edition of Pliny in Latin, for which I have records of 49 illuminated copies out of the 143 extant books (34%).³⁵ At least 10 copies were printed on vellum and 4 were decorated with hand-stamped woodcut borders. The list of owners as identified by family coats of arms reads like a 'Who's Who' of the Venetian patriciate: Barbarigo, Barbaro, Boldù, Cornaro, Donà, Foscari, Loredano, Negri, and Priuli; joined by Venetian *cittadini originari* Agostini and Macigni; Paduan nobility Conti and Granfioni; plus Malvezzi of Bologna, Buoninsegni and Medici of Florence, Masotti of Verona, and Cesi of Rome.³⁶ Numerous other coats of arms

32 For Jacopo Zeno cf. note 8 above; for Ugelheimer cf. *Hinter dem Pergament*. The Venetian noble owners of the 1469 Pliny are: Cornaro (London BL C.2.d.5); Erizzo (Venice, BNM, Inc. V. 106); Contarini (Venice, BNM, Inc. V. 1); Pietro Barozzi (Padua, Biblioteca Capitolare, Inc. 307); Jacopo Zeno (Ravenna, Biblioteca Classense, Inc. 670); Giovanni Vendramin. In addition: Petrus Ugelheimer (Paris, BnF, Vél. 493-494); Santa Giustina Padova (Chicago Newberry P-789 [with unidentified coat of arms]); San Giorgio Maggiore, Venice (Padua, Biblioteca del Seminario Vescovile, Forc. K.1.13), Pico Master.

33 Eusebius, *De evangelica praeparatione*. Venice: Nicolaus Jenson, 1470. Folio. GW 9440; ISTC ie00118000.

34 Tortellius, *De orthographia*. Venice: Jenson, after 21 May 1471. Folio. ISTC it00395000.

35 Plinius Secundus, Gaius, *Historia naturalis*. Venice: Nicolaus Jenson, 1472. Folio. ISTC ip00788000.

36 Venetian noble families: Barbarigo (Wien, ÖNB, Inc. 5.B.1, vellum), Pico Master; Barbaro (Città del Vaticano, BAV, Stamp. Ross. 2165), Pico Master; Boldù (San Marino, Huntington Library, 94920, vellum), Pico Master; Cornaro (Chantilly, Bibliothèque du Musée Condé, XX.II.D.5 [Nr. 1491], vellum), Putti Master; Donà Riva di Biasio (Coleraine, University of Ulster, Library, vellum), Franco de' Russi; Foscari (Wien, ÖNB, Ink 32-10), Master of the Rimini Ovid; Loredano (Wormsley Library, vellum), Pico Master; Negri (Paris, BnF, Rés. S. 415); Priuli (New York Public Library, Rare Books Division), Putti Master. Owners who were Venetian *cittadini originari* are: Agostini (Città del Vaticano, BAV, Stamp. Barb. AAA IV, I), Putti Master and workshop; and Macigni (Padua, Biblioteca del Seminario Vescovile, Forc. K.1.9), Putti Master. Paduan noble families are: Conti (London, British Library, C.2.d.8, vellum), Pico Master; Granfioni (ex-Alan Thomas, London), Pico Master. Other Italian noble families: Malvezzi of Bologna (Ox-



Figure 6 Master of the Pico Pliny, architectural frontispiece with Dante and Vergil in the Dark Wood. Priuli of Venice coat of arms, in Dante Alighieri, *La Commedia*. 1477-78. Milan: Ludovico and Alberto Pedemontani. Rome, Biblioteca Casanatense, Inc 730, sig. b1r

on copies of Jenson's 1472 Pliny have not been identified.

The listing of owners of the Jenson Pliny highlights the issue of patronage of the earliest printers in Venice. Martin Lowry convincingly argued in 1991 that members of the Priuli family of Venice must have invested in the new industry of printing, in part because of the high number of incunabula bearing the Priuli coat of arms.³⁷ Lowry's count can be increased slightly to include nine books printed by the de Spira brothers, twelve printed by Nicolaus Jenson, and one printed by Cristoforo Valdarfer, all in the years 1469-1472. However, it should be kept in mind that Priuli arms also appear on several incunabula printed later: a Regiomontanus printed by Ratdolt in 1476; a Dante printed in Milan in 1477-78 [fig. 6]; and a Giustiniano printed by Antonius de Strata in 1482.³⁸

Even more secure assumptions regarding investment in the earliest printers may be made regarding twenty-two incunabula (twenty-four volumes) owned or in some way possessed by the Agostini, a non-noble Venetian *cittadini originari* family.³⁹ Members of this family were known to have been merchants of paper and bankers, and to have been designated as executors of Nicolaus Jenson's will.⁴⁰ Agostini ownership is confirmed by their coat of arms painted in twenty of the volumes,⁴¹ and for six of the volumes printed on vellum, the name *.b. agustini* is written one or more times, usually on the lower margin of a recto.⁴² In two cases, the words *de la Carità* and in two other cases *sancta feliciis* are written on lower margins across the

ford, Bodleian Library, Auct. N.1.2); Buoninsegni of Florence (Cambridge, Harvard University, Houghton Library, Typ Inc 4087); Medici of Florence (London, British Library, G. 9382, possibly 19th century); Masotti of Verona (ex-Wardington Collection), Pico Master; Cesi of Rome (Rome, Biblioteca Casanatense, Inc. 1157, vellum), Franco de' Russi.

37 Lowry, *Nicholas Jenson*, 83-4.

38 Priuli arms appear in: Regiomontanus, Johannes, *Kalendarium [Italian] Calendarario*. Venice: Bernhard Maler (Pictor), Erhard Ratdolt and Peter Löslein, 1476. 4°. ISTC ir00103000 (Venice, Biblioteca Nazionale Marciana, 395D 054); Dante Alighieri, *Commedia*. Milan: Ludovicus and Albertus Pedemontani, 27 September 1477; 22 November 1477; 9 February 1478. Folio. GW 7965; ISTC id00028000 (Rome, Biblioteca Casanatense, Inc 730), Pico Master; and Justiniano, Leonardo, *Canzonette*. Venice: Antonius de Strata, 9 March 1482. 4°. ISTC ij00501000 (Venice, BNM, Rari Ven. 484).

39 For the Agostini books cf. now Appendix 1; and Alexander, "Notes", nos. 3, 7 (Alexander suggested the coat of arms might be those of Nicolaus Jenson); Armstrong, *Renaissance Miniature Painters*, cat. nos. 17, 23, 35, 37-8, 41-2 (identifying coat of arms as Agostini); Armstrong, "The Agostini Plutarch", 86-96 (reprinted in Armstrong, *Studies*, 215-32); Lowry, *Nicholas Jenson, passim* (on Agostini business affairs in relation to Jenson); Armstrong, "Venetian Incunables in Cambridge Collections", 233-43, and Color Pl. XVI. To my knowledge, no unified listing of the Agostini books has been published before; now cf. Appendix 1.

40 For English translation of Jenson's will, cf. Lowry, *Nicholas Jenson*, 228-34.

41 Appendix nos. 1-13, 16, 19, 20-1, 22-3, and 24.

42 Appendix nos. 9, 14-17, 19.



Figure 7 Girolamo da Cremona, frontispiece with fictive giant book in landscape, Agostini of Venice coat of arms, in Plutarchus, *Vitae virorum illustrium*, 1478. Venice: Nicolaus Jenson. New York, Morgan Library and Museum, 77565 [ChL767], sig. A1r. © The Morgan Library & Museum, New York

gutter of a vellum bifolium, in addition to the name *b. agustini*.⁴³ It should probably be presumed that the Agostini were merchants of parchment, in addition to paper, and that the batches of parchment inscribed by “B Agostini” were destined for specific patrons.

The preferred miniaturists of the Agostini were the two most exquisite masters working in Venice in the 1470s, the Master of the London Pliny (London Pliny Master) and Girolamo da Cremona.⁴⁴ Among the most fascinating of these is a frontispiece for a Plutarch printed by Nicolaus Jenson in 1478, now divided between Paris and New York.⁴⁵ For the second volume, Girolamo da Cremona painted the margins of the opening text to resemble a gigantic book in a spectacular binding set in a rocky landscape [fig. 7]. Immediately surrounding the text of the Life of Cimon is a monochrome pink-red border decorated with floral motifs; gold clasps at the four corners suggest the protective furniture of a sumptuous binding. Also ‘attached’ to the ‘binding’ are clusters of jewels and cameos with profile busts of *all’antica* personages. The Agostini coat of arms is embedded in a huge jewelled cartouche in the lower margin. To the right of the oversized volume is a rocky landscape with ducks swimming in a pool, a tiny walled castle in the distance, and birds flying in the blue sky. The Agostini seem to have been amazingly compensated for their involvement with Jenson!

Mention of the London Pliny Master and Girolamo da Cremona opens the topic of the identifiable miniaturists who hand-illuminated incunabula in the early 1470s and on into the 1480s and 1490s, the later period to be discussed momentarily. Great strides have been made in defining the styles of miniaturists active in Venice in the incunable period, especially in the realisation that many of the same artists illuminated both manuscripts and incunabula. To judge from the decoration of Venetian imprints, in some cases amplified by documents, at least eleven miniaturists can be securely named as active in Venice in the incunable period (a number of whom have already been mentioned above). Those whose *oeuvres* have been identified are: the Master of the Olschki Plutarch;⁴⁶ the Master of the Putti (Put-

⁴³ Appendix nos. 14 and 16, Carità; nos. 15 and 17, S. Felicii.

⁴⁴ Agostini books illuminated by the Master of the London Pliny are Appendix nos. 2, 7, 10-12, 16, 18-21; for the Master of the London Pliny cf. Armstrong, *Renaissance Miniature Painters, passim*; Bentivoglio-Ravasio, “Maestro del Plinio di Londra”, 642-50 (which includes discussion of possible identification with Giovanni Todeschino). Agostini books illuminated by Girolamo da Cremona are Appendix nos. 9, 13, 22-3; cf. Toniolo, “Girolamo da Cremona”, 310-15.

⁴⁵ Appendix, nos. 22-3. Cf. Armstrong, “Plutarch *Parallel Lives*”, 188-190, nos. 94-5.

⁴⁶ Marcon, “Ornati di penna e di penello”, 121-44.

ti Master);⁴⁷ the Master of the London Pliny (London Pliny Master);⁴⁸ Franco de' Russi;⁴⁹ Girolamo da Cremona;⁵⁰ Master of the Pico della Mirandola Pliny (Pico Master);⁵¹ Benedetto Bordon;⁵² Second Master of the Grifo *Canzoniere* (also known as the Master of the Triumph of Venus);⁵³ Master of the Rimini Ovid;⁵⁴ Master of the Seven Virtues;⁵⁵ and Petrus V...⁵⁶ Giovanni Vendramin and Antonio Maria da Villafora are documented as active in Padua, also illuminating Venetian imprints.⁵⁷ If each of these artists had a 'workshop' in Venice or Padua, guild regulations would have permitted each to have two additional *maestri* working with them, as well as one or more *garzoni* or assistants. Complaints by 1479 about numbers of *garzoni* and *forestieri* (foreigners) who were not registered with the guild suggest that numerous non-Venetian artists were indeed working in the city.⁵⁸ Collectively, the activities of these artists were occasioned by the increased demands for hand-illumination of newly printed incunabula.

47 Mariani Canova, "Le origini della miniatura rinascimentale veneta", 76-86; Armstrong, *Renaissance Miniature Painters, passim*; Gnaccolini, "Maestro dei Putti", 466-8.

48 Cf. note 44 above. For the issue of identifying the Master of the London Pliny with Giovanni Todeschino cf. D'Urso, *Giovanni Todeschino*.

49 Toniolo, "Franco de' Russi", in Hermann, *La miniatura estense*, 221-30; Toniolo, "Franco de' Russi", 240-4.

50 Toniolo, "Girolamo da Cremona", in Hermann, *La miniatura estense*, 241-7; and cf. note 44 above.

51 Armstrong, "Il maestro di Pico", 8-39; figs. 1-44 on 215-53 (republished in English translation with expanded appendix as: "The Pico Master", in Armstrong, *Studies*, 233-338); Bentivoglio-Ravasio, "Maestro del Plinio", 635-42.

52 Mariani Canova, "Profilo su Benedetto Bordon", 99-121; Armstrong, "Benedetto Bordon, *Miniator*", 65-92 (reprinted in Armstrong, *Studies*, 591-643), especially note 2 with extensive bibliography; Marcon, "Benedetto Bordon", in DBMI, 121-4.

53 Mariani Canova, "Antonio Grifo", 147-200; Marcon, "Una Aldina miniata", 107-31; Guest, "The Second Master of the Grifo 'Canzoniere'", 111-16; Pesavento, "Antonio Grifo, *Rime*", 222-3, cat. no. 30.

54 Armstrong, "The Master of the Rimini Ovid", 327-63 (reprinted in Armstrong, *Studies*, 435-88); Nicolini, "Maestro dell'Ovidio di Rimini", 612-14.

55 Bentivoglio-Ravasio, "Maestro delle Sette Virtù", 579-83.

56 Armstrong, "Opus Petri", 385-412 (reprinted in Armstrong, *Studies*, 339-405).

57 For Vendramin cf. notes 8, 25; for Antonio Maria cf. Gnaccolini, "Antonio Maria da Villafora", 36-40; Toniolo, "Il sodalizio tra il vescovo Pietro e Antonio Maria da Villafora", 289-304.

58 On workshop regulations cf. note 23 above.

5 The Later 1470s and 1480s

In the later 1470s and 1480s, the print runs of Venetian editions greatly increased, and the percentage of copies that were hand-illuminated was much lower. Nevertheless, hundreds of Venetian incunabula were decorated by hand in this period, some modestly but many extensively.⁵⁹ Copies of classical and patristic editions were frequently hand-illuminated, as were texts by Dante, Petrarca, Boccaccio; also law and liturgical texts, especially Bibles, Breviaries, and Books of Hours.⁶⁰ Examples of editions in these various categories are the 26 hand-illuminated copies of Nicolaus Jenson's 1478 Plutarch, and the 45 hand-illuminated copies of his 1478 *Breviarium romanum*, 14 copies of Jenson's 1479 *Biblia latina*; 14 copies of the 1481 *Biblia latina cum postillis*.⁶¹ Nineteen illuminated copies of Franciscus Renner's 1480 *Biblia latina* are known, as well as 17 copies of Sabellicus, *Rerum Venetarum Decades* of 1487.⁶²

As in the earliest period, hand-illumination in this era can provide information about Venetian patronage and trade in books. A brilliantly coloured frontispiece appears on a Dante printed in Milan in 1477-78, complete with architectural motifs and a scene in the lower margin in which Dante and Virgil confront each other in a landscape, while at one side appear the 'three beasts' of Inferno I [fig. 6].⁶³ The illumination reveals that, although the Dante was printed in Milan, it was decorated by one of the most prominent miniaturists active in Venice, the Master of the Pico Pliny (Pico Master), and the coat of arms are those of the Priuli of Venice, noted earlier as among the strongest supporters of the new industry in the Serenissima.⁶⁴ A reasonable assumption would be that the 1477-78 Dante came from Milan to Venice undecorated, was purchased by a member of the Priuli family, and placed with the Pico Master for decoration along with instructions to include the family coat of arms.

⁵⁹ I have extensive notation of hand-illuminated incunabula after 1474, but the counts for given editions are considerably less complete than for the period 1469-74.

⁶⁰ Armstrong, "Nicolaus Jenson's *Breviarium*"; Mulas, "I Libri a stampa pergamenacei", 179-89; Barbieri, *Le Bibbie italiane del Quattrocento e del Cinquecento*; Armstrong, "The Hand Illumination", 229-36; Dondi, *Printed Books of Hours*.

⁶¹ Armstrong, "Illuminated Copies of Plutarchus, *Vitae illustrium virorum*", 69-117; Armstrong, "Nicolaus Jenson's *Breviarium*"; Mulas, "Incunaboli miniati del Breviario", 615-25.

⁶² Marcus Antonius Sabellicus, *Rerum venetarum decades*. Venice: Andreas Torresanus, 21 May 1487. Folio. ISTC is00005000; for illuminated copies cf. Armstrong, "Pico Master", cat. nos. 74, 75, 76, 114, 115; Armstrong, "Rimini Ovid Master", nos. 12, 13, 14.

⁶³ Dante Alighieri, *Commedia*. Milan: Ludovicus and Albertus Pedemontani, 27 September 1477; 22 November 1477; 9 February 1478. Folio. GW 7965; ISTC id00028000 (Rome, Biblioteca Casanatense, Inc 730), as in note 38 above.

⁶⁴ On the Priuli cf. above and notes 29, 36, 38.



Figure 8 Master of the Seven Virtues, miniature of the pope, three cardinals. Gratian and Rigolini of Friuli coat of arms, in Gratianus, *Decretum*. 1477. Venice: Nicolaus Jenson. Wolfenbüttel, Herzog August Bibliothek, Sig. 1.4.Jur 20 [Perg], sig. a2r

From the mid-1470s onwards, Venetian printers were avidly supplying Canon and Civil law texts for use at universities, but many copies appear also to have been illuminated for private patrons.⁶⁵ Printers followed the lay-out for their Law texts that had been firmly established in the manuscript tradition in the 14th century, that is, core text of Canon or Civil law in two columns, surrounded by commentary, also in two columns. Almost always, a large space was reserved for a miniature above the opening core text. The miniatures usually showed the relevant Pope (for Canon law) or the Emperor Justinian (for Civil law) surrounded by cardinals or courtiers, while being presented with the text by its author. A typical example of this composition appears in a Gratian printed by Nicolaus Jenson in 1477, illuminated by the Master of the Seven Virtues or by a colleague in his workshop [fig. 8].⁶⁶ Garbed in a black habit, Gratian is assisted by a youth to present a volume to a cardinal on the left. Three other cardinals at the right consider a second blue volume, while in the centre, the enthroned Pope raises his hand in blessing. Further decorating this vellum copy is a historiated initial of the Virgin and Child, while in the lower margin is a coat of arms, probably of the Rigolini of Friuli.⁶⁷

In contrast to this handsomely illuminated law book for an unknown patron are the much better known law and philosophical texts that were lavishly decorated for Nicolaus Jenson's sometime partner, Petrus Ugelheimer.⁶⁸ A team of artists under the lead of Girolamo da Cremona illuminated 14 incunabula for Ugelheimer in the period 1477-83, among which were four texts of Canon and Civil law, and four commentaries on the works of Aristotle. Collectively these volumes are undoubtedly the most spectacular suite of hand-illuminated incunabula ever produced. The law-books open with full page painted compositions on versos facing the first page of text which is in turn replete with a presentation miniature, elaborate full painted borders, and Ugelheimer's coat of arms. On the basis of the extreme luxury of these volumes, it must be assumed that Ugelheimer invested heavily in the publications by Nicolaus Jenson and his associates.

Dozens of Bible editions were printed in Venice in the 15th century: Bibles in Latin; Bibles in Italian; and multi-volume Bibles with

⁶⁵ Lowry, *Nicholas Jenson*, 137-72. Cf. numerous hand-illuminated law texts catalogued in *Tesori nascosti*; and Fumian, *Gli incunaboli miniati*. Cf. also Panzanelli Fratoni's essay in this volume.

⁶⁶ Gratianus, *Digestum*. Venice: Nicolaus Jenson, 1477. Folio. GW 11357; ISTC ig00366000 (Wolfenbüttel, Herzog August Bibliothek, Sig. 1.4.Jur 20 [Perg]).

⁶⁷ The blazon is "per pale argent and sable, a ram's head counterchanged" (Eugenio Morando di Custoza, *Blasonario veneto*, Verona: 1985, Tav. DXII).

⁶⁸ For full treatment of the Ugelheimer books cf. *Hinter dem Pergament*; on his relationship to Jenson, cf. Hellinga in note 2.



Figure 9 Antonio Maria da Villafora, St. Jerome in study, floral and acanthus borders, sea-centaurs support coat of arms of Petrus Ugelheimer, in *Biblia latina*. 1479. Venice: Nicolaus Jenson. Dresden, Sächsische Landesbibliothek- Staats- und Universitätsbibliothek, Inc. 20 2876, sig. a2r. © SLUB Dresden, Deutsche Fotothek



Figure 10 Benedetto Bordon, illuminated borders with classical motifs, satyrs, and miniature of St. Jerome in a landscape, as in *Biblia Latina cum postillis Nicolai de Lyra*. 31 July 1481. Venice: [Johannes Herbort de Seligenstadt], for Johannes de Colonia, Nicolaus Jenson, et Socii. Paris, BnF, Vél. 111, sig. plr

the massive commentary of Nicolaus of Lyra.⁶⁹ Editions of the *Biblia latina* settled into an oft-repeated format: two columns of Gothic type and a generous space allowed preceding St Jerome's *Letter to Paulinus of Nola*, beginning *Frater Ambrosius*, a text normally placed before other prologues and the text proper of *Genesis*. Miniaturists provided images of St Jerome for this area, and elaborate borders if requested. An example is a 1479 Jenson *Biblia latina* beautifully illuminated by Antonio Maria da Villafora, now in Dresden [fig. 9].⁷⁰ In the historiated initial St Jerome is represented at a desk studiously writing, and the upper, inner and outer margins are filled with north Italian floral motifs and gold dots. In contrast, in the lower margin are two swash-buckling mermen with coiling multicoloured fish-tails and puzzled expressions that are typical of the Paduan miniaturist Antonio Maria da Villafora. They support a wreath which surrounds the coat of arms of Petrus Ugelheimer.

The page layout for editions of the Bible with commentary was necessarily more complex, frequently resembling the law texts noted earlier. This format can be observed in a copy of the *Biblia latina cum postillis Nicolai de Lyra* of 1481 in Paris which may also have been destined for Petrus Ugelheimer, and which was illuminated by Benedetto Bordon or his workshop [fig. 10].⁷¹ A painted decorative initial opens the Nicolaus of Lyra commentary which surrounds St Jerome's *Preface to Chronicles*, in turn opened by an initial in which sits a putto painted in monochrome. In the lower margin, St Jerome and his lion are situated by a rocky outcropping in a landscape, while in the outer margin are depicted a surprisingly affectionate couple of satyrs and other classicizing motifs.

In these Bible editions with Nicolaus of Lyra's commentary, spaces were also left blank to accommodate potential illustrations mentioned by the commentator. In a few rare cases, these volumes were supplied with painted or pen-drawn diagrams and images.⁷²

69 Zatelli, Gabriele, *La Bibbia a stampa da Gutenberg a Bodoni*; Jensen, "Printing the Bible in the Fifteenth Century", 115-38; cf. also Armstrong, "Hand Illumination of Venetian Bibles".

70 *Biblia latina*. Venice: Nicolaus Jenson, 1479. Folio. GW 4238; ISTC ib00563000 (Dresden, Sächsische Landesbibliothek, Inc. 2° 2876, vellum); cf. *Hinter dem Pergament*, 241-2, cat. no. 42 and colour plates 69 (Prologus), 111 (In principio), and 76 (binding).

71 *Biblia latina cum postillis Nicolai de Lyra*. Venice: [Johannes Herbolt de Seligenstadt], for Johannes de Colonia, Nicolaus Jenson, et socii, 31 July 1481. Folio, listed as in Parts I-IV. GW 4286; ISTC ib00611000 (Paris, BnF, Vél. 111, sig. P1r). The five volumes containing parts of this elaborately hand-illuminated Bible (Vél. 111-114 and 957) are lacking sections of text, are misbound, and the illuminations have suffered damage; cf. Armstrong, "Hand-illumination of Venetian Bibles", 107-13.

72 Examples with sets of diagrams and illustrations added by hand are: *Biblia latina cum postillis*, 1481 (Paris Vel. 111-114; as above, note 70), illuminations by Bordon and other miniaturists, pen drawings by Pico Master; *Biblia latina cum postillis Nicolai de*

6 1490s: Woodcut Frontispieces and Illustrations

By the early 1490s, printers and miniaturists alike realised that “finishing” the thousands of books that were being printed was an impossibility. Printers employed artists to design woodcuts whose carved blocks could be inserted into the same forme as the lines of type, inked, and printed simultaneously with the text. This insured that, if desired, every copy of a given edition was decorated and/or illustrated.⁷³ Woodcut illustrations had appeared in a few German incunabula in the 1470s, and woodcut borders were employed in Venice by Erhard Ratdolt in the later 1470s and 1480s.⁷⁴ But Venetian printers (and their patrons) did not enthusiastically accept woodcut decoration and illustration until the end of the 1480s.⁷⁵ In his extraordinary survey of Venetian books with woodcuts, Victor Masséna, Prince d’Essling, lists just over 300 editions with woodcuts between 1487 and 1500.⁷⁶ Some of these editions contain only one or two woodcut images, while notable others were complemented by woodcut borders and hundreds of small illustrative ‘vignettes’.

Two miniaturists dominated the design of woodcuts in the 1490s: the Pico Master (A.M. Hind’s ‘Popular Master’),⁷⁷ and Benedetto Bordon (Hind’s ‘Classical Master’),⁷⁸ both of whom were prolific miniaturists mentioned earlier in this essay. The Pico Master derives his

Lyra. Venice: Franciscus Renner, 1482-1483. Folio. (GW 4287; ISTC ib00612000; BAV, Inc. Ross. 1157-1159), illuminations and pen drawings by Pico Master; *Biblia latina cum postillis* 1482-3. (Padova Biblioteca Capitolare, Inc. 103), pen drawings by Antonio Maria da Villafora (Fumian, Cat. 154).

73 On woodcut printing techniques cf. Hind, *An Introduction to a History of Woodcut*, 1-28. By ‘decoration’ I refer to architectural, floral, or classicising motifs used for borders; by ‘illustration’ I refer to smaller woodcuts with figural compositions that illustrate the texts.

74 For extensive bibliography on Ratdolt cf. Baldasso, “Printing for the Doge”, 525-52, esp. fn 1.

75 Essling, Hind, *Introduction*; De Simone, *A Heavenly Craft*; Armstrong, *La xilografia nel libro italiano del Quattrocento*.

76 Essling; and ISTC searching for “Essling”.

77 Hind, *An Introduction to a History of Woodcut*, 464-85; Armstrong, “Pico Master” (English translation, 2003), 269-314, 327-9; Armstrong, *La xilografia nel libro italiano del Quattrocento*, 57-102. Hind emphasises the distinction between the designers and the cutters: “My remarks have shown that I regard the designers of Venetian book-illustration as distinct from the cutters, and of greater artistic importance in our history. It would be of far greater interest to identify any of these designers than find an explanation for any of the monograms of cutters which we have cited” (469). He further observed: “The distinction is vital to the understanding of book-illustration in Venice, and seems to indicate the existences of two master designers, who are probably to be found among the miniaturists and painters, and not among the craftsmen who cut the blocks” (464).

78 Hind, *An Introduction to a History of Woodcut*, 487-96; Armstrong, “Woodcuts for Liturgical Books”, 65-93 (reprinted in Armstrong, *Studies*, 683-731); Armstrong, “Woodcuts in Classical Texts”, 41-63.



Figure 11 Master of the Pico Pliny, designer, woodcut architectural border with motif of *putti* on horses on the base, narrative scene of ambassadors from King Ptolemy VI to the Roman Senate, in Titus Livius, *Historiae Romanae decades*. 11 Feb. 1493. Venice: Johannes Rubeus Vercellensis, for Lucontonio Giunta. Decade 4. Washington, D.C., Library of Congress, Rosenwald 274, sig. a1r

name from the Pliny manuscript that he illuminated for Pico della Mirandola in 1481, complete with an elaborate architectural frontispiece and thirty-seven historiated initials.⁷⁹ By 1490 the Pico Master appears to have turned energetically to the design of woodcuts. In the period 1490 to 1492 he designed four elaborate architectural borders that were reprinted many times in a variety of texts.⁸⁰ For example, the architectural border that was first used in a *Biblia italica* in 1490, reappears three times in a Livy of 1493 [fig. 11].⁸¹ The borders are replete with classical pilasters, a curved pediment and an entablature from which dangle strings of beads, while curious fish-tailed creatures at the foot of the pilasters hold long poles supporting classical cuirasses, all perhaps more appropriate for Livy's Roman history than for the biblical text they first surrounded. A blank shield is provided in the lower margin, awaiting an owner's blazon. The fragile putti and other mythical creatures, the trophies hanging on strings – all these are motifs earlier found in the Pico Master's illuminations including the 1481 Pliny for Pico della Mirandola, and the 1477 Dante for the Priuli, mentioned above [fig. 6].

The high numbers of small woodcut illustrations, usually called “vignettes”, that illustrate Venetian texts in the 1490s is staggering. The 1490 *Biblia italica*, in which the first of the Pico Master's architectural woodcut borders appears, contains 384 vignettes; the 1493 Livy with the same architectural border is illustrated with 420 small woodcuts; the 1491 Dante includes 97 narratives; Jerome, *Vitae patrum* of 1491 includes 387 vignettes; the Boccaccio *Decamerone* of 1492 another 99; the Jacobus de Voragine of 1492 another 188; the Masuccio of 1492 adds 55; and so on.⁸² Although many of the vignettes were repetitive

79 Plinius, *Historia naturalis*, 1481. (Venice, Biblioteca Nazionale Marciana, MS Lat. VI, 245 [= 2976]). Cf. Mariani Canova, *Miniatura veneta*, colour pls. 33-34; Armstrong, “Pico Master” (English translation, 2003), 234-6; McHam, “Erudition on Display”, 83-114.

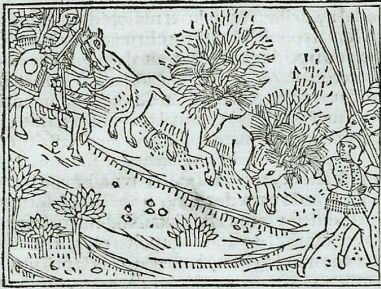
80 Twelve editions in which the four architectural borders appear are listed in Armstrong, “Pico Master” (English translation, 2003), 328. Additional editions are illustrated in Armstrong, *La xilografia nel libro italiano del Quattrocento*, figs. 23-24, 28.

81 Livius, *Historiae Romanae decades* [in Italian]. Venice: Johannes Rubeus Vercellensis, for Lucantonio Giunta, 11 February 1493. Folio. ISTC il00255000, sigs a1r, aa1r, A1r (facsimile available for Munich, BSB, 2^o Inc c.a. 2886e, 1-3, at <http://daten.digitaale-sammlungen.de/~db/0008/bsb00082263/images/>). Cf. also Armstrong, “Titus Livius”, 168-71, and illustration of sig. A1r.

82 *Biblia* [Italian]. Venice: Giovanni Ragazzo, for Lucantonio Giunta, 15 October 1490. Folio. GW 4317; ISTC ib00644000 (Essling, no. 133); Livius (as in n. 81; Essling, no. 33); Dante, *La Commedia*. Venice: Petrus de Plasiis, Cremonensis, 18 Nov. 1491. Folio. GW 7970; ISTC id00033000 (Essling, no. 532); Hieronymus, *Vitae sanctorum patrum* [Italian]. Venice: Giovanni Ragazzo, for Lucantonio Giunta, 25 June 1491. Folio. ISTC ih00232000 (Essling no. 568); Boccaccio, *Decamerone*. Venice: Johannes and Gregorius de Gregoriis, de Forlivio, 20 June 1492. Folio. GW 4449; ISTC ib00728000 (Essling no. 640); Jacopo da Voragine, *Legenda aurea sanctorum* [Italian]. Venice: Manfredus de Bonellis, de Monteferrato, 10 Dec. 1492. Folio. ISTC ij00179000 (Essling 678); Masuc-

eti fusseno in piu piano loco: Nòdimeno li carthagie
fi faccostaro con lexpedita caualeria & combattetero
ingiuriado linimici:& correndo qua & la raptamente
& ritornado idrieto. La squadra Romana si resto pur
re nel suo loco assai lentamente eombattendo piu p
uolunta del dictatore che de hannibale.

Come Hannibale fece legare a corni de molti boui
certe fascelle:ouogliamo dire facole & spaueto linimi
ci mandado q̄lli la nocte p li monti che sopraftauano
a Roani.Et come passo col suo exercito quelli luochi
pericolosi. Capitulo. xxii.



H Annibale dapoi pareua che fusse rinchiu
fo & affediato a Casilino:còcio fusse che li
Sanniti & Capuani & tati altri richi & pos
senti còpagni darorno a le fue spalle stanti
portasseno a Romani la uictuaglia & ogni altra cosa
befognate al suo exercito:Et ello cò li suoi haueffe tut
ro il còtrario:uededosi stare i mezo de li affalti & miac
cie de la fortuna & de saxi & de la arena de linterno &
de li stagni spauenteuoli & brutti a reguardare:& che
iui deueuano essere lestanze de lo exercito suo q̄l uer
no:Alhora uide ello apertamete che li Romai gia lo
comiciauò a molestare cò laltre sua cioe de rechider
lo & iganarlo i q̄l modo come lui sempre era ufato de

fi de foco:il q̄le i
tudine dhomin
gnia. Coloro lic
hebeno ueduto
de semedefimi
ti richiufi da ini
fo:& dirizandol
uedeuano:si co
sornita de giogl
cò certi buoi.Et
a loro che gitta
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Cò effedo F
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monti & le ripe
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ti li fuoi camina

Figure 12 Master of the Pico Pliny, designer, woodcut vignette of Roman soldiers terrified by cattle with flaming torches driven by Hannibal's troops, in Livius, 1493 (as in fig. 11). Cambridge, MA, Harvard University, Houghton Library, Typ Inc 5133A, sig. cc1r

and depended upon long traditions of illustration, such as the scenes illustrating bibles, others were inventive and vividly related to the texts for which few prototypes existed. For example, the Pico Master illustrated Livy's account of Hannibal's success in terrifying the Roman soldiers who had nearly trapped his army, by confronting them with cattle with flaming branches on their heads [fig. 12]. In the 1493 woodcut, Hannibal's soldiers on horseback drive two oxen with wildly flaming heads, as the Roman foot soldiers flee in terror.⁸³ The hundreds of illustrations in these books would have provided work not on-

cio, *Novellino*. Venice: Johannes and Gregorius de Gregoriis, 21 July 1492. Folio. ISTC im00346000 (Essling, no. 668).

⁸³ Livius, 1493 (as in note 81), sig. cc1r. The episode is related in Livy, Book 22.16-17 (Livy, with an English translation by B.O. Foster. London: William Heinemann, and New York: G.P.Putnam's Sons [Loeb Classical Library], V.254-259.

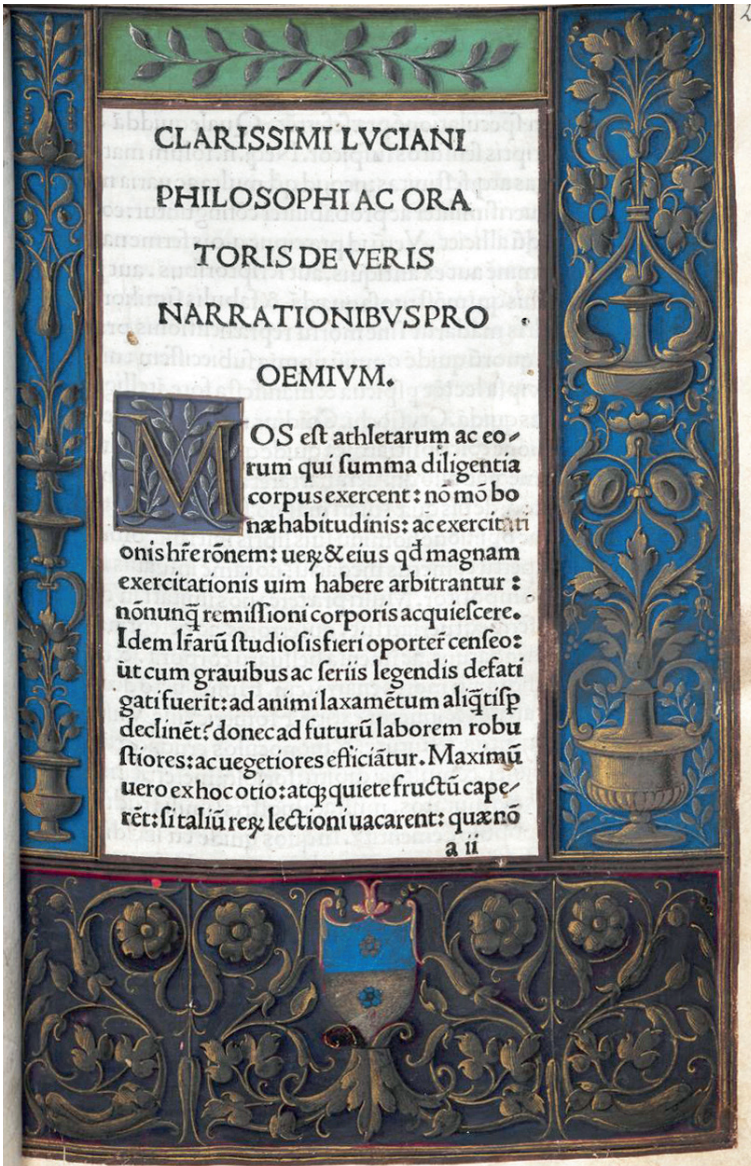


Figure 13 Benedetto Bordon, borders with classicizing motifs, Mocenigo of Venice coat of arms, in Lucianus, *Opera*. 25 August 1494. Venice: Simone Bevilaqua, for Benedetto Bordon. Vienna, ÖNB, Ink. 4.G.27, sig. a2r

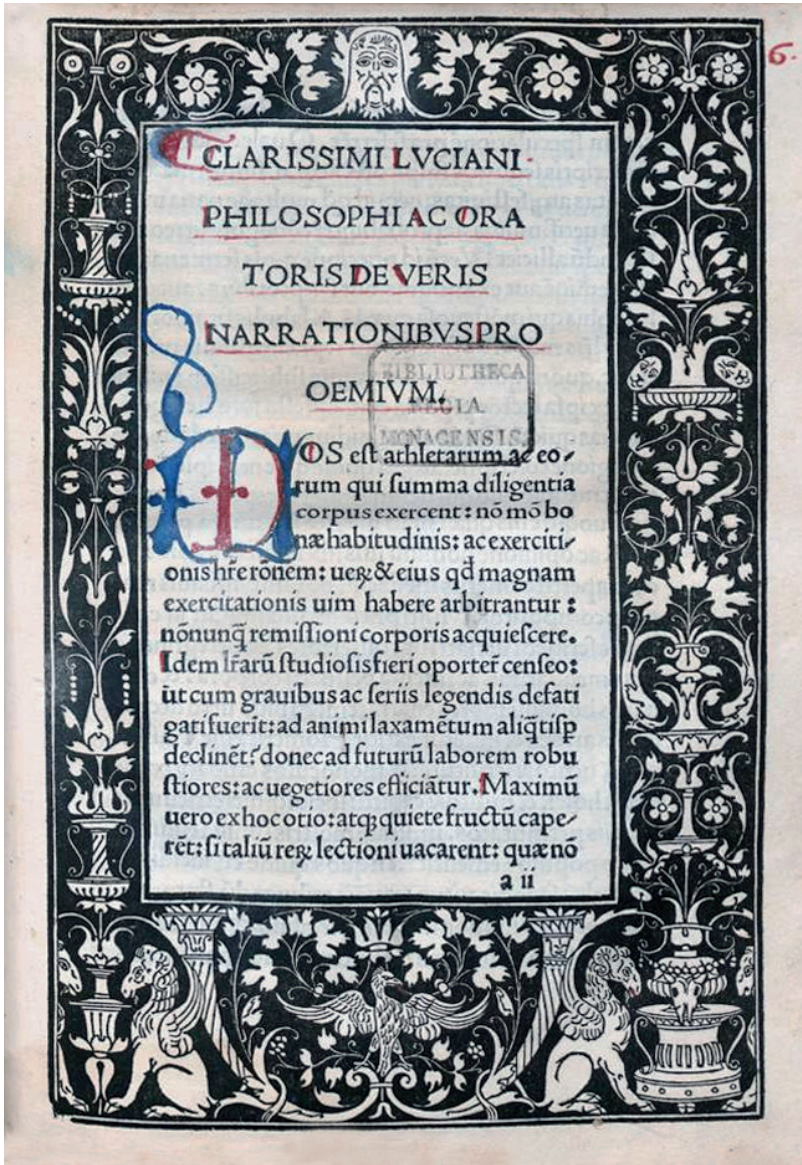


Figure 14 Benedetto Bordon, designer, woodcut borders with classicizing motifs, Germanic initial “M” in red and blue ink, coat of arms of Hartman Schedel (cropped), in Lucianus, 1494 (as in fig. 13). Bayerische Staatsbibliothek, München BSB, 4° Inc. c.a. 1117, sig. a2r

ly for the Pico Master and assistants who created the designs based on the texts, but also for the many cutters who must have carved the blocks themselves. This workforce also needs to be considered by historians of the book when constructing costs of production.

Like the Pico Master, the well-documented miniaturist Benedetto Bordon (c. 1450-1530) designed woodcut borders inspired by his illuminated manuscript borders.⁸⁴ For the vellum copy in Vienna of the Lucian that he edited and published in 1494, Bordon painted an exquisite border with classicising motifs in gold on blue, green and purple backgrounds [fig. 13].⁸⁵ In the border of the first text page appears the Mocenigo of Venice coat of arms, so this is presumed to be a presentation copy. For all the other copies of this edition, Bordon designed an elegant woodcut border with similar motifs appearing as white on a black ground [fig. 14].⁸⁶ In both, the hand-illuminated border and the woodcut one, vines with delicate leaves sprout in symmetrical patterns from classical vases, and paired dolphins curve downwards aside the vases. The woodcut elaborates the vocabulary by adding a bearded frontal head in the upper margin, and winged rams in the lower.

An even more complex 'white on black' border appears in a second incunable dated some months earlier in 1494, a Herodotus printed by Johannes and Gregorius de Gregoriis [fig. 15].⁸⁷ For this border the artist has added figural scenes: in the upper margin a kneeling satyr prepares to sacrifice a ram, and in the lower is a mythological scene with a seated male nude, three females, and the torso of a partially visible nude child.⁸⁸ A woodcut that is separate from the border appears above the text: in a scholarly study, Apollo strides toward the author Herodotus, and places a laurel wreath on his head. In the same way that the Pico Master woodcut borders were reused,

⁸⁴ On Benedetto Bordon cf. notes 52, 61, 78.

⁸⁵ Lucianus, *Opera*. Venice: Simon Bevilaqua, for Benedetto Bordon, 25 August 1494. 4^o. ISTC il00329000 (Vienna, ÖNB, Ink. 4.G.27, vellum); Facsimile at http://digital.onb.ac.at/RepViewer/viewer.faces?doc=DTL_5778308&order=1&view=SINGLE. Cf. also Pesavento, "Lucian, *Opera*". Aldo Manuzio: *Renaissance in Venice*, 199-202, cat. no. 19.

⁸⁶ Lucianus, 1494 (as in note 85) (Munich, BSB, 4^o Inc. c.a. 1117).

⁸⁷ Herodotus, *Historiae*. Venice: Johannes and Gregorius de Gregoriis, 8 Mar. [after 30 Mar.] 1494. Folio. GW 12323; ISTC ih00090000; cf. Munich, BSB facsimile at <http://daten.digital-e-sammlungen.de/~db/0005/bsb00054012/images/>. In my opinion, the woodcut border and the author scene should be attributed to Benedetto Bordon, but they have also been attributed to his *doppelgänger*, the Second Master of the Grifo *Canzoniere* or the Master of the Triumph of Venus (Susy Marcon, "Una Aldina miniata", 107-31); and cf. above, note 53.

⁸⁸ The scene has been variously interpreted. Lamberto Donati argued that it represented Thetis attempting to insure the immortality of Achilles in the presence on the Fates ("Di una figura non interpretata", 45-51), but his attribution of the design to Stefano Pellegrini has been largely rejected.

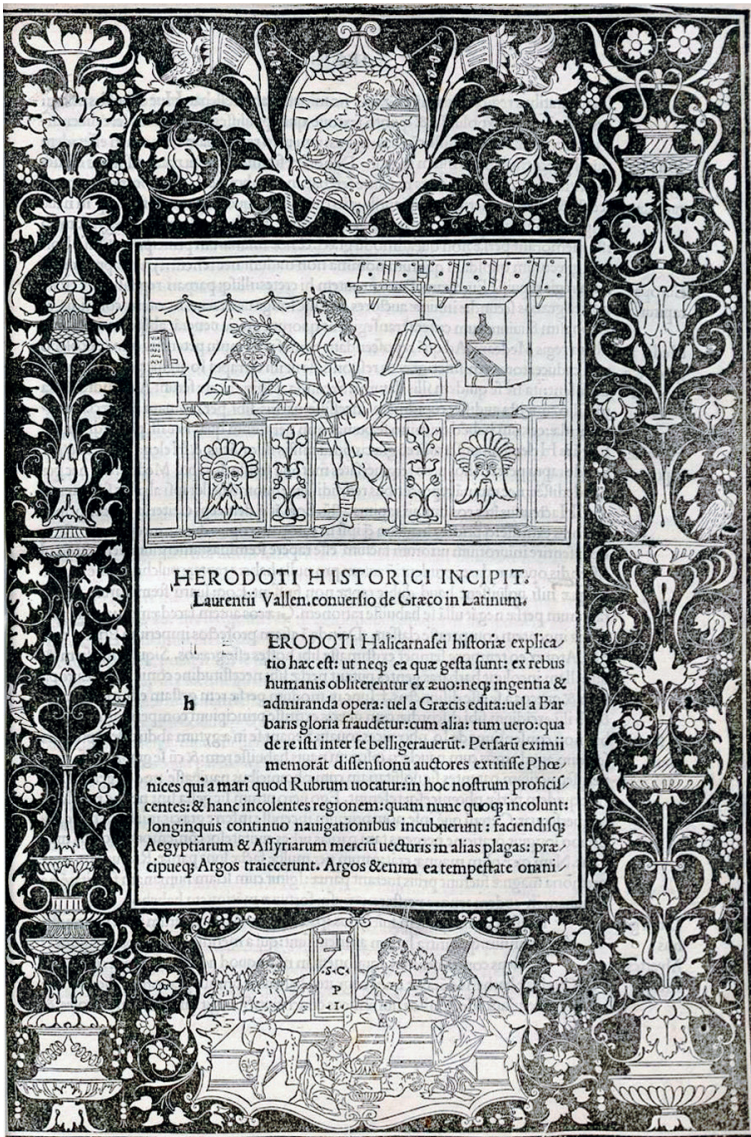


Figure 15 Benedetto Bordon, or the Second Master of the Grifo *Canzoniere*, designer.

Woodcut borders with classicizing motifs and allegorical figural scene, and woodcut of author crowned by Apollo, in Herodotus, *Historiae*. 8 March [after 30 March] 1494. Venice: Johannes and Gregorius de Gregoriis. Bayerische Staatsbibliothek, München, BSB, 2° Inc. c.a. 3064, sig. a1r



Figure 16 Benedetto Bordon, designer, Woodcut initial "R" with Christ Resurrected, in *Graduale romanum*. 1499-1500. Venice, Johannes Emericus de Spira, for LucAntonio Giunta. Berkeley, CA, University of California, Jean Gray Hargrove Music Library, fM2150.V452, fol. 155r



Figure 17 Benedetto Bordon, designer, woodcut initial "A" with David in Prayer with colour added, in *Graduale romanum*. (1499-1500 (as in fig. 16). Venice, Biblioteca Nazionale Marciana, Rari Ven. 708, fol. 1

the Herodotus border appears in several subsequent editions, including a Hieronymus *Commentarium in Bibliam* of 1497.⁸⁹

In addition to his work on classical texts, Benedetto Bordon designed many woodcuts for liturgical texts.⁹⁰ The woodcuts in the great choirbooks printed for LucAntonio Giunta around 1500 echoed the historiated initials for choirbooks that Bordon illuminated for the Franciscan oratory of San Nicolò dei Frari (or San Nicolò della Lattuga) in Venice, also around 1500.⁹¹ Woodcut historiated initials originally designed to enhance the *Graduale romanum* of 1499-1500 reappear in large and small Missals well into the sixteenth century. For example, the *Resurrected Christ* that Bordon designed for the Giunta *Graduale* [fig. 16]⁹² reappears in a beautiful *Missale ordinis Vallisumbrosae*, printed by LucAntonio Giunta in 1503.⁹³ The heroic figure of Christ pays homage to the great Paduan painter, Andrea Mantegna (1431-1506), as the standing figure echoes that painter's engraving of *Risen Christ between Saints Andrew and Longinus*.⁹⁴ Even around 1500, thirty years after the first books were printed in Venice, the impulse to enhance a page of text with colour, which was central to the illumination of manuscripts, led to the painting of some woodcuts with bright colours, as can be seen in the David in Prayer of the 1499-1500 *Graduale* in the Biblioteca Nazionale Marciana [fig. 17].⁹⁵

7 Concluding Observations

It is crucial that scholars of the book trade in the incunabula period incorporate into their studies the bibliographic, economic and cultural implications of hand-illumination and the production of books with woodcuts. These are hugely important, but understudied, aspects of Venetian early book production. As is presently being done by some

⁸⁹ Hieronymus, *Commentarium in Bibliam*. Venice: Johannes and Gregorius de Gregoriis, 1497-1498. Folio. GW 12419; ISTC ih00160000; sig. AA2r; cf. Armstrong, *Xilografia*, 105-108, and figs 50-51.

⁹⁰ Armstrong, "Woodcuts for Liturgical Books"; Lilian Armstrong, "Venetian and Florentine Renaissance Woodcuts", 25-45.

⁹¹ *Graduale romanum*. Venice: Johannes Emericus de Spira, for LucAntonio Giunta, 28 September 1499; 14 January 1499/1500; 1 March 1500. Folio. GW 10982; ISTC ig00332000. For the San Nicolò choirbooks, cf. Armstrong, "Benedetto Bordon and the 'San Nicolò Antiphonaries'", 569-85.

⁹² *Graduale romanum*, 1499-1500 (as in note 90; Berkeley, CA, University of California, Berkeley, Hargrove Music Library, fM 2149 V4G7).

⁹³ Armstrong, "*Missale... vallisumbrosae*", 304-5, no. 242.

⁹⁴ Landau, "Andrea Mantegna", 213-15, Cat. no. 45.

⁹⁵ *Graduale romanum*, 1499-1500, as in note 91 (Venice, Biblioteca Nazionale Marciana, Rari V 708, fol. 1).

scholars entering incunabula into MEI, mention should be made of hand-illumination, including the names of miniaturists when they have been identified in the scholarly literature, or at least the geographical areas of the illumination as arguable from the stylistic characteristics. In the case of woodcuts that appear in every copy of a given edition, the designing artists' names, based on reliable published attributions, should also be included in ISTC, MEI, and TEXT-inc entries.⁹⁶ These details are as much a part of the bibliographical information of an incunable as are printers' names that are entered based on close observation of type face [and then included in brackets]. It is to be hoped that the inclusion of this essay in *Printing R-Evolution 1450-1500* will encourage more systematic efforts to study these artistic phenomena in relation to Venetian printing.

Abbreviations

BMC = *Catalogue of Books Printed in the XVth Century Now in the British Museum* [British Library]. 13 parts. London: 't Goy-Houten, 1963-2007
 CERL = Consortium of European Research Libraries
 DBMI = Bollani, Milvia (ed.). *Dizionario biografico dei miniatori italiani*. Milano: Edizioni Sylvestre Bonnard, 2004
 ISTC = *Incunabula Short Title Catalogue*
 MEI = *Material Evidence in Incunabula*

Bibliography

- Alexander, Jonathan J.G. "Notes on Some Veneto-Paduan Illuminated Books of the Renaissance". *Arte veneta*, 23, 1969, 9-20.
- Alexander, Jonathan J.G. "A Copy of Orosius, *Historiae adversus paganos*, printed by Hermann Lichtenstein in Vicenza, c. 1475, with Illuminations Attributable to Giovanni Vendramin". *Viator*, 43(1), 2012, 289-300.
- Alexander, Jonathan J.G. *The Painted Book in Renaissance Italy 1450-1600*. New Haven; London: Yale University Press, 2016.
- Andriolo, Azzurra Elena; Reynolds, Suzanne. *Books Printed in Italy*. Vol. 1 of *Illuminated Incunabula*. Part 5 of *A Catalogue of Western Book Illumination in the Fitzwilliam Museum and the Cambridge Colleges*. London; Turnhout: Harvey Miller Publishers, 2017.
- Armstrong, Lilian. *Renaissance Miniature Painters and Classical Imagery: The Master of the Putti and His Venetian Workshop*. London: Harvey Miller Publishers, 1981.

⁹⁶ URL <http://textinc.bodleian.ox.ac.uk/>. This is an international database to research the corpus of texts printed in the 15th century, that is the multiple works and texts, including dedication letters, verses, etc., contained in the c. 28,000 editions that survive from the 15th century.

- Armstrong, Lilian. "The Agostini Plutarch: An Illuminated Venetian Incunable". Fox, Peter (ed.), *Treasures of the Library, Trinity College Dublin*. Dublin: Royal Irish Academy, 1986, 86-96. Reprinted in Armstrong, *Studies*, 215-32.
- Armstrong, Lilian. "Il maestro di Pico: un miniatore veneziano del tardo Quattrocento". *Saggi e Memorie di Storia dell'Arte*, 17, 1990, 8-39 and 215-53. Republished in English with expanded appendix as: "The Pico Master: A Venetian Miniaturist of the Late Quattrocento". Armstrong, *Studies*, 233-338.
- Armstrong, Lilian. "Opus Petri: Renaissance Illuminated Books from Venice and Rome". *Viator*, 21, 1990, 385-412. Reprinted in Armstrong, *Studies*, 339-405.
- Armstrong, Lilian. "Titus Livius, *Deche di Tito Livio vulgare historiæ*, Venice: Joannes (Rubeus) Vercellensis, 1493". *Vision of a Collector: The Lessing J. Rosenwald Collection in the Library of Congress*. Washington, D.C.: Library of Congress, 1991, 168-71.
- Armstrong, Lilian. "The Master of the Rimini Ovid: A Miniaturist and Woodcut Designer in Renaissance Venice". *Print Quarterly*, 10, 1993, 327-63. Reprinted in Armstrong, *Studies*, 435-88.
- Armstrong, Lilian. "The Hand-Illumination of Printed Books in Italy, 1465-1515". *Painted Page*, 35-47. Reprinted in Armstrong, *Studies*, 489-523.
- Armstrong, Lilian. "Plutarch *Parallel Lives*". *Painted Page*, nos. 94-95, 188-90.
- Armstrong, Lilian. "Benedetto Bordon, *Miniator*, and Cartography in Early Sixteenth-Century Venice". *Imago Mundi: The International Journal for the History of Cartography*, 48, 1996, 65-92. Reprinted in Armstrong, *Studies*, 591-643.
- Armstrong, Lilian. "Nicolaus Jenson's *Breviarium romanum*, Venice, 1478: Decoration and Distribution". Davies, Martin (ed.), *Incunabula: Studies in Fifteenth-Century Printed Book Presented to Lotte Hellinga*. London: British Library Publications, 1999, 421-67. Reprinted in Armstrong, *Studies*, 534-87.
- Armstrong, Lilian. "Woodcuts for Liturgical Books published by Lucantonio Giunta in Venice, 1499-1501". *Word and Image*, 17, 2001, 65-93. Reprinted in Armstrong, *Studies*, 683-731.
- Armstrong, *Studies* = Armstrong, Lilian. *Studies of Renaissance Miniaturists in Venice*. 2 vols. London: The Pindar Press, 2003.
- Armstrong, Lilian. "The Hand Illumination of Venetian Bibles in the Incunable Period". Jensen, Kristian (ed.), *Incunabula and Their Readers*. London: British Library, 2003, 83-113, 229-36.
- Armstrong, Lilian. "Venetian and Florentine Renaissance Woodcuts for Bibles, Liturgical Books, and Devotional Books". De Simone, *A Heavenly Craft*, 25-45.
- Armstrong, Lilian. "Venetian Incunables in Cambridge Collections: Modes of Hand-Illumination". Panayotova, Stella (ed.), *The Cambridge Illuminations: The Conference Papers*. London; Turnhout: Harvey Miller, 2007, 233-43.
- Armstrong, Lilian. "Woodcuts in Classical Texts Printed in Venice, 1490-1520, and the Role of Benedetto Bordon as a Designer". De Simone, Daniele (ed.), *Seven Perspectives on the Woodcut: Presentations from "A Heavenly Craft" Symposium and Exhibition, April 21, 2005*. Washington, D.C.: Library of Congress, 2008, 41-63.
- Armstrong, Lilian; Scapecchi, Piero; Toniolo, Federica. *Gli Incunaboli della Biblioteca del Seminario Vescovile di Padova: Catalogo e Studi*. A cura di Pierantonio Gios and Federica Toniolo. Padova: Istituto per la storia ecclesiastica padovana, 2008.
- Armstrong, Lilian. "Benedetto Bordon and the 'San Nicolò Antiphonaries': New Discoveries". Mariani Canova, Perriccioli Saggese, *Il Codice Miniato in Europa*, 2014, 569-85.

- Armstrong, Lilian. *La xilografia nel libro italiano del Quattrocento: Un percorso tra gli incunaboli del Seminario Vescovile di Padova*. Trad. da Lucia Mariani. A cura di Paola Maria Farina. Milano: EDUCatt, 2015.
- Armstrong, Lilian. "Missale... vallisumbrosae". Hamburger, Jeffrey; Stoneman, William; Eze, Anne-Marie; Fagin Davis, Lisa; Netzer, Nancy (eds), *Beyond Words: Illuminated Manuscripts in Boston Collections*. Boston: McMullen Museum of Art, Boston College, 2016, 304-5, no. 242.
- Armstrong, Lilian. "Illuminated Copies of Plutarchus, *Vitae illustrium virorum*, Venice, Nicolaus Jenson, 1478: New Attributions, New Patrons". Ossa-Richardson, Anthony; Meserve, Margaret (eds), *Et Amicorum: Essays on Renaissance Humanism and Philosophy in Honour of Jill Kraye*. Leiden; Boston: Brill, 2018, 69-117.
- Baldassin Molli, Giovanna; Canova Mariani, Giordana; Toniolo, Federica (a cura di). *La miniatura a Padova dal Medioevo al Settecento* (Padova, Palazzo della Ragione, 21 marzo-27 giugno, 1999). Modena: Franco Cosimo Panini, 1999.
- Baldasso, Renzo. "Printing for the Doge: On the First Quire of the First Edition of the *Liber elementorum Euclidis*". *La Bibliofilia*, 2013, 527-55.
- Barbieri, Edoardo. *Le Bibbie italiane del Quattrocento e del Cinquecento: storia e bibliografia ragionata delle edizioni in lingua italiana 1471-1600*. 2 vols. Milano: Editrice Bibliografica, 1992.
- Bentivoglio-Ravasio, Beatrice. s.v. "Maestro del Plinio di Londra". DBMI, 642-50.
- Bentivoglio-Ravasio, Beatrice. s.v. "Maestro del Plinio di Giovanni Pico della Mirandola". DBMI, 635-42.
- Bentivoglio-Ravasio, Beatrice. s.v. "Maestro delle Sette Virtù (Maestro del San Paolo certosino)". DBMI, 579-83.
- Bentivoglio-Ravasio, Beatrice. s.v. "Vendramin, Giovanni". DBMI, 982-8.
- Bollani, Milvia (ed.). *Dizionario biografico dei miniatori italiani*. Milano: Edizioni Sylvestre Bonnard, 2004. Cited as DBMI.
- Brown, Michelle. *Understanding Illuminated Manuscripts: A Guide to Technical Terms*. London: The British Library Board, 1994. Revised edition by Elizabeth C. Teviotdale and Nancy Turner. Los Angeles: J. Paul Getty Museum, 2018.
- Cozzi, Gaetano. "Review Article: Books and Society". *Journal of Modern History*, 51, 1979, 86-98.
- De Hamel, Christopher. *Manuscript Illumination: History and Techniques*. London: The British Library Board, 2001.
- De Simone, Daniel (ed.). *A Heavenly Craft: The Woodcut in Early Printed Books* (Library of Congress, Washington, D.C., April 2005). Washington, D.C.: Library of Congress, 2004.
- Donato, Lamberto. "Di una figura non interpretata di Stefano Pellegrini da Cesena". *Studi riminesi e bibliografici in onore di Carlo Lucchesi*. Faenza: Lega, 1952, 45-51.
- Donati, Lamberto. "I fregi xilografici stampati a mano negli incunabula italiani". *La Bibliofilia*, 74, 1972, 157-64; 303-27; and 75, 1973, 125-74.
- Dondi, Cristina. *Printed Books of Hours from Fifteenth-Century Italy*. Firenze: Leo S. Olschki Editore, 2016.
- Dondi, Cristina (ed.). *Printing R-Evolution 1450-1500: Fifty Years that Changed Europe = Exhibition catalogue*. Venice: Marsilio, 2018.
- D'Urso, Teresa. *Giovanni Todeschino: La miniatura 'al'antica' tra Venezia, Napoli e Tours*. Napoli: Arte Tipografica, 2007.

- Essling = Essling, Prince d'[Victor Masséna]. *Les Livres à figures Vénétiens de la fin du XV^e siècle et du commencement du XVI^e*. 6 vols. Paris; Firenze: Leclerc; Leo S. Olschki Editore, 1907-14.
- Favaro, Elena. *L'Arte dei pittori in Venezia e i suoi statuti*. Firenze: Leo S. Olschki Editore, 1975.
- Fumian, Silvia. *Gli incunaboli miniati e xilografati della Biblioteca Capitolare di Padova*. Padova: Istituto per la Storia Ecclesiastica Padovana, 2014.
- Gerulaitis, Leonardas V. *Printing and Publishing in Fifteenth-Century Venice*. Chicago: American Library Association, 1976.
- Gnaccolini, Laura Paola. s.v. "Antonio Maria da Villafora". DBMI, 36-40.
- Gnaccolini, Laura Paola. s.v. "Maestro dei Putti". DBMI, 466-8.
- Guest, Emma. "The Second Master of the Grifo 'Canzoniere': New Attributions". *Rivista di storia della miniatura*, 12, 2008, 111-16.
- Hellinga, Lotte. "Nicolas Jenson und Peter Ugelheimer: Freunde und Geschäftspartner". Winterer, Christoph (Hrsg.), *Hinter dem Pergament, die Welt: der Frankfurter Kaufmann Peter Ugelheimer und die Kunst der Buchmalerei im Venedig der Renaissance* (Frankfurt: Dom Museum, 9 March-10 June, 2018). Munich: Hirmer Verlag, 2018, 152-65.
- Hermann, Hermann Julius. *Oberitalien: Venetien*. Bd. 2 von *Die Handschriften und Inkunabeln der italienischen Renaissance*. Leipzig: Karl W. Hiersemann, 1931.
- Hermann, Herman Julius. *La miniatura estense*. Edited and notes by Federica Toniolo. Transl. by Giovanna Valenzano. Modena: Franco Cosimo Panini, 1994.
- Hind, A.M. *An Introduction to a History of Woodcut*. London: Constable and Co., 1935 (reprint New York: Dover Publications, 1963).
- Humphrey, Lyle. *La miniatura per le confraternite e le arti veneziane: Mariogole dal 1260 al 1460*. Verona: Cierre Edizioni; Venezia: Fondazione Giorgio Cini, 2015.
- Jensen, Kristian; Kauffman, Martin (eds). *A Continental Shelf*. Oxford: Bodleian Library, 1994.
- Jensen, Kristian. "Printing the Bible in the Fifteenth Century: Devotion, Philology and Commerce". Jensen, Kristian (ed.), *Incunabula and Their Readers: Printing, Selling and Using Books in the Fifteenth Century*. London: The British Library, 2003, 115-38.
- Kallendorf, Craig; Pon, Lisa (eds). *The Books of Venice – Il Libro Veneziano*. Venezia: La Musa Talia; New Castle, DEL: Oak Knoll Press, 2008. Venezia: Biblioteca Nazionale Marciana. *Miscellanea Marciana*, 20 (2005-07).
- Landau, David. "Andrea Mantegna, 'The Risen Christ between St. Andrew and Longinus'". Martineau, Jane (ed.), *Andrea Mantegna* (London, Royal Academy of Arts, 17 January-5 April 1992; New York, Metropolitan Museum of Art, 9 May-12 July 1992). Milano: Electa, 1992, 213-15, Cat. no. 45.
- Lowry, Martin. *Nicholas Jenson and the Rise of Venetian Publishing in Renaissance Europe*. Oxford: Blackwell, 1991.
- Marcon, Susy. "Esempi di xilominiatura nella Biblioteca di San Marco". *Ateneo veneto*, n.s. 24, 1986, 173-92.
- Marcon, Susy. "Ornati di penna e di penello: appunti su scribi-miniatori nella Venezia del maturo umanesimo". *La Bibliofilia*, 89, 1987, 121-44.
- Marcon, Susy. "Una Aldina miniata". Marcon, Susy; Zorzi, Marino (a cura di), *Al- do Manuzio e l'ambiente veneziano 1494-1515* (Venezia, Libreria Sansoviniana, 16 luglio-15 settembre, 1994). Venezia: Il Cardo, 1994, 107-31.
- Marcon, Susy. s.v. "Benedetto Bordon". DBMI, 121-4.

- Mariani Canova, Giordana. "Le origini della miniatura rinascimentale veneta e il Maestro dei Putti (Marco Zoppo?)". *Arte veneta*, 20, 1966, 76-86.
- Mariani Canova, Giordana. "Profilo su Benedetto Bordon, miniatore padovano". *Atti dell'Istituto Veneto di scienze, lettere ed arti*, 127, 1968-69, 99-121.
- Mariani Canova, Giordana. *La miniatura veneta del Rinascimento, 1450-1500*. Venice: Alfieri, 1969.
- Mariani Canova, Giordana. "Nuovi contributi per Giovanni Vendramin miniatore padovano". *Miniatura*, 1, 1988, 81-109.
- Mariani Canova, Giordana. "Antonio Grifo illustratore del Petrarca queriniano". Frasso, Giuseppe; Mariani Canova, Giordana; Sandal, Ennio (a cura di), *Illustrazione libraria, filologia ed esegesi petrarchesca tra Quattrocento e Cinquecento. Antonio Grifo e l'incunabolo Queriniano G. V. 15*. Padova: Editrice Antenore, 1990, 147-200.
- Mariani Canova, Giordana. "Bibliofilia nel Rinascimento a Padova: Jacopo Zenno, la sua biblioteca e il miniatore Giovanni Vendramin". *Storie di artisti, storie di libri. L'editore che inseguiva la Bellezza. Studi in onore di Franco Cosimo Panini*. Roma: Donzelli Editore, 2008, 345-61.
- Mariani Canova, Giordana; Perriccioli Saggese, Alessandra (a cura di). *Il Codice Miniato in Europa. Libri per la chiesa, per la città, per la corte*. Padova: Il Poligrafo, 2014.
- McHam, Sarah Blake. "Erudition on Display: The 'Scientific' Illustrations in Pico della Mirandola's Manuscript of Pliny the Elder's Natural History". Givens, Jean A.; Reeds, Karen M.; Touwaide, Alain (eds), *Visualizing Medieval Medicine, 1200-1550*. Aldershot: Ashgate, 2006, 83-114. AVISTA Studies in the History of Medieval Science, Technology and Art 5.
- McKitterick, David. *Print, Manuscript and the Search for Order*. Cambridge: Cambridge University Press, 2003.
- Melograni, Anna. "La miniatura e i suoi costi. I corali tardo quattrocenteschi della Cattedrale di Ferrara: un'analisi dei documenti, dei materiali e della mano d'opera". *Bollettino d'Arte*, VI s., 133-4, 2005, 151-80.
- Melograni, Anna. "The Illuminated Manuscript as a Commodity: Production, Consumption and the Cartolaio's Role in Fifteenth-Century Italy". O'Malley, Michelle; Welch, Evelyn (eds), *The Material Renaissance*. Manchester: Manchester University Press, 2007, 197-221.
- Melograni, Anna. "Precisioni sul costo di un codice di lusso: il Messale ambrosiano di Santa Tecla (1402)". *Bollettino d'arte*, s. VI, a. XCIII, n. 143, Jan.-Mar. 2008, 123-28.
- Melograni, Anna. "Quanto costa la magnificenza? Il caso della *Bibbia bella* di Borso d'Este". *Bollettino d'arte*, s. VI, a. XCIII, no. 144, aprile-giugno 2008 [2009], 7-24.
- Melograni, Anna. "Manuscript Materials: Cost and the Market for Parchment in Renaissance Italy". Kirby, Jo; Nash, Susie; Cannon, Joanna (eds), *Trade in Artists' Materials: Markets and Commerce in Europe to 1700* (London, National Gallery and Courtauld Institute of Art, 11-12 February 2005). London: Archetype Publications, 2010, 199-219.
- Melograni, Anna. "Tipologie e costi della miniatura fiorentina di fine quattrocento: un riesame della Bibbia di Attavante per il re di Portogallo". *Bollettino d'arte*, s. VII, a. XCVI, no. 10, aprile-giugno 2011, 111-24.
- Melograni, Anna. "Oro, battiloro, orefici e la produzione libraria tra Medioevo e Rinascimento". *Oro dai Visconti agli Sforza. Smalti e oreficeria nel Ducato*

- di Milano* (Museo Diocesano di Milano, 30 settembre 2011-29 gennaio 2012). Cinisello Balsamo: Silvana Editoriale, 2011, 63-77.
- Morando di Custoza, Eugenio. *Blasonario veneto*. Verona: s.n., 1985.
- Mulas, Pier Luigi. "I Libri a Stampa pergamenei della Collezione Melzi a Chantilly e alcune miniature di Benedetto Bordon". *Rivista di Storia della Miniatura*, 13, 2009, 179-89.
- Mulas, Pier Luigi. "Incunaboli miniati del Breviario all'uso degli Umiliati". Maria-ni Canova, Perriccioli Saggese, *Il Codice Miniato in Europa*, 615-25.
- Needham, Paul. "Venetian Printers and Publishers in the Fifteenth Century". *La Bibliofilia*, 100, 1998, 157-200.
- Needham, Paul. *Index Possessorum Incunabulorum*. URL <https://www.cerl.org/resources/provenance/main> (2019-09-16).
- Nicolini, Simonetta. s.v. "Maestro dell'Ovidio di Rimini". DBMI, 612-14.
- Pächt, Otto; Alexander, J.J.G. *Italian School*. Vol. 2 of *Illuminated Manuscripts in the Bodleian Library Oxford*. Oxford: Clarendon Press, 1970.
- Panayotova, Stella (ed.). *The Cambridge Illuminations: The Conference Papers*. London-Turnhout: Harvey Miller, 2007.
- Painted Page* = Alexander, Jonathan J.G. (ed.). *The Painted Page: Italian Renaissance Book Illumination, 1450-1550* (Royal Academy of Arts, London, and Pierpont Morgan Library, New York, 1994-1995). Exhibition Catalogue. Munich: Prestel Verlag, 1994.
- Pesavento, Giulio. "Antonio Grifo, *Rime*". Beltrami, Guido; Gasparotto, Davide; Manieri Elia, Giulio (eds), *Aldo Manuzio: Renaissance in Venice* (Venezia, Gallerie dell'Accademia, 19 March-19 June, 2016). Venezia: Marsilio, 2016, 222-3, cat. no. 30.
- Scholderer, Victor. "Printing at Venice to the End of 1481". *The Library*, n.s., 5, 1924, 129-52. Reprinted in Rhodes, Dennis (ed.). *Fifty Essays in Fifteenth and Sixteenth Century Bibliography*. Amsterdam: M. Hertzberger & Co., 1966, 74-89.
- Smith, Margaret M. "Patterns of Incomplete Rubrication in Incunables and What they Suggest about Working Methods". Brownrigg, Linda (ed.), *Medieval Book Production: Assessing the Evidence*. Loss Altos Hills, CA: Anderson-Lovelace, 1990, 133-46.
- Smith, Margaret M. "The Typography of Complex Texts: How an Early Printer Eliminated the Scribes' Red". *Typography Papers*, 1, 1996, 75-92.
- Szépe, Helena Katali. "Venetian Miniaturists in the Era of Print". Kallendorf, Craig; Pon, Lisa (eds), *The Books of Venice – Il Libro Veneziano*. Venezia: La Musa Talia; New Castle, DE: Oak Knoll Press, 2008, 31-60. (Venezia: Biblioteca Nazionale Marciana. *Miscellanea Marciana*, 20, 2005-2007).
- Toniolo, Federica. "Ghirolamo da Cremona". Hermann, Julius, *La miniatura estense*. Edito da e con note di Federica Toniolo. Trad. da Giovanna Valenzano. Modena: Franco Cosimo Panini, 1994, 241-7.
- Toniolo, Federica. s.v. "Ghirolamo da Cremona". DBMI, 310-15.
- Toniolo, Federica. "Il sodalizio tra il vescovo Pietro e Antonio Maria da Villafora: considerazioni e approfondimenti". Nante, Andrea; Cavalli, C.; Gios, Pierantonio (a cura di), *Pietro Barozzi: un vescovo del Rinascimento = Atti del convegno di studi* (Padova, 18-20 ottobre 2007). Padova: Istituto per la Storia ecclesiastica padovana, 2012, 289-304.
- Villani, Stefania (a cura di). *Un Tesoro nascosto: Incunaboli decorati della Biblioteca Universitaria di Padova* (Padova, 14-26 Maggio 2007). Padova: Biblioteca Universitaria di Padova, 2007.

- White, Eric. "A Census of Print Runs for Fifteenth-Century Books". URL https://www.cerl.org/resources/links_to_other_resources/bibliographical_data#researching_print_runs (2019-09-16).
- Winterer, Christoph (Hrsg.). *Hinter dem Pergament, die Welt: der Frankfurter Kaufmann Peter Ugelheimer und die Kunst der Buchmalerei im Venedig der Renaissance* (Frankfurt: Dom Museum, 9 March-10 June, 2018). Munich: Hirmer Verlag, 2018.
- Zatelli, Ida; Gabriele, Mino (a cura di). *La Bibbia a stampa da Gutenberg a Bodoni* (Firenze, Biblioteca Medicea Laurenziana e Biblioteca Nazionale Centrale, 8 Ottobre-23 novembre 1991). Florence: Centro Di, 1991.
- Zorzi, Marino. "Stampa, illustrazione libraria e le origini dell'incisione figurativa a Venezia". Lucco, Mauro (a cura di), *La pittura nel Veneto: Il Quattrocento*, vol. 2. Milan: Electa, 1989, 686-702.

Appendix: Books Linked to the Agostini

The following incunabula were printed in Venice unless otherwise noted; the presence of coat of arms is indicated by 'arms'; 'inscription' signifies the name Agostini written in a margin; the name of the miniaturist is given if the decoration is attributable.

1. Cicero, *De Officiis*. de Spira, 1470 (BAV, Prop. Fide. IV.179, arms)
2. Cicero, *Epistolae ad Brutum*. Jenson, 1470 (BAV, Stamp. Barb. A.A.A. II, 15, arms, architectural frontispiece by London Pliny Master)
3. Cicero, *De Oratore*. Valdarfer, 1470 (Manchester, Rylands, 3260, arms, wood-cut borders)
4. Cicero, *Orationes*. Valdarfer, 1471 (Trento, BC, Inc. 408, arms, historiated initials by Putti Master)
5. Tortellius, *De orthographia*. Jenson, 1471 (BnF, Vél. 527, vellum, arms, frontispiece by Franco de'Russi)
6. Plinius, *Historia naturalis*. Jenson, 1472 (BAV, Stamp. Barb. AAA IV, I, arms, architectural frontispiece by Putti Master)
7. *Scriptores rei rusticae*. Jenson, 1472 (BML, D'Elci 749, arms, historiated initials by London Pliny Master)
8. Solinus, *Polyhistor, sive De mirabilibus mundi*. Jenson, 1473 (BL, C.5.b.2 = IB 19672, vellum, arms, historiated initial and arms supported by sea-creature, Putti Master)
9. Gratianus, *Decretum*. Jenson, 1474 (BL, IC 19678, vellum, arms, also inscribed .*B. agustini*, miniature by Girolamo da Cremona)
10. Herodotus, *Historiae*. Jacobus Rubeus, 1474 (Rylands, 3461, arms supported by sea-creature, London Pliny Master)
11. Sallustius, *Opera*. Johannes de Colonia and Johannes Manthen, 1474 (Rylands, 10547, arms, architectural frontispiece by London Pliny Master)
12. Valerius Maximus, *Factorum et dictorum*. Milan, Antonius Zarotus, 1475 (BAV, Stamp. Ross. 1343[1], arms flanked by dolphins, London Pliny Master)
13. *Biblia Latina*. Jenson, 1476 (Ravenna, Bibl. Classense, No. 31, vellum; arms, full border and initial by Girolamo da Cremona)
14. Bonifacius VIII, *Liber sextus decretalium*. Jenson, 1476 (BL, IC 19688, vellum, inscribed .*B. agustini* and *de la Carità*, miniature excised)

15. Bonifacius VIII, *Liber sextus decretalium*. Jenson, 1476 (BNM, Memb. 6, vellum, inscribed *b. agustini* and *sancti feliciis*, and *Dionysius Lisca*, lacks folio with space for miniature)
16. Clemens V, *Constitutiones*. Jenson, 1476 (Paris, BnF, Vél. 390, vellum, arms, inscribed *b agustini* and *S feliciis*, miniature by London Pliny Master)
17. Clemens V, *Constitutiones*. Jenson (BNM, Membr. 5, vellum, inscribed *b agustini*, and *de la Carità*, miniature excised)
18. Plinius, *Historia naturalis* (Ital.). Jenson, 1476 (CUL, Inc. I, B.3.2, vellum, arms excised but presumed Agostini, architectural frontispiece by London Pliny Master)
19. Vergilius, *Opera*. Antonio di Bartolomeo, Miscomini, '1486' [i.e. 1476] (BL C.19.e.14 = IB.20448, vellum, arms, guard leaf inscribed by Giorgio Arrivabene and Giulio Romano, architectural frontispiece by London Pliny Master; name inscribed *.b. agustini*)
- 20-21. Plutarchus, *Vitae virorum illustrium*. Jenson, 1478 (Dublin, Trinity, Fagg. GG 2, 1, 2, 2 vols., vellum, Vol. 1, architectural frontispiece with arms; Vol 2, decorative borders and arms; initials in each volume, all by London Pliny Master)
- 22-23. Plutarchus, *Vitae virorum illustrium*. Jenson, 1478 (BnF, Vél. 700, Vol. 1, vellum; Morgan PML 77565 [ChL ff767], Vol. 2, vellum, arms, architectural frontispieces and initials by Girolamo da Cremona)
24. Plutarchus, *Vitae virorum illustrium*. Jenson, 1478 (Lawrence, KS, University of Kansas, Spencer Library, Summerfield Collection, G. 125, Vol. 1 only, arms)