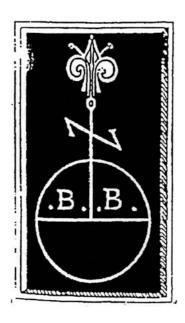
Vlasta Radan November 28, 2005

Libr 287, Professor Linda Main Illuminated Manuscripts and Incunabula

INCUNABULA PRINTER



BONINUS DE BONINIS

Born ca. 1457 in Lastovo, Dubrovnik Republic (Ragusa)

Croatian version of name: Dobrié Dobričevié

Died 1528 in Treviso, Venetian Republic

Other spellings: Bonino Boninis

"Two sets of conditions are prerequisite to the development of any creative idea into a useful invention. One is the existence of facilities and materials for converting the idea into physical form. The other is a social need or demand, or at least a mental readiness, for the invention. Of the two prerequisites, the latter is the more essential for success, for if society is not ready for it and does not accept it, an invention is to that extent useless and cannot live." (McMurtrie 1937, p. 123)

oninus de Boninis¹ was born around the year 1457, on the island of Lastovo, which was at that time under the jurisdiction of the Dubrovnik Republic, the mercantile city-state clinging precariously on the limestone cliffs at the entrance of the Adriatic Sea. The city started as small settlement of Latin speaking refugees retreating under Slavic invasion and having no other options but to make the best use of their geographic position. The skillful trading and diplomacy provided the city with economic base for development of Italian-style city republic. Although, tied up in bitter competition with Venice, Dubrovnik was very much a part of wider Italian civilization. Many of their sons went to Italian universities often staying there, providing for a rich exchange of goods and ideas between both shores of Adriatic. Boninis, the son of the prosperous merchant was very much a product of

The second part of the 14th century was a particularly fortuitous for Europe. The worst years of the Black Death were over, the benefits of technological and agricultural developments were starting to bear fruits, and Europe, as the continent, slowly becomes aware of rest of the world. As the last remnant of the Roman civilization—the Byzantine Empire and the city of

this cosmopolitan Mediterranean culture.

¹ The Croatian rendition of his name is Dobrić Dobričević, but in foreign sources, he is very rarely referred by this name. On all his colophons he is using the Latin version of his name occasionally with the addition *de Ragusia* (Badalić 1952, p.21; Pelc 2000, p. 135).

Constantinople—fell under the attack of the Ottoman armies in the year 1453, it was Europe that benefited from its demise. Many of the Byzantine church officials, monks and scholars, as well as craftsman (and presumably alot of ordinary people, but they do not figure in the historical annals) fled to Italy bringing with them long preserved knowledge and manuscripts of the classical past. And this was the time when Europe was finally ready to make the best of encounters with the Islamic intellectual tradition in Spain and Sicily.

The accumulation of all these goods and ideas, came on the heels of the century-long endeavour by Italian humanists, eagerly aided by the upper classes, to find "forgotten" manuscripts, lost in monastic or cathedral libraries throughout the country. The church councils, like the ones in Constance (1414-1418) and Basel (1431-1449), which brought together clerics and their scholarly advisers from the whole of Europe, became major humanistic meeting places. These councils also provided opportunities for a brisk book trade and the occasion for a search for manuscripts north of the Alps. The relative abundance of old, newly acquired, and rediscovered manuscripts facilitated the emergence of a lively manuscript market, especially in Italy. The rising literacy rates funneled by the growth of the universities and the rising monetary power of the burgesses outgrew the "one-book-at-the-time" system of the book production. The secularization of the copying and pecia system did not satisfactorily solve the problem. Renaissance society was not only ready for some kind of printing method, they were desperate for it. The master Gutenberg and the invention of the printing in the 1450s could not come at a better time.

The "mental readiness" for printing was so strong that in the year 1479, when Boninis went to Padua and entered in partnership with the master printer Petrus Maufer, printing presses were operating in almost every bigger town in Europe. In the year 1464, Berthold Ruppel set up his workshop in Basel. In the year 1465, printers Sweynheym and Pannartz were invited to put up their print shop in Benedictine monastery in Subiaco. In the year 1469, Johannes da Spira printed his first book in Venice and with that laid down the foundations to one of the most important printing centers of the incunabula period.

Although most of the printers were members of the emerging bourgeois class, it was the well-established elite—the aristocracy and the church—that provided the initial financial support and the enthusiasm that ensured the successful development of printing (Franck and Brownstone

1986, p. 111). In spite of the rising economic power of the mercantile middle class, the nobility and the Church were still the only parts of society with sufficient wealth and market demand to support printing startups. Some of the established booksellers of manuscript books, like Vespasiano in Florence, spurred the novelty of printed books and claimed that the noble customers do not have any interest for them. In the same time, his Florence rival, Zanobi di Mariano, was doing brisk and profitable business with printed books, financially outlasting his rival, which was forced to close his business in 1478 (Eisenstein 1999, p. 19).

Leading humanists and the members of noble families, like the Medici, collected books for their intellectual curiosity, and in the process accumulated impressive libraries. Many, in the spirit of humanism, opened them to the public. For the history of printing, the most important was the library of Greek classics collected by Cardinal Johannes Bessarion and bequeathed in the year 1468 to the city of Venice (the collection is the core of the Marciana library). Its best-known users were Aldus Manitus and group of the Greek scholars around him. These public libraries enabled much wider access to various manuscripts, but at the same time created demand for copies that could be carried away and studied at home (home increasingly being away from Italy). Ironically, the printers benefited the most from these public libraries. They gained access to the manuscript exemplars that would be otherwise inaccessible to them, and the increase of public reading meant increased book sales (Schottenloher 1989, p. 61).

The establishment even of the basic, one press workshop required substantional funds and the partnership associations like the one formed by Boninis and seven other partners, was becoming an increasingly common form of business organization, replacing the traditional guild system. The system of partnership was the way the middle class was able to raise substantional funds for risky business, like the overseas ship voyages, where every partner would contribute relatively small funds, which, if lost, would not throw him in the debtor's prison. The documents written by Boninis partners, preserved in Padua city archives, show how detailed and financially complicated this contract could be. Beside benefits and obligations of each shareholder and head printer Maufer, the contracts specify how the printing costs will be covered and shared, where printed sheets will be stored (not in print shop, but in the house of one of the partners!), the terms of sharing the risks and profits, the way with which the partnership will ensure that booksellers keep

their part of the agreement as well as other business details. Another set of contract were drawn up to determine the fines if the partners dare to engage in printing piracy and the size of the fine if partners would dare to challenge the agreement of splitting the profits. As the business of printing progressed, the main problem of the partnership was the lack of ready cash and most of the financial obligations among the partners were paid with the book stock (Jurić 2000, p. 50-55).

The sale of books created another set of problems. In this aspect, the Padua partnership did not fare any better than Sweynheym and Pannartz, which got their funds tied up in a large stock of books to the point that it "crowded their quarters, so that they could scarcely move and even had to beg for their daily bread" (Roover 1953, p. 223). Getting books to the stationers and booksellers did not resolve the problems. They paid printers only for sold copies, and very often with as much delay as they could master. So part of the job of master printer, besides activities associated with editing, printing and organizing the workshop, but also to deliver books to the different merchants, negotiate terms of the sale and later (hopefully) collect the revenue. Increasingly, printers included in the partnerships merchants, who would finance the printing and then have a stake in the marketing and selling of the books (Roover 1953, p. 223).

Although documents name Boninis as a partner, his name does not appear on any of the books printed in Maufer's print shop. This was not an unusual practice, usually only the name of master printer would appear on the colophon and rest of the partners would be covered with "et soc." (Jurié 1969, 125). However, either Boninis was not directly involved in printing, or master Maufer did not use him to his full capacity, so in 1478 Boninis traveled to Venice to cooperate in printing *Opera* by Lactantius and *Cornucopiae Linguae latinae* by Perottus, with Andreas de Paltasichis Cattarensis² (1476-1492), a fellow Croatian (Badalić 1952, p. 21).

Sometime during the year 1480, Bonino starts his own print shop in Verona, where he prints at least three books. After that, he moves to Brescia where he stayed for a longer time. Here he reaches the peak of his printing career, printing altogether 38 different titles (some in more than one edition). Of them, the best know are richly illustrated editions of Aesop's Fabulae (1487) and Dante's Divine Comedia (1487). In his years in Brescia, at first, Boninis printed various Latin editions of classic and humanistic authors, and toward the end, he specialized almost exclusively in

² The Croatian rendition of his name is Andrija Paltašić Kotoranin. He was born in the coastal town of Kotor (Serbia and Montenegro).

legal works. Although he had privileges to distribute books in the entire Milan dukedom, nothing really helped him to prosper financially.

The biggest misfortune of Boninis was to live in the incunabula period. Although it could be expected that the first entrepreneurs would have the advantage of an early arrival at the market hungry for books, it was exactly the lack of developed and diverse book market that was their biggest challenge. The technology of printing was still in its formative mode, the professions' best practices and technological solutions were still to be worked out, and mere proficiency was not enough to ensure a steady income. The complexity of process and the high cost of initial investment required complex business arrangements, skillful fundraising, and real gift for marketing. In this context, Boninis was rather an average printer. Although he printed a respectful amount of books, they were never new or innovative editions that would attract attention of the market. He was clearly comfortable with the technology of printing book illustrations; however, he never acquired that level of visual excellence and printing mastery that would ensure him name recognition and profits of Aldus or Jansen.

In the year 1490, the competition from a local Britannico printing family and mounting debts finally drove Boninis out of Brescia. For while, he wanders from town to town, mostly in the northern Italy (Pelc 2000, p. 135). Eventually he started working as a spy ("informatore e agente") for the Venetian Republic, which intelligence-gathering network enabled many profitable deals. He settles in Lyons and use printing business as a "cover" (Pelc 2000, 135). His income from "services rendered to the Venetian Republic" are quite generous, and according the letter of Venetian ambassador in Rome, Boninis received 1.800 ducats per year for his information gathering throughout the French territory³ (Del Torre 1992-93, p. 29, footnote 92). From now on Boninis is mentioned on the colophons of his books as a publisher, not as a printer. He still shows his love for editions illustrated with woodcut plates, however, his portfolio in Lyon, consists exclusively of popular religious books—4 editions of Book of Hours (Officium beate Marie virginis ad usum Romane) and 2 editions of missals (Missale ad usum insignis ecclesie Bellicensis).

³ "Secondo quanto riferisce una lettera dell'ambasciatore veneziano a Roma nel 1510 ... al Bonini sarebbero stati swquestrati fenefici per 1.800 ducati di rendita annua, situati in territorio francese. Forse a causa dell sua attivita spionistica in terra di Francia."

The need of the Church for liturgical and theological literature was behind most of the medieval book production, and that trend continued well into the Renaissance period. The Church was always one of the richest, best-organized patrons, with steady and well-formulated demand. Many of the Popes were also well-known intellectuals and humanists, actively supporting copying and the search for manuscripts of Greek classics. Moreover, the Church, as any well-established elite, that do not want to lose its grip on society, saw in the printing press a tool with which they could effectively retain control and influence. The Church very soon fund out that the printing press is "God's gift in the Devil's hand" (Stipčevié 2000, p. 81) and that it is impossible to control who prints what. This was especially true in the 16th century when presses were easily made by almost every carpenter and light in weight. As John Hill Burton said, "in the end it was found easier and cheaper to burn the heretics themselves than their books" (Aldis 1941, p. 114).

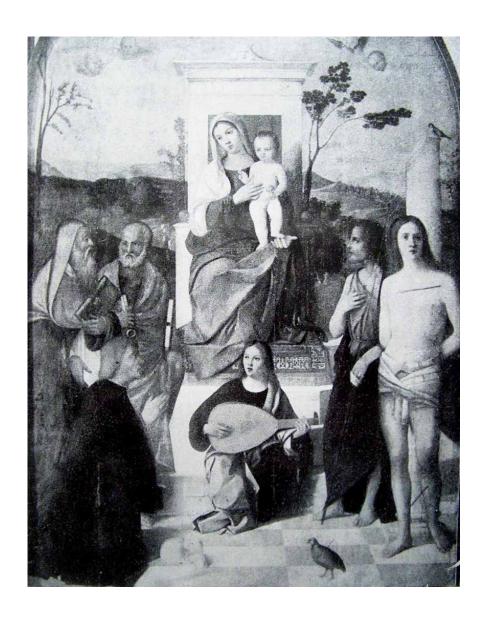
It is difficult to say if the titles Boninis published in Lyons reflect a shrewd marketing or his spiritual transformation toward priesthood. It is difficult to understand, with the information available, why Boninis completely abandoned printing and devoted himself to the religious office. It could be the genuine religious epiphany; or it could be the job security. Anyhow, as the reward for his services, in the year 1502, Venetian Signoria invested him as a deacon in the Cathedral of Treviso (Pelc 2000, p. 135). He died there in 1528.

In view of all obstacles associated with newly emerging technology, difficulties in financing and marketing any larger edition, it is interesting how quickly printing became a European-wide business. The catalog from the year 1480 of Nürnberg's printer and publisher Anton Koberger find its way to the Dominican monastery in Dubrovnik; Glagolitic books were regularly printed in Venice; Cyrillic books for the East European and Balkan market were printed in Krakow and in the 16th century, protestant books, in Slovenian and Croatian language, were printed by Bavarian presses.

The ease with which book could be printed in almost unlimited number of copies and carried the distances regardless to language or political borders had profound influence on the readers, but even more on the writers of the books. Geoffrey Roper, in his article Faris al-Shidyaq and the Transition from Scribal to Print Culture (Atiyeh ed. 1995) describes the intellectual change that occurred in the 19th century Islamic society of Middle East with the introduction of

printing, but it could be also applied to the 15th century Europe. With the onset of printing, writers find new inspiration in the fact that their writings would be almost certainly preserved for posterity:

"This meant a new and more confident response to the challenge of creative writing; for whereas previously much literary effort had gone into the task of retrieving, encapsulating, summarizing, and commenting upon past knowledge and past literary achievement, now, in the print era, this could all, in a sense, be taken for granted. New ideas and original thoughts and expression could claim the full energies of writers, who were now secure in the knowledge that, once published, they too, would be safe for posterity. What this eventually brought about was nothing less than a major reorientation of literature and knowledge—instead of always looking backwards, it could now look forward to new horizons." (p. 222)



Although he spend most of his adult life on the territory and in the service of the Venetian Republic, the bitter enemy of his native Republic of Dubrovnik, in the year 1516

Boninis donated to his local church an altar picture painted by P. F. Bissolo.

Boninis kneels in front of Madonna seated on the throne

While his sister plays the lute

(Badalić 1952, plate I)



T

he first printers tried to make printed books to look like the manuscript books, for sake of their customers, and probably, because such was their own aesthetic sensibility. In this period, printed books had a quality of "artists' books," where the visual appearance was subservient to the technological difficulties of the production. Boninis belongs to the generation of printers that slowly come to

understand that the technology of printing—modular type—required different approaches in the aesthetic of text than manuscripts. In this newly emerging art of typography, Boninis was, if not quite the trailblazer, at least a competent craftsman.

With the spread of printing and technological advancement, it become clear that printing offers more than mere multiplication of the text. At first, spaces for decorated initials, were left to be hand colored by the illuminators but this proved to be very impractical, and many incunabula are left "unfinished" with a white space at the beginning of chapters. Soon, this system was abandoned and initials were hand-carved, mostly from the type-high wood and set into the typeset. Usually the red text—running titles and initials—were inked and printed first, than took out of the composition. The black text and woodcut plates were printed in a second run. This system was very economical, but new techniques of copper engravings in particular, required careful registering and page planning. Any crassness would result in misalignment of colors and visual mess.

In the manuscripts period, when illustrations were done by hand, the accuracy was not really the question. A picture was more about visual symbolism than about the faithful representation of reality. The earliest illustrators of printed books took the same approach—illustration as mnemonic device, not the picture of reality—and, in order to cut the cost and speed

up the production printers reused the same plates multiple times in the same book. As Paul Breman beautifully put it in his website about illustrations of towns in Foresti's *Chronicle*: "the same cut of a heap of rubble served for Troy, Jerusalem ..., Genova ..., Milano ..., and Tripoli: a ruin is a ruin is any ruin." The same could be observed in 1493 edition of *The Nuremberg Cronicle* printed by Anton Koberger, where Verona and Mantua are presented with same woodcut illustrations (Eisenstein 1999, p. 61), or in the books printed by Boninis.

Eisenstein argues that the greater standardization that comes in the wake of printing is responsible for this greater awareness of the individuality: "The more standardized the image of typical town, head, or plant, the more clearly the idiosyncratic features of separate towns, heads, or plants could be perceived by observant draftsman." (p. 60). One of most significant developments in Renaissance art was the discovery of the nature of realistic representation of observed reality. The increase in the production of "how-to" books, different kind of manuals, guides, and maps helped this transformation along. How real, plastic and dynamic could be world drawn only in thin black lines, could be seen in illustrations created by the grand master of engravings—Albrecht Dürer.

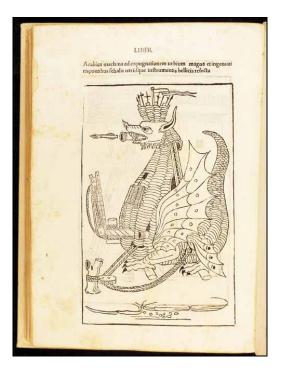
Soon after his arrival at Brescia (ca. 1483), Boninis printed some of his best-known illustrated books: Macrobius' In Somnium Scipionis expositio (1483), Aesop's Fabulae (1487) and Dante's Divine Comedia (1487). With the production of richly decorated folio size editions, he obviously tried to appeal to "high income bracket" customers, not necessarily with intellectual aspirations. Not the least because his Fabulae were printed in Latin with an Italian translation. In the year 1484, he also published a small but illustrated fortune-telling book, written in Italian by the poet Lorenzo Sprito's Libro della ventura (1484), already a bestseller. Although the vernaculars and popular romantics were considered a renaissance form of "pulp fiction," most of the printers printed such texts in order to survive. Today some of the authors—like Boccacio and his Decameron—are better known for their lighthearted vernacular writings than their scholarly Latin commentaries (Schottenloher 1968, p. 56).

⁴ According to the British newspaper, The Independent, Paul Breman, writer, bookseller and publisher died in London on 29 October 2008. The Web site -- http://www.paulbreman.com/foresti.htm -- from which this quote was taken, no longer exists.

Boninis, as was common practice at the time, usually used other books, in manuscripts or printed from, as exemplars for his illustrations and page compositions. For Valturio's De re militari which he printed in Verona 1483, Boninis used as exemplar the 1472 edition printed by Giovanni de Verona. In turn, this editio princeps copies the drawings from the manuscript exemplar almost to the last detail. Illustrations in this book are rare examples of informative illustrations that serve as a supplement to the text and represent an attempt at the objective representation of military devices, weapons, and castles. The illustrations have the quality of technical drawings—they are limited to the contour, and compositions are simple, transparent, and functional.



DRAGON-SHAPED SIEGE TOWER



Woodcut in Valturius, *De re militari*, Verona 1483, Boninus de Boninis. (Pelc 2000, p. 138).



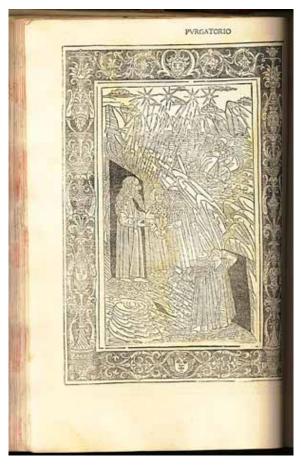
Compared to Verona's original, Boninis' carvers are less skilful artists, and their lines are less fluid and precise, although the quality varies by individual plates. There was usually more than one illustrator and carver employed on one particular edition but the carvers and engravers were rarely identified in the books. Although some of them ware quite competent, it must be said that Boninis did not have fortune to work with the best ones.

In spite of some crudeness in the quality of carvings, Boninis' edition did improve some of the visual design of the exemplar book. He decreased the size of some of the drawings, so that they fit into the page margins and thus better relate to the overall page layout. He also visually separated illustrations from the text providing them with the thin frame and gives them captions (Pelc 2000, p. 136-139).

The edition of the Divine Comedia was planned as a very ambitious project, with the introduction written by the humanist Christofori Landini, and extensive full folio size illustrations. However, it seems that the production of woodcuts could not keep up with the speed of printing, and only Hell, Purgatory, and beginning of Heaven were illustrated. As in all books, Boninis employed multiple carvers so the quality of the illustrations varies by the craftsmen.

There are 68 illustrations from 60 original plates. Each plate has an elaborate decorative border with images of plants and vessels. The illustrations have the narrative character. In the Hell, the composition flows from the top of the picture plane downwards, while in the Purgatory from the bottom up (Pelc





(Image from Cachey, T.J. et al.)



2004). The first 19 plates are strongly influenced by the copperplate engravings from the 1481 edition of printed in Florence by Nicholo di Lorenzo della Magna and designed by Botticelli (Cachey, T.J. et al. 1994). Although the Brescia edition of Dante is held as Boninis' masterpiece giving him his place in the histories of early printing, the overall design of the book is heavy, and the decorative frames tend to overwhelm the illustrations (Pelc 2000, p. 144-145).

In this edition we also find a colophon with Boninis device. Fust and Schöffer were the first to use a printer's device, which appears in their *Biblia Latina* printed in the year 1462, representing twin shields hanging from a tree branch. The successors of Jenson in Venice used a

different form of printer's device consisting of a circle (orbis terrarum) and straight lines arranged in a rectangle. Boninis' device very much follows this tradition whose esthetic is guided by geometric proportions of classical Greece and formally expressed in the work of Luca Pacioli (1445-1517) De Divina proportione, published in Venice in the year 1509 (Paro 1998, p. 79).

The original page from this edition that is inserted into The Brescia Dante printed by Brigham Young University (1975) offers some interesting insights into the problems of early typesetters. It is obvious that printers had trouble keeping individual slugs in the position while on the bed. This is particularly visible with the capital letters, which continually wonder inside the line. The proportion of certain letters (capital A for example) was bad and they appear out of place in relation to other letters. It is clearly visible smudging on the edges of the text, which may occur because uneven bed, bad casts or most probably the loose type. The types do not leave much of the impression in the paper what would indicate light printing pressure. However, as Paro (1997, p. 18) experiments with glagolitic type casted, following a traditional recipe show, this types tend to



PURGATORY CANTO XII

lonuidioso sempre e/nella frigidita & lanuidia: Elquale sedendo per la ca/CAPOLVNO ALLALTRO llehe re. Hanno cucito glochi col sil del ser/certo chi si purga dalla iuidia debbe e uideam uanitatem. Ouero diremo e sic palpabunt in meredie. Et Grego si

Detail of the text.

Boninis edition of Dante.

Recto. bottom corner.



crash when exposed to the pressure of modern printing presses, even when they are hand operated. The wooden screws used in the presses during the incunabula period do not provide for such even and thigh pressure as the metal screws.

Maybe that is for the better, because the paper used in the book is rather thin for book of this size and amount of the illustrations. Because of the light pressure, the paper fibers interfere with the quality of the impression. The paper itself is rather rough and with visible impression

from felts that were used for interlaying during printmaking process. The paper has no visible filigree watermarks, only the "chain-lines" caused by particular structure of the paper mold. This chain lines ware bane of the printers, creating uneven paper thickness and surface, until 1731 when

the first mold with the "wove" mesh was created by James Whatman. Instead of wires that run horizontally and are held in that position with evenly spaced interwoven vertical wires (like Venetian blinds), the "wove" mesh was made from the fine brass wires woven on a loom like a cloth giving smooth and even surface for the laying of the paper (Hunter 1978, p. 127).

The book of hours Officuium beate Marie virginis which Boninis published in Lyon 1499, used interesting woodblock techniques to which was than used to recreate a richly decorated page of manuscript book of hours. Every page of the book is printed with frames put together from smaller



PURGATORY CANTO XII

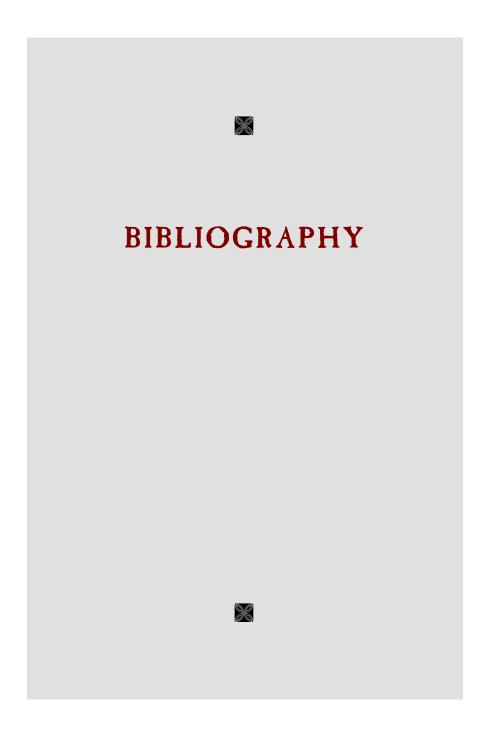


The chain lines watermarks on the paper
The original page from Boninis
Edition of Dante.
Verso.



blocks of woodcuts. The combination of small illustrations and foliated bands vary from page to page and the images do not directly relate to the text. In addition to that, at the beginning of the chapters there are bigger individual carvings (16 in all). At the beginning of the book, the calendar pages are decorated at the bottom with images of the zodiac and agricultural work associated with a particular month. The book also has special carvings illustrating danse macabre in the part of Officium mortuorum, very common iconography for French breviaries of that time. Some of bigger initials in the book are also colored by hand. Boninis published this book in two editions and printers of the first were Jacobinus Suigus and Nicolaus de Benedictis (Pelc 2000, 146-148).

These were his last books before he abandoned the mundane hustle and bustle of the print shop for the serenity of the cathedral.



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onino de Boninis is mentioned in almost every book about the early printing, but beyond his name, there are hardly any other details. His printing output was never important enough to attract much of the research. His work as part of wider printing community of particular towns (Padua or Brescia) is researched by Italian authors, but not much of that is available in English. The Croatian

sources are just marginally better. Most of them are old and in the context of inventory review of Croatian incunabula collections. In the past, the Croatian research of early printing was focused mostly on the glagolitic prints or print shops on territory of Croatia, with focus on the Croatian uniqueness. The new generation of historians, like Milan Pelc and Aleksandar Stipčevié, are finally turning toward examination of the Croatian (books and printing) history in the terms of some wider European context. However, for any indebt research on Boninis knowledge of Italian would seem indispensable.

In the year 1975, the Brigham Young University published exquisite hand printed book with the reproduction of some of the woodcuts from Boninis edition of Dante printed in Brescia. The essay about Boninis is really the overview of history of the printing and does not put forward any new insights about Boninis as printer, and bibliographical information lack the factual precision This book is the only source that make any attempt to list complete bibliography of Boninis works, however, some of the entries are problematic. In particular, print date of Bagellardus. De infantium aegritudinibus et remediis, for which claims that it is printed in Brescia in the year 1468 (p. 55). The date is impossible, because according the partnership document from the year 1479, Boninis was "quia minor erat annis XXV major tamen XX videlicet etatis annorum

XXII-pel circiter, ut dixit iuravit corporaliter ad sacra Dei evangelia ..." i.e. he was younger than 25, older than 20, and actually 22 as he claim himself while swearing on the Bible (Jurić 1969, p. 123). Therefore, in the year 1468, Boniniswould be 11 years old, and although it is not impossible that he could be apprentice in some workshop, it is almost impossible that he would be allowed to sign his name in colophon as a printer. The printing year—1473—for Leonicenus, De acto partibus Orationi, printed in Verona (p. 55) is also an very early date for independent printing and do not relate well with other information we have (scarce as they are) about beginning of Boninis' printing career. Nevertheless, the most interesting part of the Brescia Dante is the original leaf from the incunabula, which offers opportunity for some independent observations about printing techniques and renaissance papermaking.

The article about Boninis' illustrations by Milan Pelc, which is illustrated by examples from different books, is probably the most comprehensible visual guide to Boninis books. This article is available on internet.

Besides scattered examples of pages from Boninis' books available on the Internet, the best place to see some reproductions from the Boninis' edition of Dante is on the website developed by the University of Notre Dame, University of Chicago, and the Newberry Library of Chicago. The site is excellent digital catalog of exhibition held at the Department of Special Collections, University of Notre Dame, during October 15 and December 15, 1993 and the Newberry Library between 15 April and 15 June 1994.



Abbott, T. K. (1970). Catalogue of fifteenth-century books in the Library of Trinity College, Dublin, and in Marsh's Library, Dublin, with a few from other collections (Reprint of the 1905 ed.). New York: B. Franklin.

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⁵ http://www.italnet.nd.edu/Dante/index.html

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Incunabula in People's Republic of Croatia (Vol. 45 of Yugoslav Academy of Art and Sciences. Comprehensive catalogue of incunabula in Croatia. The catalogue is prefaced with exposition on incunabula as a cultural heritage; review of places and institutions that hold incunabula materials; the structure of the Croatian incunabula collection, and printing background and provenance of incunabula find in the Croatian libraries. Author reviews the history of Croatian incunabula printers represented in collection: Andreas de Paltasichis (Andrej Paltašić Kotoranin) and Boninus de Boninis (Dobrić Dobričević) and list their bibliography only as it is represented in the Croatian incunabula collection. Special attention is given to activities of glagolitic print shops in Senj and Cetinje and their printers.

- Cachey, T. J., Louis E. Jordan, Christian Y. Dupont, and Mark Olsen. (1994). Renaissance Dante in Print 1472-1629 (page 1487, Brescia: Bonino de' Bonini). Retrieved November 23, 2005, from http://www.italnet.nd.edu/Dante/text/1487.brescia.html
- Del Torre, G. (1992-1993). Stato regionale e benefici ecclesiastici: vescovadi e canonicati nella terraferma veneziana all'inizio dell'eta moderna. Atti dell'Istituto Veneto di Scienze Letter e Arti (Vol. CLI, pp. 1171-1236): Classe di scienze morali, lettere ed arti. http://venus.unive.it/riccdst/sdv/saggi/testi/pdf/ISTVESTA.pdf I am really not sure what is all article about, however this is only document that cite direct sources (p. 29, note 92) of information about Boninis services for Venetian Republic and his nomination as deacon in Treviso. Most of others refer their information about Boninis from Veneziani, Paolo. (1986) La tipografia a Brescia nel XV secolo, Firenze: L.S. Olschki.

Duggan, M. K. (1992). Italian music incunabula: printers and type. Berkeley: University of California Press. Text without illustrations available on http://content.cdlib.org/xtf/view?docId=ft409nb3lc&chunk.id=d0e272l&toc.id=d0e272l&brand=ucpress

Eisenstein, E. L. (1999). The printing revolution in early modern Europe. Cambridge: Cambridge University Press.

Franck, I. and Brownstone, D. (1986). Communicators. New York: Facts On File Publications.

Hunter, D. (1978). Papermaking: The history and technique of an ancient craft. New York:

Dover Publications, Inc.

Jurić, S. (1969). O djelovanju Dobrić Dobričevića u Padovi. Dubrovnik: Časopis za književnost, umjetnost, znanost i društvena pitanja, XII(4), 121-126. [reprint in Jurić, Šime. (2000) Iz muzeja hrvatske knjige. Zagreb: Matica Hrvatska. p. 50-59.].

Article "About activities of Boninus de Boninis in Padua" presents the findings about Boninis' activities in Padua presented by Antonio Sartori in article "Documenti padovani sull' arte della stampa nel sec. XV" published in Libri e stampatori in Padova. Miscellanea di studi storici in onore di mos. G. Bellini. Padova: Tipographia Antoniana. 1959, p. 111-231. Information are based on series of legal documents from the Padova city archives, mostly about the terms and obligations of printing partnership between Piro Franzoso (Maufero) and seven other printers, Boninis among them. The partnership lasted until 1482.

McMurtrie, D. C. (1937). Book, The: The story of printing & bookmaking (1st ed.). New York: Covici Friede Publishers.

Paro, F. (1997). Typographia Glagolitica. Zagreb: Matica Hrvatska.

Paro, F. (1998). Tipografski zank Dobrića Dobrićevića. Kolo - Časopis Matice Hrvatske, Zima 1998(4), 77-86.

"Printers device of Dobrića Dobrićevića" (Ordo and proportio of the printer's amblem, Dobrić's Printer's Emblem in the Colophon of the Divine Comedy). Paro is excellent printer, graphic artist, and professor on Art Academy of University of Zagreb. He analyzes the Dobrić's printer's device in light of humanistic understanding of proportions, harmonie mundi as presented in Pacioli's De Divina proporcione and in relation to devices of other printers of his time.

Pelc, M. (2000). Illustracije u tiskopisima Dobrića Dobrićevića (Boninus de Boninis). Radovi Instituta za povijest umjetnosti, 24, 135-154.

http://www.hart.hr/hr/izdanja/ripu/R24/pdf/ilustracije-u-tiskopisima.pdf "Illustrated books printed and edited by Boninus de Boninis (Lastovo ca. 1457 - Treviso 1528)." Milan Pelc has particular expertise in the book illustrations about which he published few books and articles (The Bible of the Simple. Illustrations of Croatian and Slovenian Protestant Books of the 16th Century, published by Institut za povijest umjetnosti [Institut for art history], Zagreb 1991). This paper is an brief review of Boninis' woodcuts in six of his books, analysis of his predecessors, printed sources, and contribution to the illustration design. This was far the most informative article on Boninis in any of the English or Croatian sources.

Pelc, M. (2004). Antologijsko ostvarenje ilustriranih inkunabula. Grafika: Hrvatski časopis za umjetničku grafiku i nakladništvo. (No. 2).

Roover, F. E. d. (1953). New facets on the financing and marketing of early printed books. Bulletin of the Business Historical Society, 27(4), 222-230.

- Schottenloher, K. (1989). Books and the Western World: A cultural history. Jefferson NC: McFarland & Company, Inc. Publishers.
- Stipčević, A. (2004). Socijalna povijest knjige u Hrvata (Knjiga I. Srednji vijek: Od prvih početaka do glagoljskog prvotiska iz 1483 godine.). Zagreb: Školska knjiga.

 Social history of Croatian books (Vol. I. Middle ages: From the first beginnings to glagolitic incunabula from the year 1483). Detailed history of all aspects of the book

culture on the territory of Croatia. Text follows certain chronological line, however, chapters are concerned by the particular subject (book trade, book as gift, book as weapons against heresy etc.). Unlike some of the older books, which relied heavily on the foreign (German) book histories, Stipčevié's book is new, and surprisingly original text based on

The Brescia Dante with a Leaf from the Illustrated Edition of 1487 Printed by Boninus de Boninis and Two Essays: Dante Alighieri, Universal Poet by Philip J. Spartano; Boninus de Boninis in the History of Printing by Chad J. Flake. Salt Lake City: Brigham Young University, 1975.

new research of local sources.

APPENDIX

List of books printed
by Boninus de Boninis
in Venice, Verona,
Brescia and
Lyons

Bagellardus, Paulus. De infantium aegritudinibus et remediis. Brescia: Boninus de Boninis. 16 March 1468.

The Brescia Dante (1975, p. 55): In Italian. Date could not be correct, because Boninis would be only 10 years old, and he comes in Brescia in 1480s. Or it is not Brescia, or it is 1488.

Leonicenus, Omnibonus. De acto partibus Orationis. Verona: Boninus de Boninis. August 1473.

The Brescia Dante (p. 55).

Lactantius, ca. 240-ca. 320. Opera. [Works. 1479]. Venice: Andreas de Paltasichis and Boninus de Boninis. 12 March 1478.

The Brescia Dante (p. 55): [i.e. 1479].

Perottus, Nicolaus. Cornucopiae Linguae latinae. Venice: Andreas de Paltasichis and Boninus de Boninis. 13 March 1478.

The Brescia Dante (p. 55).

Alexander de Villa Dei. Doctrinale. Verona: Boninus de Boninis. 17 February 1481.

The Brescia Dante (p. 55).

Blondus, Flavius. Roma instaurate. De origine et gentis Venetorum. Italia illustrata. Verona:
Boninus de Boninis. 20 December 1481.

Badalić (1952, p. 20, p. 72. cat.no. 217): Boninis "in vigilia Sancti Thomae." Gothic letters.

Blondus, Flavius. Roma instaurate. De origine et gentis Venetorum. Verona: Boninus de Boninis. 7 February 1482.

The Brescia Dante (p. 55)

Odonis, Geraldus. Expositio in Aristotelis Ethicam. Brescia: Boninus de Boninis. 30 April 1482.

The Brescia Dante (p. 57): Printed for Bonifacius de Manerva. Goff lists this as printed by Boninus while the BM lists it as an unknown printer, and printed prior to Boninis' departure from Verona.

Festus, Sextus Pompeius. De verborum significatione. Brescia: Boninus de Boninis. 14 June 1483.

The Brescia Dante (p. 56); Badalić (p. 20, p. 106 cat no. 446): Roman letters.

Macrobius, Ambrosius Aurelius Theodosius. In Somnium Scipionis expositio. Saturnalia. [Commentarii in Somnium Scipionis.]. Brescia: Boninus de Boninis. 6 June 1483.

The Brescia Dante (p. 56): Printed in partnership with Maniatus Delsera. Pelc (2000, p. 149): 5 woodcuts of different size.

Perottus, Nicolaus. De generibus metrorum. De Horatii et Boethii metis-Hippocratis jusiurandum. Verona: Boninus de Boninis. 1483.

The Brescia Dante (p. 55).

Servius Maurus, Honoratus. Centimetrum. Verona: Boninus de Boninis. 1483.

The Brescia Dante (p. 57); Badalić (p. 20, p. 158 cat no. 811): Roman letters.

Valturius, Robertus. Opera dell' arte militare. Verona: Boninus de Boninis. 1483. 17-Feb.

The Brescia Dante (p. 55): Italian translation by Paolo Ramusio.

Valturius, Robertus. De re militari. Verona: Boninus de Boninis. 1483. 13-Feb.

The Brescia Dante (p. 55); Pelc (p. 149): 96 woodcuts of different size.

Varro, Marcus Terentius. De ligua latina. Brescia: Boninus de Boninis. 16 June 1483.

The Brescia Dante (p. 57); Badalić (p. 20, p. 200. cat.no. 1095): Boninis with "Miniatus Delsera, studio ac diligentia Pomponii Laeti et Fancisci Rolandelli." Roman letters.

Crema. Laws, statues, etc. Cremae. Brescia. 16 March 1484.

The Brescia Dante (p. 56): Printed by Miniatus Delsera with Boninus de Boninis's type.

Spirito, Lorenzo. Libro della ventura, ovvero Libro delle sorti. Brescia: Boninus de Boninis. 12 February 1484.

Pelc (p. 149): 68 woodcuts, woodcarved initial.

Vergilius Maro, Publius. Opera. Brescia: Boninus de Boninis. 7 October 1484.

The Brescia Dante (p. 58).

Basilius Magnus. De legendis antiquorum libris. Brescia: Boninus de Boninis. 1485.

The Brescia Dante (p. 55): n.d., bound with Vergerius, Petrus Paulus. De ingenius morbis.

Catullus, Gaius Valerus. Carmina. Brescia: Boninus de Boninis. 6 April 1485.

The Brescia Dante (p. 56): With commentary by Antonius Parthenius; s.o. by Jacobus Juliarius; Badalić (p. 20, p. 87. cat.no. 319): Roman letters.

Crema. Laws, statues, etc. Statuta civitatis et mercatorum Cremonae. Brescia: Boninus de Boninis. 15 November 1485.

The Brescia Dante (p. 56): Pt 1: November 15; Pt 2: 19 November 1485; Badalić (p. 20, p. 188. cat.no. 1016): Roman letters.

Gellius, Aulus. Noctes atticae. Brescia: Boninus de Boninis. 3 March 1485.

The Brescia Dante (p. 56); Badalić (p. 20, p. 109 cat no. 469): Roman letters. Abbott (1970, p. 85, cat.no. 255): Initials painted red, caps, rubricated. Watermark: a bull's head semmounted by a shaft bearing a quatrefoil. Trinity College example ex libris of Bibliotheca Conoviana.

Guarinus Veronensis. De brevibus clarorum hominum inter se contentionibus ex Plutarcho collectis. Brescia: Boninus de Boninis. 29 March 1485.

The Brescia Dante (p. 56): The British Museum enters it under Plutarch with the notation that it is a translation by Guarinus of the Pseudo-Plutarchian tract known as "Parallela Minora;"

- Hieronymus. De officiis libeorum erga parentes admonitio. Brescia: Boninus de Boninis. 6 December 1485.
- The Brescia Dante (p. 56): Bound with Vergerius, Petrus Paulus. De ingenius morbis.
- Jacobus Philippus de Bergamo. Supplementum chronicarum. Brescia: Boninus de Boninis. 1

 December 1485.
- The Brescia Dante (p. 56); Badalić (p. 20, p. 126. cat.no. 589): Gothic letters.
- Macrobius, Ambrosius Aurelius Theodosius. In Somnium Scipionis expositio. Saturnalia. [Commentarii in Somnium Scipionis.]. Brescia: Boninus de Boninis. 15 May 1485.
- The Brescia Dante (p. 56); Pelc (p. 149); Badalić (p. 20, p. 142. cat.no. 703): Roman letters.
- Macrobius, Ambrosius Aurelius Theodosius. In Somnium Scipionis expositio. Saturnalia. [Commentarii in Somnium Scipionis.]. Brescia: Boninus de Boninis. 31 May 1485.
- The Brescia Dante (p. 57).

Plutarchus. De claris mulieribus. Brescia: Boninus de Boninis. 23 March 1485.

The Brescia Dante (p. 57); Badalić (p. 20, p. 173 cat no. 915): "Traductio per Alamanum Rinutinum." Roman letters.

Plutarchus. De Liberis educandis. Brescia: Boninus de Boninis. 29 March 1485.

The Brescia Dante (p. 57): Translated by Guarinus Veronensis. Bound with Vergerius, Petrus Paulus. De ingenuis moribis. Badalić (p. 20, p. 173 cat no. 916): "De brevibus clarorum virorum inter se contentionibus ex Plutarcho per Guarinum Veronensem collcetis nuper in latinum conversis Jacobo Lavagnolo." Roman letters.

Vergerius, Petrus Paulus. De ingenuis moribis. Brescia: Boninus de Boninis. 6 December 1485.

The Brescia Dante (p. 57): Also includes: Plutarchus. De liberis educandis, Hieronymus. De officiis libeorum erga parentes admonitio, and Basilius Magnus. De legendis antiquorum libris.

Calderinus, Domitius. Elecubrationes. Brescia: Boninus de Boninis. 1486.

The Brescia Dante (p. 55): n.d. Bound with Propertius, Sextus. Elegiae.

Ludovicus a Turri de Verona. De immaculata conceptione B. V. Mariae. Brescia: Boninus de Boninis. 19 August 1486.

The Brescia Dante (p. 56); Badalić (p. 20, p. 141. cat.no. 700): Gothic letters.

Prepertius, Sextus. Elegiae. Brescia: Boninus de Boninis. 16 March 1486.

The Brescia Dante (p. 55): Includes the *Elecubrationes* by Domitius Calderinus. Badalić (p. 20, p. 174. cat.no. 926): Proportius, Aurelius. Carmina, cum commentariis [in loca quaedam difficuliora] Domitii Calderini." Romna letters.

Probus, Marcus Valerius. De interpretandis Romanorum litteris. Brescia. Boninus de Boninis. 27 October 1486.

The Brescia Dante (p. 57): Edited by Michael Ferrarinus; Pelc (p. 149): 4 woodcuts of different sizes.

Saliceto, Guilielmus de. La ciroxia vulgarmenta fata. Brescia: Boninus de Boninis. 1486. 19-Dec.

The Brescia Dante (p. 57).

Tibullus, Albius. Elegiae. Brescia. Boninus de Boninis. 18 February 1486.

The Brescia Dante (p. 57): Commentary by Bernardinus Veronensis; Badalić (p. 20, p. 196. cat.no. 1069): "Carmina, cum commentariis Bernardini Veronensis." Roman letters.

Aesopus. Fabulae. Brescia. Boninus de Boninis. 7 March 1487.

The Brescia Dante (p. 55): Includes a translation into Italian by Accio Zucco. Pelc (p. 150): there are only three preserved examples: Marciana, Venetia; Visovac (Franciscan monastery), Croatia and Ambrosiana, Milano. 67 woodcuts size ca. 130x100mm. Badalić (p. 20, p. 42. cat.no. 10): "Aesopus moralisatus [lat. & ital.] ab Accio Zucho traductus." Gothic letters.

Aesopus. Fabulae. Brescia: Boninus de Boninis. 1487.

The Brescia Dante (p. 55): Apparent second eddition "known only in fragmentary form" Goff. Pelc (p. 150) cites also Sander, M. Le livre a fiures italien depuis 1467 jusqua 1530, Milano, 1942. about fragments of this edition preserved in collection Dyson Perrins, the example is without impressum and colophon. Sander date this edition to 1487. Sander also mention the third edition of Fabulae published 21 August 1489.

Alighieri, Dante. La Commedia col commento di Christoforo Landino. Brescia: Boninus de Boninis. 31 May 1487.

The Brescia Dante (p. 56); Pelc (p. 150): 68 woodcuts, with frame 260x175mm, without the frame 200x115mm; Badalić (p. 20, p. 46. cat.no. 35): Roman letters.

Ferrandus, Thomasius. Oratio in nuptiis Marchionis Mantuani. Brescia: Boninus de Boninis. 1487.

The Brescia Dante (p. 56): Printed in period between 1487 and 1491.

Alexander de Villa Dei. Doctrilane. Brescia: Boninus de Boninis. 14 February 1488.

The Brescia Dante (p. 55).

Cepolla, Bartholomaeus. Consilia criminalia. Brescia: Boninus de Boninis. 21 March 1490.

The Brescia Dante (p. 56).

Liturgy and ritual. Missale Fratres B. V. Mariae de Monte Carmelo. [Missale Carmelianum.].

Brescia: Boninus de Boninis. 14 August 1490.

The Brescia Dante (p. 56). Pelc (p. 150): woodcut of canonical crusifiction, size 280x180 mm.

Ubaldis, Baldus de. Consiliorum. Brescia: Boninus de Boninis. September 1490.

The Brescia Dante (p. 57): Partes V. Edited by Joannes Antonius de Zanetis. Pt. I: September, 1490; Pt II: 15 July 1490; Pt III: 12 February 1491; Pt. IV: 31 October 1490; PT V: 17 December 1491. Prefatory letter in Pt I dated 24 February 1491. Badalić (p. 20, p. 198. cat.no. 1079): "Consilia, emendata per Baptistam de Farfengo." Ghotic letters.

Liturgy and ritual. Officium beate Marie virginis ad usum Romane ecclesie. Lyons: Jacobinus Suigus and Nicolaus de Benedictis. 20 March 1499.

The Brescia Dante (p. 58): For Boninus de Boninis. Pelc (p. 150): Every page in the book is with woodcut frame (133x91mm). In the frames, on important places, inserted 16 woodcarved pictures of bigger size (68x60mm). Woodcarved frame is combination of three pieces which could be combined at will. Abbott (p. 123, cat.no. 363): 158x103mm, text 87x58mm, 18 il, 176 ff. Vellum. With elaborate woodcut border. There are paintings in gold and colours of the arrest in the garde, of the Annunciation, the Nativity, the Presentation, and others. Initials coloured.

Liturgy and ritual. Officium beate Marie virginis ad usum Romane. Lyons: Nicolaus de Benedictis. 20 May 1499.

The Brescia Dante (p. 58): For Boninus de Boninis.

Liturgy and ritual. Missale ad usum Cabilonensis diocesis. Lyons. 17 December 1500.

The Brescia Dante (p. 58): Printed for Boninus de Boninis. Pelc (p. 150): Woodcut of crusifiction on G6 verso.

Liturgy and ritual. Officium beate Marie virginis ad usum Romane ecclesie. Lyons. 26 August 1501.

The Brescia Dante (p. 58): Printed for Boninus de Boninis

Liturgy and ritual. Deus deus me. Lyons. 4 December 1501.

The Brescia Dante (p. 58): At the expense of Boninus de Beoninis

Liturgy and ritual. Missale ad usum insignis ecclesie Bellicensis. Lyons. 18 November 1503.

The Brescia Dante (p. 58): For Boninus de Boninis; Pelc (p. 150): Woodcut with picture of crucifix?