

Searching for Manuscripts and Running a Business: Printing and the Search for Texts in the Fifteenth Century

Abstract

This contribution seeks to examine how the commercial production of printed books interacted with the search for manuscripts of texts not otherwise known to survive, during the first fifty years after the European invention of printing. Searching for manuscripts is thus considered from the perspective of it being an economic activity. Producers of manuscript and of printed books alike had to locate and acquire a text to work from. This could range from the easy acquisition of a local exemplar, the acquisition of exemplars from known but distant locations, to the search for texts whose location was unknown, and all the way to the search for exemplars of texts whose survival was uncertain. By exploring the most ambitious types of search within this broader context, we will seek to understand better the circumstances under which the commercial production of printed books could enable a business model, one amongst many, that not only made such a search possible but even required it. We will seek to establish when the associated direct and indirect cost of an ambitious search could be a worthwhile investment, or at least could seem to be. In doing so we also aim to understand more clearly why this could be a potential path towards profit for commercial producers of printed books, while it would have been unviable for commercial producers of manuscript books.

Keywords

Locating manuscripts, Cost recovery, Printers, Businesses models, Profit.

Scholarship on the search for manuscripts that aims to locate texts not otherwise known to have survived has rarely sought to place this activity within the context of the subsequent production of the newly located text. In this contribution I will seek to examine how the commercial production of printed books interacted with this search

during the first fifty years after the European invention of printing.

This type of search for manuscripts – the one that aims to locate very rare or otherwise unknown texts – was the most ambitious manifestation of a more general process: producers of manuscript and of printed books alike had to locate and acquire a text to work from. This could range from the easy acquisition of a local exemplar, the acquisition of exemplars from known but distant locations, to the search for texts whose location was unknown, and all the way to the search for texts whose survival was uncertain. By exploring the most ambitious types of search within this broader context, we will seek to understand better the circumstances under which the commercial production of printed books could enable a business model, one amongst many, that not only made such a search possible but even required it. We will seek to establish when the associated direct and indirect cost of an ambitious search could be a worthwhile investment, or at least could seem to be. In doing so we also aim to understand more clearly why this was a potential path towards profit for commercial producers of printed books,¹ while it would have been unviable for commercial producers of manuscript books.

1. A number of nouns were in use for those who printed books, especially in Latin. But there was no noun for people who undertook functions that were akin to those that we now ascribe to publishers. Nor was there a word for a distributor of books published and printed by others although people undertook those activities. Those who acted as publishers might also act as printers or distributors, and the other way round. Their engagement with the production of books might also be only one aspect of wider business activities. I have sought to avoid using words which fix distinctions which were not fixed then although, on occasion, it is too cumbersome to avoid the words publisher, printer, and distributor.

Searching for manuscripts was an economic activity in the sense that it had to be paid for, although the costs may have been opaque even to the participants. Senior administrators could spend time looking for manuscripts when on a journey undertaken in the course of their duties, which ensured that their costs were indirectly covered. Thus Petrarcha (1304–1374) could search for manuscripts in France and Flanders while on diplomatic missions undertaken for the Colonna family (Rico and Marcozzi, “Petrarcha” *passim*). The importance of this indirect support is implicitly brought out by Remigio Sabbadini in his foundational work on the discovery of Latin and Greek codices in the fourteenth and fifteenth centuries: he devoted a chapter each to the discoveries made during the councils of Constance (1414–18) and of Basel (1431–37/49) (Sabbadini, *Le scoperte* chapters 4 and 7). But not all could travel like that. Gasperino Barzizza (c. 1360–1431) for instance, a brief stint at the Council of Constance apart, did not have the means to leave his job as a grammar teacher in Padua, and thus he could not play a role in locating far-flung manuscripts, although he was keenly interested in new discoveries (Martellotti, “Barzizza”).

Most often we know little or nothing about costs or how they were covered. This is largely because, for many people, it was not a topic that merited attention. Indeed, scholars might wish to distance

2. Filelfo, *Collected letters* vol. 1 228, PhE-03-43, 8 July 1440: “Franciscus Philelfus Iohanni Aurispae salutem. Totus es in librorum mercatura, sed in lectura mallem. Quod si faceres, longe melius et tibi et Musis consultum esset. Quid enim prodest libros quotidianie nunc emere, nunc vaendere, legere vere nunquam? Ego quos vaendam, habeo libros nullos. Emerem potius, si pecunias abundarem. Quinetiam in hac pecuniarum difficultate, siquod opus ostenderis quod pretio dignum censeam, emitas emere, etiam si servire me oporteret. Declarabis igitur per literas qui libri tibi et quales sunt vaenales. Quod si feceris, intelliges me nulla premi inopia. Sum enim apud eum principem, apud quem egere potest nemo.”

themselves from the inevitable financial implications of their activity. The case of Giovanni Aurispa (1376–1459) illustrates how important it was for the economic underpinning of learning to remain opaque. He acquired books on his diplomatic travels in the eastern Mediterranean and to the Council of Basel, many of which he sold with a degree of business acumen that caused consternation. Francesco Filelfo (1398–1481) described him disparagingly as a trader, and highlighted the social difference between the two of them, the sordid dealer and the noble scholar for whom money was of no interest. He wrote to Aurispa: “You are completely devoted to the selling of books; I would rather you read them. That would be much better for you and for learning. For what good comes of now buying now selling, but never reading? I have no books for sale. I prefer buying, when I can afford to.”² Filelfo claimed that he valued books so highly that he would buy an important book even if it reduced him to the level of poverty of a slave. In fact, he ran no risk of that, as he went on to boast of his financial security: “So write and tell me what books you have and how much they cost. If you do that, you will learn that I do not suffer hardship. For I am in the service of the prince [Filippo Maria Visconti, duke of Milan] under whom nobody suffers any want.” Filelfo emphasised how the money available for him to use had an origin that he could leave suitably intransparent. Thus he could distance himself from the social opprobrium of trade, even as he engaged with the trade in books by performing the essential role of a buyer.

The reluctance of men of the social groups who had the skills to identify suitable manuscripts to engage with the economic and financial aspect of their activity is part of the background for our understanding of that very theme in the context of the business of producing printed books. The costs of acquiring exemplars or having them copied would have been known or at least knowable to those who made business decisions, but they are rarely mentioned in the books themselves. In dedicatory and other introductory letters associated with published editions scholarly and intellectual aspects of the work nearly always take precedence over the business underlying its production. Details of expenditure would rarely have been suitable a topic in letters designed to evoke the benevolence of a person of superior social standing or of a scholarly or clerical reader.

After printing had become an important part of commercial book production, the search for manuscripts of texts that had disappeared from view continued as before, and it still had to be paid for

3. See Morelli, "Le liste." The first printed book based on these manuscripts was Terentianus Maurus, *De litteris*, 1497. The Bobbio manuscript no longer exists, and the 1497 edition is therefore our only witness to the text. *Bod-Inc T-020*.

in one way or another. The outstanding example of this is the discovery of manuscripts in Bobbio in 1493 by Giorgio Galbiate (*fl. 1490–97*), probably the last great Humanist find of manuscripts, which he made while working as an assistant to Giorgio Merula (1430/31–94) on preparing a history of Milan.³ Similarly, the at best indirect relationship between the search for manuscripts and commercial production of manuscript books was in many ways unchanged in the early years of printing. Producers of printed books could not – any more than commercial producers of manuscript books – abandon their businesses to go looking for exemplars, and it is doubtful whether most would have had either the required skills or the social capital to get access. Yet some engaged in the search for manuscripts, directly or indirectly, and this may have happened more often than our documentation suggests. As we shall see, our fullest information about printers and publishers engaging in the search for manuscripts, and specifically the types of expenditure that it required, derives from surviving business correspondence, on occasion supplemented by other archival sources.

I. Using the most easily available manuscript

Producers of manuscripts and printed books alike needed exemplars to work from, be they manuscript books or, increasingly often, copies of earlier printed editions (Reeve, "Manuscripts Copied from Printed Books" 175–77). Karl Schottenloher suggested that the choice of manuscript made by printers was entirely left to chance, unless they benefitted from expert advice (Schottenloher, "Handschriftenforschung" 74). They would print from the copy of the text that was most easily available. In this respect producers of printed books were probably no different from most – personal or commercial – producers of manuscripts. In many cases the most easily available copy was geographically close. Albinia de La Mare found that this was the case even for Vespasiano da Bisticci, the upmarket commercial producer of manuscript books, who preponderantly relied on manuscripts available in Florence (De la Mare, "Vespasiano" 206–07).

An illuminating example of the reliance of printers on local manuscripts is provided by the numerous anonymous elementary Latin grammars. Here we find a situation where one could have significant interregional variation, while one could have a relatively stable local environment for specific textual traditions, probably often re-

lying on personal copies rather than commercially produced ones, although there must also have been quite a market in second-hand copies. The manuscript production of copies of this type of text could be translated into a business model for the commercial production of printed editions that equally relied on local traditions. The *Gesamtkatalog der Wiegendrucke* groups together under the known fifteenth-century editions of this type of text the heading 'Grammatica.' Even within the same text group there are significant variations, often with grammatical examples tailored to specific localities, which the *GW* describes as "Lokalbezüge" (*GW IX* (1981) cols 657–770, at col. 658, and the individual entries *passim*). It made commercial sense to use a locally available manuscript that contained a version of a text that was familiar and appropriate to the intended group of buyers. It would have been commercially unwise for a printer to seek to locate a 'better' version of the text from far away.

The inclination to use an easily available exemplar from which to work was not limited to small grammar books. The earliest printed edition of the Bible, the Gutenberg Bible from around 1455, was based on a local textual tradition. Directly or indirectly, it was in turn used as exemplar for all subsequent fifteenth-century uncommented editions, with one exception (*Biblia latina*, 1476; Quentin, *Mémoire* 93–4; Schneider, "Der Text der 36zeiligen Bibel" 68). A copy of one of the printed editions became the easiest and most easily available exemplar for a printer to work from. There is no evidence to suggest that either Gutenberg or later fifteenth-century printers sought to locate the best biblical manuscripts, nor that they benefited from external expert advice. But from this we cannot conclude that Gutenberg and his staff chose indiscriminately among more or less locally available manuscripts. Schotttenloher's statement can therefore usefully be made more precise by saying that, whether they had access to expert advice or not, producers of printed books would use the most easily accessible, acceptable manuscript to work from, acceptability being determined both by its textual quality and its suitability for typesetting.

Choosing the most easily available manuscript would have meant very different things according to where you were. Producers based in cities with well supplied libraries would often have relatively easy access.⁴ It is obvious that a printer based in Rome would have easy access to more manuscripts than a printer based in Cracow, for example. On the other hand, a printer may have the best possible manuscript for a text delivered free of charge, but judge that the prod-

4. Manni, *La tipografia*, especially at pp. 35 and 70, brings out the importance of the numerous Milanese libraries for printers there. The use of libraries by early printers in the German cultural area is explored by Halporn, "Libraries."

5. This is true even where a sponsor ensured that all copies of an edition were sold in advance. Here marketability scores very highly in a notional decision making process, potentially so highly that it can outweigh other considerations.

uct will not find buyers, as Rogerius Sycamber found when he, in vain, sought to persuade Johann Amerbach to publish thirty works of his (*Amerbachkorrespondenz* I 79–82, no 72, 5 January 1498). Accessibility and acceptability are both flexible, relative parameters which inevitably interact with a third, an assessment of the marketability of the text in question. When you have to decide whether to invest in producing an edition and which exemplar to use, you will assess these parameters jointly.⁵

Because of the flexible interaction between these three parameters – anticipated marketability of the text, availability of an exemplar, and its acceptability – we should not expect to be able to create neat classifications of the ways in which producers of printed editions acquired the exemplars from which they worked. Rather we encounter a continuous spectrum, and in the following pages we seek to outline that gradual progression. Moving on from the more or less critical selection of an easily available local exemplar, we will look at the situation where the most easily available manuscript was one prepared and provided by people from outside the trade in books. Next we shall examine sourcing of manuscripts in distant but known locations, undertaken by producers of printed books. Following that we will look at examples of producers organising searches for manuscripts of texts known to exist but without advance knowledge of where they could be acquired. Finally we shall look at an example of a commercial producer financing and leading a highly ambitious search for texts which were known to have been written but not known to have survived.

II. The most easily available manuscript is provided by people from outside the trade

Sometimes the most easily available copy of a text would be one which people from outside the world of commercial book production brought to a printer. This would be either a pre-existing exemplar or an exemplar which they had created on the basis of a more or less extensive search aiming to establish a good text, what ever good might mean in their context.

Missals, breviaries, and other liturgical texts with important local characteristics form a significant group of publications that nearly exclusively depended on exemplars being prepared for a printer by people who were alien to the book trade and who had a strong inter-

6. “Hic vero liber missalis secundum ordinarium et registrum metropolis nostre maguntine et peritorum expertorumque presbiterorum correcturam et proxim impressus est.” *Missale Moguntinum* 1482, sig. [a]1 recto. Also quoted by Engelhart, “Die frühesten Druckausgaben” 95, note 153, a study of importance beyond its stated geographical area that brings out the close involvement of the ecclesiastical hierarchy in determining the correct text. Broadly the same point is made by Nowakowska, “From Strassburg to Trent,” an article marked by the author’s polemic against long superseded views of the involvement of the Church in early printing.

7. Chaucer, *The Canterbury Tales* [1483] sig. aii verso. For a detailed discussion of the manuscripts used, with previous literature, see Lotte Hellinga’s entry on the second edition in *BMC XI* 131–33. The second edition was set from a copy of the first edition but, based on another manuscript: Caxton inserted lines and excluded others, and made a small number of textual corrections, only in part based on his new manuscript.

8. See *BMC V* 562 on Lucretius, *De rerum natura*. Venice: Aldus Manutius 1500.

est in a specific version of a text becoming predominant. The close involvement of the ecclesiastical hierarchy in establishing the correct, that is to say the approved, text is expressed for instance in the colophon of the *Missale moguntinum* printed in Würzburg in 1482 by Georg Reyser (active 1468 to 1503): “This Missal was printed according to the Ordinary of the Mass and the Registrum of our Archdiocese of Mainz and according to the corrections and current practice of experienced and expert priests.”⁶ When religious and hierarchical concerns determined what constituted textual correctness, producers of printed editions rarely played a role in the search for manuscripts to print from.

We also know of editions that the producer himself financed but where he depended on manuscripts brought by people from outside the book trade environment. The first and second editions of Geoffrey Chaucer’s *Canterbury Tales* respectively from about 1476 and 1483 printed by William Caxton (born 1415–24; died 1492), provide an example. In his preface to his second edition Caxton recounted how a young gentleman had claimed that his father had a manuscript far superior to the one used for the first edition, which he could make available for a second edition. Caxton did not benefit from expert assistance in identifying what might be a good textual tradition, if such an expertise were even imaginable for an English vernacular text. It would therefore have made little sense for him to instigate a search for the best manuscript. Instead he seems to have relied on, and to have expected the prospective buyer to rely on, the hierarchical validation of his second manuscript by the social status of its gentleman owner. This does not mean, however, that Caxton and his readers failed to perceive an importance of textual adherence to the author’s original text. Caxton claimed that his second manuscript “was very true and according unto his [i.e. Chaucer’s] own first book by him made” and went on to describe it as a moral obligation to produce a text that was identical with that which the author had written, “to satisfy the author, whereas tofore by ignorance I erred in hurting and defaming his book in diverse places in setting in some things that he never said nor made, and leaving out many things that he made, which had been requisite to be set in it.”⁷

A similar example of an edition based on a manuscript brought to the printer is constituted by the edition of Lucretius prepared by Girolamo Avanzi and printed in 1500 by Aldus Manutius (c. 1450–1515). Aldus played no role in commissioning the exemplar prepared by Avanzi, who had apparently first offered it to Giovanni Taccuino (c. 1482–1541), another Venetian printer.⁸ Differently from Caxton’s

Chaucer editions, however, the *De rerum natura* was a text for which there were tools available for judging correctness, however inadequate we today may think those tools to be. Yet Avanzi had not based his edition on a search for better manuscripts and Aldus explained in his introductory letter how improvements to the text were based on Avanzi's deep familiarity with the work of Lucretius, which enabled him to correct corrupt passages. This nearly anticipates the observation by L. D. Reynolds that Italian manuscripts of Lucretius have "no value except as a repository of conjectures" (Reynolds, "Lucretius" 221).

An early example that did involve a significant search for appropriate manuscripts is provided by the first edition from around 1466 of a part of the *De doctrina christiana* by Augustine (354–430), known as *De arte praedicandi*, the *Art of preaching*.⁹ Judging from his introductory letter the anonymous editor was a person of significant religious authority, and he has been tentatively but plausibly identified as Stephan Hoest (died 1472), a Heidelberg theologian and canon in Speyer (Baron, "Der erste Druck"). He explained that the rhetorical aim of sermons is different from that of other speeches: it is not enough for the listeners to learn what is theologically correct; they must be motivated to change their actions, to mend their ways. Augustine's text would help preachers with achieving that.

Therefore great attention must be given by all who wish to teach or preach in the schools of Christ [i.e. in church] that they thoroughly learn not only that which should be taught or said there, but also the way of speaking that is appropriate to the task of preaching and is fitting for a clerical teacher or instructor. That is because it is often not so much that which is said as the way in which it is said that moves the listeners, and this is of chief importance in church where it is not enough just to teach but where one should also move the listeners to act on what is taught.¹⁰

Establishing a good text was of importance for the promotion of the faith and for the salvation of souls and thus the editor's wish for a philologically sound text was closely associated with his wish for theological correctness.

He tells us that to get the best text, he searched through libraries in the University of Heidelberg, in Speyer, in Worms, and finally also in Strasbourg. In the process, he established that copies of the *De arte praedicandi* were rare. Furthermore, when he found a copy, it was most often of poor textual quality (*rarissime correctus aut emendatus*).

9. Augustinus, *De arte praedicandi* (Strasbourg): Johann Mentelin (not after 1466); and (Mainz): Johann Fust (and Peter Schoeffer, not after Mar. 1467). [ISTC ia01227000](#). It has been debated if the Strasbourg or the Mainz edition was first. I follow the ascription of priority to Mentelin in *BMC I* 52, which is also implied by the numbering of *GW* 2871–72. For the opposite view see Householder, "Pirate."

10. Augustinus, *De arte praedicandi* [not after 1466]: sig. [a1] recto: "Ideo magnopere curandum est omnibus ibidem [in scholis Christi] docere siue predicare volentibus quomodo ipsi perdiscendo noscere queant non solum ea que in dictis Christi scholis docenda sunt siue dicenda. Sed etiam modum ipsum dicendi operi predicacionis congruentem et qui ecclesiasticum decet doctorem siue informatorem. Cum tamen sepe non tam illa que dicuntur quam modus ipse quo dicuntur ipsos auditores moueat et attendat, quod utique in dictis scolis Christi maxime necessarium est, ubi non sufficit solum docere sed etiam oportet auditores ad agendum que docta sunt mouere."

11. For the use of “exscribere” for “printing,” see the colophons of the de Spira brothers, e.g. Cicero, *Epistolae ad familiares*. 1469; Plinius, *Historia naturalis*. 1469; and Augustinus, *De civitate dei*. 1470. It is also found e.g. in the Roman edition of Sixtus IV, *De futuris contingentibus*. 1473: sig. [a]1 recto: “Feceram Sanctissime pater tue Sanctitatis de Sanguine Christi et de potentia dei libellos fere trecentos impressorio artiftio exscribi.” (I have had about three hundred copies printed....). Also the use of *transcriptus* and *scriptus* for “printed” quoted by Rizzo, *Il lessico filologico* 75.

He also noted that libraries were reluctant to lend their books *ad rescribendum*. By this he may have meant “for copying by hand,” but it seems more likely that he meant that they were reluctant to lend their books to be used for printing,¹¹ for he tells us that as a result of their unwillingness he prepared his own copy, which Johann Mentelin (c. 1410–78) could use for printing “according to my copy, now as correct as I could achieve it with my studious labour.” It even seems possible that the editor entered into some sort of financial arrangement with Mentelin, potentially subsidising the publication. He said that he used all means (*modis omnibus*) to persuade Mentelin to take on this labour, possibly choosing his words carefully to avoid the embarrassment of being openly associated with a financial transaction. He was also very concerned that readers should buy copies of Mentelin’s edition. Interestingly he neatly outlined the two other options available to a person who might want this text. They could write it out for themselves, but then they would be as good as certain to end up using an inferior exemplar. Alternatively, they could go down the commercial route but, even if they had already commissioned a copy to be made, they would not only have to pay for the copy; they would also have to pay as much again for having their copy corrected – presumably against the printed edition – if they cared at all about the work: the correction on its own would cost them as much as buying a copy of Mentelin’s edition.

God be my witness, I have taken great pains to get it correct, to the extent that, to that end, I have carefully examined all exemplars which I could find in any library, in the University of Heidelberg, in Speyer, in Worms, and finally also in Strasbourg. In the process, I established that this book of Augustine’s is rarely found, even in great and valuable libraries and even more rarely can be had from any of these libraries for copying out [*printing?*], and also, which is worse, that it can very rarely be found correct and free of error. Consequently I decided to work with great dedication so that said book in a short span of time could be multiplied so that it might be useful for a great number of people for the shared advancement of the church, on the basis of my copy now as correct as I could achieve it with my studious labour. ... I urge each and everyone who desires to have this work to choose to buy it from the above mentioned magister [Mentelin], because of its correctness, rather than copying it out elsewhere from an exemplar which undoubtedly will be less

12. Augustinus, *De arte praedicandi* [not after 1466]: sig. [a2] verso: “Feci ergo deo teste magnam pro eius correctione diligenciam ita quod omnia exemplaria que in studio heidelbergensi nec non in Spira et in Wormacia atque tandem eciam in Argentina in ulla libriis reperire potui diligenter proinde respexi. Et cum inter hec experimento discerem quod idem liber Augustini raro inuenitur eciam in magnis et preciosis librariis. Et adhuc rarius de ulla ex eisdem librariis ad rescribendum poterit haberi. Atque eciam, quod peius est, rarissime correctus siue emendatus inibi queat reperiri. Idcirco permotus fui ad hoc studiosius laborare ut secundum exemplar meum tanto nunc studio et labore quantum saltem potui correctum dictus libellus sic et taliter in breui tempore mutuplicari posset ut ad plurimorum usum et ad communem profectum ecclesiasticum facile et cito peruenire. Quapropter cum nullo alio modo siue medio id expedicius fieri posse iudicarem discreto viro Johanni Mentelin incole argentinensi impressorie artis magistro modis omnibus persuasi quatenus ipse assumere dignaretur onus et laborem mutuplicandi hunc libellum per viam impressionis exemplari meo pre oculis habito. ... [[a3] recto] Suadeo autem unicuique hunc libellum habere desideranti ut propter correccionem pereligit a dicto magistro eum comparare quam aliunde de exemplari haut dubium minus correcto undecumque accommodato rescribere. Certificans unumquemque quod etsi iam ordinasset sibi describi eciam ex aliqua libraria (sic) si tamen ipse talis amator huius libelli fuerit qualis merito esse debet tum pro sola eius correccione dare deberet quantum pro empacione apud eundem magistrum exponere habebit.”

13. Augustinus, *Opuscula*. Parma, 31 March 1491, copied in the edition of Peregrinus de Pasqualibus in Venice, 10 November 1491.

correct, no matter wherever it was lent from. I inform each and everybody that in case he has already commissioned it to be written for him, were it even from a copy in a library, if he is such a great lover of this work as it deserves to be, then he will have to pay as much again just for his copy to be corrected, as he will have to expend by buying it from Magister Mentelin.¹²

Thus, while the printer had no involvement in the search for manuscripts nor in the creation of an acceptable exemplar to work from, there was an intimate relationship between printing and the search for good manuscripts to establish a correct text: the significant effort involved in the search was worthwhile to the religiously motivated editor, exactly because he felt that the printing of multiple copies ensured that a good text for a religiously important work could be more widely communicated. This reminds us how commercial and ideological parameters for decision making are intrinsically interconnected.

A broadly similar relationship between editor, manuscript, and producer can be found in the Parma edition from 1491 of Augustine's *opera minora*.¹³ In his letter to the reader, Severinus Chalcus (1431?–96), rector general of the Lateran congregation of canons regular (Morisi, “Calco”), explained how Eusebius Conradus (1447–1500) (Walsh, “Corrado”), a fellow Austin Canon, had searched for manuscripts in “nearly all libraries of Italy.” Chalcus highlighted both the philological and the religious credentials of those involved in locating the manuscripts, and presumably in copying them. The result of this work was handed to Angelus Ugoletus (before 1449–1503) (Canova, “Ugoletto, Angelo”). The submitted exemplar was then collated with several “very ancient codices,” under the supervision of Conradus, by Thadeus (Mariani, “Ugoletto, Taddeo”), the printer's brother who was a scholar with excellent hierarchically confirmed credentials, as former tutor to the son of Matthias Corvinus (1443–90), the learned king of Hungary.

He was introduced to Angelus Ugoletus of Parma, who is not constrained by poverty nor by the desire for money, who wishes to print only books of resplendent honour and utility for future generations, and who deplores it that many have perverted the art of printing, worthy of invention as it was, to ungodly and shameless purposes. He has a brother, Thadeus Ugoletus, learned in Latin and Greek, to whom Matthias Corvinus, the most serene King of Hungary, entrusted the education of Joannes, his son, and who often made use of

14. Augustinus, *Opuscula*. Parma, 31 March 1491: sig. [*2] verso: “Cui oblatus est Angelus Vgoletus ciuis parmensis qui nulla egestate aut lucri cupiditate coactus eos dumtaxat libros imprimi censem in quibus splendeat cum posterorum nostrorum utilitate honestas, dolens plerosque imprimendi artem inuentu dignissimam ad impia et impudica detorsisse. Est huic frater Thadeus Vgoletus utriusque linguae eruditus cui Serenissimus Mathias rex Hungariae Ioannem Corunum filium erudiendum commisit et cum in hoc tum in aliis negotiis illius opera frequenter usus sit. Hunc doctissimum cognoscens nostrates Eusebius rogauit ut hos elegantissimos libros collatis pluribus uetustissimis codicibus emendaret. Quod factum fuisse intelliget quicumque conferret cum his qui passim habentur, Eusebio tamen adiuante qui diu noctuque ut absolutissimi [for *absolutissimi*] fierent curabat.”

15. Thus Theophilus de Ferrariis Cremonensis in the letter of dedication in Thomas Aquinas, *Commentum in octo libros Physicorum Aristotelis*. 1492: sig. a1 verso: “Nam impressores quidam sola cupiditate ducti: iterum omnia ipsius [Thomae] commentaria in Aristotelis libros absque ulla mendorum exemplarium castigatio ne impressioni tradere volebant: ut sic error errori adderetur.” (“For some printers, motivated by greed alone, wanted to republish Thomas’s commentaries on Aristotle’s books without correcting the errors of the corrupt exemplars, thus piling error on error.”) Or Lucas Panetius in his letter of dedication, to his edition of Ficinus, *De christiana religione*. 1518: sig. A1 verso: “Marsilius de christiana religione [...] quem impressorum venetorum avaritia mendorum excusserat, in pristinum candorem a me restitutum, tibi muneri mittimus.” (“I send you Marsilius on Christianity, which the avarice of the Venetian printers had produced full of errors, now brought back to its pristine state by me.”) Sebastiani, *Froben* 78, quotes several examples of this attitude, mainly from Erasmus.

him for this and other purposes. Knowing him to be very learned, Eusebius, a fellow Austin canon of ours, asked him to correct these choice books, by collating several very ancient exemplars. By comparing with that which normally is in circulation anyone will appreciate that this was achieved, with the support of Eusebius, who day and night saw to it that they were made as perfect as possible.¹⁴

The reader could be confident that Angelus Ugoletus was a reliable printer/publisher because he was not motivated by greed, *cupiditas*, but only by his wish to produce books of use for future generations, while deplored those who abused printing for impious purposes. This praise mirrors the frequent complaints that greed – a concept which has a great deal of overlap with our notion of profit – was a cause of textual error, a cardinal sin thus being closely associated with the deplorably commercial nature of book production.¹⁵

Ugoletus’s and Conradus’s edition had a mission. It only contains works included in the *Retractationes*, a work written by Augustine towards the end of his life where he critically assessed all his works in chronological order. This must be seen in the context of a controversy between the Austin Friars – in Europe often known as Augustinian Hermits – and the Austin Canons (Farenga, “La controversia”). The Canons sought to refute the claim that Augustine had been a friar and had founded the order of the Austin Friars; this claim had been underpinned by the numerous pseudopigraphic texts that had been included in previous editions of Augustine’s *opera minora*. Several of these texts had obvious Pelagianising tendencies and some were even by Pelagius (c. 350–c. 418) himself, whose belief in the perfectibility of human life had been denounced as heretical by Augustine (Jensen, “Reading Augustine”). The search for manuscripts was integral to the claims of historical and philological correctness that underpinned the theological aims of the Parma edition. In our context it is important that the edition was initiated and managed by a person who acted without the previous involvement of the producer of printed books and who organised and presumably financed the search through his ecclesiastic position, and only afterwards made arrangements with a printer/publisher for the publication of his manuscript. But it is equally important that Chalcus, like Mentelin’s editor, perceived that the process of multiplication of books by printing helped them achieve their pious aim and thus made it worthwhile to undertake the effort and to finance the search for manuscripts.

III. The required manuscripts were in distant but known locations

However, there were circumstances under which it might make sense for producers of printed books themselves to seek competitive advantage by producing important texts that were not otherwise easily available. This could justify investment in the sourcing of manuscripts, even if they were located in very distant places. Thus the required manuscript was not all that easily available. Compared with using locally available exemplars, or using exemplars sourced by others, this was a more costly and more risky type of activity. Not all could contemplate this, because of the costs involved in acquiring manuscripts, because of the inevitably longer period between the first outlay of capital and the first return on investment, and because of the greater risk that a text for which there was no pre-existing market might not be successful. But if the upfront investment was significant, the return on investment slow, and if there was an ever present risk of failure, there was at least a commensurate potential for a return on investment. Here we see producers of printed books engaging in a search for manuscripts in order to create a competitive product that would stand out in an increasingly crowded market, following a business model which would have made no sense for a commercial producer of individual manuscripts.

In 1475 the Roman printer/publisher Simone Cardella (c. 1440–after 1479) paid fourteen *bolognini* in customs duty for importing a “book called the Archdeacon” (Modigliani, “La tipografia” 116). Two years later he published the result, a large volume of canon law, consisting of 406 leaves (Baysio, *Rosarium decretorum*). The length of time between the arrival of the manuscript in Rome and the publication of the printed edition, may suggest that he did not simply typeset from this one manuscript, but that he may have used several others for preparing a text to work from. Unfortunately we do not know. Nor do we know where the manuscript came from, but we can conclude that he chose to invest in paying for a manuscript from elsewhere despite the extraordinary riches of libraries in Rome.

Between 1473 and 1478, Adolf Rusch (about 1435–89), the well-connected and well-financed Strasbourg printer, produced all three parts of the *Speculum maius* by Vincent of Beauvais (died c. 1264). This is a core text for our understanding of medieval learning but only three manuscript copies exist that can be said to be complete sets of the entire work, and Johannes Vorbij has suggested that, apart

16. Vincentius Bellovacensis, *Speculum doctrinale*. Paris, Bibliothèque nationale de France, lat. 6428, Paris, Bibliothèque nationale de France, lat. 16100, and Paris, Bibliothèque de la Sorbonne, 53.

17. ISTC follows BMC in recording two editions by Rusch of Vincentius Bellovacensis, *Speculum doctrinale*. (Strasbourg: The R-Printer (Adolf Rusch), between 1477 and 11 Feb. 1478). [ISTC iv00278000](#). And (Strasbourg: The R-Printer (Adolf Rusch), not after 1478). [ISTC iv00279000](#). They are however found mixed and may better be considered one edition, as does BSB-ink.

18. Hase, *Die Koberger*, pp. xvii–xviii, no 15, 16 November 1498: “Item mittdem ersten teyll im Hugonem hatt es woll pitt vncz der furman wider kumpt 5 wochen muß er haben ee vnd er von bassel auff Nurmberg fert vnd wider gen bassel kumpt in der czeit mogtt ir das erst teyll woll fertigen mitt guter muß ob es aber nicht sein mocht So last es stan pis auff die ander reiß dar nach vnd durffend in mittler czeit nichtz dem Classen wernlein laden Domit das ir nicht vber eyllt wertt.”

from the complete copy that Vincent himself presumably made, only a few ever existed (Vorbij, “Purpose” 42–43). Unsurprisingly, therefore, Rusch had to cast his net very widely when he set out to locate manuscripts for this ambitious commercial product. The three Parisian manuscripts, which are now the only surviving manuscripts of the whole *Speculum doctrinale* (Albrecht and Vorbij, “The manuscripts;” Brun, “Speculum doctrinale”), may not have been available and may not even have been known to Rusch.¹⁶ By contrast *GW* reports 444 surviving fifteenth-century printed copies of the *Speculum doctrinale*, 743 copies of the Latin *Speculum historiale* and 522 copies of the *Speculum naturale*.

The last part of *Speculum maius* was the *Speculum doctrinale* from around 1478.¹⁷ We happen to know that Rusch had a manuscript at his disposal that came from very far away. The Lübeck Dominicans had lent Hans Biß, a Lübeck bookbinder, a copy of the *Speculum doctrinale*, or perhaps more plausibly of a part of it. Biß died and the Dominicans wanted their book back, only to find that – against the loan conditions – Biß had sent it to Strasbourg, either to Rusch or to Johann Mentelin, Rusch’s father-in-law. The council of Lübeck intervened, writing on 11 February 1478 asking the council of Strasbourg to put pressure on Rusch and Mentelin to return it (Dziatzko, “Der Drucker” 16–17). It is unknown if they did.

Google Maps calculates the walking distance between Lübeck and Strasbourg as 712 km. We know from Anton Koberger (c. 1440–1513) that it would take a carrier five weeks to travel some 840 km, the approximate walking-distance of a return trip from Basel to Nürnberg and back, presumably via Strasbourg, Koberger’s regular route for his conveyances to Basel.

Concerning the first part of [Hugo de Sancto Caro]. It will probably be five weeks before the carrier comes back. He must have that time to travel from Basel to Nürnberg and back to Basel. In that period you can comfortably complete the first part. If that is not going to be possible, let it wait until the second journey later on and, in the mean time, don’t load anything with Claus Wernlein, so that you do not rush things.¹⁸

This provides us with a way of gaining a very rough impression of the time a carrier might have needed to convey the manuscript of the *Speculum doctrinale* from Lübeck to Strasbourg, namely about thirty days. This required connections, logistics, and money. Hans Biß

19. Of Rusch's two practically identical editions of the *Speculum Doctrinale*, the *GW* counts 191 surviving copies.

20. *Amerbachkorrespondenz* i 19, no 14, 24 September 1485: "Honorande magister, video singulis diebus pro vectura qua habita mittam vobis bapirum. Item mitto vobis exemplar optimum (ut mihi videtur), quod continet Instituta ac simul Collationes. Hoc velim mundissime teneatis, quia si quocunque modo macula infigeretur, ego incredulus appellarer. Pollicitus sum namque, quod tantum domi retinere atque describere velim. Illicet etiam expedito remittatis, quia ad festum Martini et non amplius eo vti permisum est. Neque titulum facite hoc modo 'Instituta monachorum Cassiani etc.' sed 'Instituta antiquorum patrum Cassiani etc.' incipiunt." If he used this manuscript for his edition at all, Amerbach seems to have followed the former part of this request: see Johannes Cassianus, *De institutis coenobiorum*. 1485. According to a note by Hartmann in *Amerbachkorrespondenz* i 19, Amerbach had borrowed a manuscript of the *Collationes* in 1483 and again in August 1485 from the Carthusians in Basel. It would seem that this manuscript did not contain the *De institutis*. Some of the letters in *Amerbachkorrepondenz* are translated in Halporn, *The correspondence of Johann Amerbach*, but regrettably the translation is not reliable and I provide my own.

had connections with the book trade in Frankfurt and elsewhere in the Main-Rhine area (Dziatzko, "Der Drucker"). All this suggests that the Lübeck manuscript was identified and procured within the book trade; the Strasbourg Dominicans appear to have had no involvement, for instance. This thus seems to be an occasion where a producer of printed books himself sought out a manuscript of a text of which he deemed it to be commercially viable to produce several hundred copies¹⁹ although, in a manuscript environment, the scale of the work had made the creation of even just a single complete manuscript a nearly insurmountable challenge. There is no suggestion of any philologically based preference for the distant Lübeck manuscript; it only suggests availability – even if it had to be acquired from a distant place and in an underhand way.

As it happens, this is not our only insight into Rusch's easy way with borrowing manuscripts. Some ten years later, in 1485, he sent Johann Amerbach (c. 1440–1513) a manuscript of the *De institutis coenobiorum* and the *Collationes patrum* by Cassianus, asking him to return it before 11 November. By then he would have to hand it back it to its owner, to whom he had promised to keep it at home for "rescribere," whether this means copying by hand or printing. He also pleaded for it to be undamaged for him not to lose credibility with the lenders. Furthermore he seems to ask Amerbach to obscure which exemplar he used, telling him to avoid one form of the title of the work, and proposing another.

Worthy magister, I look out each day for a carrier by whom I can send you paper. Likewise I send you an excellent exemplar (in my view) which contains both the *Instituta* and the *Collationes*. I would like you to keep it very clean, for if it is impressed with any form of mark in any way, I will loose credibility. For I have promised that I would only have it at home to print it/to have it copied. Therefore, also, send it back promptly, please, for it may not be used beyond the feast of Martin. Nor should you make the title like this 'Instituta monachorum Cassiani etc.' but like this: 'Instituta antiquorum patrum Cassiani etc.' incipiunt.²⁰

The content of the letter strongly suggests that Rusch was the publisher of this edition and Amerbach his printer. This would explain why Amerbach did not sign this edition that was published in 1485. This possibility is strengthened by Rusch's statement that he will provide Amerbach with paper if he takes on the printing of Augustine's

De civitate dei. If that is indeed the case, we are confronted with an example of a publisher taking on the responsibility for procuring manuscripts for his printer, something which we shall soon encounter again. Even if it was not a straightforward publisher-printer relationship, Rusch had an interest in ensuring that Amerbach kept up a good rate of production, as he was a paper merchant – indeed he sent the manuscript with a shipment of paper. This may have been enough in the way of financial recompense for his rather risky procurement of the manuscript.

IV. The locations of the required manuscripts are unknown

In contrast to the previous examples we are extraordinarily well informed about the work involved in procuring manuscripts for the edition of the *Postillae* of Hugo de Sancto Caro (c. 1200–63), financed by Anton Koberger in Nürnberg and printed between 1498 and 1502 by Johann Amerbach in Basel, seven volumes coming to a total of 2506 leaves, or 5012 pages (*Biblia latina cum postillis Hugonis*. 1498–1502). Here we encounter a publisher engaged in an even more ambitious form of search for manuscripts. Koberger knew that the texts that he wanted to publish existed, but he did not know in advance where to source them. The complex effort to acquire the manuscripts for the whole corpus is documented through Koberger’s business letters to Amerbach, where issues around the procurement of manuscripts for this edition are touched upon in a total of 29 surviving letters. In contrast to many prefatory and dedicatory letters in published editions, these are the letters of a man who was concerned with the practicalities of running his business and who had no qualms about addressing them. Koberger’s letters to Amerbach were published as an appendix to Hase, *Die Koberger* in 1885 and were not included in the *Amerbachkorrespondenz*.²¹

21. Hartmann only included brief summaries of Koberger’s letters to Amerbach in *Amerbachkorrespondenz*, while being highly critical of Hase, *Die Koberger*, frequently correcting individual readings and interpretations in his notes. As we shall see Koberger’s and Amerbach’s relationship did not end happily. Amerbach’s sharp practice carried a good deal of responsibility for this and it is hard to avoid an impression that Hartmann sought to protect Amerbach’s reputation, both through the omission of Koberger’s letters and through some of his interpretations. Sebastiani, *Johann Froben*, seems to be among the few scholars who have made good use of Koberger’s letters.

An unusual insight into the overwhelming nature of producing something like this is provided by a five-volume manuscript (Oxford, the Bodleian Library, Canon. Bibl. Lat. 65–69) of the Pentateuch with the postils of Hugo. It was copied from Koberger’s and Amerbach’s edition so no time had to be spent on sourcing manuscripts, and the exemplar was highly legible and easy to copy. Yet, it took five years to complete the – admittedly sumptuous – five manuscript volumes, although the five manuscript volumes, in total 1073 leaves, only

22. See also Morard, “Le projet Glossae.net”: “Les postilles d’Hugues de Saint-Cher prirent de telles dimensions que le texte biblique intégral n’y fut plus reproduit. Victime de leur ampleur, elles furent peu copiées.” Also Morard, “GLOSS-SEM.”

23. *Biblia latina cum postillis Hugonis* [1498–1502], letter from Amerbach to Koberger, sig. [a1] recto: “Quare, virorum accuratissime, egregiam nauasse visus es operam, quod sapientissimi cardinalis volumina tot et tanta per uniuersam illam Germaniam percontata e multis et diuersis hincide bibliothecis grandissima impensa comportasti, ne nobilissimus ille thesaurus passim dispersus longius in tenebris versaretur. Nisi enim uero tu solus ipse tantum aeris deinde uero operae impertitus essem, uix alius sagacior cogitasset tam amplissimum Hugonis opus in lucem aeditum iri. Quo tuo instituto quid melius, quid honestius, quid beatius fieri unquam potuit nemo est qui nesciat. Siquidem ex hoc tuo officio partes librorum quae locorum intervallis seiunctae in ordinem unum redigentur, utriusque instrumenti plena perfectaque extabit interpretatio. Lex praeterea vetus clarescat, at nova denique cunctis mortalibus innotescet: Christi religio nunc demum aperta solidissima futura est.” The letter is edited in *Amerbachkorrespondenz* i 88–90, no 83, but Hartmann omits a crucial negation so it is here quoted from Amerbach’s edition.

cover the Pentateuch, which constitutes only the first 186 leaves out of the 464 leaves of the first volume of Koberger’s/Amerbach’s seven-volume edition (Needham, “Book Production on Paper and Vellum” 262–63).

The easy availability of this text after the late fifteenth century may shape our understanding of the situation before it was printed but, in her work on Hugo, Patricia Stirnemann did not locate a single manuscript of the *Postillae* covering all of the Bible (Stirnemann, “Les manuscrits de la Postille” 38).²² Koberger had the same experience and, as a consequence, he had to provide a large number of manuscripts for Amerbach to work from.

In his letter to Koberger printed in the first Hugo edition, Amerbach underlined how the work, previously split up in geographically distant places, was only now brought into one sequence.

Therefore, most painstaking of men, you can be seen to have completed successfully the remarkable task of bringing together at the greatest expense so many volumes of such size, sought out throughout Germany from many different libraries, so that this noble treasure should no longer dwell in darkness, scattered far and wide. Had you yourself not on your own invested so much money and then so much effort, it is unlikely that anybody else would have been wise enough to have thought to publish the very large work of Hugo. Everybody knows that nothing can ever be done that is better, worthier, more blessed than your undertaking. Indeed, from your act of service the parts of the books which were previously split up in separate places, will be brought back into one sequence, and a full and complete exposition of both Testaments will be established. The Old Law will become manifest and the New will become clear to all. Now finally opened up, the faith in Christ will have an unshakable future.²³

In a surviving manuscript version of the letter Amerbach specified that Koberger had incurred great expenditure both in seeking out (*perquisiuiti*) and in transporting (*comportasti*) the manuscripts.

You sought out and brought together the numerous and noble works of the wise cardinal from many different libraries throughout Germany, at great cost and expense and with an enormous exertion and effort, so that this noble treasure

28 September 1498: “Hęc tanta, tam nobilia sapientissimi cardinalis opera ex multis et diuersis per vniuersam germaniam bibliothecis, magno sumptu, magnis expensis, maximo molimine atque conatu perquisiuisti et comportasti: ne nobilissimus thesaurus passim dispersus diutius in tenebris uersaretur. Nisi enim tuipse tantum ęris tantamque operam impenderes, vix alias efficacior cogitasset Hugonem in lucem ęditum iri.” This letter was not included in the *Amerbachkorrespondenz*, but in his note to his edition of the printed version, quoted above, Hartmann confirmed it as being in Amerbach’s own hand. Hartmann was undoubtedly right that Amerbach’s Latin letters to his sons suggest that he could neither have written the published letters in literary Humanist Latin unaided, nor the version of the letter preserved in his own hand.

However, the Humanist literary style in the autograph letter suggests that Amerbach was nonetheless somehow closely involved in the drafting of the Latin letters that were published under his name in his editions, and that they can therefore be taken as witness for his views and attitudes.

25. *Biblia latina cum postillis Hugonis*. 1504. Vol. 1 sig. a1 recto: “tam magnum, tam excellens, tam certe necessarium opus quod pene pro sui magnitudine nulla vel certe rarissima bibliotheca integrum possederat.”

26. *Biblia latina cum postillis Hugonis* [1498–1502]. Letter from Amerbach to Koberger, sig. [a1] recto “Equidem si beneficiorum tuorum in christianam ipsam religionem aestimationem facio, te illius studiosssimum esse arbitror amatorem. Imprimis etenim libros non obscenos non ludicros nec facetiarum plenos verum pudicos et grauissimis sententiis refertos non mendoza sed castigatos atque consummatos. ... Quo fit Antoni clarissime ut Christum optimum maximum adeousque conciliabis ut te etiam omnes necessarios et charissimos liberos tuos coelesti paradiso condonabit.”

27. “Sit optimo maximo deo gloria et mercatori pecunia” in Juvenalis, *Satyrae*. 1498. The unusual phrasing of this colophon differs from the more conventional “Sit omnipotenti deo gloria, et gratiarum actio,” which

should no longer subsist in darkness, scattered everywhere. Had you not spent so much of your own money and so much effort, another person, more efficient, would hardly have conceived for Hugo to be published.²⁴

In a laudatory letter to Koberger included in the second Hugo edition from 1504, Jakob Wimpfeling (1450–1528) similarly noted that due to the size of the work, manuscripts of its totality were rarely, if ever, found.²⁵

In his letter addressed to Koberger, both in the published and in the unpublished versions, Amerbach repeatedly acknowledged the enormous expense, *grandissima impensa, tantum aeris*, that Koberger had incurred in getting hold of manuscripts but, at the same time, he went to extreme lengths to make it clear that Koberger had done this to strengthen Christianity, *i.e.* not for profit, and that as a reward he, his dependents, and his children deserved to be granted the heavenly paradise by Christ.

To be sure, if I assess your services to the Christian religion, I judge that you are its most assiduous lover. For you print books that are neither offensive nor wanton, nor full of drollery. No, you produce books which are seemly and replete with weighty sayings, not full of error but correct and perfect. [...] Therefore, illustrious Anton, may it come about that you will make the good and great Christ favourably inclined to the extent that he will grant the heavenly paradise to you, your dependents and your children.²⁶

There is no doubt that both Koberger and Amerbach were Christian believers, and one should not underestimate the importance of this as part of their decision making, but it is worth noting that service to religion and heavenly rewards do not get mentioned in Koberger’s business letters. There his concern to make a profit, and increasingly to minimise his losses, comes through very clearly. Even the most pious act needs a financial footing: May the great God be glorified, and may the publisher make money as it says in a Lyonnais colophon from 1498.²⁷

It was Koberger’s responsibility to ensure that Amerbach had manuscripts for all parts of the *Postillae* to work from, although he asked Amerbach, apparently in vain, to contribute to the vast and expensive search (Hase, *Die Koberger* vi, no 2, 4 May 1495; quoted in note 30 below). Even on an occasion where Amerbach knew that certain relevant manuscripts were in Esslingen, he did not try to get hold

of them himself, but asked Koberger to procure them. This occurred late in the production phase and Koberger sent his nephew to Esslingen in the hope that he would be allowed to borrow them. If he could, he was to bring them to Bassel personally (Hase, *Die Koberger* liv-1, no 48, 14 February 1502).

The publication of Hugo's *Postillae* was already under consideration in October 1493, five years before the publication of the first volume. We learn of this in a letter from Johannes Petri (1441–1511) to Amerbach, where Petri warned Amerbach, that the books would be hard to sell because of their enormous size. He suggested that Amerbach should buy a horse and come to Nürnberg, so that the three could decide on the matter together, and so that he could be sure that he acted as Amerbach wanted. It seems that Petri did not give Koberger the same warning that he gave Amerbach.

So Koberger has talked to me about my opinion, after you had written to me what I should do with him, so that you would be satisfied. You must know, dear master Hans, that the thing will be hard to sell, for the book is heavy and big. So take care to be circumspect and bear that in mind. Also, Master Hans, I will do no business without you.²⁸

28. *Amerbachkorrespondenz* i 36–37, no 27, letter from Johannes Petri to Amerbach, 23 October 1493: "So hatt der Koberger mit mir gered, waß mein meininch sye, noch dam alß ir mir geschrieben habet, waß ich mitt im machen, daß syt ir wol content. Wysset, lieber meyster Hanß, daß dy dinch schwer zu handel syn, dan daß buch is schwer und groß. Dar vmb dutteß nath, daß man sich wol vor see vnd dar auff bedenckh. Auch, lieber meyster Hanß, ich handel nith an euch."

29. Hase, *Die Koberger*, xcvi–xcvii, no 79, 17 June 1504: "Ich hett gehofft es solt ein gutt kwfflich werk gewest sein vnd nach dem ir im so groß lob geben Aber es will nicht von stat gann.

Nor does Amerbach seem to have passed on the warning from Petri, for Koberger's decision to go ahead was at least in part informed by Amerbach's opinion that Hugo's *Postillae* were of such importance that the edition would sell well. "I had hoped that it would be a work that would sell well, after you had praised it so highly. But it cannot be shifted."²⁹

In deciding to undertake this project Koberger's positive assessment of the commercial potential of the text – however misguided it may have been – outweighed the patent difficulties in locating exemplars to print from, not least exemplars which were acceptable to Amerbach. Perhaps influenced by Petri's advice, Amerbach limited his role to that of printing for Koberger, thus ensuring that it was Koberger who carried all the risks associated with the project. However, Amerbach also took charge of the editorial process, which, as we shall see, was complicated.

The first letter from Koberger which mentions a shipment of manuscripts is dated 4 May 1495, eighteen *volumina* in one barrel. Koberger, in other words, began incurring costs for manuscripts seven years before he could get a return.

Hereby I send you with Ruprecht of Basel a small barrel with the same mark as on the outside of this letter. And in the barrel are eighteen *volumina*. Those should serve you for a while. I hope shortly to get hold of more. I am sure that you can also get some in your locality. Ask for them. I will do the same here, so that we have exemplars. I had it complete from somewhere else and have had to return it to the same monastery, for they did not want to be without it any longer; nor would they permit that one wrote or corrected in it. But I still hope to get hold of it.³⁰

30. Hase, *Die Koberger*, p. vi, no 2, 4 May 1495. “Ich schick euch hie mitt Ruprecht van bassell ein feßlein mitt diesem czeichen wie aussen auff dem brief stat vnd inn dem faß sind 18 volumina mitt den wellet euch ein weyll wehellen Ich hoff in kurcz mer zw überkommen Ich versich mich ir mogtt in ewer gegentt auch etliche wekomen wollet frag dar nach haben desgleichen will ich hie auch thon Domitt das wir exemplaria haben Ich hab in gancz bey ein ander gehabt vnd hab in müssen wider geben in das selb kloster wan sie wolten sein nicht lenger geraten wolten auch nicht gedulden das man dar ein Corrigirt oder schrib Aber ich hoff in noch zw wegen bringen.”

31. See Jodocus Badius Ascensius’s letter to Guilhermus Totani, prior of the Dominicans in Lyon, in Leonardus de Utino, *Sermones quadragesimales*. 1494, sig. viii verso: “Ut etiam domini Hugonis cardinalis domus istius lugdunensis alumni memoranda sapientie et sanctitudinis monumenta atque supra totam bibliam elucidamenta que prope diem coimpressa videre speramus tangere formidem.” (“Nor dare I mention [...] Hugo’s memorable monument of wisdom and sanctity and his postilla on the entire Bible which we hope to see printed together soon.”)

Such a long lead-in time poses special risks for a publisher: others might rush out competing editions. Already by June 1494 Koberger’s undertaking was known by a printer in Lyon.³¹ Knowledge of Koberger’s project may have motivated the decision of Stephanus and Bernardinus de Nallis in Venice to take out a privilege on 18 August 1496 for all works by Hugo and Alexander de Hales not yet in print (BMC V 349, IB. 21119, with a reference to Fulin, *Documenti*, no 54). The only result of this broad privilege was the *Postillae* on the Psalms printed for the de Nallis brothers by Johannes and Gregorius de Gregoriis in November 1496 (Hugo de Sancto Caro, *Postilla*, 1496). In this edition the *Postillae* were first assigned to Alexander, but this was changed during production with the result that in most copies the text is anonymous. In January 1498, Koberger himself copied the edition of the de Gregoriis brothers, ascribing it to Hugo (Hugo de Sancto Caro, *Postilla*, 1498). He did this while he was preparing the edition of the complete *Postillae*, a surprising decision which must be understood as an attempt to limit the damage caused by a product that would compete with his yet-to-be-published giant work. As we shall see, an even more damaging competing product was being prepared, avoiding the costly search for manuscripts by using Koberger’s edition while it was in production.

In a letter of 4 May 1495 Koberger told Amerbach that he had borrowed but had had to return a complete manuscript. By this he may have meant a complete manuscript for the postils on all of Genesis, which on its own came to 92 leaves in the printed edition. He had had to hand it back, however, because the religious house that owned it would neither allow it to be corrected nor to be otherwise written in (Hase, *Die Koberger* vi, 4 May 1495, no 2, quoted in note 30). That is to say, that they would not let it be used as printer’s copy. This is a recurrent problem: owning institutions were often reluctant to entrust their books to printers. One can understand why. Their

32. Hase, *Die Koberger*, xix, no. 17, 31 December 1497: "Ich bin wericht durch den Diner So ich zw euch gesant hab auch in eweren brieff so ir mir mit demselben diner zw gesant hand das ir die bucher von mawl-brunn entpfangen hand vnd euch sawber und wol geantwort worden sind gott hab lob. Bitt ich euch freundlich lieber meyster Hans das ir die sawber vnd schon halten wolt Do mit das wir die wider vber antworten mogen das kein misßfallen dar an gehabt werd wan mein Hern Ein Erber ratt etlicher moß hoch fur mich geschriben haben wer mit fast schwer solt klag der bucher halb mein hern geschriben thon werden." I have incorporated the corrections to Hase's transcription made by Hartmann in his note to his summary of the letter in the *Amerbachkorrespondenz* i 77–78, no 69. I also follow Hartmann's dating of the letter to 31 December 1497.

33. Hase, *Die Koberger*, xxxiii–xxxiv, no 30, 30 July 1500: "auch lieber meister Hans hab ich euch geschriben Die exemplaria mitt zw schicken die do auß sind der ir nicht merdürfft wan man will mir nicht weiter exemplaria leichen ich bring oder vberantwort vor etliche die auß sind, man hat den Hern zw Heylßbrunn zw verstan geben wie man die exemplaria So boßlich halt daß sie nichtz mer dogen."

34. Hase, *Die Koberger*, xxiv, no 22, 18 May 1499; xxv, letter no 23, 13 June 1499; and xxviii–xxix, letter no 26, 31 December, at which point Koberger received the first 239 copies of vol. two.

35. Hugo de Sancto Caro, *Postilla super evangelia*. 1482. See Hase, *Die Koberger*, xviii–xl, no 35, 26 May 1501; here Koberger suggests that Amerbach should move onto the production of vol. 6 while manuscripts for vol. 5 were being sourced. Manuscripts for vol. 6 are not mentioned anywhere.

property was often not treated the way they could reasonably expect.

On 31 December in 1497, Koberger noted that some long sought Hugo manuscripts had arrived "clean and well" from Maulbronn, a Cistercian Abbey some 200 kilometres west of Nürnberg. The Abbey made the loan – on unknown conditions – to Koberger and he was responsible for their return. One cannot help thinking that it was from bitter experience that he proceeded to plead with Amerbach to treat them well and keep them clean and neat. It would be deeply embarrassing, Koberger wrote, if a complaint reached the member of the Council of Nürnberg through whose offices he had gained permission for Amerbach to use the manuscript.

I have been informed by the servant whom I sent to you and also by your letter that you sent to me with the same servant that you have received the books from Maulbronn and that they have been entrusted to you clean and well. God be praised. I kindly ask you, master Hans, to keep them clean and neat, so that we can return them and that no misfortune occurs. As my Lord an honourable councillor has written rather strongly in my support, it would be very difficult for me, if a complaint about the books were to be written to my Lord.³²

One cannot but hope that they came back in good condition, but we are entitled to doubt for in July 1502 we learn from Koberger that the monks of Cistercian abbey of Heilsbronn had been informed that manuscripts were in such a state that they were no longer of any use, after they had been through the hands of the printers.

Also, dear master Hans, I have written asking you to include in the shipment the exemplars that are finished which you no longer need, for people will not lend me further exemplars until I bring or hand over some which are completed. The lords of Heilsbronn have been informed that one treats the exemplars so badly that they are no longer good for anything.³³

The second volume, with the *Postillae* on the Psalms, was produced without any trouble in 1499,³⁴ unsurprisingly as Amerbach could use Koberger's own edition from 1498, albeit with a different lay-out. It also seems plausible that for the production of volume six, Amerbach used a copy of Bernhard Richel's edition of the *Postillae* on the four gospels from 1482, although substantial editorial work on the part of Amerbach and his team must have gone into a different presentation of the text.³⁵ Otherwise Koberger's letters to Amerbach highlight how

36. Hase, *Die Koberger*, xxvii–xxviii, no 25, 8 November 1499: “Item lieber meister Hans ich hab überkomen 2 bucher Die schick ich euch hie mit Steffan Clim furman von Straßburg, Die halten in postilla Hugonis in Daniele et Super duodecim prophetas vnd Super issayam prophetam und Super cantica canticoum waß euch mer mangels wirt sein last mich Wissen will ich allen fleiß an kerent Das ich es über kom.” (Also dear master Hans, I have acquired two books. I send them here with Steffan Clim, carrier of Strasbourg. They contain Hugo on Daniel and on the twelve prophets, and on Isaiah and on the Song of Songs. Let me know what else you need. I will apply all my effort to get hold of them.)

37. Hase, *Die Koberger*, lxii–lxiii, no 52, 13 May 1502: “vnd Bitt euch freundlich Solch buch Sawber und schon zw halten So ir es vmb gien möglt So wollet die nich auf binden Domit das sie dester minder weschedigt werden.”

piecemeal the manuscripts were: it took one manuscript to cover Hugo’s *Postillae* on Daniel and the minor prophets, one to cover Isaiah and the Song of Songs,³⁶ and one to cover the Acts of the Apostles and the Apocalypse. The search for a manuscript for the postils on the Acts seems to have especially difficult, it being mentioned as problematic in three separate letters (Hase, *Die Koberger* lv–lvi, no 49, 21 March 1502; lvii–lviii, no 50, 20 April 1502; lxii–lxiii, no 52, 13 May 1502).

When on 13 May 1502 Koberger could finally send a manuscript of Hugo’s *Postillae* on the Acts of the Apostles and the Apocalypse, he pleaded for it to be kept clean and neat.

And I ask you kindly to keep said book clean and neat when you deal with it. Thus, please do not disbind it, so that it is less damaged.³⁷

When he specifically asked Amerbach not to disbind, it would suggest that Koberger had experience of Amerbach doing just that. That would evidently make it easier to typeset from them. In this Amerbach was not unique: the surviving Greek manuscripts salvaged from Aldus Manutius’s workshop are now often a disorderly gathering of leaves. The idea that the manuscripts ought to survive the process of printing was explicitly rejected by Aldus, as he told Albertus Pius in volume two of his Aristotle edition (Manutius, *Aldo Manuzio editore* 16; and Sicherl, *Griechische Erstausgaben*). However, it seems extraordinary that Amerbach repeatedly failed to act on the insistent requests of his senior business partner to return borrowed manuscript in good order, or to return them at all.

If books were not returned, it became difficult to get hold of more. One religious house, reasonably, refused to lend more until outstanding books had been returned (Hase, *Die Koberger*, xxxiii–xxxiv, no 30, 30 July 1500, quoted in note 33). In the longer run, this made it more expensive to acquire manuscripts to print from: if you could not borrow you had to pay for copies to be made.

The distribution of responsibilities between Koberger and Amerbach meant that Koberger ran the risk of incurring costs for manuscripts which Amerbach would reject. In 1496 Koberger paid three scribes to copy out a manuscript, presumably still to be used for the first volume of Hugo de Sancto Caro.

In Frankfurt I gave you the first ‘quinterni’ of Hugo. Now I send you the next gatherings, so that you have the whole first part written out. I also send the exemplar from which it has been copied, and ask you politely to begin correcting from it.

38. Hase, *Die Koberger*, p. vii no 4, 17 May 1496: "Ich hab euch zw frankfurt geantwort etlich erst quatern im Hugo. So schick ich euch hie mitt Die andern quatern darauff also das ir das erst teyl gancz habt geschrieben. Auch schick ich euch Da mitt Das exemplar dar auss men geschrieben hatt vnd bitt euch feundlich Das ir Da mitt anfangen wolt Corrigiren Die andern teyll die darnach follgen werden teglich auch etliche außgeschrieben will ich euch in einer kurcz auch schicken Ich hab gutter schreyber drey Die schreyben alle wochen 6 quatern Also das ich hoff es sol flux von stat gan vnd wesorg ir kundt nicht soul Corrigiren als sie teglich schryben." I incorporate a small correction to Hase's transcription made by Hartmann in his summary note of the letter, *Amerbacher Korrespondenz* 154, no 44. Further parts were sent 3 June 1496; see letter no 5, vii–viii.

39. Hase, *Die Koberger*, viii, no 6, 20 October 1496, letter from Koberger to Amerbach: "Das geschrieben exemplar sey so gancz falsch Das niemand Dar auß kommen moeg es wer dan sach Das ir selber stetz da bey mochten sein vnd dar vmb hab ich die meinung furgenomen Das ir solch werck selbs druckt in ewerm kostung vnd ich mit euch über kom vmb die selben kostungen."

The next parts that follow are also copied out daily. I will shortly also send them to you. I have three good scribes who each week write six 'quaterni.' So I hope that it will get finished soon and I fear that you will not be able to correct as fast as they write every day.³⁸

He could, however, at the same time send the manuscript from which the scribes had worked, the intended procedure presumably being that Amerbach would use the exemplar for correcting the work of the scribes and then print from the manuscripts which they had produced. But Amerbach rejected the manuscripts produced by Koberger's scribes. Koberger summarised a letter from Amerbach thus:

[I understand that] the exemplar which has been copied out is so wrong that nobody can make headway, were it even the case that you take part in the work all the time. I have therefore come to the opinion that you print this work yourself at your own expenditure and that we come to an agreement about the expenses.³⁹

Koberger had spent money on having the manuscripts made, and he took the financial consequences of Amerbach's rejection of them so seriously that it lead him to suggest that they needed to reformulate their business relationship. He proposed that in the future Amerbach should print Hugo on his own behalf. Koberger seems to have envisaged a model where he would limit his role to that of distributor, buying the finished product from Amerbach, thus taking on a still large but controllable and, importantly, knowable financial risk.

Koberger's wish to establish a new business relationship highlights some of the risks arising from producing editions that relied on sourcing manuscripts in dispersed and distant locations. But perhaps because Amerbach heeded Petri's advice of caution, the proposed change to the business relationship came to nothing, and Koberger had to incur further costs in sourcing manuscripts elsewhere, probably in Maulbronn. This time he sent the originals for Amerbach to work from (Hase, *Die Koberger*, no 17, p xix, no 17, 31 December 1497, quoted in note 32). His requests for Amerbach to complete the printing soon reveals his growing concern that the time by which he could begin to recover his investment was ever receding.

Not only was it costly to acquire and transport manuscripts. When you seek to locate a distant manuscript you may end up wasting your money. As late as 1502 Koberger sent Amerbach manuscripts for Daniel and for Maccabees, which he had sourced in Lübeck. But

40. Hase, *Die Koberger*, liv–lv, no 48, 14 February 1502: “... ein brief von euch ... Dor in ich venomen hab wie euch Die exemplaria nicht Dienstlich sinch So ich euch gesantt hab und mir gelichen sind worden zw lubeck Super Danielem und machabeorum ...”

Koberger received a letter from Amerbach “through which I have learnt that the exemplars on Daniel and on Maccabees which I have sent to you and which have been lent to me from Lübeck are useless.”⁴⁰ The manuscripts would have travelled about 1000 km from Lübeck via Nürnberg to Basel and, one hopes, another 1000 km back, some 85 days of transport. The cost for this was wasted and furthermore, as we have mentioned, Koberger had to source other manuscripts, this time in Esslingen, some 175 kilometres from Nürnberg. In the process he would not only have wasted money but also drawn in vain on the good-will of his connections.

It is not clear exactly what Amerbach meant by describing the Lübeck manuscript as being unfit for use, but it is possible that, in the known two cases where he rejected manuscripts, Amerbach was confronted with the situation described by Stirnemann, who has said that inexpensive manuscripts of the *Postillae* are hard to read, without initials, running headings, rubrics, paragraph marks, and often even without chapter divisions (Stirnemann, “Les manuscrits de la Postille” 38–39). So we have to have some sympathy with Amerbach, but it must have been a cost concern for Koberger that he more than once spent money on procuring manuscripts which Amerbach turned down. In 1501 Koberger was getting very worried about the ever later completion date and he sought manuscripts in Lyon and Paris, “in dire emergency.” If they could not be found there, he told Amerbach, he had given instructions for them to be searched for in other places, even if this might mean that he would end up having to pay for getting a text more than once.

Also, in dire emergency, I have written to Lyon and Paris concerning exemplars, and also if they are not found there then they should spare no cost to seek them in other towns and places [presumably religious houses outside towns], even if some were to be had twice. I am optimistic that they can be acquired.⁴¹

41. Hase, *Die Koberger*, xxxviii–xl, no 35, 26 May 1501: “Item Der exemplaria halber hab ich auff lion und auff paris geschrieben nach aller nottdorfft auch ob man sie nicht Do funde So sullen sie kostung nicht Sparen vnd Die an andern ortten und Stetten suchen vnd ob man jettlichs czwifach zw wegen möct bringen bin in gutter Hoffnung Die zw über kommen.”

We hear nothing about Hugo manuscripts being rejected for the poor quality of their text and there is no reason to believe that Koberger or Amerbach sought to create something which we would consider a critical edition based on several manuscripts. That would probably have been neither feasible nor desirable. Martin Morard, the editor of an online edition of the text, says that it is impossible to edit it according to modern philological principles (Morard, “Le projet Glossae.net”). Hugo de Sancto Caro’s commentary was a text in continual develop-

42. Letter from Amerbach to Koberger, in *Biblia latina cum postillis Hugonis* [1498–1502], vol. 7, sig. [et]5 verso, the last text page before the *Registrum* (not included in the *Amerbachkorrespondenz*): “Verum ad huius venerabilis viri operis castigationem, meum dumtaxat (quod sentio, quam sit exiguum) vix suffecisset ingenium, si non accessisset peritorum consultatio, et ferula discretæ directionis, quorum suffragio nixus in compluribus confragosis locis, cooperatores habuisse profuit, ad enavigandum hoc mare magnum, sirtes, scylleamque vitando rabiem ad portum descenderem optatum.” (“My own abilities – I feel how slight they are – would not have sufficed to correct the work of this venerable man, if it had not been supplemented with the advice of learned men and the rod of discriminating guidance. It was beneficial in sailing across this large ocean to have colleagues relying on whose recommendations in numerous hard passages I could arrive in the longed for harbour avoiding the Syrtes and the fury of Scylla.”) On the role of *corrector* in the production of printed books see Rizzo, *Lessico filologico* 275, with reference to earlier literature, and on *correctio ope ingenii* passim.

43. *Biblia latina cum postillis Hugonis*. 1504. Especially the letter of Conrad Leontorius at the beginning of vol. 2, sig. [g1] recto. Also Leontorius’ letter in the beginning of vol. 1 and Wimpfeling’s own letter at the end of vol. 6.

ment. We do learn of a process of correcting both in Koberger’s business letters and in a letter from Amerbach to Koberger printed in the last volume of the first edition of Hugo. By “correcting” Koberger and Amerbach referred to the correcting of a copy against its exemplar, the work of one type of “corrector;” possibly it also referred to correcting *ope ingenii*, the work of more expert scholars.⁴²

The main editorial task was a different one, however. Hugo de Sancto Caro had envisaged his *Postillae* as a separate work, not as part of a glossed Bible, and with very few exceptions, manuscripts of the *Postillae* do not contain the biblical text (Stirnemann, “Les manuscrits de la Postille” 38 and Morard, “Apparatus ad Glosam”). Koberger not only offered for sale a textual corpus that had hardly existed previously, and which was often hard to read in manuscript. He and Amerbach had created a body of texts which had not existed before, namely Hugo de Sancto Caro’s *Postillae* on the entire Bible presented jointly with the Biblical text. In the Koberger/Amerbach edition the commentary is printed in two columns framing the Biblical text on all four sides, which is likewise printed in two columns. Achieving this unprecedented integration of text and postils must have been a major intellectual and technical challenge for Amerbach and his team, not least if he used manuscripts like the ones described by Stirnemann. The novelty of the corpus is given visual expression in the use of a lay-out that traditionally had been used for law texts, but one already used by Adolf Rusch in the edition of the Bible with the *Glossa ordinaria*, which he had printed for Koberger in 1480 (*Biblia latina cum Glossa ordinaria* [not after 1480]). The complexity of this editorial task is indirectly confirmed by several of the introductory letters accompanying the second Hugo edition, from 1504, which suggest that changes from the first edition were to do with the introduction of a system that sought to clarify the complex interrelation between commentary and text, by using a series of symbols keying individual postils to the relevant passages of the text, a system that Amerbach and Wimpfeling repeatedly and proudly explained.⁴³

Koberger paid Amerbach for his work, so it was Koberger who had carried the risk of not getting a return on his investment, including the “grandissima expensa” in procuring manuscripts. It is therefore easy to understand that Koberger was distressed when he learnt that a group of printers was planning to prepare a second Hugo edition even before the first edition was completed (Hase, *Die Koberger*, lxxiii, no 61, 24 October 1502). He asked Amerbach to assure him that he was not

part of this enterprise, but the second edition was a project of Amerbach's jointly with Johannes Petri and Johannes Froben (1460–1527). In one letter Koberger says that the copies of the first edition would now not be sold in his lifetime, although Amerbach had led him to believe that this work was so important that it was bound to sell.

My cousin has recently been with you as he rode from the Frankfurt Fair to Lyon. He tells me that you will complete [the second edition of] Hugo by Michaelmas (29 September). I would have preferred if you had delayed it a year to two, as it truly is not a sellable work, and I have still not yet sold half my work, which you have copied, and it is to be feared that I will not sell all the Hugos in my lifetime. I had hoped that it would be a work that would sell well, after you had praised it so highly. But it cannot be shifted.⁴⁴

44. Hase, *Die Koberger*, xcvi–xcvii, no 79, 17 June 1504: "Mein vetter ist in Newlicheit bey euch gewest als er auß franckfurter meß auff lion geritn ist Sagtt mir wie ir Den Hugonem auff michaelis vermient zw enden mocht ich woll leyden Das ir noch ein jar oder czwey da mit verczogen hett wan es warlich ein vnkefflich werk ist und noch mein werk So ir am nachsten gedruckt habt noch nich halbs verkaufft hab und ist zw wesorgen ich mög Der Hugones mein lebttag nich verkauffen. Ich hett gehofft es solt ein gutt kwfflich werk gewest sein vnd nach dem ir im so groß lob geben Aber es will nicht von stat gann."

45. A letter from Froben to Amerbach, *Amerbachkorrespondenz*, I 347–48, no 378, the letter is dated only "fritag vor palmarum." Hartmann's suggested 14 April 1508 as most likely, but also that it could be from a later year.

46. [ISTC ib00610000](#) records copies surviving in 245 institutions, and *GW* 4285 in 246 institutions. Not all institutions have all volumes.

Koberger nevertheless agreed to act as distributor for the second edition of Hugo, possibly the only way open to him to cover some of his losses. He wrote to Johannes Petri about a deal that he had struck in Frankfurt with Amerbach and Froben, paying 1000 Rhenish Guilder upfront for an unspecified number of copies of the second edition of Hugo, with further payments to come. A letter from Froben to Amerbach, undated but written at a Frankfurt fair at least two years later, suggests that Koberger had failed to make a payment due for Hugo, claiming that he was unable to sell them: 1000 copies were still unsold.⁴⁵ Koberger's goodwill towards Amerbach and the two other Basel printers must have been significantly diminished, and he might have been less energetic in selling copies of the second edition as a way of reducing the economic damage which it had caused him. In fact the first edition survives in substantial numbers, which does not suggest that it was a complete financial failure.⁴⁶

Paying for locating, borrowing, transporting, and copying manuscripts was a significant additional investment in a risky business environment where anybody could fast reproduce your work, benefitting for free from your long-term investment, but evidently the hope for a return was sufficient for Koberger to accept the significant risk associated with producing a print-run of this enormous work large enough to enable for him to recoup his outlay.

Undoubtedly others acted similarly, but without leaving us documentary evidence. This type of investment in searching for and bringing together manuscript exemplars would not have been imaginable in the context of commercial manuscript production. The

hoped for return on the investment could only be achieved through the sale of hundreds of copies of an edition.

Koberger had indisputably undertaken a major task when he decided to get hold of suitable manuscripts of all the parts of the *Postillae* of Hugo de Sancto Caro, but it may not have been the first time he did so. It is highly probable that Koberger and Rusch had to source several manuscripts from various locations well beyond Strasbourg for the enormous edition of the text of the Bible with the *glossa ordinaria*, in or shortly before 1480.⁴⁷ This may well have been a task of a complexity which matched that of the Hugo edition.

The Hugo edition was exceptional because of its sheer bulk, and it is certainly exceptional because of the detailed insight we get into the procurement of manuscripts and the associated business issues. But it seems that this approach, even if on a smaller scale, was often needed when creating a single corpus out of texts that in manuscript had largely been transmitted separately. This type of publication becomes a feature of printing from very early on. In 1469 Andrea Bussi (1417–75) wrote in his prefatory letter to the works of Apuleius that as far as he could – given how few manuscripts there were – he “brought together Apuleius the Platonist [...] into one body, sourced limb by limb from various places and handed this over for our printers to typeset.”⁴⁸ Similarly in his letter prefatory to his edition of Cicero’s speeches he wrote that he had recently brought together into one corpus as many of Cicero’s orations as he could.⁴⁹ We do not know the economics of this, although Bussi himself tells us that it was he who undertook the creation of this textual corpus and then brought the resulting copy to the printers, suggesting that the role of the printers in procuring the manuscripts was limited.

By contrast Amerbach’s scholarly editor Johannes Heynlin de Lapide (c. 1430–96) made it clear that Amerbach was responsible for the procurement of multiple manuscripts for his 1492 edition of the *opera omnia* of Ambrosius (339–97).

Of this I am certain, that many will honour you with outstanding praise, because you have brought together and unified nearly all the works of the acclaimed doctor Ambrosius, the exemplars of which were scattered over the whole world and nowhere existed together but only piecemeal, and they will praise you because you have assembled and pressed them together into one, so to speak, copious and ambrosiac

47. *Biblia latina cum glossa ordinaria* (not after 1480). Froehlich, “An Extraordinary Achievement,” suggests that perhaps Amerbach assisted Rusch. While this is conceivable, there is no evidence to support it. Given what we know about Koberger acquiring manuscripts for Amerbach, it is perhaps more plausible that, also in this partnership, it was Koberger’s responsibility as the publisher to ensure a flow of exemplars to print from.

48. Apuleius, *Opera*. 1469. Sig. [a1] verso, Bussi, letter to Paul II: “Lucium igitur Apuleium Platonicum [...] ut in exemplariorum penuria licuit, redegit in unum corpus, variis in locis membratim perquisitum, eumque impressoribus nostris tradidi exarandum.”

49. Cicero, *Orationes*. 1471. Sig. [a1] recto. Bussi’s letter to Paulus II: “Tulii quot potuimus orationes ... unum in corpus nuper congregauimus.” (“We have recently brought together into one body as many of the Orations of Cicero as we could.”)

50. Ambrosius, *Opera*. 1492. Vol. 1 sig. a3 recto. De Lapide's letter to Amerbach: "Hoc unum teneo certum quod plurimi admiranda te laude prosequuntur quia cuncta fere probatissimi doctoris Ambrosii opuscula quorum exemplaria nullibi simul sed diuisim per uniuersum orbem dispersa habebantur, tu pariter congregueris, coadunaueris et in unum ut ita dicam liberale et Ambrosianum opus coegeris compresseris simulque in magnum numerum augeri feceris." This part of the letter is not included by Hartmann in the *Amerbachkorrespondenz*.

51. Aristoteles, *Opera*. 1495–98. Vol. 2, sig. *1 verso, letter to Alberto Pio: "Proposuerat enim uir ille [Pisistratus] de re litteraria optime meritus dignum praemium iis qui Homeri carmen aliquod attulissent. Qua re facile fuit dispersum carmen colligere aurum promittenti. Quin immo (tanta est uis nummorum) maioris spe muneric quamplurimi dati sunt subdititii uersus. Quos postea Aristarchus graui iudicio notauit atque obelisco transfixit. Vtinam mihi idem licet, iucundissime princeps. Colligendis enim corrigen-disque accurate omnibus Aristotelis et Theophrasti operibus parcerem certe nulli impensae. Non me uoluntate et studio superauit Pisistratus, sed diuitiis." On the manuscripts used by Aldus see Sicherl, *Griechische Erstausgaben*. 46.

work, while at the same time you have ensured that there is a large number of them.⁵⁰

Aldus Manutius's use of manuscripts for his Greek and Latin editions is famous. The largely fragmentary survival of Greek manuscripts used by him has received especially detailed attention. On the other hand, Aldus has left us few insights into how he sourced his manuscripts. But we get some useful insights from his five-volume edition of the complete works of Aristotle and Theophrastus, at 1851 leaves his most voluminous publication. In a prefatory letter addressed to Alberto Pio he alludes, with decorous indirectness, to the significant costs which sourcing manuscripts could involve. He made the issue of money more acceptable by comparing himself to a very distinguished precursor from the ancient world, and also by highlighting money and greed as a source of error:

Peisistratus, famous for his services to literature, proposed a reward to those who brought in part of a poem by Homer. In that way the promise of gold made it easy for him to bring together the dispersed poem. Indeed – such is the power of money – in the hope of a substantial reward many brought him spurious verses, which Aristarchos of Samothrace subsequently severely assessed, noted, and struck out using a small dagger sign. I wish I were in the same position, most benevolent prince. I would spare no expense in gathering and correcting all the works of Aristotle and Theophrastus. Peisistratus does not exceed me in ambition but in wealth.⁵¹

Whether organised by the printers/publishers or by people who worked with them, locating and bringing together manuscripts was often a necessity for producers of printed books who sought to constitute large corpora where the typical manuscript distribution pattern had been in parts. In other words, a business model which could support the production of large collected editions both stimulated the search for dispersed manuscripts and depended on it.

V. Seeking manuscript for texts that may not have survived

It is in the context of this business model that we find the only example from this period known to me of a printer/publisher who engaged in a highly ambitious search for texts which had fallen into

oblivion, and whose survival or even existence was unknown. Amerbach's edition of the *opera omnia* of Augustine was printed in eleven volumes and published in 1505–1506, but preparatory work had already begun in the fifteenth century (Augustinus, *Opera omnia*. 1595–06). Victor Scholderer has provided an excellent overview of the production of this edition and it is at the centre of an article by Barbara Halporn (Scholderer, "Saint Augustine"; Halporn, "Libraries and Printers"). I can therefore here concentrate on issues specifically related to the economics of the procurement of the manuscripts.

Differently from Eusebius Conradus, whom we met above and who in his single-volume edition included *only* works listed in the *Retractationes*, Amerbach set out to find manuscripts for *all* works listed there. Used like this the *Retractationes* was not only an advantage, but also a challenge. Also differently from Conradus, Amerbach included works not listed in the *Retractationes*, all spurious. They are kept separate, in the last two of the eleven volumes, but they are not explicitly rejected. For that we have to wait until Erasmus's edition of 1528–29 (Augustinus, *Opera omnia*. 1528–29). Amerbach may have judged that he could not afford to lose the custom of the large section of potential buyers whose view of Augustine was shaped by the pseudopigraphic works, notably the Austin Friars, but also a wider group of people for whom the fifteenth-century emphasis on personal devotion was important (Jensen, "Reading Augustine"). While Conradus had a theological aim with his limited search for manuscripts, Amerbach's search and his final edition was much more intellectually ambitious, aiming for completeness but, simultaneously, in its inclusion of texts which we now consider pseudopigraphic, it was motivated by commercial considerations. His edition was not sponsored by an outsider who had the backing of a major religious organisation.

The *Contra Gaudentium* constitutes an example of the challenge that Amerbach's aim for completion must have posed. Only one manuscript survives today, a twelfth-century manuscript now in the British Library. It bears the signs of having been used as printers copy by Amerbach's team, who had possibly located it in Park, the Premonstratensian Abbey in Brabant, some 500 kilometres from Basel (Augustinus, *Contra Gaudentium*. London, The British Library, Add. Ms. 17291; Follett, "Les éditions du 'Contra Gaudentium'").

It must have taken considerable effort and it must have cost significant sums especially to look for works that in the end could not be found. In volume five Amerbach referred to the time and effort

consumed in looking, in vain, for the *Contra quod attulit Centurius a Donatistis*.

From this volume, the fifth, is wanting the book which is called ‘Contra quod attulit Centurius a donatistis,’ which could not be found after a long search, despite the care taken. Therefor the gathering signed “G” has been omitted.⁵²

Whenever he could not, in the end, find a manuscript for a text listed in the *Retractationes*, Amerbach omitted a letter from the alphabetical sequence of the gatherings, so that readers could insert the work if they should find it. In other words, he left a notional space without incurring the expense of leaving a physical lacuna of expensive blank paper. Thus, in volume three Amerbach told the reader that he had not been able to locate the work called *Contra epistolam Donati haeretici*. Therefore he left out from the sequence of gatherings the one which should have been signed “i.” As a measure of how thorough Amerbach’s search must have been, we note that, of the eleven works for which he was unable to locate a manuscript, only one has subsequently been located, the *De gestis Pelagii*, for which Amerbach left a notional space in the sequence of gatherings of volume eight.⁵³

Already in 1494 Amerbach had begun paying Augustinus Dodo, an Austin canon in Basel, for preparing manuscripts to be used to print from, and soon also for travelling to locate manuscripts, mainly along the Rhine, and later further afield. At this stage the search for manuscript was not for the *opera omnia* but for the 1494–95 edition of sermons (Augustinus, *Sermones*. 1494–95), both genuine works by Augustine and pseudepigraphic ones. In a letter to Amerbach Dodo described some of the complexities of redacting this diverse and dispersed body of texts into one corpus.⁵⁴

Dodo continued working, at Amerbach’s expense and directed by him, on sourcing manuscripts for the *opera omnia*, first in Germany.

Many learned men endorsed this plan of mine, promising advice and help, and set about burdening my shoulders with this enormous task, as a person totally concentrated on the works of Augustine. Having sought with great care, I found a person whom I could send to all libraries with the purpose of tracking down books of Augustine. It was a diligent Austin canon, Augustinus Dodo Frisius, of the monastery of St Leonard in Basel, who took up this task. Accordingly I sent

52. Amerbach’s letter to the reader, in Augustinus, *Opera omnia*. 1505–1506, vol. 5, sig. [a1] verso: “Deest autem huic quintae parti libellus qui intitulatur ‘Contra quod attulit Centurius a donatistis’ qui post longam inquisitionem habita diligentia inueniri non potuit. Propterea littera signatoria G. intermissa est.”

53. The following are the works listed in the *Retractationes* but not located by Amerbach vol. 3: *Contra epistolam Donati haeretici*; vol. 4: *Contra partem Donati libri duo* and *Contra Hilarium tribunicium*; vol. 5: *Contra quod attulit Centurius a donatistis*; vol. 6: *Probationum et testimoniorum contra donatistas liber unus*, *Contra nescio quem donatistam liber unus*, *Admonitio donatistarum de maximianistis liber unus*. *Expositio epistolae sancti Jacobi apostoli liber unus*, and *De maximianistis contra donatistas*; vol. 8: *Ad emeritum donatistarum episcopum liber unus*, and finally *De gestis Pelagii liber unus*, the only of the works not found by Amerbach that has been located subsequently.

54. Amerbachkorrespondenz i 43–44, no 33, convincingly dated by Hartmann to the end of 1494.

55. Augustinus, *Opera omnia*. 1505–1506. Letter to the reader in vol. 1, sig. a3 verso: “Hoc animi mei institutum multi doctissimi uiri consilio et auxilio promisso confirmauerunt atque ut totus in Augustini opera mente et intentione conuersus humeros meos huic ingentissimo operi submitterem institerunt. Perquisitum ergo magna cura quem per omnes bibliotheas transmitterem Augustini libros gratia investigandi: repperi religiosum fratrem laboriosum, uirum dominum Augustinum Dodonem Phrysium ordinis diuini augustini monasterii sancti Leonardi basiliensis canonicum qui hanc prouinciam subiret. Ipsumque proinde fratrem per me sufficienti pecunia munitum bibliothecas omnes Germaniae nostrae perscrutaturum dimisi ac membratim Augustinum per eas diuisum in unum corpus collecturum.” This is confirmed by Tritheim; see *Amerbachkorrespondenz* i 58, no 48, 14 September 1496: “Gratias ago tibi et habebo immortales, operam meam (si vñquam volueris) in comportandis Augustini libris pollicens. Ceterum debitorem me tibi agnosco, dilacionem, donec ipse ad proximas nundinas veneris, peto, soluturum me omnia fideliter promitto. Augustinum illum Frisium ad nos descendisse tuis impensis audio.” (“I thank you forever, and promise you my help, if you should ever need it, in bringing together the books of Augustine. Also, I acknowledge that I am in debt to you, and seek deferral until you come to the next fair yourself. I promise to absolve all faithfully. I hear that Augustinus Frisius [Dodo] has arrived with us, at your expense.”)

this monk out to search through all libraries in this Germany of ours and to bring into one body Augustine, whose work is divided limb by limb throughout them.⁵⁵

Two letters to Amerbach give us some insight into how it worked economically. A letter from Walaramus, the prior of the Austin Canons in Bödingen is exceptionally detailed in this respect (*Amerbachkorrespondenz* i 68–70, no 61, 15 August 1497). We learn that Augustinus Dodo did not work on his own but had the help of assistants – this is the only place we hear of them. They too had to have their living costs covered somehow. Walaramus told Amerbach that Augustinus Dodo and his assistants had all been well looked after: this probably suggests the cost to the Abbey of food and lodging for the visitors. At their insistence Walaramus had borrowed eleven volumes from the neighbouring Benedictine Abbey of St Michael in Siegburg, for which he had paid half a Rhenish guilder. Canons at Bödingen had taken part in copying the Siegburg manuscripts. In return, Dodo had promised Walaramus all the works of Augustine which Amerbach had printed in the past and would print in the future, and the works of Ambrose or alternatively of Panormitanus. That must be remuneration for the board, lodging, and the cost of the copying by the local canons, given that Dodo had promised Walaramus a copy of the *De scriptoribus ecclesiasticis* specifically as reimbursement for the half Rhenish guilder that he had paid to the abbey in Siegburg. Walaramus now politely asked for what was due to him. We must hope that he got it.

In 1497 Wimpfeling (1450–1528) wrote to Amerbach about the one Rhenish guilder, which he himself had paid a scribe for copying out some sermons by Augustine at Dodo’s request. He asked for his direct cost to be reimbursed, but he had also incurred other, unspecified costs which related to his own work on Amerbach’s Augustine project. He distanced himself from the scribe, who demanded money, by saying that he himself did not want cash, but wanted to be paid in paper. This was decorously not money but it was a commodity that Wimpfeling could easily have sold on, if he should have wanted to do so (*Amerbachkorrespondenz* i 77, no 68, 23 December 1497).

For Walaramus the practice of being paid in kind may also have been a means of distancing himself from the handling of money, but for him it was certainly practically useful: his Abbey had little money for buying books.

Amerbach himself was, unsurprisingly, well aware of the monetary worth of copies of his edition. As late as 1510, he accused Wimpf-

ling of having monetised two sets of the *opera omnia* of Augustine some five years previously. Wimpfeling defended himself, in great detail and in understandably upset tones, saying that he had paid for one set and that he had undoubtedly dealt with the other books as Amerbach had requested: he had certainly neither sold them nor pawned them: he had learnt from his earliest boyhood not to cheat anybody of as much as a penny (*Amerbachkorrespondenz* i 403–05, no 437, 15 June 1510).

Managing a complex project like the Augustine edition had its challenges. In 1504 Bruno and Basil, Amerbach's sons who were studying in Paris, sent home copies of the *De vera innocentia* and *Sextus musices* that had been written out by Wilhelm Kopp, one of Amerbach's paid collaborators (*Amerbachkorrespondenz* i 223–25, no 238, 27 October 1504). In reply Johann Amerbach complained that he already had four copies of these works (*Amerbachkorrespondenz* i 230–33, no 246, 2 January 1505). He instructed Bruno and his brother to spend less time and money on enjoying themselves in Paris and instead to concentrate on their father's project and warned them that he would withdraw their allowance or even call them home if they did not sharpen up. He wanted nothing that was not on his list of desiderata, an indication that Amerbach sought to manage the procurement of manuscripts tightly, knowing exactly what he already had and what he wanted his paid assistants to look for. After he had been so demanding of Koberger, necessitating the acquisition of several copies of the same works, Amerbach was now himself faced with the cost of acquiring manuscripts that he was not going to find useful.

It is instructive to compare Amerbach's *opera omnia* of Augustine with the manuscript volumes prepared for Cardinal Bessarion by Vespasiano da Bisticci, which he described as Augustine's *opera omnia*. When on 26 November 1472 he learnt of the death of Bessarion, Vespasiano wrote to Lorenzo de' Medici, through whom the work had been commissioned and to whom nine volumes had already been delivered (Cagni, *Vespasiano* 159–58, no 30 and *Vespasiano, Lettere*, no 31).⁵⁶ The tenth volume was not yet illuminated nor bound. Vespasiano suggested that Lorenzo should retain all ten volumes for himself, for there was nothing more noble to be had in Italy; it had taken three years and the greatest of effort to create them. To do this again would not only be difficult but impossible. The private rather than public nature of the volumes is brought out by Vespasiano's explanation of the omission of the *De civitate dei*: Lorenzo already had a very beautiful copy of this.⁵⁷ The emphasis on luxury, uniqueness,

56. "This morning I was informed through your brother of the death of Cardinal Bessarion, and on your behalf, that I should do nothing about the books of his Lordship without you being notified. There are ten volumes, as I have said to you on a previous occasion, in which are all the works of Saint Augustine. Of those ten volumes, commissioned by your Lordship, I have consigned nine as instructed by you to Niccolo Michelozzi. Volume ten is still with me, as the decoration and the binding are still outstanding. I will not give this book to anyone without your knowledge. I would like you to take all action to ensure that the said books do not leave your custody and that they remain there, for in all of Italy there is nothing more noble than them. I have spent three years on them and I have undergone great labour to bring them to conclusion, so that having to do them a second time would not only be difficult but impossible. If you have these ten volumes, only the *De civitate dei* is wanting, of which you already have a very beautiful copy."

57. This may imply that an eleventh volume had been planned for the *De civitate dei*, but that this would not be required if the books were retained by Lorenzo, as suggested by Vespasiano.

58. See note 50 above.

59. Venezia, Biblioteca Nazionale Marciana, Lat Z. 57, 58, 59, 61, 64, 65, 68, 69, 70 and Lat. II 3. I have consulted the digital facsimile of the printed catalogue of manuscripts of the Marciana.

60. Thus apart from the *De civitate dei* a first examination shows the following genuine works, and possibly more, are not included in Vespasiano's set of Augustine's "opera omnia": *De beta vita*; *De duabus animabus*; *Contra doctrinam arianorum*; *De bono viduitatis*; *De continentia*; *De correptione et gratia*; *Contra Cresconium*; *De spiritu et littera*; *De fide et operibus*; *Contra Gaudentium*; *De gratia et libero arbitrio*; and *De perfectione iustitiae hominis*.

and irreproducibility could not be more different from the aim of multiplication and widespread access, as expressed so clearly by de Lapide when he explained the benefits of Amerbach's edition of the complete works of Ambrosius.⁵⁸

It seems that Lorenzo passed Vespasiano's volumes on to Bessarion's estate, as they are now in the Biblioteca Marciana, and their content can thus be established.⁵⁹ We do not know how Vespasiano acquired the exemplars from which he worked but, as we have heard, Albinia de La Mare has suggested that he sourced his classical manuscripts locally (De la Mare, "Vespasiano" 206–07). There is no reason to suppose that he sourced his Augustine differently and we have no reason to believe that Vespasiano searched extensively for the best manuscripts or for full systematic coverage of Augustine's output. The splendid volumes that he produced suggest an absence of the stringent editorial control and of the imposition of an order, which Amerbach achieved by following the *Retractationes*. Although described as *opera omnia*, a substantial number of important genuine works is not included.⁶⁰

While each title page in Amerbach's edition indicated the chronological segment of Augustine's life covered by the volume, there is no evident principle for the organisation of the contents of Vespasiano's ten volumes, an absence which is documented by repetition: thus the *De agone christiano* appears twice even within in the same volume (Venezia, Biblioteca Nazionale Marciana, Marc. Lat Z. 68). In volume four of Amerbach's edition this work takes up ten leaves or five sheets of paper. Including this short work twice would have meant a waste of 8000 sheets of paper, with a print run of above 1600 copies, as indicated by Koberger in a letter to Johannes Petri (Hase, *Die Koberger cxvii*, no 93, 13 April 1506). One copy of all eleven volumes required 2783 sheets, so a waste of 8000 sheets would have been highly significant. If nothing else, the economics of printing enforced strict editorial control on Amerbach, which evidently was not needed for Vespasiano. There was no critical buying public to satisfy and repetition would only cost the parchment of one copy of the individual text.

Vespasiano was undoubtedly right that in the world of manuscript production his Augustine volumes were outstanding, a high-end luxury product, a one-off which had two of the richest and most influential men of his contemporary world as its clients. Its very singularity highlights how different it is from the Amerbach edition, where the investment in a comprehensive and systematic search for manuscripts could be justified by the number of copies produced and, it was hoped, sold.

Typically the requirements for financing the production of printed books were different from those for the production of manuscript books. Printing needed significant upfront investment. This includes the acquisition of a press and the acquisition of expensive type material. There were costs for the tools for composing, for inking, for printing, and for the printers' ink. Two very significant costs were paper and wages for staff. It required the purchase or hire of space not only for production but also for storage for large amounts of printed paper. Finally, distribution was expensive. All these costs were incurred before any outlay could be recovered through sales. If an edition was sponsored some or all of the edition-specific costs were covered by someone other than the printer, which changed the risk incurred by him while not altering the overall need for upfront investment.

Not only were the upfront investments different; so was the rate at which you might hope for a return on your investment. This was in part due to the quantity of books which you had to produce to recover your investment. Producers of manuscripts could typically manage the ratio between production and demand with a great degree of accuracy. This was most obviously the case when a manuscript book was produced by somebody for their own use, as a student might do. But it was also the case for commercially produced manuscript books, where a workshop would typically not produce more than a few copies of the same text, even if there was a bookseller as an intermediary in the supply chain.⁶¹ Where Vespasiano da Bisticci produced copies "on spec," with no known buyer in mind, they were by comparison few in number, apparently mainly aimed at foreigners, who presumably did not have the time to wait for a copy to be written on their request. A relatively small number of books produced on spec represented a limited outlay of capital at risk, if no buyer were to appear (De la Mare, "Vespasiano" *passim* but esp. 201).

This was not the case for books printed in relatively large numbers. Even under normal conditions, it could take a long time to recoup your upfront investment through sales, enabling you for instance to pay back potential loans. Copies of Greek texts produced by Aldus Manutius (1449/50 to 1515) were apparently still for sale as new in Paris in the 1540s, some thirty to forty years after their production (Hobson, *Humanists and bookbinders* 267–71 and Hobson, "Italian fifteenth-century bookbindings" 130). By then Aldus, long dead, no longer benefitted from sales. A printer might have misjudged the market; or perhaps someone had seen your finished product and immediately produced something very similar. The reasons

61. Johnston and Van Dussen, "Introduction" 7 suggest that manuscript books available "on spec" at bookshops tended to be second hand books that had been produced on demand originally: "From a production standpoint, bespoke trade does account for the majority of manuscript books at their inception and first exchange as commodities." But see e.g. De la Mare, "Vespasiano". In their discussion of second hand manuscript books, Johnston and Van Dussen probably underestimate the similar trade in second hand printed books. They also do not take into account manuscript books produced for personal use.

62. For instance, see the chronology of the repeated impact of war and plague on Koberger's business in Hase, *Die Koberger* 259–267.

why you might not reach the sales you had expected could be entirely external to your business. Especially for works which took a long time to produce, external events such as wars or epidemics could have an impact that would be greater the more capital you had bound up in unsold goods.⁶² Searching for manuscripts would add a significant further need for upfront investment, and allocating time for it would extend the gap between investment and return, and the longer the production period the greater the risks for adverse events to occur. Not all had both the intellectual ambition and the financial means to support it.

While our information about the costs associated with acquiring manuscripts is scarce and uneven, the cases that we have examined might suggest that while all printers needed something on which to base their editions, a printer or publisher would be more inclined to invest in undertaking an ambitious search for a manuscript if the text in question was of substantial length. Recouping the cost of an extended search for a text for a small volume would be more likely to require either an unrealistically high print-run or on an unrealistically high unit price. However, when the text in question was very substantial it was possible for a business model to emerge which depended on the ability to invest in the production of very large units for which a substantial retail price could be anticipated. This in turn meant investing capital which one could not hope to recover for a significant amount of time, so that this was a road to profit reserved for solidly established printing/publishing businesses.

Many of the more voluminous publications of the fifteenth century brought together texts which in manuscript form had typically circulated separately. This obviously necessitated a more complex search for exemplars. Koberger's Herculean work on acquiring manuscripts for Hugo's *Postillae* is our best documented example of this. It was this type of publication that could lead to the very unusual situation we saw with Amerbach's Augustine edition, where it seemed to be commercially viable to invest in a search even for texts which were not known to have survived. The mechanical multiplication of texts had created a situation where, under very specific circumstances, it was a commercially viable proposition for a printer or publisher to engage in a highly ambitious and costly search for exemplars of texts which might not even have survived.

Appendix on terminology

The meaning of ‘volumen,’ ‘quaternus’ and ‘quinternus’ as used by Koberger; cf. notes 30 and 38.

It is unusual for Koberger to use Latin words. One would expect ‘volumen’ to mean a volume, a book, but 24 manuscript volumes seems an unlikely large quantity in this context. They were sent in a ‘feßlein,’ the diminutive probably being meaningful as Koberger did not regularly use this form and Koberger said that what he sent was intended as a stop gap, enough for Amerbach to get on with.

It is possible that he used ‘volumen’ for the German ‘Buch’ as used in the paper trade. A ‘Buch’ (a ‘quire’) is a 20th of a ‘Ries’ (a ‘ream’). A ‘Ries’ consisted of 480 (or 500) sheets, so a ‘Buch,’ would have 24 sheets. If this was what Koberger meant, he sent some 432 manuscript sheets. That too may be rather more than one would expect from the context.

He may have used ‘volumen’ to mean ‘gathering.’ It would thus mean the same as ‘quintern’ and ‘quatern,’ as he used the words in a letter of 17 May 1496, quoted in note 38. While this is plausible, it still does not afford us a very precise understanding of how many manuscript sheets he sent, but possibly something in the order of 120 sheets. Rizzo, *Lessico* 42 says that humanists used the terms ‘quaternio,’ ‘quaternus,’ ‘quinternio,’ ‘quinternus’ and ‘sexternus’ indifferently in the sense of fascicle or gathering. This follows a long-established usage. Preisendanz, “Quaternio” 847 quotes a sixth century marginal note: “Iste quaternio quinque folia habet.” Rizzo also noted that usage was more precise in a commercial context. This is borne out by many printers who in their ‘registra’ use the words ‘quinternus,’ ‘quaternus,’ and ‘ternus’ to indicate the number of sheets in each gathering; e.g. Johann Reger in Ulm from 1496: “abcdefghijklm omnes sunt quaterni excepto f qui est ternus” (Caorsin, *Stabilimenta*. 1496). However, often Koberger’s registra were not that precise; e.g. he used ‘quaterni’ for gatherings of which all but two had three not four sheets: “Registrum secundum quod quaterni huius libelli ordinari debent.” (Alphonsus de Spina, *Fortalitium*. 1485).

Finally we should consider if ‘volumen’ might mean ‘sheet.’ In a letter to Amerbach from about 1483, using the words ‘codices’ and ‘quinterni,’ Adolf Rusch disputed how much paper a Rhenish Florin would buy Amerbach in terms of printed books, measured in paper. Hase, *Die Koberger* 65 summarised the letter and assumed that both words meant ‘sheets,’ in which he was followed by Hartmann in *Amerbachkorrespondenz* I 8, no 7, 26 November [1483?] note 3. Pre-

isendanz “Quaternio” 848 provides a single reference to ‘quaternio’ being used by Anselm to mean a single sheet. I have not encountered this elsewhere. If ‘codex’ could mean ‘sheet’ so might ‘volumen’ but, as I have seen no examples of ‘codex’ used to indicate single sheets, I am not yet convinced that Hase’s and Hartman’s interpretation is right.

I am thus inclined to believe either that Koberger used ‘volumen’ for ‘Buch’ as used in paper-trade or, more plausibly, that he used ‘volumen,’ ‘quaternus,’ and ‘quinternus’ more or less indifferently as referring to a gathering consisting of a not very precisely indicated number of leaves but probably not much more than five sheets.

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