The Distribution of the Classics in the Incunabula Period.

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Submitted in fulfilment of the requirements for the Degree of MPhil (R).

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October 2017

Abstract

A fundamental component of the European Renaissance is its rediscovery of lost classical texts, the re-examination and reinterpretation of the traditional classics curriculum, and the integration of ideas from classical philosophy, scientific theory and literary form into early modern statesmanship, scholarship and artistic and literary culture. It has long been argued therefore, that the ideas of classical authors were fundamental in the creation of Early Modern Europe. Very few studies, however, have considered the importance of the methods behind the diffusion of Greco-Roman literature. This thesis - using a well catalogued sample of early printed books, the Glasgow University Library's incunabula collection - examines each individual volume as a material object, evaluating it in terms of production concerns, reader response, and the book marketplace more generally. In doing so it not only sheds further insight into the books within Glasgow University Library's collection but also into the material importance of this important group of texts in early modern Europe.

This is first of all achieved by forming a sample of all Glasgow University's classical texts. Using a combination of extant literature, the ISTC, and books within the sample, geographical trends are uncovered. Other chapters examine the books within Glasgow University Library's collection as material objects in order to ascertain the manner that they were produced or used.

Aside from the classical ideas themselves, this thesis suggests that it is through examining the geographical spread, production and use of classical incunabula that we can appreciate the materiality of books in early modern Europe. It proposes that it was a genre in which printers could freely innovate and begin to experiment in language choice, production quality and intended readership, and as such, may have lain the foundations for the greater diversification of the European print market in the sixteenth century. In doing so, this thesis recommends that not only the reception of ideas in the early modern period be studied, but also their method of diffusion. In examining the material object alongside an appreciation of the importance of the textual content, new insight can be shed on importance of the genre in the period.

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Acknowledgments

With great thanks to my supervisors, J.G. and T.M., for countless inspiring discussions, generous academic and practical advice, and for being a friendly ear in hard times. Thanks also to E.F., M.KP., my parents, and Buzz for their steadfast encouragement and assistance.

Author's declaration

I certify that, except where explicit reference is made to the contribution by others, this thesis has been composed by me, the work is entirely my own, and that no part of this thesis has been published in its present form.

Signed_____

1. Introduction

1.1 General introduction

An appreciation of the general history of print must irrefutably start with Elizabeth Eisenstein's seminal text *The Printing Press as an Agent of Change*. In this work, Eisenstein laid out her proposition that the invention of 'print culture' was a major component in bringing about the Renaissance, the Protestant Reformation, and the scientific revolution. She concluded that the invention of print marked something distinctly new in European history and that it, along with the events it foreshadowed, drastically changed society.[1]

Her arguments have been heavily criticised in the intervening years. Contrary to her view that printing heralded a revolution, it has been suggested instead that this was a more gradual evolution.[2] Her concentration on the developments brought by the technology, to a large extent ignored the obvious parallels between manuscript and print. In the period of early print, scribes continued to cater for areas with no native printing press, or for those with niche literary tastes. Every choice made by printers, whether that was format, page layout or choice of text, was also directly informed by manuscript traditions.[3] Linked to this, some have also criticised Eisenstein's use of secondary literature, rather than primary sources, when forming her conclusions.[4]

In another seminal study, *The Book in the Renaissance,* Andrew Pettegree highlighted key elements in the development of the European book market. These

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[1] E. Eisenstein *The Printing Press as an Agent of Change* (Cambridge: Cambridge University Press, 1979).

[2] For a recent discussion on this see E. L. Eisenstein (2002) 'An Unacknowledged Revolution Revisited' in *American Historical Review* 107.1 and A. Johns (2002) 'How to Acknowledge a Revolution' in *American Historical Review* (107.1). See also S. A. Baron et al. (ed.) *Agent of Change: Print Culture Studies After Elizabeth L. Eisenstein*. Amherst: University of Massachusetts Press: 2007).

[3] Rouse and Rouse highlighted that the press in Italy was less successful in the early years of print because print networks were not yet established. Italy thus retained a successful scribal culture. M. A. Rouse and R. H. Rouse 'Nicolaus Gupalatinus and the arrival of print in Italy,' *La Bibliofilia*, 88 (1986), 246. David McKitterick in *Print, Manuscript and the Search for Order, 1450-1830* (Cambridge: Cambridge University Press, 2003) stressed however that developments in printing did not happen in a vacuum. Everything incunabula embodied was a result of manuscript culture and that there was continuity of use and production throughout the period, with manuscript influencing print, which then in turn re-influenced the production of contemporary manuscripts.

[4] A. T. Grafton (1980) 'The Importance of Being Printed' in *Journal of Interdisciplinary History*, 11.2, 269-70.

included the challenging of piracy and the creation of local privileges; the failure of such privileges;[5] issues of transportation;[6] f and state and ecclesiastical censorship.[7] Pettegree stressed the importance of commercial networks for the success of printing firms and, above all, underlined that printing was a business enterprise.[8] Combining these two strands, that printing created a seismic change in European society, and that the printers that inadvertently made this change were driven by economic profit, requires a new approach. To understand both, we must focus more closely on press output, probable trends of supply and demand, and methods of production in the early print. We ought to also attempt to examine all books as material objects, but also commercial goods.

1.2 Context

Glasgow University Library holds over one thousand incunabula.[9] Of these, many can be considered 'classical texts.' In the medieval period, consultation of the classical Roman and Greek past, and the texts and authors that defined them, was used to directly inform current events. This was a major tenet of one method of contemporary scholarship, scholasticism. With the gradual shift from scholastic to humanistic scholarship styles in the late medieval period, and spreading all over Europe by the middle of the fifteenth-century, a precedence was placed on these texts' importance as the foundation of knowledge. In contrast to scholasticism, humanism revised this traditional examination of the classics, instead stressing their importance as theoretical, rather than practical, exemplars in a much more modem world. Rereading and reinterpreting the classics became commonplace, previously unknown texts were actively searched for and discovered, and a renewed interest in Greek language and scholarship developed after the fall of Constantinople in 1453. With the invention of the printing press, classical printing was, unsurprisingly, established as one of the most important facets of European wide printing agendas.

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[5] See M. Lowry, *The World of Aldus Manutius: Business and Scholarship in Renaissance Venice*. (Ithaca: Cornell University Press, 1979), 115 - 6; B. Richardson *Printers, Writers and Readers* (Cambridge: Cambridge University Press, 1999), 49-76.

[6] J. L. Flood ''Omnium totius orbis emporiorum compendium:' The Frankfurt fair in the Early Modern Period' in *Fairs, Markets and the Itinerant Book Trade*, ed. R. Myers et al (London: Oak Knoll Press, 2007), 2-8.

[7] See R. Hirsch 'Pre-Reformation Censorship of Printed Books' in *The Printed Word: Its Impact and Diffusion* ed. R. Hirsch (London: Variorum Reprints, 1978).

[8] A. Pettegree *The Book in the Renaissance* (New Haven: Yale: 2011).

[9] An incunabulum or incunable is a printed book produced in Europe between c.1450, when the printing press was first established, and 1500.

This wide dissemination of classical volumes had a profound effect on scholarly output and thinking across the continent.[10] This, printing agenda, as we shall see, is reflected in Glasgow University's holdings. The Glasgow Incunabula Project[11] highlighted first and foremost, the wealth of knowledge that can be extracted from these volumes, but also that research is still required on both the whole collection and on individual copies. This dissertation attempts to engage with both these strands of scholarly approach.

There has been some recent development in the study of classical printing. Scholars have looked at certain commentaries of classical texts, how they were used in the university curriculum and their impact on fifteenth and sixteenth-century society.[12] Some have also looked at the printing press and its impact on the production of the classics.[13] Yet no-one has studied the classical texts as material objects and endeavoured to chart all aspects of the classical book thoroughly through geography, production and ownership. In looking at such factors, we can create a more complete picture of the classical book in the early modern period.

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[10] The effect of classical dissemination was recently seen in S.J. Reid & D. McOmish (ed.) *Neo-Latin Literature and Literary Culture in Early Modern Scotland* [Leiden: Brill, 2016]. In particular, Kerr-Peterson demonstrated the close engagement with classical source material in sixteenth-century Scotland, which was expertly intertwined with Calvinist commemoration and practice, to create a distinctly Scottish, neo-Latin funeral oration. See M. Kerr-Peterson 'A Classic Send-Off: The Funeral Oration of George Keith, Fourth Earl Marischal (1623)' in *Neo-Latin Literature and Literary Culture in Early Modern Scotland* ed. S.J. Reid & D. McOmish [Leiden: Brill, 2016]. Due to its European links to the continent, and a slow development in local presses, Scotland is of particular note. Especially in the fifteenth and early sixteenth-century when many Scots were educated in Paris, it would have been largely reliant on the European book trade for its classical learning. See A. Mann *The Scottish Book Trade, 1500-1720: Print Commerce and Print Control in Early Modern Scotland* (East Linton: Tuckwell Press, 2000), 93 & D. McOmish 'A Community of Scholarship: Latin Literature and Scientific Discourse in Early-Modern Scotland' in *Neo-Latin Literature and Literary Culture in Early Modern Scotland* ed. S.J. Reid & D. McOmish [Leiden: Brill, 2016].

[11] The GIP is a project undertaken by the University of Glasgow Library, Special Collections department to re-catalogue all the incunabula owned by institutional collections across Glasgow, most of which are in the university library, and to create an electronic catalogue for each of the individual volumes: http://www.gla.ac.uk/services/incunabula/ [accessed 4 January 2017].

[12] F. Amerini and G. Galluzzo eds. *A Companion to the Latin Medieval Commentaries on Aristotle's Metaphysics* (Leiden: Brill, 2014); A. J. Turner and G. Torello-Hill eds. *Terence between Late Antiquity and the Age of Printing* (Leiden: Brill, 2015); and V. Cox and J. O. Ward eds. *The Rhetoric of Cicero in its Medieval and Early Renaissance Commentary Tradition* (Leiden: Brill, 2006).

[13] H. Jones *Printing the Classical Text* (Utrecht: Hes & De Graaf Publishers, 2004).

1.3 Aim and Scope

The aim of this study is to examine the classical text as a material object, to survey its production and use, and therefore, to some extent, analyse its impact on late fifteenth-century society. It will also show the changing reception of these books from the time of production to the present day. This dissertation will therefore attempt to capture production trends in geographical areas, production quality and use. Such data is important as it will contribute not only to a firmer understanding of the collection and the books within it, but will also shed new insight into the dissemination of a group of key texts after the invention of the press and before the publishing upheavals of the religious and scientific revolutions. We might also gain some idea of the impact of the increased availability of texts upon the perpetuation and dissemination of works and ideas. The examination of incunabula as a distinct entity, rather than including books produced post-1500 or manuscripts, allows 'the classical incunabula' to be viewed as a singular body of materials. This then allows us to examine its distinct response to the invention of printing. The supposed relatively low print runs of incunabula[14] and their production in scholarly Latin means that the production of these texts was not necessarily a sign of a mass dissemination process, but rather a process of market discovery and adjustment. It will also have perpetuated the fairly exclusive classical readership of learned individuals found in the medieval period. This method of sampling means the books can be viewed within a period of change and experimentation: the move from manuscript culture to European-wide dissemination that is heralded, in particular, by the Reformation print market. We can use evidence from the books to shed more light on the ways that printers responded to this changing market. The focus on the classics allows concentration on the impact of this change on one group of texts, with, it can be supposed, a comparatively distinct readership.

1.4 Methodology

This dissertation will examine the classical incunabula within Glasgow University Library's collection.[15] All the university's incunabula will be examined using the 'author search' of the Glasgow Incunabula Project website and the classical authors manually filtered into a database that contains only the classical texts within the collection. This will allow some contextualisation of the

[14] Febvre, L. and Martin, H.J. *The Coming of the Book: The Impact of Printing, 1450 – 1800*, trans. D. Gerard. (London: Verso, 1958), 216-218; R. Hirsch 'The Size of Editions of Books Produced by Sweynheym and Pannartz between 1465 and 1471' in *The Printed Word: Its Impact and Diffusion*, ed. R. Hirsch (London: Variorum, 1978).

[15] A focus here will be on the incunabula period, c. 1450 – 1500. Some mention will however be made to sixteenth century production when necessary.

university's collection to be made in comparison to wider projections. In this dissertation, 'classical texts' will be defined as works produced in the Greek and Roman empires from eighth-century BCE when the earliest extant works of Western European literature were written, to 476 CE, the traditional date for the fall of the western Roman Empire.[16] Therefore, this study will be concerned with books printed between c.1450 and 1500 CE, but were first written in Greek or Latin before 476 CE.

Because of the Christianisation of the Roman Empire in 380 CE, distinctions need to be made between authors who were 'classical' in the strictest sense, and those writing about ecclesiastical matters. For ease of comparison to other scholarly findings, this study, will not include those authors producing texts on Christian doctrine. Generally, commentaries of classical texts will also be excluded, except when the commentary was made almost contemporaneous with the text.[17] One particular problem with these restrictions is the Neoplatonic Greek authors writing after 476. To keep with a rigid cut off date, these authors will be excluded from this study, in part because they do not appear in appreciable quantities in the collection. Glasgow University's collections alone will be included in this database; works from other Glasgow institutions included on the website will not be included. This is so that the collection will be viewed in isolation.

The first chapter of this dissertation will examine the geography of the early printed classical book, complimenting existing research, and attempting to chart changing trends in the place of production. The second chapter will then examine production processes themselves, looking at the way that the books were made and speculating on decisions involved in production. Details of this in-depth analysis will be provided in the appendixes to this dissertation. This will then be broadened out to an examination of the use of the book by both contemporary and later owners. This will include examination of the bindings, decoration and annotations within individual books. Again, many of these details will figure in appendixes. Glasgow's collection will be used as a case study for both these later chapters and in particular, volumes of Cicero will frequently be used as examples. Cicero has been chosen in

[16] These dates were also used by Jones in his introduction to classical incunabula. See Jones *Printing the Classical Text* (2004), 9, footnote 21.

[17] Ibid. Jones also did not include ecclesiastical authors. Although Jones did not mention exclusion of commentaries directly, he included no reference to them in his study.

part because he was the most frequently printed classical author in the period[18] and in the university's collection.[19] He has also been chosen because of the influence his works had in the early modern period, for the abundance of his works and because they incorporate a variety of genres.

[18] See H. Jones *Printing* (2004), foldout table, between 118-119.
[19] See Appendix 3.

Chapter Two

Geography of the Classical Text

2.1 Introduction

Local printing production patterns and their place within a wider European context is an essential component of an analysis of production, dissemination and use of texts. Production trends relating to specific countries, cities and printing firms are all vital in an understanding of market demand. The aim of this chapter will be to develop a context for the production and use of classical print in the incunabula period.

Howard Jones' *Printing the Classical Text* produced an introductory analysis. In this volume, Jones documented all editions of classical authors produced in their original language, between c.1450 and 1500 and detailed by the Incunabula Short Title Catalogue, *ISTC*. This large extraction of data, along with his accompanying analysis, is vital in any understanding of early classical print.

His introduction attempted to establish the European market in classical Roman texts. This contained figures regarding the production of Roman authors by country; figures of total incunabula production by country; and proportions of Roman authors produced by each country in regard to that country's total incunabula output. He showed that Italian printing was the most dominant, producing the highest number of editions of Roman authors; the largest total incunabula production of any country; and also the highest percentage of Roman authors produced as part of total country output.[20]

He then established trends in classical print through time. He achieved this through a series of tables that detailed all Latin editions of Roman authors printed between 1450 - 1500. His tables, arranged in chronological order by year, contained details of the year of production, place of publication, printer, author and work. The analysis that he included alongside this data largely focused on overall European printing trends in five yearly periods. His aim was evidently to establish the market

[20] See H. Jones (2004), 21.

at given periods of time and to reflect upon wider market fluctuations over the whole period, rather than specific changes or trends in individual countries. He also compared the main authors produced by the European countries in a given time period, any apparent changes to the number of editions that countries and cities were producing overall, and the printing of any first editions. From this, we can gain an understanding of the demands on the European book-market and, to a certain extent, the dominance of particular areas. His interest in those countries and cities producing first editions perhaps reflected an interest in variations within the market and the development of innovative printers with the boldness and financial capital to diversify the market. Unfortunately, since he examined overall production by author, he did not attempt to consider the implications of production trends at a local level.

Another difficulty is Jones' focus on Roman authors in Latin, discounting translations of those authors into the vernacular. Further, although he did examine Greek texts in Greek in a later chapter, he did not visibly take into account the frequency of Greek production in translation, either into Latin or the vernacular. In doing so, he also ignored medieval traditions of Greek production in Latin. So although we may gain a rather in-depth understanding of Latin printing from his study, we struggle to gain an understanding of the overall extent of classical printing. His focus on Greek and Latin texts solely in their original language therefore did not give a full picture of the dissemination of the classical text. We are given a false perception of the impact and dissemination of classical print using his study alone. Such an approach also makes it more difficult to observe large scholarly developments, such as the impact of humanism, on the dissemination of classical ideas. Humanist ideas influenced Greek scholarship, as well as an awareness of Greek language teaching and the preservation and dissemination of unknown texts. These were frequently translated and published in Latin. It is apparent then that an appreciation of any widening in Latin and Greek readership fostered by print, ought to be included in any further study of printed classical texts.

An analysis encompassing the whole of classical print, including translations, would therefore offer an avenue for a large research project. Such a study would involve isolating authors deemed as classical and then using the *ISTC* database to search for all copies, in all languages, produced during the period. This

would be a vast undertaking. In the meantime, in an attempt to develop some ideas about the overall impact of classical printing, the University of Glasgow's collections will be referenced as a case study.[21] Using Glasgow's collections in conjunction with data from both Jones and the *ISTC*, this study will supplement his findings and give further ideas for future development. With the geographical foundation laid out in this chapter, we will have a better understanding of the trends behind particular authors and works when we go on to examine their production qualities and reader responses in later chapters. In order to undertake this analysis, firstly Glasgow's sample will be contextualised. Then some overall details and trends will be established for countries according to production of Roman authors in Latin, the production of Greek authors and the production of classical authors in vernacular translation.

2.2 Contextualising Glasgow's sample

The table at figure 1, contextualises the University of Glasgow's classical Roman incunabula within wider projections of incunabula production. The first observation is the high proportion of Italian editions in the collection. Jones estimated that 65% of Roman texts produced in Latin were a product of Italy (see figure 1). The University of Glasgow's sample on the other hand shows a strikingly high percentage, 89%. This is not entirely surprising. When such a figure is contextualised within Glasgow's wider incunabula collection, we see that such a high percentage ought to be expected.[22] The complete collection holds large numbers of Italian incunabula, as documented in appendix 1. Such high percentages may reflect both the large volume of Italian books produced,[23] but also the success of the Italian book trade in disseminating these books to a wide European audience.[24] The size of print runs may also have effected dissemination numbers,

[21] As above, the end date taken for the printing of the 'classical text' was 476 CE.
[22] Additionally, in overall projections, Italian production of Latin classical texts makes up around 9.8% of total Italian production, a much higher figure than any other country. France produces 4.8%, the Low Countries produce 4.5%, the Holy Roman Empire produces 2.3%, Spain produces 1.4% and produces England 2.8%. Jones (2004), 21.
[23] Jones figures show that Italy produced the largest number of books in the period. Ibid.
[24] See also N. Harris 'The Book in Italy' in *The Oxford Companion to the Book*, eds. M. F. Suarez and H.R. Woudhuysen (Oxford: Oxford University Press, 2010).

although due to a lack of available evidence, we are not able to take such matters into discussion.[25]

A comparison of Glasgow's collection to more general figures of European output also allows for overviews of the library collection. Although a vast majority of the incunabula are the result of eighteenth and nineteenth-century collectors[26] (see appendix 7), the Old Library collection contains the volumes acquired by the university after its foundation in 1451. Since this contains volumes collected from the foundation of the university until the eighteenth-century, it cannot be used as an example of the collection interests of a fifteenth-century institutional library. Combined with a lack of available library records, it is difficult to analyse, in most cases, when, and for what reason, the volumes entered the university collection. Yet this collection can shed insight into early geographies of the classical incunabula. It might also be used as an illustration of what a university might have required within their collection.

Given that previous research depicted the acquisition of large numbers of French books into early Scottish libraries, we might have expected to have found some French and other northern European volumes within the collection.[27] Certainly, examination of the library's sixteenth-century acquisition records reflects these predictions – a large proportion of the volumes are printed in Paris, Lyon, Antwerp and Basel.[28] Yet when examining the classical incunabula that are part of the Old Library collection, all of the volumes are Italian, with a vast majority from Venice (see appendix 2). If early ownership details are taken into account, the wide dissemination of Italian incunabula becomes apparent and may justify this

[25] Many scholars disagree on the number of volumes in a standard edition. For more on this debate and the mathematical problems within the analysis of the numerical data, see J. A. Dane 'Twenty Million Incunables Can't be Wrong' in *The Myth of Print Culture: Essays on Evidence, Textuality and Bibliographical Method*, ed. J. A. Dane (Toronto: University of Toronto Press, 2003), 32 – 56.

[26] The inclusion of the later collectors, namely Sir William Hunter, allows this sample to be relevant because it is not only, large but also because it is of bibliographical interest.

[27] M. L. Ford 'Importation of Printed Books into England and Scotland' in *The Cambridge History of the Book in Britain, Vol 3: 1400 – 1557*, eds. L. Hellinga & J. B. Trapp (Cambridge: Cambridge University Press, 2008); L. Hellinga 'Importation of Books Printed on the Continent into England and Scotland before c. 1520' in *Printing the Written Word: The Social History of Books, circa 1450 – 1520*, ed. S. Hindman (Ithaca: Cornell University Press, 1991).

[28] See *Munimenta Alme Universitatis Glasguensis, Records of the University of Glasgow: from its foundation till 1727*. (Glasgow: Maitland Club, 1854).

large number in the university's collection.[29] Some of the volumes can be attributed to early German ownership. One volume, Bh3-e.13, contains two classical texts.[30] Both texts are Venetian in origin but there is an inscription suggesting early ownership in Strasbourg, at the Collegiate Church of New St Peter.[31] The provenance of other volumes can be identified by alternative means. Although there are no ownership notes in the Old Library copy of Firmicus's *Mathesis*, Bh6-d.4, it has been suggested that the binding is either a sixteenth-century Dutch or Lower Rhine binding, signifying that, at the very least, the book was bound in the area, and very likely owned there.[32]

Unsurprisingly, many of the classical volumes in the Old Library collection can be attributed to Scottish or English owners. Indeed several of the volumes have probable Scottish owners in the sixteenth-century, some of whom were either graduates of the university, or closely linked to the university.[33] One example is Henry Gibson who had been a student at both Glasgow and St Andrews around 1550. His sammelband volume, Bk5-g.22, contains five texts, four of which are Venetian, with one from Cologne.[34] There is also evidence of a very early Scottish owner of a Venetian text. Walter Ogilvie was alive in the late fifteenth-century and may have owned the Old Library's copy of Livy's *Historiae*, Bn8-d.2.[35] According to Durkan and Ross' examination of early Scottish libraries and the University of Glasgow Library catalogue, Ogilvie also owned another work that he bound with

[29] Meg Ford has found in her analysis of importation of continental books into England that the largest percentage of imported books, around 19%, are from Venice. She argues that volumes from Basel dominate importation from the 1520s onwards. She finds that in Scotland, Venetian importation dominates in the 1480s but by the 1490s, Parisian importation equals Venetian imports. See Ford 'Importation of Printed Books', 183 - 189.

[30] They are a copy of Gellius' *Noctes Atticae* and a copy of Cleonides *Harmonicum Introductorium.*

[31] University of Glasgow, *Glasgow Incunabula Project,* http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/gelliusaulusnoctesatticaevenice15july1500/ [accessed 21st August 2015].

[32] *Glasgow Incunabula Project,* http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/bh6-d.4 + bh.2.2 + bh.3.10+ bh.3.10/ [accessed 21st August 2015].

[33] George Buchanan is one illustrious example. His donation from 1578 includes one incunabulum from Venice and another from Florence.

[34] Glasgow Incunabula Project http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/johannesdesacroboscosphaeramundi/[accessed 21st August 2015].

[35] http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/liviustitushistoriaeromanaedecadesvenice1498/ [accessed 24th August 2015].

this copy of Livy, a Latin translation of Homer's *Iliad*, also printed in Venice at the start of the sixteenth-century.[36]

This diverse provenance information for these Italian volumes reinforces the overwhelming dominance of Italian, and in particular Venetian, print and the success of the printers and their trade markets in dissemination across Europe. It is no surprise then, that a country like Scotland, with no stable or vivacious early printing tradition of its own until the middle of the sixteenth-century, accumulated so many volumes from the Italian peninsula. Overall, although Italian books were 65% of the European output, the higher percentage in the university collections shows the strong circulation of Italian books.

Just as trends were found for Roman classical works in Latin (as seen in figure 1) so too does Italian production dominate the university's whole collection of classical incunabula, including works in the vernacular and in Greek (see figure 2). Since Jones did not take vernacular and Greek volumes into account in his statistics, we are forced to view the university's collection in isolation. Yet bearing in mind his general findings, outlined in figure 1, and the predominance of Italian books at the expense of others, in the university collection, we can start to build a framework from which to interpret figure 2. What is most noteworthy is the slight percentage increase in works from the Holy Roman Empire. This is because the collection contains a number of Greek texts in Latin. In producing these, the printers were probably responding to their local scholarly market. The production of Greek texts in this region is therefore a possible area for further exploration. The comparative percentages from England and Spain also increase as vernacular editions of the classics are taken into account. These examples – and the trends they show - will be looked at further in the following sections. It is probable that printers in these counties, aware of the strength of the Italian export market, diversified their output in the classics. Unlike religious texts, the changing of which provoked controversy, the classics were a relatively safe market to experiment within.

Caution should be exerted when attempting to interpret these production trends outlined. Overall production in the classics in the Italian states was not

[36] J. Durkan & A. Ross *Early Scottish Libraries* (Glasgow: John S. Burns and Sons, 1961); University of Glasgow, *Glasgow University Library catalogue* http://eleanor.lib.gla.ac.uk/record=b2880871 [accessed 27th August 2015].

standard across the country. In towns such as Florence and Bologna that have high overall incunabula production rates, production of Roman authors was small.[37] Since printing was such a financial risk,[38] it is likely that production was low due to a perceived lack of local demand, or because of competition from the wider book trade.

We have already seen, generally, that printers might tailor their output to fit their market. Yet, these figures can never be wholly reflective of local demand for classical texts. Although production figures can give some idea of the demand of local readers in France or England, for example, these were not the only volumes that a reader might purchase and undoubtedly, individual reader taste was more varied. The wide reaching nature of the European book trade, even at the start of the period,[39] fostered opportunity for diverse volume acquisition, especially at the important book fairs in Frankfurt and Lyon.[40] Texts in Latin, especially those associated with the standard university or school curricula, would have been even more readily in demand across Europe. It is likely then that local production, combined with foreign import, provided readers and institutions with some degree of choice in the works or editions purchased. In the Holy Roman Empire for example, Italian importation was relied upon.[41] Rostenberg has demonstrated the intellectual desires of Nuremberg patricians for the latest humanist and classical scholarship printed in Italy.[42] Additionally, when the Franco-Venetian warfare closed the Alps to trade in 1510, the German humanist, Mutianus Rufus, complained that he was being deprived of Aldine books[43] and by implication,

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[37] Jones, (2004), 15 -16. Florence produces 8 editions of Latin authors in Latin, out of total of 783; Bologna has 27 editions of Latin authors in Latin out of a total of 540. Gerulaitis has found that Florentine production was not lacking in an interest in classical texts however. He has shown that the city instead was focusing on the production of classical texts in vernacular. See L.V. Gerulaitis, *Printing and Publishing in Fifteenth-Century Venice* (Chicago: American Library Association, 1976) and below.

[38] For more on this see: M. Tedeschi 'Publish and Perish: The Career of Lienhart Holle in Ulm' in *Printing the Written Word: The Social History of Books, circa 1450 – 1520,* ed. S. L. Hindman (Ithaca: Cornell University Press, 1991).

[39] There is evidence that Gutenberg's successors, Fust and Schoeffer sold some of their productions in Paris. See: A. Pettegree *The Book in the Renaissance* (New Haven: Yale: 2011), 31. See also Gerulaitis *Printing and Publishing* (1976), 11 for evidence of Venetian printers' business deals with other towns for the mass exportation of books.

[40] Naturally the well-established trade in manuscripts will also have in part catered for this demand although this can not be covered in any depth here.

[41] S. Füssel *Gutenberg and the Impact of Printing,* trans. D. Martin (Aldershot: Ashgate, 2003), 104ff.

[42] L. Rostenberg 'The Libraries of Three Nuremberg Patricians' in *The Library Quarterly* 13:1, (1943), 21 -33.

[43] H. G. Fletcher III *New Aldine Studies. Documentary Essays on the Life and Work of Aldus Manutius* (San Francisco: Bernard M. Rosenthal, 1988), 23.

extensively edited and varied classical texts. Overall, this suggests that in viewing the geography of the classical text, we are required to view local trends alongside wider European production, and in doing so consider the ways in which local printers responded to the larger market.

Figure 1. Production of Roman authors in Europe in Latin[44] (all percentages rounded).

Country	University of Glasgow's editions of Roman authors (in Latin)		Howard Jones' editions of Roman authors (in Latin)[45]	
	No. of editions[46]	Percentage	No. of editions	Percentage
Italian states	125 (in 134 copies)	89.3%	961	65.2%
Holy Roman Empire	8 (in 9 copies)	5.7%	191	13.1%
France	6 (in 6 copies)	4.3%	211	14.4%
Low Countries	1 (in 1 copy)	0.7%	86	5.7%
England	0	0%	11	0.7%
Spain	0	0%	14	0.9%
Total	**140 (in 151 copies)**		**1474**	

[44] Since Jones' figures stand for Latin editions in Latin only, this first table lists Latin editions of Latin authors. Translations from Latin into vernacular have not been included as part of Glasgow's collection but appear in the table of overall classical production, see Figure 2.

[45] All figures from Jones (2004), 21.

[46] Exclusive of duplications (ie. when there is more than one copy of an edition within the collection).

Figure 2. Overall Dissemination of Classical authors in Europe (all percentages rounded).

Country	University of Glasgow's classical works (in all languages)	
	No. of editions	**Percentage**
Italy	184 (in 206 copies)	86%
Holy Roman Empire	18 (in 20 copies)	8.4 %
France	8 (in 9 copies)	4.2%
England	2 (in 3 copies)	0.9%
Low Countries	1 (in 1 copy)	0.5%
Spain	1 (in 1 copy)	0.5%
Total	214 (in 240 copies)	

2.3 General classical printing trends

In order to consider the ways that a printer might have responded to the market, we must first lay out general classical production in Europe. In discussing general trends in this period, it is perhaps apt to start with the largest category of classical printed texts, namely that of Roman authors printed in Latin. In the middle ages, due to the primacy of Latin in clerical life, along with the dissemination of essential ecclesiastical texts in Latin, Latin literacy was readily fostered among the educated classes. Latin was the language of diplomacy, of law, of education and of the church. Therefore, continuing the centuries-old manuscript tradition, the majority of printed texts produced between 1450 and 1500 were in Latin. For classical texts, the process of printing in Latin was even more natural and the widespread understanding of the language allowed for ready dissemination all over the continent. Indeed it has been extensively proposed that the largest producers of Latin texts were towns with accessible and profitable trade routes into the wider European market.[47] Other towns that produced large volumes of classical texts in Latin were successful due to their standing within Europe. Lotte Hellinga has suggested that Roman printers for example, relied on the visiting scholars, diplomats and clergy, travelling to Rome because of its ecclesiastical prominence, to purchase their books.[48] If this is indeed the case, we may expect to uncover larger production rates along trading rivers such as the Rhine and in active trade cities such as Venice. We must also expect large production in cities of ecclesiastical or scholastic renown.

[47] Hellinga 'Importation of Books' (1991), 205-6.

[48] Ibid. p. 215. Hellinga finds in her study of 1000 incunabula imported into Scotland and England that the majority of Roman books have been purchased in Rome by diplomats or scholars while Venetian books have been directly imported. Glasgow University library holds one example of a text where we can observe such practice. A German prior, Petrus Mitte de Caprariis, travelled to Rome from the Antonine monastery in Memmingen. There he bought a selection of volumes, including one volume of Apuleius' *Golden Ass*, which is now in Glasgow's collection. His inscription notes that he bought it in Rome for the library at Memmingen and paid 4 Rhenish florins for all expenses, including rubrication and binding. See: University of Glasgow, *Glasgow Incunabula Project*, http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/apuleiusmadaurensisluciusoperarome1469/#d.en.204636 and https://universityofglasgowlibrary.wordpress.com/2011/08/11/glasgow-incunabula-project-update/ [accessed 21st August 2015].

Figure 3. Percentages of key towns for output of Roman authors in Latin (all percentages rounded).

Town/City/Centre	Percentage of output as editions of Roman authors in Latin[49]
Leipzig	8.8%
Venice	12.5%
Milan	16.3%
Rome	7.5%
Paris	5.9%

When one compares Howard Jones' figures for editions of Roman authors printed in Latin with figures for total city output, we are able to find such results for the main scholastic and trade centres, such as Rome, Paris and Venice. However, his figures demonstrated that production along the Rhine was not as considerable as might have been expected. The largest area of German production was Leipzig. However, its output is a relatively low figure compared to some of the other European printing centres (see figure 3). Other active centres for printing output along the Rhine, such as Cologne and Strasbourg, had an even smaller classical output. For example, although Cologne was the fourth largest town in Europe for total incunabula production, only around 2% of Cologne's volumes were Roman

[49] Jones (2004), I5 – 16. Percentages my own.

authors.[50] Demand for classical texts by Cologne's university market must have been met by importation.

Yet, it is more complicated than this. When examining the production of particular authors, we can see that production of the classics shifted within the Holy Roman Empire. Printing of Roman authors in Latin flourished in Cologne and Strasbourg, in the early period of print but slowed significantly after a pan-European classical book surplus in the 1470s.[51] Although both towns continued to print generally in high numbers, Leipzig had taken over production of the classics. This is not an unusual trend. Other towns such as Augsburg, and Nuremberg also had very small outputs of Latin authors but high overall production.[52] Indeed only two towns in the Holy Roman Empire produced classical texts as over 5% of their whole output: Leipzig and, unusually, a tiny town in Upper Swabia, Schussenried.[53]

To understand this, it is constructive to reflect on possible printing agendas within the Holy Roman Empire. In towns with low classical output, at least after the 1470s, preference for other genres was apparent. In Augsburg, there was an obvious interest in the printing of religious texts.[54] Flood also suggested that Augsburg was noted for its vernacular books in German, although only a small number were produced at this time. He also suggested that Cologne and Nuremberg had a preference for theological books.[55] The low production of classical texts in Nuremberg led Gerulaitis to assume that the city was importing classical volumes from Venice.[56] Certainly, it may be that German printers were influenced in a large

[50] Data, Jones (2004), 15- 16. Percentage my own.
[51] Ibid., 42 – 47.
[52] Jones (2004), pp. 15 -16. Percentages my own:|

Town	P Percentage of Roman authors in Latin as part of total output
Augsburg	0.2%
Nuremberg	0.7%

[53] Jones (2004), pp. 15- 16. Percentages, my own. Leipzig – 6.7%, Schussenried – 50%. Schussenried has an unusually high percentage because its overall production is very small, 2 volumes only so this can tell us no more than there was a local interest in producing its one edition of Terence. This may have been linked to the imperial abbey in the town.
[54] See University of St Andrews, *Universal Short Title Catalogue – USTC* http://ustc.ac.uk [accessed 19th August 2015)
[55] L.J. Flood 'The History of the Book in Germany' in *The Oxford Companion to the Book*, eds. M. F. Suarez and H.R. Woudhuysen (Oxford: Oxford University Press, 2010), 224-5 & Gerulaitis (1976), 151.
[56] Ibid., 152.

part by the church and the framework of learning that it supplied and Italian printers, in contrast, were driven by humanists with a desire for universal education.[57] However, the view that the German people indiscriminately relied on Italian, rather than local printing for certain kinds of texts is too simplistic. Indeed, Hirsch interpreted the large importation of Italian books, the number of Germans enrolled in Italian universities and the presence of Italians at German book fairs as evidence of Germanic interest in humanism.[58] With the prominence of the classical output of Venice in particular and after the printing glut of the 1470s, it is possible that local printers merely adjusted their own output to suit these importation rates. Printers in Cologne, Augsburg and Nuremberg focused on other genres that might be of particular relevance to a local audience, such as vernacular books or clerical books of local relevance. We will see below however that Leipzig, the only town that continued printing Latin classics in large numbers, adapted its production in a different manner.

Somewhat similarly, in his introduction to print in the Low Countries, Paul Hoftijzer suggested that it was a centre for theological text production, with a much smaller overall production of classical texts than many of its neighbouring states. Yet in towns, like Louvain and Deventer, which had a university and a famous Latin school respectively, classical texts, schoolbooks and humanist texts were produced.[59] Comparison with Jones' statistics mostly confirm this: although some cities – Antwerp for example – had low percentages, two centres, Deventer and Zwolle, produced Roman authors as over 5% of their output. Deventer was by the far the most prolific in numerical terms.[60] Since these printers likely catered for a

[57] Füssel *Gutenberg* (2003), 64-5, 74.
[58] R. Hirsch 'Printing and the Spread of Humanism in Germany: The Example of Albrecht von Eyb' in *The Printed Word: Its Impact and Diffusion*, ed. R. Hirsch (London: Variorum, 1978), pp. 35 – 6.
[59] P. Hoftijzer 'The Book in the Low Countries' in *The Oxford Companion to the Book*, eds. M. F. Suarez and H.R. Woudhuysen (Oxford: Oxford University Press, 2010), 213

[60] Jones (2004), pp. 15 – 16. Percentages my own.

Town	Percentage of Latin authors in Latin as part of total output
Deventer	8.5%
Zwolle	12.4%
Louvain	4.2%
Antwerp	1.2%
Delft	0.7%

local market, they were deeply affected by local economic and political circumstance.[61] This meant that there was a continual flux in classical printing in the area. It is evident that a change took place, just as in the Holy Roman Empire, when major classical text production moved from Louvain in the 1470s to Deventer in the 1480s.[62] This also caused a shift towards Antwerp in the sixteenth century.[63] Unlike in other countries therefore, where production was mostly centralised by the late fifteenth century, towns in the Low Countries continued to experiment and adapt into the sixteenth-century.

In France, the main centres for printing were Paris and Lyon: 5.9% and 3.8% of their output respectively is classical Latin texts.[64] Parisian printing started in the early 1470s with the first press of Ulrich Gering. Extensive evidence suggests that the University of Paris sponsored him[65] so it is unsurprising that a number of the first volumes from this press were classical Roman authors.[66] In the first two years of printing there were editions of Sallust, Florus, Juvenal, Cicero, as well as an edition of Plato.[67] Hirsch further developed the connection of the early Parisian presses with the university academics in his essay *Printing in France and Humanism*. In this he highlighted to a greater degree the association of the early Parisian printers with the university. He emphasised that it was these scholars that shaped the output of the Parisian press, and that when they left the university, the press altered its output to the production of theological texts. In short, the printers adjusted their output to print those things that were in ready demand by students.[68]

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[61] A. Pettegree 'Centre and Periphery in the Early European Book Trade' in *Transactions of the Royal Historical Society* 6:18 (2008), 120.

[62] Jones (2004), 30 – 71.

[63] By 1520, Pettegree notes that 50% of all Low Countries production was being produced in Antwerp. Ibid. Christopher Plantin's early successes in the city were due to his ability to capitalise on the city's specialist printing interests, one of which was the printing of classical texts in small format versions (see Pettegree (2008), 123). Antwerp was also significant in later classical Greek print. See N. Constantinidou 'Printers of the Greek Classics and Market Distribution in the Sixteenth Century: The Case of France and the Low Countries' in *Specialist Markets in the Early Modern Book World,* eds. R. Kirwan & S. Mullins (Brill: Leiden, 2015).

[64] Jones (2004), 15 – 16. Percentage, my own.

[65] See: Febvre and Martin (1958), 174-6.

[66] British Library *Incunabula Short Title Catalogue – ISTC* http://istc.bl.uk/index.html [accessed 21st August 2015]

[67] Ibid.

[68] R. Hirsch 'Printing in France and Humanism, 1470 – 80' in *The Printed Word: Its Impact and Diffusion*, ed. R. Hirsch (London: Variorum Reprints, 1978), 114-5.

Although Vincent Giroud emphasised the widespread nature of printing in France, he also recognised that there was a concentration of print around Paris.[69] He argued that in most towns, the church heavily influenced or supported local printers and as a result, a large proportion of their output was theological books.[70] Pettegree went further stressing that towns other than Paris acted as satellite towns, producing books necessary for local consumption such as local legal or school texts. [71] Classical authors in Latin therefore did not feature highly in the printing agendas of some of the smaller French centres. According to Jones, for example, the production rate of Rouen and Toulouse was very low[72] and many of their volumes were religious in content.[73]

We can however see the influence of classical printing in some of the smaller French towns when we look more closely at the data. There were three editions of Latin authors produced in Angers in the period, out of a total of twenty-eight.[74] All of these volumes were produced by the most productive Angers printer, Johannes de La Tour. La Tour started printing in the late 1470s and was active well into the 1490s, suggesting that his business had some degree of commercial success.[75] In Poitiers, we also can see some interest in classical texts. A large number came from the press of Jean Bouyer, the most prolific printer in the town. His output, and therefore that of Poitiers overall, seems to have been more focused upon the production of Greek texts translated into Latin, rather than that of Roman authors in Latin. According to the *ISTC* he produced one copy of Homer's *Iliad* in Latin, several copies of Aristotle's works in Latin and one copy of Aesop's *Fables* in Latin.[76] His production of Roman authors was lacking however. It is important to note that neither Paris nor Lyon produced copies of Homer or Aristotle in Latin in this period. Such evidence may suggest that Jean Bouyer was responding to some niche in the local market that was not sourced from the larger French producers.

[69] He argues that by 1500, there were around 30 French towns with an active printing press. See V. Giroud 'History of the Book in France' in *The Oxford Companion to the Book*, eds. M. F. Suarez and H.R. Woudhuysen (Oxford: Oxford University Press, 2010), 201 -3. See also Pettegree 'Centre and Periphery,' (2008), 109.
[70] Giroud 'History of the Book in France,' 201.
[71] Pettegree 'Centre and Periphery,' (2008), 109.
[72] Three editions for Rouen and one for Toulouse. Jones (2004), 15-16.
[73] *ISTC* http://istc.bl.uk/index.html [accessed 21st August 2015].
[74] *ISTC* http://istc.bl.uk/index.html [accessed 21st August 2015].
[75] *ISTC* http://istc.bl.uk/index.html [accessed 21st August 2015].
[76] *ISTC* http://istc.bl.uk/index.html [accessed 21st August 2015].

From these examples, we can also see the effect of individual printers in shaping their local market.

In the Italian states, we can observe rather widespread production of classical texts. In two of the most productive towns in all Europe for overall output, Milan and Venice, there were high numbers of Roman texts in Latin (see figure 3 above).[77] Many Italian towns also had high proportions of Roman author production, although a number of them had relatively small total production numbers.[78] It appears in the Italian states therefore, that there was a larger concerted effort towards the printing of the Latin classics, whereas in the Holy Roman Empire and France, key production was focused on a few more select areas. It is important to note however that such an observation may reflect nothing more than the larger numbers of Italian printing centres, the greater activity in their universities and the movements in lay humanism in Italy.

It is clear therefore that general trends in the place of publication might be established for Roman authors in Latin. Looking at particular cities or printers moreover can give tentative insight into the way that they responded to both their local and wider European markets.

2.3.2 Case studies of Latin authors

Such observations are mere generalisations about European production trends. When we begin to examine particular authors, we notice authorial preference by geographical area vary accordingly. The authors used here as case studies examine the practical validity of some of the claims above. We may expect that, generally speaking, production of most authors in the north of Europe were focused around the key towns of Paris, Lyon, Leipzig and Deventer. In Italy we might find greater diversification of production areas because of the numbers of available presses. Sallust, Pliny and Seneca have been chosen as examples as they show particular trends in the classical market.

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[77] Jones (2004), pp. 15- 16. Percentage, my own.

[78] Such as Brescia –where 13.3% of output is Latin authors, Fivizzano - 80%, Foligno - 33%, Mondovi - 21.4%, Parma - 33.3%, Treviso - 15.2%, Torrebelviccino - 25%, Reggio Emilia - 20%, Subiaco - 33.3%, Savigliano - 20%, San't Orso - 100% and Saluzzo - 50%. Jones (2004), pp. 15- 16. Percentages, my own.

One author that appears to show the findings stated is Sallust's *Opera*. Using *ISTC* data, we find that the main producers were as expected. In Italy, production was focused in Venice and Milan, with many of the smaller Italian towns producing at least one edition. His texts may have had wide contemporary relevance to the Italian city states because of their contemporary interest and participation in political intrigue, best seen in Machiavelli's *The Prince*. In the northern states however, production took place in Paris and to a much lesser extent, Lyons in France; Zwolle and Deventer in the Low Countries; and Leipzig in the Holy Roman Empire.[79] Yet, one change we can observe in the 1490s and into the 1500s, was greater diversity in the forms of production. In the first few decades of print, bar a few exceptions, the works of Sallust were published in one complete volume of texts. By the late 1480s, we can see a greater diversity in output, with a larger number of individual texts published. Although these changes are most apparent in the Low Counties and in the Holy Roman Empire, some Italian towns also published the individual texts, as these printers evidently evolved to changing demands.[80] It is possible that by producing these smaller, and probably cheaper, works these printers were able to compete with the prolific exports from Venice, Milan and Paris.

We can also observe local demand for particular authors. The *ISTC* records that all editions of Pliny the Elder's *Natural History* were produced in the Italian states. Of these editions, eleven editions were Venetian (see figure 4). We can also further note the dominance of Venetian print. All the volumes, printed in the 1480s and the 1490s, bar one, were printed in Venice, showing that it had achieved dominancy in the production of this text.[81] This preference for Pliny's scientific text in Italy is likely due to the effect of humanism on printer output. Its production in Venice may also suggest that it was intended for wide circulation.

Yet some authors were printed more frequently in the northern European countries. Seneca was reproduced around forty times in the Holy Roman Empire and the Low Countries. Of these, Leipzig was the most productive. There were however various smaller towns such as Ulm, Bloembergen and Basel that also produced at least one edition. Publication in the Italian states meanwhile was much

[79] *ISTC* http://istc.bl.uk/index.html [accessed 21st August 2015].
[80] *ISTC* http://istc.bl.uk/index.html [accessed 21st August 2015].
[81] *ISTC*, http://istc.bl.uk/index.html [accessed 21st August 2015].

more centralised, with production focused around Venice and Rome, with only a few editions produced elsewhere.[82] Moreover, when one observes total output for the major towns of Senecan production, Paris and Leipzig come before Rome and Venice in terms of the number of editions produced (see figure 5).[83] This is likely due to the reliance of these places on scholastic thought and its educational practice, as well as earlier philosophical traditions. Outside the most common Senecan texts, production was quite sporadic. Leipzig produced the largest number of individual or unique works of Seneca, perhaps, as discussed above, in an attempt to define its own niche in the market. These geographical trends were to alter in the 1490s and early 1500s, when we observe a great diversity in production area.[84] The *USTC*, according to available evidence, shows some concentration in favour of Paris[85] in the sixteenth-century. The northern dominance in the production of Seneca remains however.[86]

We can therefore establish some interesting ideas when examining case studies of Roman authors. It is apparent that some authors, likely due to their political undertones, were of particular relevance to Italian audiences, and thus published widely in Italy, while only sporadically produced elsewhere. We can also observe with Pliny and Seneca that print was concentrated around parts of Europe, due to their particular philosophical or scholarly traditions. Additionally, the effect of the market can be directly observed: Venetian print forced its dominance upon the regional towns. Either the little producers no longer printed that work or adapted their output. One way this was undertaken was by producing smaller, individual editions to compete with the larger complete works produced mainly in Venice.

[82] All information *ISTC* http://istc.bl.uk/index.html [accessed 21st August 2015].
[83] The commonly printed works are De qualtuor virtutibus cardinalibus and Proverbia and Paris is the largest producer of both of these texts. See *ISTC* http://istc.bl.uk/index.html [accessed 21st August 2015].
[84] The *ISTC* identifies editions of Seneca in Deventer, Rome, Cologne, Zaragoza, Brescia, Speyer, Seville, Zwolle, Leipzig, Poitiers, Milan, Delft, Pavia, Toledo, Augsburg, Rouen as well as Venice and Paris. See: *ISTC*, http://istc.bl.uk/index.html [accessed 21st August 2015].
[85] The high number of French productions is important for an appreciation of the effect of Seneca on French Renaissance tragedy.
[86] Paris, Lyon, Leipzig, Antwerp, Deventer, Cologne and Basel produce many editions. See *USTC* http://ustc.ac.uk [accessed 19th August 2015].

Figure 4. Editions of Pliny by town.[87]

Town	Number of editions
Venice	11
Parma	3
Rome	2
Brescia	1
Treviso	1

[87] *ISTC*, http://istc.bl.uk/index.html [accessed 12th December 2016].

Figure 5. Editions of Seneca by town.[88]

Town	Number of editions
Paris	23
Leipzig	22
Rome	19
Venice	11

[88] *ISTC*, http://istc.bl.uk/index.html [accessed 12th December 2016].

2.3.3 Cicero[89]

Having laid the groundwork for classical print, it is apt to look at one author in more depth. Cicero, will be considered in greater detail to further develop these ideas and to contextualise him as an author for analysis in later chapters. The ISTC records 348 editions of his works.[90] A further breakdown of these records demonstrates that around 64% of all these Ciceronian editions were produced in Italy.[91] When place of publication, date of publication and the method of production are analysed in more depth, we can gain an overview of some noteworthy trends. Unsurprisingly, given what was uncovered above, Italian towns such as Venice and Rome, were most active in the production of multiple copies of Cicero's most frequently printed texts. These include his *Epistolae ad familares*, *De Officiis and Rhetorica ad C. Herennium*. The *ISTC* demonstrates that these texts received wide interest across Europe throughout this period, with an extensive variety of towns producing their own particular editions. In contrast, the somewhat smaller presses in northern Europe, although actively printing these popular titles, also had a somewhat more varied output and were more prone to produce editions of individual orations, or the more unknown Ciceronian works. Examples where a main focus of production was outside Italy include editions of *Laelius, sive de amicitia*, *Paradoxa Stoicorum*, *Cato Major* or *Somnium scripionis*. In Italy, these works were more commonly included within larger compendiums of Ciceronian works, and in the Holy Roman Empire and France, were more likely to be produced as standalone editions. Moreover, frequently these individual works were produced in one edition only, suggesting that demand had been sufficiently met by the production.[92] This therefore further highlights to us the diversity of European print output and to some extent the specialisation in regional production.

Additionally, there are also apparent changes over time. Although strong at the beginning of the period, we can observe a decrease in production from the

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[89] As discussed in the introduction, Cicero has been chosen in part because he was the most frequently printed classical author both in the period, his works influence, for the abundance of his works, and because they incorporate a variety of genres.

[90] *ISTC,* http://www.bl.uk/catalogues/istc/index.html [accessed 12th August 2015]. A search of the catalogue with 'Author name: Cicero' reveals 348 hits. Of this number, 9 of these hits are listed as likely produced after 1500, according to available *ISTC* data, and have thus been discarded.

[91] Figures my own. Based on *ISTC* data. See appendix 3.

[92] All data from ISTC http://www.bl.uk/catalogues/istc/index.html [accessed 14th August 2015].

Italian states and a steady increase in French production in Paris and Lyons. Unsurprisingly, the most popular texts of the 1460s and 1470s, such as *De Officiis* and *Epistolae ad familares* remained frequently printed in later periods in the new printing centres, suggesting a somewhat uniformed and consistent demand from society. In the Holy Roman Empire, we can also see a shift from Ciceronian printing based almost solely in Cologne in the 1460s and 1470s to the diversification of production across various northern centres. The most important of these were Leipzig, Deventer and Speyer.[93]

Despite these large geographical trends, we can also see the importance of individual printers in driving output in these areas. In Leipzig, for example, we can observe a very steady increase in output. What is noteworthy is that a vast majority of these editions were produced by the efforts of one printer, Martin Landsberg. Landsberg was responsible for several of the unique editions of Cicero produced during the period. He started printing in the late 1480s, and had a wide and very voluminous spectrum of production[94] yet his frequent productions of Cicero did not seem to have negatively affected his production output. Indeed, it is likely that since he continued to print Cicero steadily throughout the 1490s and into the 1500s, that the volumes did indeed receive steady reader interest and that the market in Leipzig and beyond was sufficiently met by his productions. Other Leipzig printers[95] also printed Ciceronian works, albeit on a smaller scale. Such market adjustments are evidence of the overall shifting trend in production from Italy, as well as some degree of printer specialisation and co-operation in the market.[96] In observing Leipzig, there appeared to be a concerted effort to avoid production of the same works in quick succession from different presses, a trend that is not apparent in Italian printing in the 1470s.[97] This may explain some of this

[93] All data from ISTC http://www.bl.uk/catalogues/istc/index.html [accessed 14th August 2015].
[94] *ISTC* notes that he may have produced 460 editions. All data from ISTC http://www.bl.uk/catalogues/istc/index.html [accessed 14th August 2015].
[95] Wolfgang Stöckel produces four Cicero editions by 1510, including a reprint of *Laelius, sive de amicitia*; Jacobus Thanner produces two editions, both around the year 1500 and Conrad Kachelofen produces two editions, one in 1492 and one in 1497-8.
[96] The *USTC* for example shows that France produces the highest number – 1626 - of Cicero editions, in the sixteenth-century with the Holy Roman Empire second, producing 888 and the Italian states 3rd with 501 editions.
[97] In Milan, for example, *Epistolae ad familiares* is produced twice in 1472, one in 1475, twice in 1476, one in 1477, 1478, 1479 and 1480. The frequency of such production would no doubt glut even a scholastic or humanist market interested in Ciceronian ideas. Venetian printing of Cicero remains relatively steady in the 1470s and 1480s but increases slightly in pace in the 1490s. Such an observation is also reflective in later publishing in the

specialisation and adaptation in production noted above. However, it may be that Leipzig was catering for a northern European market and that these adjustments are highlighting the increasing prominence of the city within the market. In Leipzig there was a documented book fair from 1478[98] so this may indeed add precedence to this hypothesis.

The University of Glasgow has twenty-eight volumes of Cicero, with rather conventional places of publication. Many of the editions are from the earlier influx of Ciceronian printing in the 1470s and as such are focused more around the Italian city states, especially Venice. Within this sample, we can certainly see the influence of the Venetian book trade. In this way the discussion of Ciceronian volumes below is slightly more focused on Venetian volumes than otherwise might be expected for a representative sample of Ciceronian books. Noteworthy exceptions from the collection are editions from Leipzig in particular but also Lyons, Deventer and Speyer.[99]

2.4 Printing of Greek authors

Although many of the classical texts produced during this period were in Latin, Ancient Greek authors were still published. As we shall see, some of these authors were produced in Latin, if suitable translators or translations could be found. This was partly due to the cost and difficulty of rendering Greek script into type, and partly because of the dearth of Greek learning across the continent. A lack of demand was therefore one of the major reasons for the slow development of Greek printed books. There was some Greek production however, namely in the Italian states. This was centralised around Venice, and to a slightly lesser extent, Florence. Such an occurrence was due to the influx of Greek émigrés in these towns and, especially in Venice, the technical expertise to overcome the practical problems of printing using Greek type.[100] To evaluate the output of the Ancient Greek classics

sixteenth-century where Venice is the third largest producer of Cicero after Paris and Lyons, and producing roughly 80% of all Italian editions of Cicero in the century.

[98] P. Weidhass *A History of the Frankfurt Book Fair*, trans. by C.M. Gossage and W.A. Wright (Toronto: Dundurn Press, 2007).

[99] *ISTC* records note that around 8.3% of Ciceronian production was from Leipzig, 4% from Lyons, 4% from Deventer and 1% from Speyer.

[100] Jones provides a good foundation on Greek print. See Jones (2004), 130 – 194. Development in production of the Greek classics in Greek in France and the Low Countries during the sixteenth-century has recently been explored by Natasha Constatinidou. See N. Constantinidou 'Printers of the Greek Classics' (2015).

in Greek, we should examine the wider context of production in Greek. Hirsch examined the dissemination of early Greek grammars and found that production, because of direct Hellenic influence, was focused on presses in Venice, Bologna and Milan. He stressed however the importation of these grammars to other places. No grammars were printed in Rome, Heidelberg and Oxford, yet all had very active centres for Greek learning in the late fifteenth and early sixteenth-centuries.[101] We ought to appreciate therefore that although production was centralised, dissemination of Greek texts was far more widespread. Some editions in Glasgow University Library show this wide dissemination. The copy of Firmicus Maternus' *Mathesis* stated above with the sixteenth-century Netherlands or Lower Rhine binding, is in Greek. Likewise, Greek copies of Apollonius Rhodius' *Argonautica,* Bh20-a.11 and Aristophanes' *Comoediae novem,* Bh20-a.13 were owned by the Scottish humanist George Buchanan.[102]

Despite the developments in Greek printed books and their gradually increasing availability in the late fifteenth-century, we cannot evaluate the impact and dissemination of Greek authors by merely observing trends of production in the Greek language itself. Many of the major authors printed in Greek during this period were only produced once or twice.[103] One of the most popular classical authors, Aristotle, was only produced in Greek once during the period. It is for this reason that production and dissemination of these works in Latin translation ought not to be overlooked. The clearest way to evaluate the impact of these Latin translations is to examine some examples where it was crucial to the dissemination of that author's ideas in print.

Of the Greek historians, Plutarch and Josephus Flavius were the most frequently printed,[104] although neither author was printed in Greek in this period.

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[101] R. Hirsch 'Early Printed Greek Grammars, 1471 – 1550' in *The Printed Word: Its Impact and Diffusion*, ed. R. Hirsch (London: Variorum, 1978).

[102] *Glasgow Incunabula Project,* Bh20-a.11, http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/bh20-a.11/ - d.en.205509 & Bh20-a.13, http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/bh20-a.13 & bh.2.15/ [accessed 30th August 2015].

[103] According to the *ISTC*, most classical Greek authors were only printed once. These include Apollonius, Aristophanes, Aristotle, Callimachus, Dioscorides, Euripides, Firmicus Maternus, Galen and Lucian. Isocrates and Theocritus were produced in Greek in two editions each. Works of Homer in Greek amount to three editions and likewise, Aesop was produced in three editions, two of which also contained a Latin translation. All information: *ISTC*, http://istc.bl.uk/index.html [accessed 30th August 2015].

[104] R. Hirsch 'Early Printed Latin Translations of Greek Texts' in *The Printed Word: Its Impact and Diffusion*, ed. R. Hirsch (London: Variorum, 1978), 6.

Plutarch was printed six times and five of these editions were in Italian states.[105] Josephus was printed far more widely. Several editions were published in Latin in the Holy Roman Empire, the Netherlands and the Italian states. Interestingly there were also Spanish and Catalan editions published in Seville and Barcelona respectively; a Dutch edition produced in Gouda; a French edition produced in Paris; and an Italian edition produced in Florence. The *USTC* shows that this work continued to be produced frequently in the vernacular in the sixteenth-century.[106] This vernacular trend may of course be linked to the work's exploration of first-century Judaism and the context for early Christianity.

The relatively low number of editions of the majority of Ancient Greek authors in all languages highlights that the interest in Greek authors was less widespread than that of Latin authors. Noticeable omissions were major Greek poetic texts such as the tragedies of Aeschylus and Sophocles. The first editions of these texts did not appear until 1518 and 1502 respectively, when they were published in Greek.[107] It has been suggested that the slow uptake of certain Greek authors, and their publication in Greek, before their publication in Latin translation, was due to the difficulty of rendering the Greek poetry into Latin or the vernacular.[108] Certainly no editions of Pindar are published in the period and only two editions of Callimachus are produced, one in Greek and the other in Latin.[109] The poet Hesiod is however comparatively well represented in the period, with ten editions of his poetry published in Latin translation. The two earliest editions were published in the Italian states, drawing on the aforementioned local expertise.[110] Both of Hesiod's major works, the *Theogony* and the *Works and Days* were doubtless of interest to humanists. The *Theogony* with its outline of the creation myths of the Greek gods and the world, and its foundational stories and genealogies, gave a grounding for understand Greek and Roman myth, while also perhaps allowing for tentative comparison to Genesis. The *Works and Days* was likely used as both a practical and moralising treaty on the merit of labour, the ways to lead a

[105] *ISTC*, http://istc.bl.uk/index.html [accessed 18th August 2015].
[106] *USTC* http://ustc.ac.uk [accessed 30th August 2015). France was a key centre for productions of Josephus in the sixteenth-century. This has been covered in P.M. Smith 'The Reception and Influence of Josephus's Jewish War in the late French Renaissance with Special Reference to the Satyre Menippée', *Renaissance Studies* 13.2 (1999), 173-91.
[107] R. Hirsch 'The Printing Tradition of Aeschylus, Euripides, Sophocles and Aristophanes in The Printed Word: Its Impact and Diffusion, ed. R. Hirsch (London: Variorum, 1978), 138.
[108] Hirsch 'Early Printed Latin Translations' (1978), 6.
[109] *ISTC*, http://istc.bl.uk/index.html [accessed 30th August 2015].
[110] *ISTC*, http://istc.bl.uk/index.html [accessed 30th August 2015].

good life and attacks on idleness, all relevant themes to a pre-Reformation Europe. It was also likely read in conjunction with Vergil's *Eclogues*.

Another poet printed comparatively frequently in this period was Homer.[111] Unlike Hesiod, whose works were published in full, many of Homer's works were published individually, and also published in translation. All of the thirteen editions of the *Iliad* were produced in Latin for example. The variety in place of publication,[112] many of which were not towns with active Greek language instruction, may suggest that although there was an evident lack of Greek learning, there was a ready desire to access his writings across Europe.

In his short analysis on the Latin translations of printed Greek texts, Hirsch suggested that the production of Greek authors was based on circumstance rather than directly on reader demand. Authors only appeared in Latin printed form when there was both the ready availability of manuscripts, and of skilled translators. Hirsch argued that first editions of Aristotle took place in towns such as Strasburg, Cologne and Padua, because of the towns' established production of Aristotle in manuscript. In some cases, moreover, he argued that the influence of patrons played an important role. It is likely, for example, that Cosimo de Medici's demands directly influenced the Florentine production of Plato's *Opera* in 1484-5.[113] Certainly this may justify production of the first edition of Plato but it does not explain why other works of Plato were subsequently printed elsewhere.[114] Reader demand therefore must be factored into discussion. Even with a wealthy patron's support, such as that of the Medici in Florence, it is unlikely that the printers themselves would have risked a potentially unsuccessful endeavour; a bad production would result in financial ruin or at the very least, some dent in reputation. That many of the printers who appear to publish these Greek works, in both Latin and Greek, were renowned names in the printing sphere of their city, may suggest that reader demand had more of a factor in production than might first have been suggested. It may also suggest that printers, in many cases, needed to be well

[111] *ISTC*, http://istc.bl.uk/index.html [accessed 18th August 2015].
[112] He was printed in twenty-one editions: two productions in the Netherlands, two in the Holy Roman Empire, three in France and six in the Italian states. *ISTC*, http://istc.bl.uk/index.html [accessed 18th August 2015].
[113] Hirsch 'Early Printed Latin Translations' (1978), 6.
[114] In further editions in the Italian states, two editions in France and five editions in the Holy Roman Empire. *ISTC*, http://istc.bl.uk/index.html [accessed 28th August 2015].

established before they felt secure enough in the market to produce in Greek. Frequent reprints may also suggest that reader demand was a factor in production. Angelus Ugoletus in Parma, Martin Landsberg in Leipzig and Jean Bouyer all reprinted a second edition of Homer's *Iliad* in Latin, suggesting some degree of commercial success for their primary edition.[115]

When examining Greek texts therefore, we see the importance of considering translations as a component in the dissemination of a work. Although many Greek texts were chiefly printed by Italian printers, because many were published in translation, their outreach was potentially extensive. The preference for certain works in particular areas is still noticeable with Greek authors, but to a lesser extent when compared to Roman authors. Particularly interesting are those Greek authors published in the vernacular as it is clear that their spread of influence was wide ranging and they held a broad relevance to a wide number of readers. It is evident therefore that much more specific work is required examining the printing of classical Greek texts.

2.5 Printing of classical authors in the vernacular

Just we must consider translations of Greek authors into Latin to gain a true understanding of the dissemination of Greek texts, so too can we only evaluate the full impact of classical print with an examination of the Latin and Greek classics in translation. We have seen to some extent the effect of texts in translation on our sample. As discussed above in figure 3, once classics in Spanish and English were included in counts within the university collection, the overall percentages of classical output of those places increased. Some places, such as England, were known in particular for their vernacular trade. By printing in English, Caxton ensured commercial success by offering something that could not be imported from Italy or France. Translations trends can also be subtler than this, as we shall see when we examine the instances of particular authors in translation.

Perez Fernandez and Wilson-Lee argued that the stylistic processes involved in translation triggered a re-evaluation of classical language during early print. They argued that this led to a reformulation of texts in their original language.

[115] *ISTC*, http://istc.bl.uk/index.html [accessed 28th August 2015].

They gave three stages to this process. The first, advocated by early Italian humanists such as Lorenzo Valla and Giannozzo Manetti,[116] was the emergence of a form of textual criticism that situated all textual meaning within a historical understanding. The aim was to achieve an interpretation of the text intended by the author. From this, a standard core-text was created, that the next stage, translation into the vernacular, would utilise. The third stage was the use of print to produce wide dissemination of these texts, making the linguistically 'correct' text more accessible to more varied audiences. Such re-evaluation of classical texts also included a standardisation of Latin education in schools. Englishman, John Palsgrave, inspired by Valla and Manetti, instituted the imitation of classical authors in vernacular translations, leading to improvements in style in the vernacular.[117] In time, and with an increase in vernacular dictionary production, this led to a recognition of the diversity of vernacular language and laid the foundation of 'self-consciously national vernaculars' in Europe.[118] It is evident then that an understanding of the processes behind vernacular translation and knowledge of the texts themselves can further aid our understanding of the impact of early classical print.

The table below, figure 6, lists details for the vernacular volumes of classical incunabula held in the University of Glasgow's collections. Although William Caxton printed almost exclusively in English,[119] some of the other printers also produced volumes frequently in the vernacular. A considerable number of Hurus' and Caillaut's wider volumes were produced in Spanish and French respectively.[120] Likewise, Miscomini, who first printed in Venice before later moving to Florence, printed very large proportions of Italian translations in both cities.[121] The Florentine

[116] J. M. Perez Fernandez & E. Wilson-Lee 'Introduction' in *Translation and the Book Trade in Early Modern Europe,* ed. J. M. Perez Fernandez & E. Wilson-Lee (Cambridge: Cambridge University Press, 2015), 10 – 12.

[117] Ibid. 13

[118] Ibid., 17-18.

[119] L. Hellinga *Caxton in Focus: The Beginning of Printing in England* (London: British Library, 1982); G. Painter *William Caxton: A Biography* (London: Putnam, 1976); N. F. Blake *Caxton and his World* (London: Deutsch, 1969).

[120] *ISTC*, http://istc.bl.uk/index.html [accessed 19th August 2015], 11 volumes in Spanish and 1 volume in Catalan can be definitively attributed to Johann Hurus out of his total production of 17 volumes. 100 French volumes can be definitively attributed to Caillaut, out of his total production of around 320 volumes. There are about 19 additional volumes that may be attributed to Cailaut as a printer.

[121] *ISTC*, http://istc.bl.uk/index.html [accessed 21st August 2015]. 54 volumes in Italian can be definitively attributed to Miscomini for his production in both Venice and Florence out of around 90 volumes that are definitively attributed to his press. An additional 5 editions may be attributed.

printers, Francesco Bonaccorsi and Antonius Francisci, also printed frequently in Italian, both when working independently and together.[122] The Hurus family were the foremost printers in Spanish in Zaragoza. Of all volumes produced in Zaragoza, sixty-four were produced in Spanish, with most produced by either Johann or Paul Hurus.[123]

Although the Venetian printer, Bernarinus Celerius's production agenda was less focused towards Italian works or works translated into Italian than the other printers, compared to Venetian printers, the percentage of his books in Italian was high. The other three Venetian printing firms in figure 6 were not active in a large scale production of vernacular books.[124]

We are able to draw some trends from this data in terms of popular authors reproduced in vernacular translation. In Glasgow's collection, there are two volumes of [pseudo-] Diogenes Laerius's *Libro della vita dei filosofi e delle loro elegantissime sentenzie*[125] reproduced in Italian. Both of these volumes also contain extracts of a tract by Seneca. All editions of pseudo-Diogenes Laerius produced in the whole period are in Italian, not Latin or Greek, and all bar one of the editions contain the extracts from Seneca. This text was not produced in France, the Low Countries or in the Holy Roman Empire.[126] This work might perhaps have been treated as an easy way of gathering information on the philosophical stances of a large number of the Greek philosophers, without necessarily reading their own individual works. The preference for Italian suggests that it had a local relevance to Italian humanists.

Another translation into Italian in Glasgow's collection is Livy's *Historiae Romanae decades I, III, IV*. Out of the twenty-two editions produced in the whole

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[122] Although such a trend towards vernacular printing in Florence is unsurprising. See note 19. All 5 of the volumes they produce together are in Italian. See *ISTC*, http://istc.bl.uk/index.html [accessed 18th August 2015].

[123] Only 47 volumes are produced in Latin. ISTC http://istc.bl.uk/index.html [accessed 18th August 2015].

[124] Data STC http://istc.bl.uk/index.html [accessed 18th August 2015].

[125] *Glasgow Incunabula Project*, Ferguson An-y.41 http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/an-y.41/ [accessed 12th June 2017] and BD7-f.15 http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/diogeneslaertiuspseudo-librodellavitadeifilosofiedelleloroelegantissimesentenzieflorence1488/#d.en.197535 [accessed 12th June 2017].

[126] There are 10 editions produced in this period. The volumes are produced in some of the largest Italian printing towns: Milan, Venice, Florence, Bologna and Naples. ISTC, http://istc.bl.uk/index.html [accessed 19th August 2015].

period, six were in Italian. In fact, there were only two volumes of this text published outside Italy, a Spanish copy produced in Salamanca and a French copy produced in Paris.[127] The large vernacular incidence of this text as well as its production in Italy, may suggest that, in many cases, this was a text for the consultation of the local history of Italy, rather than for more formal classical study.

The table also shows that Aristotle was translated into French and Spanish. In the table, there is a French translation of *Secreta secretorum* and a Spanish translation of *Ethica ad Nicomachum.* On the whole Aristotle was not frequently translated from Latin or Greek into the vernacular. However, there were some trends that defy this norm. We see that there was an active trend towards printing Aristotle's *Problemata* in German with six editions produced in the period.[128] Pseudo-Aristotle's *Secreta secretorum* was produced frequently in French with nine editions in the period and more into the 1500s.[129] The production of this text in vernacular in the north of Europe likely means that it was produced in response to scholastic educational practice, as already seen with Seneca above.

There are also two copies of Cato's *Disticha de moribus* in English in Glasgow's collection. Cato was reproduced in rather large numbers in the vernacular according to the *ISTC*.[130] One interesting aspect of production of Cato was the widespread translation of his *Disticha* all over the continent. There were small numbers of translations into Dutch, English and Spanish. There were more frequent productions of Cato in French and Italian, but the majority of translations were in German. This included four editions in Low German produced in Cologne[131] suggesting that these editions were intended for a local audience in the very north of Germany, such as Cologne itself, or in the Baltic regions. Its production in Low German may also suggest that it was intended for a less privileged audience, perhaps local merchants or tradesmen. This may show the

[127] ISTC, http://istc.bl.uk/index.html [accessed 18th August 2015].
[128] These are produced in Ulm, Memmingen and Augsburg. All information: ISTC, http://istc.bl.uk/index.html [accessed 18th August 2015].
[129] The majority are printed in Paris with a few in Rouen and Lyons and one in Antwerp. *ISTC*, http://istc.bl.uk/index.html [accessed 18th August 2015].
[130] Out of the one hundred and sixty-four editions of Cato produced between 1450 and 1500, seventy-nine copies have some degree of translation. *ISTC*, http://istc.bl.uk/index.html [accessed 18th August 2015].
[131] *ISTC*, http://istc.bl.uk/index.html [accessed 18th August 2015].

receptivity of the more common but literate German for neostoicism and, therefore, humanist ideas.

As with Greek authors, we can therefore see that a consideration of works in vernacular translation can inform about the wider readership of a classical text. It may perhaps even be interpreted as a more leisurely rather than academic readership. These examples show that works were translated if there was something of particular interest to local readers, or there were pre-established scholarly trends in translation, such as with Aristotle. They also suggest, however, that by publishing in translation, printers were disseminating classical ideas to potentially new audiences, such as those accessing Cato in Low German.

Figure 6. Vernacular translations of classical incunabula in the University of Glasgow.

Language	Author	Work	Place	Printer (2 partners or 2 firms
Italian	[pseudo-] Diogenes	*Libro della vita dei filosofi e delle loro elegantissime sentenzie*	Venice (1480)	Bernarinus Celerius
Italian	[pseudo-] Diogenes	*Libro della vita dei filosofi e delle loro elegantissime sentenzie*	Florence (1488)	Francesco Bonaccorsi and Antonius Francisci.
Italian	Livy	*Historiae Romanae*	Venice (1478)	Antionio de Bartholommeo Miscomini
Italian	Seneca	*Epistolae ad Lucilium*	Venice (1494)	Sebastiano Manilo and Stephanus and Bernardinus di Nallis

Italian	Justin	*Epitomae in trogi pompei…*	Venice (1477)	Johannes de Colonia and Johannes Manthen
Italian	Virgil	*Bucolica*	Florence (1494)	Antonio di Bartolommeo Miscomini
Italian	Pliny	*Historia naturalis* (duplicate)	Venice (1476)	Nicolaus Jenson
English	Virgil	*Aeneis*	Westminster (1490)	William Caxton
English	Cato	*Disticha de moribus* (duplicate)	Westminster (1483)	William Caxton
Spanish	Aristotle	*Ethica ad Nicomachum*	Zaragoza (ca. 1489)	Johann Hurus
French	[pseudo-] Aristotle	*Secreta secretorum*	Paris (ca. 1490)	Antoine Caillaut

2.6 Conclusion

In this chapter, we have seen Glasgow University's collection in context and the ways in which it might be taken as representative of some trends in incunabula production, but not others. Overall, it is representative in composition but not in relative proportion. Although, for example, the percentages of Italian books in the collection were overly high, for reasons outlined, Italian production was still the most vivacious throughout Europe. These statistics also underline the reputation and importance that the Italian printers carved for themselves in the later book trade. There are however some interesting ideas that may be taken from the statistics. Noticeably, they highlighted the importance of translations, both into Greek and the vernacular, for a complete understanding of classical output. Discussion of the Latin production of Roman authors highlighted some rough geographical trends – namely that key centres for production were constantly evolving because of individual printers who themselves were adjusting to an ever changing market. With this in mind, the diffusion of Latin authors was particularly interesting as it showed definitively how these printers both responded to this changing market, but also adjusted their output to suit local expertise and taste. The discussion of Greek texts, in Greek, Latin and to some extent in vernacular, also highlighted these themes. It also indicated that the inclusion of translations ought not to be discounted from any discussion of the dissemination of classical texts and, more importantly, their ideas. Finally, the market for vernacular books was examined. This is particularly indicative of output and demand as diffusion is easier to trace; while a Latin book could be read by any educated person in Europe, a Dutch book will likely have been intended for a Dutch speaking reader. We can see facets of the vernacular market by looking at patterns of different authors, and readily speculate on why some authors were more readily translated into the vernacular than others. Indeed, these movements in the vernacular market show interesting regional trends, as discussed, which were probably particularly indicative of local taste and responses to classical ideas. It is in this area of classical translation that further research is required. In researching these topics further, we would hope to gain greater insight into the reach of the classical text in this period. In sum, it seems probable from their ready demand across Europe, that the classics were a relatively typical example of a genre in the early book trade. In this age of discovery and adjustment, the printers were quite clearly altering their output to fit

within their own niche in the wider European market and in doing so, were also reshaping access and, therefore response, to the classical text in wider European society.

Chapter Three

Production of the Classical Text

3.1 Introduction

> "I for my part determined to narrate briefly their good qualities, not because of any spite or jealousy towards others, but as I have already said, for the common advantage of all men…lest men, when they buy, should buy and possess the false instead of the true, the ugly instead of the beautiful, the incorrect instead of the most accurate."[132]

The mass production of a work entailed great financial risk to the printer. Given this volatile commercial background, the production process was just as important and telling as the choice of work, already discussed. Regional variation in bibliographical details, such as typography, suggest that market or reader expectations fed into a printer's choice of font. Febvre and Martin argue that printers attempted to produce their books in a typeface that replicated the hand expected for that particular genre of books. The gothic hand was used for scholastic books, the missal letter for ecclesiastical books, the 'bastard' gothic for manuscripts in the vernacular and the humanist roman script for the classics.[133] Yet, when observing my classical sample, it was noticed that many of the volumes observed did not fall into such neat categories. Indeed, outside Italy, it was hard to see if there was a preference for the roman type in classical texts as suggested. On observation, it seems that the use of font was more geographical than has first been suggested. It remains to be seen then the ways that consumer expectation fed into producer output. In other words, to what extent was a printer dependent on wider trends, expectations or financial constraints or was inventive in his choices.

In order to evaluate choices made by printers and their relation to market expectation, we must consider several variables. Firstly, we ought to understand printer engagement with previous editions. This involves examining the relation between an individual printer and his own edition, and other editions of the same

[132] Herbort, broadside advertisement, quoted in D. Updike *Printing Types: Their History, Forms and Use. A Study in Survivals* (Cambridge: Harvard University Press, 1922), vol. 1, 76.
[133] Febvre and Martin (1958), 78-9.

text. One way of doing this is to examine all extant editions for overall trends in the production of additional works alongside the main work.[134] Data for this will be collated using the *ISTC* database. This data will give clearer insight into whether a printer is catering to a perceived demand in his local market, or is following larger European trends. Another key area of analysis is the quality of printing itself, where aspects of production value will be uncovered. Details such as type quality, the distribution of ink, the quality of paper and the tendency towards a careful and high quality finished page will be examined.

Such considerations allow us to reflect upon methods and trends in book production, creating some vantage-point whereby we might gain insight into printers' priorities. This also creates an orderly platform for comparing these production considerations to reader response and usage, examined in the following chapter. In this analysis, the twenty-eight incunabula of the works of Cicero held by the university library will be examined further as a case study of production methods. Cicero, rather than any other classical author, has been made a focus because of the popularity of his works. In the early modern period, this was reliant on their compatibility with Christianity, perceived excellent Latin composition methods, and stoic philosophical beliefs. Studying the production and reception of his works through a set of examples therefore can closely inform how early modern printers, editors and readers responded to his works and his ideas.

3.2 Additional works

In the first decades of printing, additional works were commonly printed alongside the main text. These included smaller tracts by the same author, tracts by a different author and linked by theme or short letters or prefaces. Their particular inclusion can only be understood when placed within the context of production trends for the work or author.

[134] Another possible way of analysing engagement with the textual tradition would be to examine the text itself in an attempt to identify which sources were used in the production of the text itself and how thorough a job was undertaken to produce the most correct text. This form of analysis would be too concentrated a study and would cover too small a sample (it is likely that editions of only one work only would be examined in depth) to be completed here.

The decision to include additional works is an important one. Although the smaller works may merely have been included to fill blank pages, the more pages that were included, the more paper was required and as a result, the costlier the overall production. Additional works must therefore have had, in many cases, some production incentive: whether that was reader expectation, founded on previous editions or scholarship needs; a printer, publisher or editor's own individual desire to include extra material; or perhaps production based on convenience, through the like-for-like copying of another edition. Knowledge of an individual printer, provided from his printing history as well as his relationship to other editions, informs us of these intentions. It is for this reason that an awareness of local production trends is of particular relevance here as it allows us to gauge the extent to which a printer was responding to perceived local demand. This also allows speculations on the potential intended readership for particular editions.

3.2.1 Additional works in volumes of Cicero

The trends in the production of individual works of Cicero discussed in the previous chapter gave us a better idea of local demands for Cicero, as well as his wider European market. Several of these works were routinely printed with additional material.

Printed copies of Cicero's *De Officiis*, demonstrate some variation in the additional works included alongside the main text. They also provide evidence of both local and wider production trends. In both of the editions of this work published in Mainz in 1465 and 1466, Cicero's *Paradoxa Stoicorum*; the *Hexasticha XII Sapientum de titulo Ciceronis;* and Horace's *Ad T. Manlium Torquatum, Carmen IV 7*, were also included.[135] The inclusion of a poem by Horace is noteworthy and worthy of further observation. In this particular poem, Horace laments the quick passage of time and reminds Torquatus that although the world, heavens and seasons regenerate, no matter our rank or character, we will all die.[136]

[135] These two works were produced in 1465 (ISTC ic00575000) and 1466 (ISTC ic00576000) at the press of Fust and Schoeffer.

[136] "Non, Torquate, genus, non te facundia, non te
restituet pietas;" Horace *The Odes* (Harmondsworth: Penguin, 1964), 4.7, line 23- 24

Since it appears in isolation, it must have reflected some perceived link to the Cicero works.

One possibility is a supposed link between the addressee of Horace's poem, T. Manlius Torquatus, and Cicero. Cicero had a political connection with Lucius Manlius Torquatus, a praetor of Rome, and Cicero expounded Torquatus' Epicurean views in another text *De Finibus Bonorum et Malorum*. It has been suggested that the addressee of Horace's poem is this orator's son,[137] perhaps justifying such an inclusion.

This inclusion may also have a topical relevance. Both *De Officiis* and another one of the additional works, *Paradoxa Stoicorum,* outline Stoic descriptions of the correct ways to live. In comparison to the poem which seems to suggest the futility of choices made during life,[138] both Cicero's texts speak about death in a different way. *Paradoxa Stoicorum* suggests that fear of death is only relevant to those whose virtue or name dies when they do, not to those for whom praise is due after death.[139] *De Officiis* also suggests that to be a just man, one cannot have any fear of death. Cicero argues that such men will be greatly admired by others because of this preference for virtuous interests.[140] There are some links to these themes in the poem. In a section reminiscent of St Peter at the entrance to heaven, Horace reminds Torquatus that Minos will make his judgement, "fecerit arbitria."[141] This suggests that good deeds done in life, although they cannot bring him back to life, do have an importance in his judgement on death. Horace's use of famous names of men continues the idea that praise and remembrance will be continued after death. The threat by Horace that the gods might not give us the extra time today, "hodienae",[142] recommends a precedence for acting well in the present. Taken together it seems that both Cicero and the poem advocate virtuous action, and in doing so, both suggest that life – or at the very least, memory of your life – will go

[137] S. J. Harrison 'Hereditary Eloquence Among the Torquati: Catullus 61.209-18', *American Journal of Philology* 117.2 (1996), 285 – 7.
[138] It speaks of "pudicum… Hippolytum" (Horace, 4.7, line 25) held captive in the darkness by Diana, with "pater Aeneas" and "Tullus dives et Ancus" (Horace, 4.7, line 15-16), both reduced to dust, highlighting that both good works and money can not save even the best men.
[139] Section 18, see also 46.
[140] Cicero *De Officiis* 2.37 The Latin Library (http://www.thelatinlibrary.com/cicero/off2.shtml). [Accessed 22 March 2016].
[141] Horace, 4.7, line 22.
[142] Horace, 4.7, line 17.

on after death. The Christian undertones of this are readily apparent, particularly to a late medieval audience. This demonstrates that although the text may have been included to fill space - and indeed it does fill empty pages at the back of a quire[143] - or to copy an existing manuscript, the poem did have a direct link to the texts alongside it. In all, the inclusion of additional texts can further add to our understanding of the reception of an individual text and to the cross-reading an edition might have encouraged. We might also suppose from this that some printing houses must have been consciously aware of classical traditions, as well as the philosophical undertones of the larger corpus of works. At the very least it suggests an awareness of production traditions within manuscript copies and the conscious effort to emulate these. It is not unreasonable to assume that a reader would also have been aware of such connections between the texts and would have thus read or interpreted them together.

When one looks at other editions of *De Officiis*, we observe that these first editions printed in Mainz did not set a standard that was readily copied by subsequent editions; the additional works included alongside the 1465 and 1466 editions are utilised infrequently by other printers. Indeed, in the first five decades of printing, only one copy, produced in Strassburg by Henrich Eggestein in 1472, reproduces all the same works as these Mainz editions. All other German editions of *De Officiis* were printed on their own.[144]

The printing of additional works according to geographical location can be further developed. The most numerous editions of *De Officiis* were produced in Italy. These include another standard set of additional works by Cicero: *Laelius, sive de amicitia*, *Cato maior, sive de Senectute*, *Paradoxa Stoicorum,* and *Somnium Scipionis*. The selection of these texts is linked not only by author but by type of work. In this case, it is once again a selection of Cicero's philosophical works. *Cato maior, sive de Senectute* contains a discussion on old age between Cato, Scipio the younger and Laelius. The addition of this work, with these three characters may

[143] For example, Hunterian Bg.2.23, Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/ciceromarcustulliusdeofficiismainz1465/#d.en.197333. [Accessed 21 March 2016]; Hunterian Bg.2.24 http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/ciceromarcustulliusdeofficiismainz1466/#d.en.162490. [Accessed 21 March 2016]. See editions 8 & 9 in appendix 4.

[144] 1 edition is produced in Cologne and Augsburg, with four in Leipzig. Information from *ISTC,* British Library (http://istc.bl.uk/search/search.html). [Accessed 21 March 2016].

reflect the inclusion of both *Laelius* and *Somnium Scipionis*. *Laelius* is a tract on friendship where Laelius, and his son-in-laws, Fannius and Scaevola, lament the death of Scipio the younger. Likewise, *Somnium Scipionis*, the Dream of Scipio, part of Cicero's *De re publica* is the record of a dream of the general Scipio where his future greatness is accounted. Like the other works, *De Officiis* and *Paradoxa Stoicorum*, this dream prophesises that Scipio will receive greatness and reverence after his death. More concentrated work is required on the links between these texts but it is clear that they have some thematic connection and therefore justify inclusion from a printers' perspective and cross-referencing from a readers'.

In this sense, these volumes may be linked to the Mainz editions: all are exploring Cicero's philosophical works but also themes of death or the shortness of time. French editions of *De Officiis* largely followed this Italian trend in additional works.[145] Only one Low Countries edition, produced at Deventer, demonstrated influences from both the Mainz and the Italian trends.[146] We might suppose therefore that many printers, rather than catering to reader demand or taste, were merely copying trends of preceding production. It seems possible to suggest moreover from the grouping of these texts together on such a thematic basis that a scholarly audience was the intended market, perhaps students being a principle target. Although there can be no doubt that certain other audiences, such as aristocrats, would also have desired a combination of such books, it seems right to suggest that these books were on the whole produced for dedicated and comparative study.[147]

We might further observe trends in additional works in the production of a Pseudo-Ciceronian text, *Rhetorica ad C. Herennium*. These trends were less regional and more dependent on production over time. In the 1470s, the text was

[145] 11 out of the 16 French editions of this work are produced with a complete or near complete set of these works. Information from *ISTC*, (http://istc.bl.uk/search/search.html). [Accessed 29 July 2016].

[146] This edition (ic00590000) is one of three editions of this text from the Low Countries. Both other editions are reproduced on their own. Information from the *ISTC*, (http://istc.bl.uk/search/search.html. [Accessed 29 July 2016].

[147] Various forms of evidence might authenticate such a claim. Research into any surviving student *pecia* records and more concentrated work on manuscript editions may shed further light on both trends in production and use. When available, early provenance records for editions of these printed books may also give more information although since none of GUL's texts have these early provenance records, this was found outside the realms of this particular study.

largely produced independently.[148] By the 1480s and into the 1490s, the text was almost solely printed alongside copies of Cicero's *De inventione*.[149] Likewise, *De inventione*, was only produced twice alone in this period, both times in the 1470s.[150] Recent scholarship on the rhetoric of Cicero in the medieval and Renaissance periods highlights their particular importance for teaching rhetorical technique to students in these periods.[151]

One can draw some geographical inferences however. French production of both texts was decidedly lacking. There are three editions of *Rhetorica ad C. Herennium* produced in Paris in the 1470s and no editions of *De inventione*.[152] This is especially noteworthy given that Parisian books were largely produced for a scholarly market. We might infer from this that the Italian copies, almost all of which contained both texts, were being imported and sold in Paris.

In contrast, the only German production of either text, Johann Koelhoff the Elder's 1471-2 edition of *Rhetorica* also included a work by Pius II, *Epistola ad Gregorium Heimburgensem et ad Johannem comitem de Lupfen*. This letter is an interesting addition to Cicero's rhetorical work. Pius, a committed letter writer, demonstrates several themes in his letter writing. The most relevant to this letter are both his interest in a 'unity and harmony of the Christian commonwealth promoted and guaranteed jointly by church and empire', but also his interest in Cicero, humanism and 'the virtue of civic duty.'[153] These themes are neatly exposed in this letter which is principally concerned with Pius' own perceptions of ancient Germanic learning and the present re-flourishing of that learning:

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[148] Out of 18 editions, only two are produced in the 1470s with additional works. When editions in vernacular are included, this figure rises to 21 editions. Information from the *ISTC*, (http://istc.bl.uk/search/search.html). [Accessed 14 January 2016].

[149] 12 out of the 16 editions produced after 1479 follow this pattern. Information from the *ISTC*, (http://istc.bl.uk/search/search.html). [Accessed 14 January 2016].

[150] The text was printed in 15 editions throughout the period. Information from the *ISTC*, (http://istc.bl.uk/search/search.html). [Accessed 14 January 2016].

[151] See in particular J. Ward 'The Medieval and Early Renaissance Study of Cicero's *De inventione* and the *Rhetorica ad Herennium*: Commentaries and Contexts' in *The Rhetoric of Cicero in its Medieval and Early Renaissance Commentary Tradition* eds. V. Cox and J. Ward (Leiden: Brill, 2006), 3-69, and other articles in this volume.

[152] All three extant Parisian editions have no additional works. In the rest of France, there is one edition of *Rhetorica ad C. Herennium* produced in Angers in 1476/7 and a joint production of both *De inventione* and *Rhetorica ad C. Herennium* in Lyons in 1497.

[153]Thomas M. Izbicki, et al, trans., *Reject Aeneas, Accept Pius: Selected Letters of Aeneas Sylvius Piccolomini (Pope Pius II),* (Washington: The Catholic University of America Press, 2006), 6 - 7.

"Accepi ap(u)d Nure(m)berga(m) plebanu(m) s(an)cti Sebaldi viru(m) gravem tua permotu(m) suasione multis lucubrationib(us) hystoria(m) atq(ue) rhetorica(m) p(er)sequi. Diligo ego vos a(m)bos q(ui) patria(m) moribu(us) ornat(ion)es etia(m) l(ite)ris munire studetis."[154]

The thematic link between the works here is not merely the topic of Cicero, or knowledge of the law but is rooted in the spread of knowledge and the northern humanist movement. Made all the more important by being the only German production, we can see that the printer himself was possibly advocating a specifically German effort towards learning. We may tentatively be able to conclude from this therefore that this edition was intended for Germans, perhaps even to encourage Germans to spread the knowledge of law and general humanist ideas. Koelhoff's publication was part of a larger corpus that shows an evident interest in printing works in the German language; almost 20% of his volumes were in German.[155]

We can see therefore that inclusion of additional works was an important consideration in the production of Cicero in this period. By combining particular works together, the production interests of some local printers can be uncovered. Yet generally, these suggest that trends in production, rather than individual printer agendas, were more important in the choice of additional work. Furthermore, although on the whole some were indeed innovative in producing new combinations of works, it appears that Italian printers were somewhat more conservative in approach and appear largely more conscious of following developed trends in production. In contrast, just as with divergent production of smaller works in Leipzig seen above, towns outside Italy may have been reflecting more on local market demand. Just as towns such as Leipzig did not necessarily follow the large scale production of Cicero's most populous works, as found in the

[154] Latin transcription my own, taken from Hunterian Bg.2.29 (edition 25, appendix 4). Translation from Izbicki *Reject Aeneas* (2006), 294: "At Nuremberg I received the pastor of St. Sebald, a serious man who was moved by your persuasion to pursue history and rhetoric with many night hours of study. I love you both, who strive to furnish your homeland, ornamenting it with letters."

[155] According to the *ISTC*, 31 out of his 168 works are in German. Further work on Koelfhoff the elder and his particular selection of ecclesiastical texts is required. Information from the *ISTC*, (http://istc.bl.uk/search/search.html). [Accessed 26 January 2016].

major Italian towns, likewise, the tendency to follow the large trends in production of additional works is less apparent.

3.3. Production quality

Following on from additional works, comparative analysis of the production qualities of particular editions may shed further light on both regional and pan-European printing trends. The overall quality of the production may also perhaps be used as a tool to gauge potential readership. For example, books of certain sizes or production qualities would have attracted certain distinct audiences. The weight and size of a large folio edition of the complete works of Cicero would only have suited an environment where the volume was used stationary, most likely at a desk. It may be that such books were bought for scholarly or monastic libraries. Glasgow University Library's copy of Cicero's *Opera* from Milan, for example, was in the Old Library collection by 1791.[156] Such assessment also allows insight into the precision taken by early printers during production. From this we can evaluate, to a certain extent, whether their effort reflected nothing more than an interest in the financial incentive associated with quick book production, or whether there was an interest in the production of a text of a prestigious or lasting quality. Claire Bolton's recent study examined the production quality and processes of Johannes Zainer's printing in Ulm. Elements within her examination included determining his printing ability, inspecting aspects such as his inking, and the choices he made during production of a work, including page layout and construction. Her argument demonstrated Zainer's poor production quality, even compared to the relatively low quality set by many fifteenth-century books.[157] Her dissertation not only demonstrated frameworks within which we might comparatively view other incunabula, but also provided a useful methodological framework for examining production quality.

This ordering of volumes based on production qualities is a subjective process. Yet we can piece together a range of production qualities when books are

[156] The larger number of surviving copies of this work across the world may be testament to this book's early containment in institutional libraries. This might be especially the case because many of the extant copies now reside in old institutional libraries in both the British Isles and the continent. For volume, see edition 19 in appendix 4.

[157] C. Bolton *The Fifteenth Century Printing Practices of Johann Zainer, Ulm, 1473-1478* (London: Oxford Bibliographical Society & Printing Historical Society, 2016), 34.

compared and contrasted. We can discover some degree of differentiation marking out a high quality copy from a medium or lower quality copy. Certain areas, or even particular printers, can appear more fixated on higher or lower qualities of production. Since no scholarly study has laid down full and detailed guidelines for examining qualities of production, these will first be listed here. The volumes that will be sampled include all the Ciceronian incunabula within the university collection. In this sample, although I have looked at the whole volume for noticeable production details, I have specifically looked in most depth at the first and second quires of the book, two quires near the middle of the volume[158] and the final two quires. Details of the findings are noted in appendix 4.

3.3.1 Paper

The first pre-requisite of a high-quality book is the quality of its starting materials. This includes the use of unblemished paper. With the decrease in the cost of paper in the fifteenth-century, the early printers utilised this cheaper commodity, producing their printed books almost exclusively on this medium.[159] Regardless of this decrease in price, and the overwhelming increase in European wide availability, paper was still the most expensive element in the book production process.[160] With such expenses, it remains to be seen if printer utilisation of this handmade market were consistent. That is, we must question whether appreciable differences in qualities of paper existed and, by implication, if certain printers consciously paid more or less for certain qualities so as either to decrease their expenditure or create the best quality book.[161]

Yet paper qualities themselves are notoriously difficult to assess, even when there remains evidence of the way that a printer himself classified the material.[162]

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[158] Naturally the positioning of these quires changes depending on the size of the volume so the middle quires can not be definitively signified in the same way as the beginning and end quires.

[159] See Febvre and Martin (1958), 39ff.

[160] Ibid. p. 112; M Conway *The Diario of the Printing Press of San Jacopo Di Ripoli, 1476 – 1484* (Firenze: Olschki Ed, 1999), 26.

[161] Febvre and Martin state that paper was sold in 1543 for between 10 and 30 sols "according to quality." 112; Gerulatitis (1976), 13; L. Voet *The Golden Compasses: A History and Evaluation of the Printing and Publishing Activities of the Officina Plantiniana at Antwerp,* vol.1 (Amsterdam: Van Gendt, 1969), 19.

[162] Gaskell argues that definitions of types of qualities are subjective: "these qualities depended of course on the makers' standards, one man's fine was not necessarily being better than the next man's second." See P. Gaskell *A New Introduction to Bibliography* (New Castle: Oak Knoll Press, 1995), 66; Bland advocates the description of some facets of good

Moreover, even if somewhat successful, scientific assessments are made, the conclusions may not tell us how much precedence a particular printer put on the quality of his paper.[163] Since the quality of the paper that currently exists in remaining incunabula is so dependent on a mixture of aspects including its treatment through time, the frequency of rebinding and the storage facilities the book has been in since production, it remains hard to view the material as an objective source from which to draw evidence. That is not even to document the effect that time itself might have had on the paper within a book since impurities in the water at the time of production would not appear until the book has aged.[164] Gaskell in his *Introduction to Bibliography* outlined other problems in analysing paper quality. He stated that qualities of paper were not dependent on their weight or thickness, and that as a result both a high quality and a low quality sheet might be thin and lightweight.[165] Another problem he highlighted is describing paper in a book. It can be assumed that it was common practice to use several stocks of paper in one work,[166] so, unless all pages within the work are studied closely, we must be aware that we are only considering a small sampling of the paper used in the whole production.[167]

What is widely projected is that printers were prone to use old paper first, then replenish by buying newer paper as a print run progressed.[168] Bland argued

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quality paper such as colour and texture and weight, giving some examples of details of good quality paper to watch for. Yet since he does not suggest any scientific form of measurement, such analysis is evidently still prone to subjectivity. See Bland, *A Guide to Early Printed Books and Manuscripts* (West Sussex: Wiley, 2010), 39.

[163] Such a study would likely have to examine the paper stocks of individuals along with where they were sourcing their paper from by using watermark evidence before drawing any comparative thoughts. Such a study might also require paper prices for these mills or correspondence regarding paper and press.

[164] See for example, V. Daniels 'The Discolouration of Paper on Ageing' in *Historical Perspectives in the Conservation of Works of Art on Paper*, ed. M.H. Ellis (Los Angeles: The Getty Conservation Institute, 2014), 284-287; W. J. Barrow 'Migration of Impurities in Paper' in *Historical Perspectives in the Conservation of Works of Art on Paper*, ed. M.H. Ellis (Los Angeles: The Getty Conservation Institute, 2014) 262-269; R. J. Feller 'The Deteriorating Effect of Light on Museum Objects: Principles of Photochemistry, the Effect on Varnishes and Paint Vehicles and on Paper' in *Historical Perspectives in the Conservation of Works of Art on Paper*, ed. M.H. Ellis (Los Angeles: The Getty Conservation Institute, 2014), 303-308. for discussion of these factors.

[165] P. Gaskell *A New Introduction* (1995), 66.

[166] See P. Needham 'The Paper Supply of the Gutenberg Bible' in *The Papers of the Bibliographical Society of America* 79.3 (1985), 303-374.

[167] See Gaskell, (1995), 66. A correct analysis of paper quality used is made more likely he argues the more copies one examines.

[168] Bland, *Guide* (2010), 27. The paper accounts of the printing press of San Jacopo show this press regularly buying new paper stocks often for the use on the same publication. Between the 10th October 1483 and 13th September 1484, the press purchased 24 different lots of paper of a varying number of sheets for the use of printing their edition of Plato's

that a particularly special print run might be marked out by the homogeneity of paper stocks within a printing job, with different sorts of paper used to create commercial copies in the normal way.[169] Additionally, it is likely that the majority of printers would have sourced the most economical paper available, probably from his local area or from the most convenient trade routes.[170] With the huge outspends for press, labour, type and ink, a cheaper price for the most expensive commodity might mean the difference between financial buoyancy and bankruptcy.[171] Some printers – most notably in England - were also reliant on the importation of foreign papers as the country was not able to sustain itself until later in the hand-press period.[172]

Despite this, it is evident when closely examining early books that differences in paper quality exist[173] and certainly paper quality seemed to matter to some degree.[174] The sixteenth-century Dutch printer, Christophe Plantin, for example, was importing at some expense, paper from outside the Netherlands. Voet suggested that Plantin's local paper was not of sufficient quality for his own personal ideals.[175] Later tracts on printing by the seventeenth-century English printer Joseph Moxon and papermaking by eighteenth-century Frenchman, Jérôme de Lalande, both described the sorting of paper by quality.[176] In modern

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Opera. Obviously a huge edition, the number of sheets bought within these lots of paper is vastly over the average for this press. See Conway *Diario* (1999), 327 – 331.

[169] Bland (2010), 27

[170] When a city of origin is noted for bought paper stocks of the San Jacopo press, many are linked to the Florentine area geographically. Common sources were at Colle and Prato and at the major paper centre at Fabriano. See Conway (1999), 327 - 331

[171] Evidenced by the fact that Gutenberg himself went bankrupt. See also Tedeschi, M. 'Publish and Perish' (1991).

[172] In the early period this paper came from Normandy and from the late seventeenth-century it came from Dutch ports. See Gaskell *Introduction,* 60; Bland (2010), 29-32; Hellinga 'Printing' in *Cambridge History of the Book in Britain*, vol. III, p. 96; Stevenson argues that paper produced in England during this period was perhaps meeting a market that was not met from importation from abroad. See Stevenson 'Tudor Roses from John Tate' *Studies in Bibliography Vol. 20 (1967),* 20

[173] As much has always been claimed by Moxon and Lalande but as of yet there have been little comprehensive techniques provided by later bibliographers to properly examine handmade papers. See J. Moxon *Mechanick Exercises on the Whole Art of* Printing ed. H. Davis and H. Carter (London: Oxford University Press, 1958), 322; J. J. J. Lalande, *Art de faire le papier*, trans. Richard MacIntyre Atkinson (Kilmury: The Ashling Press, 1976), 56. Tanselle has come closest with his recommendations for examining paper. See T. Tanselle *'*The Bibliographical Description of Paper'*, Studies in Bibliography 24 (1971).*

[174] Bland suggests that paper stocks might convey "social and economic status" and that a member of the House of Lords in 1604 spent far more on a higher quality paper than he might have paid for a lower one. See Bland (2010), 31.

[175] Voet, Golden Compasses (1969), 22-24.

[176] Lalande, *Art de faire le papier* (1976), 56 & Moxon *Mechanick Exercises* (1958) 322.

bibliography moreover, Thomas Tanselle argued that a "descriptive bibliography",[177] if it is to adequately describe certain books as physical objects, is obligated to include some description of the paper used in those books.[178] It is important therefore, despite the problems described above, to attempt to come to some evaluation about the quality of paper used in classical incunabula.

In general studies of both papermaking and printing, several descriptors have been outlined. Firstly, evidence found in the early commentators on papermaking, Moxon and La Lalande, suggest that poorer quality quires of paper were used in the middle of a book.[179] However since both commentators were working several hundred years after the incunabula period, concentrated work is needed to examine differences in quality in the second half of books. This is especially required for these earlier periods and to allow for reflection on changes in papermaking practice.

In his introduction to worldwide papermaking, Dard Hunter introduced some qualities in handmade paper. He stated that the highest quality paper had a 'creamy tint' and that colour of the lower qualities might be either 'light coffee coloured' or 'dark grey.' He stressed that such colours were dependent on the colour of the raw material and the purity of the water.[180] Other imperfections described are spots, that appear somewhat transparent, that have been created by water falling off the workers' hands and onto the sheet; blurred chain-lines, when the mould moved as it was being placed on the felt; and the inclusion of other matter, fibres or hair, creating a motteded or 'peppered' appearance.[181]

Some of the best accounts of paper qualities have been in the field of conservation studies. In 1989 Elizabeth Lunning described qualities and differences that she had found when analysing French and Italian papers. She described the difficulties in attempting to come to conclusions regarding colour and transparency since she deems that these will have changed on a daily basis in the paper-mill, with

[177] Where the expectation of bibliography is to "function and serve as a history of the forms in which an author's works have appeared and thus as a partial history of the book trade." See Tanselle 'Bibliographic Description' (1971), 28.
[178] Ibid., 31.
[179] See note 167 above.
[180] D. Hunter *Papermaking: The History and Technique of an Ancient Craft* (New York: Dover, 1943), 224-5.
[181] D. Hunter *Papermaking* (1943), 225-6.

her preliminary study finding little difference between papers from different localities. She did come to some conclusions in regard the positioning of chain lines and watermarks, and texture and appearance between French and Italian papers, but her comparison did not attempt to synthesis differences within texture, colour or transparency of papers of the same country. Building on Lunning's study, The Print Council of America produced a *Paper Sample Book* aimed to be used as a guide for the description of paper. Although its spectrum of paper description extends all the way to the machine produced modern paper, it can be used to determine terminologies in describing paper qualities and to some extent, the parametres by which they may be compared. In describing paper 'there is the risk that imagination will contribute more than observation'[182] but the use of the *Paper Sample Book* alongside other visible indicators outlined by Dard and Gaskell, allow us to come to some conclusions regarding paper in fifteenth-century printed books.

The majority of the paper stocks used in the works of Cicero in the collection were of a high quality. Most pages appear of an even thickness, although to fully determine the consistency of paper thickness, we would need to complete more concrete scientific study. The pages also tend to be in a clear, fresh colour when kept in good conditions, and are of a relatively even texture that is not too rough or speckled. In most cases, there are few production mistakes such as wrinkles, deckled edges, and uneven or heavy distribution of pulp.

Yet what is apparent is that very few books had completely high quality paper throughout every leaf. As seen in appendix 4, Bg.3.9[183] has very good paper, which is of an even texture and width. This copy does have some pages with wrinkles and pulping but since the book is relatively large, 188 leaves in total, these examples are exceptions to a general rule of well produced sheets. Likewise, some pages in Bw.2.3[184] have some wrinkles yet this is also a large work so the comparative number of imperfect pages is very low. Some shorter works also have a very low frequency of imperfect pages.[185] Therefore, although paper was a

[182] E. Lunning quoted in introduction to E. Lunning 'Characteristics of Italian Paper in the Seventeenth Century' in *Historical Perspectives in the Conservation of Works of Art on Paper*, ed. M. H. Ellis (Los Angeles: The Getty Conservation Institute, 2014), 203.
[183] See edition 5 in appendix 4.
[184] See edition 1 in appendix 4.
[185] See Be.3.16 (edition 6 in appendix 4) and Bg.2.23 (edition 8 in appendix 4).

consideration in production, it seems unlikely that printers were able to completely factor out the the imperfections that could be involved in this handmade medium.

Moreover, although it can be observed that paper quality was relatively high in the sample, there were degrees of variation. Both editions of *Tusculanae Disputationes* and *De Finibus Bonorum et Malorum* produced by the Au Soufflet Vert press[186] suffer from comparably poorer paper quality. Extra pieces of paper have been pasted on in an effort to repair torn sections, the paper is beige and the pages are relatively thin with a high level of ink-bleeding from the opposite page. On closer examination however this may point to a later treatment of the whole volume which has caused the paper to become brittle and yellowed. This raises an issue in examining the quality of fifteenth-century paper in any collection. The paper from another book from this press, Bf.3.8,[187] is of a very high quality. This suggests that we should not view a volumes' paper out of context. That is, we must consider the history of the book in question, as well as other books from the same press, to fully understand the quality of its paper.

Likewise, when examining the paper of Be.3.29,[188] there are very foxed pages with frequently torn edges and uneven paper throughout. The texture is very coarse.[189] These pages have frequent wrinkling and also small accumulations of pulp, creating small lumps on many pages. It is worth observing that many of the poorer pages appear nearer the second half of the volume. On close observation it appears that some of the thinner sections of paper have often occurred or been in the proximity to washed annotations, demonstrating again the importance of the treatment of paper in subsequent centuries. In this volume we can also see deckled edges. Claire Bolton has argued that this may have been a way to reduce costs. Since printers used a variety of paper stocks, she suggested, in some instances, that they may have used smaller cuts of paper and would rely on the binder to cut the other pages to its size.[190] This intact deckled edge may therefore be suggestive of

[186] See editions 2 and 23 in appendix 4.
[187] See edition 11 in appendix 4.
[188] See edition 4 in appendix 4.
[189] The course texture may be from wet cloth impressions applied to the paper before printing but it is perhaps more likely that these textures have come from the couching of the wet fibres between felts during paper production. See C. Bolton *The Fifteenth Century Printing Practices* (2016), 168 and C. Bolton 'Cloth Impression Marks in the Fifteenth-Century Editions of Johann Zainer – Evidence for Paper Damping?' in *The Printing Historical Society* 12 (2008), 5-33.
[190] Bolton (2016), 68.

this use of different paper sizes. Aside from the washed annotations and their effect on the paper, the evidence in this volume does suggest that there is a degree of variation within the clarity and presentation of paper used.

Certainly, it implies that poorer quality papers may appear nearer the middle or the end of a volume, as described by the early bibliographers. Aside from Be.3.29, it can also be observed in some other examples in the sample. In the French editions bound in Be.3.16,[191] both copies evidence more imperfect leaves in the middle quires. Additionally, Bw.2.3[192] also evidences thinner paper in the middle of the copy. Outside of this sample, when observing a Bodleian Library copy of *De Finibus Bonorum et Malorum,* produced at Venice, the paper did have noticeable factors that changed as the book progressed. It was observed that the paper in the middle of this book became rougher. Some of the thicker pages became more spotted with lumps of pulp while other pages became much thinner. Some even had deckled edges or wrinkles.[193] These examples may be a piece of cursory evidence to validate Moxon and Lalande's claim that printers used their more imperfect sheets nearer the middle quires.

There are therefore some evident differences between the quality of paper that can occur between books, but also within books. Yet without full records of the treatment and storage of a volume by later collectors, we are unable to fully appreciate the effect of the chemical or aging processes upon the volumes. Outside the major imperfections that can be noticed by the eye and do not require the intensive scientific description of paper that Tanselle advocates in his description of paper,[194] it was found beyond the realms of this study to analyse differences in any further way that was reliable and consistent. Such a study is required but would likely focus on a large sample of the paper in incunabula, examining their sources, the presses and works themselves, and the papers' position within the printed book.

It seems therefore that although differences in paper might be identified, this study has been only able to suggest methods with which paper quality might be

[191] Both from the press of Au Soufflet Vert. See editions 2 and 23 in appendix 4.
[192] See edition 1 in appendix 4.
[193] Auct. L.3.3, Bod-Inc: C-289. Cicero *De finibus bono[rum] & malo[rum] .l. primus (-quintus),* Venice, Ven. [V. de Spira], I. ex Colonia Agripp, 1471, Bodleian Library, Oxford University.
[194] See Tanselle (1971).

evaluated and studied further. Until further study can be completed, only major problems of paper production that can be easily identified by the eye, such as wrinkling, will be noted in the final analysis of overall production quality. If looking at most printing paper can not indicate the expense or care a printer took over production, other methods must be used. These include thinking about how the printer used type in order to create a more economical or aesthetically pleasing page.

3.3.2 Type

Although instances of quality are perhaps most noticeable with the base materials described above, when one studies the books carefully, we can begin to notice other aspects of book quality. These mainly involve type and layout, printer errors and the treatment and care taken during the production.

It is evident from both reviews of the literature and observations of a wide range of incunabula, that certain print shops were more interested in type production than others. Although Updike argued that the best quality printed books were based on the most luxurious manuscripts available, he doubted "if fifteenth-century printers consciously intended to make their books beautiful, as is commonly supposed." [195] Legal agreements for the inheritance of types as well as the commercial histories of types can be ways of glossing printer concern with the medium. Vindelinus de Spira was evidently interested in the preservation and monopoly of his roman type, being granted an exclusive privilege for its use in the city of Venice. Evidently, he was concerned that others would steal his letter forms and use it within their own books. It was not till his death in 1469 that the roman typeface was able to be used by anyone in Venice.[196] Also in Venice, Aldus Manutius remarked in his will that "punches begun by a certain cutter should on no account be completed by an inferior hand."[197] Manutius perfected the cursive Greek type and invented the italic type, copyrighting them both in 1502. There is also evidence to suggest that printing sorts passed between families, or were left in wills to associates, suggesting that types provided some legacy. As printers went out of

[195] Updike, *Printing Types* (1922), 5.
[196] It was this form that Nicolaus Jenson copied and improved in style and finesse. Jenson's types were then replicated all-over Europe. See M. Lowry *Nicholas Jenson and the Rise of Venetian Publishing in Renaissance Europe* (Oxford: Wiley-Blackwell, 1991).
[197] Cited in Updike (1922), 77.

business, type would also be sold on to other printing firms for varying prices. Febvre and Martin listed inventories of sixteenth-century French printers that indicate a variety of different values for compete sets of type. At the lowest end, five fonts of worn type could be valued at 40 livres, and at the higher end, ten fonts of good type could be valued at 360 livres.[198]

The link to scribal culture is important. The manuscript a printer used as exemplum would have informed the script chosen for replication. Especially in the early period of printing, is also likely that at least some of the printers had links to scribal workshops. Updike suggested that although almost all Italian roman fonts in the last half of the fifteenth-century had an air of "security and generous ease extremely agreeable to the eye", it is an unsurprising conclusion given the expertise of Italian scribal culture.[199] He did however differentiate qualities of font. He summarised the positive characteristics of the Venetian, Nicolaus Jenson's font, praising its "readability, its mellowness of form and its evenness of colour." He went on to state that the forms of Jenson's letters, although not perfect, "reached their prime readability because of this subtle imperfection in form." He also argued that although Italian production was on the whole of a high standard, printers other than Jenson did have varying degrees of quality. He cites both the roman fonts of Manutius and Ulrich Han to be less than a perfect standard.[200]

The production of a full set of type was an expensive necessity for a printer. Conway found that costs allowing for all the aspects of production of one full set of type might be as high as 24 florins.[201] The average annual salary for a press-worker in this same period was 12 florins.[202] It is likely then, that given the costs of other printing outspends, many printers could not have had the spare capital to have

[198] Febvre and Martin (1958), 110.
[199] Updike (1922), 80.
[200] Ibid., 72-3.
[201] Conway (1997), 24.
[202] Ibid., 21. Hirsch argues that pressmen and compositors received around 3 -4 ducats per month, with foremen receiving between 5 and 9 ducats per month. See R. Hirsch *Printing, Selling and Reading: 1450-1550* (Wiesbaden: Otto Harrassowitz, 1967), 37. Pollak estimates – given labour and material costs – that the price of a book may equate to over one week's income for a press worker. He uses this as a piece of evidence that the printed book would have been far too expensive for most. See M. Pollak 'Production Costs in Fifteenth-Century Printing' in *The Library Quarterly: Information, Community, Policy* 39:4 (1969), 329.

more than a few fonts at once.[203] At full capacity most print houses would have had enough type to produce between 5 and a half and 8 pages at once.[204] Even with a small publication, in a small print run, type would therefore be re-used and pressed very frequently. The pressure applied to the metal alloy typeface would result in the quick wearing down of the more fragile parts of the face.[205] This resulted in historians arguing that types would have to be recast frequently.[206] Yet Michael Pollak's study into fifteenth-century type suggested that it must have actually lasted tens of thousands of impressions. He argued that the financial cost of printing, had type been less durable, would have made the process completely uneconomical for printers.[207] Moreover, he argued that if type pieces had been less durable, we would find more flawed type within books. He did concede that although the type of the best possible printers was of a consistently high quality, most incunabula printing was of a poor standard, with printers using poor type long after the it had become worn. He argued that if their type was not as durable as he supposed, even the highest quality printers would also evidence worn type. Horatio Brown had argued that Jenson's type was kept neat by replacing it with fresh castings. Yet Pollak contended that even Jenson would not have had the financial freedom to examine all pages for worn typepieces in this manner.[208] In some respects this may be true. Yet worn type can be found in many of the neatest printed books in this period, as can be observed in appendix 4. What they seem right in suggesting is that there was a scale of neatness. Examination of worn type in the less illustrious books can show how these poorer printers were responding to their type in the attempt to cut costs.[209]

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[203] It is this very reason that Febvre and Martin suggested, for the ease of production and the ready movement in second-hand type, that typefaces gradually standardise from regional styles to a roman font. Febvre and Martin (1958), 80-3.

[204] Conway (1997), footnote on p.22.

[205] Indeed, although it would be far too difficult to evaluate, it is even possible that the hardness of the metal used in type production may be an indicator of quality concerns. Type was a mixture of tin, lead and antimony and the hardness of the metal could be adjusted by adding more antimony to the mixture (Paul Nash, History of Typography Talk, Summer School in Practical Printing, University of Oxford, Bodleian Library, June 2016). Such a process would create a more durable typeface but the process involved a hotter furnace, which might not be an option open to all.

[206] Febvre and Martin (1958), 57-9, 111.

[207] M. Pollak 'The Durability of Fifteenth-Century Type' in *The Library Quarterly: Information, Community, Policy* 40:4 (1970), 389.

[208] Ibid., 387.

[209] Pollak does look in depth at the cost in man-hours for the production of type. He estimates that for an edition of 300, a common edition size, a piece of type would have to withstand roughly 10 500 impressions, and the labour costs given to type production would be around 11% of the overall labour costs. For an edition of 500, the number of impressions rises to 17 500 with the percentage of labour costs falling to 8% of the total. See Pollak 'Durability' (1970), 384. He argues that if a piece of type could only make a 1000 impressions, it would be impractical to print at all (see Pollak (1970), 386).

This further shows the financial burdens placed on printers' decision making processes and their choice reflects further aspects of early printed books that require study.

There are definite differences between the qualities of type in my sample of classical volumes. For example, in both French editions of Be.3.16,[210] many of the letters have been used to such an extent that they are heavily chipped or worn down. Frequently used letters such as **e**, **s**, **u** and **a** were especially worn although the whole font appears rather tired. The wearing down of such letters is easily observable in other editions (see appendix 4). Yet another edition bound in with these editions shows the other extreme of quality. The Venetian text in Be.3.16,[211] has a very neatly produced type, with little of the worn faces seen in the French editions. This, along with a more even distribution of ink onto the type, leads to a more readable page. This Venetian press also aided its readers by supplying the text with a far greater number of ligatures, accents, ampersands and contractions than the French texts. Such additions will have assisted reading and felt consistent for a reader used to manuscript. The production of these extra pieces of type would have involved more time and money, so we can assume that this also marks out books of a distinctly higher quality. Other examples include the Jenson press where the type was evidently of the highest quality.[212] It shows little wear and is in a clear and legible font. Within the works produced on this press, there has also been care in the ink distribution. This clearly aimed to cover the letters with an adequate supply of ink, taking care not to over-ink or to under-ink.

As seen with paper, where the effect of natural variation within the handmade material factored in almost all of the books, the majority of the volumes also show some level of wear within their type. Yet there is a scale within which type was either reused or recast and this is largely dependent on the choices made by the printer himself. Some printers such as Jenson and the editions from the press of Fust and Schoeffer[213] seem to have been concerned with keeping their type neat. This is evidenced by the clear, fresh type within their volumes. Others only contain a few worn type-pieces throughout their font, mainly the most frequently used type-

[210] See editions 2 and 23 in appendix 4.
[211] See edition 6 in appendix 4.
[212] See editions 14 and 16 in appendix 4.
[213] See editions 8 and 9 in appendix 4.

pieces such as the vowels or **s**, **t** and **c**. This demonstrates a high level of interest in recasting type but not the maintenance of the near perfect fonts we see in the Jenson and Fust and Schoeffer presses. Likewise, some printers seem far less concerned with recasting their type when it appeared worn. In these cases, the worn type affects the whole font.

This study has so far been concerned with type wear. Yet it is hard to determine whether a piece of type is merely worn or had been filled with excess ink during printing itself. The effect on readability is the same; it renders the page more imperfect, less pleasing to the eye and on the whole, less easily accessible. Bolton expressed this problem directly in her examination of Zainer's works. A perfect edition would have equally distributed ink throughout every page and copy, since this shows attentiveness and evident control over output. Yet Zainer's copies showed varied inking standards, with wide variation between copies but also between editions and therefore, in overall output. She suggested, using this evidence, that ink distribution was not Zainer's primary concern in production.[214]

In this sample, several imperfections in the quality of inking were observed. One common mistake was ink bleed. In this instance either the presence of a poor quality ink causes a yellow staining on the reverse of the paper, or an excess of ink was applied to the page, taking longer to dry and allowing more time for the ink to stain through the paper to the reverse side. As with Zainer, many copies also exhibited uneven ink distribution between, and even within, pages. Bolton put this down to poor inking workmanship.[215] Inked spaces and printed shoulders of type[216] are also prevalent. This demonstrates a loose lock up of the inked forme, which allowed for the loose spaces and shoulders to rise up from their lower positions and themselves be printed alongside the type.[217] We can also observe pulled type where the ink has been slowly smudged when the pressman has moved the paper over the inked letters as he took the paper off the press.[218] In some more extreme examples of printer mistakes, we can also observe both set-off and off-set. Set-off occurred when the ink from a freshly pressed sheet soaks into the sheet above it in the stacking pile. They are manly evidenced by small, faint ink marks. Off-set printing

[214] Bolton (2016), 35.
[215] Ibid., 35-6.
[216] See Ibid., 36-7 and 82 for discussion on inked spaces and shoulders.
[217] Ibid., 58.
[218] Ibid., 38.

involves a transfer of the ink to the tympan during printing which then, due to uneven or poor register, was imprinted onto the new sheet.[219]

All of these mistakes were noticed in the printed texts in the sample. In particular, what is interesting when comparing a wide range of printers is the common mistakes that particular printers make compared to others. Inked spaces, furniture and set-off were particularly noticed in Hunterian Bx.2.16,[220] Hunterian Be.3.29,[221] and Hunterian Bw.2.13 (see figure 9).[222] These three texts all show a particular difficulty with locking up the forme, leading to the inking mistakes. Their poor presswork is further shown by the frequent set-off that appears in Bx.2.16 and Be.3.29[223] and the letter smudging which appears in Bw.2.13.[224] In contrast, the copies from the press of Au Soufflet Vert, Be.3.16, Bf.3.8 Bw.3.16, struggle to produce evenly inked letters.[225] Much of the presswork within these volumes is smudged, with an uneven distribution of ink, yet they show very few of the other common printing errors. In another example, Bg.2.10 and Be.3.4 [226] both demonstrate problems with off-setting. In particular, Bg.2.10 demonstrates off-setting on every page, despite having no other major printing errors (see figure 10). This demonstrates poor quality control, poor register and a disregard for the appearance of the page at the expense of quick production. At the higher end of the spectrum, many of the Jenson works evidence few mistakes and the Fust and Schoeffer copies show almost none.[227] This suggests that their concern for their production processes was much higher and much more care was taken, alongside more stringent quality control, to produce clearer copies.

Although no edition in the hand-press period was without some degree of worn type, inking mistake or printing error, such examples succinctly show that clear differences in quality existed and were a factor in the chain of supply and demand. Alongside Bolton's study of one particular printer, this study goes some way to show that useful indicators of quality can be found by comparing editions

[219] Ibid., 43.
[220] See edition 27 in appendix 4.
[221] See edition 26 in appendix 4.
[222] See edition 23 in appendix 4.
[223] See editions 26 and 25 in appendix 4 respectively.
[224] See edition 23 in appendix 4.
[225] See editions 23, 2, 11 and 27 in appendix 4 respectively.
[226] See edition 12 and 16 in appendix 4 respectively.
[227] See editions 14 and 16 for Jenson and editions 8 and 9 for Fust and Schoeffer in appendix 4.

and printers for their production concerns. As with paper, more study is required on the wear of type, any evidence of quality control, and printer choices in recasting or reusing type. This can signify the ways that a printer is reacting to the economic market, and in extreme cases, might even suggest different potential audiences. A study of type however can not be fully appreciated without considering the layout of the type on the page itself which can further suggest commercial considerations.

3.3.3 Page layout/ Mise-en-Page

Another main area where differences in quality might exist is page layout. It is evident that printed layouts and page structures for user navigation and consultation were an important aspect of both scribal and print cultures. Merely looking at the sizes of volumes, we can clearly visualise the setting within which they were used. Just as Machiavelli used certain volumes of his manuscripts in certain ways - some portable manuscripts he would take walking with him and others he would read at his desk[228] - so too printed layouts, size and format, can tell us something about printer concerns.

Since the early printed book based itself on manuscript traditions, we find the same layouts in early printed books as found in manuscripts.[229] Yet as printing technologies developed, so too did the format of the book. The folio sized books which more commonly produced in the earliest years of printing, were later replaced by more portable formats. This culminated in Aldus Manutius' production of octavo sized printed books for the first time. Likewise, internal format began to change allowing for greater clarity – single column pages evolved from the double column layouts first seen in the Gutenberg Bible.[230] Other printing advances included the increased use of printed initials and woodcuts, chapter or sub-headings, often of a different font or size, and the use of colour type on the same page as black.

Just as type and material can be of a lesser quality, so too can page layout be important when considering lower quality productions. One of the main

[228] A. Grafton 'The Humanist as Reader' in *A History of Reading in the West*, ed. G. Cavallo & R. Chartier (Cambridge: Polity Press, 1999), '179-180.

[229] Febvre and Martin argue that this is less about a conscious choice to produce the volume in a specific way and more that the tradition as seen in manuscript books, with details such as a colophon instead of a title page, was the only tradition the early printers could draw from. See Febvre and Martin (1958), 77-78.

[230] Febvre and Martin (1958), 88 -90.

alterations that could be made to reduce costs was to reduce the overall length of the printed volume. A large page with a large volume of type and a high number of lines would cost less than if type was more sparsely spread across a smaller page. With the expense of paper, discussed above, one possible economy would be to reduce costs in this manner.

To analyse such concerns, we must be aware of details such as the number of lines on a page, the size of the text area and the size of font. We could also be aware of details such as wood-cut initials,[231] headings, chapter titles, and the use of spacing or colour. Although we must avoid examining the book with modern expectations, and certainly some contemporary manuscripts do not contain such marks of production, it is evident that these marks became an increasing priority.[232]

In Glasgow's collection it was observed that the most common size of typeface used had a body of 5.5mm.[233] This is unsurprising given that, in many cases in the sample, there was more than one edition from the same press and so the likelihood of typefaces used in the same size increases. Indeed, six of these typefaces at 5.5mm were from the press of de Spira. What is interesting to note is that all the smaller types, bar two, belong to presses outside Italy.[234] In contrast, all the types of 5.5mm body and above are Italian. Although an interesting observation, this in reality presents little difference in relative size. Types of 106G[235] produced in Paris for example are 5.3mm in body. Although there is a tiny difference in size between 5.3mm and 5.5mm bodies of type, it is evident that this was unlikely to be a major consideration in cost saving. The types used by the Fust and Schoeffer press, Bg.2.23 and Bg.2.24,[236] have the smallest body width in the whole sample at 4.3mm and 4.4mm yet these productions were evidently not concerned with saving space. This is seen by the relatively small volume of text on their page, and discussed more

[231] Margaret Smith has estimated that 31.5% of all printed books used printed initials in the incunabula period. Cited in Bolton (2016), 50.
[232] This culminates in the development of title pages. See M. Smith *The Title Page: Its Early Development, 1460*-1510 (London: British Library, 2000).
[233] 110mm over 20 lines gives a body size of 5.5mm per piece of type. See figure 8.
[234] The smallest type belongs to Ulrich Han in Rome, the second smallest at 88 to De Blavis in Venice, the two Fust and Schoeffer texts in Mainz at 91, one Koelfhoff at 98, three texts produced on 106 in the press of Au Soufflet Vert in Paris and one produced in 107 in Au Soufflet Vert.
[235] Types are commonly referred to by their measurement in millimetres over twenty lines along the vertical axis, and their font. Twenty lines of type in this volume measures 106mm lengthways and 'G' indicates that this is a gothic font.
[236] See editions 8 and 9 in appendix 4.

below. Further, the use of a 111R type, 5.6mm[237] body, in Bi2.b4[238] shows little concern to save space. We may expect economic concerns to factor with a work of such a size yet the printer economised by using a large text area, rather than a smaller type size. It may perhaps be the case that the expense of creating significantly smaller type was deemed too expensive to be a great factor in space saving measures.

If sizes of type by themselves cannot tell us much about a printers' concern in balancing readability with economics, it seems pertinent to examine the way that type and size of page were combined together. The book with the largest number of pages in the sample is the compendium of Ciceronian works, Bi2-b.4.[239] This work also has, unsurprisingly, the largest number of lines and the largest area of type in the sample. Obvious economies, such as the large type area leaving relatively small margins, have been taken in this volume to allow it to be published, and bound, as one. It is also evident from looking at the data that the Fust and Schoeffer productions, Bg.2.23 and Bg.2.24[240] were considerably smaller than most in terms of both area of type, number of lines and size of type (see figure 8). This is also reflected in the number of leaves in the edition. It may be that such a small production was intended to be easier for the eye and to leave copious space for marginal notes or handwritten commentaries. Using these examples, we can evidently see different concerns: for the compendium of Ciceronian works, page layout was designed to maximise the volume of text on the page and thus to ensure that the volume can be published as one complete set, the Fust and Schoeffer editions, in contrast, were engineered to be most pleasing to the reader.

Additionally, Claire Bolton has examined the line lengths of Zainer's folios. She found that these were largely fixed by a standard text area.[241] It is quite evident that aspects of that trend also exist for printers in this sample where there is more than one copy. The De Spira press has roughly the same measurements in four of the copies. Likewise, in the Jenson and Au Soufflet Vert presses, three of the copies from each press seem to be using one standard text layout. There is some slight experimentation however in the Jenson and De Spira presses which deviate slightly

[237] 111R over twenty lines gives a body size of 5.6mm and is a Roman font.
[238] See edition 19 in appendix 4.
[239] See edition 19 in appendix 4.
[240] See editions 8 and 9 in appendix 4.
[241] Bolton (2016), 56.

in the number of lines or size of type used. Such factors will have involved considered calculation and thought and therefore show some desire to alter the appearance of their output, rather than reproduce the same layout for every text.

Other cost intensive decisions must also be noted here. The time taken over the Mainz Fust and Schoeffer volumes is evident from factors other than the neat presswork. Each page has been pressed twice, once to create the black text-block, another to create the red titles (see figure 11). This process would have been extremely difficult for the compositor in particular. The red letter headings allowed for more easy identification of the works' chapter headings. This is the only example in the sample where the print house has purposefully used coloured chapter headings as a reading guide. In most cases, this would have involved too much time and money for mass replication, especially for works that were meant to be used as textbooks. With this in mind, further study ought to examine the inclusion of such details in print. Chapter headings, that mark off sections of the text clearly for a reader, use of indented space and the use of two colour printing all would inform about printer concerns.

Figure 7. Type sizes in Ciceronian incunabula in GUL.

Type area in mm over 20 lines	Number in sample
86	1
88	1
91	2
98	1
106	3
107	1
110	10
111	1
113	1
114	1
115	4
116	1

Figure 8. Page layout for the Ciceronian incunabula in GUL.

Shelfmark and printer	No. of lines	Area of type	No of leaves	Type
Bw.2.20, De Spira	30 lines	167 x 98mm	136 leaves	110
Bg.2.9, De Spira	32 lines	175-6 x 114mm	110 leaves	110
Bw.2.3, De Spira	32 lines	176 x 107mm	93 leaves	110
Bg.3.9, De Spira	34 lines	187 x 109mm	188 leaves	110
Be.3.16, De Spira	34 lines	187 x 109mm	188 leaves	110
Be.1.6, De Spira	41 lines	224 x 136mm	137 leaves	110
Bw.3.16, Au Soufflet Vert	33 lines	176 x 111mm	50 leaves	106
Be.3.16, Au Soufflet Vert	33 lines	187 x 111mm	80 leaves	106
Be.3.16, Au Soufflet Vert	34 lines	183 x 113mm	70 leaves	106
Bf.3.8, Au Soufflet Vert	34 lines	182 x 110mm	98 leaves	107

Be.3.29, Di Pietro	32 lines	183 x 106mm	58 leaves	115
Bx.2.17, Di Pietro	36 lines	206 x 105mm	78 leaves	114
Bg.2.23, Fust & Schoeffer	28 lines	154 x 86mm	88 leaves	91
Bg.2.24, Fust & Schoeffer	28 lines	152 x 86mm	88 leaves	91
Be.3.4, Jenson	33 lines	190 x 110-1mm	204 leaves	115
By.2.7, Jenson	38 lines	219 x 129mm	286 leaves	115
Be.2.12, Jenson	39 lines	223 x 136mm	182 leaves	115
Be.1.5, Jenson	41 lines	226 x 134mm	136 leaves	110
By.2.20, Zarotus	41 lines	228 x 134mm	146 leaves	110
Bi2-b.4, Le Signerre	52 lines	288 x 173mm	784 leaves	111
Bf.3.19, Valdafer	40 lines	219 x 133mm	276 leaves	110
Be.2.1, De Ambergau	37 lines	218 x 128mm	298 leaves	116
Bw.2.13, De Colonia	34 lines	189 x 114mm	88 leaves	110

Bg.2.29, Koelhoff (elder)	39 lines	223 x 136 mm	52 leaves	98
Be.3.29, Printer of 'Datus'	32 lines	183 x 106 mm	54 leaves	113
Dr.2.11, Bevilaqua	42 lines	231 x 145mm	140 leaves	105-112
Bg.2.10, Han	36 lines	155 x 101-6mm	92 leaves	86
Bx.2.16, De Blavis	45 lines	198 x 119mm	68 leaves	88
AVERAGE	**36 lines**	**197 x 118mm**	**152 leaves**	**107**

3.3.4 Trends in production qualities

We can observe above that production qualities were somewhat varied. The effects of this are twofold. In one sense it can inform about the producer of the volume, but it can also give an indication of the projected end user of the book. This may have involved a relationship with price, however it ought to be noted that most production qualities will not necessarily have been directly correlated with the end price of the volume. In all likelihood, it was the renown of the particular work, printer or, most importantly, the availability of the text elsewhere on the market, rather than the quality as a standalone entity, that were important factors in choice or price. Regardless, there are several key components for analysis of production qualities that shed different insights into general production and will thus require further study, namely geographical trends and ownership evidence. Printers may have altered their own production qualities for various reasons: out of a desire for financial competition, in response to reader and market demands or expectations; financial constraints upon their own production; or certainly with the case of some Venetian printers, a developed stylistic ideal.

Within Glasgow's sample, we can see that the editions produced in certain Italian presses were frequently produced in a high quality. Prime examples of this include the illustrious press of Jenson in particular who produced consistently high quality editions. These editions utilised good or medium quality starting materials; good quality type with careful distribution of ink; and balanced layouts with medium sized type used in a sizeable area, but leaving ample space for annotations, glosses and marks. Editions produced by his firm also had few of the printing errors of other presses. The consistency in these fine editions must suggest that this was a conscious attempt to perfect the look of the page.

Just as some volumes have been produced in a high quality, likewise low quality editions are also readily apparent. From this sampling, it is noteworthy to observe that many of the supposed lower quality editions in this sample, are produced outside Italy. We can observe that the press of Au Soufflet Vert in particular frequently produced lower quality editions. In all the examples in Glasgow's collection, we found that the type is largely worn, with some off-setting, uneven distribution of ink and smudging. Additionally, unlike many of the quality

Venetian books, the Parisian copies, none of which contain ownership information prior to Louis Jean Gaignet (1697-1768),[242] did not contain the same levels of illustrious or institutional ownership. It is possible that these lower quality Parisian copies may have been bought and used by students. Cologne and Rome also had slightly lower quality editions in one aspect or another. The Roman edition of *De Oratore*, Hunterian Bg.2.10, printed by Ulrich Han contains many of the archetypes of low quality printing such as off-setting, smudging, uneven distribution of ink and the use of small type. In all, this suggests a rushed approach to production. More Roman examples may shed further insight into the general production qualities of Roman editions.

Although these extremes of high-end production exist, many of the volumes in Glasgow's collection fall within a somewhat standard level of production that has a number of imperfections but not enough to severely effect readability. This perhaps became an expected level of production, both within the fifteenth-century print house but also from early buyers. The effect of the markets on the production of Venetian volumes deserves further examination. Both the internal competition for buyers within Venice, as well as the competition with book producers elsewhere in the continent will naturally have affected the way that Venetian books were traded and thus produced. It is interesting then that the Venetian market did not merely rely on its production of the highest quality volumes. It also produced volumes of a mediocre quality, with a few even of a lower quality. One copy that is attributed to Venetian extraction is a mid-1470s copy of *Rhetorica ad C. Herennium* by the 'Printer of Datus'.[243] If truly Venetian, it is of a lower quality than some of the other Venetian texts since the typeface is more worn and there is particularly bad distribution of ink. Another example is Adam de Ambergau's 1472 edition of the *Orationes*[244] where there is likewise uneven distribution of ink, some off-setting and some relatively worn type. The layout of this book was also produced to maximise textual inclusion, giving large volumes of type on the page. Certainly when these factors are combined alongside extant ownership information

[242] Secretary to Louis XV and avid book collector. William Hunter bought a large number of books from his collection after Gaignet's death.
[243] See edition 26 in appendix 4.
[244] See edition 21 in appendix 4.

and ISTC data for these same Venetian incunabula, we can begin to paint a clearer picture of both Venetian printers and their trade in their classical texts.

3.4 Conclusion

In analysing the production of the classical text in the incunabula period, we have attempted to overview the choices that individual printers made during production. These choices might, in the case of additional works, reveal the expected readership clientele. It is also evident that a wide variety of production qualities existed, all, in some way, related to a particular niche in the market. Aside from the works themselves, discussed in chapter two, printers made choices in the font they reproduced the work in, the additional, paratextual, works they included, the paper or type they used and the way they set-out the work on the page. Many of these choices would have been forced by economic necessity; it is unlikely printers would have had enough expendable income to regularly commission completely new fonts, or even change the type area.[245] This may have directly effected readership. It is interesting whether a finely produced parchment copy of *De Officiis* produced at the Fust and Schoeffer press would have had the same direct readership group as the large corpus of Ciceronian works produced at Milan, the off-set editions from Rome, or a smudged copy from Paris. It is impossible to make any conclusive statements on this without looking at a wider sample of production qualities. To get best results, these would also need to have early ownership inscriptions and annotations in order to give some idea of who was using the books and for what reason.

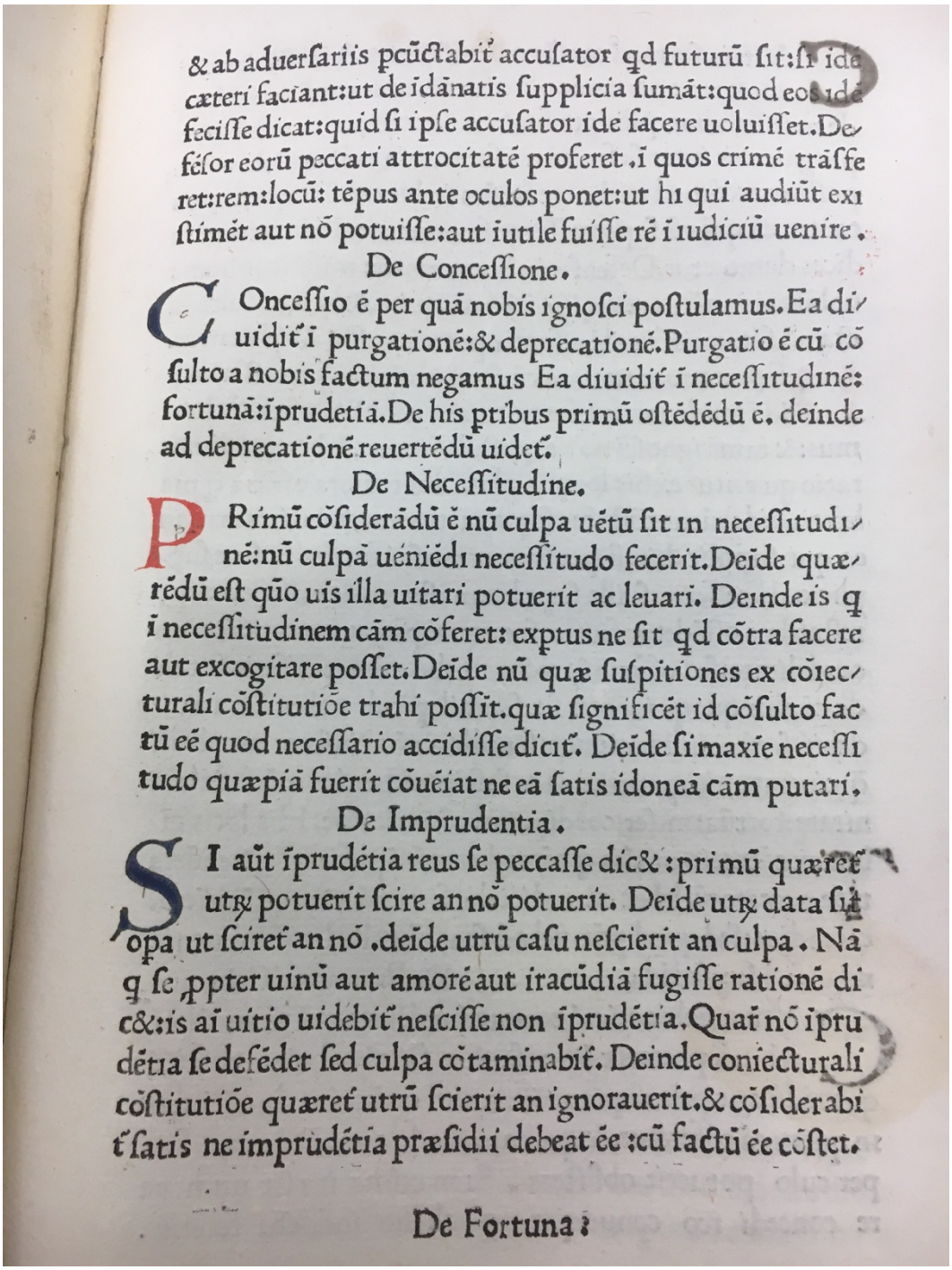
Yet the choice not to recast type-pieces, or to control page neatness or ink distribution, may suggest more genuine printer concerns. Those, like Jenson, that made a conscious effort to maintain a neat page, were demonstrating their own financial stability through their production. Although there is no way of telling in real terms how commercially viable businesses like his were, his production, just as Fust and Schoeffer's before him, shows an evident knowledge of the medium of print as a method for self-perpetuation. It demonstrates a form of pride in the printed page and in his craft. It is no surprise that his texts, and his typefaces, are still

[245] See discussion of fixed type area and its relation to the measurement of 'em's of type in Bolton (2016), 93-118.

renowned for their perfection in form. It is in analysing a cross sample of printers, rather than just one printer in depth, that we can more readily see the differences in approach and in doing so, gauge a printers' own personal response to the commercial market. More study could shed light on the inclusion of additional works and the importance of production qualities more broadly. Although Cicero was widely read, it is hoped that if this is carried out, we may begin to paint a more complete picture of production methods in early print.

This chapter has also described the ways in which quality in books might be examined. More work is needed to verify these indications, since one can draw conclusions about production, but on the whole this sample is too small for representative study. In considering Cicero, it was hoped we could see some of this variation in quality. However, although there are differences in how printers tailored their texts, it is important to note that the books in this sample are likely to be at the higher end of the whole printing spectrum, with small 'jobbing' print runs of broadsheets and ephemeral material of the lowest overall quality. Although it is debatable whether printed books were intended to last for long periods of time, the books sampled here were preserved and collected. Many of these smaller productions do not survive in the same manner. Any future study would have to find a way of incorporating or testing this supposition. Potential work could encompass in-depth examination and comparison of different works, printers and geographical locations, by looking at many of the descriptors above.

Figure 9. Slight inked spaces, beards and furniture.



& ab aduersariis pcūctabit accusator qd futurū sit: si ide
cæteri faciant: ut de idānatis supplicia sumāt: quod eos ide
feciſſe dicat: quid ſi ipſe accuſator ide facere uoluiſſet. De-
fēſor eorū peccati attrocitatē proferet. ī quos crimē trāſfe
ret: rem: locū: tēpus ante oculos ponet: ut hi qui audiūt exi
ſtimēt aut nō potuiſſe: aut iutile fuiſſe rē ī iudiciū uenire.

De Conceſſione.

COnceſſio ē per quā nobis ignoſci poſtulamus. Ea di-
uidit ī purgationē: & deprecationē. Purgatio ē cū cō
ſulto a nobis factum negamus Ea diuidit ī neceſſitudinē:
fortunā: īprudetiā. De his ptibus primū oſtēdēdū ē. deinde
ad deprecationē reuertēdū uidet.

De Neceſſitudine.

PRimū cōſiderādū ē nū culpa uētū ſit in neceſſitudi-
nē: nū culpā uēniēdi neceſſitudo fecerit. Deīde quæ-
rēdū eſt quō uis illa uitari potuerit ac leuari. Deinde is q
ī neceſſitudinem cām cōferet: exptus ne ſit qd cōtra facere
aut excogitare poſſet. Deīde nū quæ ſuſpitiones ex cōiec-
turali cōſtitutiōe trahi poſſit. quæ ſignificēt id cōſulto fac
tū eē quod neceſſario accidiſſe dicit. Deīde ſi maxīe neceſſi
tudo quæpiā fuerit cōuēiat ne eā ſatis idoneā cām putari.

De Imprudentia.

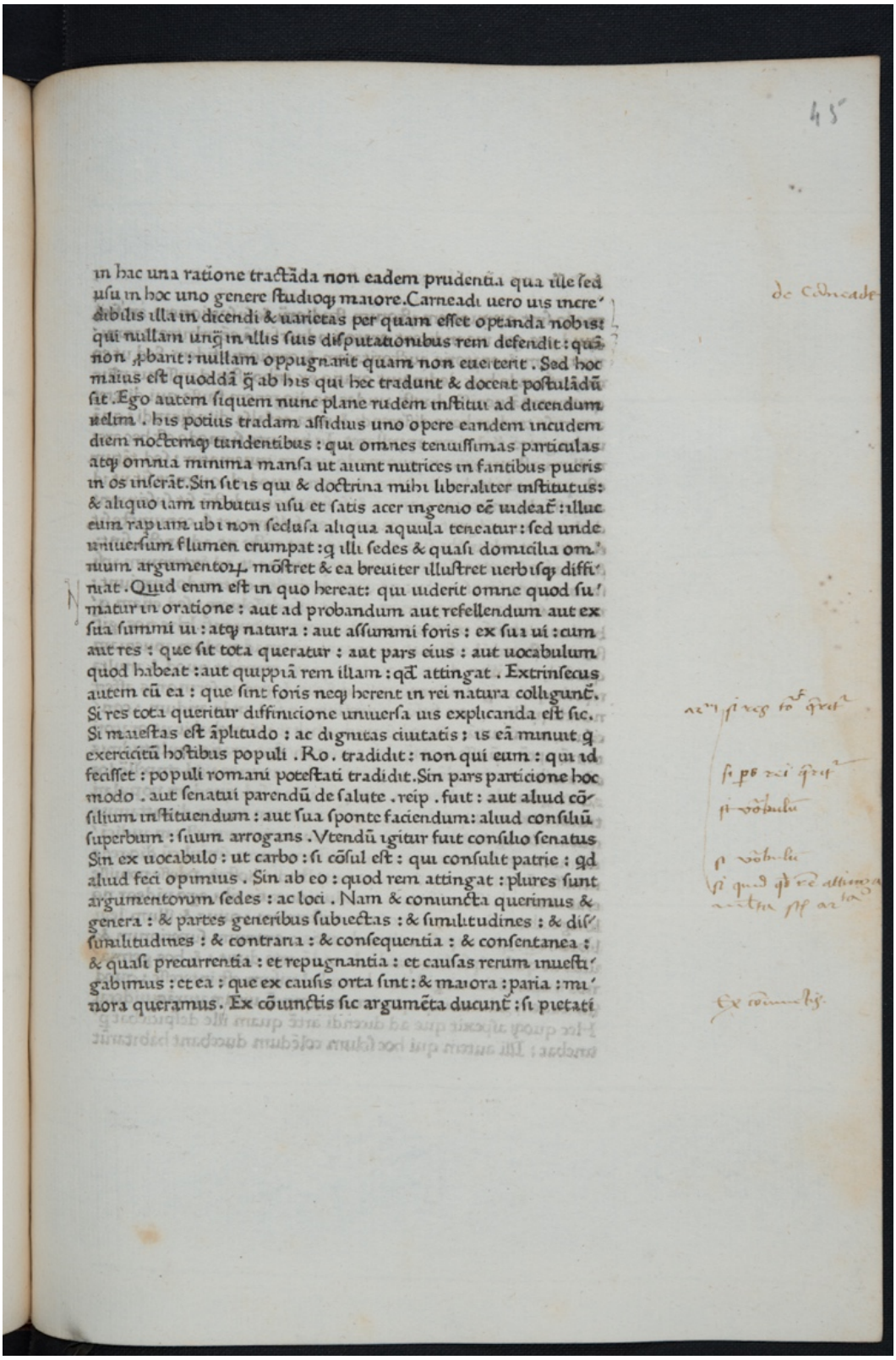
SI aūt īprudētia reus ſe peccaſſe dic&: primū quæret
utr̄ potuerit ſcire an nō potuerit. Deīde utr̄ data ſit
opa ut ſciret an nō. deīde utrū caſu neſcierit an culpa. Nā
q ſe ꝓpter uinū aut amorē aut iracūdiā fugiſſe rationē di
c&: is aī uitio uidebit neſciſſe non īprudētia. Quā nō īpru
dētia ſe defēdet ſed culpa cōtaminabit. Deinde coniecturali
cōſtitutiōe quæret utrū ſcierit an ignorauerit. & cōſiderabi
t ſatis ne imprudētia præſidii debeat ēe: cū factū ēe cōſtet.

De Fortuna?

Hunterian Be.3.29, Cicero: *Rhetorica ad C. Herennium* (Printer of 'Datus', Venice?, ca. 1475).

Picture courtesy of University of Glasgow Library Flickr.

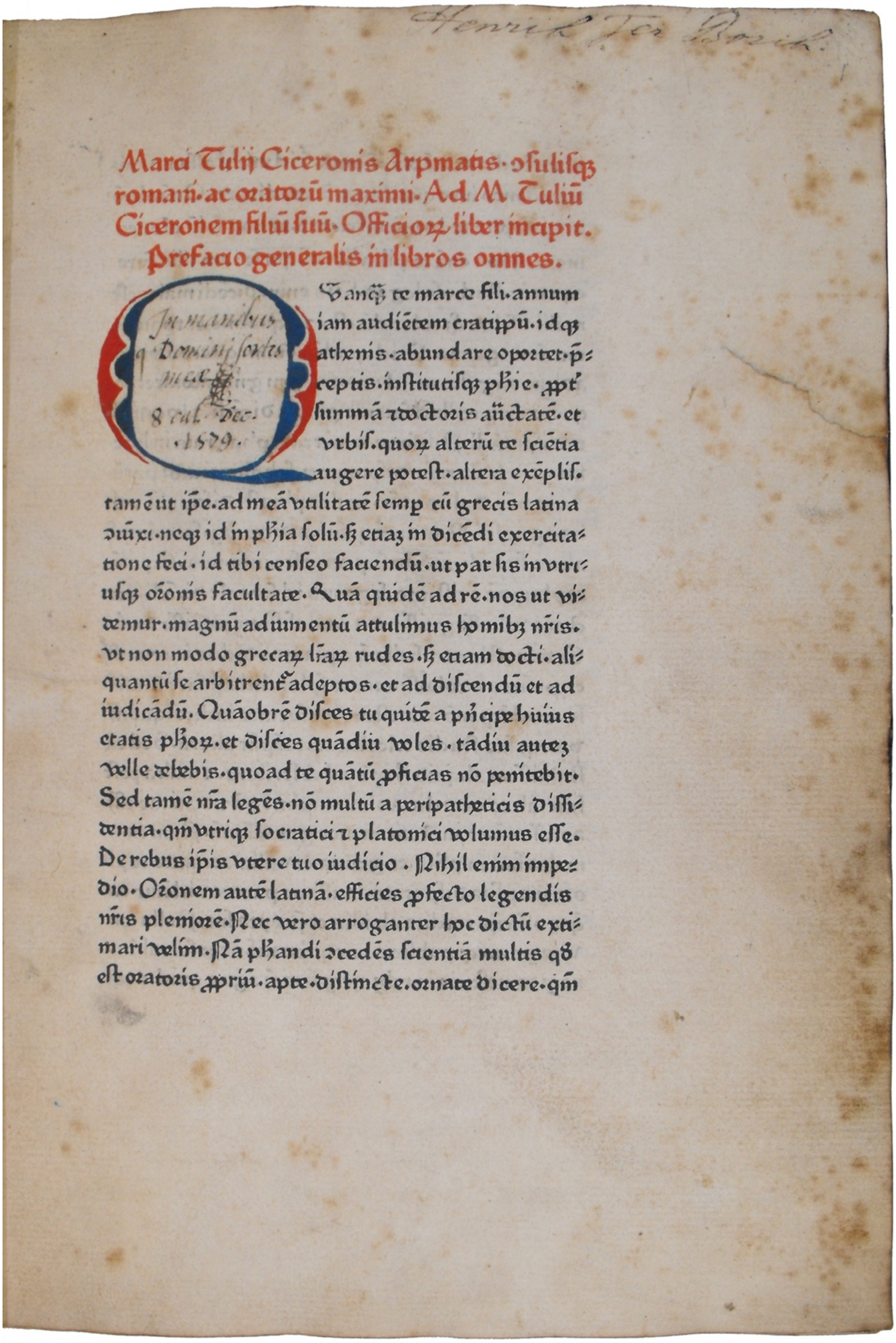
Figure 10. Off-set printing.



Bg.2.10, Cicero: *De oratore* (Ulrich Han, Rome, 1468).

Picture courtesy of University of Glasgow Library Flickr.

Figure 11. Two colour printing.



Marci Tulij Ciceronis arpinatis · consulisq*ꝫ*
romani · ac oratorũ maximi · Ad M Tuliũ
Ciceronem filiũ suũ · Officiorum liber incipit.
Prefacio generalis in libros omnes.

Quanq*ꝫ* te marce fili · annum
iam audiẽtem cratippũ · id q*ꝫ*
athenis · abundare oportet · p*=*
ceptis · institutisq*ꝫ* phie · ppt*'*
summã et doctoris auctatẽ · et
vrbis · quorum alterũ te sciẽtia
augere potest · altera exẽplis ·
tamẽ ut ipse · ad meã vtilitatẽ semp cũ grecis latina
cõiũxi · neq*ꝫ* id in phia solũ · sz etiaz in dicẽdi exercita*=*
tione feci · id tibi censeo faciendũ · ut par sis in vtri*=*
usq*ꝫ* orõnis facultate · Quã quidẽ ad rẽ · nos ut vi*=*
demur · magnũ adiumentũ attulimus homibz nr̃is ·
vt non modo grecarum lrãrum rudes · sz etiam docti · ali*=*
quantũ se arbitrentur adeptos · et ad discendũ et ad
iudicãdũ · Quãobrẽ disces tu quidẽ a pñcipe huius
etatis phorum · et disces quãdiu voles · tãdiu autez
velle debebis · quoad te quãtũ pficias nõ penitebit ·
Sed tamẽ nr̃a legẽs · nõ multũ a peripatheticis dissi*=*
dentia · qm̃ vtriq*ꝫ* socratici et platonici volumus esse ·
De rebus ipis vtere tuo iudicio · Nihil enim impe*=*
dio · Orõnem autẽ latinã · efficies pfecto legendis
nr̃is pleniorẽ · Nec vero arroganter hoc dictũ exti*=*
mari velim · Nã phandi scedẽs scientiã multis qd
est oratoris pprĩũ · apte · distincte · ornate dicere · qm̃

Hunterian Bg.2.23, Cicero: *De officiis* (Fust and Schoeffer, Mainz, 1465).

Picture courtesy of University of Glasgow Library Flickr.

Chapter Four

Ownership of the Classical Text

4.1 Introduction

> "In order that what is maimed and imperfect be not bought and prized as the equal of the best, and that bad printing be not so praised as to cause men to neglect and not purchase what has been printed with the utmost care and painstaking…" [246]

The secondary component of looking at classical incunabula after their production, is their use by owners. The spectrum between quick, cost efficient and marketable book production, and quality, is easily seen above by differences in press outputs. Yet the way that a reader responded to these volumes, both at the high and low end of production quality requires exploration. Key features of use that might be observed include binding, decoration and annotation. It is hoped that these aspects, when combined with an overview of production, might give us some insight into the ways that classical volumes were both made and used.

This may also allow us to draw some tentative conclusions regarding common users of these volumes. Contemporary users may have included aristocratic, monastic or academic groups, although in practice there may be little difference in how these sets annotated or decorated their volumes. Later antiquarian owners must also be appreciated, for although their intended use of the volume and its contents will be less direct and presumably less focused on the textual content itself, their mark still informs us about the life of the books. Within Glasgow's sample they supplement aspects of the books' history, culminating, for the majority of these volumes, in their acquisition by William Hunter (1718-1783)[247] and on his death, by the university.

The first area that will be explored is the volumes' bindings. One aspect of this is practical - consisting of study of the binding material, paper and boards used

[246] Herbort, broadside advertisement, cited in Updike *Printing Types* (1922), p. 75.
[247] Scottish collector and physician to Queen Charlotte. Benefactor of many of the collections within the Hunterian Museum and Art Gallery.

to contain the text after production. This also demonstrates important aspects of user treatment: when viewed individually, these factors can give some insight into a particular owner, when we view the volumes together as a sampling of incunabula in circulation, we can see wider trends in both the contemporary and later treatment of incunabula. Having studied the binding as a material object, it is also pertinent to examine the way that owners themselves chose to bind specific works together, creating a sammelband. Just as we have surveyed the motivations behind the inclusion of additional works, likewise, the binding of particular works together informs us about how individual owners read and responded to their printed texts. For both analyses of sammelbande and of the physical binding, it is easier to use a larger sample – in this case all the classical texts in Glasgow University Library – rather than just editions of Cicero. Since we will look more widely at classical texts, we can also get a broader overview of how early modern readers used and viewed their classical texts. The Glasgow Incunabula Project has dated these bindings, and provided provenance information when accessible. The project has also listed volumes that are presently bound together and attempted to reconstruct dis-bound sammelbande using information from other institutions.

Key components of owner decoration will also be examined here. The decorative furnishing of the text itself will include illumination or other marginal decoration; the supply of ownership marks such as coats of arms; and the supply of scribal initials within the text. This form of analysis will also involve all the classical texts in the library as a case study, rather than merely editions of Cicero. This is so we can encapsulate a wider picture of decorative programmes.

Following discussion of decoration, annotations will also be examined to determine further use of the volumes; annotations indicate how a reader has responded to a book. Although annotation cannot indicate whether a volume has been read completely - just as a lack of annotation cannot suggest that a book has never been read - the form of the annotation might tell us something about the user themselves. We might expect to find different types of annotations: commentary, glossing, key wording and nota marks, as well as rubrication. With this close examination, it will be once more helpful to return to a smaller sample of books than used with binding and decoration. We will therefore return to the works of Cicero held by the university library and look at a few examples in-depth.

4.2 Binding

An important aspect of ownership analysis is a volume's binding. Examination of the binding of independent works together sheds insight into the perception and organisation of books by collectors. This kind of analysis can also inform provenance research. Combining knowledge of bound works, with other aspects of owner response such as decoration, annotations and the physical binding itself, we can sometimes identify the length of time that editions have been owned and stored together. This binding process creates a sammelband.[248] Although general patterns have been found in sammelbande when particular printers are examined, [249] an in-depth examination of a sample of books with well-researched provenance, is best suited for a study concerned with genre. With this in mind, all the classical incunabula in the collection that are part of sammelbande will be examined.

Binding analysis can also include examination of the material object: the leather, parchment, wooden, board or cloth object that encloses the printed pages. Some have examined how these might further inform us about the life of a set of books,[250] while many have looked at particular binding styles.[251] Contemporary bindings can reveal provenance information, and in some cases the level of prestige or value attached to a volume. Yet many of the incunabula in Glasgow's collection, especially when their provenance has been through William Hunter, are in non-

[248] The use of the term sammelband here is preferred to 'tract volume.' As Needham has pointed out a 'tract volume' is a term often used by seventeenth and eighteenth-century historians to refer to pamphlets joined together in one binding. He has preferred the term sammelband for fifteenth and sixteenth-century volumes, which are more likely found to contain individual editions of larger texts. See P. Needham *The Printer & the Pardoner* (Washington: Library of Congress, 1986), 17. Sammelband is used here for a singular volume of bound editions, sammelbande for more than one volume.

[249] See the *Needham Printer & the Pardoner;* A. Gillespie 'Poets, Printers and Early English Sammelbande' in *Huntington Library Quarterly* 67:2 (2004).

[250] Foot, M. M. (1999). 'An Eighteenth-Century Incunable Collector in The Hague.' in *Incunabula,* ed. M. Davies: Studies in Fifteenth-Century Printed Books (London: British Library, 1999), 371-387. London; N. Pickwoad 'The Interpretation of Bookbinding Structure: An Examination of Sixteenth Century Bindings in the Ramey Collection in the Pierpont Morgan Library' in *Eloquent Witnesses: Bookbindings and their History* ed. M. Foot (London: The Bibliographical Society, 2004).

[251] Most research has been completed on either fine binding or regional binding. For recent examples see D. Pearson *English Bookbinding Styles, 1450* – 1800 (London: Oak Knoll Press, 2004); G. Barber 'Around the Padeloup and Derome Workshops: Gold-Tooled Parisian Bindings of the Eighteenth Century' in *Eloquent Witnesses: Bookbindings and their History* ed. M. Foot (London: The Bibliographical Society, 2004); and M. Foot 'A Magnificent and Bewildering Variety': Irish Bookbinding in the Eighteenth Century' in *Eloquent Witnesses: Bookbindings and their History* ed. M. Foot (London: The Bibliographical Society, 2004).

contemporary bindings. These can offer some information on the movement of incunabula in Europe, and allow for reflection on antiquarian collectors' treatment.

Sammelbande

Firstly, just as trends were found in the inclusion of additional works, so too can we find trends between the binding together of works. Within the classical incunabula in the library, almost 10% of all of the volumes exist as sammelbande. This is probably a rather conservative figure. Such states of ownership would have been fairly common because of the nature of book production: books were sold unbound, an extra price added to the sale if a binding was required. This led to an economic preference in binding similarly formatted works together.[252] The existence of extant sammelbande is important. Many have been broken up by later librarians, collectors and booksellers for what was deemed appropriate redistribution. This was usually driven by a desire to increase prestige or due to differences in the works' genre.[253] Needham proposed that the process of breaking-up books allowed its new antiquarian owner to "pay homage to the rarity of the books by making of each, a discrete and conspicuous icon."[254] In the university collection, there is evidence of a sammelband being broken up before reaching the library. The Glasgow Incunabula Project has reconstructed some of the constituent editions and sourced them in other institutional libraries.[255] Such a motivation may have been completed on the part of a bookseller, in an attempt to increase his profit.[256] The project also found evidence of later conservators disbinding and rebinding works. Two works from the Murray[257] collection have been rebound in the twentieth century but have linked provenance.[258] Another donor to the

[252] Needham *Printer* (2004), 17.
[253] McKitterick *Print, Manuscript and the Search for Order* (Cambridge: Cambridge University Press, 2003); 50; A. Gillespie 'Poets, Printers and Early English Sammelbande', 193; Needham (2004), 17
[254] Needham (2004), 18.
[255] The Glasgow incunabula project found that Ferguson An-y.35 a copy of *De lamiis et phitonicis mulieribus* by Molitoris Ulricus at Strassburg in 1489 was originally bound with 10 other items by an early sixteenth-century owner, before being disbound and resold around Europe. See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/molitorisulricusdelamiisetphitonicismulieribusstrassburgnotbefore10jan1489/.
[256] See Needham (2004), 18.
[257] David Murray (1842-1928) was a Glaswegian lawyer and bibliographer with a particular interest in local Glaswegian print. http://www.gla.ac.uk/services/specialcollections/collectionsa-z/murraycollection/. [accessed 15 January 2017].
[258] In one book's case this was completed through worm hole evidence and in another, was due to fore-edge decoration. All information from Glasgow Incunabula Project. See

university, John Ferguson, was able to re-join within his collection, a previously bound sammelband. Such attentiveness on Ferguson's part is evidently due to his understanding of historical bibliography and his very keen interest in the prosopography of the book before it reached his own collection.[259] William Hunter also undertook rebinding but unlike some other contemporaneous collectors, his collection was at least later kept in one institution, allowing for reconstructions to be more easily achieved.[260]

In regards to earlier users, examination of the sammelband allows "through its unexpected associations…a sense of how texts might have been read together."[261] McKitterick used evidence of sammelband construction to denote a streamlined owner outlook towards manuscript and print. In his argument, their very coexistence together suggested a similarity between use and meaning.[262] More generally he cited examples of sammelbande that were sometimes linked by topic, but also conceded that "private convenience could be as important as any intellectual or contemporary relationship between the two covers of a volume." [263] Gillespie picked up such an idea. She argued that it would have made economic sense, regardless of the binding type, to bind several works together, rather than bind each book separately.[264] She stressed that there were two different types of sammelbande: the 'trade' volumes which were those assembled by a bookseller or printer, and 'nonce' volumes which were bound together by users.[265] In this sense

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https://universityofglasgowlibrary.wordpress.com/2011/05/23/glasgow-incunabula-project-update-23511/. [Accessed 15th September 2016] and https://universityofglasgowlibrary.wordpress.com/2011/07/21/glasgow-incunabula-project-update-20711/. [Accessed 15th September 2016]. From the Hunter collection, Hunterian Bx.3.41 was once two works bound together but were rebound apart by Douglas Cockerell & sons in 1955. See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/johannesdesacroboscosphaeramundivenice1485/#d.en.207753. [Accessed 18th September 2016].

[259] See https://universityofglasgowlibrary.wordpress.com/2013/05/01/glasgow-incunabula-project-update-1513/. [Accessed 18th September 2016]. Ferguson (1838-1916) was a bibliographer and Regius Professor of Chemistry at the University of Glasgow between 1874 to 1915. His main collection interests included books on chemistry, alchemy and the occult. http://www.gla.ac.uk/services/specialcollections/collectionsa-z/fergusoncollection/. [accessed 15 January 2017].

[260] See Needham (2004), 19.

[261] M. Bland (2010), 72.

[262] McKitterick *Print, Manuscript and the Search for Order* (2003) 50-1; Gillespie also suggests that books were bound because they are thematically linked. See Gillespie (2004). 203.

[263] McKitterick (2003), 50-1.

[264] Gillespie (2004), 203; also see Bland (2010), 77.

[265] Gillespie (2004), 204. At present it has largely been trade volumes that have been examined. See Needham (2004). There may be evidence of a tract sammelband within the collection, Bf.3.13. No evidence within the book points to joint early ownership but the annonymous, but common printer, year and topic, may actually mean the volumes have

both producer and user were able to see their collection of books as a malleable object and to reshape it according to their own particular desires.[266] Analysing examples of sammebande therefore might inform us about a user's own particular reading habits or requirements. Looking at a wider sample of classical texts can inform us about the broader functions and interpretations of these books, especially of their part within European education.

In our sample, various trends were uncovered. Printed editions were clearly bound together because they had a linked author. Be.3.16 [267] for example has possibly been bound together because all of the three editions within are works of Cicero. As we have seen in the previous chapter, this consists of two editions from a Parisian press and one from a Venetian press. Although the binding is eighteenth century, [268] very similar sixteenth-century annotations appear consistently throughout all the editions. This suggests that the editions were likely collected together in that century at the latest. The Venetian edition contains two three-line initials, but also washed capital letters.[269] The other two editions contain no such decoration. Both these factors, the lack of decoration in two of the editions, and the incomplete nature of other initials in the Venetian work, may signify a preference for a cheaper end of the market. Missing Cicero works from the Venetian edition may also suggest that it had been bought or sold as a broken-up work, although it is not impossible that the work had been purposefully picked out from the wider edition and bound up with these items. The link of the two Parisian produced philosophical works, *De Finibus Bonorum et Malorum* and *Tusculaenae disputationes* is understandable given their linked theme. The addition of the Venetian produced *De Fato* and *De Legibus*, one a philosophical treatise on fate, and the other a political treatise examining Natural Law and a proposed Roman state, seems unusual unless the common link is Cicero himself. Although the texts are all philosophical in some way, their divergence in topic may suggest an authorial link, as well as a rough link in subject. The lack of decoration, combined

been kept together as a set for some time. Indeed, since the works are so closely linked, they may have been bound by the printer himself. Yet a lack of available provenance hinders this being anything more than supposition, and wider study of the particular extant editions would be required.

[266] Gillespie (2004), 209.

[267] See editions 2, 6 and 23 in appendix 4.

[268] Information from Glasgow Incunabula Project. See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/be.3.16%20(a)/ [accessed 10th August 2016].

[269] Information from Glasgow Incunabula Project. See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/bg.3.9%20&%20be.3.16/ [accessed 10th August 2016].

with the scholarly subject matter, may suggest that the volume was prized for its worth as a textbook.

Another volume, Be.3.29,[270] also contains two editions of Cicero. Yet in this sammelband, the link is likely to be between the works. It contains copies of *De inventione, sive Rhetorica vetus* and *Rhetorica ad C. Herennium* which as we saw in the previous chapter, were very frequently printed together since both works were used to teach oratory. The sixteenth-century Italian binding suggests that they have been together from an early point, perhaps especially since both volumes are contemporaneous to one another and Venetian in origin. Although provenance could date to an unknown sixteenth-century owner, Petrus Desentianus, this is only noted on the first of the editions, somewhat unsurprising if the books were indeed already bound together in his care.

Aside from the binding, the first piece of evidence of a joint early provenance is a partially erased inscription indicating ownership by the Capuchins of Venice.[271] Since this annotation appears in both texts, it may suggest that the Capuchins owned them as independent volumes, that were later bound together. Alternatively, they may have been bound together before reaching the monastery, perhaps by Desentianus. This seems the most likely option since the Capuchin ownership inscriptions frame the bound book; there is one at the beginning, on the second page of the first work, and there is one at the end of the book, the last page of the second work.

Another important characteristic of this volume that points to even earlier joint ownership, is the presence of decoration. The decoration in this volume is consistent throughout. It is in an Italian style and likely contemporaneous with the production of both editions. Since the volumes are produced in different presses, but are produced around the same year, it seems likely that these volumes have been commissioned to a limner for basic illumination by a common owner.[272] From this,

[270] See editions 4 and 25 in appendix 4.

[271] Information from Glasgow Incunabula Project. See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/be.3.29a/. [Accessed 25th September 2016].

[272] In many cases it is likely that the owner himself commissioned decoration. More recently scholars have begun to suggest that with some printers, decoration would be sourced out from the print house to a limner in a certain percentage of the works. This may or may not be dependent on commissions from prospective owners, but was clearly an attempt by the printer to cater to the various demands of the user. See L. Armstrong 'The Impact of

we can suppose that the volumes have been owned together from a very early date, likely not long after production. It is impossible to say whether this early owner was Italian, since decoration may have been commissioned remotely, or when visiting Italy. Yet the later Italian provenance may indeed provide evidence for such an assumption. What we can see, therefore, is that this early owner viewed these books with some degree of reverence, collecting them together and furnishing them with the same decoration. He most probably used them both for studying the law or oratory.

The most common reason for binding two or more editions together is that the texts themselves are related in some way to one another, generally by main topic of work, or theme. Most works bound together in this way seem to fall into the tiers of early modern education. We see in Appendix 5 that many of the volumes have been linked because of a key general theme of study. Two Venetian books linked through stoic philosophy are Seneca's *Opera philosophica* and *Epistolae*, and Macrobius' In *Somnium Scipionis*, both now found in K.T.f1. Although there is no early provenance information for this volume, it is in a sixteenth-century German binding.[273] There are also pen-work initials, capital strokes and paragraph marks that appear to be in the same style. These seem to be used in similar places throughout the volume. In particular, the same paragraph marks and capital strokes are consistently used in the colophon of both editions. The scribal initials in the volume are useful moreover as it is likely that these have been commissioned, and completed early in the book's life. Although one of the initials in the Macrobius is in blue and red, in both of the editions, all of the other large and smaller initials are in red ink alone. Yet what marks these initials out stylistically, is the distinctive dot placed inside or near to the letter, and appearing consistently throughout both the editions. Additionally, the annotations of both editions may be in the same hand with some evident similarities in letter form, although true identification is difficult due to the paucity of the annotations. It is possible that these annotations were completed after the volume had been bound together as a sammelband and may not

Printing on the Miniaturists in Venice after 1469 in S. Hindmans ed. *Printing the Written Word: The Social History of Books, 1450 – 1520* (Ithaca: Cornell University Press, 1991), p. 175; M. Ikeda 'The First Experiments in Book Decoration at the Fust and Schöffer Press' in B. Wagner and M. Reed (eds.) *Early Printed Books as Material Objects* (Berlin: Walter de Gruyter GmbH & Co, 2010).

[273] Information from Glasgow Incunabula Project. See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/k.t.%20f1a/. [Accessed 29th September 2016].

constitute evidence of the first owner. However, it appears that the initials suggest a common early ownership, most probably before the works were bound as one.[274] It is not unreasonable to speculate that this reader was accessing these editions all together because of an interested in the movements in northern European Neostoicism.

Topic therefore is a common reason for binding works together. Yet there is evidence in the sample of works bound together out of convenience. Bk5-g.22 contains five varied works in a very early binding, that may perhaps even be fifteenth-century.[275] The evidence within the book suggests that all the works have been bought, owned and used together since around the time of their production: when not supplied by the printed text, scribal initials and distinctive paragraph markers remain consistent throughout, and all individual subtitles of the text have been underlined in the same manner and with the same pen. Several of the works in this volume are linked by a scientific theme but this does not explain the inclusion of all the works. Particularly unusual in this context is the inclusion of *De viris illustribus*, a collection of biographies by Saint Jerome. It is likely that this earlier owner bound the works together because they were of a similar format, not because they were necessarily intended to be read together.

The frequency with which sammelbande occurred can be observed when we look at several volumes with the same early provenance. Monastic ownership at the Collegiate Church of New St Peter in Strassburg is noted in a sammelband Bf.2.15, yet the binding is from the eighteenth-century and commissioned by Lord Edward Harley, 2nd Earl of Oxford (1689-1741).[276] The only monastic ownership inscription can be found within the edition of Nonius. Since there are no further ownership inscriptions and because of the later binding, the other works bound in this volume, two texts by Varro and Festus, cannot conclusively be said to have this same early ownership. One noteworthy discovery in the works of Varro and Festus

[274] In a similar example, Needham finds consistent early rubrication in a sammelband and suggests that this work was completed while the editions were still in sheets. See Needham (2004), 49.

[275] Information from Glasgow Incunabula Project. See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/melapomponiuscosmographiasivedesituorbis/#d.en.145707 [accessed 19th August 2016].

[276] Information from Glasgow Incunabula Project. See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/noniusmarcellusdeproprietatelatinisermonisbrescia17july1483/ [accessed 20th August 2016].

was that they evidently had the same hand annotating throughout. We are able to determine that they were indeed part of the monastic collection, by looking at other volumes with this same provenance. The annotations in By.3.33,[277] that has the same monastic ownership, match the hand used in the Varro and the Festus editions, suggesting conclusively that all the books in Bf.2.15 were owned by the monastery. It is likely therefore that Harley rebound this sammelband for inclusion into his collection from an earlier binding. Such conclusive results cannot be said for the sammelband, Bh3-e.13,[278] the first work of which was also owned by this monastery. This book is also in an eighteenth-century binding but the annotations within this book are in a different hand than the examples above. However, when examining the annotations in this volume, their similarity becomes apparent. They are all in a similar sixteenth-century hand. This suggests that these editions have been together in the same collection for some time. Given the ownership inscription, we can suppose that this whole volume, Bh3-e.13, must also have been part of the same monastic library. These examples of sammelbande from the Collegiate Church of New St Peter underline that an understanding of sammelbande can help inform about provenance. They might also underline that it was a common occurrence for early printed works to be bound together in institutional settings.

It is evident then, and as seen in appendix 5, that when sammelbande are examined, we can gain insight into the ways that readers responded to their texts. By considering why two or more texts might have been linked together, we can also gain insight into possible reader motivations or backgrounds.

Bindings

In addition to sammelbande, physical bindings can inform about the prosopography of a copy. When particular collectors are known by their binding

[277] Hunterian By.3.33: Galeottus, Martius, *Refutatio obiectorum in librum De homine a Georgio Merula*, Dominicus de Lapis, Bologna, 1476. See: http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/galeottusmartiusrefutatioobiectoruminlibrumdehomineageorgiomerulabologna1476/#d.en.162487 [accessed 1st October 2016].

[278] Bh3-e.13: (1) Gellius, Aulus, *Noctes Atticae*, Philippus Pincius, Venice, 15 July 1500; (2) Cleonides, *Hermonicum introductorium*, Simon Bevilaqua, Venice, 3 Aug. 1497; (3) *Scriptores rei militaris,* Franciscus Plato de Benedictis, Bologna, 1495-96. See: http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/galeottusmartiusrefutatioobiectoruminlibrumdehomineageorgiomerulabologna1476/#d.en.162487 [accessed 1st October 2016].

styles, material regarding ownership and the life of the book can be supplemented. The general placement of binding by geographical location can thus also reveal additional provenance information where inscriptions are not forthcoming, and provide further evidence for the European movement of books. This is especially interesting for bindings from the seventeenth and eighteenth-centuries when, perhaps fostered by debates on the origins of printing, and the coining of the term 'incunabulum', the treatment of fifteenth-century-books may have changed.[279] This discussion surrounding the first printers and their books led to a greater awareness of the fifteenth-century book as a distinct entity. It may have been at this point in time, coupled with the increased general availability of all genres of print, that these books began to be sourced as antiquarian collector's pieces. Classical texts from this period were revered for their supposed literary quality, and first editions in particular became important.[280] As this discussion was ongoing, and larger collections than ever before were beginning to be amassed by private individuals, there was a desire to assimilate books into collections. In some cases, this included the furnishing of uniform bindings for books within a collection.[281] Although such a practice was not a new one, the Enlightenment principle of the pursuit of tangible knowledge gave a more widespread philosophical justification for such an endeavour. The desire to spread knowledge to all corners of society, led in some cases to the establishment of public libraries to house these collections.[282] Uniformly bound books in private libraries can also be distinctive when bound in a particular style or with a particular stamp.[283] When these books entered the public

[279] See J. Glomski '*Incunabula Typographiae*: Seventeenth-Century Views on Early Printing' in *The Library* (2004) 2:4, 336-348 but also recent work by Kristian Jenson *Revolution and the Antiquarian Book: Reshaping the Past, 1780 – 1815* (Cambridge: Cambridge University Press, 2011).

[280] Jenson argues that the Bodleian sought out editions of the classics when producing their classical editions. See Jenson, *Revolution and the Antiquarian Book* (2011), 3.

[281] Jenson (2011), 74; M.M. Foot 'An Eighteenth-Century Incunable Collector (1999), 371-387; W. Zachs 'Bindings' in *The Edinburgh History of the Book in Scotland, Vol 2: Enlightenment and Expansion, 1707 - 1800* (Edinburgh: Edinburgh University Press,2012), 68.

[282] See J. Harrison 'Printed Material and the Cotton Manuscripts' in G. Mandelbrote & B. Taylor (eds.) *Libraries within the Library* (London: The British Library, 2009)*; A. Walker 'Sir Hans Sloane's Printed Books in the British Library*: Their Identification and Associations' in *Libraries within the Library,* eds. G. Mandelbrote & B. Taylor (London; The British Library, 2009); P.R Harris 'The First Century of the British Museum Library' in *The Cambridge History of the Library,* eds. G. Mandelbrote & K.A. Manley (Cambridge: Cambridge University Press, 2006); J. Symons 'Scientific and Medical Libraries: The Rise of the Institution' in *The Cambridge History of the Library,* eds. G. Mandelbrote & K.A. Manley (Cambridge: Cambridge University Press, 2006).

[283] See examples such as Lord Edward Harley's in H. Nixon *Five Centuries of English Bookbinding* (London: Scolar Press, 1978) and J. Oldman English Blind Stamped Bindings (Cambridge: Cambridge University Press, 1952).

sphere, when they were frequently borrowed by acquaintances,[284] both the distinctiveness and the finesse of the bindings will have become an important factor. It marked the books out as part of a collection, but also indicated the status and expense furnished on the book by its owner.[285] Bland goes as far to argue that a binding, or a set of bindings, might reveal "the social and cultural values that shaped a collection."[286]

Out of the selection of classical incunabula in Glasgow University Library, the vast majority have been rebound from their original binding. An analysis can be achieved when the bindings are split into datable groups from the centuries between printing and the present day (see figure 12). The smallest group of bindings in my sample are those bound in the twentieth-century by university conservators. Out of these nineteenth and twentieth-century bound volumes, a large proportion are from the Old Library collection. A few more – from the Murray, Ferguson, Stirling Maxwell and Veitch collections – have likely been donated in the binding that particular collector had sourced or bound them in. The one group largely exempt from the rebinding policy was evidently Hunter's collection. Although he collected around half the incunabula, and a large proportion of the classical incunabula (see appendix 7), only two of his classical volumes have been rebound in the nineteenth and twentieth centuries by the university. The rest have retained their earlier bindings.[287]

The next smallest group are the volumes bound in the seventeenth-century. This is likely influenced by the debates around incunabula that arose in the middle of the seventeenth-century, and the probable move from useable textbook to

[284] M. Towsey 'Women's Reading' in *Edinburgh History of the Book*, eds. S. Brown & W. McDougall (Edinburgh: Edinburgh University Press, 2012) p. 440- 441. Hunter's own papers record his library's use as a lending library. See Ms Hunter 315, Glasgow University Library.

[285] Although he argues that the status of bindings may have been low in this period as they are not noted in auction or bookseller catalogues unless particularly fine, "nevertheless a finely bound book, whether taken to church or read in a private study, reflected social status and wealth". See Brown 'Bindings' (2012), 68; See also J. Storm van Leeuwen 'Bookbindings: Their Depictions, their Owners and their Contents' in *Eloquent Witnesses: Bookbindings and their History,* ed. M. Foot, (London: The Bibliographical Society, 2004).

[286] Bland (2010), 69.

[287] All dated binding information has been sourced from individual item pages of the Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. My own table of dated bindings was formed from this information and has provided the numbers of bindings found above.

antiquarian or reference item. Similarly, low in number, are those bound near contemporaneous to printing, from the fifteenth or sixteenth-century. Around thirteen or fourteen of the classical volumes are in such bindings. Out of books bound between the fifteenth and seventeenth-centuries in the sample, an evident disproportion is from the Old Library collection. Although Hunter owned a few volumes in such bindings, his incunabula mainly seemed to comprise volumes in a binding near contemporary to his own.[288]

It is unsurprising then that the largest group of bindings are those from the eighteenth-century. This is probably linked to both Hunter's own collecting interests, underlying eighteenth-century trends and later library treatment. Around one hundred and seventy-five volumes are bound in an eighteenth-century binding, the vast majority of which belong to Hunter. The multitude and variety of bindings in his collection suggests that Hunter himself did not undertake any large scale rebinding, as Lord Harley did. Yet there is evidence that Hunter commissioned some rebinding, with certain books containing his distinctive binding tool of a hunting horn, and in some cases, specific directions to the binder.[289] However, both his accumulation of well-bound items, as well as his own binding procedures can inform. His rebound works all are in brown calf, a cheaper material than the red morocco books he largely bought. This may suggest a tentative difference between Hunter and other collectors such as Harley. In a comparable but albeit slightly later study, Jenson examined the choice of bindings on incunabula in the early Bodleian Library. He argued that they commissioned much more expensive bindings for their classical texts, than for their other incunabula. This was a practical choice: their classical texts were bought for the purpose of creating new editions. Other incunabula seem to have been considered a secondary concern until the turn of the

[288] From our sample it is clear that although Hunter does have a small selection of seventeenth-century bound books, half of those in this form of binding are found in Old Library collection. These figures are also rather out of proportion in regards the breakdown of ownership in the sample, where a majority of classical editions belonged to Hunter.

[289] See Glasgow Incunabula Project: http://www.gla.ac.uk/services/incunabula/bindings/. [Accessed 30th September]. There are four incunabula that have been positively identified as bound for Hunter – Hunterian Bf.3.8, Hunterian Hunterian Bw.2.18, Hunterian Bg.2.2 and Hunterian Bg.2.4 - all of which are in brown calf with a gold tooled spine, with Hunter's distinctive binding tool. Two of these volumes, Bg.2.2 and Bg.2.4 were bound together and were rebound independently by Hunter. There is no reason given for why he had the books rebound, although perhaps it because they were "bound up together in very old binding". See Glasgow Inc. Bg.2.2. It is unfortunate that no further notes remain on this binding. These may indicate whether Hunter is rebinding his book because it is in an old binding in itself or because it is in some way damaged. One would need to examine a wider portion of Hunter's bound material to draw any conclusions.

nineteenth century.[290] In 1789, the Bodleian paid for a lavish red morocco cover for a first edition of Aulus Gellius *Noctes Atticae*, but only furnished a brown calf cover for the first edition of the sermons of Pope Leo I. Jenson argued that this is a difference of around 10 price categories.[291] Such a study on Hunter's bindings would need to examine his library more thoroughly across topic and period for evidence of rebinding. In doing so we might gain insight into Hunter's own interests. It may be that he was less interested in the outward appearance of his volumes, compared to other eighteenth-century collectors, and was more interested in spending money accumulating the best collection of texts. Alternatively, perhaps he targeted his choices in the market based on their bindings. Dessain, a book buyer for Hunter in Paris and who purchased books at the Gaignat sale for Hunter, frequently made reference to the quality of the binding in descriptions of potential purchases.[292]

In addition, Hunter's relationship with other collectors might be examined with reference to bindings. He owned a large number of Harleian volumes. Around one quarter of his Ciceronian volumes are in a Harleian binding and a large number of his wider incunabula are also from this collection. The inconsistency of their provenance before the books have reached Hunter may suggest that he is collecting them specifically.[293] He did own Harley's catalogue as well as volumes on Harley's manuscripts and correspondence.[294] Yet such evidence may suggest that Hunter was merely interested in other collectors and that Harley's volumes had flooded the market with precisely the type of book that Hunter wished to collect. Since Hunter mainly had agents working on his behalf at the large book-sales and there is no evidence of any mention of Harleian bindings in his correspondence, it is possible that this secondary suggestion is closer to the truth.

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[290] Jenson (2011), 3.

[291] The prices paid for the books themselves were even more demonstrative. The Gellius cost the library £58 16s, whereas the Leo cost the library only £4 6s. See Jenson (2011), 45-6.

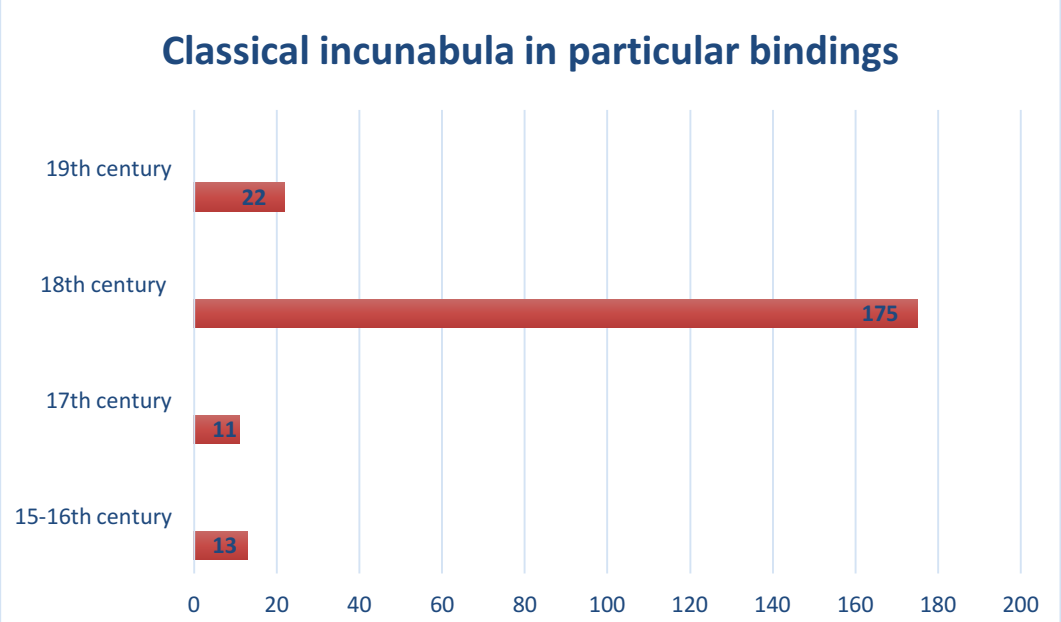
[292] See *The Correspondence of Dr William* Hunter ed. C.H. Brock (London: Pickering & Chatto, 2008), vol.1, letter 165 where Gaignet commented at the Duke De La Val's sale that he did not buy many because most of the rare books went for large prices or were not bound "well enough."

[293] Some are owned by Gaignat and the physician and classical scholar, Anthony Askew (1722-1774), while others were owned by nameless intermediaries. All information from: Glasgow Incunabula Project (http://www.gla.ac.uk/services/incunabula/).

[294] M. Ferguson ed. *Catalogue of Printed Books in the Hunterian Library* (Glasgow, University of Glasgow Press, 1930).

In conclusion, looking at bindings can reveal an extensive amount about the reception of the classical text. In particular, binding analysis can inform about the movement of a copy through various owners. When a collection exists, bindings can also help to inform about particular collecting interests. With the rebinding policies of collectors such as Hunter and Harley, we can develop a picture of these later owners' treatment and perception of classical incunabula. This later dissemination of the classical text is just as important an avenue for study. It fundamentally underlines the importance of the printed page; these books have survived principally because they have adapted to become something worthy of collection. It also shows that early printed classical texts in particular were desirable objects for later collectors and their importance can be observed through the high numbers within a collection or by the money spent rebinding them.

Figure 12. Classical incunabula in GUL with bindings dated by century.



4.3 Decoration

Decoration can be another way to gloss reader treatment and response. Decoration evolved out of the practical imitation of manuscripts by printers determined to develop a continuality with the written page. As with manuscript production, initial letters were left for rubrication, and in some cases, chapter headings were required to be added by hand. These spaces were often furnished with a varying degree of expertise. The more wealthy owner might also have wished

for their copy to be decorated in the margins to the same extent as some contemporary manuscripts.[295] A poorer owner may not have commissioned any degree of decoration, even leaving initial letters blank. For the highest end of the market, scholarly work on marginal book decoration has drawn great attention to the similarities between decorative techniques in manuscript and print, rather than attempting to treat them as diverse categories.[296] Most recent scholarly work has focused on establishing the underlying trends behind book decoration. Within art history, this has examined distinctive groups of illuminators who can often be identified due to their own style of illumination.[297] This has also stressed the professional nature of the illustrator at the high end of the scale, and the way that the profession reacted to changes in book production methods. Scribes from areas like Florence with high manuscript output, moved to areas, like Venice, with high print output. This led to a diversification of decoration styles.[298] Other studies, more focused on the history of the book, have examined the relationship between fifteenth-century printers and illuminators and tried to establish the frameworks within which such relationships flourished. It has been recently concluded that this is more nuanced than first believed and that, just as printers were sometimes linked to binderies, so too were some linked to scribal workshops.[299] Decoration can also help provenance research. In many cases, decoration would, for sake of ease, be completed before the book was stitched and bound together.[300] This means that if the decoration can be placed, we can potentially gain insight into where the earliest owner resided. Lilian Armstrong has skilfully shown how identifying decoration to a distinct regional style can help identify early ownership inscriptions or coats of

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[295] L. Armstrong 'The Impact of Printing on Miniaturists in Venice' in *The Social History of Books, ca. 1450 – 1520,* ed. S. Hindman (Ithaca: Cornell University Press, 1991), 179.

[296] See Ibid.; J.J.G Alexander *The Painted Page: Italian Renaissance Book Illumination* (London: Royal Academy of Arts, 1995); N. Thorp *The Glory of the Page* (London: Harvey Miller, 1987).

[297] Although many remain unidentified because of their standard nature. See L. Armstrong *The Impact of Printing* p.182.

[298] Ibid. p. 200; L. Armstrong 'The Hand-Illumination of Printed Books in Italy, 1465-1515' in *Studies of Renaissance Miniaturists in Venice*, Vol. 2, ed. L. Armstrong (London, Pindar Press, 2003), 495-7. See also N. Thorp *The Glory of the Page* (1987) for details on how regional scribal styles began to be adopted over Italy.

[299] Armstrong 'The Impact of Printing' (1991), 179 & 201. See also L. Armstrong 'Nicolaus Jenson's Breviarum Romanum, Venice 1478: Decoration and Distribution' in *Studies of Renaissance Miniaturists in Venice,* Vol. 2, ed. L. Armstrong (London, Pindar Press, 2003); L. Hellinga 'Peter Schoeffer and the Book-Trade in Mainz: Evidence for the Organisation' in *Bookbindings and Other Bibliophily,* ed. D. Rhodes (Verona, Valdonega, 1994).

[300] Armstrong *Introduction: The Hand-Illuminated Venetian Incunable'* in *Studies of Renaissance Miniaturists in Venice*, Vol. 1, ed. L. Armstrong (London, Pindar Press, 2003), xii; Armstrong (1991), 181.

arms.[301] In this dissertation, we cannot examine the definitive origin of each volumes' decoration, since many are in a style that had spread throughout a particular region. This makes more definitive placing difficult. Yet broad trends will be examined, and speculation regarding the place of decoration will be made based on stylistic components. With examination of border illustration in mind, what is particularly noticeable is the scale amongst the decoration. This can vary in quality, expense and degree.

In the first instance, there were evident differences in quality of production in areas of high manuscript output. In these areas, there would have been great variation between the highest level illustration and the lowest quality rubrication.[302] One might for example compare the more simplistic standards of illustration in Venice to the trend-setting standards of the Pliny and Pico masters. Yet quality can also involve more broad sweeps and evident differences can be seen when one examines illumination undertaken in different parts of Europe. Key centres of illumination have traditionally included France and Flanders, but also Florence where book decoration styles influenced the whole of Italy.[303] Outside these centres, decoration was more basic; Luxford has recently shown the poor nature of Scots illumination in comparison to these European styles.[304]

Lillian Armstrong deftly synopsised this hierarchy in a practical way when examining Venetian decorated incunabula. At the lowest end of the scale were books that include no decoration and have initial letter spaces left blank. Next are books that were rubricated, with initial letters supplied in simple red or blue ink. Some of these initials may also have been supplied with decorative or flourishing pen-work. Following these, were initials that were gilded or painted. She argued that it was these initials that marked the change in artistic professional, from scribe to illuminator. The number of these illuminations varied by book which may also, she argued, reflect a type of hierarchy in itself. Succeeding this, was the decoration

[301] Armstrong 'Problems of Decoration and Provenance of Incunables' in *Studies of Renaissance Miniaturists in Venice,* Vol. 1, ed. L. Armstrong (London, Pindar Press, 2003), 530-1.
[302] See M. Driver and M. Orr 'Decorating and Illustrating the Page' in *The Production of Books in England*, 1350 – 1500, eds. A. Gillespie and D. Wakelin (Cambridge: Cambridge, 2011), 113.
[303] See N. Thorp *Glory of the Page* (1987), number 75, 81, 91 and 99.
[304] See J. Luxford 'The Arbuthnott Manuscripts: The Patronage and Production of Illuminated Books in Late Medieval Scotland' in *Medieval art, Architecture and Archaeology in the Diocese of Aberdeen and Moray,* ed. J. Geddes (London, Routledge, 2016).

of borders of a standard type, followed by richer borders and culminating in decorative frontispieces identifiable to an artist or workshop.[305] The extent to which a volume was decorated can also vary. In most cases, the first initial may be lavishly decorated, but elsewhere only basically rubricated.[306] Likewise with the more heavily decorated works, an owner could commission decoration on any number of text borders, depending on the price they were willing to pay.[307] It is important to note that the finest decoration did not just extend to parchment printed works; printed books on paper were also well decorated.[308] This shows the great prestige that was attached to the book, regardless of its original state, and that owners were willing to pay large amounts to decorate books that were, in some people's eyes', deemed to be perishable.[309]

These hierarchies stated can be found when observing the classical books in Glasgow's collection. Twenty-six had marginal decoration, eight had initials flourished into the margin, eighty-six had scribal initials and one hundred and nine had no decoration. This shows a reverse proportion of decoration. In this sample, most books did not have elaborate decoration and the majority had very simple initials or nothing at all embellished. It is likely that this would have been even more the case in the general circulation of early printed classical texts, as it is likely many of the finer copies have reached Hunter's collection at the expense of the less elaborate copies. Yet it does suggest that Hunter himself was interested in both undecorated and decorated volumes. Of the most lavishly decorated, around 78% are Hunter's, yet 84% of the undecorated volumes also belong to Hunter. Since no comparative analysis has been completed on other genres of text, or collections, it remains to be seen whether these numbers are representative of decoration for all incunabula. It could be supposed however that the general reverse proportion stated may indeed be typical.

Provenance can also be uncovered from examining decoration. Just as bindings can reveal where books have moved throughout history, so too can decoration suggest where an early book was bought. Alternatively, book decoration

[305] L Armstrong (1999)180-189.
[306] Ibid., 181.
[307] Ibid., 185.
[308] Ibid., 189.
[309] It was thought in this earliest period that paper was a perishable medium. Febvre and Martin (1958), 30.

can indicate where an early owner might have lived. Identifying decoration is sometimes inconclusive since artists of a certain style may be working outwith their country of instruction. Another potential problem is that volumes can be sent away for decoration.

Yet in the sample of classical authors in Glasgow's collection, there are clear patterns to be found. All the works with marginal decoration or flourished initials are detailed in appendix 6. Unsurprisingly, given the large number of Italian books, a corresponding number appeared to also be decorated in an Italian fashion. Of these, some volumes have stayed in Italy throughout. There is a supposed sixteenth-century Italian owner of Be.2.7.[310] Likewise, Bf.3.18 was owned by an Italian bishop in the sixteenth-century.[311] Movement is however also apparent. Some volumes have Italian production and decoration but have moved out of Italy at an early date. Although produced in Venice and decorated in an Italian style, Be.1.5 was in Bavaria with the Dominicans at Regensburg from an early point.[312] It is likely that this book had been bought in its completed form in Italy before being transported to Germany. Some volumes, although printed in Italy, were evidently not decorated by artists following the local style. For example, several have been produced in Italy but have French decoration. Although owned by the Sforza family in Milan[313] at some point in its history, Be.3.17, has a Flemish or French style of decoration (see figure 13). The unidentified coat of arms has the same shades of blue, gold, red and green as seen in the rest of the border. The red rose in the arms is also in the same style as other roses within the border. It can be assumed therefore that the border was completed at the same time as the coat of arms. Since the coat of arms cannot be identified, we are unable to uncover the significance of the decoration. It may be however that this has been owned by an Italian who sourced

[310] Information from Glasgow Incunabula Catalogue: http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/be.2.7/

[311] See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/aristotelesorganonnaplesca1473-78/. Likewise, both Hunterian Be.3.29 and Hunterian Be.2.3, have both Italian decoration, production and sixteenth-century ownership. See: http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/be.3.29b/ & http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/be.2.3/.

[312] See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/ciceromarcustulliusepistolaeadfamiliaresvenice1470/. [Accessed 22nd September 2016]. Likewise, Hunterian By.3.29 has French provenance in the sixteenth-century. See: http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/martialismarcusvaleriusepigrammataetal/. [Accessed 22nd September 2016].

[313] See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/be.3.17/ [accessed 11 January 2017].

his decoration to northern ateliers, who perhaps resided in Italy. Such a theory may have grounding because of the volume's later ownership by the Sforzas. It is clear from these examples, and from other examples detailed in appendix 6, that the classical text readily moved across Europe from its place of production, and that this is reflected within decorative styles. This adds material evidence to the discussion of the book market and the demand from readers for classical texts across Europe, outlined in chapter two. Bearing in mind that classical texts were possibly quite representative of the book market, we can assume that many other genres of incunabula were moving in a similar manner.

Relationships between printer, limner and owner can be observed moreover. In some volumes, decoration was commissioned by the printer and not by the owner. Armstrong argued the key to identifying such examples is whether wreaths completed as part of the decorative programme have been provided with individual coats of arms.[314] If these are not filled, it suggests that the decoration has been completed in such a way to allow for the later addition of a coat of arms. In this sample, there are several examples where coats of arms have never been provided, or have been sketched in by the owner himself. Two examples of this are Be.1.5 and Bg.2.9 (see figure 14). In both these cases, the decoration had been supplied in three corners surrounding the text block. It is also apparent from the colourings and leaf definition used in the wreath decoration of Bg.2.9, and the composition of Be.1.5, that the decoration and the inclusion of space for the coat of arms was completed at one point. It is likely therefore that these were completed by the print firm, rather than the end user. Yet in the sample, it is also apparent in some books that both the coat of arms' decoration and the marginal decoration were happening at one point. In these cases, it was likely that the book was bought undecorated. The decoration was then commissioned by an owner, or by a printer commissioning decoration directly for a client. Either way, these forms of decoration appear client directed. In most cases this seems to be the general trend for decoration although it is hard to isolate when decoration had been undertaken at the owners' request, or when they have merely paid for the supply of their own coat of arms to an already completed frontispiece. There are some examples, such as BD12-a.11, Be.3.6 and Bw.3.27, where the illustration styles and colours seem to suggest that the

[314] Armstrong (1999) 202.

decoration and coat of arms was all completed at once.[315] There are also some examples where it is impossible to determine the relationship between the two, as seen in BD7-e.13, Be.1.6 and BD9-d.5.

Taken alongside recent literature on decoration in early printed books, we can see from this sample that methods of decoration and illumination were diverse and the relationships between a print shop, a book and its owner were complex. Although recent literature has focused on the most illustrious print houses, and the most accomplished workshops for decoration, it is hoped that by studying such a sample, the importance of decorative styles and the insight they can shed into print networks and relationships can be observed. We can see therefore that the classical incunabula within this collection were not only valued by early owners but also that they travelled extensively from their places of origin in the earliest period. We can also gain some insight into the relationships between printers, owners and artistic professionals in creating decorated books.

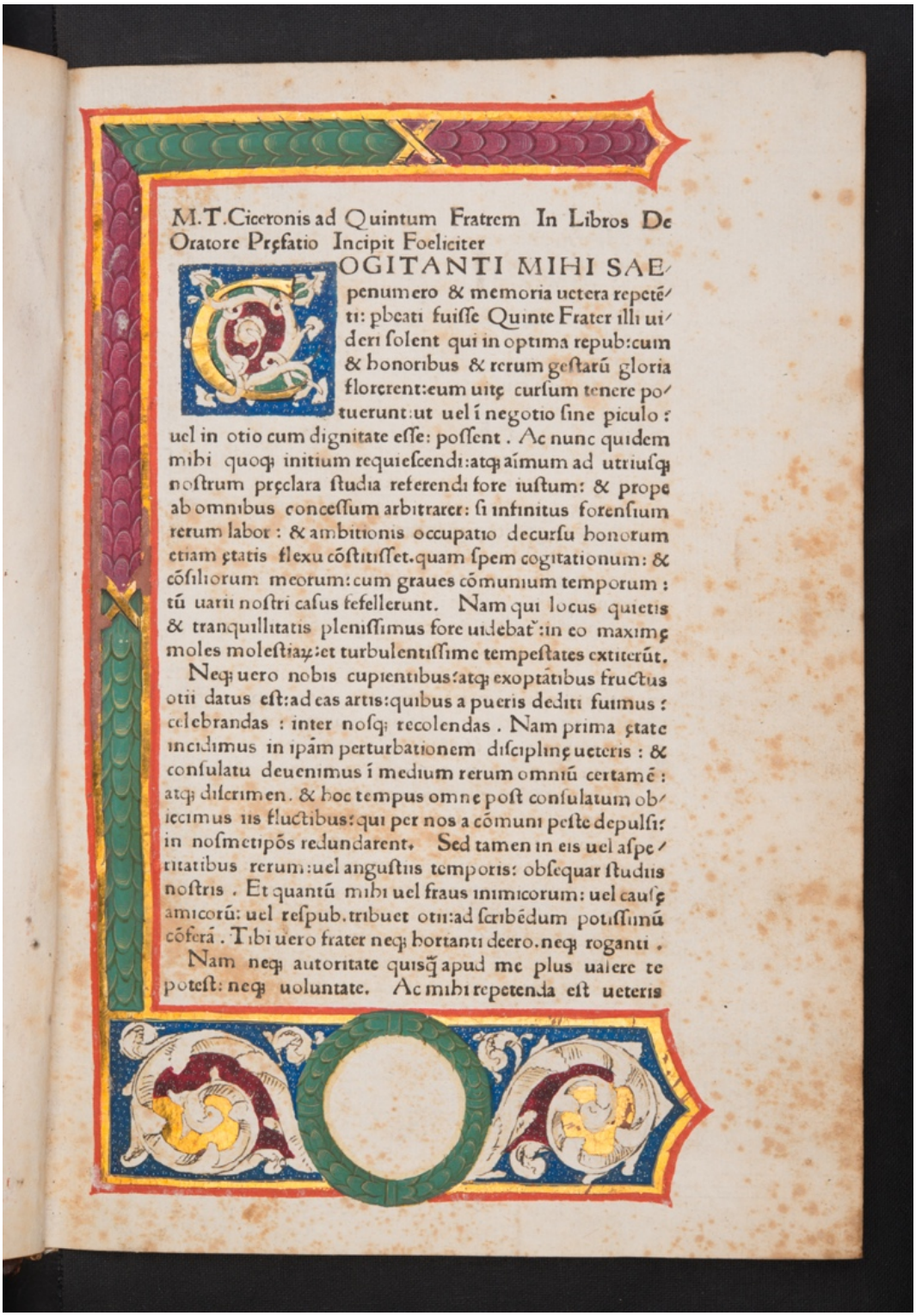
[315] Likewise Commissioned by owner: Hunterian Bx.1.11, Hunterian By.2.13, Hunterian Bh.1.19, Hunterian Be.2.7.

Figure 13. Flemish or French decorative style.

Hunterian Be.3.17, Celsus: *De medicina* (Nicolaus Laurentii: Florence, 1478).

Picture courtesy of University of Glasgow Library Flickr.

Figure 14. Decoration with blank coat of arms wreath.



M.T.Ciceronis ad Quintum Fratrem In Libros De Oratore Prçfatio Incipit Foeliciter

COGITANTI MIHI SAEpenumero & memoria uetera repetēti: pbeati fuiſſe Quinte Frater illi uideri ſolent qui in optima repub:cum & honoribus & rerum geſtarū gloria florerent:eum uitę curſum tenere potuerunt:ut uel ī negotio ſine piculo: uel in otio cum dignitate eſſe: poſſent. Ac nunc quidem mihi quoq; initium requieſcendi:atq; aīmum ad utriuſq; noſtrum prçclara ſtudia referendi fore iuſtum: & prope ab omnibus conceſſum arbitrarer: ſi infinitus forenſium rerum labor: & ambitionis occupatio decurſu honorum etiam ętatis flexu cōſtitiſſet.quam ſpem cogitationum: & cōſiliorum meorum:cum graues cōmunium temporum: tū uarii noſtri caſus fefellerunt. Nam qui locus quietis & tranquillitatis pleniſſimus fore uidebat̄:in eo maximę moles moleſtiaꝝ:et turbulentiſſime tempeſtates extiterūt.

Neq; uero nobis cupientibus:atq; exoptātibus fructus otii datus eſt:ad eas artis:quibus a pueris dediti fuimus: celebrandas: inter noſq; recolendas. Nam prima ętate incidimus in ipām perturbationem diſciplinę ueteris: & conſulatu deuenimus ī medium rerum omniū certamē: atq; diſcrimen. & hoc tempus omne poſt conſulatum obiecimus iis fluctibus:qui per nos a cōmuni peſte depulſi: in noſmetipōs redundarent. Sed tamen in eis uel aſperitatibus rerum:uel anguſtiis temporis: obſequar ſtudiis noſtris. Et quantū mihi uel fraus inimicorum: uel cauſę amicorū: uel reſpub.tribuet otii:ad ſcribēdum potiſſimū cōferā. Tibi uero frater neq; hortanti deero.neq; roganti.

Nam neq; autoritate quisq̄ apud me plus ualere te poteſt: neq; uoluntate. Ac mihi repetenda eſt ueteris

Hunterian Bg.2.9, Cicero: *De oratore* (Vindelinus de Spira: Venice, ca. 1470).

Picture courtesy of University of Glasgow Library Flickr.

4.4 Reader marks

The final aspect of reader response to be examined in this dissertation is reader annotations. Whether written or otherwise, every response, reaction and interpretation of a written work is highly individual, with readers drawing on their own reading history, personal experience and values to shape their private understanding.[316] This form of investigation also relies on the thorough recording of thoughts; we are not ever able to know to what extent written annotations capture a full reading, or indeed if a lack of annotations means that the section, or book, was not read. As mentioned above, scholarship styles were altering at this time from scholastic to humanist. The invention of print intensified this transfer, encouraging readers, leisurely and scholarly, to return to the texts themselves, rather than attempt to access a wide range of knowledge superficially through florilegia.[317] Opposed to scholastic methods where large volumes of text were memorised or copied into and studied through commonplace books, the printed book, along with its new commentaries and glosses, became a greater tool for consultation and reference.[318] It is likely that the increased dissemination of texts and a greater standardisation of works would have nourished this environment. Moreover, although perhaps more applicable after the incunabula period and in genres other than the classics, the wide-reaching nature of print and the economic advantages that large scale production yielded, may even have altered the types of readers accessing books, as well as the ways that they were used.

Reader mark is often interpreted as commentaries, personal, philological or historical notes, interlinear glosses, key words, nota marks, paraphrasing, translating and transliterating. Yet this topic, as with decoration above, meets the intersection between production and use. Some of the other forms of common response may actually have been completed in the production process; rubrication and textual correction for example. To that end, rubrication and correction will also be included here, if only to define the ways that a reader may have used a book, rather than as direct evidence of production processes. Since, in many cases,

[316] G. Cavallo and R. Chartier 'Introduction' in *A History of Reading in the West,* ed. G. Cavallo and R. Chartier (Cambridge: Polity Press, 1999), 1-3.
[317] J. Hamesse 'The Scholastic Model of Reading' in *A History of Reading in the West,* ed. G. Cavallo and R. Chartier (Cambridge: Polity Press, 1999), 107-111.
[318] A. Grafton 'The Humanist as Reader' in *A History of Reading in the West,* ed. G. Cavallo and R. Chartier (Cambridge: Polity Press, 1999), 196-205.

rubrication does not appear consistently throughout the volume, it could be suggested that these forms of visual punctuation were used to draw attention to important segments of the text. In many cases, such actions will have been undertaken by scribes or dedicated individuals[319] but perhaps, when punctuation does not appear throughout, it had been completed by the owner himself. Underlining is also an important indicator of readership by pointing out passages of interest.

However, it is impossible to move from an examination of reader marks to a thorough interpretation of readership. Then, as now, a lack of annotations does not necessarily equate to a dearth of readership. Likewise, looking at the marks in these books, we cannot hope to encapsulate all the nuanced and developed thoughts and connections that one reader may have had with a particular book, nor in most cases their particular motivations behind such study. This analysis therefore can only go on marks found and in no way attempts to fully encapsulate the ways that readers may have responded to their edition, Cicero or classical texts more generally.

Necessity demands moreover that this examination should be more in-depth than those looking at binding or decoration, and as such I have returned to the sampling of classical editions of Cicero within the collection. This allows more focused analysis and encourages a comparison between the use of different editions of the same text, an exercise that can be most easily achieved using editions of Cicero. The use of these volumes as a case study offers problems however. Their number is too large to allow for an in-depth understanding of the annotations in each book. Yet it is also problematic as only a small number of copies of each work can be examined because of later washing or cropping, or because of difficulties with legibility. This hinders any real potential for overviewing the response to a particular work, or indeed to Cicero as a whole. When examining individual copies, we can however see a level of individual response and some links can be found.

Within this sample, a number of the volumes have annotations. Out of these, unfortunately, a large number have been cropped or heavily washed, rendering full

[319] P. Saenger & M. Heinlen 'Incunable Description and its Implication for the Anaylsis of Fifteenth-Century Reading Habits' in Printing the Written Word: The Social History of Books, ca.1450-1520 ed. S. Hindman (Ithaca: Cornell University Press, 1991), 239.

analysis difficult. Moreover, some of the annotations in a few volumes are lengthy enough to deserve study in their own right. The annotations of Hunterian Bg.2.24 are certainly of note and would make an interesting study, especially given that some early provenance has been found for the volume.[320] These early annotations are largely found in the margin but there are also frequently interlinear glosses. These annotations are in a cursive, faded, and rather small hand but have themselves been furnished with paragraph marks and capital strokes in red. This may in itself suggest that they were used as working annotations, somewhat akin to a printed commentary alongside a text. Out of twenty-eight copies in the sample of Ciceronian works, only two did not have any contemporary or sixteenth-century annotations. Many of the works that have been annotated are also provided with rubrication. Very few seemed to have been used copiously, leaving a large volume of individual reflection. In no example were illusions made to contemporary figures or events, and most of the annotations in question seem merely to be aids to understanding or remembering the printed text.

Some works are evidently annotated over a period of time. In a copy of *De Inventione*, Be.3.29, there is a variety of pens key-wording the text and these appear to be in different hands, although it is difficult to determine this for sure. This might suggest that it has had various owners. Interestingly, some of these annotations have been washed. What is most unusual is that the washed annotations, which are mostly in a light yellow-brown ink, appear in some cases to be in the same hand as the unwashed black annotations. Furthermore, in many places, the black ink annotations appear where many of the washed earlier annotations have been. There is also another pen running throughout the text, correcting and supplying erroneous and missed material. This hand also appears to be similar to the others, albeit in a smaller style. This suggests that the corrections within this text have not been created by an employed emendator who was furnishing the text with key points and corrections,[321] but actually completed by the owner themselves. It may be that the owner returned to the text at a later date and attempted a reread of the work, to find

[320] Glasgow University Library incunabula catalogue state that it was owned by Eberhard Esch a canon, in the fifteenth or sixteenth-century. See http://www.gla.ac.uk/services/incunabula/a-zofauthorsa-j/ciceromarcustulliusdeofficiismainz1466/#d.en.162490 [accessed 2nd October 2016].

[321] Ibid., 239-243.

himself interested in the same passages. The corrections suggest a desire to have the most correct text possible.

What is most interesting about the annotations within this book is that they are clustered around several key sections of the work. The annotations group around the beginning of the text, appearing very heavily around the first twenty chapters of book one of *De Inventione*. Annotations then take place sporadically over the next ninety chapters. In the last ten or so chapters of book one, the punctuation marks which have so far appeared infrequently, increase. There are more paragraph marks and washed capitals that start out sporadically, but increase in intensity, until they are washed throughout near the conclusion of book one. It is possible that this work may have been used by a legal scholar, or perhaps even in ethics study, considering the flourishing of activity in book one, chapters seventeen and eighteen. This suggests a particular interest in the ways to define and describe an 'issue'. The annotations in these sections seem to be interested in the key facets of arguments and how they are constructed.

Book two, where Cicero undertakes a more in-depth discussion of the issues laid out in book one, is far less annotated. There are some corrections but these are certainly not throughout and there are only a couple of keywords sporadically throughout the book. It is also likely that the annotator in book two is the same as book one. This suggests a less responsive interest since the annotator is doing no more than picking out the key concepts. Indeed, this reader seems most keen on understanding the wider importance of oratory and interested to a far lesser extent on the more in-depth study of an oration. This might imply that it was being used as a guide or consultation of the law, perhaps the premises of which could be applied to his own time period. The lack of more in-depth response suggests that it was being used as a theoretical guide for key points in oratory, rather than directly applied.

Further, it is useful to compare and contrast different editions of the same work. Just as *De Inventione* was perhaps used as a text for consultation, the copies of *Rhetorica ad C. Herennium* appear annotated in the same manner. The library holds four annotated copes of *Rhetorica.*[322] The text is concerned with ancient

[322] See editions 24, 25, 26, and 27 in appendix 4.

rhetorical training and was likely part of an unfinished larger work that intended to detail all the full traits of the art of oratory.[323] So it is unsurprising that many of the annotations are, once again, picking out key words that relate to the main argument. Hunterian Be.3.29 for example is mainly picking out the key words from a few select passages. There appears to be more than one distinct hand doing this. Another hand is sporadically running throughout the volume adding corrections. In Hunterian Bw.3.16, the most common form of mark is a paragraph mark but there are also a few nota marks and short annotations. Hunterian Bg.2.29 contains a variety of different marks, interlinear glosses and annotations being the most common. Most of the annotations have been heavily washed but appear to be in the same hand as the glosses. Lastly, Hunterian Bx.2.16 utilises mainly nota marks and key words.

In some copies however the use of punctuation may be demonstrating a method of marking out areas of textual importance. In Hunterian Bx.2.16 for example the capital strokes and initials sporadically cluster around certain sections of books ones, two and three. It is evident that these sporadic marks relate to specific parts of the text, perhaps places the annotator thought important, choosing to leave others blank. This same pen that is making these marks probably also made the monastic ownership inscription on the flyleaf. This may suggest that these marks were completed in the monastic house. Be.3.29[324] is very sporadically annotated throughout the whole book. There is more of a concentration however around book four than in the proceeding books. In Hunterian Bw.3.16, the most annotated section is around book two, chapters twenty-six to twenty-nine. In Hunterian Bg.2.29 most of the annotations and glosses appear scattered through books one and two and in Hunterian Bw.3.16 most of the annotations appear in book one. This appears to show that there was no standard consistency within the book for the key reference passages.

However, when we cross reference the annotated sections we can observe the overlaps of key segments in all copies. In particular book 1, chapter four stands out in some way in all the volumes and in two of them, Be.3.29 and Bw.3.16, the same key words are picked from the text. The chapter outlines the main ideas that

[323] Cicero *Rhetorica ad Herennium* ed. H. Caplan (Cambridge: Harvard University Press, 1954), viii-x.
[324] See edition 26 in appendix 4.

makes a case or argument both true and believable. It names the six parts of a discourse, with a short description of their main purpose within the wider speech. The key words picked out by the readers are these different parts identified by Cicero. It is likely then that these keywords were being used to remind the reader of the main parts of an argumentative discourse, and to leave indication of where the broad descriptions were in the text for future reference. This underlines its importance and suggests somewhat that the readers may be using the volume for the same purpose. Aside from this, many of the main areas annotated do not overlap suggesting slightly different individual motivations.

4.5 Conclusion

It is apparent therefore that the examination of the binding, decoration and annotation of early printed books can inform us about patterns of response or ownership. This can include ownership soon after production, when books were likely to be used as textbooks, but also, in later centuries, when books were bought and sold for a different purpose: for their merit as collectors' items. This combination of methodologies can allow us to contrast responses through time. For example, sammelbande examination can shed insight into the ways that an early reader might have read their texts together. Additionally, it can also give insight into fifteenth or sixteenth-century library practices. As opposed to the elite eighteenth-century collectors who had individual texts bound independently in an effort to categorise books by genre or author, or to show off the number of books in their collection, early extant sammebande demonstrate that the earliest owners categorised their texts and their libraries differently. Because these texts were used as workable volumes, they were most often bound together because of a linked theme. The binding of similar works together therefore was not only of economic, but also of practical benefit. In binding two similar texts together, an owner was not only saving money but also encouraging ready comparison and cross-referencing between the texts. Resultantly, an interpretation of one will have been directly shaped by his conscious awareness of the other texts, most likely allowing for greater leaps of thought than if the text had been independent. Sammelbande collection was therefore the same process by which early modern writers included paratextual and liminary works in publications, intended to introduce, expand and

enhance the main text.[325] Although sammelbande were also common in manuscript culture, it is possible that during this explosion of early printed books into the market, they may have been a factor in the greater spread and comparison of ideas.

Studying later bindings can also allow us to examine changes between types of collector, place and associated material response, which in many cases is represented through the rebinding and reordering of the book within an antiquarian collection. Indeed, since the sample used in this dissertation has been partly amassed by an eighteenth-century collector, we are able to learn much about this later response to incunabula. It is evident that rebinding was the norm, for the reasons expressed above. It was also probably completed in an effort to reorder their library in a way that made most sense to them. Although classical scholars or institutions may have used first editions of these texts, it is unlikely that many classical incunabula entering collections at this time would have been used as practical volumes. It is plausible that rebinding was undertaken, not only so that they could collate the books within their wider collection but also so that these volumes could be readily redistributed according to their own library procedures. This most probably meant that texts were classified differently: classical texts were perhaps more likely to be a genre of their own by this point in time, whereas before, classical texts would have been further broken up by topic. For example, when in ready use, the philosophical works of Cicero may have been grouped with other philosophical works, and his oratorical works may have been bound with other legal or political works. By later centuries, it is more likely all of these works would have be defined simply as 'classical' and may be stored together or in alphabetic order.

Decoration can also help inform about the movement of books across Europe. Although individual books may, to some extent, have been printed in a homogeneous appearance, their route after production could be very varied. Different decorative styles show this fluidity of the book market and remind us that the prosopography of every individual book should be studied, as each has a

[325] In the same way, a modern anthology might either consciously or unconsciously promote comparison between the texts within. In doing so, the reader is taking part in paratextual evaluations, with the extra works influencing overall interpretation. Study into liminary verse in sixteenth-century Scottish printed books has been completed by Jamie Reid-Baxter. He argues that to ignore the liminary verses printed before the main text is to not read it as it was intended to be read and thus miss its guidance on the main work's content. See J. Reid-Baxter 'Liminary Verse: The Paratextual Poetry of Renaissance Scotland' in *Journal of the Edinburgh Bibliographical Society* 3 (2008), 70-74.

different story to reveal. With regard to the classical text, decoration reminds us that they were in ready demand across Europe and mirrors trends seen in chapter two for Venetian books outside of Italy. It is likely that wider study of decorative trends of both classical texts, and other genres, would be reflective of wider trends in the geography of the printed book. Annotations can also inform about the printed book, namely, as with sammelbande, concerning how a reader has used and responded to a text. This is most telling when it can potentially indicate the types of reader that may have accessed a book, and the main points of interest they wanted to visually remember.

In conclusion, this study laid out the methodologies of looking at the book as a physical object. When combining analysis of binding, decoration and reader marks, we can evaluate the extent to which books moved across Europe, the prestige with which they were treated and the responses which they evoked. It is hoped that this will encourage wider cross disciplinary study on treatment and response to early books. Although the classics could be looked at in much more depth, it is also hoped that this might be some platform from which to compare the classical text to other genres.

Chapter Five

Conclusion

The main aim of this dissertation was to examine the dissemination and production of the early printed classical text. Most importantly, it attempted to produce some framework within which we might gloss the impact and reception of the printed text. Another component of this discussion was to chart the movement of books across Europe. One of the main ways of achieving these goals was to examine details of geography, production quality and reader reception in an attempt to understand the changing views of the classical text as a material and commercial object. This contributed to, and further developed, previous research undertaken on the books themselves. In examining one group of texts, this research also allowed the classical text to be viewed as a somewhat distinct entity in this period of change and innovation in the book market.

The first chapter looked at the geography of the classical book and was an attempt to chart changes in its production by period and location, but also in language. This examined the popular authors in Latin but also went further by looking at production in translation. These patterns are not surprising given the later history of vernacular printing. The second chapter examined the production of the classical book by examining production methods and qualities in depth. This looked at paper quality, quality of type, printer mistakes and page layout of the printed book. Although mainly at the higher end of the spectrum, this sample evidenced diversification within the print market. The final chapter examined use and reader response to the classical book by examining evidence that can be found in the bindings, decorative methods and in reader marks or annotations. This showed the varying response to to books by readers but also highlighted the ways that the books moved after production.

It is the classical text as an institutor of change and innovation that is the most interesting factor to arise from this study; it is evident from this small analysis that the classical text was at the forefront of the changes in the European book market. Striving to find a balance between increasing production locations and a larger volume of books, centres of production were internationally experimenting. The remarkably adaptive nature of the market is seen when we observe how printers

quickly learned from their predecessors' mistakes, namely that too much of the same thing could saturate the market. Instead they learned that adjustment and diversification was the only way to survive. Although the concentration and dominance of print in several key European towns was a common feature of the sixteenth-century book market, it is in these first decades that we can see this process in ready transition; there is an element of concentration of classical print, but it is clear from this study, that other areas adapted in response. It is this fluidity that directly caused greater diversification within the readership. Having met markets for scholarly Latin or Greek, printers turned to dissemination in the vernacular, a trend that was to have explosive consequences in the sixteenth century. It is possible that we can observe some of the first widespread instancing of this trend using the classics as a sample. Perhaps in this respect it is actually unhelpful to talk about incunabula as a distinct entity. In doing so, it implies that printed books produced before 1500 were independent of those produced after 1500, and thus negates the influence they had in the later trends of the sixteenth-century. It is possible that trends for printed books in the 1480s and the 1490s may actually have had more in common with printed books after 1500, than those of the first decades of printing. In using such categories, it also excludes the importance of these books for helping to herald the events caused by Erasmus, Luther and Tyndale. It could be suggested indeed that the printed classical text was a precursor and partial initiator of these events.

Another feature examined that can inform about the early printed classical book is decoration. This can tell us the means by which a book moved across Europe after production, reflecting, in a visual manner, supply and demand in the book market. This fleshes out our understanding of the relationships between owners and printers, but also highlights the prestige with which books were viewed and treated. In this respect it is akin to an eighteenth-century owner commissioning a fine morocco binding. Both owners respected and took pride in their book, even if the reasons behind this were divergent. A lack of decoration can also be informative since it is likely that most incunabula were not decorated or only decorated in a very simple manner. Although they were not decorated, it is likely that many of them were still read. This suggests that most readers were relatively unconcerned with the way their text looked. They were most interested in accessing the ideas within and were happy to use a bare text for that purpose.

Change and innovation can also be seen in characteristics such as production. Additional works give possible ways that individual printers tailored their output to fit within their wider market, in some cases in an attempt to appeal to local readers. Production quality demonstrated that although some readers evidently did not mind whether they were reading an undecorated text, some printers were consciously aware of production qualities and did attempt to generate the best type of book possible. This may demonstrate a personal pride and interest in self-perpetuation.

The effect of the classical text on the reader can be seen, both in the discussion of vernacular books above, but also in discussion of sammelbande. We saw from this analysis that the high proportion of sammelbande occurrence, as well as its thematic grouping by topic, might have encouraged cross-reading between texts in the same volume. This would have been part of a new wider exploration of links between texts and ideas that the increased number of books in the market fostered. In contrast, examination of bindings themselves gave us insight into the reasons that some of these sammelbande were broken up, but also the reasons that they were rebound. In this collection's case, it reflected later treatment of classical incunabula and thus demonstrates another evident change in the prosopography of the classical book: it moved from a useful, workable textbook to a book that was collected for its merit as an old, classical volume.

In all, this highlights the development of a new market, with new readers, that later developed more fully in the sixteenth century. We might even suggest that the classics could have been a driving force in the diversification of the print industry. This study therefore contributes to wider literature on the book as a material object and adds to scholarship on book movements, production and markets. It also contributes further information on certain books and wider trends within Glasgow University Library's collection. This study would be of interest to scholars of early print as a way to approach the material object in its entirety. It may also be of interest to scholars researching the history of intellectual thought as it charts changes and responses to the press and attempts to evaluate the effect it had on both readers and producers.

The limitations of this project have been its relatively small sample size. In viewing only classical texts, it is hard to evaluate wider responses to the press and therefore the way the classical text itself fully responded to the changes. It is for these reasons that the main suggestion for further research would be to examine other texts in a similar manner. One might examine texts printed in the vernacular or for a different audience, such as courtly romances or Bibles, in an attempt to gauge changes. Alternatively, one might also view a wider sample of classical texts, or examine particular authors, printers or locations in an attempt to further analyse the suppositions outlined.

Appendix 1

Classical incunabula as a percentage of all editions (University of Glasgow)[326]

Country	Classical incunabula	Glasgow's whole incunabula collection (as of January 2017)[327]	Classical incunabula as a percentage of the whole country's collection
	No. of copies	No. of volumes	
Italy	206	614	33.5%
Holy Roman Empire[328]	20	328	6.1%
France	9	92	9.8%
England	3	25	12%
Low Countries	1	53	1.9%
Spain	1	3	33.3%
Totals	240	1115	

[326] Data: Glasgow Incunabula Project http://www.gla.ac.uk/services/incunabula/ [accessed 21st July 2015).

[327] This includes a few volumes catalogued outside of the university collection.

[328] Including Basel and Geneva, although Geneva was in this period in the dominion of the House of Savoy and self-autonomous.

Appendix 2

Editions of Classical Authors in the Old Library collection (with duplication)[329]

City	No. of copies	Percentage as part of total classical incunabula in Old Library collection
Venice	22	75%
Florence	2	6.9%
Milan	2	6.9%
Treviso	1	3.4%
Rome	1	3.4%
Brescia	1	3.4%

[329] Data: Glasgow Incunabula Project http://www.gla.ac.uk/services/incunabula/ [accessed 21st July 2015).

Appendix 3

Dissemination by Author

Author	No. of editions (Uni. Of Glasgow)	No. of copies (Uni. Of Glasgow)[330]	ISTC [331]
Cicero[332]	19	29	348
Aristotle[333]	12	21	192
Livy	6	6	22
Seneca	6	7	126
Caesar	5	5	17
Pliny the Elder	5	6	18
Virgil	5	6	187
Celsus	4	5	4

[330] All Glasgow data: Data: Glasgow Incunabula Project http://www.gla.ac.uk/services/incunabula/ [accessed 21st July 2015].
[331] All ISTC data: ISTC, *http://istc.bl.uk/index.html* [accessed 23rd July 2015].
[332] Includes [pseudo-] Cicero.
[333] Includes [pseudo-] Aristotle.

Gellius	4	4	10
Homer	4	4	21
Justin	4	5	16
Mela	4	4	9
Sallust	4	5	72
Varro	4	5	6
Aesop	3	6	159
Apuleius	3	3	6
Festus	3	4	7
Horace	3	3	83
Josephus	3	4	13
Lucan	3	3	25

Ovid	3	3	187
Solinus	3	4	12
Suetonius	3	4	18
Appian	2	3	5
Asconius	2	2	2
Diogenes Laertius	2	3	11
Diogenes Laertius [pseudo-]	2	2	10
Herodotus	2	2	3
Hyginus	2	2	5
Juvenal	2	3	56
Martial	2	2	21
Nonius Marcellus	2	2	12

Quintilian	2	2	8
Statius	2	2	17
Strabo	2	2	6
Tibullus	2	2	15
Ammianus	1	2	1
Apollonius Rhodius	1	2	1
Aristophanes	1	2	1
Ausonius	1	1	6
Callimachus	1	1	2
Cato	1	2	163
Claudian	1	1	16
Cleonides	1	1	1

Columella	1	1	10
Curtius	1	1	11
Dictys Cretensis	1	1	5
Dio Chrysostomus	1	1	6
Diodorus Siculus	1	1	6
Diomedes	1	1	9
Dionysius Halicarnaseus	1	2	3
Dionysius Periegetes	1	1	10
Dioscorides	1	1	2
Euclides	1	3	2
Euripides	1	1	1
Eutropius	1	1	1

Firmicus	1	3	2
Florus	1	2	10
Frontinus	1	1	2
Herodianus	1	1	3
Iamblichus	1	1	1
Isocrates	1	1	11
Lucian of Samosata	1	2	31
Lucretius	1	1	4
Nepos	1	2	5
Plato	1	1	10
Plautus	1	1	11
Pliny the Younger	1	1	2

Plotinus	1	1	1
Plutarch	1	3	31
Tactius	1	1	6
Terence	1	2	138
Terentianus	1	1	1
Theocritus	1	1	6
Theophrastus	1	3	1
Valerius Maximus	1	4	31
Vegetius	1	1	7
Vitruvius	1	1	2
Xenophon	1	1	4

Appendix 4

Production quality by copy

Edition 1:

Hunterian Bw.2.3, *De finibus bonorum et malorum*, Vindelinus de Spira, Venice, c. 1471.

ISTC ic00565000.

Paper:

Appearance: moderately thick, off cream, rough.

Quality: Wrinkled paper on 6r+v, 11r, 16r+v, 17r +18r+v, 20v, 41r, 51r, 52r+v, 53r+v, 54r+v, 55r+v, 56r+v, 84r+v, 89r+v, although it seems that many of these wrinkles, since they occur in the same place, might be from the binder. Mixture of thicknesses; paper is very thick and rough on 6r+v, 50r is very thin, and 80r onwards is very thick. The last page, 91r, was torn and is repaired with excess paper.

Type:

Quality: Fresh clean type throughout; little ink showing through; solid black colour.

Ink distribution: Even distribution of type with clean, fresh, easily readable pages. Some over-inked letters on 6r, 17r+ v, 19r, 20r, 44v, 47v, 58r+v. Some pages under-inked slightly on 12v, 16r, 57r, 59r, 60v.

Layout:

Quarto.

No of leaves: [93] leaves [3, 40, 92-93 blank].

Leaf measurement: 279 x 195 mm.

BMC leaf measurements: 266 x 192 mm (IB.19538); 280 x 188 mm (IB.19537); 279 x 196 mm (IB.19539).

Sheet measurement: 558 x 390mm.

Paper size: royal.

Columns: single

No of lines on a page: 5a: 32 lines.

Area of type: 5a: 176 x 107 mm.

BMC type(s): 110R(2), 110Gk on 91a.

Type body size: 5.5mm and 4.5mm.

Printing errors: [334]

Inked spaces: faint evidence on 5r; 10r, 11r, 42v, 43r, 80v, 81r, 90r.

Inked beards: faint evidence on 5r, 10r, 42v, 43r, 80v, 81r, 90r.

Inked furniture: 2v,13v, 43v.

Frisket bite: faint evidence on 80v.

Rather crooked type throughout volume.

Shaking of the forme/press and smudging: 8v, 80v, 85r.

Set off: faint evidence on 5v.

Mistakes: space placed between **eg** and **o** in **ego**, printed **i** upside down on f52v, printed **r** upside down on 55r.

[334] Quires b–c (f3-18), g-h (f40-55), m-n (f79-93) examined.

Edition 2:

Hunterian Be.3.16, *De finibus bonorum et malorum*, Au Soufflet Vert, Paris, 1475 – 9.

ISTC ic00565500.

Paper:

Appearance: medium - moderate thickness; moderate texture; beige, very speckled,

Quality: after 43, paper is rougher and thicker with visible wire lines on paper surface. Paper less rough after 50; paper has been badly washed making the paper brittle.

Type:

Quality: Very worn type. Worn letters include **e, h, a, u, d, t**; most pages do not have much ink bleed through but is very bad on certain pages; ink is of a solid black throughout.

Distribution: Often over-inked, especially when letters are worn (1r, 2v, 3v, 4r, 5v, 7v, 7r, 8v, 8r, 9r+v, 10r+v, 40v, 42v, 42r, 43r+v, 45r+v, 46r+v, 48r+v, 49r+v, 50r+v, 60r+v, 61r, 62r+v, 63r+v, 64r+v, 65r+v, 67r+v, 68r+v, 69r+v, 70r+v).

Layout:

Folio

No of leaves: [70] leaves. [The last leaf is blank].

Leaf measurement: 273 x 186 mm.

Sheet measurement: 273 x 372mm.

Paper size: chancery.

Columns: single.

No of lines on a page: 8r: 34.

Area of type: 183 x 113mm.

BMC type: 106R.

Body size: 5.3mm.

Printing errors: [335]

Inked beards: 10r+v.

Inked furniture: 60r, 63r.

Off-setting: 61r, 67r, 68r, 69r.

Set-off: 1r, 2r, 4r+ v, 6v, 7v, 60v, 61r, 62r+v.

[335] Quires a-b (f1-19), f-g (f52-67), z-& (f176-188) examined.

Edition 3:

Hunterian Bx.2.17, *De finibus bonorum et malorum,* Filippo di Pietro, Venice, 1480.

ISTC ic00566000.

Paper:

Appearance: medium – moderately thick (thinner in the second half of the book); rough texture, perhaps from wet cloth; cream but yellowed.

Quality: some small bulging lumps of paper pulp throughout, especially around 35-42, f53-8, some felt speckling; knotted paper in places, wrinkles in the paper – 13r, 43, 46, 49, 50, 55, 56, 60, 66, deckled page edge 22r.

Type:

Quality: worn letters throughout – especially **e**, **s** and **a**.

Ink distribution: fairly well distributed – worn letters overinked in some occasions.

Layout:

Folio

No of leaves: [78] leaves, the first blank.

Leaf measurement: 292 x 198 mm.

BMC leaf measurement: 288 x 198 mm (IB.20183).

Sheet measurement: 292 x 396mm.

Paper size: chancery.

Columns: single.

No of lines on a page: 4a: 36 lines.

Area of type: 4a, 206 x 105 mm.

BMC type(s): 114 R, 115 Gk(b).

Body size: 5.7mm, 5.75mm.

Printing errors: [336]

Inked spaces: 14r, 36v, 37r, 38r, 39v, 41v, 44r, 45v, 47r, 67r, 72v, 74v, 75v, 76v, 77v.

Inked beards: 8r, 9r, 12v, 13r, 14v, 15r, 16r, 16v, 17r, 35r, 35v, 37r, 39r, 39v, 40r, 40v, 41r, 41v, 42r, 45r, 45v, 46v, 48r, 48v, 49r, 49v, 68r, 69r, 73r, 75r, 76v, 77r, 78r.

Inked furniture: 4v, 8r, 9r, 11r, 13v, 15v, 16v, 39r, 70r, 76r.

Frisket bite: slight on 12v, 35r, 35v, 36v, 37r, 37v, 38v, 39r, 40r, 41r, 42r, 42v, 43r, 43v, 44r, 44v, 45r, 45v, 46r, 46v, 47r, 47v, 48r, 48v, 49r, 49v, 67r, 67v, 68v, 69r, 71r, 72r, 73r, 73v,75r, 76r, 76v, 77v, 78r.

Copy fitting: 11v, 12r, 37r, 39v, 40v, 41r, 77r.

Set off: light on almost all pages.

Upside down letter: u in 41v.

[336] Quires a-b (f1-17), e-f (f35-49), i-k (f66- 78) examined.

Edition 4:

Hunterian Be.3.29, *De inventione*, Filippo di Pietro, Venice, 1475.

ISTC ic00645000.

Paper:

Appearance: moderately thick throughout, with same thickness throughout, yellowed pages, heavy texture of many pages, perhaps from wet cloth.

Quality: deckled edges in quire a, patches of the page marked, faded and torn due to washing, some wrinkles due to binding in 21, 22, 23, 26, 29, 30, paper bulging in 17, 18, 28, 31, 41, 44.

Type:

Quality: type, mostly clean and fresh – some worn **e** and **s.**

Ink distribution: mostly well distributed but some overinking of the worn **e**.

Layout:

Folio.

No of leaves: [58] leaves, the first blank.

Leaf measurement: 290 x 202 mm.

BMC leaf measurement: 279 x 195 mm (IB.20134).

Sheet measurement: 290 x 402mm.

Paper size: chancery.

Columns: single.

No of lines on a page: 3a: 32 lines.

Area of type: 3a: 183 x 106 mm.

BMC type: 115R.

Body size: 5.75.

Printing errors: [337]

Inked spaces: 4v, 5r, 6r, 10r, 10v, 12r, 13r, 14r, 14v, 34r, 37r, 37v, 38v, 40r, 43r, 44r, 46r, 47r, 49r, 50r, 52v, 56r.

Inked beards: 2v, 4r, 5r, 6v, 7r, 7v, 10v, 11r, 12v, 13r, 27r, 28r, 33r, 34v.

Inked furniture: 3v, 8r, 9r, 38r, 43r, 55r.

Frisket bite: (very slight) on 4r, 11r, 27r, 28r, 29r, 33v, 38v.

[337] Quires a-b (f1-15), d-e (f24-39), f-g (f40-54) examined.

Edition 5:

Hunterian Bg.3.9, *De natura deorum*, Vindelinus de Spira, Venice, 1471.

ISTC ic00569000.

Paper:

Appearance: moderately thick to thick paper throughout apart from a few thinner pages, cream paper, slightly yellowed. Mostly even textured.

Quality: mostly very good, some water drops on the paper – 25r, 98r, page wrinkles – 47r, 67r, 97, 114r/v, 137r, pulp grouping – 74r, 120r, 144r, 148r, 171r, 173r.

Type:

Quality: mostly fresh and clean type except a few worn **a** and **s**.

Ink distribution: very neat and well distributed.

Layout:

Quarto.

No of leaves: [188] leaves, 1, 151, 152, 188 blank.

Leaf measurement: 278 x 199 mm.

BMC leaf measurement: 268 x 190 mm (IB.19529); 274 x 188 mm (IB.19528).

Sheet measurement: 556 x 398mm.

Paper size: royal.

Columns: single.

No of lines on a page: 7a, 34 lines.

Area of type: 187 x 109 mm.

BMC type: 110R(2); 110 Gk on 66b.

Body size: 5.5mm.

Printing errors: [338]

Inked spaces: 2r, 3v, 10r, 108r, 183r, 185v, 186r.

Inked beards: 105v, 113r.

Inked furniture: 3r, 187v.

Frisket bite: very slight throughout but not enough to affect legibility.

Set off: 8r, 9v, 16v.

Shaking of the frisket and smudging: 9v.

[338] Quires a-b (f1-19), m-n (f98-114), z-&(f176-186) examined.

Edition 6:

Hunterian Be.3.16, *De natura deorum*, Vindelinus de Spira, Venice, 1471.

ISTC ic00569000.

Paper:

Appearance: moderate thick, moderate textured (smoother than the Parisian paper bound within this volume); pages slightly speckled; beige.

Quality: Good throughout but badly washed.

Type:

Quality: clear type on the whole; very little show through of ink; solid black colour.

Ink distribution: even distribution of ink with very little smudging or over-inking. Ink slightly over-inked at the end of lines (especially 1r, 9v, 10r+v, 11r); slight fading of ink - due to washing, type is sometimes washed onto the facing page (2v, 3r+v, 4r, 19v, 20r).

Layout:

Quarto.

No of leaves: [188] leaves, 1, 151, 152, 188 blank.

Leaf measurement: 273 x 186 mm.

BMC leaf measurement: 268 x 190 mm (IB.19529); 274 x 188 mm (IB.19528).

Sheet measurement: 546 x 372mm.

Paper size: royal.

Columns: single.

No of lines on a page: 7a, 34 lines.

Area of type: 187 x 109 mm.

BMC type: 110R(2); 110 Gk on 66b.

Body size: 5.5mm.

Printing errors: [339]

Set off: 2r.

Note: greater use of contraction and special symbols in this book than in the French books. Highlights different sophistication of the types. The difference in the size is also readily apparent and allows for a much clearer page, with what appears larger spacing.

[339] Quires a-b (f1-20), m-n (99-114), z-&(f176-188).

Edition 7:

Hunterian Dr.2.11, *De natura deorum*, Simon Bevilaqua, Venice, 1496.

ISTC ic00572000.

Paper:

Appearance: beige, speckled with felt fibres, moderately thin (with some very thin leaves in quire d, bb, C-D), mostly even textured.

Quality: some wrinkles at a1r, a4, b1, b2, EE6, DD6, GG4, II, II3, II4, II6, II8, aa3, bb2, bb3, ff2, ff3, uneven page edge II5 with pulping of fibres around whole page, deckled edge at bb5.

Type:

Quality: mostly neat but rather worn in places.

Ink distribution: letters **a, b, e, s** occasionally over-inked. Distribution is somewhat even however, with very little ink show through throughout the rest of the volume.

Layout:

Folio.

No of leaves: 140 leaves.

Leaf measurement: 312 x 210 mm.

BMC leaf measurement: 293 x 196 mm (IB.23963).

Sheet measurement: 312 x 420mm.

Paper size: chancery.

Columns: single.

No of lines: 3a, 42 lines and headline.

Area of type: 3a, 231 (242) x 145 mm.

BMC type: 112Ra, quires aa – ff, A – D, a –e. 110R sheers first A, 2, 7; 109R quires A-G; 105R quires HH, II.

Body size(s): 5.6mm; 5.5mm; 5.45mm; 5.25mm.

Printing errors: [340]

Inked spaces: 1r, 12r, 52v, 115r, 118v, 121r, 122r, 122v, 125r, 126v, 128r.

Inked beards: 124v, 126r.

Inked furniture: 4r.

Frisket bite: 117r.

Inky print: 49.

Evidence throughout that freshly inked page was pulled when lifted off the forme (leaving an inky smudge at the sides of the text block).

[340] Quires a-b (f1-12), bb-cc (f46-56), HH-II (f115-128)

Edition 8:

Hunterian Bg.2.23, *De officiis*, Fust and Schoeffer, Mainz, 1465.

ISTC ic00575000.

Paper:

Appearance: moderate thick, moderate textured; beige; very little show through of ink.

Quality: Good throughout, wrinkled on 8.

Type:

Quality: clear type on the whole.

Ink distribution: even distribution of ink with no visible smudging or over-inking. Printed in two colours very neatly. Small bit of over-inking in the red ink of 38v and very slight and occasional over-inking of black letters in the second half of the volume.

Layout:

No of leaves: [88] leaves.

Leaf measurement: 249 x 174 mm.

BMC leaf measurement: 252 x 188 mm (IB.109); 242 x 172 mm (IB.108); 240 x 165 mm (IB.110).

Sheet measurement: 249 x 348mm.

Paper size: chancery.

Columns: single.

No of lines: 1b: 28 lines.

Area of type: 154 x 86 mm.

BMC type: 118, title-heading and colophon; 91, leaded, text.

Body size: 5.9mm, 4.55mm.

Printing errors: [341]

No errors noted.

[341] Quires a-b (1-16), e-f (33- 48), k-l (73-88) examined.

Edition 9:

Hunterian Bg.2.24, *De officiis*, Fust and Schoeffer, Mainz, 1466.

ISTC ic00576000.

Parchment:

Appearance: uneven textures and thicknesses throughout.

Quality: holes, corners missing due to holes, frequent wrinkles.

Type:

Quality: clear type on the whole. Difficulty with type show through in many places making some type harder to read.

Ink distribution: even distribution of ink with no visible smudging or over-inking. Occasional over-inking of black letters. Printed in two colours very neatly.

Layout:

No of leaves: [88] leaves.

Leaf measurement: 255 x 177 mm. (255 x 354).

BMC leaf measurement: 243 x 165mm (IB.115); 250 x 170 mm (IB.116); 251 x 168 mm (IB.117); 257 x 171 mm (IB.118).

Paper size: chancery.

Columns: single

No of lines: 1b: 28 lines.

Area of type: 152 x 86 mm (BMC 1, p. 24).

BMC type: 118, title-heading and colophon; 91, leaded, text.

Body size: 5.9mm, 4.55mm.

Printing errors: [342]

No printing errors noted.

[342] Quires a-b (1-16), e-f (33- 48), k-l (73-88) examined.

Edition 10:

Hunterian Bw.2.20, *De officiis*, Vindelinus de Spira, Venice, 1470.

ISTC ic00577000.

Paper:

Appearance: on the whole, good quality, moderately thick, beige.

Quality: some wrinkling at 19r, 20r, 67v and 102v, smaller page at 106r.

Type:

Quality: clear type on the whole. Worn **a** and **e** throughout and **s** very occasionally.

Ink distribution: even distribution of ink with no visible smudging or overinking. Occasional overinking of more worn black letters.

Layout:

Quarto

No of leaves: [136] leaves, 1, 135 and 136 blank.

Leaf measurement: 273 x 197 mm.

BMC leaf measurement: 274 x 187 mm (IB.19514); 286 x 195 mm (IB.19511); 272 x 291 mm (IB.19513).

Sheet measurement: 546 x 394mm.

Paper size: royal.

Columns: single.

No of lines: 3a, 30 lines.

Area of type: 167 x 98 mm.

BMC type: 110 R(1).

Body size: 5.5mm.

Printing errors: [343]

Inked furniture: 7v, 8v,10v, 13v, 67r, 68v, 128v,130v.

[343] Quires a-b (1- 18), h-i (59-74), q-r (122-136) examined.

Edition 11:

Hunterian Bf.3.8, *De officiis*, Au Soufflet Vert, Paris, 1477.

ISTC ic00588000.

Paper:

Appearance: moderate thickness and texture, beige.

Quality: Smaller paper sizes: wrinkle on the paper – 5v.

Type:

Quality: Worn type leading to over-inking. Letters include **a, s, e, n, q, i, t, c, I, T, ai, d, p, r, l, x.**

Ink distribution: Smudging and over-inking on worn type. Varying degrees of uneven distribution on 1r, 2r+v, 3v, 4r, 4v, 6r, 7r+7v, 8r, 9r, 40v, 41r, 42r+v, 43r+v, 44r+v, 89v, 90r+v, 91r, 92v+r, 93v+r, 94, 95.

Layout:

Folio

No of leaves: [98] leaves, the last blank.

Leaf measurement: 278 x 205 mm.

BMC leaf measurement: 272 x 199 mm (IB.39250).

Sheet measurement: 278 x 410mm.

Paper size: chancery.

Columns: single.

No of lines: 9a: 34 lines.

Area of type: 182 x 110 mm.

BMC type: 107 GR.

Body size: 5.35.

Printing errors: [344]

Inked spaces: 2v, 3v, 5r, 6r, 8v.

Inked beards: 8v, 3v.

Inked furniture: 7r, 8v, 40v, 41r, 42r, 43r, 44r, 44v, 89v, 90r, 90v,91r, 92r.

Set-off: 2r, 2v, 3r, 42r, 42v, 43v, 44r, 89v.

Shaking of the frisket: 5r.

[344] Quires a-b (1-20), d-e (41-60), i-k (81-98) examined.

Edition 12:

Hunterian Bg.2.10, *De oratore*, Ulrich Han, Rome, 1468.

ISTC ic00655000.

Paper:

Appearance: moderate thick, moderate textured; beige.

Quality: good quality throughout. Some speckling from the felting process throughout.

Type:

Quality: very clear type on the whole, letters not worn but fresh.

Ink distribution: well distributed - not over or under-inked throughout. Low volume of ink-bleed through. One smudge on 33v.

Layout:

Quarto.

No of leaves: [92] leaves, the last blank.

Leaf measurement: 268 x 192 mm.

BMC leaf measurement: 283 x 197 mm (IB.17225); 273 x 193 mm (IB.17226); 283 x 198 mm (IB.17227).

Sheet measurement: 536 x 384mm.

Paper size: royal.

Columns: single.

No of lines on a page: 2a, 36.

Area of type: 155 x 101-6mm.

BMC type: 150G, first line of text, colophon, 86R text.

Body size: 7.5mm, 4.3mm.

Printing errors: [345]

Inked beards: 2v, 4v, 12v.

Inked furniture: 4r, 7v, 12r, 14r, 15r (slight).

Offsetting: Almost every page is offset against opposing page. Makes it difficult to read and to determine the overall neatness of the production.

[345] Quires a-b (1-19), e-f(41-60), i-k (77-92) examined.

Edition 13:

Hunterian Bg.2.9, *De oratore*, Vindelinus de Spira, Venice, ca. 1470.

ISTC ic00657000.

Paper:

Appearance: off-white, moderately thick, relatively even texture.

Quality: Paper has winkles on 2r and 6r+v. Paper on 41 is knotted with clumps of pulp.

Type:

Quality: Overall clear.

Ink distribution: On the whole good. However, not the most fresh or evenly inked on 3r, 6r+v, 7r+v, 8r+v, 9r+v, 10r+v.

Layout:

Quarto.

No of leaves: [110] leaves, the first and last blank.

Leaf measurement: 273 x 191 mm.

BMC leaf measurement: 281 x 198 (IB.19572); 264 x 185 mm (IB.19571); 283 x 195 mm (IB.19574); 273 x 192 mm (IB.19573).

Sheet measurement: 546 x 382mm.

Paper size: royal.

Columns: single.

No of lines on a page: 3a, 32 lines.

Area of type: 175-6 x 114 mm.

BMC type: 110 R(1). The thin Q is common throughout and there are slight admixtures from 110 R(2).

Body size: 5.5mm.

Printing errors: [346]

Inked spaces: 5r, 9r, 9v, 10v, 11r, 12r, 12v, 13v, 14v, 41v, 43r, 43v, 44v, 45r, 45v, 46r, 46v, 47v, 48r, 48v, 52v, 53r, 55v, 56v, 97r, 98r, 99r, 99v, 100r, 100v, 101r, 102v, 105r, 105v, 107r, 108v.

Inked beards: 13r, 13v, 14v, 50r, 51v, 52r, 53r, 98r, 98v, 102v, 104r.

Inked furniture: 7r, 10r, 10v, 11r, 45v, 51v, 102v, 103v.

Set-off: 4v.

[346] Quires a-b (1-14), e-f(41-56), n-o (97-110) examined.

Edition 14:

Hunterian Be.2.12, *Epistolae ad Brutum, ad Quintum fratrem, ad Atticum*, Nicolaus Jenson, Venice, 1470.

ISTC ic00500000.

Paper:

Appearance: moderately thick, even texture, off-cream colour.

Quality: Wrinkles on f14, 60, 70, 109, 153.

Type:

Quality: very fine and even type. Very little bleed through of ink.

Ink distribution: Very even distribution.

Layout:

Folio.

No of leaves: [182] leaves, the last blank.

Leaf measurement: 319 x 224 mm.

BMC leaf measurement: 321 x 224 mm (IB.19603); 307 x 205 mm (IB.19604); 320 x 236 mm (IB.19605).

Sheet measurement: 319 x 448mm.

Paper size: median.

Columns: single.

No of lines: 4a: 39 lines.

Area of type: 223 x 136 mm.

BMC type: 115R.

Body size: 5.75mm.

Printing errors: [347]

Inked spaces: f87r.

Inked furniture: f4v, 9v, 168v.

[347] Quires a-b (1-20), g-h (73-94), s-r (167-182) examined.

Edition 15:

Hunterian Be.1.5, *Epistolae ad familiares*, Vindelinus de Spira, Venice, 1470.

ISTC ic00506000.

Paper:

Appearance: clean, clear pages, moderately thick, mostly of an even texture, some of a rough texture.

Quality: some wrinkles – f14, 32, 113, 130, 138, 144, 176, 193, 231, 238, 269-270, paper has folded back on itself while drying – f201, thinner sections of paper – f206, deckled edges – f207, 208, 209, 272, 277.

Type:

Quality: worn throughout but especially **s, a, e**. Very little ink bleed through.

Ink distribution: relatively evenly distributed but often the worn type stated above is over-inked.

Layout:

Folio.

No of leaves: [136] leaves, the first blank.

Leaf measurement: 341 x 231 mm.

BMC leaf measurement: 336 x 210 mm (IB.19515).

Sheet measurement: 341 x 462mm.

Paper size: median.

Columns: single.

No of lines: 5a, 41 lines.

Area of type: 226 x 134 mm.

BMC type: 110 R(1) used in quires f – h, m – o and 110 R(2) used in a –e, I – l.

Body size: 5.5mm.

Printing errors: [348]

Inked spaces: 1v, 3r, 4r, 5v, 8r, 8v, 9r, 12v, 13v, 14r, 16r, 16v, 17v, 18r, 18v, 19r, 59v, 62r, 65v, 66r, 67r, 72v, 73v, 74v, 121v, 126r, 130v, 133v, 135r.

Inked beards: 12r, 65v, 123r, 126v, 127r, 128v, 134v.

Inked furniture: 15r, 136r.

Leading: 60r.

Set-off: 4r, 5r, 5v, 6r, 7r, 16v.

[348] Quires a-b (1-21), f-g (59-77), n-o (119-136) examined.

Edition 16:

Hunterian Be.3.4, *Epistolae ad familiares*, Nicolaus Jenson, Venice, 1471.

ISTC ic00508000.

Parchment:

Appearance: mostly thick, creamy yellowy page, some pages of slight uneven thickness.

Quality: frequent missing sections, including repairs – f26, 66, 71, 73, 74, 76, 79, 84, 122, 123, 130, 132, 170, 171, 200, 201, winkles - f2, 5, 8, 16, 37, 103, 108,110, 120, 126, 129, 146, 158, 161, 172, 175, 178, holes –f70, 84, 127, 143, 147, 167, 187, 197, stitch-marks -f68, 96, 135, 159, 198, 199, 191.

Type:

Quality: very fresh and well formed. Some worn **a, e**.

Ink distribution: even ink distribution throughout.

Layout:

Quarto.

No of leaves: [204] leaves, the first blank.

Leaf measurement: approx. 270 x 182 mm.

BMC leaf measurement: 288 x 195 mm (IB.19623a); 272 x 194 mm (IB.19623 b).

Sheet measurement: 540 x 364mm.

Paper size: royal.

Columns: single.

No of lines: 2a: 33 lines.

Area of type: 190 x 110-1mm.

BMC type: 115R, 115Gk.

Body size: 5.75mm.

Printing errors: [349]

Inked beards: 99r.

Inked furniture: 11r (slight), 11v, 12r, 13v, 14r, 15r, 16r, 16v, 18r, 86r, 88r, 90r, 94v, 95r, 97v, 98r, 98v, 99v, 100r, 100v, 101r, 185v, 186v, 187v, 188v, 191v, 194v, 195v, 197r, 197v, 198r, 202r.

Off-setting: 10v, 12r (slight), 12v, 18v (slight), 19v, 87r, 89r (slight), 91r, 92r (slight), 94v, 96v.

[349] Quires a-b (1-20), l-m (87-105), w-x (185-204) examined.

Edition 17:

Hunterian Be.1.6, *Epistolae ad familiares*, Vindelinus de Spira, Venice, 1471.

ISTC ic00509000.

Paper:

Appearance: off white, moderately thick and moderate texture.

Quality: wrinkles - f62, 110, 113, 120, 126, 154.

Type:

Quality: fairly worn type – **a, s, e.**

Ink distribution: fairly even distribution but worn type is often over-inked.

Layout:

Folio.

No of leaves: [137] leaves, the first and last blank.

Leaf measurement: 338 x 232 mm.

BMC leaf measurement: 331 x 230mm (IB.19530).

Sheet measurement: 338 x 464mm.

Paper size: median.

Columns: single.

No of lines: 5a: 41 lines.

Area of type: 224 x 136 mm.

BMC type: 110 R(2), and 110 Gk.

Body size: 5.5mm.

Printing errors: [350]

Inked spaces: 3r, 4v, 6r, 10v, 11r, 12r, 14r, 16r, 16v, 19v, 22v, 84v, 85v, 87r, 87v, 88v, 89r, 90r, 91r, 92v, 95r, 96r, 97r, 123v, 124r, 125v, 149v, 154r, 154v, 155r.

Inked beards: 6r, 13r, 13v.

Inked furniture: 8v, 9r, 88v, 94v, 97v, 99r, 100r, 100v, 102v, 149v, 152v, 156v.

Crooked pages throughout

Shaking of forme: 5r, 9r, 20r, 21r, 22r, 151r.

Set-off: 5v, 6v, 9v, 17r, 21v, 84v, 87r.

Upside down letter – i on 89r.

[350] Quires a-b (1-22), h-I (83-102), n-o (123-137) examined.

Edition 18:

Hunterian By.2.20, *Epistolae ad familiares*, Antonius Zarotus, Milan, 1475.

ISTC ic00515000.

Paper:

Appearance: mostly clear, fresh off-white pages.

Quality: wrinkles - f2, 15, 17, 44, 70, 80, 91, 96, 121, 126, 146. Some pages thinner than others.

Type:

Quality: very neat and fresh type.

Ink distribution: well distributed, clear and clean. Very little bleed through of ink.

Layout:

Folio.

No of leaves: [146] leaves.

Leaf measurement: 314 x 217 mm.

Sheet measurement: 314 x 434mm.

Paper size: median.

Columns: single.

No of lines: 8r: 41.

Area of type: 228 x 134mm.

BMC type: Typ. 3:110G, 5:111R. Vereinzelt Min. f. Init. (GW).

Body size: 5.5mm, 5.55mm.

Printing errors: [351]

Inked spaces: 3r, 15r, 84r, 86v.

Inked beards: 3v, 6v, 8v, 79v.

Inked furniture: 9v, 12v, 77v, 84v, 88v.

Crooked pages throughout.

Shaking the forme/press and smudging: 4v, 6r, 7v, 13v, 11v,18v, 83v, 138v.

[351] Quires a-b (1-18), i-j (75-90), r-s (131- 146) examined.

Edition 19:

Bi2-b.4 *Opera,* Guillermus Le Signerre, Milan, 1498-99.

ISTC ic00498000.

Paper:

Appearance: off-white, moderate texture and thickness throughout.

Quality: torn in some places (4r), repair - 5v, slight wrinkling - 6r and 7v.

Type:

Quality: clean and fresh.

Ink distribution: well distributed, slight over-inking-4r, 6v, 10r, 12v +12r, 13v+r, 14v, 16v+r, 25v, 159v, 169 and 170, 171, 176v.

Layout:

No of leaves: 784, 2 blank.

Leaf measurement: 387 x 258 mm.

BMC leaf measurement: 415 x 285 mm (IC 26894); 390 x 265mm (IC 26894a); 375 x 268 mm (IC26895).

Sheet measurement: 387 x 516mm.

Paper size: royal.

Columns:

No of lines: 40r: 52lines (me) 54 lines with headlines.

Area of type: 288 (302) mm x 173 mm (BMC VI. P. 790).

BMC type: 111 R, Gk type.

Body size: 5.55mm.

Printing errors: [352]

Inked spaces: 4r, 5v, 12v, 14r, 14v, 57r, 59v, 60v, 64r, 65v, 67r, 69v, 70v, 159r, 160r, 160v, 161r, 161v, 162r, 164r, 164v, 165v, 166v, 167r, 167v, 168v, 169r, 169v, 170r, 171r, 171v, 172v, 174r, 175r, 175v, 176r.

Inked beards: 173v.

Inked furniture: 11v, 12r, 13r, 57r, 58v, 159v, 162r, 163v.

Shaking of the forme: slight evidence at bottom of 4r, 9v, 11v, 13r, 13v, 15r, 16r, 161r, 169v.

Set-off: 63r.

[352] Quires a-b (1-11), H-I (57-74), XX-YY (159-176) examined.

Edition 20:

Hunterian Bf.3.19, *Orationes*, Christophorus Valdarfer, Venice, 1471.

ISTC ic00542000.

Paper:

Appearance: off-white, moderate thick and moderate texture.

Quality: patched up - 4, 5, 6, 7, 278, wrinkles – 23, 197, 215, 261.

Type:

Quality: fine and fresh.

Ink distribution: mostly very well distributed. Very ink bleed through.

Layout:

Folio.

No of leaves: [276] leaves, the first blank.

Leaf measurement: 291 x 202 mm.

Sheet measurement: 291 x 402mm.

BMC leaf measurement: 307 x 219 mm (IB.19768).

Paper size: chancery.

Columns: single.

No of lines: 3a: 40 lines.

Area of type: 219 x 133 mm.

BMC type: 110R.

Body size: 5.5mm.

Printing errors: [353]

Inked spaces: 5v, 6r, 7r, 8r, 9r, 9v, 11r, 12r, 14v, 18v, 19r, 20v, 21r, 22r, 23r, 164r, 169v, 171r, 171v, 178r, 181v, 262v, 263r, 265r, 265v, 269r, 269v, 271r, 272v, 275r, 276v, 277v.

Inked beards: 9v, 18v, 19r, 19v, 20r, 20v, 21r, 21v, 22r, 169r, 172v, 179v, 181v, 268v, 270v, 271v, 274r, 274v, 278r, 278v.

Inked furniture: 9r, 15v, 16v, 17r, 175v, 261r, 264v, 265r, 265v, 266r, 268v, 269v, 275r.

Shaking of forme: 15r, 263v, 264r, 265r, 266v.

Upside down letter: **i** in 178r.

[353] Quires a-b(3-23), q-r (161-181), D-E (261-278) examined.

Edition 21:

Hunterian Be.2.1, *Orationes*, Adam de Ambergau, Venice, 1472.

ISTC ic00543000.

Paper:

Appearance: off-cream, medium thickness and texture.

Quality: wrinkles - f14, 21, 24, 32, 39, 40, 42, 59, 80, 110, 113, 130, 132, 138, 144, 145, 146, 152, 165, 171, 176, 178, 193, 205, 231, 238, 261, 269, 270, 273, 297. Folded over leaf edge - f201. Deckled edges - f207, 208, 209, 224, 233, 238, 240, 272, 277.

Type:

Quality: Worn with particularly worn **a, e** and **s**.

Ink distribution: relatively even but very uneven on some pages. Little ink show through but some pages have heavy show through.

Layout:

Folio.

No of leaves: [298] leaves, the first and last blank.

Leaf measurement: 317 x 216 mm.

BMC leaf measurement: 310 x 212 mm (IB.19813); 293 x 209 mm (IB.19812); 317 x 205 mm (IB.19811).

Sheet measurement: 317 x 432mm.

Paper size: median.

Columns: single.

No of lines: 3a: 37 lines.

Area of type: 218 x 128 mm.

BMC type: 116R.

Body size: 5.8mm.

Printing errors: [354]

Inked spaces: 171r, 292r.

Inked beards: 10r, 285r, 296.

Inked furniture: 162r, 297v.

Shaking of forme and smudging: 6r, 7r, 7v, 9r, 10r, 12r, 13v, 14r, 15r, 15v, 17r, 18r, 19v, 20r, 21r, 22v, 22v,163v, 164v, 166v, 167r, 171r, 171v, 172r, 172v, 172v, 174r, 175r, 176r, 176v, 177r, 178r, 178v, 179r, 180r, 180v, 181r, 181v, 182r, 182v, 281v, 282r, 282v, 283r, 284r, 284v, 285r, 285v, 286v, 287r, 287v, 288v, 289v, 290r, 291r, 292r, 293r, 293v, 294v, 295r, 296v, 297v.

Set-off: 8r, 163r, 163v, 167v, 168v, 170r, 171v, 290v, 291v, 292v, 295v.

[354] Quires a-b (1-22), o-p (163-182), F-G (281-298) examined.

Edition 22:

Hunterian By.2.7, *Orationes* Nicolaus Girardengus, de Novis, Venice, 1480.

ISTC ic00545000.

Paper:

Appearance: off-cream, moderate thickness and texture.

Quality: wrinkles - f2, 3, 13, b6, c2, c7, d2, d6, d9, d10,e3, e9, f3,g2,g5,g6,h7,i6,i10,k5, k8,l3,l10,m2, m4,m5, n1, o5,o6,o7,o8,p1,p2,p3,p7p8,q1,q2r1,r2,r3,r5,s5, s8, t2,t3, t4, t6, t8, u1, u2,u6,u7,xx5, xx8, yy8, zz1, zz2, zz3, zz7, zz8, &&5, aa10, zz3, zz4, &1, &2, A1, A6, A7, A8, A10, C1, C2, C7, C8. Deckled edge - fm5, m10, n1, r4, s3, s4, s7, s8, t3, t4, t6, t8, u1, u2, u3, u4, u5,u6,u7,u8, xx, xx2xx3, xx6, xx7, xx8, yy4, zz2, zz3, &&2, &&4, &&7, aa1, y5, zz5, zz8, zz9, &2, &6, &8, &9, &10, A1, A2, A3, A4, A9,A10, B5, B7, C1, C2, C7, C8.

Type:

Quality: mostly fine and fresh.

Ink distribution: On the whole, mostly even. Very little bleed through of type.

Layout:

Folio.

No of leaves: [286] leaves.

Leaf measurement: 303 x 203 mm.

BMC leaf measurement: 300 x 208 mm (IB 20776).

Sheet measurement: 303 x 406mm.

Paper size: chancery.

Columns: single.

No of lines: 4a: 38 lines.

Area of type: 219 x 129 mm.

BMC type: 115 (112) R, text, 85 R register.

Body size: 5.75mm.

Printing errors: [355]

Inked spaces: 2r, 4r, 4v, 5v, 7r, 7v, 8r, 8v, 9r, 9v, 10r, 12v, 13r, 14r, 15r, 15v, 20r, 20v, 21r, 21v, 22r, 22v, 133r, 136r, 136v, 137r, 137v, 138r, 138v, 139r, 140v, 141r, 142v, r144r, 269r, 269v, 270r, 270v, 271v, 272r, 273v, 274r, 275r, 275v, 276r, 277v, 278r, 278v, 279r, 279v, 280v, 281v, 282r, 283r, 284r, 285r, 286r.

Inked beards: 5v, 10v, 13r, 13v, 14v, 16r, 16v, 17v, 19v, 21r, 21v, 22r, 134r, 134v, 135r, 136r, 137r, 139r, 139v, 140v, 141r, 141v, 142v, 143r, 144v, 269v, 271r, 275v, 277r, 278r, 278v, 279r, 279v, 280r, 281v, 282v, 284r, 284v, 285r, 285v.

Inked furniture: 1v, 3v, 9v, 14r, 133v, 271r, 274v.

Sett-off: 139r, 140r, 141r, 143v, 144v, B3r, 271v, 276v, 277v.

Inky prints: 6r, 7r, 9r.

[355] Quires a-b (1-22), q-r (133-144), B-C (269-286) examined.

Edition 23:

Hunterian Bw.2.13, *Orationes Philippicae*, Johannes de Colonia and Johannes Manthen, Venice, 1474.

ISTC ic00555000.

Paper:

Appearance: off-white, moderately thick, moderately textured.

Quality: shorter sheets – f9, 46, 69.

Type:

Quality: fairly neat, worn in places. Ink distribution heavy on **a** and **e**.

Ink distribution: very little ink bleed through.

Layout:

Quarto.

No of leaves: [88] leaves, the first two and the last blank.

Leaf measurement: 285 x 202 mm.

BMC leaf measurement: 286 x 196 mm (IB.20225), 276 x 197 mm (IB.20226).

Sheet measurement: 570 x 404mm.

Paper size: royal.

Columns: single.

No of lines: 4a, 34 lines.

Area of type: 189 x 114 mm.

BMC type: 110Ra1.

Body size: 5.5mm.

Printing errors: [356]

Inked spaces: 3r, 3v, 4r, 4v, 5r, 5v, 7v, 8r, 9r, 9v, 10r, 10v, 11r, 11v, 12r, 14r, 15v, 16r, 16v, 17r, 18r, 18v, 42v, 43v, 44r, 44v, 45v, 46v, 47r. 47v, 48r, 48v, 51v, 52r, 54v, 73r, 74r, 74v, 75r, 75v, 76r, 76v, 77r, 80v, 81v, 82r, 82v, 83r.

Frisket ink: 12v, 41v, 45v, 52v, 56v (slight).

Ink at top/bottom of line: 5v, 77r (maybe leading or beards), 77v, 79r, 80r.

Inked beards: 3r, 4v, 7r, 10r, 14r, 15v, 74r, 81v.

Inked furniture: 3r, 4r, 8r, 11v, 42v, 43v, 44v, 46r, 51r, 73r, 80v, 85v, 86v.

Shaking of forme and smudging: 4r, 6r, 6v, 7r, 8r, 11v, 14r, 44r, 52r, 73r, 73v, 74r, 74v, 75r, 75v, 76v, 78v, 79v, 80r, 80v, 81r, 85r, 86v.

Crooked type throughout.

[356] Quires a-b (1-18), f-g (41-56), k-l (73-88) examined.

Edition 24:

Hunterian Be.3.16, *Tusculanae disputationes*, In vico sancti Jacobi, Paris, 1475-79.

ISTC ic00633000.

Paper/Parchment:

Appearance: medium thickness, moderately textured, dark cream – light beige, fairly speckled.

Quality: evidence of uneven paper sizes, torn and repaired patches -1r, 2v, 2r, 4r; dirty pages with specs of ink -1r, 2v, 3v+r; wrinkled paper -7r; changing qualities of paper, middle quire has evidence of thinner/rougher paper -45v+r and 46r - with greater blobs of pulp and felting - 44r; end pages are rough with lots of felting and pulp build up - 72r – 79r; paper has been badly washed making the paper brittle.

Type:

Quality: Worn type especially **e**, and **a** but also **u, s, t, n, f, c, A** and **T**. Very few letters hold an even distribution of ink. Lots of bleed through of ink.

Ink distribution: over-inked words -1r, 2v, 2r, 4v, 4r, 5v, 6v, 6r, 7v, 7r.

Layout:

Folio.

No of leaves: [80] leaves.

Leaf measurement: 273 x 186 mm.

Sheet measurement: 273 x 372mm.

Paper size: chancery.

Columns: single.

No of lines: 6r: 33 lines.

Area of type: 187 x 111mm.

BMC type: 106R.

Body size: 5.3mm.

Printing errors: [357]

Inked spaces: 3r.

Inked beards: 1r, 5r.

Inked furniture: 2r, 4r, 8v, 9r.

Frisket bite: 4r.

Off-setting: 11v.

Copy fitting: 9v.

Crooked pages: 2r, 3r, 6r.

Shaking of the forme and smudging: 2r, 8v.

Sett-off: f3r, 5r, 7v, 9v, 15r, 19v.

Mistakes: 3r (‘pronnntiation’ with middle ‘n’ sitting above the others)

[357] Quires a-b(1-20), d-e (31-50), g-h (61- 80) examined.

Edition 25:

Hunterian Bg.2.29, *Rhetorica ad C. Herennium*, Johann Koelhoff, the Elder, Cologne, ca. 1471-2. Assigned to de Spira, Venice.

ISTC ic00674000.

Paper:

Appearance: moderate thick, moderate texture, off-white colour.

Quality: Smaller paper sizes, wrinkle in paper - 33r, 38r, thinner paper - 35r**.**

Type:

Quality: Type on the whole very fresh.

Ink distribution: some overinking - 1v, 3r, 9r, 10r, 33v, 37r. Some ink bleed through - 9v.

Layout:

Folio.

No of leaves: 52] leaves, the last blank.

Leaf measurement: 271 x 195 mm.

Sheet measurement: 271 x 390mm.

Paper size: chancery.

Columns:

No of lines: 7r: 34.

Area of: 168 x 111mm.

BMC type: *1:98G.*

Body size: 4.9mm.

Printing errors: [358]

Inked spaces: 1r, 2r, 4r, 7v, 8v, 35v, 50v.

Inked beards: 1v.

Inked furniture: 1r, 2v, 3r, 7v, 33v, 35v, 36v, 47v, 49v.

Blind Impressions/Bearer type: 49v.

Frisket bite: 1r, 3r, 3v, 4r, 8r, 33v, 36r, 38v, 47r.

Off-setting: 8v, 34r, 35v, 36r, 36v, 39v.

Crooked pages: 8r, 33r, 37v.

Shaking of the forme and smudging: 3v, 10r, 33v, 51v.

Set-off: 1v, 2v, 3r, 4v, 6v, 7v, 8v, 33r, 34v, 35r, 36v, 37r, 37v, 39v, 40v, 47v, 49r, 50v.

[358] Quires a-g (1-52) examined.

Edition 26:

Hunterian Be.3.29, *Rhetorica ad C. Herennium*, Printer of Datus, 'Elegantiolae' (H 5969*), Venice, ca. 1475.

ISTC ic00677000.

Paper:

Appearance: moderately thick, very uneven, rough texture.

Quality: paper bulging in places throughout.

Type:

Quality: fairly worn – especially **s, a, I, o, m.**

Ink distribution: fairly even but overinked on some pages, especially on the worn type.

Layout:

Folio.

No of leaves: [54] leaves.

Leaf measurement: 290 x 203 mm.

Sheet measurement: 290 x 406mm.

Paper size: chancery.

Columns: single.

No of lines: 7r: 33.

Area of type: 186 x 105mm.

BMC type: Typ. 1:113R.

Body size: 5.65mm.

Printing errors: [359]

Inked spaces: 61r, 61v, 62r, 64v, 66r, 67v, 68r, 69r, 71v, 72r, 85r, 85v, 86r, 86v, 88r, 89r, 90r, 90v, 91v, 94r, 95r, 95v, 96r, 96v, 97r, 97v, 98r, 99r, 99v, 100v, 101r, 102r, 102v, 104v, 105v, 106r, 106v, 107v, 108r, 108v, 109r, 110r, 110v, 111r.

Inked beards: 61r, 61v, 62r, 64r, 66r, 67v, 68r, 68v, 71r, 72r, 73r, 86r, 89r, 100r, 105r, 110v.

Inked furniture: 64r, 66r, 72r, 73r, 85v, 94r.

Set-off: 59r, 59v, 60r, 60v, 61r, 62r, 63r, 64r, 65r, 65v, 67r, 67v, 68r, 69r, 70r, 71r, 71v, 83r, 83v, 84r, 85r, 90r, 93r, 106r, 108r, 109r.

[359] Quires a-b (59-75), d-e (83-98), f-g (99-112) examined.

Edition 27:

Hunterian Bx.2.16, *Rhetorica ad C. Herennium*, Thomas de Blavis, de Alexandria, Venice, 1476.

ISTC ic00679000.

Paper:

Appearance: rough, off-cream, moderately thick but some pages thinner. Mix of textures throughout but mostly rough.

Quality: wrinkles - f19r, 50r, 55r, deckled edge - f33r, 40r and 49r, some missing corners in final quires.

Type:

Quality: fair quality. Some overinked letters – **a, o, e, s, q, m.**

Ink distribution: good and mostly even throughout although on some pages some the ink balls have been concentrated on some sections of the text at the expense of others (5v for example). No ink bleed through.

Layout:

Folio.

No of leaves: [68] leaves, the first blank.

Leaf measurement: 296 x 200 mm.

BMC leaf measurement: 295 x 210 mm (IB.20563); 278 x 199mm (IB.20564).

Sheet measurement: 296 x 400mm.

Paper size: chancery.

Columns: single.

No of lines: 5a: 45 lines.

Area of type: 198 x 119 mm.

BMC type: 88R.

Body size: 4.4mm.

Printing errors: [360]

Inked spaces: f2r, 3r, 4r, 4v, 5r, 5v, 6r, 7r, 7v, 8r, 8v, 9r, 9v, 10r, 10v, 11r, 11v, 12r, 12v, 31r, 31v, 32r, 32v, 33r, 33v, 34r, 34v, 35r, 35v, 36r, 36v, 37r, 37v, 38r, 38v, 39r, 39v, 40r, 41r, 42r, 42v, 55r, 56r, 56v, 57r, 57v, 58v, 59r, 61r, 61v, 62r, 63r, 64r, 64v, 66r, 66v, 67r, 68r

Inked beards: f7v, 11r, 57r

Inked furniture: f5r, 6v, 9v, 10r, 12r, 32r, 32v, 33v, 34r, 35r, 36r, 38v, 42r, 57r, 59r, 64v, 68r

Crooked type throughout

Frisket ink: f7r, 7v, 8r, 8v, 11r, 12r, 12v, 32v, 33r, 34r, 34v, 35r, 37r, 37v, 38r, 38v, 39r, 39v, 40r, 41r, 42r, 42v, 55v, 56v, 57v, 58r, 58v, 59r, 60v, 61v, 64r, 65v, 66v, 67v

[360] Quires a-b (1-12), f-g (31-42), k-l (55-68) examined.

Edition 28:

Hunterian Bw.3.16, *Rhetorica ad C. Herennium*, Au Soufflet Vert, Paris, 29 Dec. 1478.

ISTC ic00680400.

Paper:

Appearance: Paper on the whole good throughout. Beige but moderate texture and thickness.

Quality: wrinkled page on 3, inked finger prints on 30r. Fine quality otherwise.

Type:

Quality: Worn type. Main letters: **a, e, s, t, qu, p, g, u, s, h, o, st, æ, iI.**

Ink distribution: over-inked worn type on 1r, 2r+v, 3r, 4r+v, 5v, 6r+v,7r, 8r, 30r+v, 31r+v, 32r, 32v, 33r, 33v, 34r, 34v, 35r, 35v, 36r, 37r, 37v, 38r, 38v, 39r, 39v, 40v, 42r, 43v, 44r, 44v, 45r, 48r, 48v, 49r, 49v, 50v.

Layout:

Folio.

No of leaves: [50] leaves.

Leaf measurement: 252 x 182 mm.

Sheet measurement: 252 x 364mm.

Paper size: chancery.

Columns: single.

No of lines: 4r: 33 lines.

Area of type: 176 x 111mm.

BMC type: 1:106R. Min. f. Init.

Body size: 5.3mm.

Printing errors: [361]

Inked spaces: 1r, 30v, 50v.

Inked beards: 38r.

Inked furniture: 1v, 2v, 5r, 30r, 32r, 33v, 36v, 37r, 37v, 38r. 40v, 41r, 44v + 45r, 47r, 48r, 49r.

Set-off: f1r,1v, 2r, 3r, 3v,4r, 4v, 5r, 6r+v, 7r+v, 8r, 10r+v, 30v , 31r, 31v, 32r, 32v, 33v, 34r, 34v, 35r, 35v, 36r, 36v, 37r, 37v, 38r+v, 38v, 39v, 40v, 41v, 42r, 44r, 45v, 46r, 49r, 50.

Crooked pages: 32r a little but very on 32v, 34 (slight) 35r+v, 36r, 40r slight, 44v.

Crooked type throughout.

Shaking of the forme and smudging: 33r,

[361] Quires a-e (1-50) examined.

Appendix 5: Binding and Provenance in Classical Incunabula

Shelf mark **BC14-c.11**	**Provenance**[362]	**Proposed General Link**
Text 1 Boethius: *De consolatione philosophiae*. Add: *Compendiosa consolationis resumptio.* Deventer: Jacobus de Breda, 19 Mar. 1491.	"Germany(?), 17th-century parchment; initials "I B P S" and date "1668" stamped in black on front cover. Noted owner: Ciriacus Trendelbach, of Ascania (Saxony), (16th/17th centuryin *De consolation.*) Yet early decoration is in different styles throughout the book. Early use also appears to be slightly different.	Philosophy; general link between Boethius to make available Aristotle to readers of Latin.
Text 2 Boethius [pseudo-]. *De disciplina scholarium.* Cologne: Heinrich Quentell, 1490.		
Text 3 Aristoteles [pseudo-]. Problemata. [Cologne: Heinrich Quentell, ca. 1490].		

[362] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **BD9-c.5.**	**Provenance**[363]	**Proposed General Link**
Text 1 Euclides: *Elementa geometriae.* Venice: Erhard Ratdolt, 25 May 1482.	16th C binding with 17th century German ownership. All the initials in these works are printed and none contain paragraph or capital marks. Both the Claudius and the Soranus have 16th C annotations but these are in a different pen and size, and appear to be in a different hand.	Scientific.
Text 2 (Claudius Ptolemaeus, *Geographia*. Nuremberg: Hans Stuchs, 1514.		
Text 3 Soranus, Ephesius, *De re medica*. Basel: Andreas Cratander, Aug. 1528.		

[363] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **Bh3-e.13**	**Provenance**[364]	**Proposed General Link**
Text 1 Gellius, Aulus: *Noctes Atticae.* Venice: Philippus Pincius, 15 July 1500.	18th C binding. Ownership inscription to Collegiate Church of New S. Peter in Strassburg. In the Gellius and the *Scriptores* the initials are not completed but in the Cleonides, the initials are printed. There are no paragraph markers or capital stokes through any of the books but the annotations seem to be in the same hand throughout all the volumes, being in a very similar, 16th century style. Unfortunately this provenance cannot be identified to a more specified date as its conversion to a Lutheran church did not change the church's name.	All classical themed. All early Italian books in joint German ownership.
Text 2 Cleonides, *Harmonicum introductorium*. Venice: Simon Bevilaqua, 3 Aug. 1497.		
Text 3 *Scriptores rei militaris.* Bologna: Franciscus Plato de Benedictis, 1495-96.		

[364] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **Bk5-g.22.**	**Provenance**[365]	**Proposed General Link**
Text 1 Mela, Pomponius: *Cosmographia, sive De situ orbis.* Venice: [Printer of Pomponius Mela], 15 Nov. 1477.	Late 15th/early 16th c binding with 16th century Scottish ownership. One distinctive feature is the consistent underlining of key sections in all of the texts in a red pen. In all but one of the works, the Johannes de Erfordia, the same paragraph marks are also used in the same style and in combination with the red underlining. In the Johannes de Erfordia however, there are two paragraph markers and these are consistent in style with the other works. There are very similar nota marks in brown ink in text 1 and 4. The initials also offer up evidence for very early joint ownership. In works 2 and 3 the initials are printed but in both of these, some of the initials have been coloured red. In works 1, 4 and 5 however the initials are consistent with one another, suggesting very early ownership, perhaps contemporaneous to production. There are divergent annotations however. There are humanist annotations in text 1 and then what appear to be annotations by Henry Gibson, the early Scottish owner.	4 scientific and one classical text revered by humanist Italy.
Text 2 Dionysius Periegetes, *De situ orbis.* Venice: Franciscus Renner, de Heilbronn, 1478.		
Text 3 Johannes de Sacro Bosco, *Sphaera mundi.* Venice: Franciscus Renner, de Heilbronn, 1478.		
Text 4 Johannes de Erfordia, *Computus chirometralis.* [Cologne: Johann Koelhoff, the Elder, ca. 1480-85].		
Text 5 Aurelius Victor, Sextus [pseudo-], *De viris illustribus.* Venice: Andreas de Paltasichis, 5 June 1477.		

[365] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **Bm2-e.3.**	**Provenance**[366]	**Proposed General Link**
Text 1 Vergilius Maro, Publius: *Opera*. Venice: Andreas de Paltasichis, 1 Sept. 1488.	Although two of the volumes contain a joint 17th C provenance, it is not clear whether the Virgil also shares this. The Virgil and the Columella demonstrate different annotations in different styles, suggesting a different hand. Statius has no annotations. Moreover the Virgil work has initials in red, when both other books have no initials, perhaps suggesting alternative early ownership. What may be an English chancery hand alongside the secretary hands.	Epic links between Virgil and Statius and pastoral links between Virgil and Columella.
Text 2 Columella, Lucius Junius Moderatus, *De re rustica lib. X.* [Venice: Printer of Cicero, 'De officiis' (H 5268*), ca. 1481-82].		
Text 3 Statius, Publius Papinius, *Achilleis*. Brescia: Jacobus Britannicus, 21 May 1485.		

[366] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **Bn8-d.2.**	**Provenance**[367]	**Proposed General Link**
Text 1 Livius, Titus: *Historiae Romanae decades.* Venice: Bartholomaeus de Zanis, 20 June 1498.	Ownership inscription in both to Walter Ogilvie, ca. 1460. This may also be his hand annotating throughout, although there is one other hand annotating in the Iliad. No decoration aside from the stamped woodcuts, and no capital strokes.	Classical histories/foundation myths.
Text 2 Homerus, *Ilias*. Venice: Joannes Tacuinus, de Tridino, 25 Feb. 1502/3.		

[367] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **Hunterian Be.3.14.**	**Provenance**[368]	**Proposed General Link**
Text 1 Vitruvius Pollio, Marcus: *De architectura.* [Rome: Eucharius Silber, between 1486 and 16 Aug. 1487].	18th century binding. Earliest combined owner is Gaignat in the 18th century. There is no decoration, capital stokes or paragraph marks in either. Annotations are washed and short, and although both are humanist script, they may be in different hands. Although some of the letter forms such as **u** appear very similar, the annotations in the Vitruvius have a slightly sharper edge, and both capital **A** and lowercase **d** are slightly divergent in style.	Architecture.
Text 2 Frontinus, Sextus Julius, *De aquaeductibus.* [Rome: Eucharius Silber, before 16 Aug. 1487].		

[368] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **Hunterian Bf.2.15**	**Provenance**[369]	**Proposed General Link**
Text 1 Nonius Marcellus: *De proprietate latini sermonis.* Brescia: [Boninus de Boninis, de Ragusia], 17 July 1483.	Early monastic ownership. There are no initials or paragraph marks or capital strokes in any of these volumes. No annotations in the Nonius but what appears to be the same early hand in the Varro and the Festus. Annotations of other books that the monastery owned: This same early hand in the Varro and Festus is also found in another volume owned by the library, Hunterian By.3.33 (see in particular the shapes of **n**, **p**, **v** and **h** which are particularly distinctive.).	Grammars
Text 2 Varro, Marcus Terentius, *De lingua latina.* Add: *Analogia*. Preliminaries: Pomponius Laetus: *Epistola Bartholomaeo Platinae.*Brescia: Boninus de Boninis, de Ragusia and Miniatus Delsera, 16 June 1483.		
Text 3 Festus, Sextus Pompeius, *De verborum significatione*. Brescia: Boninus de Boninis, de Ragusia, 18 June 1483.		

[369] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **Hunterian Bf.3.13**	**Provenance**[370]	**Proposed General Link**
Text 1 Nonius Marcellus: *De proprietate latini sermonis.* Venice: [Printer of Pomponius Mela], 1478.	Aside from the same 18th Century ownership is hard to speculate on how long these volumes have been kept together. There are no initials in either text. There are faded annotations in the Nonius and one short annotation in the Festus but these were found too inconclusive to draw common ownership. The linked year of publication, printer and the link between to the two works may however suggest that this is an early partnership despite there being no direct evidence.	Grammars.
Text 2 Festus, Sextus Pompeius, *De verborum significatione.* [Venice: Printer of Pomponius Mela, ca. 1478].		

[370] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **Hunterian By.2.8.**	**Provenance**[371]	**Proposed General Link**
Text 1 Varro, Marcus Terentius: *De lingua latina.* Add: *Analogia*. Preliminaries: Pomponius Laetus: *Epistola Bartholomaeo Platinae.* Brescia: Boninus de Boninis, de Ragusia and Miniatus Delsera, 16 June 1483.	17th C-18th C collective ownership. No initials, paragraph marks or capital strokes. These annotations appear to be similar in style, ink and size. Yet there are a few slightly divergent letter forms.	Grammars.
Text 2 Festus, Sextus Pompeius, *De verborum significatione.* Brescia: Boninus de Boninis, de Ragusia, 18 June 1483.		

[371] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **Hunterian By.3.16**	**Provenance**[372]	**Proposed General Link**
Text 1 Aesopus: *Vita et Fabulae*. [Milan]: Bonus Accursius, [ca. 1478].	18th Century binding. Monastic provenance for Aesop but no marks of provenance for *Ton Hepta*. No evidence to suggest common ownership earlier than this binding: both editions have printed initials and only Aesop contains annotations.	Classical tales.
Text 2 *Tōn hepta sophōn ... Septem sapientum et eorum qui cum ijs adnumerantur, apophthegmata, consilia & praecepta*. Paris: Guillaume Morel, 1554.		

[372] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **Hunterian Dr.2.11.**	**Provenance**[373]	**Proposed General Link**
Text 1 Gellius: *Noctes Atticae* Venice: Johannes Tacuinus, de Tridino, 6 Apr. 1496.	16th century English binding and probable English ownership to Thomas Brigges. Different hands in Gellius and Justinus. Gellius has a cursive hand. More common is a humanist hand that picks out keywords. This hand may also appear in the Justinus, which also has a few other hands appearing throughout. There are no annotations/rubrication in the Cicero.	Mix of topics but all by classical authors.
Text 2 Justinus, Marcus Junianus, *Epitomae in Trogi Pompeii historias*. [Venice: Johannes Rubeus Vercellensis and Albertinus Vercellensis, after 1489-90].		
Text 3 Cicero, Marcus Tullius, *De natura deorum.* Venice: Simon Bevilaqua, 18 Sept. 1496.		

[373] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Shelf mark **K.T.f1**	**Provenance**[374]	**Proposed General Link**
Text 1 Seneca: *Opera philosophica*. *Epistolae:* Venice: Bernardinus de Choris, de Cremona and Simon de Luere, 5 Oct. 1490.	German 16th C binding (with manuscript wastepaper). No early provenance information. The linked providence may however be early as paragraph marks, capital strokes and pen-work initials appear in a very similar style. Annotations may suggest the same hand in both books, with some very similar letter shapes. The paucity of annotations for these books makes true identification difficult.	Philosophy; stoicism.
Text 2 Macrobius, Aurelius Theodosius, *In Somnium Scipionis exposition:* Venice: [Johannes Rubeus Vercellensis], 29 June 1492.		

[374] All provenance information from Glasgow Incunabula Project, http://www.gla.ac.uk/services/incunabula/. [accessed 25th October 2016].

Appendix 6: Marginal and Initial Decoration in Classical Incunabula

Marginal

Shelf-mark	Earliest available identifiable provenance (binding/ownership inscription)[375]	Decoration
BD9-d.5 (Verona, no contemp. Annotations) fol.	Thomas Arthur (19th C) bookseller in London.	Italian: wreath for coat of arms, vine initials. [376]
BD7-e.13 (Parma, annotations). 4to.	Edward Piper (19th C) bookseller.	Italian*: alla antica* style in pen and ink.[377]
BD12-a.11 (Venice, occasional annotations) fol.	Edward Knight (19th C) bookseller in London.	Italian: decorative Italian style wreath, swirling hair lines, leaves in inner margin. Possibly Venetian.[378]
Be.1.5 (Venice, annotations). Fol.	S Blasius, Dominicans in Regensburg, Bavaria.	Italian: vine decoration in border and initial.

[375] All info from Glasgow Incunabula Project: http://www.gla.ac.uk/services/incunabula/. [accessed 24th October 2016].

[376] This initial is finely decorated with a high level of skill appearing to have taken place in the shading of the vine stems and leaves. The gold initial, vine stems and interlacing pattern of blue, green and red with clusters of three dots is characteristic of Florentine illumination. Yet I can not definitively place this initial to any more specific area due to the spread of the form elsewhere in Italy. See Thorp *Glory of the Page* (1987), 146.

[377] Thorp argues that quarto volumes such as this one were intended for a wider market of readers and were therefore less likely to be decorated in any way. He argues that this somewhat rushed pen and ink drawing demonstrates that contemporary styles might be incorporated into the cheaper end of the market. See Thorp (1987), 163. Yet this may be a slight over-simplication. Many all' antica drawings were completed in pen and ink, especially around Bologna and were indeed owned by illustrious men. See Alexander *The Painted Page* (1995), 143-5. The very inclusion of a coat of arms in this drawing must argue against the "less wealthy and influential readers" that Thorpe argues were buying this book and illustrating it in such a fashion.

[378] The features of this illumination are noted as typical of Venetian decoration in Thorp (1987), 154.

Be.1.6 (Venice, occasional annotations). Fol.	18th C Netherlandish binding.	Italian: wreath for coat of arms, swirling hair lines and gold dots possibly Venetian or Ferrarese.[379]
Be.2.7 (Rome, annotations). Fol.	Italian owner, 16th C.	Italian: vine border and initials, possibly Roman.[380]
Be.3.6 (Strassburg, annotations). Fol.	Guillaume de Rochefort, chancellor of France, 15th C.	French: ivy, acanthus leaves and flowers.
Be.3.17 (Florence, occasional annotations). Fol and 4to.	Sforza family, Milan; coat of arms not belonging to them.	French or possibly Flemish: Acanthus leaves, naturalistic fruit and flowers, gold dots and colours in keeping with Flemish style.[381]
Be.1.9 (Rome, occasional annotations). Fol.	William Hunter (18th C).	Italian: vine border and initials; wreath for coat of arms in Italian style, decoration possibly Roman.
Bf.2.3 (Venice, annotations). Fol.	François Bonivard, Swiss historian (16th C).	Unidentified although possibly German/north European due to the leaf decoration and initial decoration.
Bh.1.19 (Venice, no annotations). Fol.	Italian coat of arms; Joseph Smith, British Consul in Venice (18th C).	Italian: puti holding wreath in Italian style; overlapping leaves up centre column; swirling hair lines on inner border interspersed with flowers and gold dots. Quite possibly Venetian.[382]

[379] Thorp argues that the use of swirling hair line scrolls enclosing flowers and leaves can be Venetian in origin (see Thorp (1987), 154) or Ferrarese (see Thorp (1987), 158).
[380] It appears in a similar style to two volumes with Roman provenance: Bf.1.13 and Bw.2.11.
[381] Thorp (1987), 182. Although the Italians were using such a design (see Thorp (1987), 154), this one appears distinctly northern in style.
[382] Thorp also argues for a Venetian heritage, see Thorp (1987), 158.

Bh.1.18 (Venice, annotations). Fol.	Joseph Smith, British Consul in Venice (18th C).	Italian: swirling hair lines interspersed with flowers and gold dots. Possibly Venetian.
Bh.1.3 (Venice, occasional annotations). Fol.	William Hunter (18th C).	Italian: *all' antica* style; overlapping leaves in top margin; Italian style wreath for coat of arms; vine decorated initials elsewhere. Possibly Venetian due to the overlapping leaves.
Bf.3.18 (Naples, annotations). Fol.	Mario Maffei Bishop of Aquino 1516-25; Bishop of Cavaillon 1525-37 (16th C).	Italian: swirling hair lines and gold dots.
Bg.2.9 (Venice, annotations). 4to.	Louis Jean Gaignat, Secretary to King Louis XV (18th C).	Italian: overlapping leaves in out margins; wreath in Italian style; vine initial. Possibly Venetian due to the overlapping leaf styles.
Bf.3.19 (Venice, occasional annotations). Fol.	Louis-Léon-Félicité, duc de Brancas de Lauraguais (18th C).	Possibly north European because of the ivy leaves and fruit
Bw.3.27 (Bologna, annotations). 4to.	Venice, Augustinians, S. Salvator.	Possibly French. Although the swirling hair line styles of the lower and outer margins have similarities with Italian styles.[383] There is no wreath moreover. The acanthus leave decoration in the inner margin appears more distinctly French or Flemish and the colour scheme throughout the whole decoration may suggest that is Is all done at the same time. The same blue and gold in the acanthus leaves and

[383] Compare to BD12-a.11 but in particular Bh.1.19, where Glory of the Page states that an increased use of these hair-lines is representative of both Ferrarese as well as Venetian limners. See Thorp (1987), 154 & 158.

		bordering the text is used in the coat of arms, further adding justification. It appears that all of this illumination has been completed at the same time so either it was completed in Italy or France for the Frenchman with a combination of both styles.
Bw.2.3 (Venice, annotations). 4to.	William Strahan (18th C).	Italian: vine leave border and initial; wreath. Possibly Venetian.
Bw.2.18 (Venice, just gatherings/signatures). Fol.	Amboise, House of (France).	French or possibly Flemish: decorative floral borders with fruit.
By.2.18 (Venice, annotations). Fol.	Possibly Aimar de Ranconet (16th C), French humanist.	Unidentifiable but probably north European because of the initial style and fruit border.
By.3.29 (Bologna, annotations). 4to.	Jacques Auguste de Thou (16-17th C), historian.	Italian: *alla antica* style.
Bx.1.11 (Augsburg, just foliation). Fol.	Jean Baptiste Colbert de Torcy (1619-1683).	French or possibly Flemish: ivy leaves, acanthus leaves and fruit.
Be.3.29 (Venice, occasional annotations. Fol.	16th c Italian binding.	Italian: vine decoration in initial and into margin; missing coat of arms. Possibly Venetian.
Be.2.3 (Rome, annotations). Fol.	Guicciardini family of Florence (15th/16th century).	Italian: vine decoration in initial and into margin; coat of arms in vine decoration.

Flourished initial into border

Shelf-mark	Earliest provenance [384]	Decoration
BD9-d.11 (Parma, annotations). Fol.	Carlo Bocca (19th c), bookseller, Turin.	Italian: initial with flourishing hair line swirls.
Be.3.29 (Venice, annotations). Fol.	16th c Italian binding.	Italian: vine decoration in initial and into margin.
Be.2.5 (Rome, annotations) fol.	Hélion Jouffroy/Heliundus Joffredus (d. 1529), French humanist, collector, nephew of Cardinal Jean Jouffroy	Probably Italian.
Bf.2.16 (Venice, annotations). Fol.	Edward Harley (17-18th C).	Italian: initial with flourishing hair line swirls. Possibly Venetian.
Bw.3.13 (Bologna, one annotation and names). 4to.	Anthony Askew (18th C).	Italian: wreath for coat of arms.
By.2.13 (Strassburg, one annotation). Fol.	Guillaume de Rochefort, Chancellor of France (15th C).	French or Flemish: ivy and acanthus leaves stemming from initial. French coat of arms in same colours.
Bx.2.3 (Mainz, annotations). Fol.	Camille Falconet, physician, of Lyon (17-18th C).	Possibly German: penwork outside initial and ivy decoration inside.
Bw.3.12 (Bologna, annotations). 4to.	Ricardus Cassius(?) (16th century), Italy.	Not identifiable although possible Italian: leaves similar to BD9-d.11.

[384] All info from Glasgow Incunabula Project: http://www.gla.ac.uk/services/incunabula/. [accessed 24th October 2016].

Woodcut borders

BD7-d.16 (Venice, annotations). 4to.	George Willis), bookseller, London (19th C).	Italian: vine decoration.
Bw.2.14,15 (Venice, no annotations). 4to.	Edward Harley (18th C).	Italian: vine decoration.
By.2.12 (Venice, annotations/diagrams). Fol.	Parisian Jesuits.	Italian: vine decoration.
BD9-c.5 (Venice, no annotations). Fol.	David Brehler, physician, Bamberg (17th C).	Italian: vine decoration.
BD9-d.10 (Venice, annotations) 4to.	Strozzi family of Florence (15th-16th century).	Italian: vine decoration.

Appendix 7

Classical incunabula by donation information

Collection	Number	Percentage of all classical incunabula at Glasgow
Old Library Collection	60	25%
Donation by Hunter	168	70%
Donation by Ferguson	4	1.7%
Donation by Murray	2	0.8%
Donation by Veitch	2	0.8%
Donation by Stirling Maxwell	1	0.4%
Donation by Trinity College Library	1	0.4%

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Archive Sources

Bodleian Library

Auct. L.3.3, Bod-Inc: C-289: Cicero: *De finibus bono[rum] & malo[rum] .l. primus (-quintus),* Venice, Ven. [V. de Spira], I. ex Colonia Agripp, 1471. ISTC ic00565000. Bodleian Library, University of Oxford.

University of Glasgow Library

Sp Coll BC2-f.14: Aristoteles: *Ethica ad Nicomachum* [Spanish], [Johann Hurus, Zaragoza, ca. 1489]. ISTC ia00994000. University of Glasgow.

Sp Coll BC14-c.11: (1) Boethius: *De consolatione philosophiae,* Jacobus de Breda, Deventer, 19 Mar. 1491. ISTC ib00794000; (2) Boethius [pseudo-]: *De disciplina scholarium,* Heinrich Quentell, Cologne, 1490. ISTC ib00821000; (3) Aristoteles [pseudo-]: *Problemata* [Heinrich Quentell, Cologne, ca. 1490]. ISTC ia01040000. University of Glasgow.

Sp Coll BD7-e.9: Vergilius Maro, Publius: *Bucolica* [Italian], Antonio di Bartolommeo Miscomini, Florence, 19 Apr. 1494. ISTC iv00217000. University of Glasgow.

Sp Coll BD7-e.13: Solinus, Gaius Julius: *Polyhistor, sive De mirabilibus mundi* Andreas Portilia, Parma, 20 Dec. 1480 [1479-80]. ISTC is00619000. University of Glasgow.

Sp Coll BD7-f.15: Diogenes [pseudo-]: *Libro della vita dei filosofi e delle loro elegantissime sentenzie,* Francesco Bonaccorsi and Antonius Francisci, Florence, 5 July 1488. ISTC id00230000. University of Glasgow.

Sp Coll BD9-c.5: (1) Euclides: *Elementa geometriae*, Erhard Ratdolt, Venice, 25 May 1482. ISTC ie00113000; (2) Claudius Ptolemaeus: *Geographia*, Hans Stuchs, Nuremberg, 1514; (3) Soranus, Ephesius: *De re medica*, Andreas Cratander, Basel, Aug. 1528. University of Glasgow.

Sp Coll BD9-d.5: Josephus, Flavius: *De antiquitate Judaica. De bello Judaico,* Petrus Maufer de Maliferis, Verona, 25 Dec. 1480. ISTC ij00484000. University of Glasgow.

Sp Coll BD12-a.11: Plinius Secundus, Gaius: *Historia naturalis* [Italian], Nicolaus Jenson, Venice, 1476. ISTC ip00801000. University of Glasgow.

Sp Coll Bh3-e.13: (1) Gellius, Aulus: *Noctes Atticae*, Philippus Pincius, Venice, 15 July 1500. ISTC ig00127000; (2) Cleonides: *Harmonicum introductorium* Simon Bevilaqua, Venice, 3 Aug. 1497. ISTC ic00742000; (3) *Scriptores rei militaris,* Franciscus Plato de Benedictis, Bologna, 1495-96. ISTC is00345000. University of Glasgow.

Sp Coll Bh6-d.4: Firmicus Maternus, Julius: *Mathesis (De nativitatibus libri VIII)* Aldus Manutius, Romanus, Venice, June and [17] Oct. 1499. ISTC if00191000. University of Glasgow.

Sp Coll Bh20-a.11: Apollonius Rhodius: *Argonautica* [Laurentius (Francisci) de Alopa, Venetus], Florence, 1496. ISTC ia00924000. University of Glasgow.

Sp Coll Bh20-a.13: Aristophanes: *Comoediae novem* Aldus Manutius, Romanus, Venice, 15 July 1498. ISTC ia00958000. University of Glasgow.

Sp Coll Bi2-b.4: Cicero: *Opera,* Guillermus Le Signerre, Milan, 1498-99. ISTC ic00498000. University of Glasgow.

Sp Coll Bk5-g.22: (1) Mela, Pomponius: *Cosmographia, sive De situ orbis*, [Printer of Pomponius Mela], Venice, 15 Nov. 1477. ISTC im00448000; (2) Dionysius Periegetes: *De situ orbis*, Franciscus Renner, de Heilbronn, Venice, 1478. ISTC id00254000; (3) Johannes de Sacro Bosco: *Sphaera mundi*, Franciscus Renner, de Heilbronn, Venice, 1478. ISTC ij00402000; (4) Johannes de Erfordia: *Computus chirometralis*, [Johann Koelhoff, the Elder, Cologne, ca. 1480-85]. ISTC ic00797800; (5) Aurelius Victor, Sextus [pseudo-]: *De viris illustribus*, Andreas de Paltasichis, Venice, 5 June 1477. ISTC ia01386000. University of Glasgow.

Sp Coll Bn8-d.2: (1) Livius, Titus: *Historiae Romanae decades,* Bartholomaeus de Zanis, Venice, 20 June 1498. ISTC il00248000; (2) Homer: *Iliad*, Ioannis Tacuini de Tridino, [Venice], 25 February 1502/3. University of Glasgow.

Sp Coll Ferguson An-y.40: Aristoteles [pseudo-]: *Secreta secretorum. Physiognomia* [French], [Antoine Caillaut, Paris, ca. 1490?]. ISTC ia01051850. University of Glasgow.

Sp Coll Ferguson An-y.41: Diogenes [pseudo-]: *Libro della vita dei filosofi e delle loro elegantissime sentenzie,* Bernarinus Celerius, Venice, 9 Dec. 1480. ISTC id00229000. University of Glasgow.

Sp Coll Hunterian Be.1.5: Cicero: *Epistolae ad familiares*, Vindelinus de Spira, Venice, 1470. ISTC ic00506000. University of Glasgow.

Sp Coll Hunterian Be.1.6: Cicero: *Epistolae ad familiares*, Vindelinus de Spira, Venice, 1471. ISTC ic00509000. University of Glasgow.

Sp Coll Hunterian Be.2.1: Cicero: *Orationes*, Adam de Ambergau, Venice, 1472. ISTC ic00543000. University of Glasgow.

Sp Coll Hunterian Be.2.7: Vergilius Maro, Publius: *Opera. Bucolica, Georgica, Aeneis*, Conradus Sweynheym and Arnoldus Pannartz, Rome [1471]. ISTC iv00151400. University of Glasgow.

Sp Coll Hunterian Be.2.12: Cicero: *Epistolae ad Brutum, ad Quintum fratrem, ad Atticum*, Nicolaus Jenson, Venice, 1470. ISTC ic00500000. University of Glasgow.

Sp Coll Hunterian Be.3.4: Cicero: *Epistolae ad familiares*, Nicolaus Jenson, Venice, 1471. ISTC ic00508000. . University of Glasgow.

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Sp Coll Hunterian Be.3.29: Cicero: *De inventione*, Filippo di Pietro, Venice, 1475. ISTC ic00645000. University of Glasgow.

Sp Coll Hunterian Be.3.29: [pseudo-] Cicero: *Rhetorica ad C. Herennium*, Printer of Datus, 'Elegantiolae' (H 5969*), Venice, ca. 1475. ISTC ic00677000. University of Glasgow.

Sp Coll Hunterian Bf.2.15: (1) Nonius Marcellus: *De proprietate latini sermonis*, [Boninus de Boninis, de Ragusia], Brescia, 17 July 1483. ISTC in00268000. (2) Varro, Marcus Terentius: *De lingua latina,* Brescia: Boninus de Boninis, de Ragusia and Miniatus Delsera, 16 June 1483. ISTC iv00098000. (3) Festus,

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