

Three Direct Copies and Other Closely Related Manuscripts of the Pauline Epistles

Houghton, H.A.G.; Myshrall, A.C.

DOI:

[10.1163/15685365-bja10050](https://doi.org/10.1163/15685365-bja10050)

License:

Creative Commons: Attribution (CC BY)

Document Version

Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Houghton, HAG & Myshrall, AC 2023, 'Three Direct Copies and Other Closely Related Manuscripts of the Pauline Epistles', *Novum Testamentum*, vol. 65, no. 3, pp. 381-399. <https://doi.org/10.1163/15685365-bja10050>

[Link to publication on Research at Birmingham portal](#)

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.



BRILL

NOVUM TESTAMENTUM 65 (2023) 381–399

Novum
Testamentum
An International Quarterly for
New Testament
and Related Studies
brill.com/nt

Three Direct Copies and Other Closely Related Manuscripts of the Pauline Epistles

H.A.G. Houghton | ORCID: 0000-0002-0558-8400
Institute for Textual Scholarship and Electronic Editing,
University of Birmingham, Birmingham, UK
h.a.g.houghton@bham.ac.uk

A.C. Myshrall | ORCID: 0000-0002-8149-2881
Institute for Textual Scholarship and Electronic Editing,
University of Birmingham, Birmingham, UK
a.c.myshrall@bham.ac.uk

Abstract

As part of work towards the *Editio Critica Maior* of Galatians, the use of the tools of the Coherence-Based Genealogical Method and the MrBayes phylogenetic software has led to the identification of three Greek New Testament manuscripts which are direct copies (*Abschriften*) of surviving documents. This article provides the evidence that GA 1930 is a copy of GA 1978, GA 1935 is a copy of GA 1987, and GA 1959 is a copy of GA 467. No conclusive proof has yet been identified to confirm whether or not GA 2423 is a copy of GA 1730, GA 506 is a copy of GA 203, GA 1837 is a copy of GA 326, GA 1988 is a copy of GA 1984, or GA 1753 is a copy of GA 2279. However, it appears that neither GA 254 and GA 1523 nor GA 0150 and GA 2110 are directly related. The conclusion offers further observations on the identification of *Abschriften*.

Keywords

New Testament manuscripts – direct copies – *Abschriften* – phylogenetics – CBGM – *Editio Critica Maior*

1 Introduction

One of the many valuable innovations of the *Editio Critica Maior* (ECM) of the Greek New Testament has been the creation of full-text electronic transcriptions of all the manuscripts selected for each book of the edition. These not only form the building blocks of the critical apparatus, but also make possible new forms of analysis of the textual tradition of the New Testament through the application of a variety of software tools.¹ Among these is the Coherence-Based Genealogical Method (CBGM), created by Gerd Mink at the Institut für Neutestamentliche Textforschung in Münster to assist editors in reconstructing the *Ausgangstext* (“Initial Text”) of each biblical book.² The latest online version of the CBGM tools not only presents users with the coherence and textual flow information for each variation unit, but also provides a “Comparison of Witnesses” page which offers a full collation of any two Greek manuscripts in the edition as well as an interface for finding manuscript relatives based on any reading in the apparatus.³ These features may be used as soon as a collation is loaded into the system, although the details of the direction of textual flow between the witnesses are refined each time the editors work through the individual variation units in the apparatus. Another means of analysing the relationship between witnesses in a collation is the application of phylogenetic software, which directly computes the most economical way of accounting for all variant readings and proposes the identification of groups of closely related witnesses. The algorithm used in a phylogenetic package is independent of the philological decisions on which the CBGM is

1 For the workflow of the edition, see D.C. Parker, *Textual Scholarship and the Making of the New Testament* (Oxford: OUP, 2012); H.A.G. Houghton and C.J. Smith, “Digital Editing and the Greek New Testament,” in *Ancient Worlds in Digital Culture* (ed. C. Clivaz, P. Dilley and D. Hamidović; Digital Biblical Studies 1; Leiden: Brill, 2016) 110–127.

2 See T. Wasserman and P.J. Gurry, *A New Approach to Textual Criticism: An Introduction to the Coherence-Based Genealogical Method* (Resources for Biblical Study 80; Atlanta: SBL; Stuttgart: Deutsche Bibelgesellschaft, 2017), as well as the online material linked from <https://ntg.uni-muenster.de/>.

3 These are accessed on the website listed in the previous footnote. For instance, a comparison of Codex Sinaiticus and minuscule 35 in the Acts of the Apostles may be found at <https://ntg.uni-muenster.de/acts/ph4/comparison#ms1=01&ms2=35>. For an example of how an earlier version of these tools was used to assess the relationship between manuscripts, see H. Strutwolf, “Direct Copies as Test Case for the Coherence-Based Genealogical Method,” *Early Christianity* 11 (2020) 43–59.

based, meaning that the use of the two methods in parallel can provide useful material for comparison and further examination.⁴

Following the transcription of over two hundred manuscripts selected for ECM Galatians, an initial collation was released online in November 2021 and revised in September 2022.⁵ This collation data was uploaded into the suite of CBGM tools to enable the editorial team to establish the *Ausgangstext* and, separately, analysed using the MrBayes phylogenetic software.⁶ Two observations could immediately be made from the initial processing of this data. The first, in the CBGM, was the surprisingly high position of the Majority Text when compared with the editorial text of the twenty-eighth edition of the Nestle-Aland *Novum Testamentum Graece* (NA²⁸). With an agreement between the two of 95.18% (identical in 1381/1451 variation units), the calculated Majority Text comes in eleventh position in the table of substantial witnesses related to the NA²⁸ text (and sixteenth if fragments are also taken into account). The second observation, which may be related to the first, was that neither the CBGM nor MrBayes identified many groups of closely related manuscripts. While the CBGM indicated a textual relationship between almost all the lectionaries selected for the edition, as well as connecting several groups of manuscripts which share a commentary in the form of a catena, the initial phylogram generated by MrBayes presented most witnesses as independent of the rest of the tradition. Only one group of three witnesses (GA 254, 1523 and 1524) and twenty-two pairs of witnesses had a likelihood greater than 50% that they were more closely related to each other than being separate developments within the broad Byzantine tradition.

4 For an exploration of this question using data from the Gospel according to John, see A.C. Edmondson, "An Analysis of the Coherence-Based Genealogical Method Using Phylogenetics," unpublished PhD dissertation, University of Birmingham, 2019 (available at <https://etheses.bham.ac.uk/id/eprint/9150/>).

5 This is accessible at <http://epistulae.org/apparatus/galatians/>. A third version of the collation is in preparation, which among other changes will take account of the findings described in the present article: for this reason, all figures quoted herein (based on the collation of September 2022) are likely to differ from the final totals which will be released to accompany the printed volume of ECM Galatians.

6 We would like to thank Catherine Smith, Volker Krüger and Andrew Edmondson for carrying this out. For the MrBayes software, see F. Ronquist, M. Teslenko, P. van der Mark, D.L. Ayres, A. Darling, S. Höhna, B. Larget, L. Liu, M.A. Suchard, and J.P. Huelsenbeck, "MrBayes 3.2: Efficient Bayesian Phylogenetic Inference and Model Choice Across a Large Model Space," *Systematic Biology* 61 (2012) 539–542 and G. Altekar, S. Dwarkadas, J.P. Huelsenbeck, and F. Ronquist, "Parallel Metropolis coupled Markov chain Monte Carlo for Bayesian phylogenetic inference," *Bioinformatics* 20 (2004) 407–415.

In order to evaluate these findings, the pairs identified by MrBayes were examined using the tools provided by the CBGM as well as the manuscript images available on the New Testament Virtual Manuscript Room (NTVMR).⁷ The “Comparison of Witnesses” page of the CBGM was used to provide the total percentage agreement between each pair, as well as a full list of all textual differences. The manuscripts were then compared at these points to determine whether the divergences indicated that the two documents were likely to be independent of each other. (As the CBGM only considers the first-hand text of each witness, later corrections which could have been incorporated into a copy are not indicated in this collation.) If the textual comparison did not eliminate the possibility that the pair were in a relationship of exemplar and copy, a broader examination was made of the two manuscripts, paying particular attention to the treatment of corrections and paratextual features such as prefaces, titles and paragraphing throughout the Pauline corpus. In three cases, described in the following section, incontrovertible evidence was found that one member of the pair was a direct copy of the other. To the best of our knowledge, none of these identifications has been made previously.⁸ In accordance with the principles of the ECM, the *Abschrift* will henceforth be eliminated from the edition.⁹ For several other pairs, we were unable to exclude the possibility that one manuscript was a copy of the other, while in further cases direct dependence could be ruled out.¹⁰ The most significant of these are presented in another section: both witnesses will continue to be included in the ECM apparatus, pending any further discoveries.

7 Most of these were images of digitised microfilm, consulted at <https://ntvmr.uni-muenster.de/> in December 2022.

8 All four Theophylact manuscripts in the following section are described in K. Staab, *Die Pauluskatenen nach dem handschriftlichen Quellen untersucht* (Rome: Pontifical Biblical Institute, 1926), but with no connection between them.

9 This had already been implemented for known *Abschriften*, such as GA 0319. For the principles of selection, see H.A.G. Houghton, “An Initial Selection of Manuscripts for the *Editio Critica Maior* of the Pauline Epistles,” in *The New Testament in Antiquity and Byzantium: Traditional and Digital Approaches to its Texts and Editing* (ed. H.A.G. Houghton, D.C. Parker and H. Strutwolf; ANTF 52; Berlin & New York: De Gruyter, 2019) 343–359. Notes have now been added to the relevant entries in the online *Kurzgefasste Liste* (<https://ntvmr.uni-muenster.de/liste>) indicating that these three manuscripts are *Abschriften*.

10 Space does not permit the discussion of all twenty-two pairs of witnesses: those which were excluded from the present study because it appears possible to rule out a direct relationship are GA 5 and 623, GA 103 and 1947S, GA 104 and 459, GA 177 and 337, GA 206 and 429, GA 630 and 2200, GA 1505 and 2495, GA 1798 and 2248, GA 1817 and 2596, GA 2002 and 2482.

2 Direct Copies

2.1 GA 1930 and GA 1978

The first pair to be considered is GA 1930 (Munich, BSB, Cod. graec. 35; Diktyon 44479; saec. XVI) and GA 1978 (Florence, BML, Plut. 11.7; Diktyon 16161; saec. XV). Both are manuscripts of Theophylact's catena on the Pauline epistles, and 1978 is clearly palaeographically older. According to MrBayes, their clade credibility value (denoting the likelihood of relationship) is 81%, the second highest among the pairs of manuscripts. The CBGM records an agreement of 99.524% in Galatians, with just seven differences across 1471 variation units. Four of these are omissions in 1930 (αὐτῶ in 2:11, ζήσεται in 3:12, the final *nu* of οὐδέν in 4:1 and the prepositional prefix in παρατηρεῖσθαι at 4:10), two of which were corrected by the first hand (3:12 and 4:10). There is a sound change at Gal 5:1, with 1930 reading συνέχεσθαι where 1978 has συνέχεσθε.¹¹ The two other variants are less straightforward: 1930 includes the definite article ὁ before Ἀβραάμ in Gal 3:6, and reads οὐ rather than ἦ at the beginning of Gal 4:26. While the former is easy to explain as a spontaneous addition before the proper noun (the long tail of the *alpha* in 1978 also makes it appear slightly separated from the rest of the word), the latter—which is a singular reading in 1930—is surprising. There is no obvious sound change which would account for an interchange between η and ου, and the letter is a capital at the beginning of the biblical lemma. It could be that the copyist was misled by the following δέ, thinking the word was οὐδέ. Alternatively, given that the οὐ is written as a digraph with the *upsilon* above the *omicron*, there may have been a visual confusion with the capital *eta*. In any case, the textual variants are consistent with a direct relationship of 1978 as exemplar and 1930 as copy.

The two manuscripts have the same overall contents and sequence, with Hebrews appearing between 2 Corinthians and Galatians. The titles, inscriptions and subscriptions are all identical, although 1930 is neater and more elegantly laid out. Proof that 1930 is an *Abschrift* of 1978 may be seen in a curious arrangement of text on the first page of Romans. In 1978, the second paragraph of the commentary, beginning with πῶς οὖν πρώτη, is indicated—according to standard Greek manuscript practice—by ekthesis of the first word on the following line (τέτακται) along with a red initial. In 1930, however, πῶς οὖν πρώτη is written as the last phrase of the first paragraph, after which a long line is added to fill the text block, and then τέτακται is written with a

11 Other orthographical alternatives which did not make possible sense in context would have been eliminated during the regularisation of the collation before it was imported into the CBGM.

capital in ekthesis on the following line as the first word of the paragraph. This nonsensical arrangement could only have arisen as a misinterpretation of the way the textual division is indicated in 1978. Further proof of the direct relationship of these two manuscripts is visible in the commentary on Galatians and Colossians. Among several omissions in 1930 on fol. 298r is a lengthy portion of text between ἐσκανδάλισαν and μαθητῶν. Although this has been corrected by the first hand, the missing text corresponds exactly to an entire line of 1978 (fol. 295r), indicating that the copyist of 1930 initially skipped the line before noticing their mistake. The same is true on the top line of the following page (fol. 299r), where the copyist of 1930 originally omitted the third line of fol. 269r in 1978 (ἀλλ' ἕτερον ... κατασκευάζειν). In the commentary on Col 1:15, a line of text was initially left out on fol. 359v of 1930 due to eyeskip between two instances of the word εἰκόνες; in 1978 these two words appear directly above each other on fol. 364v, explaining the copying error. Similarly, the line omitted on fol. 362r of 1930 involves eyeskip from ἐκόντας to ὄντας, two words which appear above each other on lines 10 and 11 of fol. 367r of 1978. These errors lead to the conclusion that the entirety of 1930 is a copy of 1978, and that the manuscript should be removed from the ECM for Galatians and Colossians, the two books for which it was selected.¹² In addition, although the two manuscripts have a similar profile in *Text und Textwert*, with identical scores in 1 Corinthians and from Ephesians to Hebrews, it may be noted that the copying errors in 1930 mean that it differs more from the majority readings in the other epistles (with a total almost 6% lower than 1978 in Galatians) despite its text deriving from 1978.

2.2 GA 1935 and GA 1987

The second pair identified as exemplar and copy consists of GA 1935 (Paris, BnF, grec 225; Diktyon 49797; saec. XVI) and GA 1987 (Rome, Bib. Casanatense, 1298; Diktyon 56081; saec. XIV), which are also copies of Theophylact's catena. In each case, the copyist is known by name: *Pinakes* indicates that Methodius the hieromonk was responsible for 1987 some two centuries before Niketas Korogonas copied 1935.¹³ The clade credibility value in MrBayes was only 69% but the overall agreement of these manuscripts in the CBGM is 98.697%, which corresponds to nineteen differences across 1458 variation units. Seven of the differences are omissions in 1935, while five are orthographical variants

¹² See Houghton, "An Initial Selection," 357–358.

¹³ *Pinakes*, a project of the Institut de recherche et d'histoire des textes which also allocates a unique Diktyon number to all Greek manuscripts, is accessed at <https://pinakes.irht.cnrs.fr/>.

reflecting sound changes. Five others involve one or two letters: in one of these (Gal 1:10), 1935 has copied the corrected text of 1987 rather than the first hand. The remaining two variants occur at Gal 4:26, where 1987 has the standard reading ἡ ... Ἱερουσαλήμ while 1935 alone reads ὁ ... Ἰσραήλ.¹⁴ However, despite this difference, 1935 continues to have the regular feminine adjective ἐλευθέρα as the next word, followed by the feminine relative pronoun. Both words are written as *nomina sacra*, while the definite article ὁ in 1935 is written in red. It appears that the copyist mistakenly read the abbreviation ιημ as ιηλ (cf. the first hand of L1440) and then added the correct article for Ἰσραήλ despite the feminine in the latter part of the sentence. In any case, the textual differences in Galatians do not rule out 1935 as a direct copy of 1987.

Overall, 1935 contains less material than 1987. The younger manuscript lacks the initial preface and table of contents and finishes at the end of 2 Thessalonians, despite the presence of the Pastoral Epistles, Philemon and Hebrews at the end of the corpus in 1987. Nevertheless, the prefaces and titles of the epistles which appear in both are very similar. It is particularly striking that, following 2 Corinthians, both manuscripts have the title ἐπιστολή πρώτη πρὸς Γαλάτας (“the first epistle to the Galatians”): 1935 goes on to describe Ephesians as the fifth letter, Philippians as the sixth, Colossians as the seventh and so on, matching numerals written in the margin of the letter titles in 1987. One may also observe that the numerous marginal additions in 1987 (e.g. those on fol. 9v, 10r and 12v) are adopted in the text of 1935. The first proof that 1935 is an *Abschrift* of 1987 involves the additional text in the bottom margin of fol. 13r of 1987: the scribe of 1935, after inserting this at the appropriate point (fol. 6r, line 5), forgot to return to the remaining three and a half lines left on fol. 13r and instead turned the page and continued copying from the opening words of fol. 13v, ἵνα τινὰ καρπὸν σχῶ. Two entire lines of 1987 were initially omitted from 1935 by eyeskip but later added in the margin: one in the commentary on Rom 7:6 (fol. 33v; compare fol. 39r of 1987), and one spanning the end of the commentary on Col 1:4 and the opening words of the lemma of Col 1:5 (fol. 343v; compare fol. 329v of 1987). These, along with numerous other incidental details, confirm that 1935 is a direct copy of 1987 and should no longer be selected for inclusion in the ECM of 2 Corinthians, Galatians, Philippians, Colossians and 1 and 2 Thessalonians. As in the case of the previous pair of Theophylact manuscripts discussed above, the *Abschrift* usually has either an identical or lower majority percentage agreement in *Text und*

14 Because of the variant readings in the words separating the article and noun, they have been counted as two separate variation units in the collation even though they are mutually dependent.

Textwert than its exemplar. This is particularly striking in 2 Corinthians, where the majority agreement of 88.46% in 1987 did not qualify it for selection, but the differences introduced by the copyist of 1935 resulted in an agreement of 80.77% which did merit inclusion in the ECM. Ephesians offers an exception, however, because 1935 incorporated the Byzantine reading introduced as a correction at Eph 3:18 in 1987.

2.3 GA 1959 and GA 467

The third set of *Abschrift* and exemplar is GA 1959 (Leiden, Univ., B.P. Gr 11; Diktyon 37699; saec. XVI) and GA 467 (Paris, BnF, gr. 59; Diktyon 49620; saec. XV). The latter is the work of the copyist Georgios Hermonymus, active in Paris in the last quarter of the fifteenth century, who also produced GA 288. GA 467 is a full Praxapostolos which also includes Revelation, whereas GA 1959 only comprises the Pauline Epistles. Within Galatians they agree 99.176%, differing in twelve of 1457 variation units, and MrBayes calculates their clade credibility as 71%. Four of the differences are text missing in 1959, the later manuscript: although two words appear to be present in this manuscript but not in the earlier document, in fact both are supplied as corrections in 467. Similarly, εὐηγγελισάμεθα for παρελάβετε at Gal 1:8 and Πέτρος rather than Κηφᾶς at Gal 2:11 are provided by Hermonymus as alternative readings in the margin of 467, preceded by the indication γρ(ἀφεται), but were copied into the text of 1959. Most of the other differences between the two are minor and consistent with 1959 being a copy of 467. Proof of this is provided by two errors on fol. 83r. First, after ἐκ πίστεως in Gal 3:24, the copyist of 1959 initially wrote οὐκέτι before deleting it. In 467, ἐκ πίστεως comes at the end of line 17 of fol. 209r and οὐκέτι in Gal 3:25 begins line 19, indicating that the copyist of 1959 initially skipped a line before noticing the mistake. At the end of the next line, however, the same mistake was made but not amended: 1959 goes from πάντες in Gal 3:26 straight to ὅσοι γάρ in 3:27, omitting the whole of line 20 in 467. Further evidence of the direct dependence of 1959 on 467 is shown in its treatment of the alternative at Gal 1:8: although only παρελάβετε is indicated as corresponding to the marginal εὐηγγελισάμεθα on fol. 205v of 467, the copyist of 1959 omitted the words at the beginning of the line (παρ' ὁ) as well when incorporating the alternative reading.

In addition to all the paratextual material shared throughout the two manuscripts, similar textual omissions throughout the rest of the Pauline Epistles confirm that the whole of 1959 is directly dependent on 467. For instance, much of Rom 4:15 was omitted by the copyist of 1959 (fol. 14r), corresponding to an entire line on fol. 136r of 467. Again, a phrase of Rom 11:12 was omitted at first from 1959 (fol. 25r) because lines 11 and 12 of fol. 147r of 467 both begin

with identical text (τος ἐθνῶν). At the other end of the corpus, the copyist of 1959 initially missed a line from Heb 3:13 on fol. 142v, due to eyeskip between the two instances of καλεῖται vertically aligned on lines 12 and 13 of fol. 278v of 467. It is interesting to observe how the later manuscript not only incorporates the marginal *kephalaia* notations of 467 within its main text block but also treats the alternative readings noted by Hermonymus as corrections, adopting them in the text (as noted at Gal 1:8 and 2:11 above). While 467 lacks large, decorated initials at the beginning of each letter, these have been supplied in 1959 based on the small guide letter left in the source manuscript. It is also worth noting that 1959 only derives from the middle part of 467, lacking Acts, the Catholic Epistles and Revelation: the intention seems to have been solely to produce a copy of the Pauline Epistles.¹⁵ 467 has a distinctive Pauline text, with an overall majority agreement of just 66.14% according to *Text und Textwert*. In most books, 1959 is identical to its exemplar: its slightly higher percentage of 66.8% is largely due to its incorporation of a majority reading in Galatians. These low percentages mean that both manuscripts were selected for the entire corpus, so 1959 must now be removed from every volume of the ECM.

3 Other Closely Related Manuscripts

While the previous section established that one member of each pair identified by the application of MrBayes was a direct copy of the other, in other cases it has not been possible to reach a firm conclusion. Seven other closely related pairs of manuscripts in Galatians are considered in this section. The first six all have a pregenealogical agreement of over 98.9%, with a total of fifteen differences or fewer, and were indicated by MrBayes as potentially connected. The final pair, GA 0150 and 2110, has been proposed elsewhere as exemplar and *Abschrift*, and this is re-evaluated on the basis of the evidence from Galatians.

3.1 GA 1730 and GA 2423

The closest pair in the corpus is GA 1730 (Athos, Vatopediou, 972; Diktyon 19116; saec. XI) and GA 2423 (Durham, NC, Duke Univ. Rubinstein Lib.,

15 There is no manuscript in ECM Acts which agrees more with GA 467 than its 92.97% agreement with the Majority Text (see <https://ntg.uni-muenster.de/acts/ph4/>), while the closest match in *Text und Tertwert* for Revelation (apart from the fragmentary GA 93S) is GA 452, with an overall agreement of 95%: see M. Lembke, D. Müller, and U.B. Schmid, *Text und Textwert der griechischen Handschriften des Neuen Testaments VI. Die Apokalypse* (ANTF 49; Berlin & New York: De Gruyter, 2017) 531–532.

Greek 3; Diktyon 13618; saec. XIII). Both are incomplete Praxapostoloi, in which Hebrews follows 2 Thessalonians. There is only one difference between their first-hand text in the 1027 variation units in which both are extant in Galatians, giving them an agreement of 99.903%: the copyist of 2423 initially wrote τὸ λοιπὸν in Gal 6:17, which was corrected to τοῦ λοιποῦ (the reading of 1730). Nevertheless, both are very close to the Majority Text, sharing just four differences from this: 1730 has a majority agreement of 99.721% (1429/1433) and 2423 has a majority agreement of 99.513% (1022/1027). As none of these variations is particularly striking, it is possible that their textual relationship is coincidental even though MrBayes indicates a clade credibility of 75%.¹⁶ The paratext throughout both the manuscripts is very similar as, indeed, are the scribal hands and decoration (compare the final page of Acts). Two differences, however, occur on the first page of Colossians: 1730 (fol. 184v) reads πρὸς Κολοσσαεῖς τοῦ ἁγίου Παύλου ἐπιστολῆς and has an ekthesis marking a new paragraph at line 6, whereas 2423 (fol. 200r) only has πρὸς Κολοσσαεῖς as the title and no paragraph. If 1730 were the exemplar of 2423, these unmotivated differences would be difficult to explain. It may also be noted that the first hand of 2423 omitted 1 Cor 14:38, which was added in the margin of fol. 151v, but there is nothing about the layout on fol. 131r of 1730 which would prompt this. Accordingly, despite the extremely close textual relationship between these manuscripts and their many similarities, nothing has been identified which would prove that the younger document is a copy of the older one. Galatians is the only epistle in which they have been selected for the ECM.

3.2 GA 203 and GA 506

The next most closely related manuscripts are GA 203 (London, British Library, Add. MS 28816; Diktyon 39067; anno 1111) and GA 506 (Oxford, Christ Church, Wake 12; Diktyon 48534; saec. XIII). Both were originally complete New Testaments, but the four gospels were separated from GA 203 and are now registered as GA 2622.¹⁷ In Galatians, they have a pregenealogical coherence of

¹⁶ The close relationship to the Majority Text is also seen in *Text und Textwert* for the Catholic Epistles, where 1730 has 100% agreement with the Byzantine witness GA 607, and 2423 has 100% agreement with GA 1859 and 97.94% agreement with GA 607: the agreement between 1730 and 2423 is 97.87%. See K. Aland et al., *Text und Textwert der griechischen Handschriften des Neuen Testaments 1. Die Katholischen Briefe, Band 2. Ergänzungsliste* (ANTF 10.1; Berlin & New York: De Gruyter, 1987) *78 and *108.

¹⁷ See the record for Diktyon 71628 in *Pinakes*. Both were copied by the scribe Andreas of Olene: the Gospels (Vienna, ÖNB, suppl. gr. 164) were finished in 1109, while the colophon in GA 203 notes that the whole manuscript took three years to complete.

99.521% (1247/1253) and a clade credibility of 75%.¹⁸ Clearly, these manuscripts are an extremely close pair: they are the only witnesses in the ECM corpus with πάντας rather than πολλούς at Gal 1:14 and γράφω for λέγω at Gal 5:1. Their textual similarity extends over the other books: according to *Text und Textwert*, 203 is the nearest complete relative of 506 in the Catholic Epistles, while in Revelation they exhibit a remarkable 100% agreement across all 123 test passages and constitute the sole attestation of a conflated reading at Rev 13:16.¹⁹ If they are exemplar and copy, the prior manuscript is likely to be 203: although the *Kurzgefasste Liste* currently identifies 506 as eleventh-century (earlier than 203 and 2622), the more detailed record in *Pinakes* assigns it to the third quarter of the thirteenth century. The latter manuscript is more regular and includes in its text material which is in the margins of 203: it has shorter forms of some of the titles and lacks the subscription to Hebrews. The textual differences in Galatians could also support 203 as the exemplar: at Gal 1:10, it is possible in 203 to make out a faint β above ἀνθρώποις and an α above ἔτι, a change of sequence which corresponds to the word order ἔτι ἀνθρώποις seen in 506; at Gal 4:4, the majority reading γενόμενον has been corrected in 203 to γεννώμενον, the reading of 506; at Gal 4:29, ποτέ in 506 is a singular reading which is a simple error for the standard τότε. Both manuscripts have indications of the source of biblical quotations in the margins, although 506 sometimes lacks *diplai* present in 203 (e.g. Gal 3:8, 4:30). They also include the same occasional exegetical scholia, which are usually indicated by the same *signes de renvoi*. Again, the priority of 203 is supported by two scholia on 1 Cor 15:52: in the top margin of fol. 80v of 203 these are written immediately above the words they gloss, ἐν ἀτόμῳ and ἐν ῥιπῇ ὀφθαλμοῦ, whereas on fol. 170v of 506 they are connected to the appearance of these words further down the page by *signes de renvoi*.

A peculiar feature shared by these two documents is the insertion of rubricated lectionary incipits in the flow of the text, which often duplicate the biblical text. For instance, at Gal 1:11, 203 starts a new section with γνωρίζω δὲ

18 Although the collation notes a difference at Gal 5:18 where 203 reads οὐκέτι, 506 is lacunose after οὐκ and may well also have read οὐκέτι. This has therefore been removed from the list of differences.

19 For the Catholic Epistles, see Aland et al., *Text und Textwert 1. Die Katholischen Briefe, Band 2. Ergänzungsliste*, *34 (also *17). The reading in Rev 13:16 is λάβωσι τὸ χάραγμα αὐτοῦ καὶ ἵνα δώσωσιν αὐτοῖς χαράγματα: see Lembke, Müller and Schmid, *Text und Textwert VI. Die Apokalypse*, 128, 525 and 533. GA 506 is only partially extant in Acts and lacunose in the distinctive readings of 203 in *Text und Textwert* for this book. A. Edmondson, "MrBayes consensus tree for IGTP data of John 18," (2018) available at <http://epapers.bham.ac.uk/3105/>, shows that GA 506 is a member of a group comprising GA 2687, 276 and 2622 (the gospels portion of GA 203).

ὕμῖν ἀδελφοί τὸ εὐαγγέλιον, followed by red lection information (some of which is written on the line above) and then a large capital in ekthesis beginning ἀδελφοί γνωρίζω ὑμῖν τὸ εὐαγγέλιον in rubrics, before the regular biblical text continues with τὸ εὐαγγελισθέν. 506 has subtle variations to this, beginning the section with γνωρίζω δὲ ὑμῖν ἀδελφοί, followed by the red lection information, which is here combined into a single line, then a large capital in ekthesis beginning ἀδελφοί γνωρίζω ὑμῖν in rubrics, before the regular biblical text continues with τὸ εὐαγγέλιον τὸ εὐαγγελισθέν. The amount of rubricated text and the extent to which the biblical text is repeated varies. Similarly, the division of the text sometimes differs: at Acts 23:1, for example, 506 has the regular ὁ Παῦλος after the rubricated text, whereas in 203 it occurs before this. At Phil 4:10 and on several occasions in 1 Thess 1–3 a lectionary indication is absent from the main text of 203 but has been added in red in the margin. However, the text of these additions does not always correspond to the lectionary rubrics in 506: at 1 Thess 1:6, the margin of 203 has ἀδελφοί καὶ ὑμεῖς μιμηταί μου but 506 just has ἀδελφοί preceded by καὶ and followed by the standard ὑμεῖς μιμηταί ἡμῶν; at 1 Thess 2:1, the rubric added to 203 reads ἀδελφοί αὐτοὶ γὰρ οἶδατε but 506 only reads ἀδελφοί οἶδατε. While it is not impossible that the copyist of 506 could have made adjustments while incorporating these corrections, it is surprising that these guides were not followed. In addition, the correction in 203 at 1 Thess 1:6 is written over several marginal scholia which are largely obscured, yet these scholia are fully present in 506. Despite the similarity of the text and paratext in these manuscripts, it has not so far been possible to find conclusive evidence that 203 (and 2622) is the exemplar of 506. Unless this is forthcoming, both witnesses will continue to be included in the ECM of Galatians, Colossians and 1 & 2 Thessalonians.²⁰

3.3 GA 326 and GA 1837

Third in the series come two Praxapostoloi, GA 326 (Oxford, Bodleian Library, Lincoln College Gr. 82; Dikyton 48693) and GA 1837 (Grottaferrata, Biblioteca Statale, A.β.3; Dikyton 17842), which have the highest clade credibility value according to MrBayes, at 83%. *Pinakes* identifies both as the work of the same copyist, Leo “the priest” (Λέων ἀρητήρ), active in Calabria in the first half of

²⁰ M. Lembke, “Der Apokalypse-Wortlaut der Koine-Überlieferung in Beziehung zu Text und Apparat des Nestle-Aland,” in *Studien zum Text der Apokalypse II* (ed. M. Sigismund and D. Müller; ANTF 50; Berlin & New York: De Gruyter, 2017) 285–369, treats GA 203 and 506 as a group in Revelation, but takes 506 as the representative of this group and does not consider the possibility of a relationship of exemplar and copy (at 299).

the eleventh century.²¹ It is therefore not surprising that their text is very similar: both are selected for ECM Acts, where they have an agreement of 98.599% (6966/7065), and there are just nine first-hand differences between them in Galatians, giving a total of 99.387% (1460/1469). In practice, the texts are even closer, because the differences in 326 at Gal 1:4, 2:11 and 2:21 are corrected in 326, as are those in 1837 at Gal 2:3, 5:10 and 6:10. This leaves just two differences: γινώμεθα and γενώμεθα at Gal 5:26 and the omission of μή from Gal 6:12 in 1837. While it is not impossible that Leo could have used one of his own copies as the exemplar for another, the paratextual material indicates that both are more likely to derive from the same source. Some subscriptions are copied in a decorated majuscule script while others are written more informally, yet there is little consistency between the two manuscripts as to which style is chosen for which book. The fuller manuscript is 326, in which Leo wrote more extensive liturgical titles in the top margin (e.g. Gal 2:6), but it lacks a subscription for 3 John, which finishes at the bottom of a page, whereas one is present in 1837. Accordingly, these manuscripts, which have been selected for the entire Pauline corpus in the ECM, appear to be siblings and will both be retained in the edition. They bear witness to the remarkable textual accuracy of this scribe in producing multiple copies of the same work.

3.4 GA 1984 and GA 1988

The final set of manuscripts with an agreement above 99% are two copies of Theophylact's catena on Paul, GA 1984 (Naples, Bib. Naz., 11.B.23; Diktyon 46039; saec. XIV) and the earlier, fragmentary, GA 1988 (Vatican, BAV, Vat. gr. 549; Diktyon 67180; saec. XII). Their clade credibility value is 75%, and there are twelve differences between their first-hand text, giving a total of 99.114% (1342/1354). In keeping with their relative dates, the text of 1988 is prior to that of 1984 which has two singular readings (ἀπέστρεψα for ὑπέστρεψα at Gal 1:17 and ὁ rather than εἰ in Gal 4:7) and lacks ἔξει in Gal 6:4 and μή in Gal 6:12. In the commentary, 1988 has some marginal alternatives marked with γρ(άφεται) which are found as the reading of the text in 1984 (e.g. the scholia on Gal 1:6 and 2:5; compare GA 1959 above). The partial preservation of 1988 only permits a limited comparison of paratextual material: the older manuscript appears to lack subscriptions to the epistles, whereas these are present for Romans

21 See <https://pinakes.irht.cnrs.fr/notices/copiste-possesseur-autre/4407/>. See further I. Hutter, "Beobachtungen zu italogriechischen Handschriften des Neuen Testaments in der Biblioteca Apostolica Vaticana," *Nέα Πώμη. Rivista di ricerche bizantinistiche* 13 (2016) 51–78 esp. 56–60; according to *Pinakes* Leo was also responsible for the Family 13 gospel manuscripts GA 124, 788 and 826.

and Galatians in 1984. Conversely, the inscriptions and subscriptions in 1984 appear to have been added by later hands, even though their text matches those present in 1988: perhaps a space was left for decoration which was never provided. Neither of these offers conclusive evidence about their relationship. There are, however, some textual differences which suggest that 1984 is not a direct copy: at Gal 4:2 it has the variant κληρονόμους for οἰκονόμους which, although it could have arisen independently, is attested in other Theophylact manuscripts; also, it does not reproduce the error of 1988 in 1 Cor 1:1 (with Ἰησοῦ in place of Χριστοῦ). While the possibility that 1988 was the exemplar of 1984 cannot currently be ruled out, it seems more likely that these are close relatives within the early Theophylact tradition.

3.5 GA 1753 and GA 2279

GA 1753 (Athos, Panteleimon, 66; Diktyon 22203) and GA 2279 (London, BL, Add. MS 37003; Diktyon 39144) are both fourteenth-century Praxapostoloi according to the *Kurzgefasste Liste*, but Pinakes assigns GA 2279 to the twelfth century. There are fifteen differences between their first-hand text in Galatians, giving a percentage agreement of 98.98% (1456/1471), and MrBayes identifies the clade credibility value as 76%. Textually, 2279 is the prior witness: it includes two instances of τῖ which are missing from 1753 (Gal 5:6 and 6:15), while two of the differences in 1753 are present as corrections in 2279 (the addition of θεοῦ in Gal 1:1 and πειρασθῆς in 6:1) and 1753 has three singular readings, including the addition of καί at Gal 4:24 (see also 1:6 and 6:15). The two manuscripts appear to have the same titles throughout; they also share rubricated lectionary information in the text and margins, although this is more abbreviated in 1753. Accordingly, it is possible that 2279 was the exemplar for 1753. However, differences in rubrication suggest that 1753 may derive from a different source: there is no obvious motivation in 2279 to explain the red ink in 1753 at Gal 2:6 and 3:15, especially as this is not used for the other first lines of kephalaia in the epistle, and the rubrication at the beginning of the synaxarion at the end of the manuscript also differs (although this page appears to be a different hand in 1753). In the absence of any conclusive proof that 1753 is a copy of 2279, both manuscripts have been retained for Galatians (the sole epistle for which they are selected).²²

22 The textual similarity of the manuscripts is also shown in the *Text und Textwert* analysis of the Catholic Epistles and Acts of the Apostles, each of which identify just one difference between 1753 and 2279 involving a majority subreading. There is no *Teststelle* with a reading unique to these witnesses which would demonstrate their dependence.

3.6 GA 254 and GA 1523

The one group of three manuscripts identified by MrBayes, with a clade credibility value of 61%, involved GA 254, 1523 and 1524. All three are catena manuscripts: GA 1524 is a Praxapostolos; GA 254 is a Praxapostolos with Revelation; GA 1523 is fragmentary and only has certain Catholic and Pauline epistles. Among these, the closest pregenealogical coherence is shown by GA 254 (Athens, EBE, 490; Diktyon 2786; saec. XIV) and GA 1523 (Vienna, ÖNB, theol. gr. 141; Diktyon 71808; saec. XIII/XIV), with a 98.995% agreement (1280/1293). As seen above in GA 326 and 1837, most of these differences in the first-hand text have been corrected in one of the two manuscripts, leaving the principal difference between them as δέ (254) and γάρ (1523) in Gal 5:5. While the former reading is less common, there are parallels for it in other manuscripts. This means that no direction of dependence can be established from the textual evidence, and it is necessary to turn to paratextual material.²³ Before Galatians, 254 lacks a subscription for 2 Corinthians and then has a hypothesis (ταύτην ἐπιστέλλει ἀπὸ Ῥώμης) followed by a list of kephalaia: the inscription of Galatians is followed by a preface (πολλοῦ τὸ προοίμιον) before the first verse. In 1523 there is a subscription to 2 Corinthians, followed by the inscription and preface to Galatians and then the list of kephalaia before the first verse. In sum, as the subscription of 2 Corinthians is absent from 254 it cannot have been the source of 1523, while 1523 cannot have provided the hypothesis seen in 254. Despite their close textual relationship, which appears often to characterise catena manuscripts, this pair are not exemplar and copy and will both continue to be included in the ECM for Galatians, Philippians and Colossians.

3.7 GA 0150 and GA 2110

The final two manuscripts to be considered were not identified as a pair by MrBayes and only have a pregenealogical coherence of 97.754% (1436/1469). However, it has been suggested that two manuscripts of the commentary on Paul by John of Damascus, GA 0150 (Patmos, St. John, 61; Diktyon 54305; saec. IX/X) and GA 2110 (Paris, BnF, gr. 702; Diktyon 50283; saec. X) are exemplar and copy.²⁴ Both are cited in Volk's edition of the commentary, where he observes

23 This is also the case in the Catholic Epistles, where according to the CBGM there is a 98.25% agreement (1065/1084) between 254 and 1523 but the textual flow is equally balanced (see <http://intf.uni-muenster.de/cbGM/PotAnc5.html>).

24 The suggestion was first made in T. Panella, "Resurrection Appearances in the Pauline Catenaes," in *Commentaries, Catenaes and Biblical Tradition* (ed. H.A.G. Houghton; Texts & Studies 3.13; Piscataway, NJ: Gorgias, 2016) 117–140, at p. 121, and adopted in A.T. Farnes, *Strictly Come Copying: Direct Copies as Test Cases in the Quest for Scribal Habits* (WUNT 11.481; Tübingen: Mohr Siebeck, 2019) 25. Panella's other suggestions of *Abschriften* in the

that a line of exegesis at 1 Cor 4:7 is only found in 0150, indicating that this manuscript must be prior.²⁵ While four readings in 0150 in Galatians are also missing from the first-hand text of 2110, there are several significant variants in 2110 for which no motivation can be identified in 0150. Two of these involve singular readings in 0150: δεκατέσσαρες at Gal 1:18 (where 2110 has δεκαπέντε) and οὐδέν at Gal 3:11 (οὐδεὶς in 2110). Others feature lexical differences paralleled in other manuscripts, such as συνίστημι rather than συνιστάνω (Gal 2:18), νόμος for λόγος (Gal 5:14) and θέλουσιν for βούλονται (Gal 6:13). With no trace of textual adjustment involving these in either 0150 or 2110, neither can have served as the exemplar for the other despite their identical layout and peculiar shared readings which demonstrate a close connection (such as the nonsense πλισμονή for πεισμονή at Gal 5:8). It is also worth observing that, while 0150 was selected for all the Pauline Epistles with an overall majority agreement of 58.85%, 2110 has a corpus agreement of 74.1% and only qualifies for Romans, 1&2 Corinthians, Galatians and Philippians. In the chapter-by-chapter breakdown in the CBGM interface, 0150 and 2110 are each other's closest relative for Galatians 1–5, but only nineteenth closest in Galatians 6, where their percentage agreement drops to 94.241%. Combined with the difference in the profile of their biblical text after Galatians, this suggests that the copyist of 2110 may initially have copied from a text similar to 0150 but changed exemplar at some point in this epistle.²⁶

4 Conclusion

Fewer than two dozen direct copies have been identified among the manuscripts of the Greek New Testament.²⁷ This surprisingly small number is probably due to the loss of documents from the first millennium and a lack of investigation of the mass of Byzantine manuscripts from the later period. The present study has identified three more *Abschriften*, one from the fifteenth

same article (GA 0151 as a copy of GA 018 and GA 0142 as a copy of GA 056) were not selected for inclusion in ECM Galatians.

25 R. Volk, *Die Schriften des Johannes von Damaskos. Vol. 7. Commentarii in epistulas Pauli* (PTS 68; Berlin: De Gruyter, 2013) 10–11, 173.

26 There is a change of hand in the biblical text in the middle of Gal 3:15 (fol. 360v)—prior to which the hand of 2110 is very similar to that of 0150—and possibly a further change of hand on the following page, but no other obvious disjuncture in 2110 before the binding difference at fol. 368v–369r. A comparison of the collation suggests that the discontinuity occurs in Gal 5:10 or shortly afterwards.

27 Farnes lists a total of twenty-three supposed New Testament *Abschriften*, only eighteen of which have been conclusively proven: see Farnes, *Strictly Come Copying*, 24–28.

century (GA 1959) and two from the sixteenth century (GA 1930 and 1935). In each case, the proof has been provided by complete lines omitted from the exemplar, some of which were added in the margin by the scribe. Indeed, the presence of one or more marginal additions which may correspond to the length of a line in the exemplar (especially if they do not involve homoeoteleuton) should be indicated in transcriptions in order to explore the possibility that the source manuscript can be identified among extant documents. It may not be coincidence that it was not possible conclusively to identify direct copies among the other pairs of manuscripts examined, which were all copied between the tenth and fourteenth century: while the three *Abschriften* are all written on paper, ink could more easily be erased from the parchment used in earlier times if the mistake were noticed soon enough. Examination of these documents through autopsy for possible *rasurae* may provide a means of confirming whether they are direct copies. It is also unsurprising that two of the *Abschriften* identified are catena manuscripts, whose combination of text and exegesis made them more difficult to copy and also involved large portions of commentary, which would have been less familiar to copyists than the biblical text.²⁸

These three newly identified direct copies provide fresh material for the study of scribal habits, both in terms of the errors introduced during the copying process and also regarding the treatment of paratextual material such as chapter divisions, titles, marginal glosses and lectionary apparatus. GA 1959 demonstrates that alternative readings noted in the margins by the copyist of the exemplar were treated as corrections by a later scribe in spite of the indication γρ(ἀφεται); this may also have been the case in 1984. The adjustment of the definite article at Gal 4:26 in GA 1935, prompted by the misreading of the *nomen sacrum*, indicates that copyists did make punctual interventions to improve the sense—even though, in this case, it was not carried through to the rest of the sentence. Particularly striking is the effect of copying on a manuscript's agreement with the Majority Text. While the general expectation is that later documents are more likely to introduce readings typical of Byzantine tradition (as seen in Ephesians in 1935 and Galatians in 1959), it is surprising to observe that both GA 1930 and 1935 have a lower overall majority agreement than their exemplars, as calculated by the *Text und Textwert* analysis. This is not due to any changes in textual affiliation, but, it seems, simply reflects the quality of scribal performance: omissions, nonsense readings or

28 Farnes' list of possible *Abschriften* (see previous note) contains ten catena manuscripts and twelve copied in the fifteenth or sixteenth century; on catenae, see also his comments at *Strictly Come Copying*, 209–210.

ad hoc adjustments produced by a copyist serve to distance a direct copy both from its exemplar and the wider tradition. This should be borne in mind in any comparison of manuscripts which relies on a selection of test passages and a percentage agreement with a standard text.

The key to the present findings was the full text electronic transcriptions made for the *Editio Critica Maior*.²⁹ These files make it much simpler to compare the complete biblical text of any two witnesses selected for the edition, as well as identifying shared unusual or nonsense readings during the process of collation which might indicate a direct relationship.³⁰ Nevertheless, while simple percentage agreements offer an indication of the similarity of texts, they are not sufficient in themselves to demonstrate a relationship of exemplar and copy. Several hundred places of variation presented by the CBGM are a significant improvement on the dozens of *Teststellen* analysed in *Text und Textwert*, but this examination of Galatians indicates that agreements of 98% or 99% do not automatically indicate *Abschriften*, even within a corpus of manuscripts selected on the criterion of their dissimilarity from the Majority Text. For a start, the restriction of the manuscript comparison in the CBGM to first-hand readings may lead to an underrepresentation of the similarity of two manuscripts: a copy would normally have incorporated corrections present in its exemplar.³¹ The supplementary information provided by the analysis of the initial apparatus of Galatians with the MrBayes software gave the impetus for this study, as a way of comparing results from the two different approaches. At the same time, the clade credibility values proposed by MrBayes are also not an infallible guide: the highest value, 83%, was allocated to a pair of sibling manuscripts (GA 326 and 1837), while two of the *Abschriften* only scored 71% (GA 467 and 1959) and 69% (GA 1935 and 1987), well below pairs of manuscripts which had no direct relationship. Instead, the indications provided by these two tools had to be followed up in greater detail, first with an analysis of the direction of the textual relationship between the manuscripts—including the examination of the way in which the differences are presented

29 These have been released at the website www.epistulae.org and made available for further research.

30 For examples of this, see Strutwolf, “Direct Copies as Test Case,” and D.C. Parker, “Family 1 in the Gospel of John: Its Members, Text and the Coherence-Based Genealogical Method,” in *The New Testament in Antiquity and Byzantium: Traditional and Digital Approaches to its Texts and Editing* (ed. H.A.G. Houghton, D.C. Parker and H. Strutwolf; ANTF 52; Berlin & New York: De Gruyter, 2019) 325–342, esp. 328.

31 The CBGM’s adoption of first-hand corrections (where these are indicated as such in the transcription) ameliorates this, yet it still remains impossible *a priori* to determine which corrections were present in a manuscript at the point when it was used as an exemplar.

in each document—and then with the consideration of other features, including paratextual material, which enable a judgement to be made on whether one manuscript could have served as exemplar for the other.³² Fortunately, the wealth of complete digitisations of manuscripts now available online makes this investigation far more practicable than in the past. In sum, the electronic tools and resources created in conjunction with work on the *Editio Critica Maior* also serve to generate new knowledge about the manuscripts by which the text is transmitted and the way in which they were produced.

Acknowledgments

This article was prepared and published as part of the CATENA project, which has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement no. 770816). The phylogenetic computations described in this article were performed using the University of Birmingham's BlueBEAR HPC service, which provides a High Performance Computing service to the University's research community. See <http://www.birmingham.ac.uk/bear> for more details.

32 Apart from the analysis of GA 2110, this article has not raised the possibility that multiple source manuscripts were used in the copying process. Identified *Abschriften* and what we know of the process of book production (including illustrations of copyists in manuscripts) suggest that it was extremely unlikely that scribes copied from more than one document at a time: while an exemplar may have been marked up with reference to another manuscript (for example, the additional lections in GA 203), practical considerations mean that copyists normally worked from a single document.