

Fragmentology

A Journal for the Study of Medieval Manuscript Fragments

Fragmentology is an international, peer-reviewed Open Access journal, dedicated to publishing scholarly articles and reviews concerning medieval manuscript fragments. *Fragmentology* welcomes submissions, both articles and research notes, on any aspect pertaining to Latin and Greek manuscript fragments in the Middle Ages.

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Editorial



Again this year, *Fragmentology* returns with a host of fine articles, research notes, and reports pushing the boundaries of the discipline.

Jennifer Bain and Anna de Bakker bring an arsenal of analytical tools to bear on the liturgical fragments used to bind the famed *Riesencodex* of Hildegard of Bingen's work, to show that, while the book was rebound centuries after Hildegard's lifetime, the liturgical texts bound with it were temporally and geographically quite close to Hildegard. Maristella Feustle's research note also locates a liturgical fragment in twelfth-century Southern Germany. Both works show how the combination of paleography and musicology, and the integration of digital methods, especially the Cantus family of databases, can help to contextualize these pieces. Their work and conclusions show that systematic fragmentological research can illuminate both the most famous manuscripts, whose fragments have not gone unexamined, and those whose past is largely unknown.

Pieter Beullens plays Poggio Bracciolini, plundering Swiss digital libraries, chiefly for Carolingian fragments of ancient works; he further contributes a research note on a Cologne fragment of William of Ockham's *Brevis summa Physicorum*, a work that particularly resonated in German-speaking countries. Monica Brînzei also addresses an Ockham fragment, but of his *Sentences* commentary, and calls into question the received narrative of Ockham's importance to late-fourteenth-century thought. Besides revealing the treasure of manuscripts in situ in printed volumes, all three studies reveal the philological significance of manuscript fragments, which have the capability of providing new models for the development of a work, for its transmission, and for its reception. Their notes make clear, moreover, that their remarkable findings are the result of teamwork, and particularly the active, informed, and eager collaboration of librarians and archivists.

Beullens' *Iter* also shows how projects to digitize early prints have evolved a readership diverse from its point of departure. As

with manuscripts, the initial interest and immediate impulse for digitization was for the text that they transmitted. Publishing digitizations online allows researchers to appreciate that pre-industrial print remains an artisanal product; printed books and their bindings are unique historical witnesses, and digitization efforts will need to adapt to serve these research questions.¹ In the same vein, Bernasconi, Iacobucci, and Luraschi's project report details how fragment projects, especially *Fragmentarium*, need to adapt to present the immediate context of in situ fragments, that is, their carriers, especially volumes of early print. At some point, the documentation of the fragment's relation to the host volume becomes the documentation of the host volume as a unique artefact.

With these adaptations come new methodologies. Thijs Porck and Iris van Kuijk detail their successful tests with endoscopic and borescopic cameras and early-modern bindings, providing a working and cost-effective methodology for surveys of fragments in situ in the spines of books. A review focuses on the recent collective volume from Giuseppe De Gregorio, Marta Luigina Mangini, and Maddalena Modesti, the first book dedicated to the problem of documentary fragments.² This book is only the start, Mangini, together with the other editors and researchers from several universities, recently launched the Italian Research Project of National Interest *REcycled meDieval Diplomatic fragmentS*, to help develop the methodology for describing and analyzing these fragments.

Eleonora Celora provides a report on a conference held on liturgical fragments in November in Paris. While numerous other conferences and round tables held in the past year deserve notice, only a few can be mentioned here. First and foremost is the conference on the *Use and Reuse of Paper in the Pre-Industrial World*, held this August in Cork, Ireland, and organized by the *Early Paper in Iceland* Project. Thijs Porck and Monika Opalińska organized at the

1 Such observations converge with the material turn in Early Print studies, and the important work being done in support of the *Material Evidence in Incunabula* database (<https://data.cerl.org/mei/>), and by the *Sammelband 15-16* project (<https://sammelband.hypotheses.org/>), just to name a few.

2 Readers of *Fragmentology* will also want to study Mangini's presentation of the genre in English, M.L. Mangini, "Recycled Medieval Documentary Fragments: Methodological Remarks", *Manuscripta* 67 (2023), 113–138.

Regionaal Archief Alkmaar in September the conference *Medieval Fragmentology and the Fragmented Old English Glossed N-Psalter*, which provided a unique opportunity to bring together the strands of history pertaining to a famous eleventh-century Psalter, its fragmentation, and reuse as binding material in Leiden around 1602.³

Among the many publications on fragments this year, likely the most significant is volume 13 of *Digital Philology*, guest edited by Benjamin Albritton, Siva Mihan, and Elaine Treharne with Mateusz Fafinski, and entirely dedicated to Fragmentology in the global sense.⁴ The studies they assemble provide both concrete results and rich theoretical and methodological considerations for working digitally with medieval fragments. The special issue deserves a lengthier treatment than can be had here, but mention should be made of a few common themes that emerge from the studies, as they intersect with what appears in this issue of *Fragmentology*.

The first is the dynamic tension between a discourse that pretends its objects—digital, intellectual, and material—persist and the reality of a constant cycle of production, destruction, and reuse. While the phenomenon of World Wide Web “link rot” makes this tension most evident,⁵ Mateusz Fafinski (“In an Archive of Fragments: The Loud Silences of Cod. Sang. 1394”) argues that the problem is much more systematic and working with digital surro-

3 For a report, see A. Pasco-van Zyl, “Report on the Medieval Fragmentology and the Fragmented Old English Glossed N-Psalter Conference held 4 and 5 September at the Regional Archive”, *Trinity Centre for the Book* (blog), 21 October 2024 (<https://www.tcd.ie/thebook/news/latest-news-/2024/tcblog-report-on-n-psalter-conference/>).

4 *Digital Philology: A Journal of Medieval Cultures* 13 (2024), no. 1 (<https://muse.jhu.edu/issue/52472>) and no. 2 (<https://muse.jhu.edu/issue/53571>).

5 The article by E. Traherne, “Board of Books: The Tablets of the Siense Biccherna”, *Digital Philology: A Journal of Medieval Cultures* 13 (2024), 302–314, linked to images published on the website of the Archivio di Stato di Siena. Unfortunately, in November 2023, that is, less than two months before the Special Issue was published, the Archivio di Stato changed its web address and abandoned the previous domain. From the day the article was published to the present, the links lead to an e-commerce site. As of this editorial, the corrected links are: n. 6: <https://archiviodistatosiena.cultura.gov.it/home/museo/museo-delle-biccherna>; n. 9: <http://san.beniculturali.it/web/san/dettaglio-oggetto-digitale?pid=san.dl.SAN:IMG-00438144>; n. 17: <http://san.beniculturali.it/web/san/dettaglio-oggetto-digitale?pid=san.dl.SAN:IMG-00438137>.

gates compounds matters. Fafinski's focus is the Saint Gall fragment volume Cod. Sang. 1394, one of originally eight volumes assembled in 1822 by Ildefons von Arx from binding fragments taken from the Abbey Library. In exquisite detail, and with remarkable charity, Fafinski explains the various fragmentations worked upon the collection, including those by the highly selective descriptions published alongside it on e-codices, notably the *CLA* entry:⁶

The fragments in Cod. Sang. 1394 might be fixed to pages, but the codex continued to be modified after Arx died. On p. 30, we find a librarian's note that Albert Dold took a fragment from its original place (probably from Cod. Sang. 248) in 1940/41 and "glued [it] here," which Lowe wrongly noted as "pasted to p. 49" even though it should read "pasted to p. 33." It will come as no surprise that modern catalogs do not reflect this information. A facsimile narrative is at play here—both Lowe's and Scherrer's catalogs are digitized and appended to the digitized facsimiles of the manuscripts, but they exist in the state of a snapshot.

Navigating to the description on the e-codices website, we find information that lines 675–678 of the *Aeneid* are pasted to p. 49, and a helpful hyperlink takes us there with one click. But we will look in vain for the lines from the *Aeneid* there; they are, as indicated by the handwritten note, on p. 33. Is this an error? No, it is not. It is a prime example of how the newest digital tools often reproduce the narratives and categorizing efforts of past scholarship. We think we are navigating to an entry made in 2009, but the hyperlink structure that we follow is from 1956 and fails to reflect the change to the manuscript that occurred 1940/41. There is no foul play here: e-codices's interface informs us (if we are willing to pay attention) that the description comes from Lowe. But we must be willing to see this narrative of translation from the analog to the digital realm—it is not made evident nor are the digital records updated.⁷

6 E.A. Lowe, *Codices Latini Antiquiores. A paleographical guide to Latin manuscripts prior to the ninth century. Part VII: Switzerland*, Oxford 1956, 39–41, nos. 977–983, <https://e-codices.ch/en/description/csg/1394/>.

7 M. Fafinski, "In an Archive of Fragments: The Loud Silences of Cod. Sang. 1394," *Digital Philology: A Journal of Medieval Cultures* 13 (2024), 290–291.

The digital records have now been updated, but Fafinski's point stands; indeed the situation is worse than the one he described: the codex that Lowe saw is not completely identical to the one that Ildefons von Arx assembled, nor to the one that was photographed in February/March 2009 and published on e-codices on 31 July 2009, nor even to the one that was apparently rephotographed in March 2011.⁸ Fafinski does not explicitly state which version his own access comes from, but it almost certainly is the set of 2011 images currently on the e-codices site, since he repeatedly speaks of the volume as if it were whole. In fact, some years ago, Cod. Sang. 1394 was dismantled for conservation purposes, and now exists as a series of discrete folders. The only place Cod. Sang. 1394 remains a whole is as a sequence of images on the internet. As Fafinski underscores, working with fragments requires us to confront just how volatile our historical sources are and the need to be conscious of when, where, and how our sources—material or digital—were produced.

Finally, the studies in *Digital Philology* touch upon the problem involved with defining fragments. In De Gregorio, et al., *Documenti scartati, documenti reimpiegati*, reviewed here, the problem arises of calling 'fragment' a more-or-less complete object, such as a charter, when it is reused for a material purpose. The argument made by Solidoro there is contextual: we can consider these things fragments, because they have been removed from their archive. Fafinski combines this contextual definition with two others:

But because Arx saw them as fragments or extracted them from a binding, they became fragments when added to this volume. Thus, their categorization depended not on their physical state or contents, but on the act of extracting them from their previous physical context and putting them together with other fragments.⁹

8 I conclude that a second round of digitization occurred in 2011 on the basis of metadata alone. The archival masters for Cod. Sang. 1394 have two sets of TIFFs, timestamped 2009 and 2011, respectively. The 2011 photos differ from 2009 concerning, among other things, pp. 31–33. The earlier photos included the pasted-in piece above pp. 31–32, and p. 33 has no fragment on it. The 2011 reshoot has the pasted-in piece by itself as pp. [32a–32b](#), and again on p. [33](#).

9 Fafinski, "In an Archive of Fragments", 288.

For Fafinski, while he may or may not have considered the charters in Cod. Sang. 1394 as fragments, the fact that they were perceived and treated as fragments makes them fragments.

This leads to the ambitious phenomenological argument for fragments in the contribution by Alessandra Molinari et al.¹⁰ The authors point to the ambiguity of the use of the word ‘fragment’, which has come to refer both to a physically separate piece of something (*fragment₁*), and, at least when speaking of medieval manuscripts, to a collection of pieces from the same thing and surviving in the same context (*fragment₂*). While the authors are critical of *fragment₂* as it refers to an material collection that has merely rational unity, it has the merit of emphasizing the common origin and reuse of the pieces; Renzo Iacobucci has recently taken to calling such multi-piece fragments ‘fragmentological units’. Including a rich table of the terms related to fragments in several European languages, the authors set forth a working definition:

Therefore, in this study, we will define manuscripts heuristically as fragments *when we perceive them as such*: either because they look mutilated, or because their (written or visual) content lacks something, or analogically because we find them in the same context and destination of use as other fragments.¹¹

Here we have a practical definition of fragments: we perceive of things as fragments because they appear to us to have some relation to the focal meaning of ‘fragment’. For a formal definition of ‘fragment’, the authors cite an earlier definition in another paper published by Molinari in collaboration with co-authors:

A manuscript fragment is a manuscript object along whose history a specific intentional or non-intentional event occurred which was experienced by its users as a turning point, as a *point of no return*, such that their perceptions, evaluations, and experiences of that

10 A. Molinari, R. Rosselli Del Turco, K. Janz-Wenig, E. Meyer, A.A. Gasparini, and F. Aurora, “The Multi- and Interdisciplinary Relevance of Fragment Studies: Two Cases from a State Archive in Italy”, *Digital Philology: A Journal of Medieval Cultures* 13 (2024), 102–123.

11 Molinari et al., “The Multi- and Interdisciplinary Relevance of Fragment Studies”, 104.

object changed forever in a way that we now subsume under the word *fragment*.¹²

One might object that the practical definition seems circular: fragments are fragments because we treat them as such, and that the second is vague: a fragment is something that has undergone an irreversible trauma such that it is now a fragment. On this logic, a dead body would qualify as a fragment: it is the lifeless remnant of something living, and, according to the rules of nature, that transformation is irreversible. Perhaps therein lies the point: we apply a method to things that we perceive as corpse-analogues: we study their life, death, and rebirth. As the authors emphasize, fragments are fundamentally relational; for fragments of manuscripts and early print, those relations are between the fragment, the original object, and their current functional whole that they (help) constitute (the ‘carrier’, ‘host volume’, ‘loose leaf’, etc.). Those objects, their contexts, and the events that brought them about are interrelated and irreducible.

The discussion will continue in the coming years. From allusions in footnotes and casual remarks, we can expect to see at least two handbooks of Fragmentology soon. Professors Matthew Collins, Tuomas Heikkilä, Lars Boje Mortensen and Åslaug Ommundsen were recently awarded a massive ERC Synergy Grant for the project *CODICUM*, which aims to work on the 50,000 Nordic manuscript fragments, including material analysis and digital publication. They will join other ongoing European projects and networks with a focus on fragments, such as *Books of the Medieval Parish Church*, *RESTORY: Recovering Past Stories for the Future*, and *Ant-Com, From Antiquity to Community*, as well as many national undertakings, in ensuring that our fragmented future has fragmentologists.

William Duba

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12 Molinari et al., “The Multi- and Interdisciplinary Relevance of Fragment Studies”, 108; citing A. Molinari, N. Biondi, and E. Abate, “*Textus invisibilis*. An integrated research approach to the study of the manuscript fragments preserved at the State Archive in Urbino”, in *Urbino in età moderna e contemporanea*, ed. G. Dall’Olio and S. Pivato, Rimini 2019, 215–260, at 236.

Traces of Liturgy: Analysing Manuscript Fragments from the Binding of the Riesencodex

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Abstract: This paper analyzes two manuscript fragments with musical notation retrieved from the fifteenth- or sixteenth-century binding of the twelfth-century *Riesencodex* (Wiesbaden, Hochschul- und Landesbibliothek RheinMain, Hs. 2), the most substantial collection of the works of Hildegard of Bingen (1098–1179). We determine through close attention to various aspects of the leaves—liturgy, notation, later additions—that both these fragments originated, and remained, close to Hildegard’s Rupertsberg convent and date from during or just after Hildegard’s lifetime. This analysis not only adds to our understanding of local liturgical context for the nuns at Rupertsberg, it also reveals that Rupertsberg was operating within a broad monastic network well beyond Hildegard’s lifetime. The two fragments, from an antiphoner and a gradual, contextualize the survival of Hildegard’s own musical work in light of the apparent disposability of these contemporary liturgical items.

Keywords: *Riesencodex*, Hildegard, liturgy, binding fragment

The provenance of a western medieval manuscript often has to be coaxed from the codex itself, by considering carefully its style of script(s), languages present, decoration and its content. In the case of liturgical books, scholars will assess the material both broadly and narrowly, e.g. considering the saints celebrated and large-scale organization of the book, which can lead to successful attributions of provenance when the place of origin is not identified explicitly.

While fragments of liturgical manuscripts—individual leaves or a group of leaves from a broken book—usually also permit the identification of textual and musical script style, their reduced content often requires a microscopic assessment of texts and melodies. Even then, the brevity of the material may prove insufficient to contribute to knowledge of the fragment's origin. Working closely with fragments, however, even with just a single leaf, can sometimes provide enough information to place it generally according to time and place.

There are two main reasons why people have broken apart medieval books: in the modern era books have been broken for commercial gain, to increase the profit margin on the sale of a book, while historically books were broken in order to re-use materials, often for binding purposes. Those that have been used for bindings are usually in dreadful condition with holes, or folds, or cuts, or traces of glue, and with fading ink. Despite their condition, however, these fragments are important for the study of Western medieval culture generally and certainly more specifically for understanding the transmission of Western plainchant. Only a fraction of original books from the medieval era have survived, and so these fragments help to complete the picture of exactly what was in circulation. More importantly, however, when liturgical books were used as binding materials, they were usually very ordinary books, which were previously regularly used, but using a style of musical notation that had become obsolete; and these ordinary books tell us far more about daily monastic practice than the luxury books that are more likely to have survived into the modern era because of their decorative worth.

The Hochschul- und Landesbibliothek RheinMain in Wiesbaden in Germany has recently made available photographs of two manuscript fragments with musical notation, retrieved from the fifteenth- or sixteenth-century binding of the twelfth-century *Riesencodex* (Hs. 2), the most substantial collection of the works of Hildegard of Bingen (1098–1179).¹ The provenance of these fragments is

¹ Many thanks to Martin Mayer, librarian at the Hochschul- und Landesbibliothek RheinMain, for sharing these images before they were made publicly available, as well as allowing the physical inspection of the fragments by Jennifer

of particular importance for two reasons: first, from our assessment of them, they appear to be from no later than the twelfth century and so from Hildegard's lifetime or just after; and second, there are no known extant liturgical books from Hildegard's Rupertsberg convent, so a discovery of fragments of a liturgical book from Rupertsberg would significantly help musicologists and liturgists to understand the liturgical environment in which Hildegard lived and worked. While we cannot say definitively that either fragment is or is not from Rupertsberg,² we can establish with new evidence that Fragment 1 (the lower pastedown) has a southern Germanic provenance and shares liturgical details with other Benedictine monastic houses, and that Fragment 2 (the upper pastedown) has a very local provenance, naming several locations within eight kilometres of Rupertsberg and naming St. Alban of Mainz, who, as the name implies, was martyred in Mainz, a town thirty kilometers upriver that was also the seat of the (arch)diocese to which Rupertsberg belonged.

While these provenance identifications provide some understanding of local liturgical context for the nuns at Rupertsberg and for Hildegard herself, uncovering these details related to provenance has also revealed that Rupertsberg was operating within a broad

Bain and Debra Lacoste on 4 December 2024. Wiesbaden, Hochschul- und Landesbibliothek RheinMain (=HLBRM), Hs. 2, detached lower pastedown [F-5goe] (Fragment 1) and detached upper pastedown [F-ymov] (Fragment 2). Inventories of the fragments and transcriptions of their melodies may be found on the Cantus Database: see J. Bain, Inventory of "Wiesbaden, Hochschul- und Landesbibliothek RheinMain, Hs. 2 (Riesencodex), detached lower pastedown (fragment)", with editorial assistance by L. Denk, and proofread by D. Lacoste, and A. de Bakker, in *Cantus: A Database for Latin Ecclesiastical Chant*, directed by D. Lacoste (2011–present), T. Bailey (1997–2010), and R. Steiner (1987–1996); developed for the web by J. Koláček (2011–2023), McGill University Distributed Digital Music Archives & Libraries Lab - DDMAL (2023–present); and funded through the *Digital Analysis of Chant Transmission* project at Dalhousie University, Halifax, Nova Scotia, Canada (SSHRC 895–2023–1002), <https://cantusdatabase.org/source/676971>; and J. Bain and L. Denk, Inventory of "Wiesbaden, Hochschul- und Landesbibliothek RheinMain, Hs. 2 (Riesencodex), detached upper pastedown (fragment)", ed. D. Lacoste and A. de Bakker, in *Cantus* <https://cantusdatabase.org/source/702501>.

2 Stefan Morent and Marianne Richert Pfau come to the same conclusion in their brief discussion of the pastedowns, S. Morent and M. Richert Pfau, *Hildegard von Bingen: Der Klang des Himmels*, Cologne 2005, 142.

monastic network well beyond Hildegard's lifetime. It is well documented that Hildegard herself participated in a large network within the Church (from her extensive correspondence, her travels, etc.), and now we know as well that Rupertsberg continued to participate in a monastic network in later centuries, not only in the twelfth century when Hildegard was alive. To support our provenance identification, we will begin by considering what is already known about the binding, and then will offer an analysis of the fragments by providing first physical descriptions of both—considering size and orientation, script, and notation—and then a detailed description of their liturgical content, and finally by discussing the additamenta on Fragment 2.

The extant binding of the *Riesencodex*

Antonius van der Linde in 1877 and Gottfried Zedler in 1931 both describe the extant binding of the *Riesencodex* as fifteenth- or sixteenth-century,³ with neither providing a rationale for that determination. It is generally accepted as a reasonable dating, although Albert Derolez and Peter Dronke refer to it instead as a “contemporary pigskin binding [emphasis ours],” again without providing much evidence to support that supposition.⁴ While Michael Klapner describes the dating as “controversial” because of this discrepancy,⁵ none of these authors seems particularly concerned with finding a secure dating for the binding. The pigskin identification does seem secure; the hair follicles are arranged in clusters of three, and the light colour of the leather corresponds with the practice of alum-tawing pigskin.⁶ Zedler notes that the stamp impressions on the blind-tooled cover of Hildegard's (now-lost) *Scivias* manuscript

3 A. van der Linde, *Die Handschriften der Königlichen Landesbibliothek in Wiesbaden*, Wiesbaden 1877, 86 and G. Zedler, *Die Handschriften der Nassauischen Landesbibliothek zu Wiesbaden* (Zentralblatt für Bibliothekswesen, Beiheft 63), Leipzig 1931, 17.

4 A. Derolez and P. Dronke, “Introduction” in *Hildegardis Bingensis Liber diuinorum operum* (CCCM 92), ed. A. Derolez and P. Dronke, Turnhout 1996, xcvi.

5 M. Klapner, “Commentary” in Hildegard von Bingen, *Lieder: Riesencodex*, ed. L. Welker, Wiesbaden 1998, 24.

6 P.J.M. Marks, *The British Library Guide to Bookbinding: History and Techniques*, Toronto 1998, 44.

(Wiesbaden, HLBRM, Hs. 1) are the same as on the *Riesencodex*, so both were bound (or re-bound?) at the same time and place.⁷ The inclusion of twelfth-century liturgical manuscript fragments as pastedowns in the binding of the *Riesencodex* strongly support a later binding; if the binding were twelfth century, it would have been most unusual for the binder to take apart contemporary manuscripts for use as scrap material for the pastedowns. As well, one of the fragments—as will be detailed below—includes later additions that appear to have been added to its original book before dismemberment. Whichever dating is correct, both suggest that the binding was made during the time at which the manuscript was housed at Rupertsberg. The Rupertsberg nuns had to abandon the monastery during the Thirty Years' War in the seventeenth century and they joined the nuns in Eibingen, bringing the *Riesencodex*, the *Scivias* manuscript and Hildegard's relics with them; the binding pre-dates that move.

Given that the binding corresponds to the Rupertsberg years, we need to consider if the binding could have been produced at Rupertsberg itself. Did Rupertsberg have a book binding workshop? We know that it had a scriptorium,⁸ and in Hildegard's invented language, the *Lingua ignota*, she includes vocabulary specifically associated with the scriptorium, incorporating words for ink, inkwell, quill pen, wax tablet, stylus and so on.⁹ The thousand or so words in the *Lingua ignota* are grouped thematically and sometimes hierarchically within a theme. There is no specific grouping of words, however, that would be associated exclusively with a book bindery, even though in different thematic groupings (including one naming iron implements) there are items that could be found in a book binding workshop, such as *Nogiz* for gimlet and *Zuinta* for

7 Zedler, *Die Handschriften*, 17.

8 M. Fassler, "Hildegard of Bingen and her Scribes", in *The Cambridge Companion to Hildegard of Bingen*, ed. J. Bain, Cambridge 2021, 280–305.

9 S.L. Higley, *Hildegard of Bingen's Unknown Language: An Edition, Translation, and Discussion*, New York 2007, 177; and Wiesbaden, HLBRM, Hs. 2, f. 463rb, <https://hlbrm.digitale-sammlungen.hebis.de/handschriften-hlbrm/content/pageview/450558>.

plane.¹⁰ There are no extant account books from Rupertsberg either, so there is no evidence of book binding services paid for elsewhere or of purchases of materials for book binding in house. In short, we cannot say one way or another from documentary evidence whether there was capacity at Rupertsberg to bind books or if this was a service that would have been sought elsewhere. The provenance of the fragments used for pastedowns in the binding, however, can give us further clues about where the binding might have taken place and can contribute to an understanding of binding practice in this region.

Physical description of the *Riesencodex* pastedown fragments

Both pastedowns (reproduced fully in Appendices 1 and 2) are dirty and damaged by glue and by holes that correspond with the metal centre piece and corner pieces on the covers of the *Riesencodex* (visible in the reproduction of the front and back covers in Appendix 3). While the rubrics, text, and musical notation are rather faded in both, the lower pastedown is much more legible than the upper.

The two fragments are from different book types and formats. The lower pastedown (which we are calling Fragment 1) is a single leaf that comes from an Antiphoner, which seems to have been of a format similar to the *Riesencodex* itself; the full leaf was used, in the same orientation as the codex contents (as assessed by the placement of holes from the metal hardware on the back cover), placed in the inside back cover (as noted by van der Linde).¹¹ Presumably it formed half of a bifolium, but the other half is lost. Its current dimensions are 460 × 288 mm,¹² slightly smaller than the *Riesencodex*'s approximately 460 × 300 mm, with 26 staves of music on the recto

10 Higley, *Hildegard of Bingen's Unknown Language*, 176 and Wiesbaden, HL-BRM, Hs. 2, f. 463rb.

11 Van der Linde, *Die Handschriften*, 86.

12 The dimensions are irregular and range in size from 454.5–460 mm in length and 281.5–288 mm in width. The number of staff lines vary, sometimes using 5 or even 6 according to the range of the melody; 108 ruled lines are used on the recto, while 105 out of 107 are used on the verso.

side and 25 on the verso in a writing space of 409×230 mm—a quite dense layout with small handwriting. By comparison, the music section of the *Riesencodex* itself (the last sixteen folios) has two columns of 17 staves each in a writing space of 380×227 mm. There is a striking similarity in size that may represent a local copying practice, but more data on the dimensions of liturgical manuscripts would be needed to confirm that general impression. In Fragment 1, the text and music is written in a single column, in contrast to the *Riesencodex*, which uses a 2-column format throughout the entire collection of 484 folios. To judge by the contents—chants for late Lent—Fragment 1 would have been found toward the end of the winter section of a Temporale of an Antiphoner.

The upper pastedown (which we are referring to as Fragment 2) is a bifolium that appears to have come from a processional section of a Gradual; although according to content it could have been in a separate processional book, these are designed to accommodate being carried while walking, and therefore are usually much smaller than a Gradual. The bifolium was opened and turned 90 degrees clockwise before being attached to the inside of the front cover of the *Riesencodex*.¹³ Its dimensions are 458×299 mm,¹⁴ fractionally shorter and wider than Fragment 1 (460×288 mm), with 16 staves on both recto and verso of the first folio in a writing area of 264×186 mm. The second folio of this bifolium seems to have been left blank on both sides in its original liturgical codex. One side has attracted considerable additamenta, including chant texts and some notation, vernacular German texts, and a Latin colophon, as will be described below; the other side remains blank. Another leaf must have preceded the written content in the bifolium, because it begins in the middle of a chant. Possibly the fragment formed the outer bifolium of a quire (or was the only bifolium of a quire),¹⁵ with its final leaf left blank. In principle, this blank page could have been located

¹³ Van der Linde, *Die Handschriften*, 86.

¹⁴ Again, the dimensions are irregular: 440–457.5 mm in height and 293–299 mm in width.

¹⁵ One argument for considering it to be a single-bifolium quire is that the litany that ends the verso folio looks rather compressed, with additional columns being inserted and the litany ends very cleanly with the end of the folio.

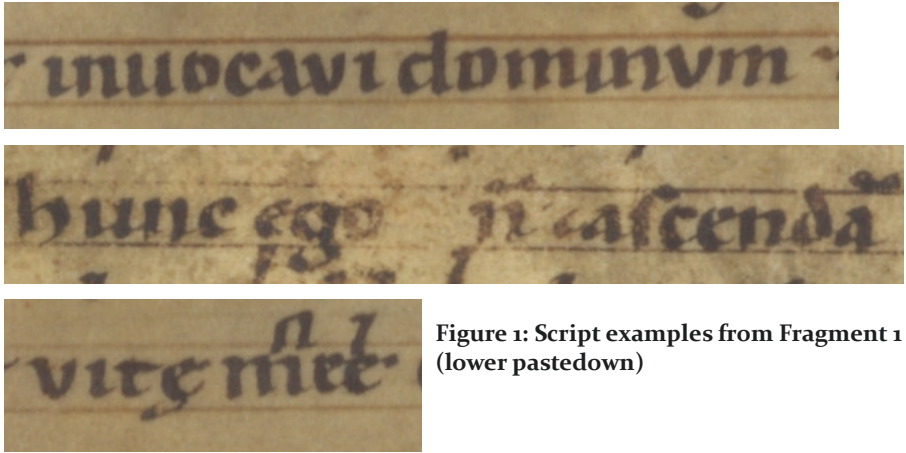


Figure 1: Script examples from Fragment 1 (lower pastedown)

at either the front or back of the codex, depending on the original arrangement of the bifolium; in practice, it seems more likely to have been at the back, and the bifolium came from the final quire.¹⁶

The textual hands of both fragments, while different from one another, both suggest a late twelfth-century origin. The hand of Fragment 1 (the lower pastedown) is rather squat, with short ascenders and descenders; it also gives a somewhat uneven appearance, with many letters either extending just below the line of writing (see the *i* in *dominum* [Figure 1]) or else not quite reaching it (as the *a* in *inuocavi*). The sloping uncial *d* is occasionally present, but the vertical letterform is still much preferred; other letters, like *h*, have more definitively taken on a (pre-)gothic form (in this case with a short, curving second stroke). Conservative elements like the cauda for *æ* (on its way out by the late twelfth century) appear fitfully alongside later ones, like the frequent Tironian *ets*. By comparison, the chants within the *Riesencodex* itself, often employ a characteristic curling ampersand—perhaps in keeping with the overall higher grade of script.

¹⁶ In this case, the arrangement of the codex would have been similar to, for example, Wolfenbüttel, Herzog August Bibliothek, Cod. Guelf. 1008 Helmst., a Gradual made at St. Gall ca. 1025 for Bishop Siegebert of Minden, which includes similar processional chants and litanies at the end of the volume.

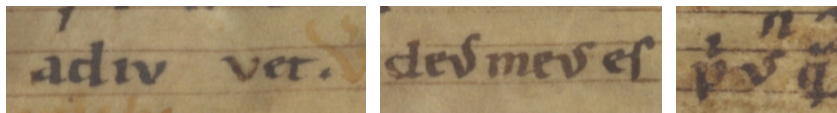


Figure 2: v-form of u and u-s ligatures in Fragment 1 (lower pastedown)

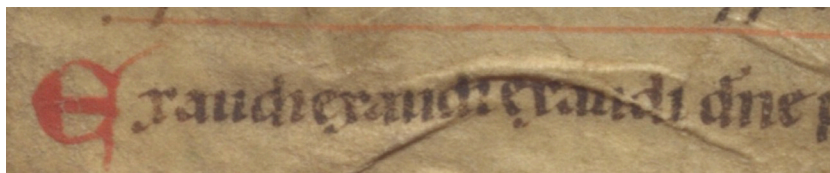
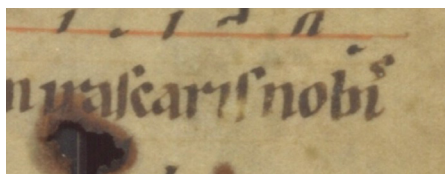


Figure 3: Script examples from Fragment 2 (upper pastedown)



One unusual characteristic of the script is the strong preference for the v letterform, rather than the curved u [Figure 2]; as Derolez has pointed out, the round form is the more common one in the twelfth century, but in some cases the v-form is preferred—all the examples given being late twelfth-century German sources.¹⁷ Another distinctive, and characteristically Southern German, feature of the script is the frequent use of u-s ligatures, in which a “trailing” s-form is attached to the right hand stroke of the v. Taken together, these characteristics are fully consistent with a text hand of late twelfth-century Germany, with many transitional features in varying degrees.

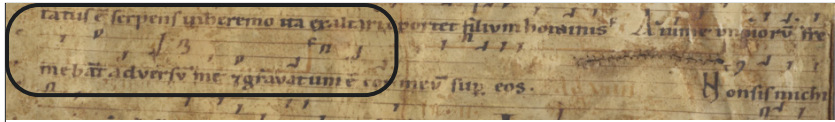
The hand of Fragment 2 (the upper pastedown) is from a similar period, although the transitional aspects it exhibits are different from those of Fragment 1. Overall the script, while still uneven, is more uniform than that of Fragment 1, with broad, straight minims and ascenders ending at a consistent angle [Figure 3]; even rounded letters like p have a certain angularity to them. This “gothic” treatment of the penstroke is perhaps most evident in the letter x, which consists of a central minim with two disconnected strokes forming

¹⁷ A. Derolez, *The Paleography of Gothic Manuscript Books: From the Twelfth to the Early Sixteenth Century*, Cambridge 2003, 64, n. 44.

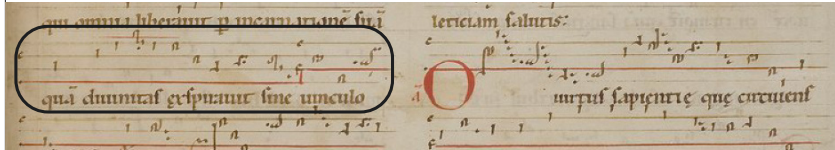
each arm of the letter. Nevertheless, other aspects of the script are more conservative: the uncial *d* is only rarely present, a straight *r* is preferred over curved (even after rounded letters like *o*), and a rounded *s* is absent, with a long *s* descending slightly below baseline being used in almost all instances (a few superscript “trailing” *s* forms are also present [Figure 3]). Like Fragment 1, Fragment 2 from a textual paleographic assessment seems to date from the later years of the twelfth century.

The musical notation in Fragments 1 and 2 also appears to be no later than twelfth-century in style, which means that the books they came from would have been musically obsolete and not very usable to musicians in the fifteenth or sixteenth century, who were accustomed to very different looking notation. The notation in Fragments 1 and 2 is also remarkably similar to the musical notation found in the *Riesencodex*. As shown in the large rectangular boxes in Figure 4, all three use 4-line staves with red F-lines and yellow C-lines, although the yellow lines in particular are very difficult to see. In Fragment 1 and the *Riesencodex* the remaining stafflines are in a brown ink, while Fragment 2 uses dry-point stafflines. The *Riesencodex* and Fragment 2 both have additional space above and below the 4-line staves, leaving room for the musical notation. The staves in Fragment 1, however, do not—the text line is used as the uppermost staff line—and as a result the ascenders and descenders of the chant texts really intrude into the musical space, giving the page a very crowded appearance.

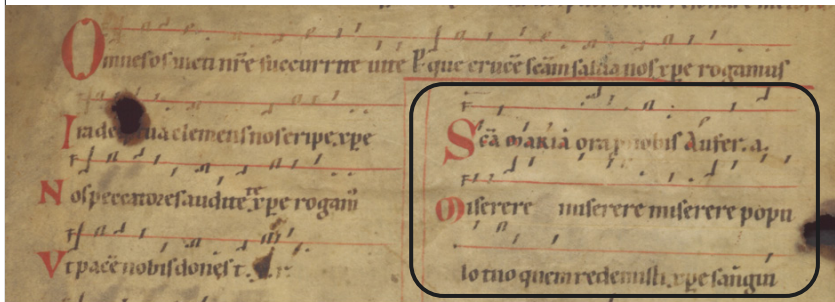
Also depicted in the large rectangular boxes, Fragment 1 and the *Riesencodex* both indicate C clefs with the letter *C*, and the F clef usually with a dot rather than an *F* (in contrast to the style found in twelfth-century Klosterneuburg notation, which labels every staff line with a letter). When the F clef shifts to another staff line partway through a staff (also visible in the rectangular boxes in these two sources), the letter *F* is used to show the shift and the zigzagging red F line further reinforces the “jog”. Fragment 2 frequently uses an *F* for the clef, as captured in the rectangle (and visible even on the very damaged recto side of this fragment), sometimes replacing the letter *F* with a dot. The scribe rarely uses a C clef, although one



Fragment 1 (lower pastedown), verso



Riesencodex, f. 466r



Fragment 2 (upper pastedown), verso

Figure 4: Notation comparison between Fragment 1, the *Riesencodex*, and Fragment 2

visible C clef can be seen at the beginning of *Aufer a nobis*, four lines from the bottom of the verso side (see Appendix 2).

The gently rounded neume shapes used in all three are almost identical, although written in different hands. The neumes in both fragments lean slightly to the right, while they are extremely vertical in the *Riesencodex*. They all use a fairly light penstroke, unlike the later, thick *Hufnagelschrift*, but a little heavier than the very fine pen strokes found in St. Gall notation. The puncti [Table 1] frequently have a slight ascending tail to the right (as the pen lifts off). The virgas all have a small horizontal head, and all three scribes use a backwards capital L-shaped neume for the pes. They also all use the rounded clivis, and they share two special neumes: the P-shaped liquescent cephalicus and the squiggly, rising quilisma. The only different neume shape is the porrectus, which appears as rounded


























Latin Name	<i>Riesencodex</i> , f. 477r	Fragment 1, recto	Fragment 2, verso
Virga	NON 	E-go 	UT 
Punctum	EST 	DO-mi-ne 	cunc-TUM 
Clivis	an-ti-QUE 	e-GO 	PA-cem 
Pes / Podatus	ma-ce-RA-tum 	ME-us 	pa-CEM 
Climacus	ma-ce-ra-TUM 	CA-nis 	
Porrectus	DE-i 	FRA-me-a 	
Torculus	an-TI-que 	de-US 	SAL-ves 
Quilisma	tu-I 	DE-us 	SANC-ta 
Cephalicus	AN-ti-que 	OM-nes 	CUNC-tum 

Table 1: Comparison of neumes

in the *Riesencodex* and which begins rounded in Fragment 1 and then finishes the shape with a final, angular gesture up to the right. In short, these three liturgical sources are not only representative of the same general southern German twelfth-century notation, but

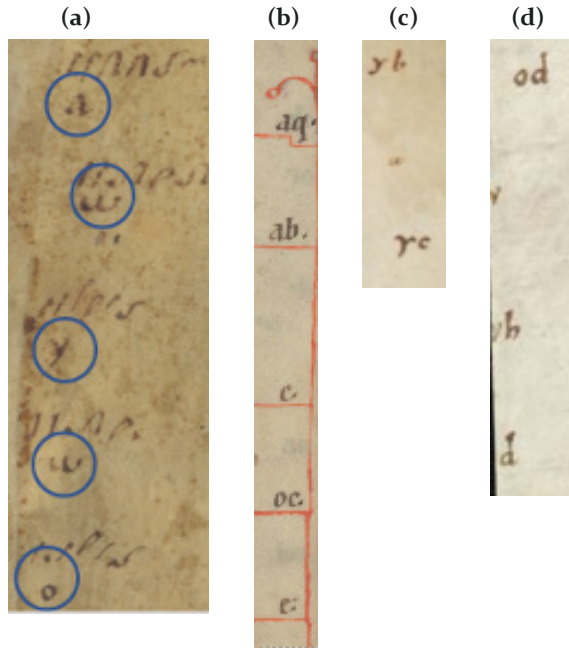


Figure 5: Tonary letters in (left-to-right) (a) Fragment 1, and in manuscripts from: (b) Gottschalk Abbey, Lambach, Austria; (c) the Abbey of St. Gall, Switzerland; and (d) Zwiefalten Abbey, Zwiefalten, Germany

in style specifics, they could have come out of the same scriptorium.

Another feature of the notation that makes it immediately identifiable as southern German provenance is the use of differentiae with tonary letters to provide psalm tone intonation patterns. Differentiae are musical formulae that appear in Antiphoners to tell the singer what mode and tone should be used for singing the psalm or canticle that accompanies an antiphon. In this manuscript fragment, the differentiae are identified with both the musical formula as well as with tonary letters, *a e i o v H y* or *w* [Figure 5]. These tonary letters appear only in southern Germanic sources. Alongside the tonary letters from Fragment 1 [5a], Figure 5 shows examples from the Gottschalk Antiphonary, from Lambach, Austria [5b];¹⁸ from the Hartker Antiphoner from the Abbey of St. Gall in

¹⁸ Excerpted from [F-3061] Cambridge, MA, Harvard University, Houghton Library, MS Typ 704 (5), verso.

Switzerland, near Lake Constance [5c];¹⁹ and from a manuscript held today in Karlsruhe, Germany but originally from the Abbey of Zwiefalten,²⁰ halfway between Lake Constance and Stuttgart [5d].²¹ What distinguishes the use of the differentiae in Fragment 1 is that they use mostly single letters, rather than letter combinations as found in the other sources, and they combine the tonary letters with the notated melodic formulas, representing a collision of two different notational systems for differentiae.

Liturgical content as provenance identifier: Fragment 1

Despite the challenges of faded ink, grime, and damage in Fragment 1, we have been able to complete a full inventory of both sides of the folio and have determined that its liturgy is for the Office, not the Mass, that it was for monastic rather than secular use, and that the folio would have been located originally in an Antiphoner (rather than a Breviary). One of the rubrics on the recto side of the fragment, for example, tells us somewhat cryptically but conclusively that the liturgy is both for the office and for monastic use. The rubric, *svp cantica* [*super cantica*] just above the antiphon *Ego gloriam* [Figure 6] indicates that it is meant to be sung with a canticle, and canticles are used in the Office not in the Mass. This particular canticle appears at the beginning of the third nocturn in Matins, the first liturgical hour of the day. In monastic use, but not in secular use, canticles rather than psalms are sung in the third nocturn,²² so the fragment definitely comes from an Antiphonal used in a monastic setting.

While the rubric for the liturgical office is missing from this manuscript, a comparison of the inventory [Table 2] with other manuscript inventories in the Cantus Database identifies the liturgy

¹⁹ Excerpted from the Hartker Antiphonary, St. Gallen, Stiftsbibliothek, Cod. Sang. 390, p. 27 [<https://www.e-codices.unifr.ch/en/list/one/csg/o390>].

²⁰ Excerpted from Karlsruhe, Badische Landesbibliothek, Cod. Aug. perg. 60, f. 2v [<https://nbn-resolving.org/urn:nbn:de:bsz:31-39404>].

²¹ The additional letters *ab*, *ac*, and *ad*, for example, distinguish two or more differentiae within a single mode.

²² D. Hiley, *Western Plainchant: A Handbook*, Oxford 1993, 26–27.

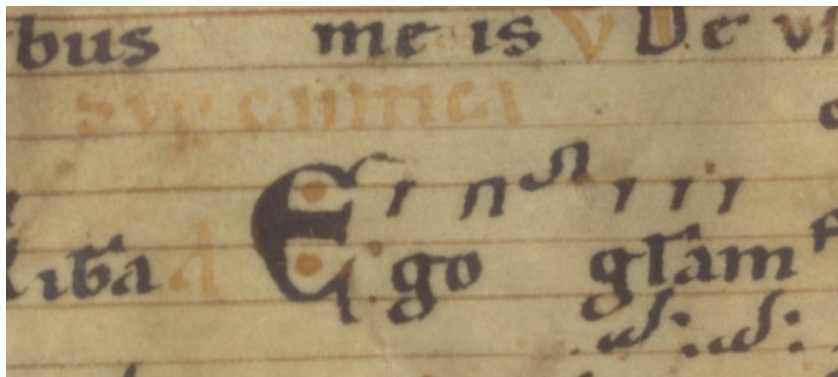


Figure 6: Fragment 1, the rubric *svp cantica* and the antiphon *Ego gloriam*

securely as Passion Sunday and Passion Week, up to the first two chants for Palm Sunday.²³

Passion Sunday and Passion Week are standard feasts that occur in virtually every Antiphonal that includes the feasts from Advent to Easter, so the presence of the feast itself does not help to locate provenance at all. The Feast Analysis Tool on the Cantus Index site, however, can be used to compare similarity in liturgical content amongst all of the instances of a particular feast across the sources catalogued in the Cantus Index Network. Searching on Cantus Index for feasts similar to Passion Sunday as it stands in Fragment 1, 16 of the 98 that include Passion Sunday were found to be 90% or more similar.²⁴ By comparing those sixteen manually, we found that eight of the sixteen were not only similar liturgically for Passion Sunday, but also for the ferial days of Passion Week and the first two chants of Palm Sunday; moreover, these eight sources are all southern Germanic, coming from institutions in what is today southern Germany, Austria, Switzerland, and the Czech Republic. This provenance is significant, because the area includes where Hildegard's Rupertsberg monastery was situated geographically.

23 *Cantus: A Database for Latin Ecclesiastical Chant - Inventories of Chant Sources*, directed by D. Lacoste (2011–), T. Bailey (1997–2010), and R. Steiner (1987–1996). Web developer, J. Koláček (2011–) (<http://cantusdatabase.org/>).

24 *Cantus Index*, managed by D. Lacoste, founded and developed by J. Koláček (<http://cantusindex.org>).

f.	Genre	Text incipit	Mode	Final	Tonary Letters	Rubric
DOM. DE PASSIONE [Passion Sunday]						
Matins - partway through second nocturn						
1r	Resp.	<i>[Tota die contristatus] domine</i> <i>v. Et qui inquirebant mala mihi</i>	4	E		
	Resp.	<i>Adjutor et susceptor meus tu</i> <i>v. Eripe me de inimicis meis</i>	4	E		
	Resp.	<i>In proximo est tribulatio mea</i> <i>v. Deus deus meus respice in me</i>	7	G		
	Ant.	<i>Ego gloriam meam non quaero</i>	8	G	wd	svp cantica
	Vers.	<i>Deus deus meus respice in me</i>	*			
Matins - third nocturn						
1r	Resp.	<i>Doceam iniquos vias tuas et</i> <i>v. Domina labia mea aperies et</i>	8	G		
	Resp.	<i>Ne avertas faciem tuam a</i> <i>v. Eripe me domine ab homine</i>	2	D		
	Resp.	<i>Pacificè loquebantur mihi inimici mei</i> <i>v. Omnes inimici mei adversum me</i>	8	G		
	Resp.	<i>In te jactatus sum ex</i> <i>v. Erue a framea deus animam</i>	2	D		
Lauds						
1r	Ant.	<i>Vide domine afflictionem meam quoniam</i>	8	G	w	
	Ant.	<i>In tribulatione invocavi dominum et</i>	7	G	y	
	Ant.	<i>Judicasti domine causam animae meae</i>	4	E	o	
	Ant.	<i>Popule meus quid feci tibi</i>	4	E	o	
	Ant.	<i>Numquid redditur pro bono malum</i>	4	E	o	
	Resp.	<i>Erue a framea deus animam</i> <i>v. Eripe me domine ab homine</i>	2	D		
	Vers.	<i>Eripe me de inimicis meis</i>	*			
	Ant.	<i>Dixit Jesus turbis quis ex</i>	1	D	a	
Prime						
1r	Ant.	<i>Ego daemonium non habeo sed</i>	8	G	w	
Terce						
1r	Ant.	<i>Ego gloriam*</i>	*			
	Vers.	<i>Erue a framea deus animam</i>	*			
Sext						
1r	Ant.	<i>Abraham pater vester exsultavit ut</i>	1	D	a	
1v	Vers.	<i>De ore leonis libera me</i>	*			
None						
1v	Ant.	<i>Quinquaginta annos nondum habes et</i>	1	D	a	
	Vers.	<i>Ne perdas cum impiis deus</i>	*			
	Resp.	<i>De ore leonis libera me</i> <i>v. Erue a framea deus animam</i>	2	D		
Second Vespers						
1v	Ant.	<i>Tulerunt lapides Judaei ut jacerent</i>	1	D	a	

FERIA 2 DE PASSIONE						
Matins						
iv	Inv.	<i>Nolite obdurare corda vestra quia</i>	6	F		[illeg.]
Prime						
	Ant.	<i>Vulpes foveas habent et volucres</i>	1	D	a	Ad Primam
Terce						
	Ant.	<i>Sicut exaltatus est serpens in</i>	1	D	a	Ad iii
Sext						
	Ant.	<i>Animae impiorum fremebant adversum me</i>	8	G	w	[illeg.]
None						
	Ant.	<i>Non sis mihi tu formidinis</i>	7	G	y	Ad viiii
Lauds						
	Ben.	<i>In die magno festivitatis stabat</i>	8	G	w	In .ii.?
Second Vespers						
	Mag.	<i>Si quis sitit veniat et</i>	4	E	o	Ad ve [...]
FERIA 3 DE PASSIONE						
Lauds						
iv	Ben.	<i>Tempus meum nondum advenit tempus</i>	4	E	o	[illeg.]
None						
		<i>Vos ascendite ad diem festum</i>	1	D	a	Ad viiii
Second Vespers						
	Mag.	<i>Quidam autem Judaei dicebant quia</i>	1	D	a	Ad vesp.
FERIA 4 DE PASSIONE						
Lauds						
iv	Ben.	<i>Oves meae vocem meam audiunt</i>	4	E	o	[illeg.]
Second Vespers						
	Mag.	<i>Multa bona opera operatus sum</i>	4	E	o	Ad vesp.
FERIA 5 DE PASSIONE						
Lauds						
iv	Ben.	<i>Magister dicit tempus meum prope</i>	4	E	o	[illeg.]
Second Vespers						
	Mag.	<i>Desiderio desideravi pascha manducare</i>	4	E	o	[illeg.]
FERIA 6 DE PASSIONE						
Lauds						
iv	Ben.	<i>Appropinquabat autem dies festus et</i>	1	D	a	
Second Vespers						
	Mag.	<i>Principes sacerdotum consilium fecerunt</i>	1	D	a	Ad vesp.
SABBATO						
	Mag.	<i>Clarifica me pater apud te ipsum</i>	1	D	a	Sabbato
DOM. IN PALMIS [Palm Sunday]						
Vespers						
iv	Resp.	<i>Ingressus Pilatus cum Jesu in v. Tunc ait illis Pilatus regem</i>	3	E		Ad vesp.

Table 2: Inventory of Fragment 1 (* in mode column = no musical notation)

Siglum	Identification	Provenance	Benedictine	M/F	Date
D-WII Fragment 1	Wiesbaden, Hochschul- und Landesbibliothek RheinMain, Fragment 1	near Bingen?	?	?	12C
CZ-Pu VI.E.4c	Praha, Národní knihovna České republiky, VI. E. 4c	St George Monastery, Prague	Y	F	12C
A-Wn 1890	Wien, Österreichische Nationalbibliothek, Cod. 1890	Augsburg, Germany (or Mondsee, Austria?)	?	?	12C
D-Sl HB.I.55	Stuttgart, Württember- gische Landesbibliothek, HB I 55	Weingarten Abbey, Germany	Y	M	12– 13C
D-KA Aug. LX	Karlsruhe, Badische Landesbibliothek, Cod. Aug. perg. 60	Zwiefalten Abbey, Germany	Y	M	12– 14C
A-Llb 290	Linz, Oberösterreichische Landesbibliothek, Hs.-290 (olim 183; Gamma p 19)	Kremsmün- ster Abbey, Austria	Y	M	12– 14C
CH-ENstb 103	Engelberg, Stiftsbiblio- thek, Cod. 103	Sponheim Abbey, Germany	Y	M	13C
CZ-Pu XIV. B.13	Praha, Národní knihovna České republiky, XIV. B. 13	St. George Monastery, Prague	Y	F	14C

Table 3: Eight sources with very similar Passion Sunday and Passion week liturgies (male or female house identified); provenance comes from the source description in the Cantus Database (<http://cantusdatabase.org>)

Across these eight sources [Table 3], there are only two differences in the liturgy as set out. First, the placement and choice of versicles varies between the sources, but this difference is not very significant; versicles are frequent and short formulaic responses, and are rarely included in a consistent manner in manuscripts, probably because everyone knew them and knew when to use them.

The second difference between these eight sources is much more interesting. All of them include the same invitatory and antiphons (both textually and musically) for FERIA 2 (Monday), but

	Hour	Genre	Text incipit
1	Matins	Invitatory	<i>Nolite obdurare corda vestra quia</i>
2	Prime	Antiphon	<i>Vulpes foveas habent et volucres</i>
3	Terce	Antiphon	<i>Sicut exaltatus est serpens in</i>
4	Sext	Antiphon	<i>Animae impiorum fremebant adversum me</i>
5	None	Antiphon	<i>Non sis mihi tu formidinis</i>
6	Lauds	Benedictus antiphon	<i>In die magno festivitatis stabat</i>
7	Vespers	Magnificat antiphon	<i>Si quis sitit veniat et</i>

Table 4a: Feria 2 order in Fragment 1

D-Wil Frag- ment 1	D-KA Aug. LX	A-Lib 290	D-Sl HB.I.55	CZ-Pu VI.E.4c	A-Wn 1890	CH- ENstb 103	CZ-Pu XIV.B.13
1	1	1	1	1	1	1	1
2	2	6	6	6	6	6	6
3	3	2	2	2	2	2	2
4	4	3	3	3	4	4	
5	5	4	4	4	3	3	
6	6	5	5	5	5	5	5
7	7	7	7	7	7	7	7

Table 4b: Feria 2 order in Fragment 1

with different orderings.²⁵ Although chronologically Lauds comes immediately after Matins, the scribe of Fragment 1 chose a thematic ordering instead, placing the two canticle antiphons, the Benedictus and Magnificat, together at the end of the Feria 2 grouping [Table 4a]. A comparison with the rest of the sources in the group reveals the parallels between them [Table 4b].²⁶ Note that all eight sources begin with no. 1, the invitatory, *Nolite obdurare*, and end with no. 7, the Vespers Magnificat antiphon, *Si quis sitit veniat et*. The Zwiefalten Abbey manuscript (D-KA Aug. LX) in column 2 fol-

²⁵ A thorough comparison of the melodies between sources revealed minor variants, but nothing notable enough to report.

²⁶ The *Liber Ordinarius* (Colmar, Bibliothèque Municipale, Ms. 331) from Hirsau follows the same order of antiphons on f. 44r as A-Lib 290, D-Sl HB.I.55 4, and CZ-Pu VI.E.4c.



Figure 7: Geographical proximity of known and suggested locations of the eight sources

lows the same pattern as Fragment 1, keeping together the canticle antiphons, while all of the others place the Benedictus antiphon (no. 6) in strict liturgical order after Matins. Two manuscripts, A-Wn 1890 (possibly from Augsburg) and CH-ENstb 103 (probably from Sponheim Abbey), reverse the order of the terce and sext antiphons (nos. 3 and 4), while the final source, CZ-Pu XIV.B.13 from St. George monastery in Prague, leaves the terce and sext antiphons out entirely. Most significant is that searching the 178 published and unpublished inventories on the Cantus Database for the antiphon, *Nolite obdurare*, reveals that this invitatory for FERIA 2 is a very rare chant; in the Cantus Database it occurs only in these eight sources, including Fragment 1, which strongly suggests a connection between the monastic houses that use it. Beyond the sources in the Cantus Database, we have located *Nolite obdurare* and the series of six antiphons in the Hirsauer *Liber Ordinarius*, which is significant given Hildegard's known associations with Hirsau reforms.²⁷ Moreover, all of these monastic houses are in southern-Germanic locations [Figure 7]. The combination of the use of tonary letters, the shared FERIA 2 antiphons and the rare invitatory, *Nolite obdurare*, provides

27 C.J. Mews, "Hildegard of Bingen and the Hirsau Reform in Germany 1080–1180," in *A Companion to Hildegard of Bingen*, ed. B.M. Kienzle, D.L. Stoldt and G. Ferzoco, Leiden 2014, 57–83.

unequivocally a southern-Germanic provenance for Wiesbaden Fragment 1.

Liturgical content as provenance identifier: Fragment 2

While features of Fragment 1 point to a general southern-Germanic provenance, features of Fragment 2 point to a more particular location for its provenance. Fragment 2, however, is more damaged than Fragment 1, making identification of the liturgical content and other elements on the bifolium challenging. In any case, the processional chants that make up its liturgical content suggest that the leaf comes from either a Processional or the processional section of a Gradual; the size of the leaf suggests a Gradual, since Processionals tend to be very small books. The texts and music comprise two hymns and a litany used on the three Rogation Days, the Monday, Tuesday, and Wednesday leading to Ascension Thursday (the fortieth day of Easter) [Table 5].

Table 5: Original content layer of Fragment 2

folio	Text incipit
1r	Hymn: <i>Humili prece</i>
1r-v	Hymn: <i>Ardua spes mundi</i>
1v	Litany: <i>Aufer a nobis</i>

As noted above, one of the two folios has music and text on the front and back, while the other is blank on one side and has scribbles of neumes and chants as well as a contractual text and a colophon on the other. The music and text begin mid-way through a chant including many sub-sections, indicated by the smaller coloured letters at the beginning of each line, which suggest either a hymn or a sequence. Although the text is almost indecipherable [Table 6], the first letter of every line and the context of what follows identifies it as *Humili prece*, a long refrain hymn used in processions, making possible a reconstruction of the text through reference to the *Analecta Hymnica* edition [Table 7].²⁸

The large initial A (the height of two lines with staves, or 28 mm) in the middle of the recto side of the written leaf begins another

²⁸ G.M. Dreves, *Analecta Hymnica medii aevi* 50, *Hymnographi Latini, Lateinische Hymnendichter des Mittelalters*, Leipzig 1907, no. 191, 253–255.

First word	Damaged text
Quae	
Omnes	
Iam	
Pacem	
Temperiem	
Agne	
Kyrie	

Table 6: Fragment 2, recto side, end of *Humili prece*

[Refrain: Humili prece et sincera devotione, Ad te clamantes semper exaudi nos. Stanzas 1–16, with refrain following each stanza]	
[17. Virginitate chorus resplendens candidularum, Turba puellarum integritate nitens,] Quae geminis gaudens pulchrum decorata coronis, Laude pudicitiae, martyriique simul.	
18. Omnes nunc Sancti nostris succurrite lapsis, Et veniam cunctis ferte juvando malis; Nam vestris precibus, petitis quaecunque rogantes, Annuit ipse pius, nilque negat Do- minus.	
19. Pacem perpetuam, rogitamus, prospice Christe, Et sanae vitae gaudia longa diu; Temperiem caeli tribuens, ut copia frugum Omnibus exundet ubere laticiae.	
20. Agne Dei Patris, qui Mundi crimina tollis, Optatae pacis munera dona tuis. Kyrie pantocrator, yson sodisse te pantos, Sub basileos ymon, Christe, eleison ymas. ^a	
^a Dreves gives the Greek as ἐλέησον ἡμῶν, with manuscripts variously reading ymas/imas or ymon/imon. The relevant letters are obscured here, but seem more likely to be ymas.	

Table 7: Fragment 2, reconstructed text of *Humili prece*; square brackets denote text that would have been on the previous folio

Rogation hymn (often called a versus), *Ardua spes mundi*, written by the poet Ratpert at St. Gall (d. 884) in the ninth century [Table 8].²⁹ It continues on the verso and has a second section with a new

29 The attribution to Ratpert of Saint Gall is provided by Hiley, *Western Plainchant*, 146.

Part 1:

Ardua spes mundi solidator et inclite caeli,
 Christe, exaudi nos propitius famulos.
 Virgo Dei genetrix, rutilans in honore perenni
 Ora pro famulis, sancta Maria, tuis.
 Angele summe Dei, Michael, miserescito^a nostri,
 Adiuvet et Gabriel atque pius Raphael.
 Aspice nos omnes, clemens^b baptista Iohannes,
 Petreque cum Paulo nos rege doctiloquo.
 Coetus apostolicus sit nobis fautor et omnis
 Ac patriarcharum propheticusque chorus.
 Poscere nunc Stephanum studeamus carmine summum,
 Ut cum martyribus nos iuvet ipse pius.
 Inclite Laurenti, qui flammam exsuperasti,
 Victor ab aethereo nos miserere choro.
 Splendide Silvester Gregori ac sancte magister,
 Nos quoque cum sociis ferte iuvando polis.
 O Benedicte, pater monachorum, Galleque frater,
 Cum reliquis sanctis nos refove te polis.^c
 Virgineos flores Agnes Agathesque ferentes,
 Auxilio vestris^d addite nos sociis.
 Innocuos pueros resonemus laude peractos,
 Qui modo nos pueros dant resonare melos.

Part 2:

Omnes o sancti, nostrae succurrite vitae,
 Perque crucem sanctam salva nos, Christe rogamus,
 Ira deque tua clemens nos eripe, Christe.
 Nos peccatores audite, te, Christe, rogamus.
 Ut pacem nobis dones, te, Christe, rogamus.
 Crimen ut omne tuis solvas, te, Christe, rogamus.
 Aure ut temperiem dones, te, Christe, rogamus.
 Ut populum cunctum salves, te, Christe, rogamus.
 Ecclesiamque tuam firmes, te, Christe, rogamus.
 Fili celsi throni, nos audi, Christe rogamus.
 Christe, exaudi nos, o Kyrie ymon eleyson.

a A corrector has added a *re* to the fragment so that it appears to read *miserere scito*.

b The fragment appears to read *clemens omnes*.

c Dreves includes several verses for other saints (Otmar, Magnus) here, which are not present in all his sources (or this fragment). Some sources include other “customized” saints in their place (including a source from Mainz, which mentions Alban), but the fragment does not; in this respect it resembles Dreves’s source F, from St. Emmeram in Regensburg.

d The fragment reads *nostris* here.

Table 8: Text of Hymn, *Ardua spes mundi*, based on Dreves (*Analecta Hymnica* 50, no. 179, 237–238), because the fragment text is not always legible. Footnotes indicate the obvious differences.

Aufer a nobis iniquitates nostras ut mereamur puris mentibus introire ad sacra sanctorum.

Exaudi, exaudi, exaudi domine preces nostras. Sancta Maria, ora pro nobis.

Aufer a nobis [iniquitates nostras ut mereamur puris mentibus introire ad sacra sanctorum.]

Miserere, miserere, miserere populo tuo quem redemisti Christe sanguine tuo ne in eternum irascaris nobis.

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Michael, ora pro nobis

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Johannes [ora pro nobis]

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Petre [ora pro nobis]

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Paule [ora pro nobis]

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Andrea [ora pro nobis]

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Jacobe [ora pro nobis]

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Stephane [ora pro nobis]

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Clemens [ora pro nobis]

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Laurenti [ora pro nobis]

Exaudi, [exaudi, exaudi domine preces nostras.] **Sancte Albane** [ora pro nobis]

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Hilari [ora pro nobis]

Exaudi, [exaudi, exaudi domine preces nostras.] Sancte Martine [ora pro nobis]

[**Exaudi**, exaudi, exaudi domine preces nostras.] Sancte Benedicte [ora pro nobis]

[**Exaudi**, exaudi, exaudi domine preces nostras.] Sancte Gregori [ora pro nobis]

[**Exaudi**, exaudi, exaudi domine preces nostras.] Sancta Felicitas [ora pro nobis]

[**Exaudi**, exaudi, exaudi domine preces nostras.] Sancta Agnes [ora pro nobis]

[**Exaudi**, exaudi, exaudi domine preces nostras.] Omnes sancti, orate pro nobis

Table 9: Text of Litany, *Aufer a nobis*, in Fragment 2

repeating melody that begins with the one-line-and-staff initial O at the beginning of the third line. The layout on this side, visible in Appendix 2, is distinctive because it begins with the full horizontal lines of script and music that were on the previous side, but at line 4 it divides into two columns and then about halfway down the page the second column divides again into two columns.

The final chant is a multi-part litany [Table 9].³⁰ It begins with the antiphon *Aufer a nobis* at the large initial A (this time the height of one line and staff), four lines from the bottom on the verso side of the Fragment in Appendix 2. A sub-section of the litany, *Exaudi*,

30 For a musical reconstruction, see R. Amstutz, *Ludus de Decem Virginibus: Recovery of the Sung Liturgical Core of the Thuringian Zehnjungfrauenspiel*, Toronto 2002, 286.

exaudi, exaudi follows and then jumps to the top of the second column for the first invocation, to Mary, *Sancta Maria ora pro nobis*. After the Marian invocation, *Aufer a nobis* is repeated, as the incipit indicates, followed by another sub-section, *Miserere, miserere, misere*. The rest of the litany consists of alternations between the *Exaudi* (again indicated through incipit only) with invocations to particular saints: *Sancte Michael, ora pro nobis*; *Sancte Johannes, ora pro nobis*; and so on down the column and up to the top of the next column. The final invocation concludes at the bottom of the right-hand column with a petition to all saints: *Omnes sancti, orate pro nobis*.

Taken together, these liturgical items, the two hymns and the litany, were popular enough that they do not point to any specific time or place. Guido Dreves, who reproduced the text of *Humili prece* and *Ardua spes mundi* in *Analecta Hymnica*, found them in numerous tenth- and eleventh-century manuscripts, including both in a tenth-century Missal from St. Alban's monastery in Mainz that also includes *Aufer a nobis*.³¹ The three do not appear in the same order in this manuscript and there are enough textual and musical variants between the two that it does not appear that one was copied from the other, but that they inhabited the same liturgical sphere.³² As well, there is one name in the list of saints at the end of the litany that suggests geographical proximity to Rupertsberg: *Albane* is in all likelihood St. Alban of Mainz (not the more famous St. Alban of the British isles). The Abbey of St. Alban's in Mainz, which produced the tenth-century Missal mentioned above, was a leading institution in the Hirsau reform that influenced many institutions (including Hildegard's), and it had established a number of filial monasteries in the region. Having St. Alban's name in the litany in Fragment 2 provides a regional connection.

³¹ Dreves, *Analecta Hymnica*, 253–255 and 237–238 respectively. *Missale* from St. Alban's: *Ardua spes mundi*, ff. 103v–105r; *Humili prece*, ff. 105r–107v, and *Aufer a nobis*, f. 109v.

³² *Humili prece* appears in later manuscripts as well, such as the twelfth- or thirteenth-century manuscript, Engelberg, Stiftsbibliothek, Cod. 1003, ff. 86r–87r (<https://www.e-codices.unifr.ch/en/list/one/bke/1003>).

Additamenta as new contexts for Fragment 2

The unstructured text on the other leaf of the bifolium offers some further clues about the use of and possible provenance for Fragment 2: a 3-line inscription at the top in Middle High German; a Latin colophon directly underneath it; and some bits of chant that are little more than scribbles. Given their orientation (in line with the main contents of the fragment) they presumably date to when the leaf was bound in its earlier volume, rather than its use within the *Riesencodex*. The two items pertaining to music include a notated chant seemingly added by two or even three hands at separate times, perhaps as a pen trial. The earliest of these hands is in a faint brown ink, and gives the text “KYRIE Eleyson. Xp(ist)Eleyson” in what appears to be a thirteenth-century hand [Figure 8]. Above it are German neumes (also in a thirteenth-century style) on a very faint four-line drypoint staff, 8.5 mm tall, similar in size to that of the hymns, with a C clef and a dot for the F-line. The chant transmitted appears to be a variant of the first two phrases of *Kyrie summum bonum*.³³ A nearly identical melody opens the Kyriale of the Gradual of St Kunibert’s church in Cologne (ca. 1330) [Figure 9];³⁴ it is possible that a similar version was prominent in the Gradual housing the fragment, and that this inspired the pen trial.

Below the *Kyrie*, a second hand takes up in darker, blotchier ink, and with a slightly different musical notation (the puncta are curved and the virga are forked where the stem meets the notehead); this seems not so much an attempt to continue the chant (which is still missing the end of the phrase) as an effort to copy down the notation immediately above. Below this musical notation is a larger, inexpertly written *Gloria Patri* with a few notes haphazardly written above it. The whole gives the impression of two inexperienced scribes separately attempting to imitate the style of their—possibly much earlier—predecessor, with the pen trial serving as unintentional learning exercise.

33 Similar to Melnicki’s melody 59. Unfortunately Melnicki’s catalog only includes the incipit of the chant: M. Landwehr-Melnicki, *Das einstimmige Kyrie des lateinischen Mittelalters*, Regensburg 1955, 98.

34 Darmstadt, Universitäts- und Landesbibliothek, Hs 876, f. 8r.

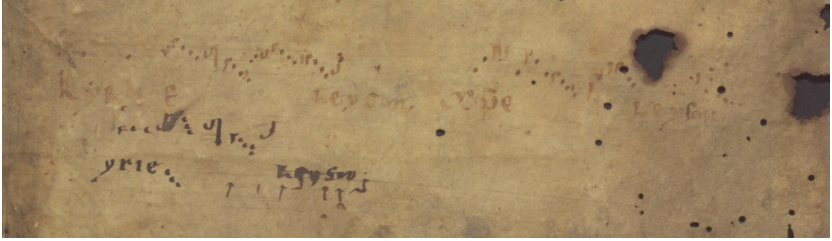


Figure 8: Added texts and melodies on the “blank page” of the original bifolium



Figure 9: Opening of the Kyrie of the Gradual of St Kunibert's church in Cologne (ca. 1330), Darmstadt, Universitäts- und Landesbibliothek, MS 876, f. 8r

A still later hand put the leaf to a somewhat more practical purpose. Below the *Gloria Patri* in a fifteenth-century hybrida script is a small block of text, reading *Off [...] pro pace* and then, below a dividing line, giving several chant incipits each followed by a Roman numeral [Table 10]. Combining chants from other liturgical occasions to assemble a mass *pro pace* (or *pro pace regni*) is by no means

Int(r)oit(us)	Da pacem	xcv
Grad(ual)e	Letat(us) su(m)	xxxv
All(elui)a	Qui posuit fi(n)es	xcviii
Off(ertorium)	Sicut i(n) holocausto	xcI
Con(munio)	Amen dico vo(bi)s	xcviii

Table 10: Mass incipits listed on Fragment 2

unique to this manuscript; the Cantus Index network alone records at least twenty-three other examples from various times, places, and liturgical practices. Such masses commonly begin, as this one does, with *Da pacem* (Cantus ID g01229), which typically appears on the eighteenth Sunday after Pentecost. Traditions vary in the choices of the other four mass propers, however. The five chants seen here are found with great regularity in Cistercian sources, while outside the Cistercian order other communion chants (such as *Pacem meam*) or offertory chants tend to appear. Fragment 2 is the only example currently on the Cantus network of this set of propers appearing in a source not known to be Cistercian, and may suggest that the scribe had some contact with the local houses of the order.³⁵

These mass incipits give further evidence that the book to which the leaf belonged was a Gradual, in which the incipits could be found at the indicated folios earlier in the book. If so, we may assume it contained both summer and winter chants—the gradual *Laetatus sum* is typically for the fourth Sunday in Lent—and sixty folios contained the chants for the intervening twenty-seven weeks. The addition of the incipits in the fifteenth century suggests, moreover, that the Gradual was still in use as a liturgical book at that time—perhaps spending very little time unused before being repurposed as a binding.

The other items on this recto are not musical or liturgical in origin. The German inscription appears to be a contract, or record

³⁵ The mass is concordant with the following manuscripts, which can be located through Cantus Index (<http://cantusindex.org/>): D-Mbs Clm 02541 (Aldersbach, 15c); P-Ar 016 (Arouca, 1485); PL-WRu F 413 (Silesia, 14c); PL-WRu F 414 (Silesia, 13c); PL-WRu F 416 (Silesia, 14c); PL-Wn Rps 12496 IV (Silesia, 13c); CH-ROM Ms Liturg. FiD 5 (Abbey of Romont, 13c); F-Pn: NAL 01414 (Morimondo, 12c); and D-HEu: Cod.Sal. x,007 (Salem, 1225).

of a donation, between tenant farmers and a monastic foundation (perhaps a draft, corresponding to the way that the rest of the page was treated):

Gernot vnd Gerdrut di gent³⁶ ewicliche zvene schillinge pennige vz
Gernot and Gertrude give in perpetuity twenty shillings pfennigs from
eime hus vnd eime gartin. zu Ibingen.
a house and a garden in Eibingen.

Cunlin vnd sin Erbin gent eche vnd zvencich ^cholsche pennige
Cunlin and his heirs give eight and twenty Cologne pfennigs
von eime stucke wingartis zu Grabe wisin.
from a plot of vineyard in Grabe wisin.³⁷

This inscription mentions two specific identifiable and regional places: “eime Hus und eime Gartin zu *Ibingen*” [a house and a garden in Eibingen], which is the next village over from Rüdesheim on the north side of the Rhine (and houses one of the convents associated with Hildegard) and is directly across the river from her Rupertsberg convent in Bingen; and “eime stucke wingartis zu *Grabe wisin*” [a plot of vineyard in Grabe wisin], which is a local name for an area near the historic ditch in Rüdesheim, captured today by the street name *Grabenstraße*.³⁸ There is even a (presumably different) vineyard “zu grabewisen” documented among Rupertsberg’s landholdings near Rüdesheim early in the thirteenth century.³⁹

36 *gent=gebet*. This form is found particularly in the west and south of Germany, according to the *Deutscher Sprachatlas* (<https://apps.dsa.info/sprachgis/atlas/hss:2/13641>).

37 Van der Linde transcribed the middle-high German (*Die Handschriften*, 86), but with a number of errors. C.J. Jones and C. Miller kindly provided us with a correct transcription and English translation (personal communication, June 15, 2024).

38 A “grabewisin,” with various spellings, is attested in the area of Rüdesheim in many historical documents, and it persisted into the twentieth century as a local name for what had since become part of the town. See “zu grabewysen,” in: *Hessische Flurnamen* (<https://www.lagis-hessen.de/de/purl/resolve/subject/fln/id/494991>).

39 See *Urkundenbuch zur Geschichte der mittelrheinischen Territorien*, in H. Beyer, L. Eltest, and A. Goerz (eds.), *Urkundenbuch zur Geschichte der jetzt die Preussischen Regierungsbezirke Coblenz und Trier bildenden mittelrheinischen*

A document that has recently come to light highlights other connections between Rupertsberg, Eibingen and other regional monasteries.⁴⁰ Ivana Dobcheva and Christoph Mackert, in discussing the cataloguing of fragments in Leipzig, analyse a fragment possibly from a mortuary roll; the document refers to itself as a *rotulus* and also as a *titulus*.⁴¹ They provide a list of the stops the document made, including “in Mainz: the Teutonic Knights, the monastery of St. Alban, St. Viktor, St. Jacob, the Dominicans, the Franciscans, Weißfrauenkloster; the Cistercians in Eberbach; monasteries in Gottesthal, Tiefenthal, and Johannisberg; the Benedictine monastery St. Georg; in Bingen, the Abbey Rupertsberg...”⁴² In fact, between St. Georg and Bingen, the document notes two further stops not identified by the authors: it stopped at Saint Mary’s in Eibingen and in Aulhusen, before crossing the Rhine to Bingen.⁴³ Dobcheva and Mackert place the document as post-1256, because two of the monasteries mentioned belong to an order founded in that year.⁴⁴ According to references to specific days in the Church calendar, they suggest the year the *rotulus* travelled was either 1257 or 1268, and by the references to specific days of the week it is clear

Territorien: aus den Quellen, vol. 2, Koblenz 1865, 391, which transcribes a lengthy document of Rupertsberg’s holdings ca. 1200 and the years afterward.

40 Titulus / mortuary roll (?) (Fragment), [E-yfgp] Leipzig, Universitätsbibliothek, Fragm. lat. 199.

41 I. Dobcheva and C. Mackert, “Manuscript Fragments in the University Library, Leipzig: Types and Cataloguing Patterns”, *Fragmentology* 1 (2018), 105.

42 Dobcheva and Mackert, “Manuscript Fragments”, 105, n. 47.

43 The full transcription, corresponding to items 17 through 21 on Dobcheva and Duba’s “Addendum”, is: *Feria tertia fui in Monte Sancti Johannis liberte(?) et ad sanctum Georgium liberte(?) fui ad sanctam mariam virginem in Ibingin Et in ulinhusin Et fui ad sanctum rupertum*. “Ulinhusin” refers to a Cistercian convent at Aulhausen which would later become known as Marienhausen; the name is attested to in medieval charters (see e.g. the 1210 charter Hessisches Staatsarchiv Darmstadt, Bestand A 2, Nr. 23/2 which refers to it as “ecclesie in Ulenhusen” or Hessisches Hauptstaatsarchiv Wiesbaden, Bestand 22, Nr. U 480 from 1330, where it is “monasterium sancti monialium in ulinhusin ordinis Cisterciensis”). Its location to Eibingen’s northwest would have kept the travelers in the hills before descending to cross the Rhine to Bingen; one assumes that the travelers wished to visit every institution of note, and that the hilly topography of the area partially dictated their route.

44 Dobcheva and Mackert, “Manuscript Fragments”, 106.

that the messengers were visiting two to four monasteries per day and covering significant distances.⁴⁵ As they conclude, it is “a nice example of distant monastic networks and the speed of travel across them.”⁴⁶ The document demonstrates as well how connected Hildegard’s community at Rupertsberg was to this monastic network, within a century of her death.

Moreover, the document provides a snapshot of what the nearest nodes in this network were to Rupertsberg in the third quarter of the thirteenth century (or at least, the nearest nodes worth visiting), and how they named themselves. The reference to Eibingen is particularly noteworthy because of its significance in the traditional biography of Hildegard, which has reported that Hildegard founded a second monastery in Eibingen—a daughterhouse—in 1165. In 2014, Matthias Schmandt questioned this claim, demonstrating that none of the twelfth- and early thirteenth-century documentation concerning Hildegard’s life—her *Vita*, the *Acta inquisitionis de virtutibus et miraculis S. Hildegardis*, her collected letters etc.—mention this founding, which surely they would have.⁴⁷ There was an Augustinian convent dedicated to Mary, however, established in Eibingen in 1148,⁴⁸ and Hildegard’s *Vita* does mention that she sometimes travelled by boat across the Rhine to Rudesheim to visit the nuns there;⁴⁹ there is no evidence of any other convents located in Rudesheim at any point, so the convent she was visiting must have been the Eibingen convent long associated with her. As well, as Matthias Eiden reports, in 1268 the Eibingen nuns petitioned the Archbishop in Mainz to be separated from Rupertsberg; the Archbishop did not grant this separation, although he did grant the license to choose their own leader, who would report to the Rupertsberg Abbess,⁵⁰

45 Dobchev and Mackert, “Manuscript Fragments,” 106–7.

46 Dobchev and Mackert, “Manuscript Fragments,” 108.

47 M. Schmandt, “Hildegard von Bingen und das Kloster Eibingen: Revision einer historischen Überlieferung”, *Nassauische Annalen* 125 (2014), 29–52.

48 M. Eiden, “Eibingen”, in *Germania Benedictina*, vol. 7, *Die Benediktinischen Mönchs- und Nonnenklöster in Hessen*, ed. F. Jürgensmeier, F. Büll, and R.E. Schwerdtfeger, Sankt Ottilien 2004, 125.

49 “The Life of Hildegard”, chapter XVIII, in A. Silvas (ed. and trans), *Jutta and Hildegard: the Biographical Sources*, University Park, PA 1999, 192.

50 Eiden, “Eibingen,” 126.

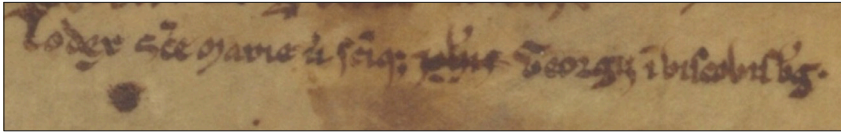


Figure 10: Latin colophon in Fragment 2

and in 1270 it was referred to specifically as a Benedictine convent, the same order to which Rupertsberg belonged.⁵¹ The mortuary roll provides new evidence that both establishments were active and functioning fully in the second half of the thirteenth century, and were part of a local network of monastic institutions.

The reference in the mortuary roll to Johannisberg and St. Georg is also noteworthy, because both names appear in the Latin colophon found on the same page as the German inscription, and Rüdeshcim and Eibingen are about halfway between Rupertsberg and Johannisberg. It is not easy to say which of the Latin colophon or the German contract was written first. The Latin, which is small (only 1 mm tall) and neat, nevertheless intersects with the somewhat messier German inscription, which might suggest it was overwritten by a scribe with little concern for use of space; but this is hardly proof positive, and it is possible to imagine the two inscriptions added in the opposite order as well. Overall the German script gives the impression of having been written in the late thirteenth or early fourteenth century, with straight *s* at the word ends and a pronounced lower lobe on the *G*;⁵² the Latin inscription seems to be of a similar date, but is too short to draw definitive paleographical conclusions about its relative age compared to the German inscription. In any case, the colophon provides further evidence of the local network that contributed to the production of the fragment as it has come down to us. The Latin colophon states [Figure 10]: “Codex sanctae Mariae virginis sanctique Johannis Georgii in biscobisberg” [Codex of Saint Mary the Virgin and Saint John George in Bischofsberg]

51 Eiden, “Eibingen”, 125. Eiden also reports that in 1270 the new leader, Agnes, petitioned for the Eibingen convent to be considered equal to Rupertsberg, which again was not granted, although the Rupertsberg Abbess did agree that the Eibingen nuns would be invited to participate in abbatial elections (126).

52 We are grateful to A. Papahagi for sharing with us his thoughts about the script of this inscription.

(Bishop's Hill)]. In 1931 Gottfried Zedler used the colophon to suggest a provenance of Kloster Johannisberg, presumably because of the crossed-out "Johannis" and because Johannisberg is on Bischofsberg, which is in Geisenheim, only a few kilometres east of Eibingen and also on the opposite side of the Rhine from Bingen.⁵³ Zedler does not actually explain his identification of the provenance and he does not mention the connection to St. Mary and St. George at all.

The combining of St. Mary and St. George together in the colophon suggests a location named explicitly for the two saints. The "Codex of St. Mary the Virgin and St. George" could mean that the book belongs to a female or male monastic house named after Mary and George, or to a church, a chapel, or even an altar, or perhaps to a book transmitting liturgical feasts in celebration of Saints Mary and George. One possible provenance, although unlikely, is an Abbey Church in Erfurt for St. Mary and St. George, but there is no Bischofsberg in Erfurt. Until 1525, there was a Benedictine Bischofsberg Abbey in Fulda (often referred to as Frauenberg), but there is no explicit reference to St. Mary and St. George there. More significantly, since the Fulda Abbey church (now Fulda Cathedral) was the burial place of St. Boniface, it seems inconceivable that the final litany of saints in Fragment 2 would not include an appeal to Boniface if the original manuscript were from there.⁵⁴

The most likely original provenance of Fragment 2 is the women's convent—also mentioned in the mortuary roll—called Georgenclaus, which was associated with Johannisberg. Johannisberg was founded in 1090 on Bischofsberg (Bishop's Hill) as a double house of men and women,⁵⁵ under the rule of St. Alban's in Mainz;⁵⁶ this detail is critical, since St. Alban is the only Germanic saint named in the list of saints in the litany elsewhere on the fragment. In 1130 the double house became an independent Abbey.⁵⁷ The nuns, apparently

53 Zedler, *Die Handschriften*, 17.

54 J. Raaijmakers, *The Making of the Monastic Community of Fulda*, c. 744–c. 900, New York 2012.

55 Van der Linde, *Die Handschriften*, 86.

56 C.D. Vogel, *Beschreibung des Herzogthums Nassau*, Wiesbaden 1843, 597.

57 Ibid.

originally housed close to the east side of the church,⁵⁸ at some later date split off from the monks and moved “to the valley”, as reported by F.W.Th. Schliephase in 1866 and Antonius van der Linde in 1877, with their new convent going by the name of Clause (hermitage) or Georgenclaus (St. George’s hermitage).⁵⁹ Although unnamed by both Schliephase and van der Linde, the closest valley (1.5 km west) is “Marienthal”, or “Mary’s valley”, which may explain the naming of St. Mary.⁶⁰ If Georgenclaus was established in this valley, then it may have become known also as St. Mary and St. George.⁶¹ Although it is not known when the separation of the two houses occurred, the mortuary roll mentioned earlier also provides a clue: in the year of the roll’s travel (presumed to be in either 1257 or 1268), the local scribe distinguished these two houses as separate (St. George and Johannisberg): “Feria tertia fui in Monte Sancti Johannis...et ad sanctum Georgium”.⁶² This distinction could put the separation of the houses in a similar timeframe as that of the marginal additions to the fragment. The convent was dissolved in 1452 (against the wishes of the nuns) and all of their goods were transferred to Johannisberg,⁶³ which itself closed in 1563.⁶⁴

58 F.W.Th. Schliephase, *Geschichte von Nassau von den ältesten Zeiten bis auf die Gegenwart, auf der Grundlage urkundlicher Quellenforschung* 1, Wiesbaden 1866, 166, n. **.

59 Van der Linde, *Die Handschriften*, 86 and Vogel, *Beschreibung*, 597.

60 Marienthal was so-named because of a miracle in 1309, when a blind hunter, Hecker Henn, was healed after praying in the forest to an image of Mary; a church was built on that location in 1313 and became a site of pilgrimage, see Franziskanerkloster Marienthal, “Die Geschichte von Marienthal” (<https://marienthal.franziskaner.net/die-geschichte-von-marienthal/>).

61 In 1463, eleven years after the closure of Georgenclaus, an Augustinian house of brothers was established and the foundation is known today as Kloster Marienthal.

62 [F-yfgp], Leipzig, UBL, *Fragm. lat.* 199; see above, n. 45 for transcription of this line. After each of the houses, the scribe included a word that Duba and Dobcheva transcribe as “liberte” (see “Addendum”, table 2, items 17–18). The meaning of this word is unclear, but could have something to do with the separation of the two houses.

63 Vogel, *Beschreibung*, 597.

64 Schliephase, *Geschichte von Nassau*, 167, continuation of n. ** from 166.

Zedler suggests that the binding of the *Riesencodex* is fifteenth- or sixteenth-century,⁶⁵ which fits with these dates. A plausible scenario thus follows: in the late twelfth century, the Gradual (that included Fragment 2 with its reference to the local St. Alban), was used by the community at Johannisberg/Georgenclause. In the late thirteenth- or early fourteenth-century, nuns at Georgenclause added the German text to the Gradual as well as the colophon, which would explain the slip of the pen and initial identification of St. John rather than St. George (in Figure 10) since there was a close connection between the two houses, even after separation. In 1452, when the Abbey closed, the now unused Gradual was transferred to Johannisberg along with the other goods of the convent and made available for reuse either before or after Johannisberg closed at a still unknown bindery—possibly at Johannisberg, but possibly at another institution, such as Rupertsberg, or farther afield in Frankfurt where there are known binderies in the fifteenth and sixteenth centuries.⁶⁶ This bindery bound (or re-bound) the *Riesencodex* using fragments from old books for the pastedowns, at least one of which was from the women's house. The other book used could have also come from Georgenclause; but it could have been from Johannisberg, or from another institution in the region—even, perhaps, Rupertsberg itself. Certainly, the materials were local to the area, and importantly shared liturgical elements with other southern-Germanic houses influenced by the Hirsau reform.

While it was known already in 1877 that these fragments—because of the Latin colophon—had an association with the nearby Abbey of Johannisberg, this deeper and close analysis of all aspects of the fragments have contributed to a much richer contextualization of these pastedowns and revealed a broad community of religious institutions in which Rupertsberg participated. The results of our detailed musical and textual palaeographic analysis, liturgical analysis, codicological analysis, and analysis of all of the written elements (both the main content and added items) firmly

65 Zedler, *Die Handschriften*, 17.

66 W.K. Zülch, "Eine Fehlforschung," *Zentralblatt für Bibliothekswesen* 43 (1926), 119–120.

situate the fragments within a small radius of the book they bind; at the same time, their connections to specific places and practices external to Rupertsberg serve to remind us of this extensive interconnected network of the monasteries in the region. Such connections are already in evidence in Hildegard's lifetime through her own travels and correspondence, but they ran deeper and longer, encompassing—over the course of the twelfth through the fifteenth century—liturgical influences, adjoining land holdings, and books moving from one institution to another, both for reasons of shifting institutional politics and for practical considerations like the availability of book binding. Fragments like these demonstrate the importance of considering not just the original time or place of a book's production, but also how it was used—or re-used, or not used—in the centuries that followed. The German inscription and Latin colophon on Fragment 2 (from well over a century after its production) connect the fragment both to the convent at Georgenclause and to land near Eibingen, which in turn were both associated with Rupertsberg; the added mass propers (from a later time still) might suggest an awareness of practices at the Cistercian monasteries just to the east of Georgenclause; and the re-use of the fragment in the *Riesencodex* connects these institutions yet again, even centuries after the production of the liturgical books in question.

In addition, consideration of how long a now-fragmented book was used, and when it was considered not worth using, gives context to what survives in complete form and why. The study of these fragments emphasizes that even in the fifteenth or sixteenth century, the *Riesencodex* was considered worthy of binding or rebinding. Moreover, these fragments tell us that specific value was placed on maintaining in that collection Hildegard's own music in out-of-date musical notation, while these other twelfth-century musical sources used in the binding—from a similar time and place and using a similar musical style—were considered dispensable. The treatment of the fragments in comparison to the codex they bind demonstrates just how important the *Riesencodex* collection still was to the community at Rupertsberg, several hundred years after it was first compiled.

Appendix 1, [[F-5goe](#)] Fragment 1, lower pastedown from binding of the *Riesencodex* (Hochschul- und Landesbibliothek RheinMain, Hs. 2)

Appendix 2, [[F-ymov](#)] Fragment 2, upper pastedown from binding of the *Riesencodex* (Hochschul- und Landesbibliothek RheinMain, Hs. 2)

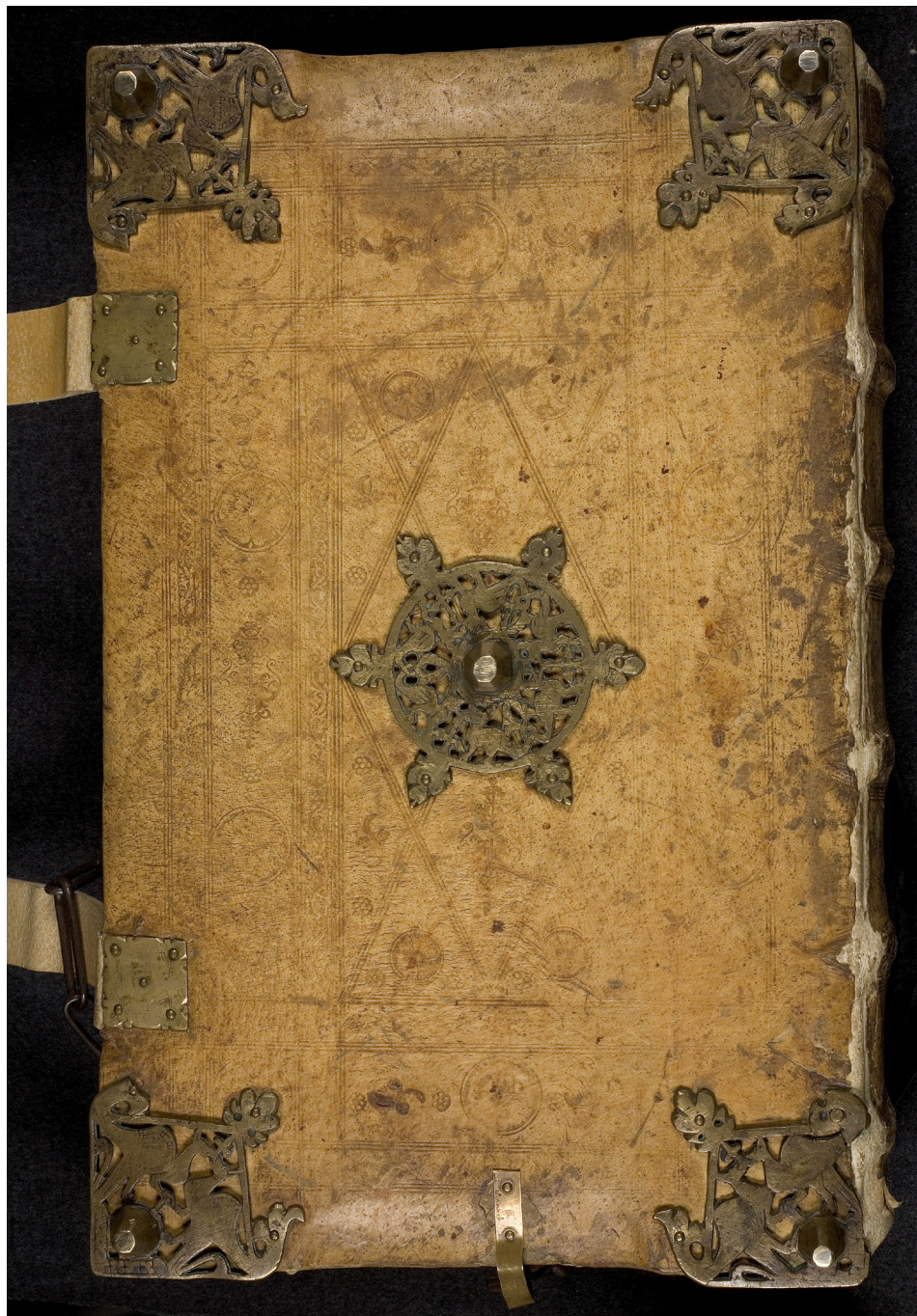
Appendix 3, Front and back covers of the [Riesencodex](#) (Wiesbaden, Hochschul- und Landesbibliothek RheinMain, Hs. 2)

Appendix 1

domine quoniam anima mea completa collatio in vobis et vi faciebant querebant
 a niam meum et querebant mala michi locuti sunt vanitas et dolos tota die medi
 ra bantur et vi. **A**d cor. 1. susceptor meus tuus domi ne inuervu tu v spen
 vi delectare ame maligni uenerabor mae clata dei me. **E**xipe me de iunior mei deo
 me v rabis gentibus me libe ra me. **I**n primo est ebulano mea domi ne inon
 equi adiu uer ut fodiat man meas ripes me os libera me deo re teo ms
 in nari nom tu um fia fous me is. **D**e v. d. me respice in me quare me dereliqui
 ti longrafa lute me a. liba. **E**go gl'am mea quero et quare inuideri me. **E**st m.
Occu uis uias tuas. **T**ibi adre uer ten tur libera me de sanguibus meis
 sa iuris me e. **D**ne liba mea agi es tot meo annuatiabit laude tu am liba
Per a. uer tas facie tu am apue ro tuo domi ne qm tri bu lor uelo
 audi me. **E**xipe me dñe ab hoie malo auro in quo libe ra me. **I**n tbo. **P**acifico loque
 bant michi iunior me i. ra molef ti e. **I**n mi ebi. **V**idisti dñe neli le n
 al. **n**edisse clat a me. **D**ignes inuideri mei ad vllum me cogitabit mala mi
 ebi vbi iniquum mandauerunt aduersum me. **V**idisti. **I**n. e. iactatus someruto
 leuente matris me e. **E**des me ves tu nedis cedat a me. **Q**uo. **n**ia tribulano prima
 a. **E**non e qui adiu uer. **E** rur afflicta est aiam mea. **E**rdemam causu tu
 i de dñe afflictione meam quoniam eretis est i iunior meus. **S**cam me am dñe
 tribulatione inuocavi dominum et exaudivit me in latitudine. **I**udicasti dñe causum
 me meo defensor vire mlet dñe dñe. **P**opule mē qd feci tibi aur quid molef ti
 responde m. **N**unquid reddidit pbono mali quia foderi fouit a nime me. **E**rue
 flamea est a niam me am idem nua. **M**is meam meam hy. **M**ilita rem me
 am. **E**ri peme dñe ab hoie malo auro in quo libe ra me. **E**rdema
Dne ihe fuis quis ex uos arguer me de peccato si uirant dico quare uos neredis mi
 ni qui exeto liba dei audit propta uos si auditis qd exedo non estis. **E**go demoniv
 habeo thonorifico panti meo die domini. **E**go gl'am. **A**braham







Iter Helveticum Numericum

Foraging for Fragments in Swiss Digital Collections

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Abstract: This article describes manuscript fragments of seven different texts preserved in the bindings of early printed volumes. All fragments were studied from digital images available on e-rara, the platform for digitized rare books from Swiss institutions (www.e-rara.ch). This first exploration reveals how the increasing number of digital online images of medieval manuscripts and early printed books presents an opportunity for the identification and study of the fragments in their bindings. Such fragments offer vast opportunities for a better understanding of the transmission and reception of the texts that they contain.

Keywords: binding fragments, Grammatici Latini, Seneca, pseudo-Clement, John Chrysostom

The ever-growing availability of digital book images in freely accessible repositories on the internet has in recent times spectacularly enhanced the possibilities to develop innovative research and to broaden existing insights. Frequently, the descriptions of printed books in online catalogues remain laconic regarding the presence of manuscript waste in their bindings; most entries make no mention of the existence of pastedowns or flyleaves recycled from older manuscripts, or at best summarily acknowledge them (e.g., “Einband: Fragment einer mittelalterlichen Pergament-Handschrift”)¹ without adding details on their physical appearances or contents.

* The research for this article was carried out as part of my postdoctoral fellowship project *Mind Your Words! The Role of Medieval Translations in the History of Concepts*, funded by the Research Foundation – Flanders (12W5722N).

1 Swisscovery Catalog entry for Luzern, Zentral- und Hochschulbibliothek, V.a 1330 (K1) (*Collationes: Das ist, Zusammen Tragungen heilsamer, andächter*

To assess the potential for a more encompassing research project on medieval manuscript waste in early printed books, I have over the last two years systematically surveyed the images available on e-rara, the platform for digitized rare books from Swiss institutions (www.e-rara.ch). My search was limited to books published before 1680, starting from the earliest edition available on the platform (oldest dated book 1469). The end date was determined by the practical observation that by the middle of the seventeenth century, the use of manuscript waste had all but disappeared from the specimens presented on the website.²

Obviously, several monastic centres in Switzerland and South Germany were renowned for the precious old manuscripts that they had preserved. It is likely that some of these manuscripts were not recognized for their value and ended up in the scrap parchment heap in a binder's workshop. Admittedly, the early printed books reproduced in the e-rara.ch repository represent the *current* holdings of many institutional and a few private libraries in Switzerland. Consequently, the books were not necessarily bound in the same territory, nor can the origins of most bindings that preserve the manuscript fragments be determined with certainty.

Keeping these reservations in mind, I will in this article describe several fragments of early manuscripts that my forage through the digitized Swiss early printed book collections has yielded. The fragments are currently held in Swiss collections, but their connection with the country does not necessarily stretch beyond the moment that the printed books arrived at their present locations. In many instances, though, it must be considered very likely that the parent volumes from which the manuscript waste originated have a Swiss pedigree.

The selection of fragments presented here was exclusively guided by my personal liking and preferences. I concentrated on

vnd nützlicher Betrachtungen vnnd Lehren[...], Constance 1602), https://rzs.swisscovery.sls.ch/permalink/41SLSP_RZS/nrc405/alma9914014720105505.

2 The practice was undoubtedly still in use; see, e.g., [F-ttqq] the fragment from an extremely rare manuscript of Al-Farabi's *Didascalia Rhetorice* in the Latin translation by Hermannus Alemannus preserved on the cover of a book printed in Cologne in 1671: Halle, Universitäts- und Landesbibliothek Sachsen-Anhalt, AB 40 18/i, 8.

manuscripts with a textual interest, ignoring liturgical, musical, or iconographic information. Numerous other fragments that my search had returned but that I deemed less connected with my personal interests were circulated on my Twitter channel over the previous years. They give an impression of the breadth of results that a more systematic investigation into these collections will produce. I maintain this information in a database, which currently includes about 150 items taken from the e-rara platform alone.³

In the subsequent treatment, fragments of two secular texts are presented first (since they are less numerous), followed by four works by Church fathers, and ending with fragments from a rare collection of canon law. All fragments are described in detail on fragmentarium.ms. Unfortunately, e-rara does not systematically provide images with a ruler: therefore, adequate information on the fragments' dimensions is mostly lacking from their descriptions. Each entry begins with the title of the work and the Fragmentarium Identifier, followed by the shelfmark as provided on e-rara, and the e-rara identifier (DOI).

1. “Sergius”, *De littera* [F-txqk]

Basel, Universitätsbibliothek, KD XI 21, cover

e-rara: <https://doi.org/10.3931/e-rara-64066>

It is unclear whether the early-fifth-century grammarian Servius, whose works include commentaries on Vergil's *Aeneid* and on some sections from Donatus' *Ars*, should be distinguished from Sergius, who is considered the author of another fragmentarily preserved commentary on Donatus' grammar. *De littera* belongs to the latter work and contains sections on words and on their constituting parts.

The work was edited under the name of Sergius in the fourth volume of Keil's *Grammatici Latini*.⁴ Keil relied on two primary manuscripts for the establishment of his text, one from Bobbio (eighth century, siglum B), the other from Freising (middle of the ninth century, siglum F). The latter is now MS [München, Bayerische](#)

3 P. Beullens, *Medieval manuscript fragments as binding waste*, database published 17 December 2024, <https://dx.doi.org/10.5281/zenodo.14505425>.

4 *Probi Donati Servii qui feruntur De arte grammatica libri* (Grammatici Latini iv), ed. H. Keil, Leipzig 1864, 475–485.

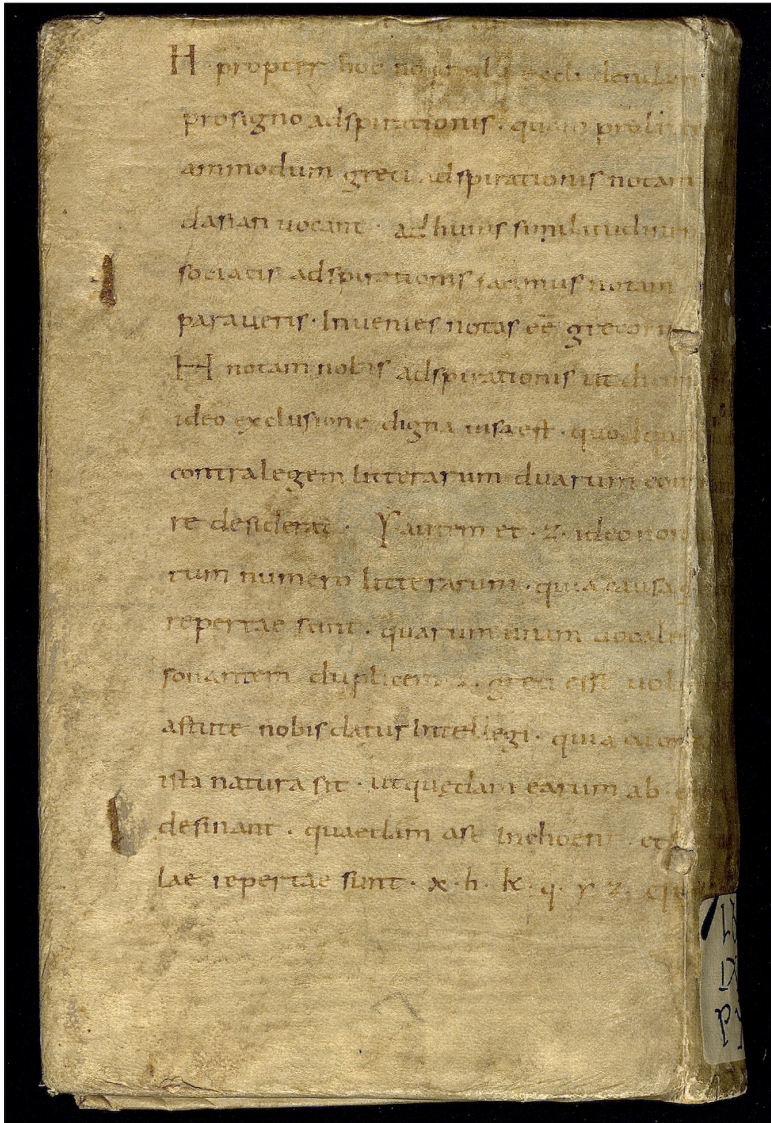


Figure 1: [F-txqk] "Sergius", *De littera*. Basel, Universitätsbibliothek, KD XI 21, front cover

[Staatsbibliothek, Clm 6281](#). When Keil saw the former, it was MS Wien, Österreichische Nationalbibliothek, 16, yet after the first World War, it was returned to Naples, whence it had been removed two centuries earlier. It is currently known as MS Napoli, Biblioteca Nazionale, Lat. 2. Keil claimed without providing further evidence that the older manuscript B preserves the most reliable text, which he assessed against the readings of the slightly younger F. Although he knew of the existence of many more manuscripts that contain the complete text or parts of it, among which he cited seven, mostly from the tenth century (MSS Paris, Bibliothèque nationale de France, lat. [7491](#), [7520](#), [7530](#), and [7559](#); Bern, Burgerbibliothek, 432; [St. Gallen, Stiftsbibliothek, Cod. Sang. 876](#); and the slightly earlier MS [Leiden, Universiteitsbibliotheek, BPL 122](#), from the ninth century), he dismissed their variants as more recent interventions without authority (“inventis recentiorum grammaticorum depravata sunt”).⁵

Since Keil was not particularly generous in providing information about textual variants in the extant manuscripts of Sergius’ treatise, it remains a precarious enterprise to precisely situate any newly discovered witness of the text in its transmission history. Yet there can be no doubt that any contemporary manuscript of Keil’s two primary witnesses deserves a closer examination.

The remains of a bifolium from Sergius’ text was re-used upside down as a cover for a convolute of three editions, all printed in Basel in the second and third decades of the seventeenth century. The volume is known under shelfmark Kd XI 21 in the Universitätsbibliothek of Basel (= siglum U below).⁶

The writing on the bifolium dates from the middle of the ninth century. It displays some characteristics that may place its origin in (North) Italy. The execution of the letters is pleasingly regular and spacious without the use of the ampersand or abbreviations, not even in word endings. Ligatures are rare. Greek characters are written as majuscules. Vertical strokes are straight and mostly on the writing line, except for the *s* with a minimal descender and the *f* descending far below the line. The scribe consistently uses the

5 *Probi Donati Servii*, ed. Keil, XLVIII–XLIX.

6 Only the front cover is accessible in e-rara. Benedicta Erny was kind enough to send me scans of the spine and the rear cover.

uncial *a*, while the spelling of the diphthong *æ* varies between its full form and an *e* with or without cedilla.

The text on the two partially readable pages of the bifolium covers the sections 477,20 *h propter hoc...* – 478,5 *quae ... inchoant*, and 483,15 *[syllaba pars...* – 483,29 *duobus legitimis ac[]*. The legibility of the text is made difficult by the fact that the bifolium was used upside down and trimmed to match the dimensions required for the binding. As a result, the text of the former section fills the front cover of the book, runs over the spine and ends on the right of the rear cover, while the left part of the text from the latter passage can be seen on the left side of the rear cover. A modern label on the top of the spine indicates the book's current shelfmark and at the same time masks some of the text.

As far as textual variants are concerned, the fragment almost always sides with F against B, although it is difficult to assess which variants are connective errors for the specific branch represented by either manuscript or just individual mistakes.

477,23: nos FU : *om.* B

477,29: repertae sunt FU : repertae sint B

478,4: repertae sunt FU : repertae sint B

483,24: dictionibus FU : sermonibus B

483,29: legitimis duobus accentibus F : legitimis duobus iure

B : duobus legitimis ac[] U

On the other hand, the scribe of U correctly spells the Greek words with B (*dasian* and *psilen* 477,23 against *dasen* and *silen* in F) and sides with the same manuscript in preserving the formula *ut diximus* (477,25), which is missing from F. Finally, U transmits a few variants of its own that might deserve to be critically considered.

477,23: quia U : quod B : pro F

478,1: consonantem duplicem U : duplicem consonantem F :
duplicem B

In conclusion, fragment U is a precious witness of the early circulation of this grammatical treatise. As for its value for the establishment of the text, the limited extent of the bifolium, of which only the outward side is readable, and the scarcity of information on readings of other manuscripts than B or F in Keil's edition provide

us with an unsatisfactory picture of the hypothetical position of the lost parent volume of U.

2. Seneca, *Epistulae morales ad Lucilium* 97 [F-g2jr]

Zürich, ETH-Bibliothek, Rar 7949, cover

e-rara: <https://doi.org/10.3931/e-rara-30977>

Seneca's *Letters* were very popular reading matter during the Middle Ages and many manuscripts circulated in the period. Still, the early and abundant availability of manuscript witnesses is only partial and limited to letters 1–88, since the remaining letters 89–124 were transmitted along a different path and in considerably less preserved witnesses. Only one complete early manuscript of those



Figure 2: [F-g2jr] Seneca, *Epistulae morales ad Lucilium* 97. Zürich, ETH-Bibliothek, Rar 7949, back cover

letters is extant: MS [Bamberg, Staatsbibliothek, Msc.Class.46](#) (B), from the ninth century. In his study of the medieval textual history of Seneca's letters, L.D. Reynolds was able to reconstruct two other independent branches of the tradition on the basis of fragmentarily preserved manuscripts and some of their apographs whose scribes had had access to the incomplete manuscripts before they were mutilated.⁷ The first of these manuscripts is MS [Brescia, Biblioteca Queriniana, B.II.6](#) (Q) from the tenth century, which contains all letters except for the last three. The text of those lost letters in Q can be retrieved from early copies of the manuscript. In addition, by using apographs of two lost siblings of Q, Reynolds was able to hypothetically reconstruct the ancestor of Q and its relatives, which he labels as ϕ . Finally, MS [Paris, Bibliothèque nationale de France, lat. 8540, fol. 31–32](#) (p) from the tenth century contains parts of letters 121 and 122 in a different tradition. Reynolds concluded that p has a considerable number of descendants that preserve the complete set of letters 89–124. He chose its two oldest copies from the twelfth century, MSS Wien, Österreichische Nationalbibliothek, Cod. 123 (W) and [Firenze, Biblioteca Medicea Laurenziana, Plut. 45.24](#) (X) to reconstruct their lost ancestor ψ .⁸

In view of this particular transmission history, the discovery of a leaf from the twelfth century that contains part of letter 97 deserves special attention. It was glued over the cover of the volume Rar 7949 of the ETH-Bibliothek in Zürich (Z), the edition of a treatise in German on the art of fortification printed in Montbéliard (Mümpelgardt) by Jacob (Jacques) Foillet in 1612.⁹ Whether the cover was manufactured in the printer's shop or ordered by a buyer of the book is difficult to establish. The front paper pastedown, which is glued over the folds of the parchment cover leaf, bears a handwritten note

7 L.D. Reynolds, *The Medieval Tradition of Seneca's Letters*, Oxford 1965, 35–53.

8 "There are, as far as I know, only three twelfth-century ψ manuscripts; there are a number of later manuscripts, but the ψ text was always comparatively rare. My main criterion in selecting WX as the best witnesses of ψ was one of date. (...) WX both belong to the late twelfth century." Reynolds, *The Medieval Tradition*, 42. The third twelfth-century witness is [Montpellier, Bibliothèque Universitaire Historique de Médecine, H 445](#).

9 Martin Bosshard kindly sent me pictures of the volume's spine, which are missing from [e-rara.ch](#).

dated to the year 1636. The implication must be that the cover with the parchment leaf was produced in the first decades after the book was printed.

The leaf contains a passage from 97,7 (*admissum est...* 403,21 Reynolds) to 97,15 (*...metus non posset* 405,16 Reynolds). The text is written in two columns of approximately 32 lines. The leaf was tilted and glued sideways over the covers and the spine. On the spine, part of the parchment was lost, some sections are concealed by a modern shelfmark label. The remaining surface of the leaf suggests that the original manuscript must have been generously executed with wide margins, which apparently were not used for notetaking.

A careful comparison with Reynolds' critical edition of letter 97 showed many variants that could not be matched with his apparatus.¹⁰ I could only attribute two variants of Z to one of the branches of the tradition as reported in Reynolds' apparatus:

97,8 (404,3 Reynolds): sunt ista ψZ : ista BQ

97,15 (405,16 Reynolds): posset ψZ : posse BQ

Assuming the possibility that space constraints prevented the editor from reporting variants that he considered irrelevant for the establishment of the critical text, I compared the preserved passage in Z with one of the representatives of the ψ branch used by Reynolds, X, which is conveniently accessible online. The comparison showed that numerous variants of Z are confirmed by the readings of X as probable mistakes of the lost archetype of the branch ψ:

97,8 (404,2 Reynolds): nudandarum meretricum : nudandarum
more (ss. Z) meretricum ZX

97,10 (404,16 Reynolds): praeceps : praecipites ZX

97,10 (404,18 Reynolds): deerrantem : errantem ZX

97,11 (404,20 Reynolds): aegro medicus : medicus aegro ZX

97,11 (404,23 Reynolds): nec ante : negantes Z : negante X

97,12 (404,26 Reynolds): negligi : negligi ZX

97,14 (405,12 Reynolds): et expavescere et securitati : ac expavescere et securitatis (-s in corr. X?) ZX

97,14 (405,12 Reynolds): ego : ergo ZX

¹⁰ L. Annaei Senecae *Ad Lucilium epistulae morales*, vol. 2, Libri XIV–XX, ed. L.D. Reynolds, Oxford 1965, 403–405.

97,¹⁴ (405,¹³ Reynolds): nequitiam liberem : nequitiae me non liberem ZX

From these observations, it is safe to conclude that Z is another very fragmentary witness for the twelfth-century circulation of Seneca's letters 89–124 in the ψ branch. Its parent manuscript was closely related to the text as preserved in X. Although the ψ tradition is “exceedingly and demonstrably corrupt”,¹¹ the identification of the text in Z significantly adds to our knowledge of the transmission of Seneca's letters in the medieval period.

As for the provenance of the leaf, there are few clues to follow up. The host volume was printed in Montbéliard in 1612 by Jacques Foillet, who happened to also run a binder's workshop.¹² It is a likely guess that he re-used old parchment leaves for some of his bindings. Evidence for that assumption comes from the inventory drawn up after his death in 1619, where are listed: “Deux livres pesantz, en environ, de parchemin escrit, servant pour la couverture.”¹³ Whether the parent volume of our Seneca once belonged to that supply cannot be established with certainty, but it looks like a distinct possibility. Considering the numerous locations where Foillet exercised his craft, the probable passage of the Seneca volume through his workshop cannot bring us closer to determining its original provenance.

3. (Pseudo-)Clemens, *Recognitiones*, in the Latin translation of Rufinus [[F-lwdo](#)]

Genève, Bibliothèque de Genève, BGE Ctb 498

BGE Bc 3336, cover

e-rara: <https://doi.org/10.3931/e-rara-72188>

While the Greek original of the pseudo-Clementine *Recognitiones* was almost completely lost, its Latin translation produced by Rufinus early in the fifth century enjoyed a wide circulation. The

¹¹ Reynolds, *The Medieval Tradition*, 43.

¹² Leon Nardin, *Jacques Foillet. Imprimeur, libraire & papetier (1554–1619). Ses pérégrinations à Lyon, Genève, Constance, Bâle, Courcelles-les-Montbéliard, Besançon & Montbéliard d'après des documents inédits*, Paris 1906, 115–117.

¹³ Nardin, *Jacques Foillet*, 242.

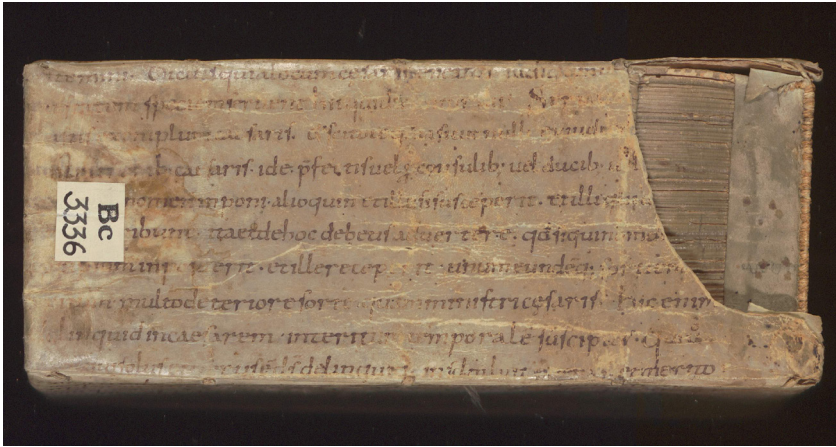


Figure 3: [F-lwdo] (Pseudo-)Clemens, *Recognitiones* (trad. Rufinus).
Genève, Bibliothèque de Genève, BGE Ctb 498 BGE Bc 3336, cover of spine

popularity of the text is demonstrated by the more than one hundred manuscripts known to the editors of the critical edition. About a dozen of them date from the ninth century or earlier, a few are as old as the sixth or seventh centuries.¹⁴

In their extensive preface, which relies on scholarly work performed for over a century by numerous researchers, the editors succeeded in classifying the extant manuscripts, ranging in time over nearly a millennium and over one hundred in number, into various branches. The resulting groups of manuscripts are labelled according to the geographical regions where their witnesses predominantly originated. As can be expected with such a popular and widely disseminated text, the different branches influenced each other early in the transmission history, resulting in contaminated text versions.

The single ninth-century leaf of this text on the cover of the printed book, apparently with the double shelfmark BGE Ctb 498 BGE Bc 3336 from the Bibliothèque de Genève will not decisively alter our understanding of the text's transmission. Yet it is a valuable witness for the work's early circulation, and additionally for

14 *Die Pseudoklementinen. Vol. II, Rekognitionen in Rufins Übersetzung*, 2nd edition, ed. B. Rehm (†) and G. Strecker, Berlin 1965.

the decline in its appreciation; ironically, the leaf is preserved on the cover of a copy of Jean Calvin's *Institutio christianae religionis*, printed in Geneva in 1618 on the presses of Jacobus Stoer.

The scribe uses a clear Carolingian minuscule, systematically beginning sentences with a slightly larger uncial letter. Abbreviations are limited to the expected range, including nomina sacra and the use of the ampersand. The diphthong *æ* is written in full or as *e* with or without cedilla. The only striking ligature combines the high *s* with the following *t*.

The preserved passage on the leaf comes from book v (18,8 *mundum omnia...* – 21,1 *...vos aliorum*; 175,5–176,16 ed. Rehm-Strecker). Some of its readings clearly link the leaf with the so-called southern French branch of the manuscript tradition (Π).

175,5: mundo] mundum Π

175,11: consules + vel Π

175,16: rationibus] ratione ΠΦ¹⁵

175,18: potestatum] potestatem Π

The limited available text contains a potential hint that, despite its venerable age, the parent volume may already have been the subject of scholarly work or ‘contamination’. At 176,12, the editors print the word *hibin*. However, the spelling *ibin* is also found, and the two variants are present in representative manuscripts of every branch. In the Geneva fragment, the body of the text has the spelling *ibin*, yet the scribe or a corrector added the letter *h* above the line (as he did with the word *yrum* in the preceding line). This admittedly rather insignificant element might be used in evidence for the hypothesis that the parent volume had been subjected to some form of editorial revision during or after the copying process by comparing its text to that of another manuscript belonging to a branch different from its own model.

15 With the Greek letter Φ, the editors indicate the north French manuscript branch.

4. Johannes Chrysostomus, *Homiliae in epistulam Ad Hebraeos*, in the Latin translation by Mutianus Scholasticus [F-5waj]

Zürich, Zentralbibliothek Rp 6o8, cover

e-rara: <https://doi.org/10.3931/e-rara-61193>

The sixth-century Latin translation of John Chrysostom's 34 sermons on Paul's epistle to the Hebrews by Mutianus Scholasticus had an early and abundant circulation. Albert Siegmund cites eight manuscripts from the Carolingian period and one palimpsest from the late seventh century (the lower script in MS London, British Library, Add. 43460).¹⁶ Recently, a more complete list, which contains a supplementary ninth-century manuscript, was published by Camille Gerzaguët.¹⁷ To that overview, I can now add a fragment from the ninth century preserved on the cover of the printed book from the Zentralbibliothek in Zürich. The host volume is a collection of humanist letters written and received by Christophorus Longolius. It was published by Gosouinus Cholinus in Cologne in 1605. According to the online catalogue of the Zentrabibliothek, the book belonged to the library of Rheinau monastery. The paper flyleaf bears the ex libris of Johann Kaspar Peijer, certainly a member of the influential Peyer im Hof family of Schaffhausen in Switzerland (Johann Kaspar proudly added his city and country to his name). However the history of the book went, the binding was in all likelihood produced in Switzerland, which forms a firm indication for the manuscript leaf's provenance.

A critical edition of the Latin translation has not yet been published, although its text was printed in volume 63 of the *Patrologia*

¹⁶ A. Siegmund, *Die Überlieferung der griechischen christlichen Literatur in der lateinischen Kirche bis zum zwölften Jahrhundert* (Abhandlungen der Bayerischen Benediktiner-Akademie 5), München-Pasing 1949, 98. The palimpsest was first brought to the attention of the scholarly world by E.A. Lowe, "An Uncial (Palimpsest) Manuscript of Mutianus in the Collection of A. Chester Beatty", *Journal of Theological Studies* 29 (1927), 29–33.

¹⁷ C. Gerzaguët, "Du Sud de l'Italie au Nord de l'Angleterre : le parcours du Chrysostome traduit par Mutien à Vivarium (VIe–IXe siècle)", in *La réception des Pères grecs et orientaux en Italie au Moyen Âge (Ve–XVe siècle)*, ed. B. Caubouret, A. Peters-Custot, C. Rouxpetel, Paris 2020, 85–106, at 98.

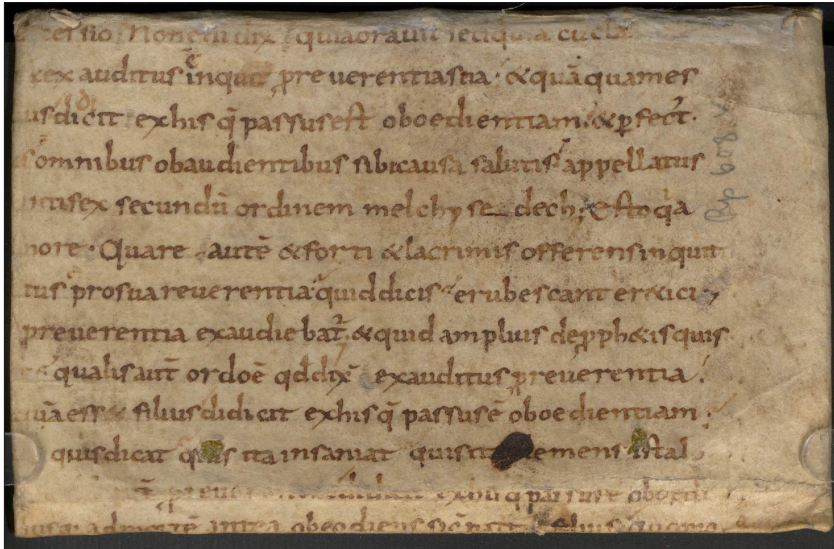


Figure 4: [F-5waj] Johannes Chrysostomus, *Homiliae in epistulam Ad Hebraeos* (trad. Mutianus Scholasticus). Zürich, Zentralbibliothek, Rp 608, back cover

Graeca (cols. 237–456). The editors thus acknowledged its importance for the establishment of the Greek text, since the translation (and even its earliest preserved witnesses) predate the oldest Greek manuscripts by several centuries.

The Carolingian minuscule used by the scribe of this fragment displays the typically clubbed ascenders. Ligatures are limited to the combination *st*, the standard selection of abbreviations can be found including ampersand and *nomina sacra*, and the diphthongs *æ* and *œ* are written in full or as simple *e*'s. The text passage preserved on the fragment is an extract from the eighth sermon (PG 63, 291–292, 30–52). As can be expected, it shows several divergences with the printed text of the *Patrologia Graeca*. As long as a critical edition remains unavailable, it is impossible to assess the value of these variants for the textual transmission of the text.

5. Hieronymus, *Epistula 28 Ad Marcellam de diapsalmate* [E-j8rm]

Basel, Universitätsbibliothek FB* VI 43, cover

e-rara: <https://doi.org/10.3931/e-rara-5147>

Jerome's *Letters* had an intricate transmission: most letters were copied and spread individually, and they did not reach a standard order in the form of a corpus before the later Middle Ages. As a result, Hilberg in his landmark edition listed the relevant manuscripts for each letter at the top of the apparatus on the first page of its text. The editor published 154 letters in the three volumes 54 to 56 of the *Corpus Scriptorum Ecclesiasticorum Latinorum* between 1910 and 1918, but his death in 1919 prevented him from also explaining the principles that governed his editorial choices in a planned fourth volume.

Still Hilberg's edition provides sufficient information to formulate at least a provisional assessment of the interest of the ninth-century leaf from Jerome's 28th letter glued onto the cover of the book from the Universitätsbibliothek of Basel, printed by Oporinus in that same city (siglum: Bas). About half of the letter can be read on the preserved surface (227,12 [i]cae uarietatis... - 229,9 ...dicitur pacificus, ed. Hilberg).¹⁸

The top of the leaf was cut off and pasted vertically on the right side of the front cover. The text on the second leaf of the bifolium was trimmed away to fit the size of the cover of the host volume, leaving only about five rubbed and faded characters visible at the beginning of each line. It was therefore impossible to determine which passage the complete second leaf would originally have contained.

The basis for the text constitution of this letter seems firmly established: Hilberg listed five manuscripts that can be assigned to the ninth century or earlier. Little could therefore be expected to be gained for the understanding of the transmission from this supplementary ninth-century witness, all the more so because four more

¹⁸ S. Eusebii Hieronymi Opera (Sect. I Pars I). Epistularum Pars I. Epistolae I–LXX (CSEL 54), ed. I. Hilberg, Vienna 1910, 227–232.

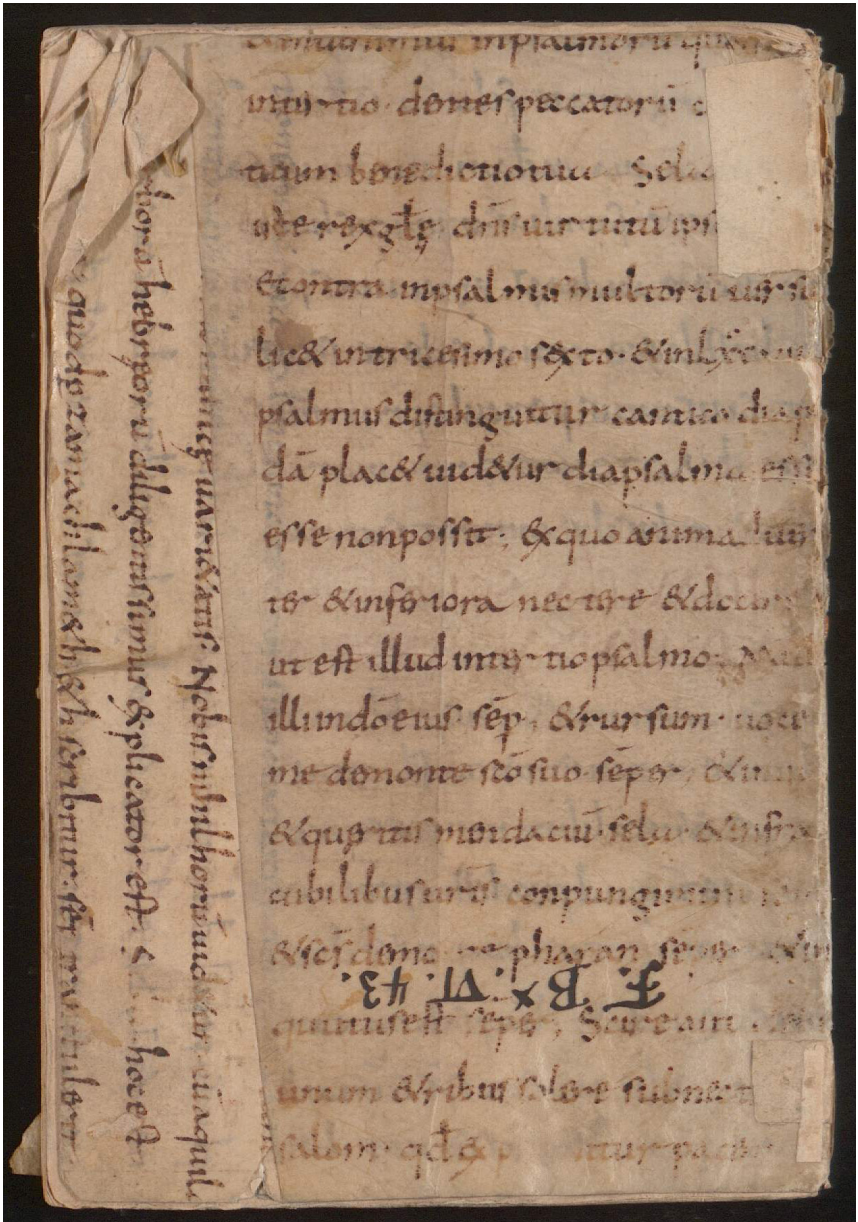


Figure 5: [F-j8rm] Hieronymus, *Epistula 28 Ad Marcellam de diapsalmate*. Basel, Universitätsbibliothek, FB* VI 43, front cover

manuscripts from the same period were recorded in the *Bibliotheca Hieronymiana manuscripta*.¹⁹

Comparing the variants on the leaf (Bas) with the apparatus in Hilberg's edition, I noticed that several of them connect its tradition to that of the additions and corrections of the second hand in MS [Berlin, Staatsbibliothek, Phillipps 1675](#) (B) from the twelfth century. When I checked the online images of the manuscript (*Letter 28* is on fol. 58v–59v), other common variants not reported in Hilberg's apparatus appeared (on the meaning of the siglum G, see below).

228,3: ex samech] per zamech B² : per zamach Bas G
 228,9: semper]diapsalma Bas, *add.* B² : diapsalma hoc est semper G
 228,10: inueniatur] inuenitur B² Bas G
 228,13: uidetur] placet G, *add.* B² : placet uidetur Bas
 228,17: tertio] psalmo Bas G *add.* B²
 229,5: semper] et in abacuch deus ab austro ueniet et sanctus
 de monte Pharan semper et infra iuramenta tribubus quae
 locutus es semper B² : *in textu* Bas G

The variants and supplements, in particular the long additional sentence, demonstrate that a reader of B used a manuscript for comparison and correction that is closely connected with the tradition to which Bas belongs. In that fragment, the variants and additions inserted between the lines and in the margins of B belong to the body of the text itself. Consequently, the corrections in B represent remains of a textual tradition that had its origin in the ninth century or earlier. According to Hilberg's apparatus, the editor only gained access to the readings of this early tradition through the second hand in manuscript B, which itself dates from the twelfth century.

In an attempt to reach an adequate assessment of the situation, I decided to compare the other ninth-century manuscripts of the letter that were unknown to Hilberg. MSS [Paris, Bibliothèque nationale de France, lat. 1869](#), and [Stuttgart, Württembergische Landesbibliothek, HB VII 12](#), have a text in the same tradition as the one printed by Hilberg. I was not able to consult images of MS Zürich, Zentralbibliothek, C 30. Finally, MS [St. Gallen, Stiftsbibliothek, Cod.](#)

19 Bernard Lambert, *Bibliotheca Hieronymiana manuscripta. La tradition manuscrite des œuvres de Saint Jérôme*, tome 1B, Steenbrugge 1969, 487.

[Sang. 317](#) (siglum G; *Letter 28* on pp. 5–7) provided the evidence to confirm my hypothesis about the origin of the reading of B². All readings shared between Bas and B² are confirmed or at least explained by the variants in the text of G (see the list above; the readings of 228,9 and 10 were added in G at the bottom of the page during the correction stage after the scribe had omitted a complete sentence through inadvertence). What is more, Bas shares several variants with G that were either not seen or not reproduced by the scribe of B².

- 228,4: inueniamus] inuenimus Bas G
- 228,10: inueniatur] inuenitur sicut Bas G
- 228,16: conectere aut certe] nectere et Bas G
- 229,3: semper et alibi] sela et infra Bas G
- 229,8: pacificus dicitur] dicitur pacificus Bas G

As a consequence, the discovery of fragment Bas and its location within the textual transmission has revealed an important branch of the tradition of *Letter 28* that goes at least back to the ninth century, if not further. Since it was only known to the editor Hilberg in the form of corrections in a second hand of the relatively late manuscript B, he seems to have underestimated their value (although he is to be commended for at least reporting the variants in his apparatus, which allowed me to establish their connection with Bas). In addition, I could demonstrate that the readings of this early branch of the tradition are preserved in G, which contains the complete text of *Letter 28*, as opposed to the limited fragment Bas or the selection of variants transmitted by B². The omitted sentence, which clearly results from homoeoteleuton, has every chance to be authentic and should probably be included in the critical text of Jerome's letter.

Unfortunately, G contains only *Letters 30* and *28*. It will therefore be of limited assistance to the editor of a future and more reliable edition of Jerome's corpus of *Epistulae*. However, the study of fragment Bas and its links with G and B² have shown that the three witnesses provide different ways of access to the same tradition. At that point, the composition and the history of B become relevant. The volume results from the scholarly activities of the Carthusian

prior Guiges du Châtel early in the twelfth century.²⁰ Guiges is known to have identified as inauthentic several letters ascribed to Jerome. It is quite conceivable that his critical attitude also led him to compare different copies of the same texts. Since B contains several dozens of Hieronymian letters, and the whole manuscript seems to preserve additions and corrections similar to those in *Letter 28*, the future editor of these texts should seriously consider their content and origin as variants that potentially represent a tradition from the ninth century or earlier.

6. Pelagius, *Expositiones* on the Pauline epistles [F-c6gr]

Genève, Bibliothèque de Genève, BGE Cth 2281 BGE Bc 432, cover e-rara: <https://doi.org/10.3931/e-rara-6152>

Pelagius was an extremely controversial figure in early Christianity, who happened to have his own heresy named after him. That probably explains why his *Expositiones XIII epistularum Pauli* had such an intricate and irregular transmission, which was in great detail unfolded in Souter's admirable multi-volume study and critical edition from nearly a century ago. Souter concluded that the pure form of the commentary is preserved in MS [Karlsruhe, Badische Landesbibliothek, Cod. Aug. perg. 119](#) (A), written in Reichenau in the ninth century. He claimed that its archetype was written in an Italian half-uncial from the fifth or sixth century.²¹

Most other manuscripts transmit a text in slightly longer forms, probably aimed in late Antiquity at completing the comments on verses from the Pauline epistle that were not dealt with in Pelagius' initial text. Those versions were influenced by the Pseudo-Jerome commentary or based on editorial work done by Cassiodorus and his team at Vivarium. Souter's main witness for that second branch is MS Oxford, Balliol College, 157 (B) in an Italian hand from the

20 H.B. Pabel, *Herculean Labours. Erasmus and the Editing of St. Jerome's Letters in the Renaissance*, Leiden 2008, 151–152.

21 A. Souter, *Pelagius's Expositions of Thirteen Epistles of St Paul*, v. 1, Cambridge 1922, 202.

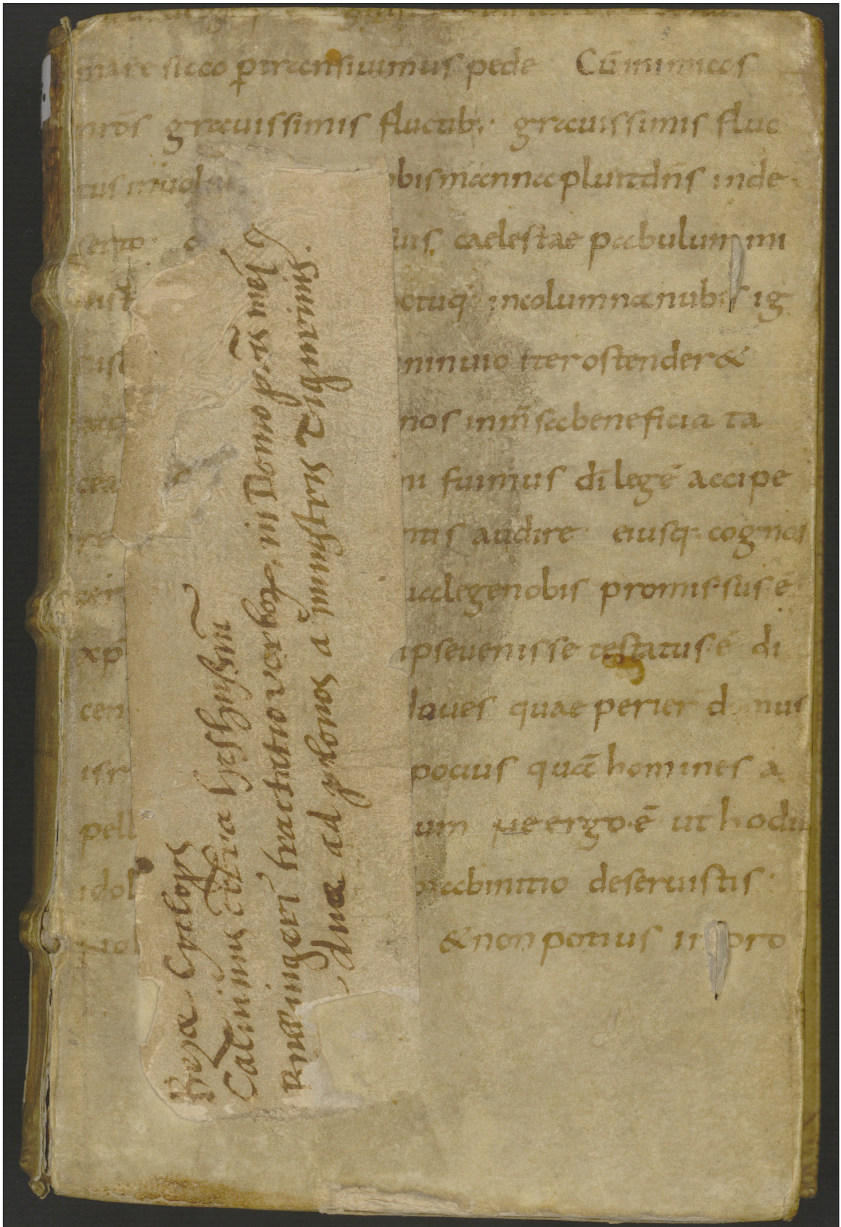


Figure 6: [F-c6gr] Pelagius, *Expositiones XIII Epistularum Pauli*. Genève, Bibliothèque de Genève, BGE Cth 2281 BGE Bc 432, front cover

fifteenth century, which was likely produced using an early model in insular script, possibly from Bobbio.²²

Other important witnesses of *Pelagius' Expositiones* are MSS [Paris, Bibliothèque nationale de France, lat. 653](#) (V), a combination of various text forms from the end of the eighth century, and [Città del Vaticano, Bibliotheca Apostolica Vaticana, Vat. lat. 10800](#) (R), a bifolium from the seventh century that was once used as a flyleaf.

Consequently, the identification of two leaves of an early manuscript of *Pelagius' Expositiones* used on the cover of a convolute of four Swiss printed editions all dated to 1561 brings a serious challenge to situate the lost manuscript in time and in the textual tradition. The fragments are preserved covering a volume with shelfmark BGE Cth 2281 (1) BGE Bc 432 (1) in the Bibliothèque de Genève.²³

As far as the chronological evaluation is concerned, the writing style is a very crisply executed early Carolingian minuscule. The occasional use of an uncial *N* suggests that the scribe still had some recollection of half-uncial left in his quill, as does the variance between the uncial *a* and the alternative in the form of the double *cc*. The diphthong *ae* is always written in full, albeit with some hint of hypercorrection, as the spelling of the adverb *caelestae* shows. All ascenders and descenders are straight and ligatures are rare except in the combination *st*. Nomina sacra are shortened, ampersand and other abbreviations are used: *ē* for *est*, a bar over a vowel for *n* or *m*, *ṗ* for *prae-*, and *-qʒ* and *-ibʒ* for *-que* and *-ibus*.

The tension between the presence of uncial forms and the consistent use of *æ*, though with a suggestion of fading awareness of its proper meaning, and on the other hand the already advanced use of abbreviated forms points to a period of origin in a time of transition between the uncial and Carolingian writing systems in the later part of the eighth century.

The early date of the fragment does not necessarily require that the manuscript contained the pure text of the *Expositiones*, for the circulation of manuscript forms that had undergone the influence of the Pseudo-Jerome commentary or the Cassiodorus revision had

²² Souter, *Pelagius's Expositions*, v. 1, 216.

²³ Only the front cover is accessible in e-rara. Alexis Rivier and Jean-Luc Rouiller kindly sent me more pictures of both covers and the spine of the volume.

already started several centuries earlier. Moreover, most characteristics of the interventions were situated on a more structural level. Some groups of manuscripts display significant modifications of Paul's text from the original Latin quoted by Pelagius into the later commonly used text of the Vulgate. The same or others are distinguished on the basis of the introduction of added commentary sections, rather than in the presence of particular variant readings. Since only two small portions of the text from the manuscript have survived and no Biblical text is quoted in them, only tentative conclusions can be drawn.

The text on the rear cover is the end of the *Argumentum omnium epistularum*, an overarching introduction to the commentaries on each of the thirteen Pauline epistles (4,28 *inrepat...* – 5,11 *...epistulis* ed. Souter), which most manuscripts transmit. It is missing from B due to the loss of its first leaf, but there is an indirect access to its variants through the slightly younger copy MS Oxford, Merton College, 26 (O). The other preserved leaf contains a passage close to the opening of the prologue on the epistle to the Romans (6,6 *mare...* – 6,19 *...potius in pro[]* ed. Souter).²⁴

A few variants may shed light on the position of the parent volume in the textual transmission. In the following overview, the reading printed in Souter's edition, which mostly follows A, is always cited before the bracket.

The most significant variant in the preserved passage from the *Argumentum* seems to be the transposition of the paragraph 5,11–14 summarizing the epistle to the Thessalonians after its counterpart on the Colossians, just as in O (and probably also in B before the loss of its first leaf). An equally relevant variant shared with O is 5,5 *quod] hoc tantum quod* OH₂Alb. The variant is also found in H₂, which is the tradition influenced by Pseudo-Jerome in its longer form, and in Alb, which refers to a group of twelfth- and thirteenth-century British Bible manuscripts sharing a version of the text's prologue that circulated at Saint Albans in the later Middle Ages.²⁵ On the same line, the fragment shares another variant with Alb but not with

²⁴ A. Souter, *Pelagius's Expositions of Thirteen Epistles of St Paul*. v. 2, Cambridge 1926.

²⁵ Souter, *Pelagius's Expositions*, v. 1, 344.

O (*iam*] *namque* O : *uero iam* Alb), although a few lines further it agrees with A and O against Alb (5,9 *qui*] *quia* Alb). The possibility of a direct connection with the manuscripts of the Alb group, which was already unlikely on geographical and chronological grounds, seems thus refuted, especially since the fragment contains the individual error *nihil hominus* for the correct *nihilo minus*. Yet it cannot be excluded that the parent volume of our fragment was related to a distant ancestor that contained the version of the prologue as transmitted in the Alb tradition.

The second passage, from the prologue on the Epistle to the Romans, provides very few variants that allow for a classification within the manuscript tradition, especially since part of the leaf is covered by an early modern label pasted over the text. The spelling *perierund* (6,15) for *perierunt* is remarkable but insignificant for the transmission. More weight must possibly be given to the variant *grauissimis fluctibus*, which oddly is copied twice, in the sentence that Souter prints as *cum inimicos nostros grauissimi fluctus inuoluerent*. The ablative makes the sentences incomprehensible, yet it has to be stressed that, on the fragment, the verb remains hidden under the label mentioned above. In addition, the word *dominus* is missing from the next sentence on the same line. One might hypothesize that it hides with the preceding verb (in its singular form *inuolueret*) under the label, which would start the intervention of the Lord one sentence earlier than in the text as transmitted in other witnesses, and conveniently explain the doubly attested ablative case of *grauissimis fluctibus*. Only the test of removing the obstructing label can decide that issue with certainty.

The host volume's provenance, to which Jean-Luc Rouiller of the Bibliothèque de Genève kindly drew my attention, may shed some light on the origin of the venerably old fragment. An early catalogue documents that the book already in 1572 belonged to the Bibliothèque de l'Académie, to which the Bibliothèque de Genève is a successor.²⁶

26 A. Ganoczy, *La Bibliothèque de l'Académie de Calvin. Le catalogue de 1572 et ses enseignements*, Genève 1969, 210–211, no. 148. The assessment of the leaf on the cover as “feuille de ms du Xlle siècle” is definitely incorrect! I owe this reference to Jean-Luc Rouiller.

On the title page of the third component of the convolute, a handwritten dedication by the author Heinrich Bullinger to Pietro Vermigli, the Augustinian canon from Florence, can be read. It proves that at least that book belonged to his collection. When Vermigli died in 1562 in Zürich, Theodore of Beza had his books bought to be merged into the library of the Geneva Academy.²⁷ Whether Vermigli was responsible for the gathering of the four editions into one volume, or the binding was ordered for the library of the Academy, there can be no doubt that it was produced in Switzerland and that the manuscript waste used for it was lying around in a Swiss binder's workshop. The early availability of Pelagius' work in that country is no surprise: an interpolated form of the text similar to H2 is preserved in MS [St. Gallen, Stiftsbibliothek, Cod. Sang. 73](#) (G), from the first part of the ninth century.²⁸ Intriguingly, the part of the "Argumentum" and of the prologue on the epistle to the Romans that is preserved in our fragment is missing from G, so no textual agreements can be established.²⁹ On the other hand, the preserved text on the fragment is so limited that it is impossible to assess the link of its lost parent volume to the text of H2 with any degree of certainty. However, it is an attractive hypothesis that G and the parent volume of our fragments shared a common (insular, according to Souter) model.

7. *Collectio Canonum XII partium* [[F-4oc8](#), [F-ziev](#)]

Zürich, Zentralbibliothek 7.365 and 5.379, covers

e-rara: doi.org/10.3931/e-rara-842, doi.org/10.3931/e-rara-754, doi.org/10.3931/e-rara-756

Canon law circulated in numerous collections and various forms throughout the Middle Ages. The field is so enormous that research has only started to record the manuscript evidence and to assess

27 Incidentally, Vermigli himself published a commentary on Paul's letter to the Romans in 1558 in Basel "apud Petrum Pernam".

28 Souter, *Pelagius's Expositions*, v. 1, 232–245.

29 The handwriting of the fragment in long lines is definitely different from that of G in two columns – therefore, the fragment cannot possibly have belonged to G.

the potential influence of each collection. Important surveys were published by Lotte Kéry and Linda Fowler-Magerl.³⁰

Thanks to their efforts, it has become a feasible task to identify the texts of canon law on the bifolia found as covers of two printed volumes of the Zentralbibliothek in Zürich (shelfmarks 7.365 and 5.379).³¹ The leaves are written in a late Carolingian minuscule of the eleventh century, with chapter titles in red ink by the same hand. Chapter numbers in red and references to the sources of the sections were written in the margins, which unfortunately were for the most part trimmed off.

On the basis of the titles, incipits and explicits of the chapters, and their order, the text on the leaves belonged to a manuscript of the so-called *Collectio XII partium* in its first version.³² The production of the collection was connected to Freising and the circle of Burchard of Worms. Its date of production in the early eleventh century situates our leaves chronologically close to the actual composition of the *Collectio*. Only two complete manuscripts of the collection in this version are extant: MSS [Troyes, Médiathèque Jacques-Chirac, 246](#) (first half of the eleventh century) and Saint-Claude, Médiathèque Le Dôme, 17 (twelfth century).³³ Two fragments likely complete the list of witnesses of the *Collectio XII partium*, although it remains a debated issue among scholars whether they can be considered genuine representatives of the tradition due to their limited extent.³⁴

30 L. Kéry, *Canonical Collections of the Early Middle Ages (ca. 400–1140)*. A Bibliographical Guide to the Manuscripts and Literature, Washington, D.C. 1999; L. Fowler-Magerl, *Clavis Canonum. Selected Canon Law Collections Before 1140. Access with data processing*, Hannover 2005.

31 The images of Zürich, Zentralbibliothek 7.365 on e-rara do not include the second book of the convolute volume. Sandra Weidmann kindly sent me pictures of its title page and rear cover.

32 Fowler-Magerl, *Clavis canonum*, 91–93. Updated information online: [https://data.mgh.de/databases/clavis/wiki/index.php/Collectio_XII_partium_\(first_version\)](https://data.mgh.de/databases/clavis/wiki/index.php/Collectio_XII_partium_(first_version)). The collection is labelled TX.

33 Kéry, *Canonical Collections*, 155–157. She labels the collection as 2CDP.

34 P. Brommer, “Ein Fund zur ‘Collectio duodecim partium’”, *Bulletin of Medieval Canon Law* 13 (1983), 57–58 (two then-unnumbered leaves from the Stadtarchiv Schwäbisch Gmünd, now Co8 Bü 2); H. Mordek, “Analecta canonistica I”, *Bulletin of Medieval Canon Law* 16 (1986), 1–16, esp. 9–11 (MS Einsiedeln, Stiftsbibliothek, Codex 370(194), f. 32).

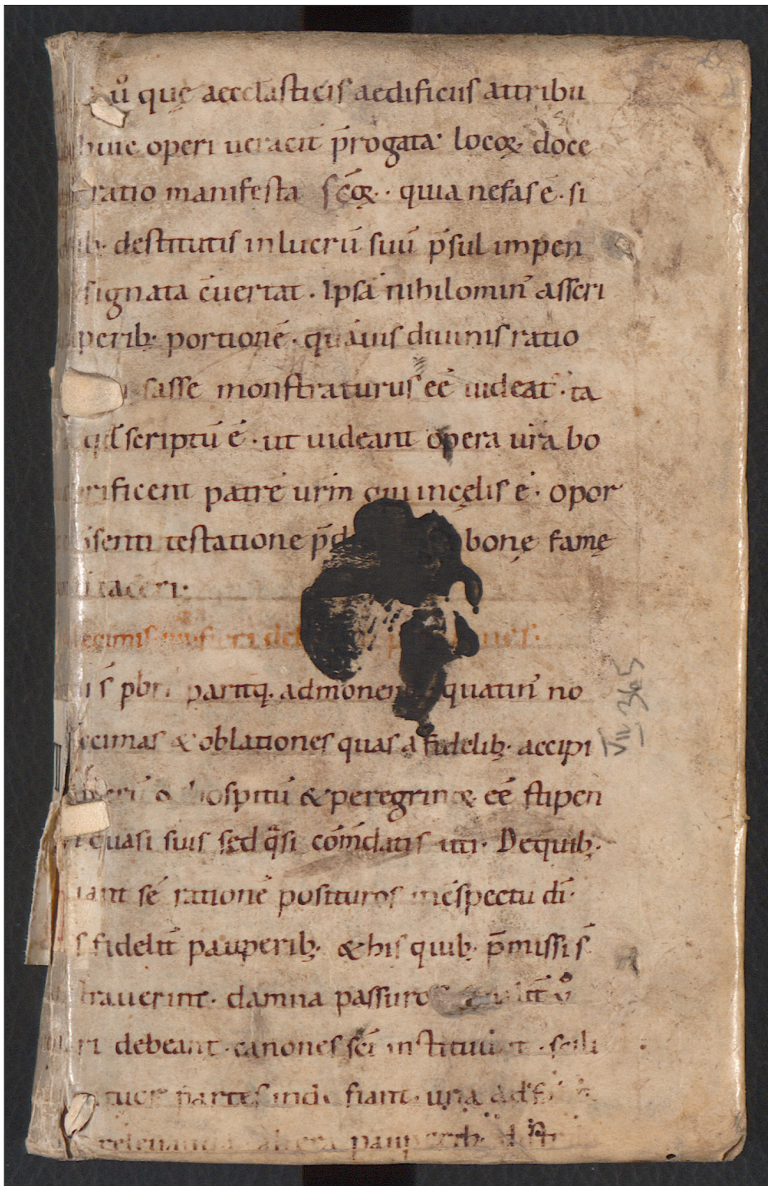


Figure 7: [F-40c8] *Collectio Canonum XII partium*. Zürich, Zentralbibliothek, 7.365, front cover

With that reserve in mind and in the absence of an edition of the *Collectio*, I decided to compare the text on the leaves with the oldest witness, MS Troyes, Médiathèque Jacques-Chirac, 246. Not only the titles, but also the text of the chapters turns out to be identical. The text of the leaves covering volume 7.365 can be identified as *Collectio XII partium*, book 5.193–198 (= Troyes 246, f. 122r–v). Volume 5.379 preserves book 8.7b–9 (= Troyes 246, ff. 152v–153r).

Can we learn something about the environment in which the lost parent volume of the leaves circulated? The likeliest clues may be found in the books between the covers made from our discarded manuscript. Both volumes contain two editions each. All four editions were printed in Zürich, more precisely in the workshop of Rudolph Wissenbach, although most of them have no printer's name on the title page. It seems an obvious conclusion that the printer or a binder who worked in close relation with the Wissenbachs (or one working for an early owner of the volumes) had the leaves of the old manuscript of canon law piled up for re-use in his workshop. Potentially, more pages of the manuscript might eventually come to light.

There might exist another puzzling connection between the *Collectio XII partium* and the early-modern printing trade in Zürich. On the fragmentary leaves preserved in Schwäbisch Gmünd, a later hand wrote the following indications referring to the titles of the books for which they were used as covers: 'Gualteri in Iacob. Apocal. Homiliae' and 'Gualteri in 1 et 2 Corinthiorum...'. The most likely author to whom these cryptic headings might refer is the Zürich born theologian Rudolf Gwalther (1519–1586). His sermons on the books of the Gospel, the Pauline and Catholic epistles, and various parts of the Old Testament received numerous print runs in Zürich, mainly at the hands of Christoph Froschauer and his successors, from the middle of the sixteenth century through the early seventeenth. Although it is unlikely that there lies a direct link between the two sets of fragments in Schwäbisch Gmünd and in Zürich, the coincidence is too obvious not to consider a possible connection. At least, it

confirms Brommer's statement that the *Collectio XII partium* had a wider circulation than previously thought.³⁵

Conclusion

"Manuscript fragments often have a troubled history of silence."³⁶ My article was prompted by the availability of unacknowledged manuscript fragments in online images of early printed books. Their presence was unintentionally silenced by cataloguers who focused on the printed content of the books and yet, in publishing the digitizations, they made them available, when so many early prints can only be accessed in situ in their physical forms. This was a further stage in their troubled history, after early-modern binders had cut the leaves from the contexts of their parent manuscripts. That fragmentation muted the initial provenance of the leaves and their role in the transmission of the texts that they contain. At the same time, the procedure incorporated the fragment into a new context, in which the text on the writing surface was no longer its *raison d'être*.

As Mateusz Fafinski pointed out in the recent article that provided the quote above, scholars must be aware that their attempts to undo the fragmentation process and to reconstruct the history and value of the lost parent volumes in themselves impose new instances of fragmentation on the information. The scholarly endeavour will never succeed in the "perennial and never fulfilled attempt to be complete."³⁷ As I confessed at the beginning of my article, the fragments described here were selected without an objective criterion. As a result, I consciously distorted the overall impression that one gets while perusing the online images. In addition, my descriptions do not discuss several important aspects: e.g. a treatment of the various methods of adaptation of the original leaves to their new functions in the book bindings might have brought valuable insights. Even the use of digital images changes the researcher's viewpoint:

35 Brommer, "Ein Fund zur 'Collectio duodecim partium'", 58.

36 M. Fafinski, "In an Archive of Fragments: The Loud Silences of Cod. Sang. 1394", *Digital Philology: A Journal of Medieval Cultures* 13 (2024), 286–301, at 286.

37 Fafinski, "In an Archive", 287.

as a result of their focus on the printed material, photographers understandably often did not include all binding material in their image record of the books that they published on e-rara, or spread the manuscript remains at the front and the rear of the binding over various items (and consequently different DOIs).

My article was intended to show the potential of manuscript fragments in book bindings for more encompassing and systematic studies. As the theoretical framework for fragmentology is developing at a quick pace, there is decidedly sufficient material available to already consider the study of manuscript fragments an established discipline.

A Fragment from a Twelfth-Century Notated Breviary in the University of North Texas Music Library

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Abstract: Denton, University of North Texas Music Library, Music Library Chant Fragment Collection # 06-167 is a single parchment leaf with text and adiastematic neumes from a breviary containing part of the office and procession for Palm Sunday. A close study situates its production to Southern Germany in the twelfth century.

Keywords: breviary, liturgy, detached fragment

The small collection of chant fragments in the University of North Texas Music Library includes a single parchment leaf with text and adiastematic German neumes that has resided in the library since the 1970s, if not earlier. The fragment was included in the donation of the personal and professional papers of Dr. Helen Margaret Hewitt (1900–1977).¹ The Hewitt fragment ([[F-ky2q](#)] Music Library Chant Fragment Collection # 06-167) is accompanied by a one-page description by University of North Texas Music Reference Librarian Dr. Donna Arnold produced in the early 1990s. Dr. Arnold rightly notes that the text on the fragment is concerned with Palm Sunday, and posits that, while the provenance is unknown, “the

* The author wishes to thank Cari Alexander, Dr. Miklós István Földváry, Brent Alexis, Wendy A. Watkins, and the interlibrary loan departments of the University of North Texas and the Southwestern Baptist Theological Seminary for their research assistance. In addition, Laura Albiero, Anna de Bakker, Michael Braunger, and Lisa Fagin Davis were consulted in the final preparation of this note.

1 The Helen Hewitt Music Research Collection, 1925–1978 at UNT includes her correspondence as well as her transcriptions from European manuscripts. Dr. Hewitt served on the faculty of what was then the School of Music at the university from 1942 until 1969. She studied Charles-Marie Widor and harmony with Nadia Boulanger at the Conservatoire américain de Fontainebleau, organ with Lynwood Farnam, and was a student of Dr. Heinrich Bessler at the University of Heidelberg. Hewitt is best known for her editions of Ottaviano Petrucci’s chanson compendia *Harmonices musices odhecaton A*, and *Canti B*.

calligraphy suggests a French, Flemish, or Swiss origin.” Since notation on staves began to evolve around the twelfth century, “the absence of lines suggests an earlier date.”

The fragment comes from a breviary, containing part of the office for Palm Sunday. Specifically, it contains texts for the hours of Matins and Lauds, as well as the beginning of the procession. The series of three (instead of four) responsories to the third nocturn implies a secular cursus. It is written in an early- to mid-twelfth century transitional hand, with the rounded *S* appearing only in at the end of words, ampersands instead of tironian *ets*, two-compartment *gs*, and a complete lack of *e-caudatae* or any indication of the *ae* diphthong. The correspondence between text, music, and musical notation point strongly to Southern Germany.

The fragment is situated in removable matting, in an archival box with the Music Library’s other manuscript fragments. It measures approximately 345 × 245 mm, with two columns of 34 lines. It is unclear when the original volume was disbound, but it has five horizontal slits for the sewing stations, and the parchment contains a round hole about 1 cm wide in the outside margin. A few smaller, irregular holes speckle the document, and the top margin shows evidence of being brushed with what may have been some type of adhesive.

Contents

R=responsory, V=responsory verse, A=antiphon, W=versicle; numbers in parenthesis refer to Cantus ID. Rubrics in **bold** typeface.

[recto a]

filios eorum et filias eorum (Jer. 3:24)

R: salvum me fac deus quoniam (007566)

V: Intende anime mee (007566a)

Dormiemus in confusione nostra [...] ipsumque laudabunt. H.
(Jer. 3:25–4:2)

R: Noli esse mihi domine alienus (007219)

V: Confundantur omnes inimici mei qui (007219a)

Hec dicit Dominus viro Iuda [...] [recto b] [...] civitates munitas.
H. (Jer. 4:3–4:5)

R: Dominus mecum est tamquam bellator (006521)

- V: Et vim faciebant qui querebant (006521a)
 A: Ancilla dixit Petro vere tu (001394)
 W: Ne perdas cum impiis deus animam meam (008146)
Iohannem: In illo tempore: *Cum adpropinquasset Iesus Iherosolimis et [...] contra vos est* (Matt. 21:1)
Iohannis episcopi: *Puto res ipsa exigit...advenit* (Ps.-Ioannes Chrysostomus, *Opus imperfectum in Matthaeum*, Hom. 37, P.G. 56, 834)
 R: Opprobrium factus sum nimis inimicis (007325)
 V: Persequar inimicos meos et comprehendam (007325a)
Ideo ergo cum tanta gloria est ingressus [...] [verso a] [...] visibilis factus (Ps.-Ioannes Chrysostomus, Hom. 37, col. 834, cont.)
 R: Deus Israel propter te sustinui (006425)
 V: Deus Deus meus respice (006425a)
 Quoniam.
Quando Iudei Christum [...] mater est gentium (Ps.-Chrysostomus, col. 834, cont.)
 R: Ingrediente Domino in sanctam civitatem (006961)
 V: Cumque audissent quia Iesus venit (006961a)
Laudes
 (A:) Dominus deus auxiliator (002405)
 A: Cir[verso b]cumdantes circumdederunt (001809)
 A: Iudica causam meam defende quia (003515)
 A: Cum angelis et pueris fideles (001974)
 A: Confundantur qui me persecuntur (001884)
Ymnus: Rex Christe factor omnium: [no notation] (008384)
Cap. Fratres: *Hoc sentite in vobis [...] servi accipiens* (Phi. 2: 5-7)
 W: Eripe me de inimicis meis \et ab insurgentibus in me libera me/ (008053)
 A: Turba multa quae convenerat (005256)
Collecta: *Da quesumus omnipotens [...] passione respiremus* (CO 1027)
 A: Pueri hebraeorum tollentes ramos olivarum (004415)
 A: Pueri hebraeorum vestimenta (004416)
 A: Fulgentibus palmis prosternimur adveniente domino (002909)
 A: Occurrunt turbae (004107)

While the Office for Palm Sunday features many standard chants, of the sources available on the Cantus Index (<https://cantusindex.org>), a small handful of antiphonaries come closest to containing

the same chants for the same feast, and these group around Austria, Southern Germany, and Switzerland. With the exception of the first (Klosterneuburg), they are all representatives of a monastic cursus:

Cantus Siglum: **A-KN CCI 1013**

Shelfmark: Klosterneuburg, Stiftsbibliothek, Cod. 1013

Origin: twelfth century, Klosterneuburg (double house, likely female side)

Cantus Siglum: **CH-E 611**

Shelfmark: Einsiedeln, Stiftsbibliothek, Codex 611(89)

Origin: fourteenth century, Einsiedeln Abbey, OSB

Cantus Siglum: **CH-SGs 388**

Shelfmark, St. Gallen, Stiftsbibliothek, Cod. Sang. 388

Origin: twelfth century, Abbey of St. Gall, OSB

Cantus Siglum: **CH-SGs 390**

Shelfmark, St. Gallen, Stiftsbibliothek, Cod. Sang. 390 (Hartker Antiphonar)

Origin: tenth century, Abbey of St. Gall, OSB

Cantus Siglum: **D-Ka Aug. LX**

Shelfmark: Karlsruhe, Badische Landesbibliothek, Cod. Aug. perg. 60

Origin: late twelfth century (Musical notation thirteenth/fourteenth century), Zwiefalten Abbey, OSB (double house in the twelfth century)

Cantus Siglum: **D-SI HB.I.55**

Shelfmark: Stuttgart, Württembergische Landesbibliothek, HB I 55

Origin: twelfth century, Weingarten Abbey, OSB

A comparison of the chants, indicated by their Cantus ID, in the Hewitt fragment against the corresponding part of the Palm Sunday office in these antiphonaries reveals significant similarities that support the argument of a Southern German provenance [Table 1].

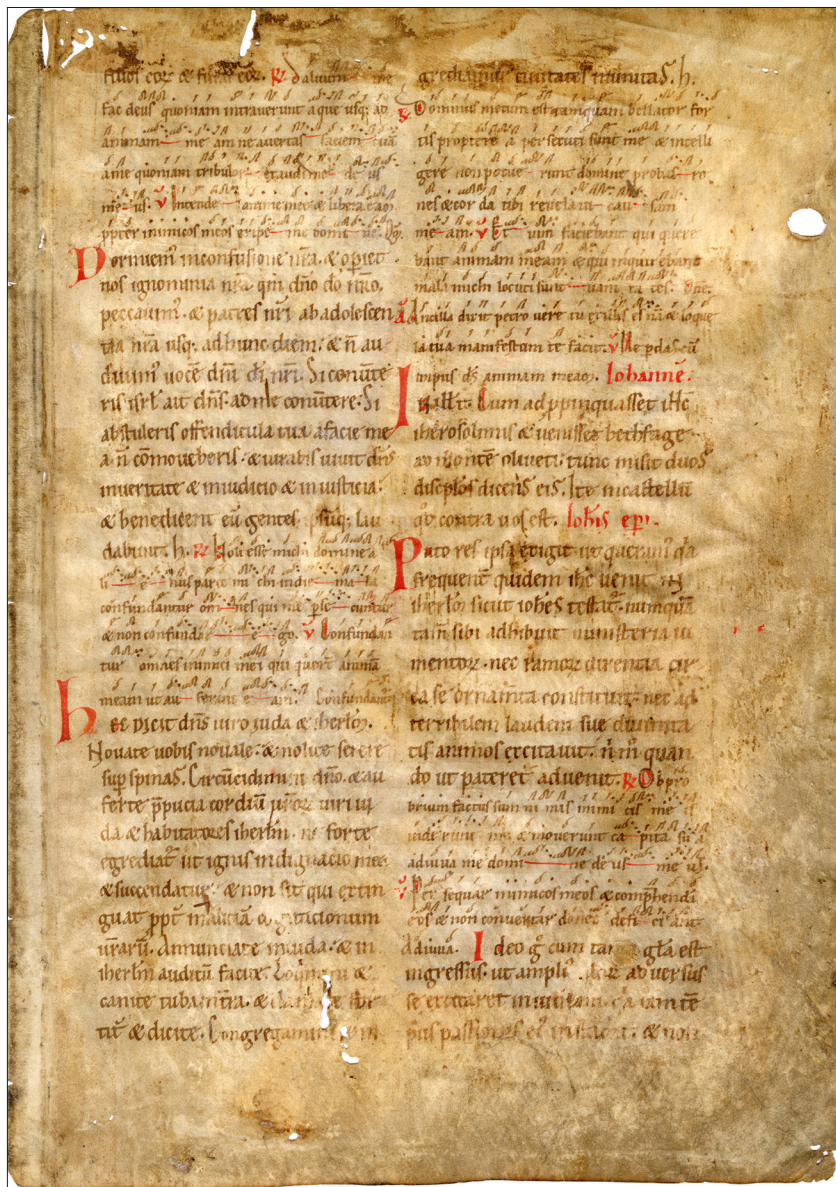


Figure 1: Hewitt fragment, recto

Table 1: comparison of Hewitt chants with similar series in Antiphonaries indexed in the Cantus Database.

+ = responsory with verse, where the Cantus ID for the responsory verse adds an a; e.g., 007566+ = 007566 and 007566a.

Hour/ Genre	Hewitt	A-Kn CCL 1013	CH-E 611	CH-SGs 388	CH-SGs 390	D-Ka Aug. LX	D-SI HB.I.55
Matins							
RV	007566+	007566+	007566+	007566+	007566+	007566+	007566+
			006671				
RV	007219+	007219+	007219+	007219+	007219+	007219+	007219+
				004527	004527	007346+	007346
				004932			
RV	006521+	006521+	006521+	006521+	006521+	006521+	006521+
A	001394	004932	006395				003799
W	008146	008146	003617				
RV	007325+	007325+	007325+	007325+	007325+	007325+	007325+
RV	006425+		006425+	006425+	006425+	006425	006425+
		007747+	007747+	007747+	007747+	007747+	007747+
R	006961	006961	006961	006961	006961	006961	006961
				006961b	006961b		
V	006961a	006961a	006961a	006961a	006961a	006961a	006961a
				006464+	006464+		
				006973+	006973+		
				007905+	007905+		
				006335+	006335+		
Lauds							
A	002405	002405	002405	002405	002405	002405	002405
A	001809	001809	001809	001809	001809	001809	001809
A	003515	003515	003515	003515	003515	003515	003515
A	001974	001974	001974	001974	001974	001974	001974
A	001884	001884	001884	001884	001884	001884	001884
(hymn)	008384	008384					
W	008053	008053	600798			007207	007207
						007207b	007207b
A	005256	005256	005256	005256	005256	005256	005256
				002496	002496		
Prime		001840	004527		003799	004527	004527
				004663	004663		

Terce		004415	003799	003657	003657	003799	003799
Sext		004416	004904	004904	004904	004904	004904
Nones		003142	001394			001394	001394
<i>Quando distribuuntur palme / Ad processionem</i>							
A	004415	006287	002909	002909	002909	004415	004415
A	004416	006966	004107			004416	004416
A	002909	004107	001840	001840	001840	004107	002909
A	004107	002909	004416	001983	001983	001840	004107
			005256	006464	006464	002909	001840
			004415	006973	006973		
			001974	007905	007905		
			004117	006335	006335		
				001975	001975		
				004107	004107		
				004415	004415		
			003142	003142	003142	003142	
					001852+		

These antiphonaries provide the closest cohort for the chants in the Hewitt fragment, and the Hewitt fragment largely agrees with them with regards to the chants for Matins and Lauds, with four exceptions. First, the Hewitt fragment has at Matins (third nocturn) the antiphon *Ancilla dixit Petro vere tu* (001394), which appears at Nones in the Einsiedeln and German antiphonaries. Immediately thereafter, the Hewitt fragment has the versicle *Ne perdas cum impiis* (008146), but without notation, which it shares only with Klosterneuburg. In Lauds, the Hewitt fragment appears to have the versicle *Eripe me de inimicis meus deus meus* (008053), continuing in the margin with *et ab insurgentibus in me libera me*, again without notation. This versicle is attested by the Klosterneuburg antiphonary; the Einsiedeln witness has a chant beginning *Eripe me* (600798) that is ambiguous, while the German antiphonaries have *Ne perdas* and *Eripe me* as a responsory-verse pair (007027 and 007027b). The fourth and last major difference is that the Hewitt fragment is alone with Klosterneuburg in specifying the hymn *Rex Christe factor omnium*. These parallels with Klosterneuburg in genre and content may reflect the secular cursus.

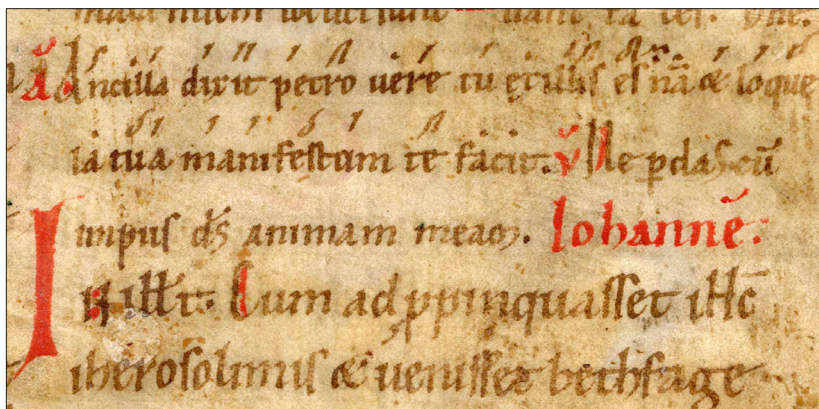


Figure 3: Hewitt fragment, recto b, detail showing rubric *Iohannem* after last antiphon-versicule pair and before the lection from Matt. 21

At this point, the antiphonaries diverge from each other, according to whether and where they give the chants for terce, sext, and nones. Indeed, Palm Sunday features a procession, and chants for the procession have made it into the antiphonaries and are indicated with rubrics such as *Quando distribuuntur palme* or *Ad processionem*.

The Hewitt fragment does not have a rubric indicating terce or a procession. However, there is a collect followed by a series of four visible antiphons beginning with *Pueri hebreorum* (004415) and including *Fulgentibus palmis* (002909) and *Occurrunt turbae* (004107), which as can be seen above, form the procession chants. Therefore, it is likely that this final section of the fragment pertains to the procession.

Indeed, the rubrication is approximate. On the recto, the rubric *Iohannem* introduces the reading from Matthew [Figure 3]. A comparison with another notated breviary fragment from the region, [E-nav8] Stuttgart, Hauptstaatsarchiv Stuttgart, J 522 B XI 459, shows that the Hewitt rubric was likely supposed to refer to the third nocturn [Figure 4].

In the model being copied from, the *Iohannem* rubric on the Hewitt fragment may have read in *tertio nocturno*, abbreviated in *III^o N^o*; the copyist could have seen *IH Ñ* and wrote *Iohannem*. There might even have been the *â* for antiphon, in which case it would have

Recycling or Rubbishing Ockham's Sentences?

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Abstract: Two bifolia from a quire of the *Prologus* to the *Sentences* of William of Ockham were used as a pastedown and flyleaf in Besançon, Bibliothèque municipale d'étude et de conservation, 198, a manuscript of the *Sentences* questions of James of Eltville copied in Paris at the College of St. Bernard around 1399. The open question is why one of Ockham's most captivating philosophical texts was reduced to its materiality and merely employed to bind a later text of the same genre.

Keywords: *Sentences* commentaries, James of Eltville, William of Ockham, quires, tacketed quires, binding, Cistercians

Binding fragments reveal what was considered waste material at the moment a book was bound. When both fragments and text of the manuscript being bound are of the same genre, they can capture the shifting fortunes of the works over the centuries. In the case at hand, a manuscript containing the questions on the *Sentences* by the Cistercian James of Eltville, based on lectures given at the University of Paris in the academic year 1369–1370,¹ was bound with

* This paper has received funding from the EU under the Horizon 2020 project RESTORY n°101132781 (<https://restory-heritage.eu/>). I am grateful to Chris Schabel and Bill Duba for joining me in Besançon to discuss this codex. Nearly all their remarks were very constructive.

1 The *Sentences* questions of James of Eltville survive in 22 manuscripts and are the object of an ongoing editorial project. The first volume was published as Iacobus de Altavilla, *Lectura in libros Sententiarum*, tomus I: *Principium. Questiones 1–6 (Prologus et QQ. 1–4 libri primi)* (Corpus Christianorum Continuatio Mediaevalis 312), ed. A. Anisie, M. Brinzei, L. Cioca, and C. Schabel, cooperantibus A. Baneu, A. Baumgarten, D. Coman, I. Curuț, A. Marinca, and M. Pantea, Turnhout 2024. Tomus II, *Questiones 7–17 (QQ. 5–15 libri primi)*, ed. Anisie, Baumgarten, Coman, Marinca, Curuț, Pantea, and Schabel, cooperantibus Baneu, Brinzei, and Cioca, is forthcoming in 2025. Eltville's popular *Sentences* questions were influential at the Faculty of Theology of Vienna and

fragments from questions on the *Sentences* by the famed Franciscan William of Ockham, who lectured on the *Sentences* at Oxford in 1317–1318.

The codex in question, Besançon, Bibliothèque municipale d'étude et de conservation (*olim* Bibliothèque Municipale), 198, was copied in Paris, at the Cistercian Collège des Bernardins, by Brother John of Theuley Abbey (60 kilometers north by northwest from Besançon) in the period 1395–1399.² At the beginning of the codex, parts of Ockham's most influential theological text served as the pastedown and flyleaf of Eltville's *Sentences*. This detail might strike students of medieval thought as surprising, since nowadays Thomas Aquinas, John Duns Scotus, and Ockham are considered the main scholastic theologians, whereas Eltville has largely been forgotten.

widely disseminated in many other places where theology was taught, such as Heidelberg, Cologne, Erfurt, and Mainz. Besides the copies circulating or produced in Vienna itself (for example codex München, Bayerische Staatsbibliothek, Clm 3546, copied in Vienna in 1405), the case of codex Wertheim, Evangelische Kirchenbibliothek, 608, is significant since it was bequeathed to the library of Wertheim by Conrad Wellin de Ruetlingen, former rector of the University of Cologne. The copy in Wolfenbüttel, Herzog August Bibliothek, Cod. Guelf. 230 Helmst., was produced at Erfurt. While teaching in Heidelberg, Marsilius of Inghen praised Eltville. There are traces of two lost manuscripts that circulated in Mainz, one of which was probably in the possession of Gabriel Biel. For references to all these codices, see toms I of the critical edition, cited above, XXIV–LXVII. A collective volume of studies investigating different aspects of the theological doctrine in his *Sentences* questions has appeared: *The Cistercian James of Eltville († 1393). Author in Paris and Authority in Vienna* (Studia Sententiarum 3), ed. M. Brinzei and C. Schabel, Turnhout 2018.

- 2 Jacobus de Altavilla, *Lectura in libros Sententiarum*, toms I, xxvii–xxx. The manuscript is available in Open Access (<https://memoirevive.besancon.fr/ark:/48565/76hsjotgp8dw>), although it is misattributed on the library website to a certain Jean de Hauteville: H. Rochais and E. Manning, *Bibliographie Générale de l'ordre cistercien 6: Personnes*, Rochefort 1977, 39. The colophon of this codex reads (f. 228va): “Explicit lectura tertii libri *Sententiarum* a domino Iacobo de Altavilla monacho ordinis Cisterciensis edita et scripta per fratrem Iohannem monachum monasterii Theoloci octavadeccima die mensis Septembris in **collegio Sancti Bernardi** anno Domini m^occc^ononagesimo v^o. Scriptor qui scripsit cum Christo vivere possit.”



Figure 1 (left): Besançon, Bibliothèque municipale d'étude et de conservation, 198, cover

Figure 2 (bottom-left): Upper board, outside

Figure 3 (bottom-right): Upper board, inside



The Besançon Ockham Fragment

Although the book block of Besançon 198 is in good condition, the front board is not; half of the wood is missing, and the pieces that survive have been devoured by insects, which have also penetrated the now-detached cover [Figures 1–3].³

After the board appears the fragment in question, two parchment bifolia trimmed to the dimensions of the board (240 × 340 mm) and mounted at a right angle [Figure 4]. The two bifolia are unnumbered

³ I am grateful to Guy Lanoë for providing me with this information and for the exchange we had concerning the binding of this codex.

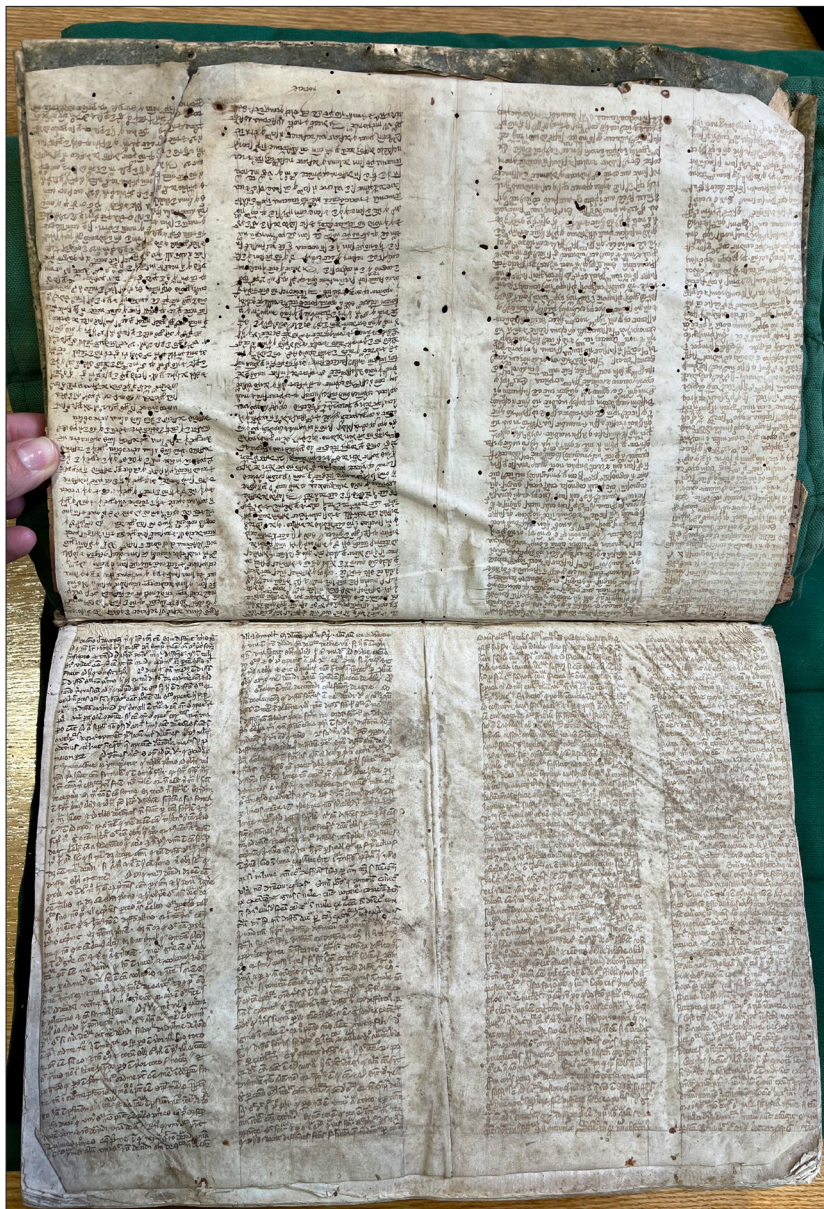


Figure 4: parchment bifolia (f. IV, above; f. IIIr, below)

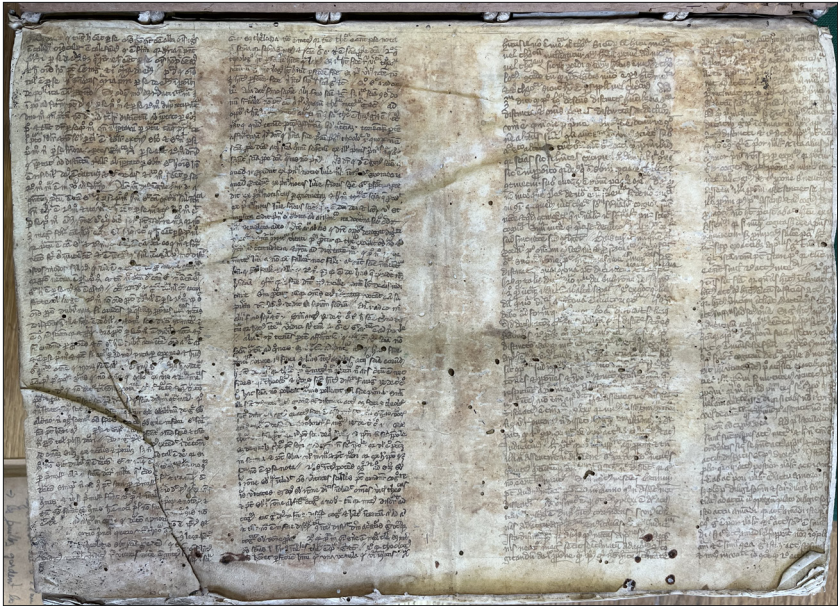


Figure 5: f. 1r, showing clasp marks at the bottom

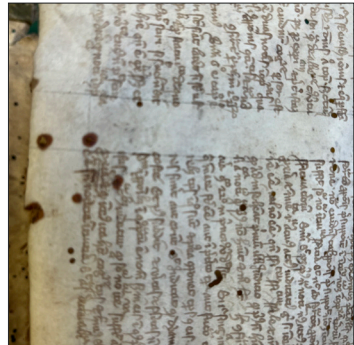


Figure 6: f. 1v, detail of clasp mark

and the first leaf of the Eltville text is foliated as f. 1; in reference to how they are bound in the host volume, I will label the two bifolia I and II.

All indications are that the binding of the Besançon codex is roughly contemporary with the production of the manuscript. The two bifolia from Ockham's *Prologus* were used in the initial binding, bearing the marks of the (now missing) clasps that were attached to the upper board [Figures 5–6].

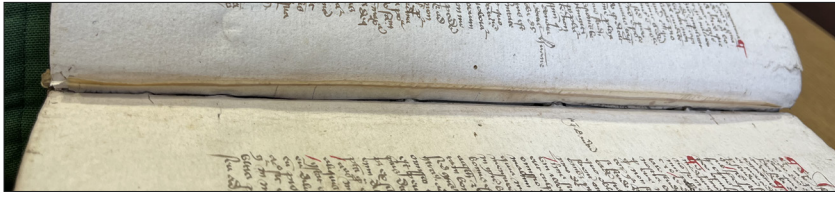


Figure 7, Figure 8: Besançon 198, Parchment stubs between f. 12 and f. 13



Both bifolia, moreover, were hooked into the first gathering of Besançon 198, and their parchment stubs can be found at the end of it (also containing 12 paper leaves as 6 bifolia), between f. 12 and f. 13 [Figures 7–9]. The clasp marks and the discoloration on f. 1r suggest that I served as a pastedown and II as a flyleaf.

The leaves on the bifolia are laid out with two columns of text, between 47–49 lines in written area that originally measured 220 × 150 mm. The text is written in an Anglican cursive from the first half of the fourteenth century.

While the two bifolia lack any identifiable paratextual elements, the text they transmit, namely the *Prologus* to William of Ockham's *Scriptum in primum librum Sententiarum*, can be used to reconstruct the order. Both bifolia are oriented so that the outwards-facing side is now the recto, the inwards-facing side is the verso, and II was originally bound inside I. In the binding, the bifolia are oriented such that the prior leaves are on top, and the posterior ones on the

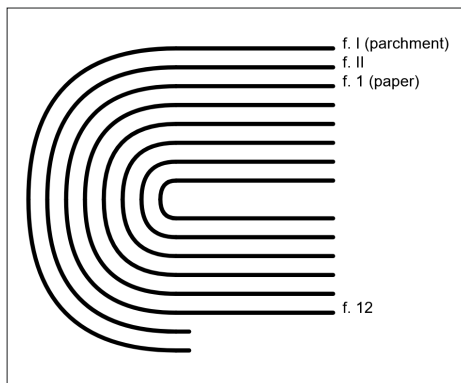


Figure 9: Visualization of first gathering of Besançon 198 created using VCEditor, December 2024

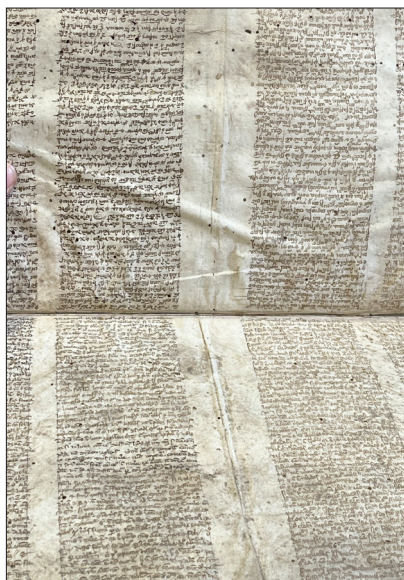


Figure 10: center fold of bifolia I and II, showing the absence of sewing stations

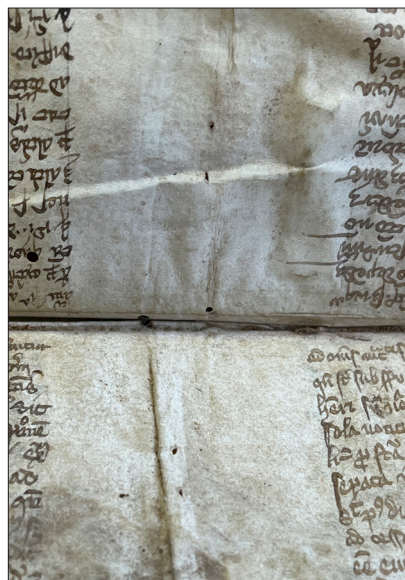


Figure 11: detail showing the holes for tacketing

bottom, and Gregory's Rule is followed, such that the inside of bifolium I (f. iv) and the outside of bifolium II (f. iir) touch flesh side to flesh side. Both parchment bifolia show signs of having been folded, and their orientation, that is, their inward-facing and outward-facing sides, can be confirmed from the creases in the parchment. Yet they lack sewing stations, except for two holes towards the top of the fold, suggesting that the quire was tacketed but never bound [Figures 10–11].⁴

- 4 A tacketed quire is a collection of folia held together by thin strings, called *tackets*. The initial purpose was to avoid disrupting the sequence of the leaves while the scribes copied the text. The holes employed to connect and to keep the leaves together were not reused in sewing when the all the quires transmitting the complete text were bound together. Such quires equally served as *conservation units* before they were eventually put together or bound. See J.-P. Gumbert, "The Tacketed Quire: An Exercise in Comparative Codicology", *Scriptorium* 65/2 (2011), 299–320. On the same topic see J.A. Szirmai, *The Archaeology of Medieval Bookbinding*, Aldershot, 1999, especially 111–115 and 142. I am grateful to William Duba for informing me about the practice of tacketing quires and for inspiring discussions on this topic. He also suggested to me

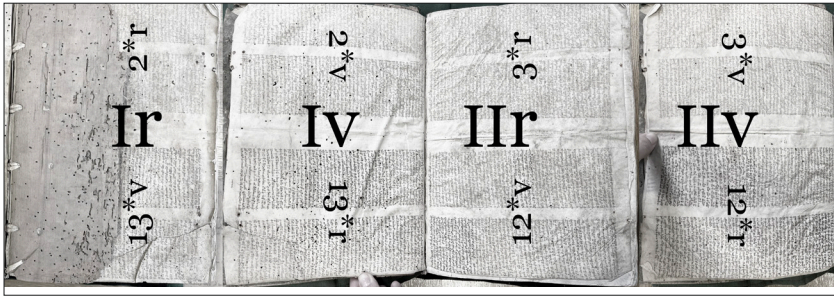


Figure 12: Bifolia (I-II) with *Prologus* foliation (ff. 2*-3*, 12*-13*)

Content

The text in the bifolia includes material from questions 1-7 as found in the modern edition of Ockham's *Prologus*. The reconstruction below concludes that I and II were most likely the second- and third-outermost bifolia in a septenion that served as the first gathering of a copy of the work. On this reconstruction, I and II originally contained ff. 2-3 and 12-13. To avoid multiplying numbering schemes unnecessarily, we have anticipated this reconstructed foliation in situating the bifolia in their original context [Figure 12], and mapping the text against page and line in the St. Bonaventure critical edition [Table 1].⁵

To establish a baseline of text covered per page, each page was measured against the corresponding lines in the St. Bonaventure

that this practice might give “a glimpse into the ephemeral items in medieval libraries”. Such quires were probably common in academic libraries; for example when Annibaldo di Ceccano organized the library of the Collège de la Sorbonne in 1321, he famously arranged for all the *reportationes* and “unbound books of little value” to be given away or sold. See P. Glorieux, *Aux origines de la Sorbonne. I Robert de Sorbonne. L'homme – Le collège, Les documents*, Paris 1966, 215, “Item quia multi ibi iacent **libri parvi valoris, non ligati**, occupantes locum, sicut reportationes et antiqui sermones, fuit ordinatum quod darentur beneficiariis nostris qui possent esse ad usum eorum, et alii iuxta ordinationem sociorum ad hoc deputatorum venderentur sociis de domo vel aliis si aliquid offerretur pro eius; et de illa pecunia emerentur alii libri deficientes nobis”.

5 Guillaume de Ockham, *Scriptum in librum primum Sententiarum. Ordinatio. Prologus et distinctio prima* (Opera theologica 1), ed. G. Gál and S. Brown, St. Bonaventure, NY 1967.

2*r = Ir, top

Inc.: habitus ille non est metaphysica nec theologia. Si cum (*sic!*) per esse habitum metaphysicum ... (q. 1, p. 13, l. 23)

Expl.: ... et medius in voluntate. Ideo concedo quod duo actus (*trimmed*) (q. 1, p. 20, l. 2)

2*v = Iv, top

Inc.: (*trimmed*) secundum nego maiorem, quia sufficit quod sit causa partialis. Patet ... (q. 1, p. 20, l. 3)

Expl.: esse sine notitia intuitiva, sicut alias declarabitur. Per hoc patet (q. 1, p. 27, l. 10)

3*r = IIr, top

Inc.: ad omnes auctoritates quod tales veritates contingentes non possunt sciri de istis sensibilibus nisi ... (q. 1, p. 27, l. 10)

Expl.: ... perfecta ratione, sicut dicit quidam doctor, Quodlibet, quaestione 6. Nec (*trimmed*) (q. 1, p. 34, l. 6)

3*v = IIv, top

Inc.: (*trimmed*) motivas formales, quod scilicet in cognitione intuitiva res in propria ... (q. 1, p. 34, l. 6)

Expl.: ... Augustinum 13 De Trinitate, capitulo 1, ubi dicit: Rerum absentium praesens (q. 1, p. 41, l. 10)

12*r = IIv, bottom

Inc.: ibidem. Igitur omnis quaestio est de definitione tamquam de medio. Sed omnis conclusio demonstrationis est quaeribilis ... (q. 5, p. 158, l. 17)

Expl.: ... qua praedicatur de suo subiecto primo, puta de anima intellectiva. Item in medio (*trimmed*) (q. 5, p. 166, l. 10)

12*v = IIr, bottom

Inc.: (*trimmed*) (t)alis demonstrationis nihil debet poni nisi quod habet rationem causae; sed in definitione hominis ponitur ... (q. 5, p. 166, l. 10)

Expl.: ... quod Philosophus vocat definitiones factas secundum speciem quae non dantur per causam (q. 5, p. 172, l. 11)

13*r = Iv, bottom

Inc.: aliam; illa autem quae dantur per alias causas materiales vocantur. Igitur formales dantur per causas intrinsecas ... (q. 5, p. 172, l. 11)

Expl.: ... propositione simpliciter necessaria quod sit per se, quia pertinet ad demonstrationem omnis (q. 6, p. 179, l. 17)

13*v = Ir, bottom

Inc.: Si dicatur quod tunc haec esset per se: omnis homo potest esse albus; omnis ignis ... (q. 6, p. 179, l. 18)

Expl.: ... non haberet perfectiorem habitum quam una vetula, quod videtur inconueniens. Alia (q. 7, p. 187, l. 3)

Table 1: Ockham's *Scriptum* in the Besançon Fragment

f. q(q).		St. Bonaventure edition		
		from	to	total lines
2*r	1	p. 13, l. 23	p. 20, l. 2	135
2*v	1	p. 20, l. 3	p. 27, l. 10	161
3*r	1	p. 27, l. 10	p. 34, l. 6	152
3*v	1	p. 34, l. 6	p. 41, l. 10	144
12*r	5	p. 158, l. 17	p. 166, l. 10	166
12*v	5	p. 166, l. 10	p. 172, l. 11	153
13*r	5-6	p. 172, l. 11	p. 179, l. 17	166
13*v	6-7	p. 179, l. 18	p. 187, l. 3	168

Table 2: correspondence between the Besançon Fragment and the St. Bonaventure Edition

edition (ignoring the blank lines and inserted titles) [Table 2]. The text that runs from f. 2*r to f. 3*v covers a total of 592 lines in the modern edition, with both f. 2* and f. 3* containing precisely 296 lines, an average of 74 lines per column. Since the column f. 2*ra starts with text found on the bottom of p. 13, l. 23 in the critical edition, we can deduce that text corresponding to 227 lines in the modern edition of Ockham’s *Prologus* preceded f. 2*. This amount of text could almost have been encompassed in another three similar columns preceding A.

Thus, at least one leaf preceded f. 2*. Of the seventeen complete copies of the *Prologus* studied for the 1967 critical edition, all but one begin the codex. That one exception, Troyes, Médiathèque Jacques-Chirac, 718, has a bifolium with a table of questions bound before the first gathering, and the second gathering begins with a blank recto, with the *Prologus* following on the verso. In that case, however, the table of questions was clearly produced well after the rest of the manuscript.⁶ Therefore, the witnesses to Ockham’s massive *Prologus* follow the general tendency of *Sentences* commentary manuscripts to form by themselves codicological units, and thus

6 Gál and Brown, introduction to Guillelmus de Ockham, *Scriptum in librum primum Sententiarum. Ordinatio. Prologus et distinctio prima*, 11*-17*.

begin with a new gathering. Most likely, a single leaf preceded A, which must have begun with a colophon, a giant initial, larger lettering, or a combination of those factors, a phenomenon attested in surviving complete manuscripts.⁷ In such a case, the two bifolia here would have been the second and third outermost bifolia of their gathering.

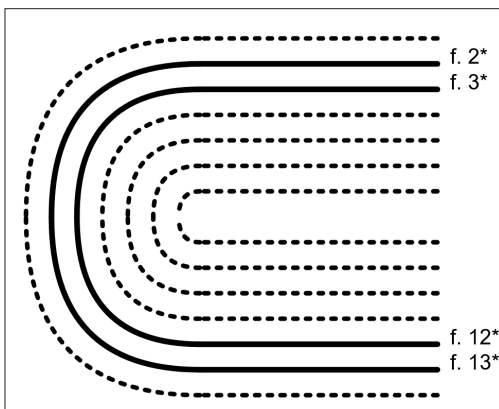


Figure 13: Reconstruction of *Prologus* septenion. Visualization made using VCEditor

The number of bifolia in the gathering can be determined by comparison to the edition; where ff. 2*r–3*v cover 596 lines of the St. Bonaventure edition, ff. 12*r–13*v, corresponding to parts of questions 5–7 of the *Prologus*, are represented by 653 lines. Between the prior and posterior parts of bifolium II falls a text corresponding to 117 pages in the critical edition, for a total of 2561 lines of edited text, enough for four bifolia, or 32 columns, in the manuscript. Thus, bifolia I and II were originally part of a gathering composed of seven bifolia (a septenion) [Figure 14], which at the end of the fourteenth century was not unusual, at least in the circle of scholars from the Faculty of Theology.⁸

7 Indeed, in the copy of Ockham's *Sentences* in Paris, Bibliothèque nationale de France, lat. 15904, f. 1ra, the manuscript opens with a giant decorated initial that takes up a third of the first column.

8 Paula Busonero remarks that the typical division into sexterns was less frequent during the fourteenth century, when quires of different sizes began to circulate more often. One can spot this easily in university texts, and a recent examination of seven codices of Étienne Gaudet's notebooks from the University of Paris after 1360 revealed the use of various sizes of quires by the same person. P. Busonero, "La fascicolazione del manoscritto nel basso medioevo", in *La fabbrica del codice. Materiali per la storia del libro nel tardo medioevo*, ed. P. Busonero, M.A. Casagrande Mazzoli, L. Devoti, and E. Ornato, Roma 1999, 31–139. For more on the composition of quires, see M. Maniaci, ed., *Trends in Statistical Codicology*, Berlin 2022, *passim*. On Gaudet's quires, see A. Baneu and M. Brinzei, "From Notebooks to Quires: The Case Studies of

The text in the Besançon fragment ends with the passage corresponding to the edition's page 187, l. 3. At the end of f. 13*v, the text stops in the middle of question 7. This question runs in the modern edition until page 206, with nearly 400 lines, more than enough to fill four columns in the manuscript's handwriting. In sum, this copy of the *Sentences* questions of William of Ockham originally had a first gathering that was likely a septenion containing questions 1–6 and most of question 7 of the Venerable Inceptor's *Prologus*. Nevertheless, the possibility that the first quire was a sextern should not be totally excluded, given the nature of the text in the fragments.

Philological Significance

As a witness to the text of Ockham's *Scriptum* on the *Sentences*, these two bifolia in Besançon present only the second uncontaminated copy of the prior version of the text. Its characteristics call into question the editors' assertion that these two versions are in fact one and the same redaction, which was expressed in an incomplete and complete way.

The first to observe two different versions of Ockham's *Scriptum* was Philotheus Boehner in 1942. In a pioneering survey of the manuscript tradition, he found that Firenze, Biblioteca Nazionale Centrale, Conv. soppr. A. 3. 801 (A), Troyes, Médiathèque Jacques-Chirac, 718 (B), and Oxford, Balliol College, 299 (C) were the three best witnesses, but that A alone contained a first "redaction" of the text, to which redaction Paris, Bibliothèque Mazarine, 894 (F), another important manuscript, was somehow related.⁹ On the basis of blank spaces in A and B, additions in B, and references to adding material in B, Boehner concluded that Ockham must have added passages in the margin that were then incorporated into the text of later witnesses, which thus preserve a second "redaction." Boehner

Etienne Gaudet", in *Medieval University Notes in the Library of Étienne Gaudet*, ed. A. Baneu, Berlin (forthcoming).

9 P. Boehner, "The Text Tradition of Ockham's *Ordinatio*", *New Scholasticism* 16 (1942), 202–241; The sigla are those used in the critical edition: Guillelmus de Ockham, *Scriptum in librum primum Sententiarum. Ordinatio. Prologus et distinctio prima*, ed. Gál and Brown.

cautioned that there are not two redactions in the normal sense, but two versions of the *Scriptum* that mirror different stages in the composition of the text.¹⁰ Following Boehner's lead, in 1948 Evan Roche edited question 10 of distinction 2 using ABCF.¹¹ In the first volume of the modern critical edition of the *Scriptum*, published in 1967, the editors boldly stated that Ockham did not pen different "redactions" of the text (*non scripsit duas vel plures 'redactiones', sed unam tantum*), but then they confirmed Boehner's theory that the text circulated in two versions, a shorter version that they dubbed the *redactio incompleta* and an extended one that they labeled the *redactio completa*.¹² The editors meant that Ockham wrote only one redaction, but left blank spaces, intending to fill them in later. Since copies were made before he finished, we have in effect two redactions, the earlier *incompleta* and the later *completa*. Thus, the longer *completa* version contains paragraphs or arguments that are not found in the shorter *incompleta*. For the editors, only A contains just the *redactio incompleta*, as it sometimes leaves blank spaces to be filled and sometimes notes them,¹³ and witnesses of the *redactio completa* have indeed text added in those spots. Nevertheless, the editors also underscore that Ockham also made additions that were not foreseen by A.

A full collation of the text in the two bifolia in Besançon (X) against the critical edition reveals that the Besançon fragments belong to the *redactio incompleta*. In other words, X omits all the passages that are missing in Firenze (A) and are marked in the critical edition between §...§ to indicate additions in the *redactio completa*

10 Boehner, "The Text Tradition of Ockham's *Ordinatio*", 219.

11 E. Roche, "Edition of Quaestio 10a Dist. 2ae of Ockham's *Ordinatio*", *Franciscan Studies* 8 (1948), 173–191.

12 See the introduction of Gál and Brown to Guillelmus de Ockham, *Scriptum in librum primum Sententiarum. Ordinatio. Prologus et distinctio prima*, 19*–23*.

13 For example, on f. 15vb the scribe of A left some lines blank, corresponding to the end of q. 11 (pp. 321–323 in the edition), such that the entire solution to the question is missing. Another example can be found on f. 27va in distinction 1, question 5 (pp. 479–485 in the critical edition), where one finds blank lines where Ockham later added his solution. The scribe of A must have known that the text had not been finalized, as Boehner argued, and hence left blank spaces.

in the other witnesses. Thus the Besançon fragments constitute the only known witnesses to the *redactio incompleta* other than A itself. Moreover, A and X are independent, since Besançon has a number of unshared variants, ranging from three to six per page of the critical edition, such as numerous inversions, omissions of one or two words, a few larger omissions (see examples for pp. 19, 173, and 184, on Table 3), and at one point the inversion of two sentences (p. 36, on Table 3), none of which is reproduced in A. Conversely, there are variants in A, including large omissions, that are not reproduced in X.¹⁴

In the text common to the *redactio incompleta* and the *redactio completa*, the Besançon text (X) is closest to A (Firenze), E (München, Universitätsbibliothek, F. 52), and F (Mazarine). Since the *apparatus criticus* of the critical edition is not exhaustive, I collated A and F *in situ* in Florence and Paris. Not surprisingly, shared variants and significant omissions in AX indicate that they stem from a common model that contained these omissions (see for example, pp. 39, 163, 166, and 167, on Table 3). AX also share some variants with E, but this is easily explained by the fact that the scribe of E had access to two models and the text in E exhibits signs of contamination.¹⁵ Some shared variants between AFX (see examples at pp. 171 and 184, on Table 3) indicate that F is linked to AX in some way. As will be seen below, FX share significant variants against the rest, but they are independent.¹⁶ One does not expect Besançon to be a copy of F; in confirmation, the *apparatus criticus* of the critical edition records a number of unshared variants in F where X contains the text as

14 For example, p. 159, ll. 3–4 *similiter – definitionem*] *om. hom.* A (10 words missing) || l. 10 *istam*] *om. A*; p. 161, l. 8 *sola demonstratio*] *scientia demonstrata* A || ll. 19–20 *a fine – formam*] *om. A* (missing 14 words).

15 See the introduction of Gál and Brown to *Guillelmus de Ockham, Scriptum in librum primum Sententiarum. Ordinatio. Prologus et distinctio prima*, 21*–22*.

16 Besides the important instances given below, here are examples of minor variants in F not reported in the *apparatus criticus* of the critical edition that are shared with X: p. 16, ll. 13–14 *obiectum sed etiam illi*] *sed etiam* FX || l. 21: *intellectus*] *quantumcumque assentitur* *add. FX*; p. 18, l. 5 *illa*] *aliqua* FX; p. 25, l. 15 *notitiam*] *evidentem* *add. in marg. F, add. X*; p. 29, l. 12 *dilectionem eandem*] *inv. FX*.

p. 19, ll. 7–8: vel rationem propter quam nunc primo assentit. Et ita ille habitus primo adquisitus non inclinatur ad actum] <i>om. hom. X</i>	
p. 36, l. 20 – 37, ll. 1–6	X, f. 3 ^{va}
Igitur omne idem et sub eadem ratione quos est obiectum intuitivae notitiae potest esse obiectum abstractivae. Et manifestum est quod quidquid reale potest cognosci abstractivae, potest etiam cognosci intuitive; igitur etc. <i>Similiter, secundum istos, alibi deitas sub ratione deitatis potest cognosci abstractivae. Sed ista est perfectissima ratio Dei, secundum eos.</i>	<i>Similiter, secundum istos, alibi deitas sub ratione deitatis potest cognosci abstractivae. Sed ista est perfectissima ratio Dei, secundum eos. Igitur omne idem et sub eadem ratione quos est obiectum intuitivae notitiae potest esse obiectum abstractivae. Et manifestum est quod quidquid reale potest cognosci abstractivae, potest etiam cognosci intuitive; igitur etc.</i>
p. 39, ll. 3–5: Sicut si videam intuitive stellam existentem in caelo, illa visio intuitiva, sive sit sensitiva sive intellectiva, distinguitur loco et subiecto ab obiecto] <i>om. hom. X</i> , partially shared with F: illa visio – obiecto] <i>om. F</i>	
p. 158, ll. 16–17: causae. Sed causa dicitur propter quid; “propter quid autem et quod quid est idem”; ibidem. Ergo (= igitur X) omnis quaestio est] <i>add. EFX</i> (or <i>om. hom. in ABCDGHZ</i>)	
p. 160, l. 5: vel ab efficiente] et nunc diffinitiones materiales X sunt <i>add. F</i>	
p. 162, l. 1: secundum naturam] <i>om. X</i> ll. 8–9: sit medium] <i>om. X</i>	
p. 163, l. 4: a priori] igitur (= ergo F) altera praemissarum in qua scilicet (s. = <i>om. F</i>) ponitur definitio passionis de subiecto est demonstrabilis (= est demonstrabilis de subiecto F) a priori <i>add. FX</i> ll. 9–10: secundum eos] <i>om. X</i>	
p. 165, ll. 4–5: sed impossibile est quod informetur a forma nisi causet compositum] hec non essent nisi esset compositum X	
p. 166, ll. 2–4: non per definitionem hominis sed per animam intellectivam, – ponatur quod conveniat soli animae intellectivae] ponatur quod conveniat soli animae intellectivae non per definitionem hominis sed per animam intellectivam FX	
p. 167, l. 2: in demonstrationibus seu] <i>om. FX</i>	
p. 170, ll. 5–6: vel per declarantia principia essentialia] <i>om. hom. AEXZ</i>	
p. 171, ll. 20–21: hoc est per conceptus exprimentes principia intrinseca] <i>om. AFX</i>	
p. 173, l. 24: a talibus tempestatibus etc.] <i>om. X</i>	
p. 184, l. 3: proprie dicta; sed] <i>om. X</i> (dicta <i>om. H</i>) l. 4: sunt diversae opiniones] <i>om. X</i> l. 9: nec cognitio evidens in nobis] <i>om. AFX</i> l. 12: principia non sint evidenter nota] non principia AX	

Table 3: Illustrative variants between X (Besançon) and the St. Bonaventure edition

edited, and my collation revealed several more.¹⁷ Conversely, on each page of the critical edition, X has a few variants not shared by F.

These examples show that not only do the Besançon bifolia belong to a version of Ockham's *Prologus* that was previously known to survive in just one witness, A, but that, just as A is also valuable as one of the best three witnesses to Ockham's text, X itself is significant for reconstructing the text as edited. According to Gál and Brown, the variant on p. 158 just noted is an omission *per homoeoteleuton* in ABCDGHZ in which the text is contained only in a contaminated manuscript, E, and in a complicated representative of a separate but inferior family of the *redactio completa*, F. The fact that X also contains the text, while A does not, suggests that X is the sole surviving representative of a branch of the *redactio incompleta* that, while generally inferior to A, occasionally preserved a superior reading and somehow left a mark in the branch of the tradition of the *redactio completa* represented by F.

This then raises a question concerning the origin of Ockham's *Scriptum*. A is a copy of the *redactio incompleta* with some spaces left for additions in the *completa*; B is similar, but with those (and other) additions present. In both cases, the person producing the manuscript knew that there would be additions, and, on these grounds, Gál and Brown stated that there was only one redaction, just in complete and incomplete form. The version presented by X gives the *incompleta* in a version that appears to relate to the archetype independently of all the retained manuscripts, except those that the editors identify as coming from complex traditions. Unfortunately, the surviving pieces of X do not correspond to passages where A or B has left blank spaces, and thus the question remains open.

17 For example, on p. 171 the *apparatus criticus* reports five individual variants of F that are not shared by B: l. 12 alia] *om.* F || l. 13 igitur] *sed* F || l. 22 competit] *datur* F || l. 23 patet] *om.* F || realiter *om.* F. —Examples of omissions in F not reported in the *apparatus criticus* and not shared by X: p. 20, l. 6–8 Sufficit – conclusionis] *om.* F; p. 37, l. 5 similiter – secundum eos] *om.* F; p. 38, l. 20–39, l. 1 existentem – rem] *om.* *hom.* F.

Ockham's *Scriptum* in Paris

The text of the *Prologus* is copied in an English hand, but it is hard to determine if the bifolia were produced in France or in England. Other manuscripts of Ockham's *Sentences* questions combine a French and an English hand for different sections of the four books of the *Sentences*, which seems to suggest that scribes trained in England worked in Paris and were involved in the process of rapidly producing copies of Ockham's text. The only certain detail is that it is now bound in the book containing the *Sentences* of a Cistercian master, James of Eltville, which was copied at Paris in the College of St. Bernard during the closing years of the fourteenth century. If the book was not bound in the Cistercian college, it was almost surely bound in Paris. By the early fifteenth century, this witness to Ockham's work was recycled.

This fact raises the difficult question of motivation, given the importance of this work in general, as witnessed by the continued interest in Ockham's thought by contemporary historians and philosophers. For that matter, Ockham's *Sentences* questions were first printed in an *incunabulum* dated 1483, relatively early in the history of printed books,¹⁸ but too late to explain the disposal of this copy.¹⁹ Moreover, the section contained in the first quire held particular interest, since the prologue transmits Ockham's fascinating doctrine on the intuition of non-existing objects, a topic examined closely in many subsequent *Sentences* commentaries.²⁰ Why would someone discard a seemingly good and valuable copy of such a text?

18 On the first edition of Ockham, see L. Hain, *Repertorium bibliographicum: in quo libri omnes ab arte typographica inventa usque ad annum MD. typis expressi, ordine alphabetico vel simpliciter enumerantur vel adcuratius recensentur*, vol. II, Milano 1948, p. 518b, n° 11945.

19 A good example of a manuscript being recycled after the print version circulates involves a bifolium of Vincent of Beauvais used as a cover for a pile of folia in Braşov in the fifteenth century: A. Dinca, "A Manuscript Fragment of Vincent de Beauvais's *Speculum historiale* in Romania (Sibiu, National Archives, U.V. 1926)", *Chora* 17 (2019), 301–310.

20 See here for example the testimony of Peter of Candia, known for his synthetic mind concerning general trends on specific topics: Petrus de Candia, *Lectura in libros Sententiarum* I, q. 1 (*Prologus*), a. 3, Città del Vaticano, Biblioteca Apostolica Vaticana, Vat. lat. 1081, f. 15vb: "Videtur ergo huius Doctoris

It is possible that witnesses to the *redactio incompleta* were not deemed worth saving, or that the corruption of the text in X was noticeable, and hence it was reused as binding material. Furthermore, the fact that the manuscript was never bound may have consigned its fate to housekeeping.

Another compelling reason for reusing Ockham around 1400 rests on a state of affairs overlooked by the dominant narrative in the history of philosophy concerning the philosophical stature of the Venerable Inceptor: perhaps Ockham's *Sentences* questions were simply no longer in vogue among the theologians of the late fourteenth century in Paris. Perhaps his text was trashed because it was not trendy. I have already argued that in the second half of the fourteenth century theological debates were dominated by such figures as Gregory of Rimini OESA or John of Ripa OFM.²¹ Explicit citations of Ockham's *Sentences* questions in theological works from this period are comparatively infrequent, and often when Ockham is mentioned, it is rather for his *Dialogus* than for his *Sentences* questions.²² In the circle of James of Eltville, more precisely among the German scholars in Paris, Ockham did not enjoy much popularity, either as an ally or an adversary, at least as far as one can deduce from the explicit references to Ockham, for example in the *Sentences* questions of John Hiltalingen of Basel,²³ who lectured

[scil. Subtilis] opinio in hoc consistere: quod non potest haberi notitia intuitiva obiecti presentia separata. Secunda vero opinio huic contraria habet multos defensores, non parve auctoritatis viros, inter quos existunt dominus Petrus Aureoli, Guillelmus Ochan, et Iohannes de Ripa”.

21 See M. Brînzei, “Epilogue: Commentaries on the *Sentences* in Paris around 1370”, in *Philosophical Psychology in Late Medieval Commentaries on Peter Lombard's Sentences* (Rencontres de philosophie médiévales 21), ed. M. Brînzei and C. Schabel, Turnhout 2020, 407–430, and more recently on Ripa's reception M. Brînzei and C. Schabel: “The Legacy of Jean of Ripa”, *Studi sull'aristotelismo medievale (secoli VI–XVI)* 4 (2025), 361–423, in a special issue on John of Ripa edited by Andrea Nannini.

22 The critical edition of the *Dialogus* was completed in 2024; see: <https://publications.thebritishacademy.ac.uk/pubs/dialogus/ockdial.html>.

23 Cited above in brief, but here more fully: Iohannes de Basilea, *Lectura super quattuor libros Sententiarum* (Cassiciacum-Supplementbände 20–22): vol. 1: *Super primum librum* (Principium I, Qu. 1–3), ed. V. Marcolino, coop. M. Brînzei, C. Oser-Grote, Würzburg 2016; vol. 2: *Super primum librum* (Qu. 4–35), ed. V. Marcolino, coop. M. Brînzei, C. Oser-Grote, Würzburg 2017;

Volume	William of Ockham	Gregory of Rimini	Hugolino of Orvieto
Vol. 1 (Book I: <i>Principium</i> , q. 1–3)	9	4 ¹	45
Vol. 2 (Book I: q. 4–35)	12	68	46
Vol. 3 (Book II)	10	45	49
Vol. 4 (Book III)	2	2	16
Book IV (in progress)	N/A	N/A	N/A

Table 4: Citations of William of Ockham, OFM, Gregory of Rimini, OESA, and Hugolino of Orvieto, OESA, by John Hiltalingen of Basel, OESA

in the Augustinian convent in Paris in 1368–1369, the year before Eltville, who was intimately familiar with Hiltalingen's work.

Ockham was known but did not enjoy the same level of popularity as others among the contemporaries of Eltville. Even Eltville himself refers here and there to Ockham's *Sentences* questions, from which he quotes in book I Ockham's *Prologus* (q. 1) and distinctions 1, 2, 3, 5, 17, 27, and 44,²⁴ but these references do not surpass the number of quotations from Gregory of Rimini, John of Mirecourt, and Alphonsus Vargas of Toledo. Another extreme example is that of the German theologian Angelus Dobelin, who read the *Sentences* at Paris in 1374–1375 and who apparently does not quote Ockham at all.²⁵

The identification of the contents of two parchment bifolia inserted to protect the main paper text of codex Besançon, BMAC, 198, provoked the following question: why was the *Sentences* commentary of William of Ockham, a major figure of the fourteenth century, used around 1399 to reinforce the text of a lesser-known author, James of Eltville? Trying to answer to this question led to others: were copies of Ockham's text so abundant in Paris around

vol. 3: *Super secundum librum* (Principium II, Qu. 1–28), ed. V. Marcolino, coop. M. Brinzei, C. Oser-Grote, Würzburg 2018; vol. 4: *Super tertium librum*, ed. V. Marcolino, M. Brinzei, coop. C. Oser-Grote, Würzburg 2020.

²⁴ See the index of the published volumes.

²⁵ See the list of explicit citations in his *Sentences* in A. Trapp: "Angelus Dobelin, Doctor Parisiensis, and his Lectura", *Augustinianum* 3/2 (1963), 389–413.

1400 that dismantling one to reinforce another manuscript was not considered a big sacrifice?²⁶ Is the poor quality of the text and its incomplete nature the reason why the work was valued more for its parchment than for what was written on it? Were these two bifolia just fragments of a lone quire lying among other scraps on a desk in the *scriptorium* of the Collège des Bernardins, where Eltville himself had written his own work, and the scribe of Besançon 198 simply joined them to the main text, a good reuse of some valuable parchment? Or did Ockham's *Sentences* commentary simply no longer inspire much interest among the Cistercians in Paris toward the end of the fourteenth century and was therefore deemed fit for physical recycling? The reader is free to choose her own answer, keeping in mind that all these questions reiterate the same Fragmentology dilemma between "what a fragment is" and "what it was" that William Duba clearly identified recently.²⁷

26 For example, four copies of Ockham's text survive in Paris: Bibliothèque nationale de France, lat. 14313 and 15561, and Bibliothèque Mazarine, 893 and 894. To this should be added that the codex from Firenze, Biblioteca Nazionale Centrale, Conv. soppr. A.3.801 has parts copied by a French hand and was probably also produced in Paris.

27 W. Duba, "Finding the Prior Leaf", *Fragmentology* 6 (2023), 5–65, at 6.

A Fragmentary Witness of William of Ockham's *Brevis Summa Libri Physicorum*

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Abstract: The binding of an incunable edition printed in Leuven and formerly owned by the Franciscan convent in Cologne preserves one bifolium and the offset of another from a copy of William of Ockham's *Brevis summa libri Physicorum*. This note describes the physical remains, and attempts to reconstruct the parent manuscript's appearance and the place of its text in the textual tradition of the commentary.

Keywords: William of Ockham, Aristotle, commentary

William of Ockham wrote several commentaries on the Aristotelian *Physics*. One of those treatises, known under the title of *Brevis summa libri Physicorum*, had a rather limited transmission. The critical edition from 1984 by Stephen Brown was based on the three then-identified manuscripts.¹ In 2018, Brent Purkapple and Steven J. Livesey published the description of a fourth witness.² My recent discovery of a bifolium of the same text preserved as a pastedown in an incunable from the collection of the University and City Library in Köln (Cologne) brings the current total up to five manuscripts.

* The research for this article was carried out as part of my postdoctoral fellowship project Mind Your Words! The Role of Medieval Translations in the History of Concepts, funded by the Research Foundation – Flanders (12W5722N).

1 S. Brown, *Venerabilis Inceptoris Guillelmi de Ockham Brevis summa libri Physicorum, Summula philosophiae naturalis, et Quaestiones in libros Physicorum Aristotelis* (Guillelmi de Ockham Opera Philosophica VI), St. Bonaventure, NY, 1984, 7*–9*.

2 B. Purkapple and S. J. Livesey, "A New Manuscript of Ockham's *Brevis summa libri Physicorum* : Saint-Omer, Bibliothèque d'Agglomération, BA 317", *Scriptorium* 72 (2018), 276–292. Digital images of the manuscript: <https://arca.irht.cnrs.fr/ark:/63955/md29b5645q96> (accessed 16 July 2024). For a full transcription of the text in the manuscript by the authors of the article, see <http://doi.org/10.15763/11244/299775>.

The three codices used by Brown are Uppsala, Universitetsbibliotek, [C 665](#) (A), München, Bayerische Staatsbibliothek, [Clm 4379](#) (B), and Göttingen, Niedersächsische Staats- und Universitätsbibliothek, 4 Cod. Ms. theol. 124 (C). The relevant quires in MS A were written in a fourteenth-century cursive hand. The provenance of the manuscript can be traced back to the capitular library of Frauenburg (currently Frombork in Poland).³ MS B was written at Konstanz in 1347–1348 (*pace* Brown, who broadly situates it as “saec. XIV/XV”). It later belonged to the collection of the Benedictine convent of Saint Ulrich in Augsburg.⁴ MS C from the fourteenth century is labelled on fol. 1r as “Liber fratrum minorum Gottingen”.⁵

The manuscript that Purkaple and Livesey discovered in Saint-Omer (Bibliothèque de l’Agglomération de Saint-Omer, [317](#)) was designated by them as MS D. Although it entered the library after the French Revolution, and, more precisely, after the confiscation of the local Benedictine abbey of Saint Bertin, it belonged to the collection of the Dominicans of Saint-Omer in the sixteenth century. The quires containing the *Brevis summa* have watermarks corresponding to a paper mill in Central Germany or Austria in the second half of the fourteenth century.⁶

It could be anticipated that any hypothetical further witness of the text would be found in a similar geographical and cultural context. To the four previously identified witnesses I can now add the remains of a fifth copy, equally with a German background, two bifolia used as pastedowns on the boards of the incunable Köln, Universitäts- und Stadtbibliothek, GB IV 7361 [[F-amgv](#)].⁷ The book itself is a folio copy of the *Sermones quinquaginta super orationem dominicam* ascribed to Hermannus de Petra and printed by John of

3 M. Andersson-Schmitt, H. Hallberg, M. Hedlund, *Mittelalterliche Handschriften der Universitätsbibliothek Uppsala. Katalog über die C-Sammlung*. Band 6. Handschriften C 551–935, Stockholm, 1993, 244–249.

4 E. M. Buytaert, “The Elementarium Logicae of Ockham”, *Franciscan Studies* 25 (1965), 151–276, in particular 166 and 152. Digital images of the manuscript: <https://mdz-nbn-resolving.de/details:bsb001278o8>.

5 Brown, *Brevis summa*, 9*.

6 Purkaple and Livesey, “A New Manuscript”, 277–278.

7 <http://services.ub.uni-koeln.de/cdm/ref/collection/inkunabeln/id/73815>.

Westphalia (Johannes de Westfalia) in Leuven in 1484 (GW 12293; ISTC [ih00073000](#)). It has wooden boards covered with brown leather stamped with rulings and figures except for the back, and it displays the remains of two brass clasps.

The initial exploration of the manuscript remains was done on the basis of the images available online. They show various indications of the book's provenance. Printed labels with the ex libris of the Library of the Franciscan convent in Cologne ("Ad Biblioth. FF. Min. Conv. Coloniae") and the former shelfmark "O L.V. n.7." were pasted onto the manuscript leaf on the front board [Figure 1]. The shelfmark "J.S. L.z. N.4." is handwritten in ink on the recto of the first flyleaf, accompanied by modern catalogue references in pencil. The first unnumbered printed leaf has a nineteenth-century stamp of the "Gymnasial-Bibliothek zu Koeln" in its lower margin.

The images document a bifolium pasted onto the front board, which displays discoloration at the sides where a leather cover was previously folded over it. Its current dimensions are approximately 285 × 180 mm. The text is written in a late fourteenth-century German semi-cursive hand on long lines, originally more than 48 per page, since the bottom of the bifolium was trimmed off with the loss of about seven lines per page. Marginal annotations indicate the logical articulations of the commentary's content as "p^o", "2^o", and "3^o".

The preserved text on the left section coincides with p. 11, l. 22 (*quando arguitur quod est factum* – p. 14, l. 115 (*sed esse veras substantias*), the right side contains p. 52, l. 91 (*quod causa divisionis est materia*) – p. 57, l. 40 (*notandum hic primo quod*) ed. Brown. The latter passage interestingly includes the beginning of the treatment of book IV of Aristotle's *Physica*, where the opening words of the Aristotelian text are quoted in larger and slightly less cursive characters (*[S]imiliter autem* – the initial is missing). The lemma of the Aristotelian text opening the last chapter of book III (p. 53, l. 3 ed. Brown) is similarly executed in larger characters, preceded by a paragraph sign, and underlined. As for the end of book III, that is indicated with the formula *explicit sententia 3ⁱ libi phi(sicorum)*, thus clearly going against the convention to designate the work as



Figure 1: [F-amvg] Universitäts- und Stadtbibliothek Köln, GB IV 7361.
Front Pastedown

summa in the colophons of A and B, and siding with the *sententie octavi libri phisicorum* at the end of D. Obviously, this one preserved intermediary concluding formula brings no decisive evidence for the phrasing of the lost explicit of the entire work at the end of book VIII.

In the preface of his edition, Brown determined that the three manuscripts known to him are independent from each other. In his opinion, A preserves the best version of the text, while B and C go back to a shared lost intermediary copy.⁸ Purkaple and Livesey established the similarity between B and D in their textual variants, suggesting that they relied on another shared ancestor.⁹ As for the Cologne fragment (K), a considerable number of textual variants connect it with the readings of MS C:

- 11,22: quod est factum + habet principium CK
- 11,33: ad] per CK
- 11,36: neganda est] negari debet C : debet negari K
- 11,44: primo sic] prima ratio est ista : prima ratio talis K
- 12,47: vult + dicere CK
- 12,51: aliqua univocatio (CK)] alia univocatio A : aliquod univocum BD
- 12,54: essent] erunt BD : sunt res C : esse videtur res K
- 12,55: stricte] large CK
- 12,64: quia tunc] tunc enim CK
- 12,67: qualitas est *om.* CK
- 13,87: substantia habet quantitatem quantitas est] substantia esse quantitatem et qualitatem esse C : substantiam habere quantitatem quantitatem esse K
- 13,90: mentem] intentionem CK
- 14,96: accidens distinctum: aliqua res distincta CK
- 14,98: aliquid + plus CK
- 14,115: verae substantiae] esse veras substantias CK
- 52,91: dicendum] distinguendum est CK : + de materia C
- 53,98: similiter] sic C : sic etiam K
- 53,101: amphiboliae] aequivocationis CK
- 53,13: posset esse] esset CK
- 54,41: in magnitudine procederet] in magnitudinis procedat CK

8 Brown, *Brevis summa*, 15*.

9 Purkaple and Livesey, "A New Manuscript", 280–282.

55,51: secundo] illo CK
 55,58: a rebus numeratis] praeter rebus numeratas CK
 55,59: magnitudinem + esse CK
 56,5: primo sic (Brown)] sic ABD : primo sic quia C : sic primo
 quia K
 56,5: corpora + naturalia CK
 56,6: naturalia] naturaliter CK
 56,10: locus est] locum esse CK
 56,12: patet] probatur CK
 56,15: distinguuntur] differunt CK
 56,18: hoc quod] quia CK
 56,20: tantum] tamen B : solum CK
 56,21: quando scilicet illud] quia illud scilicet D : quia illud CK
 57,24: sint aliae res] esse aliqua CK
 57,31: probat] arguit DCK
 57,33: si igitur locus sit] sed locus si sit aliquid est simul CK
 57,35: recipiat] retinet CK

Some variants are only transmitted in K:

13,81: sequitur] sciendum K
 13,76–85: et qualitatem – Commentatoris *om.* K
 55,57: dicere + contra Platonem K
 55,65: veritas] necessitas K
 56,11: hic] sicut C : iste rationes K
 56,17: terram] aerem K
 57,31: aliam partem videlicet] aliam partem negativam B : ad
 partem C : ad partem negativam K : *om.* D

The limited data available for comparison make it clear that both C and K were copied from a lost intermediary stage of the transmission (γ), which would necessitate adding an extra bifurcation in the stemma given by Purkale and Livesey.¹⁰ The character of the distinctive readings cannot be considered mechanical scribal errors: they rather betray the editorial intervention of an anonymous scholar. In C, the editorial changes are so important that Brown confined three long additional passages typical for that manuscript to appendices at the end of his edition.¹¹ The online image allowed

¹⁰ Purkale and Livesey, “A New Manuscript”, 282.

¹¹ Brown, *Brevis summa*, 815–820.

me to confirm that the supplement in Brown's appendix C, which follows after *verificabile* (14,99) is absent from K.¹² Consequently, it seemed likely that the passage was introduced in a later phase of the transmission than in the common ancestor γ .

Yet the book was about to produce more surprises than could be anticipated from the online images. When I contacted Svenja Berkensträter about the fragment and she had the volume retrieved from the stacks at the Stadt- und Universitätsbibliothek Köln, she discovered that the book's physical appearance had undergone several changes since it had been digitized.¹³ The labels from the Franciscan convent's library had been removed and the pastedowns detached from the board. As a result, the text on the verso of the pastedown became visible, although the damage done by time and glue makes it difficult to read. The available evidence confirms that only a few lines were trimmed at the bottom of the bifolium since little text was lost in the transition between verso and recto. On the prior recto, the text starts p. 5, l. 22 (*realis et aliqua non...*), on the other it continues through p. 63, l. 180 (*...quia scilicet carent*). Most interestingly, the former passage also includes the *prologus tractatus*, yet not in the standard version (pp. 8–9 Brown), but in the variant preserved in C (Appendix B, pp. 818–819 Brown). That particularity once again confirms the similarity between C and K. At the same time, it inspires caution to accept unreservedly that all characteristic divergences in the text transmitted by C can necessarily and uniformly be attributed to one and the same editorial stage in the text's history.

Undoubtedly, the rear pastedown was removed at the same time as the front pastedown was detached. The online image shows that the paper leaf apparently came from an unidentified early-modern academic dissertation on logic [Figure 2]. The removal of the replacement pastedown has revealed the offset of an earlier pastedown. Although large sections of the text have become illegible,

12 Brown, *Brevis summa*, 819–820.

13 Private email 23 July 2024. I am extremely grateful to Svenja Berkensträter for the prompt and enthusiastic reaction on my query. She also kindly provided me with images that document the current appearance of the manuscript waste and its traces in the volume.

especially at the bottom of the bifolium, it is clear that it was a bifolium from the same manuscript as the front pastedown. On the visible verso, text can be recognized from p. 47, l. 18 onward (*[sol] vit omnes istas...*), on the visible recto, text from p. 14, l. 122 (*accidentia...*). Consequently, the lost bifolium must have been adjacent to the one that is now the front pastedown further to the middle of the quire.

The availability of more remnants of pages revealed an interesting shift in the material presentation of the text. In the earlier parts of the work, the text was presented in a more spacious layout (around 48 lines per page visible), while the sections from further in the commentary are more crammed (around 54 lines). This might suggest that a change of scribe occurred between the two passages. However, I was unable to find any noticeable difference in hand. It seems probable that the same scribe decided to condense his writing during the copying process of the entire text. Incidentally, Ockham's commentary was probably not the only text in the volume, since a calculation on the basis of the remains indicates that the text must have started in the middle of the verso of the lost previous leaf.

The identification of the bifolium and the offset of another one from a lost manuscripts of William of Ockham's *Brevis summa libri Physicorum* does not significantly add to our knowledge of the transmitted text. Still its discovery is relevant for the reception history of the work since it confirms that the treatise initially had a less restricted dissemination than was previously accepted. However, the fact that the manuscript was discarded and recycled as binding waste as early as the late fifteenth century suggests that interest in its content had already faded by that time.



Project Report

Medieval Fragments Revealed with FraggEndoscopy: A Pilot Project to Detect and Record Spine Linings with an Endoscopic Camera

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Abstract: The pilot project FraggEndoscopy applied borescope cameras to document the presence of fragments in situ in book-bindings as spine linings. This entailed developing a methodology for the safe and effective use of endoscopic cameras and for the transformation of the (video) imagery into two-dimensional images of the manuscript fragments. Three case studies validate the proposed methodology, showing that it produces excellent results while keeping financial and time expenditures to a minimum.

Keywords: in situ fragments, manuscript endoscopy, borescope, spine linings

During the early modern period, many medieval manuscripts were cut into strips of parchment which were used by bookbinders to reinforce the bindings of newly printed books.¹ So far, these reused pieces of parchment only came to light when the early modern book binding was damaged or dismembered. As a result, initiatives within the field of fragmentology have mainly relied on collections of such fragments that were once removed from book bindings during conservation efforts. In recent years, scholars are increasingly turning

¹ See, e.g., N. Pickwood, “The Use of Fragments in Medieval Manuscripts in the Construction and Covering of Bindings on Printed Books”, in *Interpreting and Collecting Fragments of Medieval Books*, ed. L.L. Brownrigg & M.M. Smith, London 2000, 1–20.

their attention to those fragments that are still located in places where they had originally been applied to reuse, most notably inside book bindings that are still intact.² The challenge of accessing these fragments without damaging the structure of the early modern book has led to the experimentation with non-destructive techniques, including macro-XRF scanning, hyper spectral imaging and computed tomography.³ While these advanced techniques proved relatively successful in gaining access to the medieval manuscript fragments, they are costly and time-consuming. Moreover, the early modern books often need to be relocated from their holding institution to a laboratory with the proper examination facilities; the scanning process for a single book can take up to 24 hours, followed by additional processing of the resulting data to visualize the fragments. This short article reports on a pilot project that explores the potential of a faster, simpler and cheaper solution: endoscopy.

1. FragmEndoscopy: Towards an effective and safe procedure

Endoscopy involves the use of a fiberscope or borescope camera to inspect small, difficult-to-reach places. The technology is used by doctors, e.g. in a bronchoscopy or colonoscopy procedure, as well as by plumbers and car mechanics. Fitted with a light and a mirror, an endoscopic camera can be used to take images within narrow passageways inside the human body, machines and tubing in order to detect deficiencies and damages. The pilot project

2 See, e.g., J.R. Duivenvoorde, A. Käyhkö, E. Kwakkel and J. Dik, “Hidden Library: Visualizing Fragments of Medieval Manuscripts in Early-Modern Book-bindings with Mobile Macro-XRF Scanner”, *Heritage Science* 5 (2017), art. 6 (<https://doi.org/10.1186/s40494-017-0117-6>).

3 Duivenvoorde et al., “Hidden Library”; E. Pouyet, S. Devine, T. Grafakos, R. Kieckhefer, J. Salvant, L. Smieska, A. Woll, A. Katsaggelos, O. Cossairt & M. Walton, “Revealing the Biography of a Hidden Medieval Manuscript Using Synchrotron and Conventional Imaging Techniques”, *Analytica Chimica Acta* 982 (2017), 20–30 (<https://doi.org/10.1016/j.aca.2017.06.016>); J.E. Ensley, K.H. Tachau, S.A. Walsh et al., “Using Computed Tomography to Recover Hidden Medieval Fragments beneath Early Modern Leather Bindings, First Results”, *Heritage Science* 11 (2023), art. 82 (<https://doi.org/10.1186/s40494-023-00912-9>).

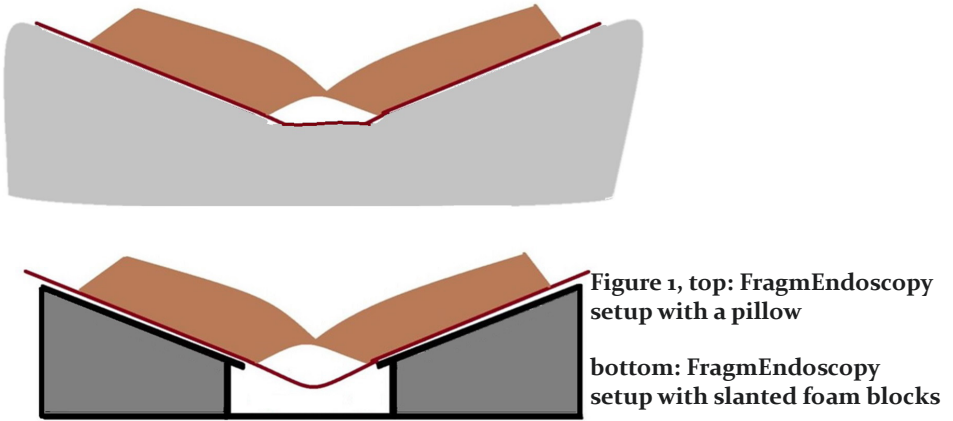
‘FragmEndoscopy’ applied this method to early modern books as a minimally invasive way to gain access to medieval manuscript fragments that were used as spine linings.⁴ The project took place over the course of the academic year 2023–2024 at Leiden University Library and the Noord-Hollands Archief, Haarlem, under the supervision of conservation staff.⁵

The FragmEndoscopy project experimented with two endoscopic cameras within the price range of 400–600 EUR. The first was a Novascope VS91285HD, a borescope originally intended for cavity wall inspection. This borescope has a side-facing camera (90 degrees), two adjustable LED lights, a diameter of 9 mm and a focus distance of 1–20 cm. While this camera did yield some results, the focus distance in particular was problematic. The second camera used was a Novascope TSNTG500H, a borescope designed for gun barrel inspection. This borescope has a forward-facing camera with five attachable mirrors (for guns of different calibers), six white LED-lights, a diameter of 5 mm and a focus distance of 1–20 mm (with mirrors). With its smaller diameter and focus distance, this camera proved to be much more effective and is the one referred to as the ‘FragmEndoscope’ in the remainder of this article.

The FragmEndoscopy procedure makes use of the natural mechanics of the binding of the early modern book, which creates a space between the spine (the side of the text block where the pages are connected by sewing) and the spine covering whenever the book is opened (as long as the spine covering is not glued onto the spine). This space is large enough to allow access to the FragmEndoscope with its 5 mm diameter: a representative sample of books of differing formats, opened at an angle of c.140 degrees, showed a gap between spine and spine covering with an average width of between 1.5 and 3 cm, depending on the format of the book (octavo, quarto,

4 For the use of an endoscopic camera to record medieval fragments inside musical instruments, see J.-P. Échard and L. Albiero, “Identifying Medieval Fragments in Three Musical Instruments Made by Antonio Stradivari”, *Fragmentology* IV (2021), 3–28 (<https://www.fragmentology.ms/article/view/stradivari/2831>).

5 The authors would like to thank Karin Scheper and Godelieva van der Randen (Leiden University Library) and Julia Owczarska and Hannah Goedbloed (Noord-Hollands Archief, Haarlem) for their assistance and advice.



folio) as well as the number of pages. The books were supported by a pillow or slanted foam blocks; the latter proved particularly useful in cases where flexible spine coverings were pushed upwards by the pillow, which resulted in a narrower gap [Figure 1].

A number of measures were taken in order to mitigate the risk of damaging the early modern book bindings due to the insertion of the FragmEndoscope. First, we chose to use a rigid rather than a flexible endoscope, since the movement of a flexible endoscope would be harder to control. In addition, the rigid FragmEndoscope was placed on a foam block with a gutter, which made it possible

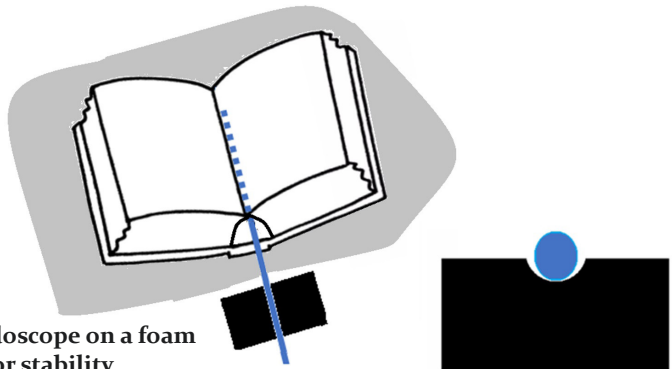


Figure 2: FragmEndoscope on a foam block with gutter for stability



Figure 3: A mirrored photo of part of a spine lining, reading the word 'God'. Leiden, University Library, Special Collections, 617 F 19

to stabilize the camera and further minimize the risk of sudden, uncontrolled movement [Figure 2].

As a preliminary measure, the FraggEndoscope's forward-facing camera was moved gently through the gap between the spine and its covering in order to identify any potential obstructions, such as loose-hanging spine linings, sewing supports, etc.⁶ Once it was ascertained that the gap was clear of obstructions and that spine linings with parts of text were present, a mirror was attached to the camera, which allowed recordings to be made at an angle of 90 degrees.

2. Framing the fragments: Basic image manipulation

The FraggEndoscope, once inserted into the gap between spine and spine covering and fitted with a mirror, was able to produce high-quality images of the spine linings. However, due to the minimal distance between the camera and the fragment, single photos of the fragments only showed small parts of the spine lining, often no more than a few letters [Figure 3]. Moreover, given the limited manoeuvrability inside the gap between spine and covering, it was not easy to make consecutive images of the various parts of the spine linings. For these reasons, making a video with the FraggEndoscope

6 For a video of a forward-facing endoscopic camera moving along a book's spine, see: <https://youtu.be/39FMuUGuzZk>.



Figure 4: Aligning different screenshots with opacity, difference and perspective settings

hovering across the full spine lining proved a more effective way to obtain an overall view of the fragment. These hovering videos were next edited as follows: the image was mirrored and parts of the video were cut, pasted and reversed so as to show the spine lining's text from left to right and from top to bottom.⁷

This edited video was then used to produce an assemblage of images that gives an overview of the full fragment. For this project, we made use of the web-based photo and graphics editor Photopea, using settings and functionalities that are also available in other imaging software programmes, such as Adobe Photoshop. Screenshots from the video were cleaned up and aligned using different settings, including difference, opacity and perspective [Figure 4]. The latter function was particularly useful in cases where shifting camera angles made it difficult to fully align directly adjacent letters.

These shifting camera angles also caused differences in lighting and colour discrepancies between different screenshots; these

7 For an example of such an edited video, see: <https://youtu.be/zMFBK1CYk-s>.



Figure 5, top: An assemblage of c.20 screenshots before the transitions were softened with photo editing software; bottom: the transition between two screenshots before and after PhotoPea's 'autoblend' function



Figure 6: Assemblage of screenshots representing a spine lining with a Middle Dutch text: "mijn mont sal voertkundigen dijn lof. God wilt dencke". Leiden, University Library, Special Collections, 617 F 19

differences were resolved by manually adjusting the colour saturation of the images or by using PhotoPea's 'autoblend' function [Figure 5]. The end result of this process is an assemblage that produces a full view of the spine lining [Figure 6].

3. Three case studies

The three case studies below demonstrate the value of the results produced with *FragmEndoscopy*. Each reveals how it is possible to identify the text of spine linings on the basis of the images produced.

3.1. Middle Dutch Book of Hours by Geert Grote

The spine lining reproduced in Figure 6 was one of the subjects of the 2017 article by Duivenvoorde et al., which demonstrated their method of using macro-XRF scanning techniques to make medieval fragments visible. The text, which reads "mijn mont sal voertkundigen dijn lof. God wilt dencke" [my mouth shall proclaim your praise. May God think] was identified by Duivenvoorde et al. as belonging to a manuscript dated to ca. 1400 of the Book of Hours translated by Geert Grote (†1384).⁸ A comparison between Figure 4 and the colour reconstruction produced by Duivenvoorde et al. is insightful.⁹ On the one hand, it demonstrates the accuracy of their reconstruction on the basis of their macro-XRF scans; on the other, it reveals how the *FragmEndoscopy* reconstruction shows less interference from chemical elements on the back of the spine lining and, therefore, produces a more legible result, which is particularly clear in the case of the capital *G*.

3.2. Two fragments with musical annotation: *Versus alleluiaticus*

Two spine linings were recorded inside Haarlem, Noord-Hollands Archief, 165 G 5. They were cut from the same leaf and show text in a fourteenth-century Gothic hand with musical notation.¹⁰ A search in *The Gregorian Repository* suggests that this could be a

8 Duivenvoorde et al., "Hidden Library".

9 For their colour reconstruction of this spine lining, see <https://heritagescience-journal.springeropen.com/articles/10.1186/s40494-017-017-6/figures/7>

10 An edited video of both spine linings is available at <https://youtu.be/DLOz-RVhRuw>.

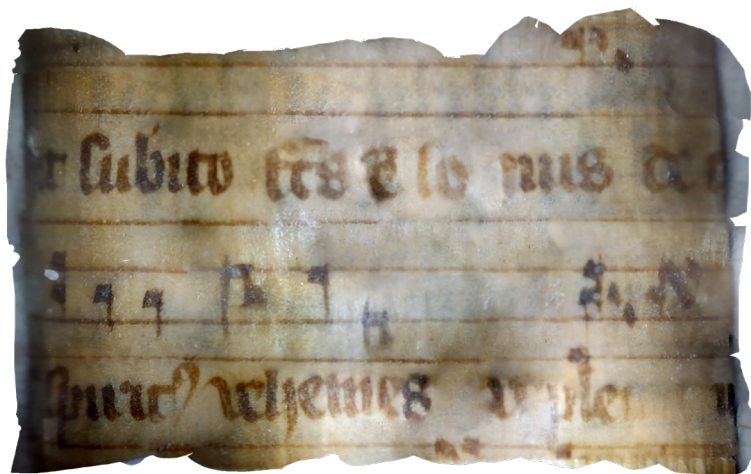


Figure 7: Assemblage of screenshots representing a spine lining with musical notation. Haarlem, Noord-Hollands Archief, 165 G 5

version of the *versus alleluaticus* from a Gradual,¹¹ the text of which is given below with the parts in bold representing the writing on the spine linings:

Dum **complerentur** dies Pentecostes,
erant **omnes pariter** dicentes : alleluia :
et **subito f(ac)t(u)s e(st) sonus de caelo**, alleluia,
tamquam spirit(us) **veheme(n)s repleuit** totam domum.¹²

One particular difficulty in creating the assemblage [Figure 7] for these spine linings on the basis of the recorded video was the musical notation, which was hard to reproduce given both the curvature of the spine lining and the limited manoeuvrability of the FraggEndoscope within the gap between the spine and its covering. In order to achieve straight lines for the musical notation, the perspective

¹¹ <https://gregorien.info/chant/id/2498>; <https://cantusindex.org/id/gom12.1>. Alternatively, it might be the Responsory for Matins for Pentecost Sunday, from an Antiphonal, <https://cantusindex.org/id/006536>. We are grateful to the peer reviewers for pointing out this alternative possibility.

¹² <https://gregorien.info/chant/id/2498/o/en>

of some of the screenshots in the assemblage had to be adjusted, resulting in a slightly blurrier image.

3.3. Middle Dutch translation of Henrico Suso's *Hundert Betrachtungen und Begehrungen*

The challenge offered by the spine lining reconstructed for the final case study [Figure 8] is the fact that it was somewhat creased and partly obscured by the endband and tie-downs.¹³ Moreover, the spine lining turned out to be cut vertically from a manuscript page, which means that most of the visible words are incomplete. In spite of these difficulties, we were ultimately able to identify this text as a Middle Dutch version of Henrico Suso's *Hundert Betrachtungen und Begehrungen*, e.g. by postulating that the sequence "Pyla" could be expanded to "Pylatus" [Pilate]:

Eya ewege waerheit heere ihesus, ic ver**mane u** heden der scameliker noet die u [sali]ghe siele leet, doen ghi waert voer **Pylatus scandelike(n)** gebrocht, **valschelike** gewroeht **en(de) ter scandeliker doot sonder** scout bewijst.¹⁴

The script is a textualis script that allows us to date this manuscript to the fifteenth century.

Conclusion

The three case studies presented above demonstrate that the FragmEndoscopy procedure effectively allows for the identification

¹³ For an edited video of this spine lining, see https://youtu.be/hN_IPOm96k.

¹⁴ Bold text represents one of the spine linings in Haarlem, Noord-Hollands Archief, 157 M 4. The rest of the text is from the Middle Dutch version of Henrico Suso's *Hundert Betrachtungen* edited in *Middelnederlands geestekijk proza*, ed. C.C. de Bruin, Zutphen 1940, 115. That version of the text does not contain the word "salighe"; this word is reconstructed on the basis of an alternative version edited in Jose van Aelst, *Passie voor het lijden: De Hundert Betrachtungen und Begehrungen van Henricus Suso en de oudste drie bewerkingen uit de Nederlanden*, Leuven 2015, 282–283: "O ewige waerheit, heer Jhesus, ic vermane di huden der scameliker noet die dijn salighe ziele leet, doe du wordes over Pylatus ghebrocht, valschelic ghewroeht ende ter scameliker doot sonder schout verwijst."

Figure 8: Spine lining with Middle Dutch text. Haarlem, Noord-Hollands Archief, 157 M 4



of text and dating of spine linings inside intact early modern books. Compared to more complex techniques with special scanning equipment, *FragmEndoscopy* is not only relatively affordable (400–600 EUR), it is also time-efficient: the recordings were made within minutes on location; the basic image manipulation per fragment took no longer than two hours. This particular pilot project was run with minimal means; it is to be expected that higher-quality endoscopic cameras and editing software will yield even better results, both in terms of image quality and time efficiency. The ease of detection of hidden fragments, offering the possibility to make a relatively quick preselection from a series of books for further investigation, adds to the value of the endoscopic camera. As a non-destructive way to identify the presence (and nature) of medieval manuscript fragments inside book spines, *FragmEndoscopy* could also be used as a preliminary identification procedure, before more advanced scanning techniques are applied. These techniques may yield better results for parts of the spine linings that are hard to record with an endoscopic camera, such as the outer edges of the spine linings and the reverse side of the fragment. Overall, we conclude that the endoscopic camera could be a promising new weapon in the arsenal of the fragmentologist.

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Project Report

Challenges in the Description of in situ Fragments: host volume, shelfmarks, and images

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Since 2021, the team of the [Ticinensia disiecta](#) project¹ has entered into the *Fragmentarium* platform more than 110 descriptions of in situ fragments. The fieldwork, carried out in part in a pioneering manner, has led to some reflections that we would like to share with the community of editors and projects working on the database, as well as with fragment researchers more broadly, in the hope of provoking a fruitful exchange of experiences. Specifically, working with in situ fragments has revealed challenges related to using the *Fragmentarium* description module for describing host volumes, assigning shelfmarks to fragments still present in a carrier, and documenting that carrier with photographs. In each of these areas, however, we envision some possible solutions.

Host Volume

The *Fragmentarium* web application includes the Description Module, featuring a multi-section form to be filled out and intended to cover scholarly descriptions of a wide range of manuscript

¹ Cf. M. Bernasconi Reusser, R. Iacobucci, L. Luraschi, “Frammenti in situ nelle biblioteche cappuccine del Canton Ticino (CH)”, *Fragmentology* 5 (2022), 51–78, at 62–67 (<https://doi.org/10.24446/gkuy>).

Edit Description

F-fuds – Iustinianus, Institutiones cum glossa

Parchment · 1 leaf (part) · 1301 – 1400 CE · 1451 – 1500 CE · Italy · 173 x 29 mm

Orselina-Locarno, Biblioteca Madonna del Sasso, MDS 62 Ga 7

Information about the Description

Description for Document: *

F-fuds: Orselina-Locarno, Biblioteca Madonna del Sasso, MDS 62 Ga 7

Bibliographical Reference for this Description: *

Renzo Iacobucci, Laura Luraschi, Lugano, Biblioteca...

List all

Dashboard

Collections

Documents

Descriptions

Sequences

Projects

Indices

Page Reference: *

Allow other persons to change this description? *

Yes

Language of Description: *

Italian

Description URL: *

Description Copyright: *

CC-BY (Creative Commons, Attribution)

Publication Form:

Born Digital

Remarks by the Editor: *

B

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↻

↻

Renzo Iacobucci (fragment description).

Laura Luraschi (host volume description, images management).

Si ringrazia il dottor William Duba per le indicazioni

General Information

Original Condition *

Current Condition *

Decoration and Musical Notation

Content

History

Host Volume *

Bibliography

Cancel

Save

Save & Publish

Figure 1: The Fragmentarium Description Module (subfields collapsed)

fragment material [Figure 1]. While the section designated to the host volume may seem exhaustive in the case of a manuscript, in the specific case of it being a printed book—the type in which most of our fragments are found—it deserves to be expanded [Figure 2].

Since we are dealing with printed editions, produced between the 15th and 19th centuries, it would be desirable for the structure of the section to draw more inspiration from the [MARC21](#) format which is designed to be a carrier for bibliographic information about

Fragmentology VII (2024)

Host Volume ?	
	<div>Dashboard</div> <div>Collections</div> <div>Documents</div> <div>Descriptions</div> <div>Sequences</div> <div>Projects</div> <div>Indices</div>
	<p>appertinenti ad essa. Raccolte per opera di Giulio Folco. Con le tavole de' capi & delle materie.</p>
Date of Origin/Publication:	1581
Place of Origin/Publication:	<p>In Roma, appresso Francesco Zanetti</p> <p>Rome: Origin ✕</p> <p>Add Place To Host Volume</p>
Shelfmark: ?	MdS 62 Ga 7
Page/Folio Reference:	
Persons: ?	<p>Nota manoscritta sul frontespizio, occultata da tassello in carta; visibile in basso: Loci Capuccinorum Locarni.</p> <p>Cappuccini Locarno: Previous Owner ✕</p> <p>Folco, Giulio: Author ✕</p> <p>Zanetti, Francesco 1530: Printer of Host Volume ✕</p> <p>Add Person To Host Volume</p>
Conditions of Deposit: ?	
Remarks (including about the binding): ?	<p>Legatura semifloscia con coperta in manoscritto membranaceo di recupero, sul dorso la vecchia segnatura della biblioteca del Convento dei Frati Cappuccini di Locarno: E II 14.</p>

Figure 2: The host volume section of the Description Module

printed and manuscript textual materials, computer files, maps, music, continuing resources, visual materials, and mixed materials.

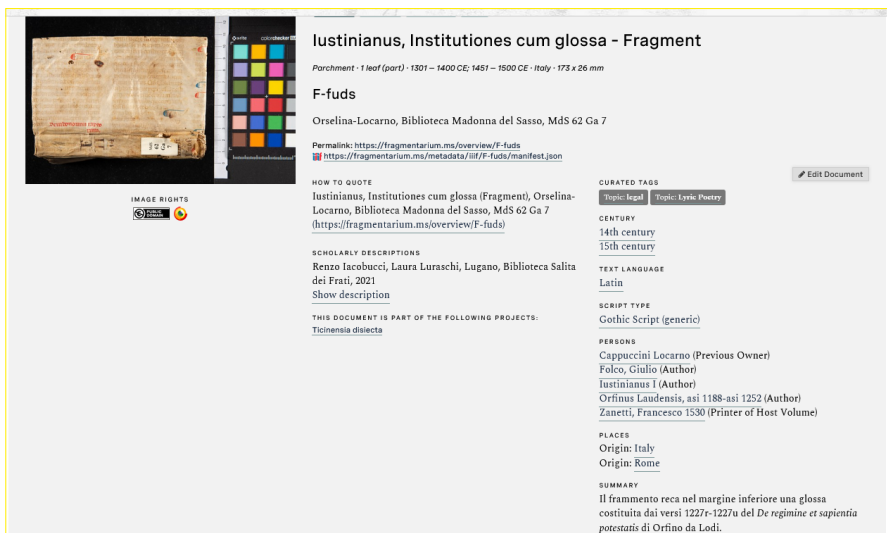
Title: the section could distinguish more clearly between author and title of the work by creating a separate author field from the title field, with the possibility of importing authoritative names directly from VIAF.

Persons: this section is designed to describe the agents related to the edition and the copy, as indeed the label with the terms “authors, editors, printers, bookbinders” suggests. We have

also used this space to indicate the former owners of the host volume, whether corporate bodies or persons.

Remarks: this is the space reserved, as the label suggests, for information on the binding. Our experience with the in situ fragments has shown that the description of the fragments' position, especially in the binding, is very important and therefore requires a dedicated field, separate from the one reserved for general remarks.

The way the fields are now organised has repercussions in the overview page, where the information is presented to the users. Specifically, the page [Figure 3] provides a list of names associated with the document, but in alphabetical order. The result is chaotic, especially when these are numerous, and not differentiated by descriptive area. To avoid possible misunderstandings, the platform should distinguish the indexing results of names pertaining to the fragment from those coming from the host volume. For example, a fragment [[F-fuds](#)] of the *Institutiones* bound in a 1581 imprint of Giulio Folco, *Effetti mirabili de la limosina* (Orselina-Locarno,



The screenshot displays the Fragmentarium overview page for a specific fragment. On the left, there is a thumbnail image of the parchment fragment, a color calibration chart, and a 'IMAGE RIGHTS' section with a Creative Commons license icon. The main content area is titled 'Iustinianus, Institutiones cum glossa - Fragment' and includes the following information:

- Parchment - 1 leaf (part) - 1301 – 1400 CE; 1451 – 1500 CE - Italy - 173 x 26 mm**
- F-fuds**
- Orselina-Locarno, Biblioteca Madonna del Sasso, MdS 62 Ga 7**
- Permalink:** <https://fragmentarium.ms/overview/F-fuds>
- <https://fragmentarium.ms/metadata/iii/F-fuds/manifest.json>
- HOW TO QUOTE**
Iustinianus, Institutiones cum glossa (Fragment), Orselina-Locarno, Biblioteca Madonna del Sasso, MdS 62 Ga 7 (<https://fragmentarium.ms/overview/F-fuds>)
- SCHOLARLY DESCRIPTIONS**
Renzo Iacobucci, Laura Luraschi, Lugano, Biblioteca Salita dei Frati, 2021
[Show description](#)
- THIS DOCUMENT IS PART OF THE FOLLOWING PROJECTS:**
[Ticinensia disiecta](#)
- CURATED TAGS**
Topic: Legal Topic: Lyric Poetry
- CENTURY**
14th century
15th century
- TEXT LANGUAGE**
Latin
- SCRIPT TYPE**
Gothic Script (generic)
- PERSONS**
Cappuccini Locarno (Previous Owner)
Folco, Giulio (Author)
Iustinianus I (Author)
Orlinus Laudensis, asi 1188-asi 1252 (Author)
Zanetti, Francesco 1530 (Printer of Host Volume)
- PLACES**
Origin: Italy
Origin: Rome
- SUMMARY**
Il frammento reca nel margine inferiore una glossa costituita dai versi 1227-1227u del *De regimine et sapientia* potestatis di Orfino da Lodi.
- Edit Document**

Figure 3: *Fragmentarium* overview page

PERSONS	
Cappuccini Locarno (Previous Owner)	
Folco, Giulio (Author)	
Iustinianus I (Author)	
Orfinus Laudensis, asi 1188-asi 1252	
(Author)	
Zanetti, Francesco 1530 (Printer of Host Volume)	
PLACES	
Origin: Italy	
Origin: Rome	

Figure 4: Detail of *Fragmentarium* Overview page for [F-fuds]: information outlined in red pertains to the fragment, blue to the host volume

PERSONS	
Alexander de Hales, 1185-1245 (Author)	
Concilio de Trento 1545-1563 (Author)	
Fabrio, Carlo (Previous Owner)	
Francescani Orselina (Previous Owner)	
Modesto da Milano (Previous Owner)	
Zanetti, Cristoforo, 1520-1582 (Printer of Host Volume)	
PLACES	
Origin: Germany	
Origin: Venice	

Figure 5: Detail of [F-g23v] Orselina-Locarno, Biblioteca Madonna del Sasso, MdS 66 Aa 17 Overview page: red is fragment, blue is host volume

Biblioteca Madonna del Sasso, MdS 62 Ga 7) produces a difficult confusion between information pertaining to the two texts [Figure 4, Figure 5].

In the case of *Sammelbände*, that is, miscellany volumes binding together multiple imprints, the results can be quite baroque [Figure 6]. Since the places of printing of the works contained in the miscellany are many, the place of origin of the fragment is not immediately identifiable. In addition to dividing more clearly in the Overview page the places referring to the fragment from those referring to the host volume, the platform should support the category ‘place of publication’ alongside ‘origin’ and ‘provenance’.

PLACES	
Origin: Augsburg	
Origin: Freiburg im Breisgau	
Origin: Geneva	
Origin: Italy	
Origin: Novara	
Origin: Padova	
Origin: Rome	

Figure 6: Detail of *Fragmentarium* overview page for [F-glko], an Italian binding fragment contained in Orselina-Locarno, Biblioteca Madonna del Sasso, MdS 22 Aa 5, a *Sammelband* with six imprints; the fragment is outlined in red, and the host volumes in blue.

Shelfmarks

In *Fragmentarium*, the area labeled “Shelfmark” in Basic Metadata is intended for “shelfmark, box, call number, or other identifier used to indicate the fragment or the unit that contains the fragment”. At the beginning of the project, and not yet fully aware of the difficulties involved in describing fragments in situ, it was decided to use the shelfmark of the host volume for the fragment, without any distinction. As the work continued, the conviction and opportunity arose, firstly, that the fragments could be identified with specific identifying markings, thus distinguishing them from the host volume. Secondly, the question arose as to how the individual fragments could be numbered. In this regard, based on the location of the fragments within the host volume, we proceeded by assigning them a number starting from the outside to the inside and following the sequence from top to bottom. Recently, we have started to use a shelfmark combination of the individual fragment in situ structured as follows: ‘host volume marking/FX’, where ‘F’ stands for ‘fragment’ and ‘X’ is a sequential number.

Images

The *Fragmentarium* platform offers the possibility to publish multiple images of the host volume, documenting the parts with particular significance for its relationship to the fragment. For instance, it is possible to include photographs of the entire binding, the endpapers with possible watermarks, the title page, handwritten notes of ownership, stamps and former shelfmarks. These are elements that we generally describe accurately because, by illustrating the history of the printed copy in which the fragments are bound, they provide fundamental information on the second life of the manuscript.

As part of the *Ticinensia disiecta* project, we have so far carried out three image collection campaigns. The complex operation of photographing the fragments in situ, which requires specific skills and equipment, is in itself very costly both in terms of time and financial resources. Photographing further parts of the volume entails

a substantial and necessary slowing down of the work, resulting in increased costs but also in the number of images to be published.

As fragment cataloguers on a limited budget, what are the elements that need to be present? How do we provide the most useful service with the human and financial resources at our disposal?

Review

Giuseppe De Gregorio, Marta Luigina Mangini, Maddalena Modesti, eds., *Documenti scartati, documenti reimpiegati. Forme, linguaggi, metodi per nuove prospettive di ricerca* (Notariorum Itinera. Varia 7), Genoa 2023, ISBN 978-88-97099-84-0 (print), 978-88-97099-85-7 (digital), [Open Access](#).

Reviewed by **William Duba**, University of Fribourg
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The case for Fragmentology hinges on its status as an interdisciplinary: it does not address just handwritten sources but also printed ones; it concerns itself not merely with the content, intellectual and material of libraries, but also with that of archives. Yet, as the editors and authors of *Documenti scartati, documenti reimpiegati* underline, far less attention has been paid to documentary fragments, both in their concrete reality and in the theoretical and methodological approaches they require, “In spite of a few statements of principle, until now attention has focused on a single typology of recycled fragments, namely book fragments, and among these, most of the interest has fallen on reuse in bindings, and before that, on palimpsests” (10). This volume proposes to explore the typology of documentary fragments.

As the title implies, documentary fragments are charters, contracts, registers, and similar documents of record that were discarded and reused. The precise definition of such fragments, the terminology to examine them, the phenomena of reuse, their survival, and their extent constitute the area of inquiry for this volume. The studies gathered here focus principally on Latin-script

documentary fragments from an area that includes Northern Italy, from Savoyard documents on the shores of Léman (Buffo) to the archiepiscopal archives of Bologna (Napoletano), with further studies on the Apostolic Penitentiary (Allegría), Salerno (Capriolo), Byzantine fragments (De Gregorio), Ethiopian ones (Bausi), and Venetian Dalamatia (Lomagistro). The contributions range from studies of individual pieces (Vignodelli) to entire corpora and classes of fragments (Perani). In many cases, the studies publish preliminary results, the first fruits of many seasons of research.

The introduction, authored by the three editors, establishes the need for the discourse opened by the volume, observing that the solutions developed for the description of book fragments do not fit the needs of documentary fragments, in their legal nature (Mangini, 10), but that “a diplomatics of the discarded and reused medieval document is not only possible, but necessary.” Concretely, that means including in descriptions “elements extrinsically important to the legal act” (Modesti, 17), such as notarial signs, signatures, cancellations of documents and so on, as well as adapting the descriptions of the intellectual content: while a book has title and author, and we can argue for when and where it was produced, a document has a specific type, a series of associated dates and places, and a cast of persons, from the scribe and issuing authority to the parties involved in the transaction, to the witnesses and guarantors. Moreover, the nature and function of documents is bound to place and time, reflecting the unique circumstances of an evolving legal and social order; in this sense, comparing practices of discarding and reusing such fragments across cultures and time will help to illuminate the range of practice and the points of intersection (De Gregorio, 20).

As mentioned above, many of the studies focus on the conservation of fragments in particular archives and libraries, presenting documentary fragments in the context of their conservation in a collection. Thus Marta Calleri and Sandra Macchiavello (“Il reimpiego documentario in Liguria. Due realtà a confronto: Genova e Savona (secc. XIV-XVI)”) compare two very different approaches to notarial reuse. Macchiavello looks at the case of the Archivio di Stato of Genoa, which has a folder with 26 detached and uninventoried

documentary fragments from the fonds *Notai antichi*, dating from the fifteenth and sixteenth centuries. Calleri comes to terms with a moving box containing over 200 detached and uninventoried documentary fragments removed from the *Fondo notarile* of the Archivio di Stato di Savona. Two contributions focus on fragments in Trent. Adriana Paolini (“Frammenti documentari nelle legature dei libri antichi. Prime indagini nelle biblioteche di Trento”), examines the case of documentary fragments in manuscripts and early prints, particularly in the Biblioteca comunale di Trento and in the library of the Observant Franciscan convent of San Bernardino. Matteo Cova (“Frammenti di manoscritti e frammenti di documenti: un confronto su reperti dall’Archivio di Stato di Trento”), presents some findings that arose from an inventory of fragments in the Archivio di Stato di Trento, discussing some 270 manuscript fragments and 367 documentary fragments, with dated examples ranging between 1421 and 1785. Giuliana Capriolo (“Frammenti documentari da coperte di protocolli di notai salernitani dei secoli xv-xvi”) examines documentary fragments from the Archivio di Stato of Salerno, and the Archivio della Badia di Cava de’ Tirreni.

Two studies apply work on archival fragments to address broader issues in Fragmentology. Christina Solidoro, in addition to addressing the case of the *Libri di Condanne*, uses her work on the fragments in the Archivio di Stato di Modena (“Frammenti di giustizia dai terriori estensi: libri di condanne ‘perduti’ dei secc. xiv-xv”) to develop the language for discussing documentary fragments, starting with ‘fragment’ itself. Building on her 2021 study,¹ she argues that an entire document can be considered a fragment “when the document has lost its original function, or by the (mere) fact of having been decontextualized from its original documentary situation and or provenance, or even by having undergone a process of material repurposing” (202). On her model, a documentary fragment has three phases: its origins as a document, when it becomes discarded, and the moment of reuse. To the first phase (and presumably through to the second) can be considered what Solidoro calls ‘archivistic

1 C. Solidoro, “Fenomenologia dei frammenti di manoscritti”, in *Décrire le manuscrit liturgique. Méthodes, problématiques, perspectives*, ed. L. Albiero and E. Celora, Turnhout 2021, 73–93.

provenance' (or, in the case of codicological fragments, 'codicological provenance'); 'archeological provenance', in turn, pertains to for the last phase, namely for the reuse of the fragment and its history thereafter.

Similarly, Roberta Napoletano uses her research on the Archivio Arcivescovile of Bologna to explore the problems with describing documentary fragments in a digital environment ("Maculature documentarie dall'Archivio Arcivescovile di Bologna: un approccio alla loro metadattazione"). Her cataloguing work on part of the archive revealed that roughly 20% of the fragments she studied were documentary fragments. Nevertheless, on the platform *Fragmentarium*, less than 3% of published fragments are documentary fragments. Her criticism clearly shows that *Fragmentarium's* categories for the metadata and the structure of its description forms reflect a focus on codices that provides a poor fit for documents. Her observations and recommendations therefore are vital for any researcher working with sources that include both manuscript and documentary fragments.

A few contributions focus on single items. Giacomo Vignodelli ("Scarto e reimpiego all'Archivio Capitolare di Vercelli: i palinsesti del codice eusebiano CLXXI (secoli X-XIII)") looks at a single manuscript, codex CLXXI of the Biblioteca Capitolare of Vercelli, containing the *Liber contra Catharos* of Eckbert of Schönau. The manuscript was produced in the late twelfth/early thirteenth century and entered the library in 1210. Reporting the initial results of a multi-spectral imagery campaign still underway, Vignodelli confirms that the codex is almost entirely composed of palimpsested pages, and includes documentary material from the chapter archives dated to the tenth and eleventh centuries. Simone Allegría examines a former binding fragment recently acquired by the Biblioteca Nazionale Centrale of Rome and identifies it as a document produced by the Papal Penitentiary at the end of the eighteenth or beginning of the nineteenth century, providing dispensation for a marriage in Spain between a couple related in the fourth degree of consanguinity.

Others take a broader approach to documentary fragments. Paolo Buffo, ("I documenti reimpiegati come fonte per la storia degli apparati di governo: riflessioni a partire dal caso sabauda (secoli

xii-xiv)”) examines documentary fragments from the County of Savoy. Fragments were used to attach seals to documents: in the jurisdiction of Chablais, acts were authenticated with the seal of the judge and systematically attached by a piece of parchment for a roughly forty-year period at the end of the thirteenth century. Of the 130 such acts kept in the archives of the Abbey of Saint-Maurice (now in the Swiss canton of Valais), nearly forty are attached with a strip cut from another document, usually an act between private parties from the same *curia*. By comparison, of the 90 acts sealed by the chapter of Saint-Maurice, only 10-16 have reused parchment strips, and their origin is much more heterogeneous than in the Chablais case. The practice of using documents as covers for archival material appears only rarely for secular archives, and then in the countryside; cases of discarding and reusing documents as covers are much more frequent for ecclesiastical archives, such as those of Saint-Maurice and San Giusto di Susa. Similarly, the resources available in ecclesiastical libraries served as covers.

Approaching documentary fragments more generally, Marta Luigina Mangini (“Testimoni isolati di protagonisti assenti. Protocolli notarili scartati e reimpiegati in Italia settentrionale”) provides an initial sketch of the challenges involving the dismembering and reuse of notarial registers in Northern Italy. After documenting surviving cases of reuse and legislation against the scraping or washing of registers, Mangini documents the range of reuses, using prohibitions on the purchase or receipt of registers to reveal the range of ephemeral uses for recycled parchment: wrappers for food and medication, covers for furniture and shields, liners for clothing, and so on. Finally, she presents methodological challenges for dealing with register fragments, where names and dates are only partially transmitted, in reference to a larger whole that is lacking. Mangini builds on her extensive experience with the sources to address the specific case of notarial registers.

The volume concludes with some comparative studies. Giuseppe De Gregorio (“Frammenti documentari di riuso: esempi dal mondo bizantino”) presents a handful of cases of Greek documents being reused and providing thereby precious witness to the operations of Byzantine secular and ecclesiastical chanceries, whose archives

largely did not survive the Ottoman period. Alessandro Bausi (“«Lingua franca notarile bizantina» in Etiopia? Su un tratto linguistico nel più antico testo documentario etiopico (le costruzioni del tipo *’əmfalaga falagu*, «lungo il fiume»”) looks at the “Donation of *Ṭaṇṭawədəm*”, a modern copy of a twelfth-century text, and argues on linguistic grounds for a common Byzantine scribal heritage across Arabic, Greek, and Latin documents. Mauro Parani (“Tipologia del riuso in Italia di documenti ebraici cartacei e pergamenacei fra tardo XIV e XVI secolo”) begins his assessment of Hebrew documentary fragments in Italy with the observation that Jews could not reuse documents, as they might contain the name of God; he then provides a list of paper documents pertaining to loans from the fourteenth to the seventeenth centuries reused as cardboard in Italy and Gerona, as well as some parchment acts, mostly *Ketubbot* (marriage acts). Finally, Barbara Lomagistro (“Per una definizione di ‘frammento documentario’ nella documentazione in lingua e scrittura slava di Istria e Dalmazia”) examines the situation of Glagolitic notarial documents in Venetian Dalmatia. Until the sixteenth century, Latin or Italian was the language of government administration and culture. From the sixteenth century onwards, Glagolitic documents survive as fragments.

Most of the articles describe research in progress rather than producing final results. They show researchers not merely engaging documentary fragments, but their contexts: to work with documentary fragments, the researcher must become intimately familiar with the practices of the creation of documents, from manuals to abbreviations kept in registers, to the instruments themselves. These practices develop over time and depend on the chancery, notarial authority, and even the individual whim of those charged with keeping the documents. The administration of archives, both as legislated and as practiced, further shapes the record. Thus, each author takes pains to explain the unique documentary practices being analyzed, which, along with the extensive bibliographies, provides fragmentologists with the tools to assess documentary fragments in other contexts.

Conference Report

Fragmenta Liturgica. Colloque internationale
Paris (France), 6–7 November 2024

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The international conference *Fragmenta Liturgica*, organized by Laura Albiero (Schola Cantorum Basiliensis – Musik Akademie Basel) and Francesco Siri (École nationale des chartes) in collaboration with the Institut de Recherche et d'Histoire des Textes (CNRS) and the École nationale des chartes, was held on November 6 and 7, 2024, at the École nationale des chartes (Salle Delisle) in Paris.

In response to recent scholarship emphasizing the importance of studying, analyzing, and understanding medieval fragments, Albiero and Siri organized a two-day conference focusing on a specific category of medieval fragments: liturgical fragments. These represent one of the most complex and understudied types of medieval sources. Liturgical fragments make up a substantial proportion of the surviving medieval material, often preserving unknown texts and music, and providing invaluable insights into the historical, social, and theological contexts in which they were created and used. Liturgical books, originally designed as instruments to support the mass, office, and other religious actions, were disassembled over the centuries for various reasons. As a result, liturgical books took on new functions, their fragments being repurposed as pastedowns, flyleaves, and bindings for other books. Alternatively, liturgical fragments often survive as loose leaves in archives or as protective covers for other documents.

The conference addressed the many facets of the complex history of liturgical fragments and had three main objectives: 1) to provide a platform for scholars to share current research and projects with the international community, 2) to stimulate discussion on issues

related to the preservation and description of liturgical fragments, and 3) to foster international and interdisciplinary dialogue on the multiple approaches to the study of liturgical fragments.

Fragmenta Liturgica brought together twenty-three international scholars, including musicologists and medievalists for two days of presentations and discussions. Giacomo Baroffio provided the inaugural lecture, *Il frammento oltre i frammenti*, in which he explored the nature and limitations of fragmentology, a field concerned with surviving sources that, by definition, offer only partial views of the past. He emphasized that this is particularly true in the study of medieval liturgy and music. Even complete liturgical books, he argued, fail to convey all the materials required for the performance of the liturgy, as many liturgical actions—such as gestures, texts, and music—were not recorded in written form but were instead part of an oral tradition. Prof. Baroffio also highlighted the inherently religious aspect of liturgical sources, for liturgy is an expression of faith. He distinguished between two perspectives: the academic approach, which seeks to reconstruct gestures as expressions of the past, and the religious perspective, which seeks to interpret these gestures within the broader context of Church history, revelation, and faith. In his conclusion, Prof. Baroffio made several methodological recommendations, emphasizing the need for the realization of new repertories and research tools for the study of liturgical books, with the aim of establishing standardized and internationally recognized references.

Following the inaugural lecture, the conference proceeded with seven sessions organized into four thematic categories: *Perspectives* (I and II), *Methodologie*, *Catalogues et Projets* and *Decouvertes* (I–III). These sessions were chaired by François Bougard (Institut de Recherche et d'Histoire des Textes), Alexis Douchin (Archives Nationales de France), Laura Albiero, and Francesco Siri.

Perspectives I–II

These sessions featured presentations of six ongoing projects focused on the recovery and valorization (description and publication) of liturgical fragment collections of varying sizes, types,

and geographic locations. The first session opened with Veronika Drescher (Österreichische Nationalbibliothek), who, in her contribution *Des trésors liturgiques parmi les déchets de reliure ? – Le quotidien d’une bibliothécaire*, discussed the challenges of identifying and cataloging liturgical fragments held at the Austrian National Library. Some fragments are found as isolated leaves, detached from their host-volumes; more often, however, fragments are found within the volumes of the library. Drescher emphasized that identifying and describing these fragments is a resource-intensive process, complicated by the lack of comprehensive catalogs or inventories, which are typically limited to basic shelfmark lists. She also underscored the need for standards and protocols for fragment description, especially in the context of digital humanities, which seek to make fragment descriptions publicly available through open-access databases. David Andrés Fernández (Universidad Complutense de Madrid) further examined the absence of standard cataloging protocols in the Spanish-speaking world in his talk *Musico-Liturgical Fragments in the Spanish World: Some Notes on Historiography and New Publications*. Christian Meyer (Strasbourg) offered a different perspective in *La collection Bohn: un cas d’espèce?*, reflecting on the significance of private collections of liturgical fragments. Such collections, often deliberately assembled by collectors, can include rare pieces and serve as valuable pedagogical tools for study.

The second session of *Perspectives* was introduced by William Duba (Université de Fribourg), who presented *Sorting out the Mass of Liturgical Fragments: An Ongoing Process*. Duba discussed the conceptual and practical challenges associated with the description of liturgical fragments within the *Fragmentarium* project—the first international, open-source database dedicated to the identification and description of medieval fragments. In her presentation, *The Complex Relationship of Fragments and Their Carriers*, Zsuzsa Czagány (HUN-REN Research Centre for the Humanities) provided an update on the state of research regarding digital fragment catalogs in Hungary. She also examined an anomalous case in which multiple fragments from a single manuscript were repurposed as binding material for several books within the same library. Michael Braunger (University of Tübingen) concluded the session with

Digital *Approaches to Liturgical Music Fragments from Württemberg*, highlighting how digital humanities can aid in the reconstruction of lost books and the tracing of liturgical changes and historical causes that led to the creation of liturgical fragments.

Methodologie

Centered on the historiography of fragmentology, the papers in this session explored the creation and significance of fragment collections through three case studies. In *Fragments et histoire des bibliothèques: un bilan d'étape*, Thomas Falmagne (Bibliothèque nationale de Luxembourg) examined the production of liturgical fragments used as book bindings before 1600, now housed at the Bibliothèque nationale de Luxembourg. He demonstrated that their creation was closely linked to both liturgical reforms and the religious conflicts of the period. Giovanni Varelli (Università di Pavia) analyzed the collection of musical fragments assembled by Padre Gian Battista Martini. His contribution, titled “*What is there to say about liturgical fragments?*”: *The Origins of Musical Fragmentology and Contemporary Skepticism*, he highlighted how, in this case, fragments were collected specifically as tools for studying the past. Finally, Anette Löffler (Würzburg) presented *Ritual Determination of Liturgical Fragments – Curse or Blessing?*, a talk examining liturgical fragments found in the archives of East Prussia. Löffler discussed their potential to enhance our understanding of liturgical practices, noting, however, that such fragments often lack sufficient information to be definitively attributed to a specific rite or liturgical use, making any such identification potentially speculative.

Catalogues et Projets

This session was dedicated to three ongoing cataloguing initiatives. Alberto Medina de Seïça (CESEM-In2PAST, FCSH Nova University Lisbon) presented *Fragments of Chant Manuscripts in Coimbra Archives: Challenges, Methods, and Initial Findings of the ‘Lost and Found’ Project*, discussing the cataloguing process of the fragments held in the Archives of Coimbra and the first important

discoveries of this project. The contribution *The Catalogus fragmentorum cum notis musicis medii aevi in Slovacia Series and the Phenomenon of So-Called “Recycled” Musical Fragments in Slovakia*, by Eva Veselovská (Institute of Musicology, Slovak Academy of Sciences) presented the catalogues of Slovakian fragments published since 2010. This comprehensive project has two main objectives: first, to make the fragments accessible to scholars and medievalists through cataloguing and digitization, and second, to examine the historical significance of Slovakian fragments, which largely survive as manuscript waste (*maculature*). The final contribution of the session, titled *Prime analisi e proposte di ricerca sui frammenti liturgici in situ di una biblioteca cappuccina (Madonna del Sasso di Orselina, Svizzera)*, focused on the project *Ticinensia Disiecta*. Marina Bernasconi Reusser (Université de Lausanne) and Renzo Iacobucci (Biblioteca Salita dei Frati, Lugano) discussed how most of the fragments in the library of the Capuchin friars were repurposed as book bindings and reflected on the challenges of both describing and valorizing them while maintaining their attachment to their host volumes.

Decouvertes I–III

Eight papers presented in the three *Découvertes* sessions demonstrated how liturgical fragments can provide invaluable insights into the history of culture, liturgy, and music. In some cases, fragments preserve unique texts and music that would otherwise be lost to history; in others, the study of discrete collections of fragments allows historians to trace the development of libraries, the choices made by their curators, and broader cultural trends.

David Catalunya and Carmen Julia Gutiérrez (Universidad Complutense de Madrid) delivered a presentation titled *New Fragments of a Late 13th-Century Liber Organi*. Through a detailed codicological, paleographical, and musicological analysis of a newly discovered polyphonic fragment, they explored its significance for the history of Parisian polyphony. Paleographical analysis was also at the center of Åslaug Ommundsen’s (University of Bergen) contribution, *Two curious ‘martyrology-missals’ in Nordic fragment-collections*, where

she provided an overview of the state of research on fragments in Scandinavia. In a region where fragments constitute the majority of extant medieval sources, Ommundsen brought the attention to two liturgical fragments that exhibit unusual paleographical features, prompting further investigation on their origins.

Laura Albiero, in her talk *Liturgies oubliées, liturgies retrouvées*, reflected on the role of liturgical fragments as witnesses to unique and otherwise unattested texts and chants. She presented several examples of *unica* discovered during research conducted at the Bibliothèque nationale de France and the Archives Nationales de France, as part of her project *Fragment Parisiensia. Pour une grammaire de la destruction des livres liturgiques*. Christelle Cazaux (Schola Cantorum Basiliensis), in her contribution *L'office de saint Vincent de Saragosse dans les antiphonaires de la collégiale de Berne (fin XVe siècle)*, also discussed the presence of *unica* in the antiphonaries from the Church of St. Vincent in Berne.

Francesco Siri's paper, *De Mosomensis monasterii librorum fragmentis*, demonstrated how the study of a group of fragments from the monastery of Mouzon, now held at the Bibliothèque nationale de France, significantly contributes to tracing and reconstructing the history of its medieval library.

Alessandra Ignesti (Università degli Studi di Pavia) shared her discoveries in *Liturgical Fragments with Musical Notation at the Biblioteca Nazionale Marciana*. She described how some fragments at the library contain distinctive musical notation, documenting the transition from neumatic to square notation, while also revealing notational features linked to different geographic regions, thus inviting further investigation. Ignesti also emphasized that studying specific liturgical aspects of these fragments allows for comparative analysis that can help pinpoint their geographic origin.

Gionata Brusa (Universität Würzburg) discussed the unique situation of the fragments held at the Biblioteca Capitolare di Vercelli, Italy, in his paper *Medieval Fragments as a Part of a Network: The Case of the Vercelli Chapter Library*. The chapter library, which preserves part of its medieval heritage, offers valuable insights when its fragments are studied alongside local historical sources, such as

inventories and documents. This approach allows scholars to connect elements and trace aspects of cultural history.

From a different perspective, Shin Nishimagi (Conservatoire de Tokyo) presented on liturgical fragments held in private collections in Tokyo in his talk *Liturgie dans deux fragments de tonaire récemment découverts*. Some of these fragments are used for pedagogical purposes. Nishimagi focused on two fragments of tonaries, which provide crucial insights into the understanding of this liturgical book at the intersection of liturgy and music theory.

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