CORPUS MASORETICUM

HEIDELBERG UNIVERSITY OF JEWISH STUDIES

Milan, Biblioteca Ambrosiana, B 31 inf., fol. 136r

SARIT SHALEV-EYNI

The Making of the Ambrosian Bible and the Emergence of the German-Ashkenazi Variant of the Masoretic Biblical Codex

CORPUS MASORETICUM WORKING PAPERS 11 (2025)°

ISSN 2751-2894

° The long-term project *Corpus Masoreticum* is funded by the German Research Foundation (DFG).

Sarit Shalev-Eyni

The Making of the Ambrosian Bible and the Emergence of the German-Ashkenazi Variant of the Masoretic Biblical Codex

Sarit Shalev-Eyni, The Hebrew University of Jerusalem

Summary

The foundations of the German-Ashkenazi variant of the Masoretic Bible, which flourished around 1300, were first established in the 1230s within the scholarly and social hub of Würzburg and the surrounding areas. By analyzing the production of the Ambrosian Bible—one of the most significant works from this period—we can define its three volumes as an experimental collaboration involving two masoretes from different cultural backgrounds. One of these was Joseph ben Kalaonymos, a skilled and highly sought-after local masorete and vocalizer. The other, whom we have designated as "Masorete B," has a style of work that bears a striking resemblance to that of Ḥayyim ben Isaac, the French scribe and masorete responsible for the 1215 La Rochelle Bible. By reconstructing the production stages and the circumstances surrounding the Ambrosian Bible, we aim to shed light on this experimental phase. We also propose that this collaborative effort may have contributed to the consolidation of the German-Ashkenazi variant of the Masoretic Bible that came to prominence a few decades later.

° Sarit Shalev-Eyni, The Hebrew University of Jerusalem, Mount Scopus Campus, Jerusalem 9190501, sarit.shalev-eyni@mail.huji.ac.il. This publication originated in the long-term project "Corpus Masoreticum", funded by the German Research Foundation (DFG). Further information: https://corpusmasoreticum.de.

Corpus Masoreticum Working Paper 11 (2025) | DOI 10.48628/cmwp.2025.4.113448 | ISSN 2751-2894

1 Introduction

Around the year 1300, a well-established tradition of large-format biblical manuscripts containing the Masorah flourished in the German-Ashkenazi realm. These codices continued the traditional Oriental model that had developed in the tenth and eleventh centuries and spread through European communities in the late twelfth and thirteenth centuries. Typically larger than biblical manuscripts from other regions, the German-Ashkenazi codices introduced an innovation not found elsewhere.

The opening words of each book were written in bold letters and framed by panels of Masoretic text in micrography, placed at the top of a new page. To further highlight these folios and give them the status of opening pages, they were usually accompanied by Masoretic designs placed in the lower—and sometimes upper—margins.[1] Most stages in the development of this German-Ashkenazi tradition have been lost, but the existing evidence allows us to trace its early local roots back to the 1230s, when the tradition of large-format Masoretic Bibles was in its infancy.

By reconstructing the production stages, the individuals involved, and the circumstances surrounding the creation of the Ambrosiana Bible—one of the most prominent manuscripts from this experimental period—we aim to illuminate this phase. We also propose that this study may contribute to our understanding of how the German-Ashkenazi variant of the Masoretic Bible, which flourished a few decades later, was consolidated.[2]

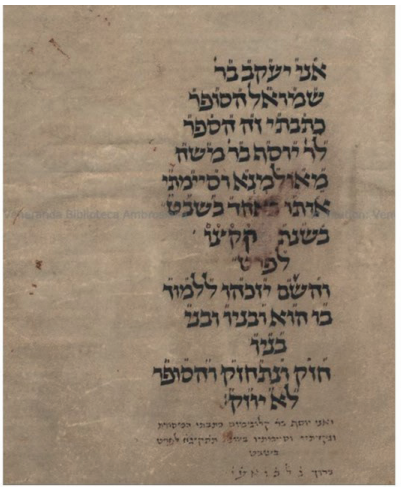
* The research for this article was supported by ISF Grant 851/08.

1 For this German-Ashkenazi variant, see Rahel Fronda, "Attributing of Three Ashkenazi Bibles with Micrographic Images," *Ars Judaica* 9 (2013): 45–56; Rahel Fronda, "Text and Image: The Case of Micrographic Ornaments in 13th and 14th century Ashkenazi Bibles," in: *Erfurter Schriften zur jüdischen Geschichte* 3: Zu Bild und Text im jüdisch-christlichen Kontext im Mittelalter, ed. Tamara Thierbach (Jena/Quedlinburg: Bussert & Stadeler, 2015), 108–17; Rahel Fronda, "Masters of Micrography: Examples of Medieval Ashkenazi Scribal Artists," in: *Ruling the Script in the Middle Ages: Formal Aspects of Written Communication* (Books, Charters, and Inscriptions), ed. Sébastien Barret, Dominique Stutzmann, and Georg Vogeler (Turnhout: Brepols, 2016), 255–82; Ilona Steimann, "Multi-Handed Bible Manuscripts: Masoretic Workshops in Medieval Ashkenaz?," *Corpus Masoreticum Working Papers* 8 (2024): 184–226. For the Masoretic Bible in France, see Ilona Steimann, "Masoretic Manuscripts from France: The Jonah Pentateuch (BL, Add. MS 21160) Revisited," *Corpus Masoreticum Working Papers* 5 (2023): 1–35; Ilona Steimann, "Beyond the Text: Liturgical Clues in Burgundian Masoretic Manuscripts," *Corpus Masoreticum Working Papers* 4 (2025): 1–46.

2 Milan, Biblioteca Ambrosiana, Mss. B 30 inf., B 31 inf., B 32 inf. The manuscript is accessible online at https://digitallibrary.unicatt.it/veneranda/0b02da8280051c24; https://digitallibrary.unicatt.it/veneranda/0b02da828006b2df; https://digitallibrary.unicatt.it/veneranda/0b02da8280051c18 [accessed 08/2025].

For the manuscript, see Maria Luisa Gengaro, Francesca Leoni, and Gemma Villa, *Codici decorate e miniati dell'ambrosiana, ebraici e greci* (Milan: Ceschina, 1959), 19–34, nos. 1–3; Luisa Mortara Ottolenghi, "Description of Decorated and Illuminated Hebrew Manuscripts in the Ambrosian Library," in: *Hebraica Ambrosiana 1: Catalogue of Undescribed Hebrew Manuscripts in the Ambrosiana Library*, ed. Luisa Mortara Ottolenghi and Aldo Luzzatto (Milan: Il polifilo, 1972), 115–44. See also Zofia Ameisenowa, "Das messianische Gastmahl der Gerechten in einer hebräischen Bibel aus dem XIII Jahrhundert. Ein Beitrag zur eschatologischen Ikonographie bei den Juden," *Monatsschrift für die Geschichte und Wissenschaft des Judentums* 79, N.F. 43, no. 6 (1935): 409–22; Joseph Gutmann, "Leviathan, Behemoth and Ziz: Jewish Messianic Symbols in Art," *Hebrew Union College Annual* 39 (1968): 219–30. Joseph Gutmann, "When the

The 1230s also marked the beginning of Hebrew illumination in German Ashkenaz. The earliest codices from this period were all related to the Bible, forming a small group of three books. Though they differ in content and illumination, these manuscripts are connected by the people involved in their creation and commissioning, their specific origins, professional execution, and experimental nature. Among these, the Ambrosian Bible stands out. It consists of three large volumes that collectively contain the entire Bible.[3] The text is written in a typical three-column format, with the Aramaic translation inserted verse by verse. The *masora magna* appears along the upper and lower margins, while the *masora parva* is found beside and between the columns. According to the main colophon at the end of the first volume (fig. 1),[4] the wealthy patron, Joseph ben Moses, came from אולמְנָא *Olmen(a)*, likely a reference to Olmen or Ulmena (Nieder-Olm), a town located southwest of Mainz.[5]


1.


2.

Fig. 1. Ambrosian Bible, colophons, vol. I. Milan, Biblioteca Ambrosiana, Ms. B 30 inf., fol. 222v (detail).
Fig. 2. Munich Commentary, one of the two colophons written by the main scribe, vol. II. Munich, Bayerische Staatsbibliothek, Cod. hebr. 5/2, fol. 256r.

Kingdom Comes, Messianic Themes in Medieval Jewish Art," *Art Journal* 27/2 (1967–1968): 168–75; Eva Frojmovic, "Feasting at the Lord's Table," *Images* 7/1 (2013): 5–21; Sarit Shalev-Eyni, "Between Carnality and Spirituality: A Cosmological Vision of the End at the Turn of the Fifth Jewish Millennium," *Speculum* 90/2 (2015): 458–82. Elina Gertsman, "Animal Affinities: Monsters and Marvels in the Ambrosian Tanakh," *Gesta* 61/1 (2022): 27–55.

3 Vol. I (Ms. B 30 inf.), ca. 452 × 342 mm; vol. II (Ms. B 31 inf.), ca. 449 × 337 mm; vol. III (Ms. B 32 inf.), ca. 441 × 339 mm.

4 Ms. B 30 inf., fol. 222v: "אני יעקב בר' שמואל הסופר כתבתי זה הספר לר' יוסף בר' משה מאולמנא וסיימתי אותו באחד בשבט בשנת ק'ק'צ'ו' לפרט והשם יזכהו ללמוד בו הוא ובניו ובני בניו. חזק ונתחזק והסופר לא יוזק." The first letter ק of the year is not original. Traces of erasure and rewriting are visible.

5 For this and other possible identifications of Olmen that are less probable, see Ismar Elbogen, Aaron Freimann, and Chaim Tykocinski, ed., *Germania Judaica I: Von den ältesten Zeiten bis 1238* (Tübingen: Mohr Siebeck, 1963), 133, 253–54. Joseph Gutmann, "Joseph ben Kalonymos: The Enigma of a Thirteenth-Century Hebrew Scribe," in: *A Crown for a King: Studies in Jewish Art, History and Archaeology in Memory of Stephen S. Kayser*, ed. Shalom Sabar, Steven Fine, and William M. Kramer (Jerusalem: Gefen, 2000), 147–51 (149). Hanna Liss, "Between Imagination and Exegesis: The Masorah Figurata Illustrations of the Two Menorot in Vatican ebr. 14," *Images* 16 (2023): 1–19 (n. 32).

Joseph ben Moses is likely the same patron who commissioned the Munich Commentary on Rashi. This manuscript, originally a single volume but now in two, was completed as early as 1232/33 by Solomon ben Samuel with the help of another scribe (fig. 2).[6] Solomon ben Samuel, a scholar active in Würzburg, served as a scribe and compiler and was likely the author of certain sections of the commentary. His scholarly work is also evident in his annotations to a commentary on a prayer attributed to R. Eliezer ben Nathan (1090–1170), which survived in several later manuscripts.[7] His work in the Munich Commentary is notable for its short, unusual, rhyming passages inserted into some commentaries,[8] a style similar to that of his colophon.[9] The two manuscripts, the Ambrosian Bible and the Munich Commentary, may have been used by Joseph ben Moses for different aspects of biblical study. This interest in sacred texts also reflects the call of R. Eleazar of Worms (d. ca. 1240) to revive the study of the Bible and its sacred language, which occurred at nearly the same time.[10]

2 Two Masoretes – Two Traditions

The three large volumes of the Ambrosian Bible (approximately 445 × 338 mm) were produced a few years after the Munich Commentary (figs. 3, 4, 5). As two colophons at the end of the first volume attest, the main text of this volume was completed on the first of Shevat, January 10, 1236, by Jacob ben Samuel (fig. 1). The vocalization, accentuation, Masorah, and Masorah decoration for the same volume were completed two years later, in Shevat 1238, by Joseph ben Kalonymos. The two-year gap between the work of the main scribe and the masorete requires explanation and will be discussed in further detail.

6 Munich, Bayerische Staatsbibliothek (henceforth BSB), Cod. hebr. 5/1–2. The manuscript is accessible online at https://www.digitale-sammlungen.de/en/view/bsb00036327?page=,1; https://www.digitale-sammlungen.de/en/view/bsb00036330?page=,1 [accessed 08/2025]. Elisabeth Klemm, *Die illuminierten Handschriften des 13. Jh.s deutscher Herkunft in der Bayerischen Staatsbibliothek* (Wiesbaden: Reichert, 1998), 198–202; Eva Frojmovic, "Jewish Scribes and Christian Illuminators: Interstitial Encounters and Cultural Negotiation," in: *Between Judaism and Christianity: Art Historical Essays in Honor of Elisheva (Elisabeth) Revel-Neher*, ed. Katrin Kogman-Appel and Mati Meyer (Leiden: Brill, 2008), 281–305; Kay Joe Petzold, *Masora und Exegese: Untersuchungen zur Masora und Bibeltextüberlieferung im Kommentar des R. Schlomo ben Yitzchaq (Raschi)* (Berlin: De Gruyter, 2019), 42–43; Aliza Cohen-Mushlin, Yaffa Levy, Michal Sternthal, Ilona Steimann, Anna Nizza-Caplan, Estherlee Kanon-Ebner, *Selected Hebrew Manuscripts from the Bavarian State Library* (Wiesbaden: Harrassowitz, 2020), 41–80.

7 Israel Jacob Stal, "Toldot Rabbi Shelomo ben R. Shemu'el miWürzburg u-mahadura ḥadashah letosfotav al perush ha-tefilah ha-meyuḥas leRaaban," *Yerushatenu* 12 (2023): 17–48 (Hebrew). For his identification in earlier literature, see Jacob Nahum Epstein, "L'auteur du Commentaire des Chroniques," *Revue des études juives* 58/116 (1909): 189–99; Israel Ta-Shma, "The Commentary on Chronicles in Munich, Ms. 5," *Studies in Medieval Rabbinic Literature*, vol. 1: Germany (Jerusalem: Mosad Bialik, 2004), 290– 422 (Hebrew).

8 Ta-Shma 2004, 299–301 (Hebrew).

9 Munich, BSB, 5/2, fols. 252v–256r.

10 Efraim Elimelech Urbach, *Sefer Arugat haBosem auctore R. Abraham ben Azriel*, 4 vols. (Jerusalem: Mekitzei Nirdamin, 1939–1963), vol. IV: 110–11. Sarit Shalev-Eyni, *Jews among Christians: Hebrew Book Illumination from Lake Constance*, Studies in Medieval and Early Renaissance Art History 41 (Turnhout: Brepols, 2010), 8.


3.


4.


5.

Fig. 3. Ambrosian Bible, vol. I. Milan, Biblioteca Ambrosiana, Ms. B 30 inf., fol. 1v.
Fig. 4. Ambrosian Bible, vol. II. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 1r.
Fig. 5. Ambrosian Bible, vol. III. Milan, Biblioteca Ambrosiana, Ms. B 32 inf., fol. 97v.

Joseph ben Kalonymos is known for authoring two didactic poems on Hebrew cantillation,[11] as well as several *piyyutim*—a literary form common among scholarly Ashkenazi circles in France and Germany at the time.[12] In these works, he identifies himself as a "nakdan."[13] One of these *piyyutim* is a *seliḥa* (penitential poem) that commemorates the victims of ritual murder accusations in Tauberbischofsheim (archdiocese of Mainz) and Lauda (diocese of Würzburg) in 1235, a date to which the *piyyut* refers.[14] The various data collected on Joseph ben Kalonymos's work support a profile of a scholar with expertise in Masorah, biblical grammar, poetic language, and scribal professionalism.

Although the other two volumes of the Ambrosian Bible do not have a colophon, paleographic features confirm that the same scribe, Jacob ben Samuel, inscribed them as well. He also twice decorated the word "Jacob" in the second volume.[15] However, an analysis of the Masorah and vocalization shows different results. Joseph ben Kalonymos added the Masorah to the first four quires of the second volume (fols. 1r–32v). At the beginning of the fifth quire (fol. 33r), he was replaced by a second masorete. The turnover of the hands between folio 32v, completed by Joseph ben Kalonymos, and folio 33r, written by the second masorete, is clearly discernible.[16] The striking differences between the hands point to two distinct places of scribal education (figs. 6, 7).

11 Abraham Berliner, *Lehrgedicht über die Accente der biblischen Bücher EMeT nebst Commentar von Joseph b. Kalonymos in der 2. Hälfte des 13. Säculums* (Berlin: Rosenstein & Hildesheimer, 1886), 3–4; Nehemias Brüll, *Jahrbücher für jüdische Geschichte und Litteratur* VIII (1887): 118–121 (118–19); Gutmann 2000, 149.

12 Ephraim Kanarfogel, *The Intellectual History and Rabbinic Culture of Medieval Ashkenaz* (Detroit: Wayne State University Press, 2012), 375–443.

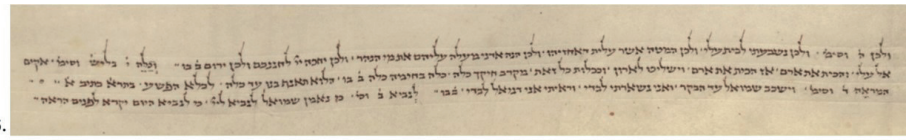
13 Israel Davidson, *Thesaurus of Medieval Hebrew Poetry*, 4 vols. (New York: Ktav Publishing House, 1970), vol. 1: 51, no. 1071; 112, no. 2367; 271, no. 5947.

14 Simon Bernfeld, *Sefer haDma'ot* (Berlin: Eshkol, 1924), 282–85 (see the last stanza); Gutmann 2000, 148–49.

15 Ms. B 31 inf., fols. 121r and 157v.

16 Gutmann 2000, 148.

6.



7.

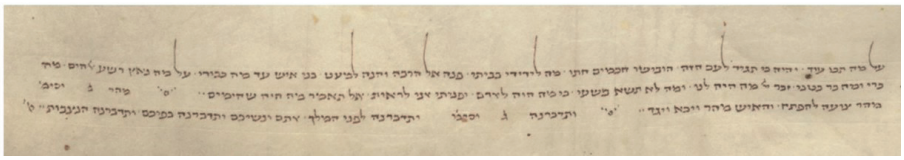


Fig. 6. Ambrosian Bible, Joseph ben Kalonymos, vol. II, end of the fourth quire. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 32v.
Fig. 7. Ambrosian Bible, Masorete B, vol. II, beginning of the fifth quire. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 33r.

Joseph's work is much tighter, with smaller spaces between the lines, words, and letters than in the second hand. The differences are also noticeable in the script styles, with each showing an affinity to a different region within the Ashkenazi domain. The specific design of the letters also varies between the two hands, including the *alef*, *mem*, *ayin*, and *tzadi*. Most prominently, the *lamed* differs. The repeated flag of this letter contributes significantly to the overall design of each hand's script. While Masorete B's *lamed* is long, Joseph's is relatively short, with a split in the middle that tilts to the right. The graphic signs of the two hands are also different. Joseph's graphic sign consists of two shapes that resemble double quotation marks flanking a small circle, whereas Masorete B's graphic sign is a small circle from which two diagonal series of dots emerge in two directions. Significant differences also exist between Joseph ben Kalonymos and Masorete B in the design of the Masorah micrography. Joseph's forms are delicate and interlaced, with complex patterns dispersed throughout the entire area of the lower *masora magna* (figs. 8, 9).[17]

8.

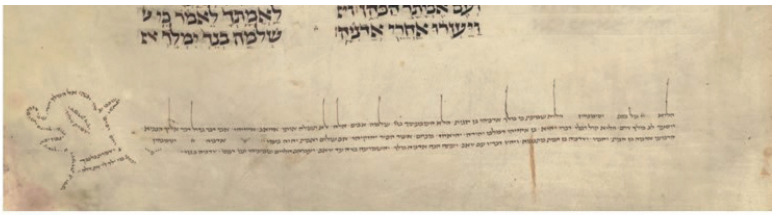
9.

Fig. 8. Ambrosian Bible, Joseph ben Kalonymos, lower Masorah. Milan, Biblioteca Ambrosiana, Ms. B 30 inf., fol. 1v.
Fig. 9. Ambrosian Bible, Joseph ben Kalonymos, lower Masorah. Milan, Biblioteca Ambrosiana, Ms. B 30 inf., fol. 24v.

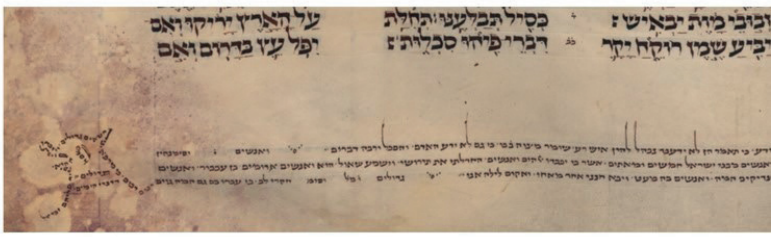
17 Ms. B 30 inf., fols. 1v, 24v; Ms. B 31 inf., fol. 208r. See Fronda 2016, 264-68.

Joseph ben Kalonymos was a skilled calligrapher who preserved and developed traditional interlacing patterns that originated in the East and were also being revived in some Sephardic biblical manuscripts of the time.[18] While his patterns were mostly traditional, he did add small dragon heads to the edges of some of the interlaced designs, an element foreign to the original Oriental traditions (fig. 9). His simpler patterns, which appear more frequently in his work, are also delicate and, like his more elaborate forms, are decorated with tiny circles surrounded by dots.[19] The other masorete, who was less precise in his micrographic designs, used simple, large forms such as hound heads (figs. 10, 11),[20] and other similarly sized motifs, including a goblet,[21] variations on the fleur-de-lis,[22] and simple hexagrams.[23] Each of these motifs either emerged from the last line of the lower Masorah or was located in the outer margin of the recto side, adjacent to the lower Masorah area.

10.



11.



12.

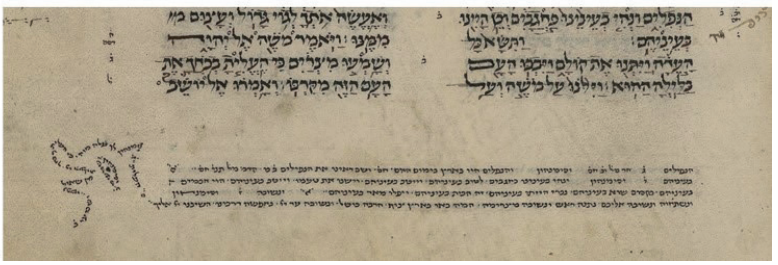


Fig. 10. Ambrosian Bible, Masorete B. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 67r.
Fig. 11. Ambrosian Bible, Masorete B. Milan, Biblioteca Ambrosiana, Ms. B 32 inf., fol. 65r.
Fig. 12. La Rochelle Bible, 1215, Ḥayyim ben Isaac. Vatican, Biblioteca Apostolica, Ms. Vat. ebr. 468, fol. 80r.

18 See, e.g., Paris, Bibliothèque nationale de France, héb. 25 of 1232, fols. 8v, and 40v–41r; Gabrielle Sed-Rajna and Sonia Fellous, *Les manuscrits hébreux enluminés des bibliothèques de France*, Corpus of Illuminated Manuscripts 7, Oriental Series 3 (Leuven: Peeters, 1994), 5–7, no. 3; Javier del Barco, *Bibliothèque nationale de France: Hébreu 1 à 32: Manuscrits de la bible hébraïque* (Turnhout: Brepols, 2011), 156–63.

19 Ms. B 30 inf., fols. 4r, 5r, 71v, 144r, 158r, 168r, 204r, 219r; Ms. B 31 inf., fols. 1r, 8v, 10r, 16r, 16v, 18r, 30v.

20 Ms. B 31 inf., fol. 67r; Ms. B 32 inf., fols. 65r, 94r.

21 Ms. B 32, inf., fol. 36r.

22 Ms. B 31 inf., fols. 44r, 168r.

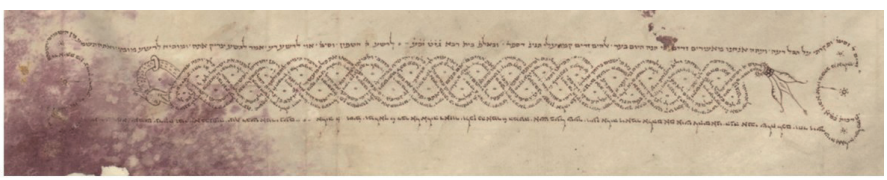
23 Ms. B 31 inf., fol. 153r; Ms. B 32 inf., fol. 63r.

The completely different concepts behind the micrographic design, the repertoire of images, and the simple execution of Masorete B's forms suggest he was not an apprentice of Joseph. His scribal and visual vocabulary clearly points westward, showing a strong affinity with the work of Ḥayyim ben Isaac, the masorete of Vatican ebr. 468. This manuscript was created as early as 1215—more than 20 years before the second and third volumes of the Ambrosian Bible—in La Rochelle on the west coast of France (fig. 12).[24] Masorete B in the Ambrosian Bible and Ḥayyim ben Isaac in the La Rochelle Bible clearly share both general and specific features. These include: placing the micrographic form on the recto side as a continuation of the lower Masorah line or next to it; a similar script style; identical graphic signs consisting of a small circle from which two diagonal series of dots emerge in two directions; and a specific repertoire of micrographic motifs with a similar design style. The most prominent example is the hound's head motif, which emerges from the end of the Masorah's lower line and has a slanted, teardrop-shaped eye (fig. 12).[25] Another is the unique variation of the fleur-de-lis.[26] The close similarities between these two hands, which cover all aspects of their scribal work, cannot be a coincidence.

3 Division of Work: Vocalization, Proofreading, Masorah and Illumination

Masorete B's hand continues throughout the rest of the second volume. However, the first masorete, Joseph ben Kalonymos, surprisingly reappears at the bottom of the last folio of the second volume (fig. 13).[27] Notably, the upper lines of that same page were completed by the second masorete (fig. 14).

13.



14.

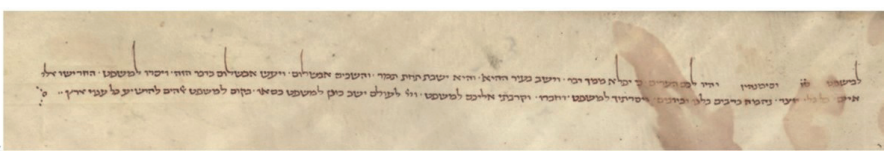


Fig. 13. Ambrosian Bible, Joseph ben Kalonymos, lower Masorah. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 208r.
Fig. 14. Ambrosian Bible, Masorete B, upper Masorah. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 208r.

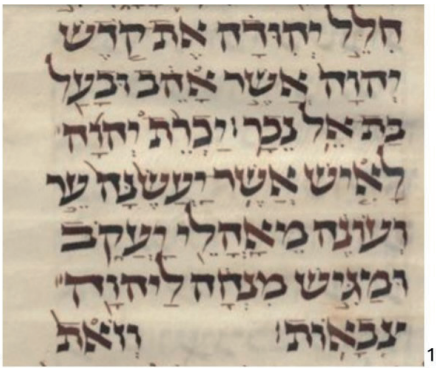
24 Vatican, Biblioteca Apostolica, Ms. Vat. ebr. 468 and Ms. Vat. ebr. 482 (by the same scribe). The manuscripts are accessible online at https://digi.vatlib.it/view/MSS_Vat.ebr.468; https://digi.vatlib.it/view/MSS_Vat.ebr.482 [accessed 08/2025]. Malachi Beit-Arié and Benjamin Richler, *Hebrew Manuscripts in the Vatican Library: Catalogue* (Vatican City: Biblioteca Apostolica Vaticana, 2008), 406–407, 417-418. See also Judith Olszowy-Schlanger. "Hebrew Books," in: *The European Book in the Twelfth Century*, ed. Erik Kwakkel and Rodney Thomson (Philadelphia: University of Pennsylvania Press, 2018), 159–74 (164-65).

25 Ms. Vat. ebr. 468, fols. 45r, 79r, 80r, 83r, 91r, 95r, 97r, 99r.

26 Ms. Vat. ebr. 468, fols. 27r, 31r, 32r, 36r, 37r, 57r, 76r, 81r, 105r.

27 Ms. B 31 inf., fol. 208r.

A close examination of the vocalization offers further insight into the production process. The change in vocalization hands, Joseph ben Kalonymos and Masorete B, does not happen at the same point as the shift in Masorah—that is, at the transition from quire 4 to quire 5. As with the script, the vocalization styles of the two hands are easy to distinguish (figs. 15, 16). Joseph's vocalization marks are shorter and separate, while Masorete B's are longer and their horizontal lines tend to connect. Some signs are executed differently, which is especially evident in the *kamatz*.[28]

15. 

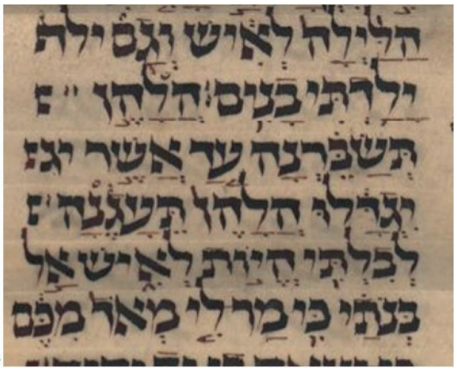
16. 

Fig. 15. Ambrosian Bible, Vocalization by Joseph ben Kalonymos. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 207v.
Fig. 16. Ambrosian Bible, Vocalization by Masorete B. Milan, Biblioteca Ambrosiana, Ms. B 32 inf., fol. 1r.

The distinct writing and vocalization styles of the two masoretes allow us to determine their division of labor. After completing the vocalization and Masorah for the first volume, Joseph ben Kalonymos began work on the second. While he vocalized the entire volume, he only completed the Masorah for the first four quires. On the last page of the second volume (Ms. B 31 inf., fol. 208r), he added the *masora magna* to the bottom margin and designed it in a complex interlaced pattern, giving the entire volume a uniform appearance despite the change in scribal hands. The placement of this interlacing pattern at the end of the volume, detached from the main Masorah sequence, suggests that Joseph created the complex micrographic designs independently of the ongoing copying process. The second masorete's work began after Joseph had already finished his, a fact supported by an analysis of another important task that was part of the production of manuscripts: proofreading. While corrections appear at various stages from different hands, the main proofreading was done during the vocalization of the manuscript by the hand of the vocalizer. For example, on one page before the end of the second volume, Joseph ben Kalonymos added some text that the main scribe had missed. He placed the missing passage in the lower right margin, in the area designated for the *masora magna* (fig. 17).

28 The vertical part of Joseph's *kamatz* is designed as a short line that connects to the horizontal line, often at an angle. The "horizontal" part of the *kamatz* of the second masorete is designed as a dot, often not connected to the horizontal part.

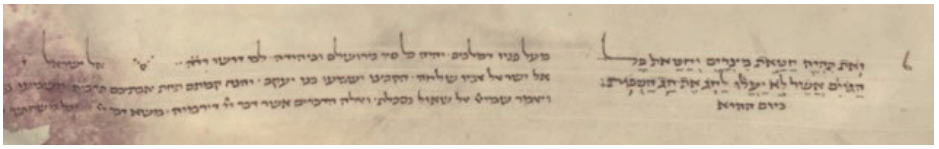


Fig. 17. Ambrosian Bible, Lower margin, Proofreading by Joseph ben Kalonymos and Masorah by Masorete B. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 207r.

Later, Masorete B added the Masorah to the space left by Joseph ben Kalonymos in the lower left margin. That Joseph ben Kalonymos first vocalized and proofread the text before adding the Masorah is also evident in the first quires of the second volume, where he worked as a masorete. On folio 20r, he appended a brief passage that the main scribe, Jacob ben Samuel, had mistakenly omitted. Joseph placed this addition in the right-hand portion of the lower margin, an area designated for the *masora magna*. He himself later added the Masorah to the empty space left after this insertion (fig. 18).

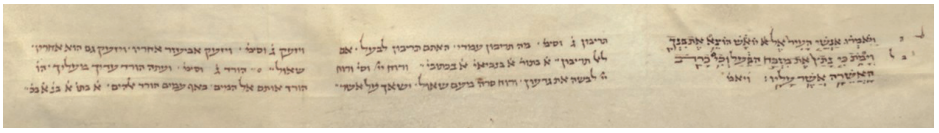


Fig. 18. Ambrosian Bible, Lower margin, proofreading by Joseph ben Kalonymos and Masorah by Masorete B. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 20r.

Using this information, we can reconstruct the division of labor between the two vocalizers-masoretes, as well as the specific production processes for each expert and for the entire project, including vocalization, proofreading, and Masorah. However, there is still one stage to consider: illumination. This raises several questions: Who was responsible for it, and how was it integrated into the overall production process?

In many manuscripts, the illumination, particularly the coloring, was done after the texts were completed. This was indeed the case for the second and third volumes, where vocalization marks were added before the coloring. Evidence for this can be seen where the color has washed away, revealing the vocalization marks underneath. For instance, in the opening panel of the Book of Ezekiel (fig. 19),[29] the green has faded, exposing a *pataḥ* under the *vav* and pen flourishes around the letters that the colorist had covered. Similarly, in the initial word panel for Jeremiah (fig. 20),[30] the green and blue have washed away, revealing a *ḥiriq* under the *dalet* and pen flourishes. In the initial word panel for Isaiah (fig. 21),[31] the blue has faded, exposing a *ḥataf pataḥ* under the *ḥet*.[32]

29 Ms. B 31 inf., fol. 136r.

30 Ms. B 31 inf., fol. 104r.

31 Ms. B 31 inf., fol. 163v.

32 See also Ms. B 31 inf., fols. 3r, 34v, 48r, 59r, 68r, 83r.

Fig. 19. Ambrosian Bible. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 136r.

Fig. 20. Ambrosian Bible. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 104r.

Fig. 21. Ambrosian Bible. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 163v.

The first volume tells a different story. As we have seen, there was a two-year gap between the completion of the main text by Jacob ben Samuel and the vocalization and Masorah work by Joseph ben Kalonymos. During this interval, the first volume was sent for illumination. This can be inferred from the vocalization of the initial words, which appears either directly beneath the illuminated panel or on the painting itself. For example, in the initial word panel for Exodus (fig. 22),[33] the *dagesh* on the *lamed* is written on the painted panel, while the *sheva* under the *vav*, the *tzere* under the *alef*, and the *segol* under the *lamed* are all written beneath it.[34]

Fig. 22. Ambrosian Bible. Milan, Biblioteca Ambrosiana, Ms. B 30 inf., fol. 56r.

The addition of vocalization marks after coloring the initial word panels suggests that the manuscript was sent for illumination immediately after completing the main text, rather than to a Masorete. If so, how can this unusual order of tasks be explained? In this early period, local Ashkenazi interest in biblical grammar and Masorah was not yet as widespread as it would become later in the thirteenth century, and the patron may not have been able to find a high-quality masorete for the project. Joseph ben Kalonymos's work and scholarly profile indicate that by this time, he was already a mature and skilled vocalizer-masorete with an established reputation. It is plausible that the patron, who had hired a highly qualified and renowned expert for the Munich Commentary a few years earlier, was specifically waiting for Joseph to work on his Bible. If this was the case, why was another masorete eventually brought in to complete the project? Was this a normal collaboration, or was it a result of some unforeseen constraint?

33 Ms. B 30 inf., fol. 65r.

34 See also Ms. B 30 inf., fols. 102r, 135v, 182v.

4 The Innovative Work of Joseph ben Kalonymos between the Wroclaw and Ambrosian Projects

The involvement of a third person with a different scribal background in the Ambrosian Bible, along with the delay in vocalization and the addition of the Masorah to the first volume, can be explained by Joseph ben Kalonymos's involvement in another demanding project. This was the production of a second large biblical codex, a thick volume with 456 pages now housed in Wroclaw (approximately 490 × 355 mm).[35] Its content—a combination of a typical Pentateuch with the Haftarot and Megillot, and the Hagiographa[36]—is an unusual format, possibly another result of this experimental period.

At the end of the Wroclaw manuscript, Joseph ben Kalonymos left a colophon. Written partly in rhyme and containing sophisticated puns and metaphors, the colophon fits Joseph's scholarly and poetic profile. Although the name of the original patron was erased and rewritten, the names of the producers were left intact (fig. 23):

> I Joseph the son of Kalonymos vocalized and added the Masorah to this book [...] And it was inscribed by Meshulam, the son of my uncle Joseph the scribe, goodly words (Genesis 49:21) [written] on the book with ink in the land of Ashkenaz, which was translated by Hadeyev (after the Aramaic translation to Jeramiah 51:27) in the year 4998 (1237/38), with the help of my Lord (*dodi zaḥ*, Song of Songs 5:10). Blessed be His memory and glory forever.[37]

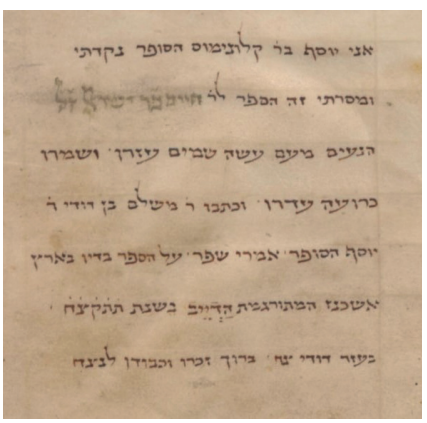


Fig. 23. Wroclaw Bible, Colophon. Wroclaw, University Library, Ms. M 1106, fol. 456v.

A colophon that extends its scope to include the roles of others involved in a manuscript's production is unusual. In this case, Joseph ben Kalonymos first states his own responsibility for the Masorah and vocalization before mentioning his cousin as the main scribe. This establishes a hierarchy of tasks within the project, with roles distinguished by specific knowledge and expertise. This hierarchy was typically lost in other colophons, where the main scribe signed his name in a larger script matching the main text, while the vocalizer and masorete used the smaller script size of the Masorah.

Joseph belonged to a family of scribes that included his cousin as well as the previous generation—his father and uncle. He was deeply involved in this family project, working as both

35 Wroclaw, University Library, Ms. M 1106. The manuscript is accessible online at https://www.bibliotekacyfrowa.pl/publication/18081 [accessed 08/2025]. For the manuscript, see Therese Metzger, *Die Bibel von Meschullam und Joseph Qalonymos: Ms. M 1106 der Universitätsbibliothek Breslau (Wroclaw)* (Würzburg: Schöningh, 1994); Frojmovic 2008 and Fronda 2016.

36 Psalms, Job, Proverbs, Daniel, Ezra, Nehemiah and I–II Chronicles.

37 For the wording and meaning of the biblical quotations and phrases in the colophon, see the comments in Sfardata, https://sfardata.nli.org.il/#/manuscript/0T001 [accessed 08/2025].

a vocalizer and masorete from the manuscript's beginning to its end. At some point, perhaps due to his commitment to the Wroclaw manuscript, he was unable to complete the Ambrosian project. The relationship between the two manuscripts suggests that Joseph was probably still working on the Wroclaw Bible after becoming familiar with the artistry of the first volume of the Ambrosian Bible.[38]

The hand of Joseph ben Kalonymos and his interlacing micrography patterns are dominant in both biblical codices he worked on.[39] In the Wroclaw Bible, he further developed these patterns, as it is especially noticeable in his complex variation of the Oriental hexagram motif (fig. 24).[40] This ancient motif was widely adopted in Muslim visual cultures, where it was often identified as Solomon's seal, with which he was said to have subdued demons.[41] Through Hebrew biblical manuscripts, this motif was transmitted to France and Germany, where it was not part of the local visual repertoire of non-Jewish communities. Joseph ben Kalonymos created a new, intricate variation by inserting the hexagram with in an interlacing pattern of semi-circles. This design later became a tradition among German-Ashkenazi masoretes (fig. 25).[42]

24.

25.

Fig. 24. Wroclaw Bible, Joseph ben Kalonymos. Wroclaw, University Library, Ms. M 1106, fol. 208v.
Fig. 25. Ashkenazi Liturgical Pentateuch, late thirteenth century, Oxford, Bodleian Library, Ms. Marshall Or. 1, fol. 64r.

38 As we have shown, Joseph ben Kalonymos worked on the first volume of the Ambrosian Bible after the illuminated panels, including the figures of Adam and Eve flanking the initial Genesis panel, had been completed (Ms. B 30 inf., fol. 1v). A similar depiction of Adam and Eve appears in the Wroclaw Bible in the form of two half-medallions flanking the Genesis panel (Ms. M 1106, fol. 1v). Analysis of the image shows that the two figures were added after the original panel was completed using a different palette in which green is dominant. The same green was used to paint the dragon's head in the lower *masora magna* on the same page (cf. the dragon's head on fol. 141r). Adding Adam and Eve to the Genesis panel in the Wroclaw Bible in this unique format seems to have been inspired by the Ambrosian Bible.

39 Ms. M 1106, fols. 1v, 131v, 169v, 1v. For simpler designs typical of his hand, see fols. 59v, 63v, 73r, 75v, 101r, 120r, 145r, 195r, 205r, 305r, 312v, 388r, 405r, 410r. See Metzger 1994 and Fronda 2016, 264-268.

40 Ms. M 1106, fol. 208v.

41 Rachel Milstein, *King Solomon's Seal* (Jerusalem: Tower of David, 1996). The meaning of the hexagram as Solomon's Seal was known among Jews in France (see Oxford, Bodleian Library, Ms. Opp. 14, fol. 216r); Bezalel Narkiss, "The Seal of Solomon the Scribe: The Illustrations of the Albenc Pentateuch of 1340," in: *Between Judaism and Christianity: Art Historical Essays in Honor of Elisheva (Elisabeth) Revel-Neher*, ed. Katrin Kogman-Appel and Mati Meyer (Leiden: Brill, 2008), 319–51. In Masorah micrography the hexagram was usually part of the decorative repertoire.

42 The manuscript is accessible online at
https://digital.bodleian.ox.ac.uk/objects/f7793345-f88a-41f3-87a8-e33683066248/ [accessed 08/2025]. For further parallels, see Metzger 1994, 58–59 and figs. 68–70.

At the same time, it was in the Ambrosian Bible that Joseph ben Kalonymos deviated from the traditional Oriental format and in a sense laid the initial groundwork for a new German variant of the Masoretic Bible. He was the first to transform the initial word into a new location for Masorah micrography (figs. 26, 36).[43] As previously noted, Joseph added the Masorah to the first four quires of the second volume. Unlike the first volume, this section was painted after the vocalization and Masorah were completed. At this stage, the initial words had not yet been fully executed, or had only been drawn in a pale plummet. This allowed Joseph to introduce his innovation: designing the outlines of the letters using the Masorah text itself.

Fig. 26. Ambrosian Bible. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 1r.

Based on a Hebrew method that had been gradually developed in non-biblical codices since the late eleventh century, twelfth-century Ashkenazi scribes replaced the marginal marks used in the East with initial words.[44] Later, influenced by Latin illuminated initial panels, German-Ashkenazi Bibles from the 1230s began giving special treatment to the initial word of each book. These words were written in a display script and surrounded by animals, dragons, and other illustrative motifs, all enclosed within a painted panel. This method, first found in the Ambrosian and Wroclaw Bibles, became typical of all German-Ashkenazi schools of illumination. However, in biblical codices, it was gradually neglected over the following decades, and the use of color disappeared. In this respect, too, the Ambrosian and Wroclaw Bibles bear witness to a period of experimentation before the well-known late-thirteenth-century variant was consolidated, when color was no longer used. Interestingly, despite the fact that Ashkenazi illumination was in its infancy in the 1230s, the Ambrosian Bible represents a mature visual concept.[45] This advanced achievement was made possible through the collaboration of a Jewish designer and professional illuminators who were trained by a master in a Christian workshop or a similar setting and were directly familiar with Christian book art of the time.

43 Ms. B 31 inf., fols. 1r, 16r.

44 Malachi Beit-Arié, *Unveiled Faces of Medieval Hebrew Books: The Evolution of Manuscript Production - Progression or Regression?* (Jerusalem: Magnes, 2003), 49–59.

45 Cf. Shalev-Eyni 2015.

5 In the Beginning: The Diocese of Würzburg

Where did this vibrant period of experimentation, involving scribes, masoretes, designers, and illuminators, take place? The illumination style of the Ambrosian Bible may help us pinpoint this pioneering activity. We can observe striking similarities between the artwork of the Ambrosian Bible and that of illuminated calendar, golden initials, and one of the principal miniatures in the Würzburg-Ebrach Psalter, a manuscript dating to around 1230.[46] Attributed to the Diocese of Würzburg, this Latin manuscript includes a calendar that lists the major saints of the diocese, as well as Hiltegerus, who is closely associated with the Cistercian monastery of Ebrach within the same diocese.[47] The illuminator of the first volume of the Ambrosian Bible, who worked sometime between January 10, 1236, and late 1237 (figs. 27, 29),[48] was skilled in articulating the human body, its proportions, organic limbs, feet, and hands, which he designed in a similar shape to those found in the Psalter (fig. 28). At the same time, like his counterpart, he used rhythmic bands of light and dark to color the garments, creating repeated flat patterns.[49]

27. 

28. 

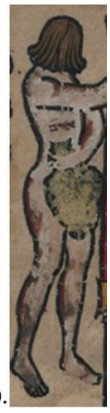
29. 

Fig. 27. Ambrosian Bible. Milan, Biblioteca Ambrosiana, Ms. B 30 inf., fol. 56r (detail).
Fig. 28. Würzburg-Ebrach Psalter, ca. 1230. Munich, Universitätsbibliothek, 4° Cod. Ms. 24 (Cim. 15), fol. 204r (detail).
Fig. 29. Ambrosian Bible. Milan, Biblioteca Ambrosiana, Ms. B 30 inf., fol. 1v (detail).

46 Munich, Universitätsbibliothek, 4° Cod. Ms. 24 (Cim. 15), fols. 2v–8r (calendar), 30v, 159v, 167v (golden initials), and 204r (miniature). The manuscript is accessible online at https://epub.ub.uni-muenchen.de/10931/ [accessed 08/2025].

47 For the manuscript, see Marianne Reuter and Gerhard Schott, *Die lateinischen Mittelalterlichen Handschriften aus der Quartreihe*, Die Handschriften der Universitätsbibliothek München 5 (Wiesbaden: Harrassowitz, 2000), 20–29; for the calendar, ibid., 25–26.

48 Ms. B 30 inf., fol. 56r.

49 4° Cod. Ms. 24 (Cim. 15), fol. 204r. Additionally, in both manuscripts the panels are surrounded by typical frames with repeated floral or geometric patterns in three shades. Another important link for understanding the development of the style across the three volumes of the Ambrosian Bible is the design of the calendar in the Würzburg-Ebrach Psalter. Compare, for example, 4° Cod. Ms. 24 (Cim. 15), fol. 8r, with Ms. B 30 inf., fol. 182v. A full stylistic analysis is beyond the scope of this article.

The work on the second and third volumes of the Ambrosian Bible was done by a different artist, no earlier than 1238. Although the style is simpler, its affinity with the same school of illumination is apparent. The golden scrolls that fill the space and develop into dragons, birds, and grotesque profiles are particularly similar (figs. 30, 31, 32, 33, 34).[50]

Fig. 30. Ambrosian Bible. Milan, Biblioteca Ambrosiana, Ms. B 30 inf., fol. 48r.

31. 

32. 

Fig. 31. Würzburg-Ebrach Psalter. Munich, Universitätsbibliothek, 4° Cod. Ms. 24 (Cim. 15), fol. 30v.
Fig. 32. Würzburg-Ebrach Psalter. Munich, Universitätsbibliothek, 4° Cod. Ms. 24 (Cim. 15), fol. 167v.

33. 

34. 

Fig. 33. Ambrosian Bible. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 1r.
Fig. 34. Würzburg-Ebrach Psalter. Munich, Universitätsbibliothek, 4° Cod. Ms. 24 (Cim. 15), fol. 159v.

50 4° Cod. Ms. 24 (Cim. 15), fols. 30v, 159v, 167v, and Ms. B 31 inf., fols. 1r, 30v; Ms. B 32 inf., fol. 48r.

The stylistic similarities with specific Christian illuminations suggest direct contact with a Christian urban workshop in the diocese of Würzburg, possibly one involved in creating the Psalter, or a Christian illuminator trained by a master in a similar local, professional setting.[51] While urban activity in Würzburg in the field of illuminated manuscripts is well-documented from the 1240s onward,[52] it was still in its infancy in the 1230s.[53]
Interestingly, although the Ambrosian Bible and the Munich Commentary of 1232/33—both commissioned by the same patron—have different illumination styles, the artwork of the Munich Commentary is also attributed to Würzburg,[54] the hometown of Solomon ben Samuel, the scholar who served as the manuscript's principal scribe and compiler. The same is true for the artwork of the Wroclaw Bible.[55] All signs seem to point to Würzburg. In the second quarter of the thirteenth century, as the Rhenish schools declined, Würzburg emerged as a prominent Ashkenazi scholarly center and,[56] probably not accidentally, also became a significant hub for vibrant, experimental activity in Jewish book production and art. This activity laid the foundation for the German-Ashkenazi variant of the biblical codex, which flourished in later decades.

51 It should be noted that the special affinity to the Psalter of the Diocese of Würzburg is also a key to deciphering some central iconographic issues of the Ambrosian Bible, which are beyond the scope of this paper.

52 Helmut Engelhart, *Die Würzburger Buchmalerei im Hohen Mittelalter*, vol. 1: Quellen und Forschungen zur Geschichte des Bistums und Hochstifts Würzburg (Würzburg: Schöningh, 1987).

53 To have this early period reconstructed, a thorough review of both Latin and Hebrew manuscripts is necessary, which is beyond the scope of this article.

54 Engelhart 1987, 273–81; and Klemm 1998, 198–202. The Munich commentary style is typically discussed alongside an evangelistary from around 1250 (Munich, BSB, Clm 23256) and a psalter from around 1260–1265 (Munich, BSB, Clm 3900). These manuscripts were illuminated in an urban workshop in Würzburg. Therefore, scholars have argued that the Munich commentary was illuminated a few decades after the text. However, this conclusion seems unlikely due to the homogeneous character of the production (Aliza Cohen-Mushlin 2020, 51).

55 The artwork of the Wroclaw Bible (1237/38) also shows affinities to the same Latin manuscripts, which were apparently produced by the same urban workshop a few decades after the completion of the Wroclaw Bible (Munich, BSB, Clm 23256 and Clm 3900). The stylistic features that reached final consolidation in the two later Latin manuscripts began appearing in book illumination a few decades earlier, typically in less central miniatures. Since Hebrew manuscripts were a more flexible medium, less bound by accepted rules than Christian manuscripts, it is perhaps unsurprising to find these innovations, which tended toward simplification, in the main miniatures of Hebrew illuminated manuscripts. This interesting phenomenon goes behind the cases discussed here to later examples as well. Cf. Sarit Shalev-Eyni, "Humor and Criticism: Christian-Secular and Jewish Art of the Fourteenth Century," *Zeitschrift für Kunstgeschichte* 71 (2008): 188–206, which points to the importance of studying the style of Ashkenazi illuminated manuscripts not only for the purpose of their localization, but also for the understanding of the development of local Christian illumination as a whole.

56 Simcha Emanuel, "German Sages in the Thirteenth Century: Continuity or Crisis?," *Frankfurter Judaistische Beiträge* 39 (2014): 1–19.

6 Conclusion

The three-column format of the Ambrosian Bible—with its Hebrew text and Aramaic translation written verse by verse, along with the *masora magna* in the margins and the *masora parva* between the columns—clearly traces back to an Oriental tradition from around 1000 CE.[57] It reached Anglo-French areas by the late twelfth century, as evidenced by the former Valmadonna Pentateuch of 1189, now at the Museum of the Bible in Washington.[58] This tradition is also found in the Wroclaw Bible and was preserved in large German-Ashkenazi Bibles around 1300. The format was likely transmitted eastward to the German areas of the Holy Roman Empire through this French connection, which may have also helped spread some Sephardic variants in the same direction. In 1227, R. Meir Abulafia published his work *Masoret Seyag la-Torah* in Toledo. This treatise was part of a continuous project to establish accurate biblical readings and writings, including the restoration of the Masorah text. To achieve this, he sought out old Torah scrolls and biblical codices with Masorah notes, showing a clear preference for ancient manuscripts.[59] The echoes of Abulafia's project, which served as a backdrop for the revival of the biblical codex in Toledo and Burgos, also reached France and Germany.[60] The different variants of the Oriental tradition that emerged in various European cultural centers were not developed in isolation, as people and manuscripts constantly moved between these regions.

The foundations of the German-Ashkenazi variant that emerged in the late thirteenth century were first laid in the 1230s in Würzburg or its surrounding area, which was a significant social and scholarly center at the time. An analysis of the Ambrosian Bible's production allows us to define its three volumes as an experimental work of the 1230s in this region. By then, Joseph ben Kalonymos was a highly regarded and accomplished masorete and vocalizer. He came from a family of scribes and likely acquired some of his skills within that context, although it is not clear from whom he received his scholarly training and expertise in biblical grammar.

The second and third volumes of the Ambrosian Bible are the meeting point of two distinct traditions. With his meticulous designs and interlaced micrography patterns, Joseph ben Kalonymos offered his own variation on Oriental or Oriental-Sephardic traditions that

57 See the so-called "Ms. B" of around 1000, which contains the Hebrew text of the Bible and a Palestinian Targum in an alternating verse-by-verse format of three columns with *masora magna* and *parva*. Michael L. Klein, "New Fragments of Palestinian Targum from the Cairo Genizah," in: *Michael Klein on the Targums: Collected Essays 1972–2002*, ed. Avigdor Shinan and Rimon Kasher (Leiden: Brill, 2011), 107–18 (115–16).

58 Codex Valmadonna I. See Malachi Beit-Arié, "The Valmadonna Pentateuch and the Problem of Pre-Expulsion Anglo-Hebrew Manuscripts-MS. London, Valmadonna Trust Library 1: England [?], 1189," in: *The Making of the Medieval Hebrew Book: Studies in Palaeography and Codicology* (Jerusalem: Magnes Press, 1993), 129–51.

59 See Mordechai Breuer, *The Aleppo Codex and the Accepted Text of the Bible* (Jerusalem: Mosad Harav Kook. 1976), 12–13, 88–89; Bernard Septimus, *Hispano-Jewish Culture in Transition: The Career and Controversies of Ramah* (Cambridge MA: Harvard University Press, 1982), 35–38.

60 For the echoes of Abulafia's project in France and Germany, see Moshe Hershler, ed., *Hame'iri, Qiryat Sefer* (Jerusalem: HaMasorah, 1956), 48–49.

likely reached Germany via France.[61] A clearer, and different, French connection is evident in the micrography of Masorete B, which bears a striking resemblance to the work of Ḥayyim ben Isaac, the scribe and masorete of the 1215 La Rochelle Bible.

The work of the two masoretes of the Ambrosian Bible and their distinct styles can be traced in later decades. The format of extending the last line of the lower *masora magna* into a micrographic form—a technique shared by the La Rochelle Bible and Masorete B—continued in later French and some German-Ashkenazi biblical codices. The local impact of Joseph ben Kalonymos appears to be even greater, as evidenced not only by the continuation of his special variant of the Oriental hexagram and his elaborate interlacing patterns, but also by his general concept for the opening pages of each book. As far as the limited evidence indicates, Joseph's innovative design of using the initial word itself as a site for Masorah micrography does not seem to have been continued by later generations, but this, along with the painted initial word panels populated with animals and dragons, may have paved the way for the typical German-Ashkenazi tradition. In this later tradition, the initial word panel itself became the primary site of micrography, gradually replacing the painted components surrounding the initial word. In fact, this later Ashkenazi format is a reversal of Joseph ben Kalonymos's new variant: the initial word is fully written, and the motifs populating the panel are rendered in micrography (figs. 35, 36).

35. 

36. 

Fig. 35. Oxford, Bodleian Library, Ms. Can. Or. 91, fol. 209r.
Fig. 36. Ambrosian Bible. Milan, Biblioteca Ambrosiana, Ms. B 31 inf., fol. 30v.

As far as we know, there is no dated evidence of Masoretic Bibles in German Ashkenaz between 1238 and 1264. However, the continuation of motifs clearly shows that the tradi-

61 Different echoes of this tradition can be traced in the work of Elijah ben Berekhiah ha-Nakdan in his later Pentateuch, Vatican ebr. 14, which was completed in 1239, about a year and a half after Joseph ben Kalonymos completed the first volume of the Ambrosian Bible and a similar period after the completion of the Wroclaw Pentateuch. Although Elijah's manuscript is somewhat later and the visual connection is not direct, these similarities may not be coincidental, as Hanna Liss places the two manuscripts of Joseph ben Kalonymos and Vatican ebr. 14 in a group of manuscripts belonging to the same recension concerning a *masora parva* note to Exodus 34:24 (Liss 2023, 16–17). The two, however, took the tradition in different directions. Elijah developed micrography as a means of illustrating the text. Joseph ben Kalonymos elaborated the oriental interlace patterns and offered his complex, non-illustrative variations. See Élodie Attia, *The Masorah of Elijah ha-Naqdan: An Edition of Ashkenazic Micrographical Notes* (Berlin: De Gruyter, 2015) and Hanna Liss, "Teaching in Tiny Letters: Eliyyah ben Berekhyah ha-Naqdan's Way of Teaching as displayed in MS Biblioteca Apostolica Vaticana ebr. 14," *Corpus Masoreticum Working Papers* 1 (2022): 1–21.

tion did not die out during this period. The connecting links have been lost, but as Rahel Fronda has demonstrated, evidence of the gradual disappearance of color can be seen in the 1264 Sofer Bible.[62] Here, the new method of micrographic panels was used, but one panel was still designed with vegetal scrolls populated by animals, all drawn in ink to be colored later. The coloring was never completed, except for the inner panel with the initial word, which was painted by an unprofessional hand.[63] The abandonment of color in the production of biblical codices with the Masorah not only changed the aesthetic of the page but also made reliance on professional colorists redundant. As a result, the Masoretic Bibles became the sole work of Jewish scribes, masoretes, and vocalizers.

62 Sofer Bible, 1264. London, David Sofer private collection, Ms. 1–2, fol. 88v. Fronda 2013.
63 Fronda 2013, 48–49.

7 Bibliography

Ameisenowa, Zofia. 1935. "Das messianische Gastmahl der Gerechten in einer hebräischen Bibel aus dem XIII Jahrhundert. Ein Beitrag zur eschatologischen Ikonographie bei den Juden," *Monatsschrift für die Geschichte und Wissenschaft des Judentums* 79, N.F. 43, no. 6: 409–22.

Attia, Élodie. 2015. *The Masorah of Elijah ha-Naqdan: An Edition of Ashkenazic Micrographical Notes* (Berlin: De Gruyter).

Beit-Arié, Malachi, and Benjamin Richler. 2008. *Hebrew Manuscripts in the Vatican Library: Catalogue* (Vatican City: Biblioteca apostolica Vaticana).

Beit-Arié, Malachi. 1993. "The Valmadonna Pentateuch and the Problem of Pre-Expulsion Anglo-Hebrew Manuscripts-MS. London, Valmadonna Trust Library 1: England [?], 1189," in: *The Making of the Medieval Hebrew Book: Studies in Palaeography and Codicology* (Jerusalem: Magnes Press), 129–51.

Beit-Arié, Malachi. 2003. *Unveiled Faces of Medieval Hebrew Books: The Evolution of Manuscript Production - Progression or Regression?* (Jerusalem: Magnes).

Berliner, Abraham. 1886. *Lehrgedicht über die Accente der biblischen Bücher EMeT nebst Commentar von Joseph b. Kalonymos in der 2. Hälfte des 13. Säculums* (Berlin: Rosenstein & Hildesheimer).

Bernfeld, Simon. 2000. *Sefer haDma'ot* (Berlin: Eshkol, 1924).

Breuer, Mordechai. 1976. *The Aleppo Codex and the Accepted Text of the Bible* (Jerusalem: Mosad Harav Kook).

Brüll, Nehemias. 1887. *Jahrbücher für jüdische Geschichte und Litteratur* VIII: 118–121.

Cohen-Mushlin, Aliza, Yaffa Levy, Michal Sternthal, Ilona Steimann, Anna Nizza-Caplan, Estherlee Kanon-Ebner. 2020. *Selected Hebrew Manuscripts from the Bavarian State Library* (Wiesbaden: Harrassowitz).

Davidson, Israel. 1970. *Thesaurus of Medieval Hebrew Poetry*, vol. 1 (New York: Ktav Publishing House).

Del Barco, Javier. 2011. *Bibliothèque nationale de France: Hébreu 1 à 32: Manuscrits de la bible hébraïque* (Turnhout: Brepols).

Elbogen, Ismar, Aaron Freimann, and Chaim Tykocinski, ed. 1963. *Germania Judaica I: Von den ältesten Zeiten bis 1238* (Tübingen: Mohr Siebeck).

Emanuel, Simcha. 2014. "German Sages in the Thirteenth Century: Continuity or Crisis?," *Frankfurter Judaistische Beiträge* 39: 1–19.

Engelhart, Helmut. 1987. *Die Würzburger Buchmalerei im Hohen Mittelalter*, vol. 1: Quellen und Forschungen zur Geschichte des Bistums und Hochstifts Würzburg (Würzburg: Schöningh).

Epstein, Jacob Nahum, 1009. "L'auteur du Commentaire des Chroniques," *Revue des études juives* 58/116 (1909): 189–99

Frojmovic, Eva. 2008. "Jewish Scribes and Christian Illuminators: Interstitial Encounters and Cultural Negotiation," in: *Between Judaism and Christianity: Art Historical Essays*

in Honor of Elisheva (Elisabeth) Revel-Neher, ed. Katrin Kogman-Appel and Mati Meyer (Leiden: Brill), 281–305.

Frojmovic, Eva. 2013. "Feasting at the Lord's Table," *Images* 7/1: 5–21.

Fronda, Rahel. 2013. "Attributing of Three Ashkenazi Bibles with Micrographic Images," *Ars Judaica* 9: 45–56.

Fronda, Rahel. 2015. "Text and Image: The Case of Micrographic Ornaments in 13th and 14th century Ashkenazi Bibles," in: *Erfurter Schriften zur jüdischen Geschichte* 3: Zu Bild und Text im jüdisch-christlichen Kontext im Mittelalter, ed. Tamara Thierbach (Jena/Quedlinburg: Bussert & Stadeler), 108–17.

Fronda, Rahel. 2016. "Masters of Micrography: Examples of Medieval Ashkenazi Scribal Artists," in: *Ruling the Script in the Middle Ages: Formal Aspects of Written Communication* (Books, Charters, and Inscriptions), ed. Sébastien Barret, Dominique Stutzmann, and Georg Vogeler (Turnhout: Brepols), 255–82.

Gengaro, Maria Luisa, Francesca Leoni, and Gemma Villa. 1959. *Codici decorate e miniati dell'ambrosiana, ebraici e greci* (Milan: Ceschina).

Gertsman, Elina. 2022. "Animal Affinities: Monsters and Marvels in the Ambrosian Tanakh," *Gesta* 61/1: 27–55.

Gutmann, Joseph. 1968. "Leviathan, Behemoth and Ziz: Jewish Messianic Symbols in Art," *Hebrew Union College Annual* 39: 219–30.

Gutmann, Joseph. 1967–1968. "When the Kingdom Comes, Messianic Themes in Medieval Jewish Art," *Art Journal* 27/2: 168–75.

Gutmann, Joseph. 2000. "Joseph ben Kalonymos: The Enigma of a Thirteenth-Century Hebrew Scribe," in: *A Crown for a King: Studies in Jewish Art, History and Archaeology in Memory of Stephen S. Kayser*, ed. Shalom Sabar, Steven Fine, and William M. Kramer (Jerusalem: Gefen), 147–51.

Hershler, Moshe, ed. 1956. *Hame'iri, Qiryat Sefer* (Jerusalem: HaMasorah).

Kanarfogel, Ephraim. 2012. *The Intellectual History and Rabbinic Culture of Medieval Ashkenaz* (Detroit: Wayne State University Press).

Klein, Michael L. 2011. "New Fragments of Palestinian Targum from the Cairo Genizah," in: *Michael Klein on the Targums: Collected Essays 1972–2002*, ed. Avigdor Shinan and Rimon Kasher (Leiden: Brill), 107–18.

Klemm, Elisabeth. 1998. *Die illuminierten Handschriften des 13. Jh.s deutscher Herkunft in der Bayerischen Staatsbibliothek* (Wiesbaden: Reichert).

Liss, Hanna. 2022. "Teaching in Tiny Letters: Eliyyah ben Berekhyah ha-Naqdan's Way of Teaching as displayed in MS Biblioteca Apostolica Vaticana ebr. 14," *Corpus Masoreticum Working Papers* 1: 1–21.

Liss, Hanna. 2023. "Between Imagination and Exegesis: The Masorah Figurata Illustrations of the Two Menorot in Vatican ebr. 14," *Images* 16: 1–19.

Metzger, Therese. 1994. *Die Bibel von Meschullam und Joseph Qalonymos: Ms. M 1106 der Universitätsbibliothek Breslau (Wroclaw)* (Würzburg: Schöningh).

Milstein, Rachel. 1996. *King Solomon's Seal* (Jerusalem: Tower of David).

Narkiss, Bezalel. 2008. "The Seal of Solomon the Scribe: The Illustrations of the Albenc Pentateuch of 1340," in: *Between Judaism and Christianity: Art Historical Essays in Honor of Elisheva (Elisabeth) Revel-Neher*, ed. Katrin Kogman-Appel and Mati Meyer (Leiden: Brill), 319–51.

Olszowy-Schlanger, Judith. 2018. "Hebrew Books," in: *The European Book in the Twelfth Century*, ed. Erik Kwakkel and Rodney Thomson (Philadelphia: University of Pennsylvania Press,), 159–74.

Ottolenghi, Luisa Mortara. 1972. "Description of Decorated and Illuminated Hebrew Manuscripts in the Ambrosian Library," in: *Hebraica Ambrosiana 1: Catalogue of Undescribed Hebrew Manuscripts in the Ambrosiana Library*, ed. Luisa Mortara Ottolenghi and Aldo Luzzatto (Milan: Il polifilo), 115–44.

Petzold, Kay Joe. 2019. *Masora und Exegese: Untersuchungen zur Masora und Bibeltextüberlieferung im Kommentar des R. Schlomo ben Yitzchaq (Raschi)* (Berlin: De Gruyter).

Reuter, Marianne and Gerhard Schott. 2000. *Die lateinischen Mittelalterlichen Handschriften aus der Quartreihe*, Die Handschriften der Universitätsbibliothek München 5 (Wiesbaden: Harrassowitz).

Sed-Rajna, Gabrielle and Sonia Fellous. 1994. *Les manuscrits hébreux enluminés des bibliothèques de France*, Corpus of Illuminated Manuscripts 7, Oriental Series 3 (Leuven: Peeters).

Septimus, Bernard. 1982. *Hispano-Jewish Culture in Transition: The Career and Controversies of Ramah* (Cambridge MA: Harvard University Press).

Shalev-Eyni, Sarit. 2010. *Jews among Christians: Hebrew Book Illumination from Lake Constance*, Studies in Medieval and Early Renaissance Art History 41 (Turnhout: Brepols).

Shalev-Eyni, Sarit. 2008. "Humor and Criticism: Christian-Secular and Jewish Art of the Fourteenth Century," *Zeitschrift für Kunstgeschichte* 71: 188–206.

Shalev-Eyni, Sarit. 2015. "Between Carnality and Spirituality: A Cosmological Vision of the End at the Turn of the Fifth Jewish Millennium," *Speculum* 90/2: 458–82.

Stal, Israel Jacob. 2023. "Toldot Rabbi Shelomo ben R. Shemu'el miWürzburg u-mahadura ḥadashah le-tosfotav al perush ha-tefilah ha-meyuḥas leRaaban," *Yerushatenu* 12: 17–48 (Hebrew).

Steimann, Ilona. 2023. "Masoretic Manuscripts from France: The Jonah Pentateuch (BL, Add. MS 21160) Revisited," *Corpus Masoreticum Working Papers* 5: 1–35.

Steimann, Ilona. 2024. "Multi-Handed Bible Manuscripts: Masoretic Workshops in Medieval Ashkenaz?," *Corpus Masoreticum Working Papers* 8: 184–226.

Steimann, Ilona. 2025. "Beyond the Text: Liturgical Clues in Burgundian Masoretic Manuscripts," *Corpus Masoreticum Working Papers* 4: 1–46.

Ta-Shma, Israel. 2004. "The Commentary on Chronicles in Munich, Ms. 5," *Studies in Medieval Rabbinic Literature*, vol. 1: Germany (Jerusalem: Mosad Bialik), 290–422.

Urbach, Efraim Elimelech. 1939–1963. *Sefer Arugat haBosem auctore R. Abraham ben Azriel*, 4 vols. (Jerusalem: Mekitzei Nirdamin).