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Summary

The present study deals with two Ashkenazi Bibles, the Volterra Bible from 1294 (today in the Vatican) and the Berio Bible from around 1300, which has hitherto erroneously been dated to 1438 (today in the Biblioteca Civica Berio in Genoa). Both codices are of a monumental size, and each was copied by several masoretes. Designed to shed light on the work of medieval Ashkenazi masoretes, this study reconstructs how these manuscripts were produced, examines the division of copying tasks, and discusses a group of related masoretic Bibles copied by the same masoretes. Careful analysis of the ways in which these masoretes cooperated with each other suggests that there may have been workshops in medieval Ashkenaz that specialized in writing the Masorah and vocalization.

1 Introduction

In the colophon at the end of a massive Germano-Ashkenazi manuscript, the Volterra Bible, the masorete Isaac ben Simeon ha-Levi wrote:

אני יצחק ברבי שמעון הלוי מסרתי חצי הספר להנדיב ר' אליעזר בר' שמואל השם יזכהו להגות בו בני
ובני בניו עד סוף כל הדורת אמן סלה, וסיימתי לשנת חמשת אלפים בחמשים וחמשה לפרט בחמשה
עשר בכסליו.¹

(I, Isaac ben R. Simeon ha-Levi, wrote the Masorah in half of the book for the generous R. Eleazer bar Samuel, may God grant that he and his sons and the sons of his sons recite from it until the end of all generations, amen *selā*. And I completed [it] in the year 5055 on 15 Kislev [5 December 1294]).

As we learn from the colophon, Isaac wrote only half of the Masorah in this codex and was neither the scribe nor the vocalizer, which tells us that others were involved in its production. Given the impressive size of the Volterra Bible (545–580 × 400–420 mm after trimming; 982 folios) and the extent of the included micrography, it is hardly surprising that it was the work of several craftsmen. The specific ways in which such multi-handed codices were copied and the patterns of collective work in the Ashkenazi context have not yet been the subject of much scholarly attention. The present article, which is based on an in-depth study of the Volterra Bible dated to 1294 and the closely related Berio Bible from around 1300, which has hitherto been erroneously dated to 1438,² deals with questions regarding the organization of the scribal craft and the probable existence of professional workshops for book production in medieval Ashkenaz.

In his article on the secularization of medieval book production, which is based on a quantitative study of more than 1,500 European manuscripts dating from ca. 750 to ca.1500, Jaakko Tahkokallio suggests that:

The typical number of scribes copying a book (or more precisely, a codicological production unit) in a corpus of manuscripts gives indications about the setting in which the books were copied. The data examined suggests that in all secular contexts books were most commonly copied by a single scribe. [...] for some sets of predominantly secularly produced manuscripts the proportion of single-scribe copies is as high as 90

¹ *The research for this paper was conducted within the scope of the long-term project funded by the German Research Foundation, 'Corpus Masoreticum: Corpus Masoreticum: Die Inkulturation der Masora in die jüdische Gelehrsamkeit Westeuropas im 11. bis 13. Jahrhundert. Digitale Erschließung einer vergessenen Wissenskultur', Hochschule für Jüdische Studien Heidelberg. My thanks go to Sarit Shalev-Eyni for her corrections and suggestions on earlier drafts, to Hanna Liss for encouraging this study, and to Evelyn Grossberg for editing the essay. I am also deeply indebted to Emanuela Ferro of the Biblioteca Civica Berio in Genoa and the library staff for their help in my work with the Berio Bible. Vatican, Biblioteca Apostolica (BAV), MS Urb. ebr. 1, fol. 979v; see Benjamin Richler and Malachi Beit-Arié. 2008. *Hebrew Manuscripts in the Vatican Library: Catalogue* (Vatican City: Biblioteca apostolica Vaticana), 599. The manuscript is accessible online at <https://t1p.de/0j5b> [accessed 08/2023].

² Genoa, Biblioteca Civica Berio (Bib. Berio), MS B.H. I-VII; the manuscript is accessible online at <https://t1p.de/qf3bg> [accessed 08/2023].

percent. Secondly, a high proportion of copies made by multiple scribes collaborating within a single codicological production unit appears indicative of an institutional setting of production. In all the institutional contexts examined, the proportion of single-scribe copies is less than 50 percent.³

The number of medieval scribes involved in copying a single manuscript was the main criterion by which also scholars of Jewish book culture evaluated the medieval bookmaking techniques. In his discussion of multi-handed manuscripts, Malachi Beit-Arié writes that 9 percent of the dated codices until 1500 were copied collectively by several scribes and that among the tens of thousands of undated ones the percentage is even higher, especially among codices copied in Ashkenaz.⁴ However, as he notes, those numbers do not indicate any institutional framework for copying manuscripts, nor do they imply the existence of multi-scribe ateliers which produced and marketed books, as multi-handed copies were found among both commissioned codices and those copied for the scribes' own use. Rather, he writes, most multi-handed manuscripts were copied by a principal scribe assisted by subordinate copyists—possibly relatives or apprentices (primarily in the context of scholarly manuscripts) who worked with him under the same roof. In contrast to Christian monastic scriptoria and urban commercial ateliers, Jewish family teams did not function under any authoritative supervision and their products depended entirely on the individual preferences of their patrons and scribes.⁵

In contrast, Rahel Fronda, who studied multi-handed masoretic Bibles from medieval Ashkenaz, notes that the fact that many of those codices were produced by several scribes and masorettes does imply that the work was done in a professional workshop setting. Challenging an earlier assertion that there were no such professional workshops among Ashkenazi bookmakers, she categorized some of the Ashkenazi masoretic Bibles based on similar micrographic ornaments and in some cases was able to attribute several manuscripts to the same masoretic hands.⁶ To support her argument, she also adds that “the quality of the codices indicates that they may have been produced by highly professional scribes, with no evidence of assistance from non-professionals”.⁷

3 Jaakko Tahkokallio. 2019. “Counting Scribes: Quantifying the Secularization of Medieval Book Production,” *Book History* 22: 4.

4 Malachi Beit-Arié. 2022. Historical and Comparative Typology of Medieval Hebrew Codices Based on the Documentation of the Extant Dated Manuscripts until 1540 Using a Quantitative Approach [English version] (Jerusalem-Hamburg: Israel Academy of Sciences and Humanities), 112–16; accessible online at <https://t1p.de/z1pk4> [accessed 08/2023].

5 See Michael Riegler. 1995. “Colophons of Medieval Hebrew Manuscripts as Historical Sources” [Hebrew], Unpublished PhD Thesis, the Hebrew University of Jerusalem, 191–93; Malachi Beit-Arié. 2014. “The Individual Nature of Hebrew Book Production and Consumption,” in: *Manuscrits hébreux et arabes: Mélanges en l'honneur de Colette Sirat*, ed. Nicholas De Lange and Judith Olszowy-Schlanger (Turnhout: Brepols), 2014, 17–28.

6 Summarized in Rahel Fronda. 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.

7 Fronda 2016, 263.

The terms ‘professionals’ or ‘professionalization’, ‘specialization’, and ‘commercialization’ are indeed often used in the context of the work of Christian urban ateliers to describe the book production processes that were common shortly after 1200.⁸ In principle, they all suggest that in order to meet the needs of a larger market, urban professional workshops organized their work efficiently, with different specialists responsible for different tasks.⁹ Thus a group of professionals could work on the same manuscript simultaneously, thereby speeding up and structuralizing the production process. Although it is obvious that in the contemporary Jewish communities, which were relatively small, there was no need to produce books on a scale comparable to that of the Christian urban centres, the matter of bookmakers’ specialization was no less important. In Ashkenaz, from the second half of the thirteenth century on, it was unlikely that the manuscript’s scribe and the masorete were one and the same person. Whereas scribes were skilled in calligraphic writing, they were not necessarily specialists in grammar; the masorettes, for their part, were proficient in grammar, vowel system and its rules, and accents but could not always write calligraphically.¹⁰ As I discuss elsewhere, evidence from the colophons of masoretic Bibles and liturgical Pentateuchs produced in Ashkenaz around 1300 suggests that in most of them the tasks of copying the main text and of writing the Masorah were undertaken by different individuals.¹¹ Thus, the scribes and the masorettes (the latter were also often the vocalizers and proofreaders) became two distinct kinds of professionals, and the division of the work between them determined the stages of manuscript production. First the scribe(s) completed the copying of the main text and then he or the manuscript’s patron delivered the quires to the masorete(s). The Masorah could be added to the manuscript immediately upon the completion of the main text, but could be also written later, suggesting that the scribes and masorettes might not have worked together.

It is also remarkable that many Germano-Ashkenazi Bibles from around 1300 was copied by a single scribe and several masorettes. The distribution of the work among several masorettes was obviously a result of the increasing demand for micrography decoration. Starting from the second half of the thirteenth century in German-speaking Ashkenaz, the micrographic embellishments made their way from the margins into the text space, often creating a half- or a full-page decoration. The extent of the micrography suggests that there was a great deal of additional, time-consuming work for the masorettes, which apparently sometimes made it necessary to divide it among several hands. The work of the masorettes on the same manuscript was synchronized, with each individual responsible for a particular

8 Tahkokallio 2019, 2–3.

9 For more on the work of Christian ateliers, see, for example, Linda L. Brownrigg (ed.). 1995. *Making the Medieval Book: Techniques of Production*. Proceedings of the Fourth Conference of the Seminar in the History of the Book to 1500, Oxford, July 1992 (Los Altos Hills: Anderson-Lovelace, Red Gull Press); Richard H. Rouse and Mary A. Rouse. 2000. *Manuscripts and Their Makers: Commercial Book Producers in Medieval Paris 1200–1500*, 2 vols. (London: Harvey Miller).

10 Rafael Edelman. 1968. “Soferim–Massorettes, ‘Massorettes’–Nakdanim,” in: *In Memoriam Paul Kahle*, ed. Matthew Black and Georg Fohrer (Berlin: De Gruyter), 116–23; Beit-Arié 2022, 130.

11 Ilona Steimann. [2024]. “Between the Text and the Image: Micrography, Its Critiques and Actual Practices in Medieval Ashkenaz,” in: *Book Ornament and Luxury Critique*, ed. David Ganz and Thomas Rainer, forthcoming.

task to be carried out at a certain stage of the production. It is specifically cooperations that hint at the existence of workshops that specialized in writing the Masorah and vocalization. In what follows, then, I present evidence of the semi-structuralized methods of book production among Ashkenazi Jews that can be compared to those of Christian ateliers. As I show below, it was not only the number of hands involved in producing a manuscript that suggests a professional workshop setting, as these hands could have worked independently, each in his home or elsewhere. Rather it is the way the various scribes and masorettes interacted with one another in connection with more than one manuscript that is crucial for deciding about the settings in which such manuscripts were produced. Thus, we cannot limit analysis to the segments of manuscripts that include micrography, nor can we discuss the approaches and output of the workshops on a purely palaeographical basis, disregarding the decoration and codicology. Knowledge of the latter two is necessary for an understanding of the correlation between the scribal and masoretic tasks and the codicological structure of a manuscript, which, in turn, can provide evidence as to whether the professionals involved worked separately, each one on a particular group of quires, or together. In this study, which is designed to reconstruct the patterns of collective work, subordinated to certain principles of the rationalization of bookmaking, and its context, I relate to manuscripts as material objects in all their aspects. The insight into the organization of the work of the scribes and masorettes and their methods, the division of labour between them, and the ways in which they cooperated will make it possible to step beyond the ambiguous and too-general terms used to describe professional Jewish book production workshops and to discuss how such workshops might have functioned in reality.

2 The Volterra and Berio Bibles: Original Production and History

The Volterra Bible owes its name to the city of Volterra, where it was presumably confiscated from a wealthy merchant named Menaḥem ben Aaron Volterra by Duke Federico da Montefeltro of Urbino (1422–1482) during the sack of Volterra in 1472.¹² Rebound in the Vatican library in a nineteenth-century red morocco leather binding that bears the arms of Gregory XVI (1831–1846), the manuscript, which includes the entire biblical text with *masora parva* and *magna* (henceforth MP and MM),¹³ was produced as a single massive

12 Delio Vania Proverbio. 2007. “Notes on the Diaspora of the Hebrew Manuscripts: From Volterra to Urbino,” in: *Federico da Montefeltro and His Library*, Catalogue of an exhibition, held at the Morgan Library and Museum, New York, June 8–September 30, 2007, ed. Marcello Simonetta (Milan: Y. Press), 51–62; Delio Vania Proverbio. 2008. “Historical Introduction,” in: *Hebrew Manuscripts in the Vatican Library: Catalogue*, ed. Benjamin Richler and Malachi Beit-Arié (Vatican City: Biblioteca apostolica Vaticana), xviii. For Menaḥem ben Aaron Volterra and his manuscripts, see Mauro Perani. 2008. Review of “Benjamin Richler (ed.), Hebrew Manuscripts in the Vatican Library,” *Materia Judaica* 13/1–2: 423–27.

13 Content: Genesis (fols. 1r–62r), Exodus (fols. 63v–111v), Leviticus (fols. 112r–145v), Numbers (fols. 146r–196r), Deuteronomy (fols. 197r–239v), Joshua, Judges, 1–2 Samuel, and 1–2 Kings (fols. 240^br–437r), Latter Prophets: Jeremiah, Ezekiel, Isaiah, and Minor Prophets (fols. 438r–662v), Ruth (fols. 663^br–668r), Psalms (fols. 669r–743r), Job (fols. 744r–775v), Proverbs (fols. 776r–801v), Ecclesiastes (fols. 802r–817r),

volume at the outset (fig. 1).¹⁴ The core text is laid out in three columns with the Aramaic Targum alternating with the Hebrew verses.¹⁵ The Book of Esther, which includes the *Targum rishon* (“the first”) and *sheni* (“the second”) copied together after each Hebrew verse, is followed by the apocryphal Dream of Mordecai in Aramaic.



Fig. 1: The Volterra Bible. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1.¹⁶

Further, the manuscript features Rashi’s commentary, which was added sometime after the original production stage, in the margins. The commentary is written in semi-cursive Gothic-Ashkenazi script by the scribe who often noted that his name was Moses.¹⁷ In most cases, the commentary surrounds the MM and MP in the top, bottom, and outer margins, which indicates that the Masorah was written before the commentary. However, as there was not always enough free space to accommodate the commentary, Moses erased many of the

MP notes to make room for the commentary in the outer margins and recopied the erased notes, squeezing them between the outer column of the main text and the commentary (fig. 2). This feature, together with the fact that the commentary was written without ruling, suggests that the margins of the Volterra Bible were not originally supposed to accommodate Rashi’s commentary. The Ashkenazi semi-cursive script of the commentary and its captions in square script point to the fifteenth century as the time it was added.

Song of Songs (fols. 818r–829v), Lamentations (fols. 830r–837v), Esther (fols. 838r–867r), Dream of Mordecai in Aramaic (fols. 867v–868r), Danniell (fols. 868v–878v), Ezra and Nehemiah (fols. 879r–894v), 1–2 Chronicles (fols. 895r–979v). A facsimile edition of the Volterra Bible was published by Etan Levine. 1977. *The Targum to Five Megillot*, with an introduction, notes, and English translation (Jerusalem: Maqor).

14 The first folios of Genesis appear to be darker and slightly stained, and their ink is more faded than on the other folios—phenomena that are typical for the opening leaves of a codex. Other folios in the manuscript are in the same bright colour and their ink has remained intact, suggesting that none of them had ever opened another volume.

15 The manuscript was used by several scholars for establishing the text of the Targum of various books, for bibliography see Richler and Beit-Arié 2008, 599.

16 The image is taken from *OWL- Online Window into the Library*. Nr. 7, July–September 2018.

The official Vatican Library Newsletter; accessible online at <https://t1p.de/7dv0k> [accessed 08/2023].

17 BAV, MS Urb. ebr. 1, fols. 5r, 6v, 7r, 14r, 102v. On the practice of disclosing scribes’ or masorettes’ names by marking them within the main text or the Masorah, when a homonymous biblical figure was mentioned, see Malachi Beit-Arié. 2005/2006. “How Scribes Disclosed their Names in Hebrew Manuscripts,” *Studia Rosenthaliana* 38/39: 144–57.

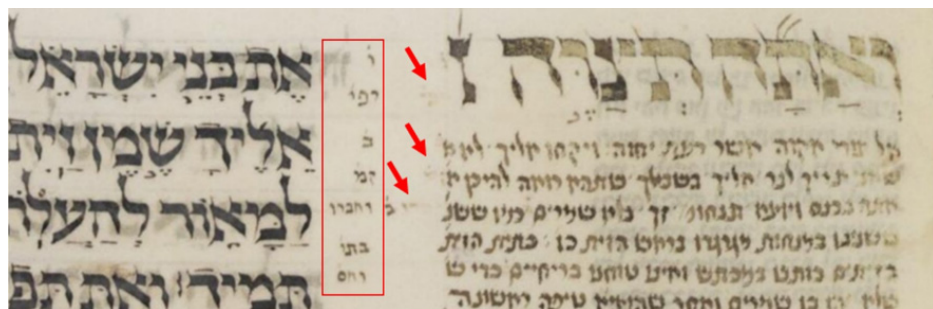


Fig. 2: The erasures of MP by the scribe of Rashi's commentary (the red arrows show the erasures; the red frame encloses the recopied notes). Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 94v.

Other than this evidence, nothing is known about the early history of this manuscript. The first stop in its itinerary that could be determined with relative certainty is the library of Duke Federico da Montefeltro in Urbino. The Volterra Bible probably corresponds to the Hebrew Bible mentioned in the topographical inventory of Federico's library (*Indice vecchio*), compiled between 1487 and 1498. The first item in that library's Hebrew section is described as an Old Testament in Hebrew and Chaldean, "Codex magnus et pulcherimus et in toto fortasse orbe unicus" ("a large and most beautiful codex, and is perhaps unique in the entire world").¹⁸ As from what has come down to us no other Hebrew manuscript in Federico's library would have been considered unique in the entire world, it is highly likely that the first item in the inventory is what is now known as the Volterra Bible. In 1657, the collection of the Dukes of Urbino including the Volterra Bible became part of the Vatican Library, where it is held until today under a shelfmark of *Urbinati ebraici*.¹⁹

Similar external qualities are shared by the Berio Bible (545–560 × 395–415 mm after trimming; 797 folios; fig. 3). The manuscript is currently bound in seven volumes, each foliated in plummet from left to right, so that the last folio in each volume is fol. 1.²⁰ Their nineteenth-century bindings and the plummet foliation apparently belong to the time that the manuscript arrived in the Biblioteca Civica Berio in Genoa. However, owing to the Hebrew foliation by one of its fifteenth-century Jewish owners, it is clear that the codex was originally bound in one volume. Written in the upper left corner of each recto in brown ink, the folio numbers run across the manuscript, from 2) ב) on the second folio of the first volume to 792) תשצב) on the last folio of the seventh volume.²¹ The Berio Bible includes

18 BAV, MS Urb. lat. 1761, f. 101r, <https://t1p.de/vn8k7> [accessed 08/2023]. For more on the inventory, see <https://t1p.de/sd0em> [accessed 08/2023].

19 The changes the duke's book collection underwent in the course of time are discussed in Maria G. Critelli, "The Library of a 'Humanist Prince': Federico da Montefeltro and His Manuscripts," and bibliography there, published online: <https://t1p.de/djo3g> [accessed 08/2023].

20 In what follows, the references to folio numbers are given according to this reverse foliation. Additionally, during later rebinding, some quires of volumes V and VI were bound erroneously, see Aldo Luzzatto, 1966. "La Bibbia ebraica della Biblioteca 'Berio' di Genova," *Miscellanea di storia ligure* 4: 42 note 5.

21 Many of these numbers were cropped during later rebindings; cf. Luzzatto 1966, 42 note 5. The same hand numbered the chapters of Psalms in Hebrew, but with many errors so that it is difficult to understand the system he followed (for peculiarities of the Psalms' numeration, see Luzzatto 1966, 49–50).

the entire biblical text laid out in three columns with MP and MM.²² The Hebrew verses alternate with the Aramaic Targum verse by verse, except for Chronicles which does not have the Targum.²³ The Book of Esther features *Targum rishon* and *sheni* and is followed the apocryphal Dream of Mordecai in Aramaic.



Fig. 3: The Berio Bible. Genoa, Biblioteca Civica Berio, MS B.H. I-VII.

As in the Volterra Bible, Rashi's commentary for the entire Bible, written in semi-cursive Gothic-Ashkenazi script, is a fifteenth-century addition.²⁴ The scribe who wrote the commentary signed his work with his name, Meir, at the end of the biblical books.²⁵ He also often marked his name within the commentary²⁶ and added supplications and well-wishing formulas based on biblical verses in the bottom margins below the commentary.²⁷ At the end of the Pentateuch, Meir recorded an extended colophon in the same semi-cursive Gothic-Ashkenazi script as the commentary in which he stated that here ends the Pentateuch, be strong Meir *Y"TZ* ("may his Rock protect him"; fig. 4). In the second part of the colophon, he wrote that he completed Deuteronomy in 1438.²⁸ It was specifically this part of the colophon that caused the confusion and the erroneous dating of the Berio Bible to 1438. Starting with Aldo Luzzatto's publication of

22 Content, I: Genesis–Exodus (fols. 93r–1r); II: Leviticus–Deuteronomy (fols. 106v–1r); III: Joshua–2 Samuel 1:6 (fols. 88v–1r); IV: 2 Samuel 1:7–2 Kings (fols. 96v–1r); V: Ezekiel 49:8–Minor Prophets (fols. 95v–1r); VI: Jeremiah–Ezekiel 49:7 (112v–1r); VII: Psalms (fols. 207v–150r), Job (fols. 149v–125r), Proverbs (fols. 125r–106r), Song of Songs (fols. 105v–96v), Ruth (fols. 96v–92v), Lamentations (fols. 92r–87r), Ecclesiastes (fols. 86v–75r), Esther (fols. 74v–52^r), Dream of Mordecai in Aramaic (fols. 52^v–51^r), Daniel (fols. 50v–43r), Ezra and Nehemiah (fols. 43r–32v), 1–2 Chronicles (fols. 31r–1v).

23 The Targum included in the Berio Bible was mentioned in several publications, see Eveline van Staaldoune-Sulman. 2002. *The Targum of Samuel* (Leiden: Brill), 54–55; Eveline van Staaldoune-Sulman. (2010). An Electronic Edition of Targum Samuel. Introduction to the Electronic Edition (also mentions the Volterra Bible on the same page), accessible online at <https://t1p.de/adqbn> [accessed 08/2023]; Hector M. Patmore and Johanna M. Tanja. 2014. "Initial Observations Concerning the Text of Targum 2 Samuel 22 as Preserved in European Liturgical Manuscripts," in: *A Jewish Targum in a Christian World*, ed. Alberdina Houtman, Eveline van Staaldoune-Sulman, and Hans-Martin Kirm (Leiden: Brill), 65; Deborah A. Fisher. 2022. "The Text of Targum Qoheleth," Unpublished PhD Thesis, University College London, 74–75.

24 Except for the end of Job, Ezra-Nehemiah, and Chronicles, which instead have other commentaries.

25 Bib. Berio, MS B.H. V, fol. 2r and VII, fol. 52^{ac}.

26 For example, Bib. Berio, MS B.H. I, fols. 21r and 20v.

27 For example, Bib. Berio, MS B.H. I, fols. 49r, 47r, 9v and II, fols. 57v, 50r–v. Writing the supplications was a common practice among Ashkenazi scribes, which was designed to protect themselves from calamities, when the text in a given folio ended with a 'negative' verse containing damning words, divine punishment, or mentions of death. For more on this practice, see Malachi Beit-Arié. 1969 and 1970. "Copyists' Formulas at the Bottom of the Pages" [Hebrew], *Qiryat Sepher* 44: 549–52 and 45, 155.

28 Bib. Berio, MS B.H. II, fol. 1v. For transcription of the colophon and its analysis, see Luzzatto 1966, 51.

1966, scholars who dealt with the Berio Bible dated it to 1438.²⁹ However, as I show below, the masoretes of the Berio Bible were identified in other manuscripts dated to around 1300. Thus Meir wrote only Rashi's commentary and did it more than 100 years after the manuscript was first produced. The third part of Meir's colophon also makes it clear that he was the owner of the manuscript. It starts with the customary formula of ownership "לעולם" "forever" and states that he, Meir ben [...] (the name of his father was erased by later owners), signed his name to manifest his ownership of the book. We can assume the area where Meir was active owing to another manuscript that he copied. SfarData identifies his hand in a manuscript of Azriel of Gerona's works, produced in 1443/44 in northern Italy.³⁰ Clearly Meir was a professional scribe, possibly a descendant of Ashkenazi Jews who moved to Italy but held to his native Ashkenazi writing style.

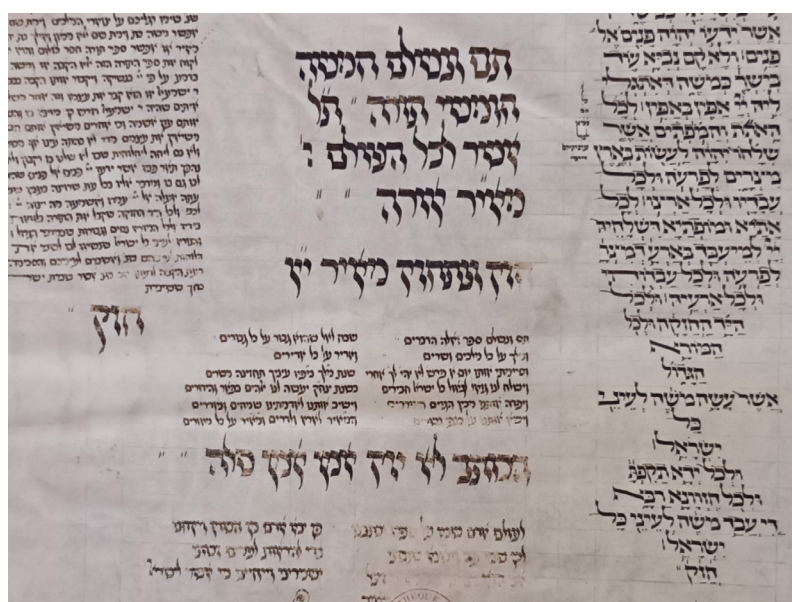


Fig. 4: The colophon of the scribe of Rashi's commentary, Meir. Genoa, Biblioteca Civica Berio, MS.B.H. II, fol. 1r.

Meir added Rashi's commentary to the Berio Bible following the same method that Moses used in the Volterra Bible. He erased the MP notes in the outer margins that interfered with

29 Luzzatto 1966, 54–55; Luisa M. Ottolenghi. 1966. "La decorazione del codice biblico ebraico della Biblioteca 'Berio' di Genova," *Miscellanea di storia ligure* 4: 67–84; Valeria Martelli Antonionioli and Luisa M. Ottolenghi (ed.). 1966. *Manoscritti biblici ebraici decorati: catalogo della Mostra Ordinata Presso la Biblioteca Trivulziana*, Castello Sforzesco, Milano, 2–28 marzo 1966 (Milan: Edizioni dell'ADEI-WIZO, 1966), 74–76 and additional bibliography there; Giuliano Tamani. 1967. "La bibbia ebraica della biblioteca 'Berio' di Genova," *Bibliofilia* 69: 127–28; Giuseppe Piersantelli (ed.). 1969. *Mostra di manoscritti e libri rari della Biblioteca Berio*. Genoa, 9 Maggio–8 Giugno 1969. Catalogo (Genoa: Berio Library), no. 32. SfarData #0Y607q. 30 Moscow, The Russian State Library, MS Guenzburg 96 (fols. 19v and 113r: Meir's signature); see SfarData #0R310q and #0R356q.

the commentary and recopied them elsewhere, depending on the available space (fig. 5).

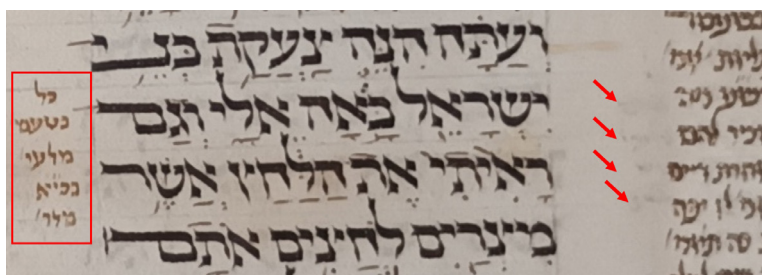


Fig. 5: The erasures of MP by the scribe of Rashi's commentary (the red arrows show the erasures; the red frame encloses the recopied notes). Genoa, Biblioteca Civica Berio, MS B.H. I, fol. 40r.

Some years later, the Berio Bible changed hands again. On the recto of the folio that opens the manuscript, its new owner added a table of contents in square Ashkenazi script that includes lists (הסימנים) of the biblical books, *parashot*, *haftarot*, and their respective folio numbers according to the Hebrew numeration of the folios. Aldo Luzzatto noted that the *haftarot* follow the Ashkenazi rite.³¹ In the colophon found on this folio, the scribe of the lists identified himself as Moses Merkish (מערקיש) and declared that he wrote it in the year וברכה (fig. 6). The SfarData documentation counted all the letters of וברכה and established the date as 1472/73, whereas Aldo Luzzatto counted only the letters marked with # and suggested the date 1467.³² Similarly to Meir, Moses ben Joshua Merkish was a professional scribe who is known to have copied five manuscripts in northern Italy between 1473/74 and 1503/04.³³ It is possible that he acquired the Berio Bible in order to use it as a model for the manuscripts he copied. The extant codices he produced feature liturgical, halakhic, and philosophical works as well as biblical commentaries. The biblical commentaries are in a codex that was originally copied in France in 1257.³⁴ Its original part has Rashi's commentary on Prophets and Moses Merkish added Rashi's commentary on Scrolls at the beginning of the codex.³⁵ Comparing the added commentary to that of the Berio Bible indicates that Moses Merkish did not use the commentary in the Berio Bible as a model.

31 Luzzatto 1966, 60.

32 SfarData #0Y958 and Luzzatto 1966, 60 respectively.

33 Paris, Bibliothèque nationale (BnF), MS hébr. 402 (copied in 1473/4); London, British Library (BL), MS Harley 340 (copied in 1488); Parma, Biblioteca Palatina, Cod. Parm. 2226 (copied in 1491); BL, MS Harley 150 (copied in 1257 and 1503/1504); Hamburg, Staats- und Universitätsbibliothek Hamburg Carl von Ossietzky, Cod. hebr. 208 (date is unknown). On BL, MS Harley 150, see also Beit-Arié 2022, 655.

34 BL, MS Harley 150. George Margoliouth. 1899. *Catalogue of the Hebrew and Samaritan Manuscripts in the British Museum* (London: British Museum), I, no. 189. The original colophon is on fol. 209r. The manuscript is accessible online at <https://t1p.de/u8ev3> [accessed 08/2023].

35 BL, MS Harley 150, fols. 1r–27r (colophon).

We are unable to identify the other Jewish owners of the Berio Bible.³⁶ The manuscript passed hands again in the early sixteenth century and became a Christian possession.³⁷ One of the Christian owners, whom Aldo Luzzatto tentatively identified as the Genoese scholar

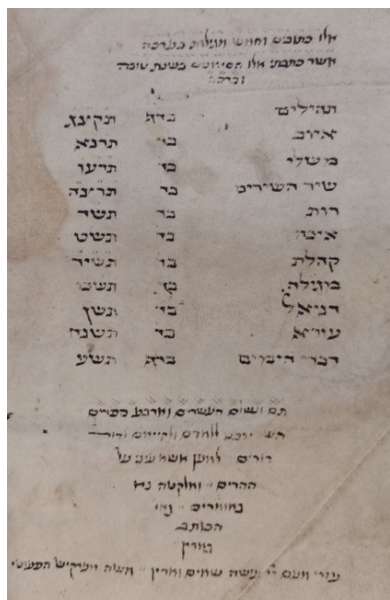


Fig. 6: The colophon of Moses ben Joshua Merkish, the owner of the Berio Bible. Genoa, Biblioteca Civica Berio, MS B.H. I, first unfoliated folio.

Agostino Giustiniani (1470–1536), was particularly interested in the Book of Psalms. His annotations in red ink, which appear only in the Psalms, provide references to the first edition of the polyglot Psalter, which Giustiniani published in 1516.³⁸ However, according to Saverio Campanini, who studied the books of Agostino Giustiniani extensively and is well acquainted with his handwriting, the annotations in red ink are not in Giustiniani's hand.³⁹ The identity of the Christian scholar who annotated the Berio Bible and where he was active in Italy cannot be determined.

The Berio Bible became the property of the Genoa State Archive before the middle of the seventeenth century. By that time, as can be seen in the Genoa State Archive inventories, the manuscript had already been divided into seven volumes.⁴⁰ The Berio Bible remained in the State Archive until the conquest of the Republic of Genoa by the First French Empire under Napoleon. Between 1808 and 1812, the manuscript together with other treasures was shipped to Paris and became the property of the

Bibliothèque royale (the predecessor of the Bibliothèque nationale).⁴¹ In 1848, Marquis Antonio Brignole Sale, the ambassador of the Sardinian government in Paris, finally succeeded in regaining this and several other manuscripts and sent them as a gift to the city of Genoa. The Genoa City Hall entrusted the manuscript to the Biblioteca Civica Berio, where it is still held.⁴²

36 One of them replaced the middle bifolio of the last quire of Chronicles (2 Chr. 26:3–30:14 in Bib. Berio, MS B.H. VII, fols. 6v–5r). The replacement repeats the layout of the original bifolio and includes the MM and MP as well as Rashi's commentary in the margins.

37 For their additions, see Luzzatto 1966, 50.

38 Luzzatto 1966, 61–65. Agostino Giustiniani. 1516. *Psalterium Hebreum, Grecum, Arabicum, & Chaldaicum, cum tribus latinis interpretationibus & glossis* (Genoa: Pietro Paulo Porro), accessible online at <https://t1p.de/3d7co> [accessed 08/2023]. See also Angela Nuovo. 2013. *The Book Trade in the Italian Renaissance* (Leiden: Brill), 107. For more on Giustiniani's career, see Paul F. Grendler. 2008. "Italian Biblical Humanism and the Papacy, 1515–1535," in: *Biblical Humanism and Scholasticism in the Age of Erasmus*, ed. Erika Rummel (Leiden: Brill), 233–40 and bibliography there.

39 I am grateful to Saverio Campanini, who shared this information with me via email.

40 The Berio Bible is listed in the inventories of the Genoa State Archive from 1638 and 1660 (Genoa, Archivio di Stato, MS 312, fol. 38 and MS 313, fol. 30r; see Luzzatto 1966, 42 note 5, and 63).

41 Each of the seven volumes of the Berio Bible carries the stamp of the Bibliothèque royale.

42 Luzzatto 1966, 65.

Originally, then, the Volterra and Berio Bibles were each bound in a single massive volume which included the core biblical text with the Targum and the MM and MP, but without Rashi's commentary. Measuring more than 500 mm in height today, both codices belong to the group of 'giant' Bible manuscripts—a group well known to scholars.⁴³ They are written on equalized parchment leaves, arranged into quires mostly of four bifolios each, which were pricked in both inner and outer margins and ruled by plummet.⁴⁴ In each codex, the main text was copied calligraphically in square Ashkenazi script by a single scribe, so that these manuscripts reflect a homogeneous appearance. In the Volterra Bible, when one of the Bible books ended on the recto side of the folio, the verso was left blank so that each book starts on a recto. One or two folios were left blank between the Pentateuch, Prophets, and Writings, thereby emphasizing the division of the Bible into three blocks in material terms.

That the Volterra and Berio Bibles were created as monumental, deluxe objects is also clear from their decoration. Both codices are lavishly embellished with micrography written in tiny square Ashkenazi script, which not only makes them aesthetically appealing but also serves for navigation through the biblical text. In each of the two codices, each biblical book opens with a large initial word surrounded by a wide frame formed by the minute script of the Masorah. In addition to the opening panels, the MM in the bottom margins of the Volterra Bible creates a banner with interlaced ornaments, echoing the initial-word panels. The masorettes of the Volterra Bible also sometimes decorated a half or a full page with a micrographic composition at the end of biblical books. Highlighting the opening and final pages of the biblical books with decorations made the structure of the text easily recognizable and helped the potential reader to find where each book starts and ends.⁴⁵

A similar method was used in the Volterra Bible to denote the beginnings and ends of quires, thereby turning the micrography into a codicological tool. The MM in the bottom margins of the facing folios that start and end the quires was shaped into simpler micrographic forms which made the codicological structure of the manuscript obvious. According to Dalia-Ruth Halperin, who studied this feature in various manuscripts, micrographic decoration between the quires may have initially been designed for the benefit of non-Jewish binders. In some manuscripts that she examined, the decorative motifs at the end of one quire mirror those of the beginning of the next one, thereby signalling the binders regarding the sequence of the quires.⁴⁶ In the Volterra Bible, the motifs used at

43 For giant Bibles, see, for example, David J. D. Kroeze and Eveline van Staaldoune-Sulman. 2006. "A Giant among Bibles: 'Erfurt 1' or Cod. Or. Fol. 1210–1211 at the Staatsbibliothek zu Berlin," *Aramaic Studies* 4/2: 197–209. See also Sarit Shalev-Eyni. 2010. *Jews among Christians: Hebrew Book Illumination from Lake Constance* (London: Miller), 7; Fronza 2016, 280–81; David Stern. 2017. *The Jewish Bible: A Material History* (Washington, DC: University of Washington Press), 110.

44 The codicological profiles of both codices are typical of German-speaking Ashkenaz in the later thirteenth and fourteenth centuries (Beit-Arié 2022, 232–39 and 415–19).

45 On the navigational function of decorative opening pages, see, for example, Malachi Beit-Arié. 2003. *Unveiled Faces of Medieval Hebrew Books. The Evolution of Manuscript Production – Progression or Regression?* (Jerusalem: Magnes), 50.

46 Dalia-Ruth Halperin. 2014. "Decorated Masorah on the Openings between Quires," *Journal of Jewish Studies* 65/2: 321–48.

the ends of a quire do not usually mirror those of the next quire; yet, marking the point of transition from quire to quire with micrographic decoration is obviously a variation of the same practice.

The enormous dimensions of the Volterra and Berio Bibles and the abundant micrography are their most eye-catching feature, but are not the most important consideration for understanding the work of their producers. More important is that the micrographic images in both codices were executed by hands different from those that wrote the linear Masorah—a practice that suggests a further narrowing of the specializations of the professionals involved in book production.

3 The Masoretes of the Volterra Bible: A Master and His Apprentices

The main text of the Volterra Bible was copied by a single scribe named Isaac, who did not leave a colophon but marked his name within the text.⁴⁷ The colophon that appears at the end of the manuscript was written by the masorete, Isaac ben Simeon ha-Levi, who identified the manuscript's patron as Eleazer bar Samuel and mentioned the date of completion as 15 Kislev 5055 (5 December 1294).⁴⁸ As follows from the colophon, Isaac ben Simeon wrote the Masorah but did not vocalize the manuscript. As mentioned below, another individual served as the vocalizer. Isaac was also not the homonymous scribe of the main text, which is apparent from a comparison of his script and that of the scribe.⁴⁹ Moreover, Isaac ben Simeon noted that he wrote the Masorah in half of the Volterra Bible. Palaeographic examination of the manuscript shows that he was the second masorete, sharing the work with the principal masorete. The latter did not leave a colophon but marked his name, Ḥayyim, within the MM that he copied.⁵⁰ In comparison to Ḥayyim's, Isaac's script is denser owing to the little space that he left between the letters (figs. 7, 8). His letters are angular and are better defined than those of Ḥayyim, with straight tops and bases that are parallel to each other and to the line. Ḥayyim's letters, by contrast, are more rounded, and having slightly bent tops and bases (e.g., מ, ה, and ת), they do not always support the uniform rhythm and homogeneous appearance of the written line. The differences between the hands of the two masoretes are also seen in the shapes of individual letters, especially the letters פ, מ, and ש, the graphic fillers, and the abbreviation for the Tetragrammaton.

47 BAV, MS Urb. ebr. 1, fols. 144r, 420r, 624r.

48 BAV, MS Urb. ebr. 1, fol. 979v, quoted in the introduction to this article. See <https://t1p.de/hdegl> [accessed 05/2024]. Isaac also marked his name on the bottom MM of fol. 879r.

49 The comparison of the square script of the colophon by the masorete Isaac to the square script of the main text by the scribe Isaac reveals obvious stylistic differences.

50 BAV, MS Urb. ebr. 1, fols. 317v, 381r. The fact that this codex was copied by two masoretes was also pointed out in Fronda, 2016, 271–74. However, she erroneously assumed that one masorete worked until fol. 536v and the second one wrote the Masorah in the rest of the manuscript.

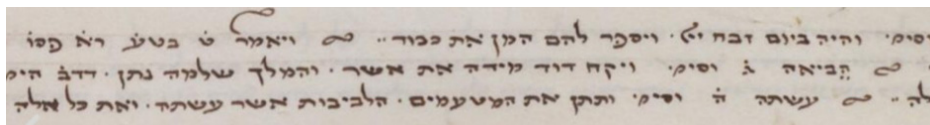


Fig. 7: The hand of Ḥayyim. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 857v.

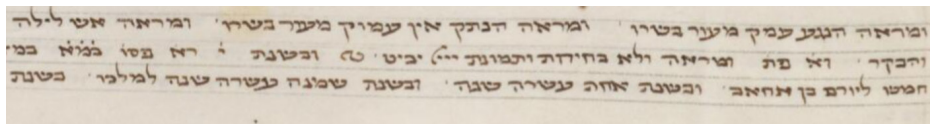


Fig. 8: The hand of Isaac ben Simeon ha-Levi. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 869r.

The division of the work between Ḥayyim and Isaac indicates that Isaac started by copying the smaller portions of the Masorah but was then assigned more and more work (Appendix). At the beginning of the manuscript, up until Judges, the MP and MM, including the figurative MM between the quires, were copied by Ḥayyim, except for the large micrographic panels that open and close the Bible books, which were done by Isaac. From quire XXXVII (in the middle of the Book of Judges), in addition to the micrographic panels, Isaac started to write the bottom figurative MM on the folios opening the books and at the beginning and end of the quires.

Remarkably, Ḥayyim wrote the MP and the top linear MM on all these folios. From fol. 537r, the opening of quire LXX in the middle of Ezekiel, Isaac became responsible for copying larger portions. On this and following folios Isaac wrote all MM and MP, apparently under Ḥayyim's supervision, and Ḥayyim added some MP notes when they were missing.⁵¹ Further, Isaac and Ḥayyim interchanged several times, each copying MM and MP in groups of quires. Neither of them necessarily started a new quire, and they sometimes interchanged in the middle of a quire or occasionally copied just a top or a bottom MM. It is also noteworthy that all of the micrographic panels around the initial words of the biblical books and at the books' ends were done by Isaac, both in the quires he wrote and in those that Ḥayyim copied, except for the micrographic panel at the end of Joshua (fol. 268v), which is the only large-scale micrography attributable to Ḥayyim. Isaac also finished the manuscript and wrote the colophon. Towards the end of the Volterra Bible, then, the hand of Isaac became more and more prominent. While the philological quality of his micrographic panels, to be discussed further on, suggests that he was a trainee learning the art of micrography under Ḥayyim's supervision, he may have already had some experience writing the linear Masorah. Thus, it seems that his training initially focused exclusively on the micrographic panels, which posed other kinds of challenges. However, in the middle of the production of the Volterra Bible, Ḥayyim may have realized that he was not going to complete the project on time and needed Isaac's assistance with the writing of the linear Masorah to speed up the work.

As to the quality of Isaac's micrographic panels, the difficulties this soon-to-be artist-masorete experienced at the beginning of his training related to both the content of the maso-

51 For example, BAV, MS Urb. ebr. 1, fol. 538v, 540v.

retic lists and their arrangement within decorative compositions. Especially indicative of these difficulties is his first attempt to create a complex micrographic design for the opening of Genesis, which includes twenty-five masoretic lists (fig. 9). Isaac did not mark the starting point of his design and there are many interrupted lines which do not flow from one into the other, which makes it difficult to decide where to start reading and how to follow the sequence of the masoretic lists. Many of his lists break off and continue elsewhere, still remaining incomplete and often corrupted. Moreover, he sometimes split the same list so that it went in two different directions repeating the same text (fig. 10).⁵²



Fig. 9: Isaac ben Simeon ha-Levi's micrographic decoration opening Genesis. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 1r (snapshot from BIMA 2.0: The colours indicate different masoretic lists).

Isaac's micrographic panels, especially those that open the books of the Pentateuch, show that it was not easy for a masorete inexperienced in micrography to estimate the amount of masoretic material and the number of individual masoretic lists that could fit into the decorative design. Isaac had also not realized that the decorative patterns of the panel itself should have been figured so that they would have allowed for a smooth flow of the lines of the Masorah, as we see in Ḥayyim's micrography. Ḥayyim's micrographic banners in the bottom margins of the same folios that have Isaac's panels usually begin in the upper right corner. As a rule, the corner is marked with a small flower that indicates the

⁵² One of Isaac's micrographic compositions is discussed in Dalia-Ruth Halperin. 2021. "Micrography Mounted Falcons: An Exegetic Text and Image," in: *Philology and Aesthetics: Figurative Masorah in Western European Manuscripts*, ed. Hanna Liss (Frankfurt am Main: Peter Lang), 59–101. In her study of one panel only, she attempted to explain Isaac's corrupted way of dealing with masoretic material and the image of the falconer it outlines by the underlying messianic message that, according to her, Isaac wanted to convey. Given evidence from other folios that display the same way of treating the masoretic lists with no connection to the micrographic images they form, it is, nonetheless, difficult to agree with such far-reaching interpretation.

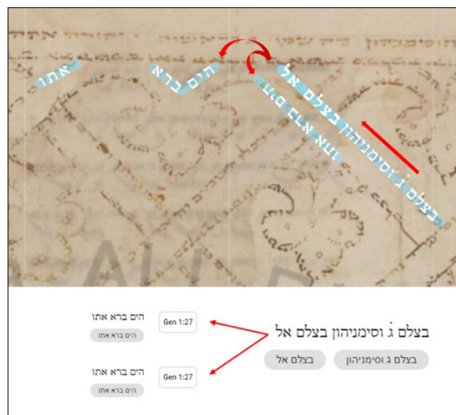


Fig. 10: Isaac ben Simeon ha-Levi's micrographic decoration opening Genesis. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 1r (snapshot from BIMA 2.0).

starting point of the lists, thereby assisting the reader to find where to start reading, as it appears, for example, on the folio that opens Genesis (fig. 11).⁵³ The micrography, which includes four masoretic lists one after the other, is arranged in one continuous line that runs through the entire ornament. The masoretic lists in Ḥayyim's micrographic designs at the bottoms of other folios as well as his large micrographic panel at the end of Joshua (fig. 12) reflect the same principles of flow, attesting to his experience and extraordinary skills. His estimation of the number and length of the lists that his micrographic designs would include was so precise that he rarely had to break off the last list in the micrographic composition.



Fig. 11: Ḥayyim's micrographic banner in the bottom margin of the folio opening Genesis. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 1r (snapshot from BIMA 2.0: The colours indicate different masoretic lists).

Although the philological quality of Isaac's micrographic panels improved considerably during the course of the manuscript's production, he continued to experience difficulties in managing large amounts of masoretic material. In comparison to Ḥayyim's micrography, Isaac left much more free space between the decorative components of his compositions so that the total number of masoretic references filling them was much smaller than in Ḥayyim's designs. Compare Isaac's full-page micrographic design at the of Ezekiel, which cites 179 biblical verses (references), with Ḥayyim's micrographic panel at the end of Joshua, which cites 388 verses (figs. 12, 13). The effect of Isaac's difficulties on the final product is that in terms of style, his micrographic compositions are very different from those of Ḥayyim. They are much less detailed as they were created using fewer lines. All of Isaac's

⁵³ Other Ashkenazi masorettes also sometimes marked the starting point of micrographic compositions with a graphic device, such as a small flower or a star, e.g., Renate Smithuis. 2022. "Masora Figurata Explained: Page Layout, Text Layout and the Selection and Organisation of Masoretic Content in the Ashkenazi Bible British Library, MS Or. 2091," *Corpus Masoreticum Working Papers* 3: 75–76.

individual decorative elements and patterns are large so that he could avoid too many bent, twisted, and interlaced forms, which would have been more difficult to fill with the masoretic content. For the same reason, smaller details such as flowers and leaves were simply drawn, in contrast to the work of Ḥayyim, who rendered nearly all the components of his design in micrography.



Fig. 12: Ḥayyim's micrographic composition at the end of Joshua. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 268v (snapshot from BIMA 2.0: The colours indicate different masoretic lists).



Fig. 13: Isaac's micrographic composition at the end of Ezekiel. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 560r (snapshot from BIMA 2.0: The colours indicate different masoretic lists).

Apart from Isaac, three other masoretes (henceforth M1, M2, and M3) also honed their skills working on the Volterra Bible. These trainees copied the MM and MP in one quire each or only on one folio in between or within the quires in which Ḥayyim wrote the Masorah.⁵⁴ Although these three masoretes share the general style of writing in small square Ashkenazi letters, they differ from one another in the shapes of individual letters. For example, the מ of M1 was formed of two parts: the right one resembles the letter נ with an angular top and straight base and the left one is a delicate diagonal stroke with a short horn on the left (fig. 14: מן). The split between the two parts of מ is even more obvious in the writing of M2, who first wrote the letter's right side forming it similarly to the letter כ with a rounded top and base and then added the left side leaving space between the two parts (fig. 15: מושל). The letter מ of M3 has a slightly pointed top and a straight base and there is no obvious split between its parts (fig. 16: מזבח). Other letters of these three

⁵⁴ Masorete 1: BAV, MS Urb. ebr. 1, fols. 119r–126v (=quire XVI); Masorete 2: fols. 225r–232v (=quire XXX) and fols. 463r–463v opening quire LXI; Masorete 3: fols. 243v–244r in the middle of quire XXXII.

masorettes also reveal certain morphological differences, and the graphic signs they used differ from one to the other. Since the hands of these masorettes appear in the quires copied by Ḥayyim, it is clear that they worked under his supervision.

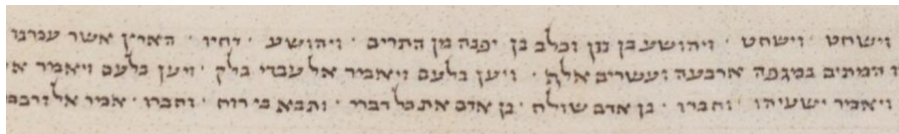


Fig. 14: The hand of M1. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 119v.

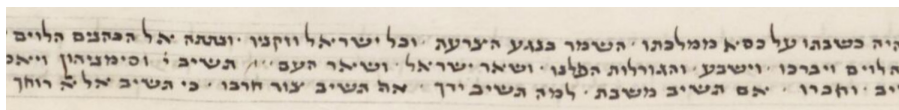


Fig. 15: The hand of M2. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 226r.

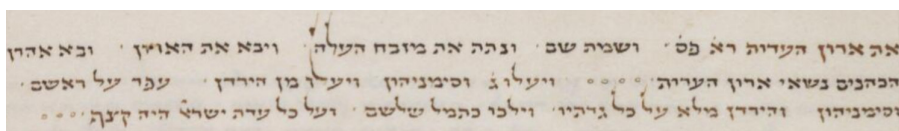


Fig. 16: The hand of M3. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 243v.

As an experienced masorete, Ḥayyim apparently had several apprentices, each of whom was in a different stage of training. The most advanced one, Isaac ben Simeon ha-Levi, may have been a competent masorete but had not yet much experience writing the Masorah in decorative forms. A recoverable pattern of work suggests that his training initially focused on the micrographic compositions opening and closing the Bible books, which Ḥayyim left for him to complete. Further, Ḥayyim also had him copy segments of the linear Masorah to help him accomplish such a large project as the Volterra Bible within a reasonable time frame or to meet a deadline. As the production advanced, they interchanged hands more frequently, sometimes in the middle of a quire and on the same folio, suggesting that Isaac was trained in-house. Masorettes 1–3 were less advanced and were being taught to write the linear MM and MP. By working on a quire or several folios each learned to match his handwriting to the masoretic mode of script, to correlate the number of masoretic lists and the space intended for them in the top and bottom margins, and to place the MP and MM correctly in relation to the lemmata of a given folio. The last aspect is evident on fol. 243v, which is together with fol. 244r are the only folios that M3 copied. On this folio, apparently having been instructed by Ḥayyim as to which masoretic lists were to be included, M3 marked the first two letters חמ of the first list חמשים (Josh. 4:12) at the top of the upper margin, far above the ruling. Like Isaac, these three apprentice masorettes were also apparently working under the same roof with Ḥayyim so they could jump in anytime to work on this or another folio. As a whole, the Volterra Bible, then, provides a rare glimpse of the generally unseen preparatory steps of soon-to-be masorettes. Following a common medie-

val practice, the masoretes learned on the job, being trained not necessarily on the pages of modest codices but also on the expensive, deluxe volumes.⁵⁵

We are able to determine the identity of the masorete Ḥayyim of the Volterra Bible on the basis of another manuscript that he worked on some three years before the Volterra Bible, a volume of the Latter Prophets and Writings with MP and MM, held today in Berlin. This manuscript was copied by a single scribe, Meir ben Jacob, in three columns in square Ashkenazi script.⁵⁶ The scribe concluded his work with a colophon stating that he, Meir ben Jacob, copied this manuscript for Abraham ben Nathan in 5050 (1289/90).⁵⁷ The Masorah and the vocalization were completed at least one year later, as follows from the colophon of its masorete, Ḥayyim ben Senior: [אני חיים ברבי שניאור הנקדן נקדתי ומסרתי זה עשר-ים] "אני חיים ברבי שניאור הנקדן נקדתי ומסרתי זה עשר-ים" ("I, Ḥayyim ben R. Senior the vocalizer, vocalized and furnished the Masorah in this [book] of Twenty Four [the Bible] and I completed it in 52 of the sixth millennium [1291/92]").⁵⁸ According to the colophon, the manuscript originally included the entire Bible, but the volume(s) of the Pentateuch and Former Prophets have not come down to us.⁵⁹ The extant Latter Prophets and Writings are also deficient and miss quires.

The script of Ḥayyim ben Senior in the Berlin Prophets-Writings displays the same features as his script in the Volterra Bible. The abbreviation for the Tetragrammaton and the graphic signs that separate masoretic lists are also the same in both manuscripts (figs. 17, 18). The latter include a sign that resembles an S lying on its side, which was also used by the masorete Isaac ben Simeon of the Volterra Bible and appears in other manuscripts of this group.

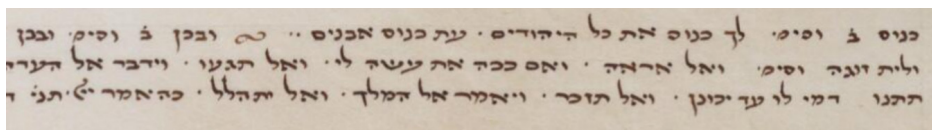


Fig. 17: The hand of Ḥayyim ben Senior in the Volterra Bible. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 855v.

55 For the training of Latin scribes, see, for example, Rodney Thomson. 2018. "Scribes and Scriptoria," in: *The European Book in the Twelfth Century*, ed. Erik Kwakkel and Rodney Thomson (Cambridge: Cambridge University Press), 72–73.

56 Berlin, Staatsbibliothek, Preußischer Kulturbesitz (SBB), MS Ham. 80.2. This codex has a codicological profile similar to that of the Volterra Bible. Content: Isaiah (fols. 1r–35v), Hosea (fols. 36r–64v), Psalms (fols. 65r–110v), Job (fols. 111r–129r), Proverbs (fols. 129r–145v), Song of Songs (fols. 146r–148v), Ecclesiastes (fols. 148v–154v), Ruth (fols. 154v–157r), Lamentations (fols. 157r–160v), Esther (fols. 160v–167r), Daniel (fols. 167r–180r), 1–2 Chronicles (fols. 180r–234r), Ezra (fols. 234r–255r). The manuscript is accessible online at <https://t1p.de/g5mtj> [accessed 08/2023].

57 SBB, MS Ham. 80.2, fol. 255v.

58 SBB, MS Ham. 80.2, fol. 255r; see also Beit-Arié 2022, 132. The name שניאור is used in literature in various spellings, for example, Senior, Shneur, Shnyur, and Shneor. Given the possible Spanish origin of the name, here and further on I use the form 'Senior'.

59 The manuscript had been previously erroneously identified as the second volume of SBB, MS Ham. 80.1, but the two codices do not belong together (Beit-Arié 2022, 158 note 104).

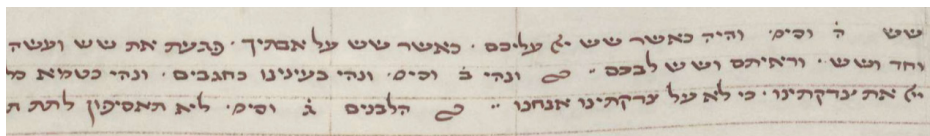


Fig. 18: The hand of Ḥayyim ben Senior in the Berlin Prophets-Writings. Berlin, Staatsbibliothek, Preußischer Kulturbesitz, MS Ham. 80.2, fol. 34r.

However, the manuscript of the Berlin Prophets-Writings was apparently a less expensive codex. Smaller (449 × 329 mm after trimming) than the Volterra Bible, it does not include large micrographic compositions at the beginnings and ends of the biblical books, nor does it have embellishments between the quires. Its only decorations are the micrographic banners in the bottom margins of the pages that open the books, which were executed by Ḥayyim ben Senior, as was the linear Masorah. The banners feature floral and geometrical interlaced ornaments, which sometimes repeat the patterns in the Volterra Bible (fig. 19, 20). As in the Volterra Bible, Ḥayyim's micrography in the Berlin Prophets-Writings is perfectly organized and easy to follow. He started his compositions with a small flower and wrote the masoretic lists in a single flow, one after the other.

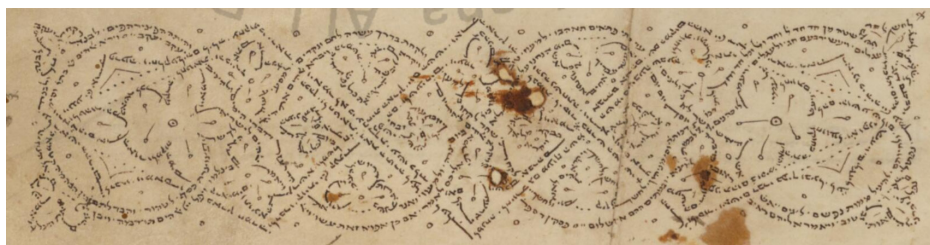


Fig. 19: Ḥayyim ben Senior's micrographic banner at the beginning of Genesis in the Volterra Bible. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 1r.

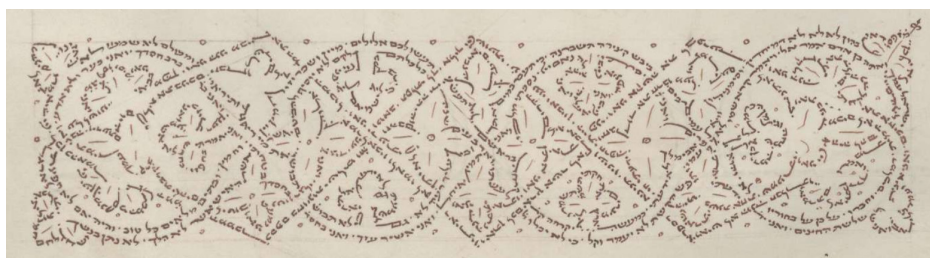


Fig. 20: Ḥayyim ben Senior's micrographic banner at the beginning of Psalms in the Berlin Prophets-Writings Berlin, Staatsbibliothek, Preußischer Kulturbesitz, MS Ham. 80.2, fol. 65r.

As the volume(s) of the Pentateuch and Former Prophets of the Berlin codex have not come down to us, it is impossible to know whether they included large-scale micrographic panels (which in other manuscripts sometimes appear in the Pentateuch but not in other books) and whether other masoretetes were involved in its production. Alone or with help of other masoretetes, it took him at least a year to complete the Masorah in the Berlin codex, as follows from the dates of the colophons.

4 The Berio Bible: The Work of Two Professional Masorettes

The Berio Bible has no colophon but, like the Volterra Bible, it was also most likely a commissioned work. Palaeographic examination indicates that the manuscript was copied by one anonymous scribe and two masorettes. As in the Volterra Bible, one masorete was responsible for the linear Masorah and the other one executed the micrographic panels that open the Bible books.⁶⁰ On three of the folios that include micrographic panels, the hand of the *masora figurata* also wrote the linear MM in the top and bottom margins as well as the MP.⁶¹ The opening of the Book of Proverbs is devoid of micrographic decoration, although much free space was left for it around the initial word.⁶²

The stylistic differences between the hands of the two masorettes are obvious. The letters of the hand of the linear Masorah are slimmer and more elongated than those of the micrographic decoration and have longer ascenders and descenders (figs. 21–23). They are written closer to one another so that the texture of the script creates a tighter impression. The shapes of letters such as מ, א, and especially פ are different. The letter פ has a slim vertical nose which descends from the top bar to the letter's base (fig. 21: בספרא), whereas the nose of the פ in the micrography is horizontal and thick and almost detached from the top bar (fig. 22: ויסיפו). The two masorettes used different shapes of the abbreviation for the Tetragrammaton (figs. 21, 22). The division of the work between these two hands suggests that the hand of the linear Masorah delivered groups of quires to the second masorete upon their completion, so that the second masorete could add the *masora figurata*, while the first masorete continued working on further quires.

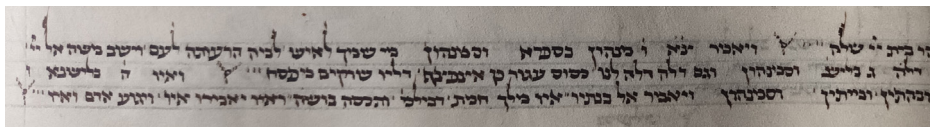


Fig. 21: The hand of the linear Masorah (=Samuel, see below) Genoa, Biblioteca Civica Berio, MS B.H. II, fol. 40r.

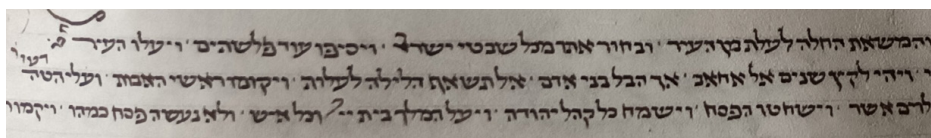


Fig. 22: The hand of the *masora figurata* (=Senior ben Ḥayyim, see below) Genoa, Biblioteca Civica Berio, MS B.H. VII, fol. 43r.

⁶⁰ Except for Bib. Berio, MS B.H II, fol. 74r, whose top and bottom linear MM was written by a third hand.

⁶¹ Bib. Berio, MS B.H VII, fols. 105v, 50v, 43r.

⁶² Bib. Berio, MS B.H VII, fol. 125v.



Fig. 23: The hand of the *masora figurata* (=Senior ben Ḥayyim) Genoa, Biblioteca Civica Berio, MS B.H. II, fol. 106v.

Both masorettes of the Berio Bible can be identified on the basis of other examples of their work. The masorete of the linear MM and MP marked his name, Samuel,⁶³ in the MM on several folios. The same hand wrote the Masorah in another giant codex (482 × 380 mm after trimming), held today in Göttweig, which includes Former and Latter Prophets alternating with the Targum verse by verse, as well as MP and MM.⁶⁴ Similar to the Volterra and Berio Bibles, a later hand, writing in semi-cursive Gothic-Ashkenazi script, started to add Rashi's commentary in the top and outer margins but only did so on the first few folios.⁶⁵ The Göttweig Prophets is apparently one of the volumes that had originally been part of a complete Bible.⁶⁶ The extant volume of Prophets is also incomplete. An anonymous scribe, who copied the main text in square Ashkenazi script in three columns, and two masorettes writing in tiny square Ashkenazi script were involved in its production. The two masorettes

63 Bib. Berio, MS B.H.V, fol. 3r; VI, fol. 81v; VII, fols. 202v and 24v.

64 Göttweig, Benediktinerstift (Göttweig), Cod. 11. Arthur Z. Schwarz. 1931. *Die hebräischen Handschriften in Österreich ausserhalb der Nationalbibliothek in Wien* (Leipzig: Karl W. Hiersemann), 2–4. Content: Joshua, Judges, 1–2 Samuel, and 1–2 Kings (fols. 1v–220v), Jeremiah, Isaiah, Ezekiel, and Minor Prophets (fols. 220v–468v). The manuscript is accessible online at <https://t1p.de/ufsb> [accessed 08/2023].

65 Joshua 1:1–4:17 (Göttweig, Cod. 11, fols. 1v–5r).

66 In contrast to Schwarz's attribution of Göttweig, Cod. 11 and Göttweig, Cod. 10, which includes the Pentateuch, to the same manuscript (Schwarz 1931, 2–4), it is unlikely that these two codices belong together because they were written in a different number of lines per page and were copied by different scribes and masorettes. In the sixteenth century, Göttweig, Cod. 11 was owned by the prior of the Augustinian monastery in Lauingen, Caspar Amman, who added some material to it; See Ilona Steimann. 2020. *Jewish Book – Christian Book: Hebrew Manuscripts in Transition between Jews and Christians in the Context of German Humanism* (Turnhout: Brepols), 91–92 and bibliography there; see also <https://t1p.de/wti6j> [accessed 08/2023].

wrote different parts of the Masorah. The first one, who marked his name Samson,⁶⁷ copied the Masorah on folios 1v–103v and the second, who identified himself as Samuel by marking his name several times,⁶⁸ was responsible for the Masorah on folios 104r–468v (the end of the manuscript).⁶⁹ Samuel appears to be the hand that copied the linear Masorah in the Berio Bible. In both manuscripts, his script reveals the same stylistic and morphological characteristics, as described above, and the same graphic forms, such as three dotted lines radiating from a small circle used for separating the masoretic lists and the abbreviation for the Tetragrammaton shaped as three *yods* arranged as a triangle (figs. 24, 25).

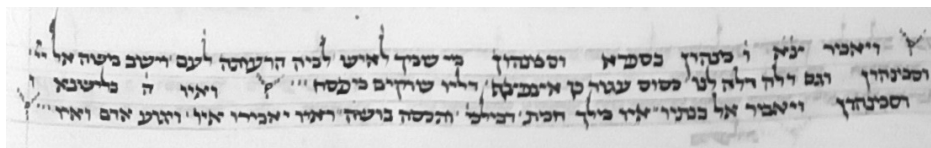


Fig. 24: The hand of Samuel in the Berio Bible. Genoa, Biblioteca Civica Berio, MS B.H. I, fol. 41r.

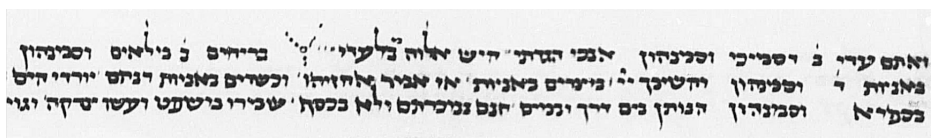


Fig. 25: The hand of Samuel in the Göttingen Prophets. Göttingen, Benediktinerstift, Cod. 11, fol. 333v.

Further, Samuel used to add small pen-worked animals, dragons, and human figures at the end of the lines of the MM that are very similar in form and style to those that appear at the end of the MM lines in the Berio Bible. For example, in both manuscripts the dragon-like creatures are usually depicted with a convex belly, an elevated foot stepping forward, a small head with an open mouth, and long pointed ears (figs. 26, 27). Likewise, the human figures in the two codices reflect a great stylistic similarity: the male figures have large feet and long slim arms, and their convex bellies are formed by the words of the Masorah (figs. 28, 29). They are depicted in profile, have round eyes shaped as glasses, and each is wearing a hood with a pointed top. These artistic additions in the margins as well as two crudely executed micrographic dragons flanking the shaped text at the end of Jeremiah (fig. 30) suggest that Samuel was not a professional artist and thus was not able to create complicated micrographic designs. It is possible, then, that for this reason another masorete was engaged to render the micrographic compositions in the Berio Bible, in which Samuel wrote the linear Masorah.

67 Göttingen, Cod. 11, fol. 49v.

68 For example, Göttingen, Cod. 11, fols. 109v, 244v, 346v, 403r.

69 The masorettes did not change hands at the end of the quire.



Fig. 26: The hand of Samuel in the Berio Bible. Genoa, Biblioteca Civica Berio, MS B.H. VII, fol. 33r.



Fig. 27: The hand of Samuel in the Göttingen Prophets. Göttingen, Benediktinerstift, Cod. 11, fol. 135v.



Fig. 28: The hand of Samuel in the Berio Bible. Genoa, Biblioteca Civica Berio, MS B.H. VII, fol. 11r.



Fig. 29: The hand of Samuel in the Göttingen Prophets. Göttingen, Benediktinerstift, Cod. 11, fol. 355r.



Fig. 30: Samuel's micrographic dragons at the end of Jeremiah. Göttingen, Benediktinerstift, Cod. 11, fol. 292v.

As the Berio Bible, the Göttsweig Prophets does not have a colophon. To allow us to date the Göttsweig Prophets and the Berio Bible, both of which reflect the work of the masorete Samuel, I turn to another Bible manuscript (447–449 × 320–325 mm after trimming), now held in Paris, that includes Targum to the Pentateuch alternating with Hebrew verses, and MM and MP.⁷⁰ This manuscript features Masorah written by the same hand as the micrographic decoration in the Berio Bible. It is bound today in three volumes in modern binding, but the nature of its original binding is not completely clear. A catchword at the end of the second volume, משלי, which repeats the first word of the third volume indicates that at least these two volumes were once bound together.⁷¹ The Paris Bible was copied in three columns in square Ashkenazi script by a single scribe. Although the scribe is anonymous, the colophon at the end of the third volume reveals the names of the masorete, the patron, and the date of the manuscript's production:

אני שניאור בר חיים זצ"ל מסרתי זה העשרים וארבעה לר' יעקב ברבי יצחק שיח[יה] וסיימתי ביום ה' כ"ב בתמוז ס"ד לפרט. הבורא ישמרהו ויחיהו ויזכהו ללמוד בו הוא ובניו ובני בניו אמן יהי רצון במהרה בימינו, א[מן] א[מן] א[מן] ס[לה].⁷²

(I, Senior bar Ḥayyim, may the memory of the righteous be blessed, furnished the Masorah to these Twenty Four the [Bible] for R. Jacob b'Rabbi Isaac, may he [long] live, and I completed [it] on Thursday, 22 Tammuz, 64 (excluding the thousands) [26 June 1304]. May the Creator protect him and grant him life and the study of it, him and his sons and the sons of his sons, amen. May this be the will [of God] speedily in our days, amen, amen, amen, *sela*).

That Senior ben Ḥayyim was the same masorete who was responsible for the micrographic panels opening the biblical books in the Berio Bible follows from palaeographical and

70 BnF, MS hébr. 8–10. Content, MS hébr. 8: Genesis (fols. 1v–59r), Exodus (fols. 59r–108r), Leviticus (fols. 108r–141v), Numbers (fols. 142r–187v), Deuteronomy (fols. 187v–229r); MS hébr. 9: Joshua, Judges, 1–2 Samuel, and 1–2 Kings (fols. 1v–98v), Jeremiah, Ezekiel, Isaiah, and Minor Prophets (98v–203r), Ruth (fols. 203r–205r), Psalms (fols. 205r–236v), Job (fols. 237r–249v); MS hébr. 10: Proverbs (fols. 1r–11v), Song of Songs (fols. 11v–13v), Ecclesiastes (fols. 13v–17v), Lamentations (fols. 18r–20r), Esther (fols. 20r–24v), Daniel (fols. 25r–34r), Ezra–Nehemiah (fols. 34r–48v), 1–2 Chronicles (fols. 48v–85v). The manuscript is described in Colette Sirat and Malachi Beit-Arié. 1972. *Manuscrits médiévaux en caractères hébraïques portant des indications de date jusqu'à 1540* (Paris–Jerusalem: Israel Academy of Science), I, 28; Michel Garel. 1978. “Un ornement propre aux manuscrits hébreux médiévaux: la micrographie,” *Bulletin de la Bibliothèque Nationale* 3: 158–66; Michel Garel. 1991. *D'une main forte: manuscrits hébreux des collections françaises* (Paris: Seuil, Bibliothèque nationale), no. 89; Gabrielle Sed-Rajna. 1994. *Les Manuscrits hébreux enluminés des bibliothèques de France* (Louvain: Peeters), 187–91; Javier Del Barco. 2011. *Hébreu 1 à 32 – Manuscrits de la bible hébraïque*, Manuscripts en caractères hébreux conservés dans les bibliothèques de France, 4 (Turnhout: Brepols), 52–59. The manuscript is accessible online at <https://t1p.de/i34ht>; <https://t1p.de/jvcwp>; <https://t1p.de/0ah9s> [accessed 08/2023].

71 For the manuscript's provenance, see Del Barco 2011, 57–59.

72 BnF, MS hébr. 10, fol. 85v.

artistic features of both manuscripts. His letters in the Berio and Paris Bibles are of the same shape and proportions; they are relatively wide, slightly inclined to the left, and have short ascenders and descenders. They have relatively straight top bars and bases, which descend under the line in letters such as נ and פ. The abbreviation for the Tetragrammaton is shaped as two *yods* with a long comma-like stroke on their left (see figs. 31, 32).

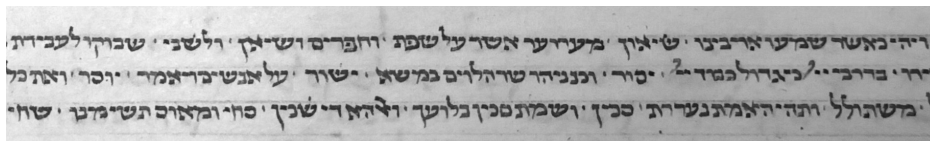


Fig. 31: The hand of Senior ben Ḥayyim in the Berio Bible. Genoa, Biblioteca Civica Berio, MS B.H. VII, fol. 105v.

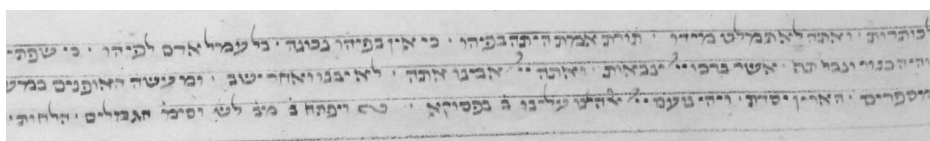


Fig. 32: The hand of Senior ben Ḥayyim in the Paris Bible. Paris, Bibliothèque nationale, MS hébr. 9, fol. 68r.

The decorative programme of the Paris Bible is more extensive than that of the Berio Bible. The latter has only the micrographic panels surrounding the initial words of the biblical books, whereas the former features both the panels and the banners in the bottom margins of the folios that open the books (figs. 33, 34) and the micrographic decoration made of the bottom MM between the quires, as in the Volterra Bible. Unlike in the Volterra Bible, the micrographic images at the end of a quire and the beginning of the next one in the Paris Bible often mirror one another.⁷³

The way the micrographic panels were executed in the Berio and Paris Bibles supports the attribution of these manuscripts to the hand of Senior ben Ḥayyim. With a few exceptions, the panels are rectangular with two parallel lines of Masorah forming the frame and the ornament within it.⁷⁴ In both manuscripts, the interlaced double lines of the ornament are shaped into geometrical, often medallion-like patterns, that enclose leaves outlined by the Masorah. The shape of the leaves and the ink-rendered veins are the same in the two manuscripts. The spaces between the medallions host animals and winged creatures. The latter have relatively large heads, long ears, and pointed wings. Their wings and bodies are slightly hatched to denote plumage. In the remaining spaces within the ornament and in between the components of the decoration Senior added dots and small rosettes to fill up the space. Yet, the details of the compositions are surrounded by enough free space so that the panels create an airy impression.

73 Halperin 2014, 324. Some of the images between the quires are discussed in Sara Offenber. 2021. "Sword and Buckler in Masorah Figurata: Traces of Early Illuminated Fight Books in the Micrography of Bible, Paris, BnF, MS héb. 9," *Acta Periodica Duellatorum* 9/1: 1–32.

74 Such double lines are generally typical of most of the Ashkenazi micrographic Bibles from ca. 1300 (e.g., SBB, MS Or. fol. 1–4, BnF, MS hébr. 5-6, and Oxford, Bodleian Library, MS Or. 802–804).



Fig. 33: Senior ben Ḥayyim's micrographic decoration opening Ezra. Genoa, Biblioteca Civica Berio, MS B.H. VII, fol. 43r.



Fig. 33: Senior ben Ḥayyim's micrographic decoration opening Ezra. Genoa, Biblioteca Civica Berio, MS B.H. VII, fol. 43r.

Senior ben Ḥayyim's artistic repertoire in the Berio and Paris Bibles was versatile in nature, so that the same ornaments, motifs, and even entire compositions could be integrated into the micrographic designs in different textual contexts and constellations. The eagle, for example, which is designed in almost the same way in both codices, is in the centre of the upper part of the micrographic panel that opens Genesis in the Berio Bible, whereas the same eagle in the Paris Bible appears in the centre of the panel that opens Jeremiah (figs. 35, 36). Both eagles are surrounded by an interlaced ornament forming medallions that enclose small rosettes. Needless to say that the choice of an eagle to decorate these folios had nothing to do with either the Bible textual surroundings or with the content of the Ma-



Fig. 35: Senior ben Ḥayyim's micrographic panel opening Genesis. Genoa, Biblioteca Civica Berio, MS B.H. I, fol. 93r.



Fig. 36: Senior ben Ḥayyim's micrographic panel opening Jeremiah. Paris, Bibliothèque nationale, MS hébr. 9, fol. 98v.

sorah which forms both images. Rather it was a popular motif at the time, used in various contexts for purely decorative purposes.

The flow and quality of the masoretic lists in Senior ben Ḥayyim's micrographic compositions are similar to those of Ḥayyim ben Senior and show the former to be an experienced masorete. Unlike the second masorete of the Volterra Bible, Isaac, who was a trainee, Senior ben Ḥayyim was then a professional who wrote all the Masorah in the Paris Bible himself. The mode of cooperation between him and the principal masorete of the Berio Bible, Samuel, was also different from that between Ḥayyim ben Senior and Isaac. Whereas Isaac was most probably working with Ḥayyim ben Senior under the same roof, Senior ben Ḥayyim received the quires as the linear Masorah was completed so that he could work on them in any location.

5 The Volterra and Berio Bibles: A Family Masoretic Workshop?

As I discussed above, there was apparently no interaction between the scribes of the Volterra and Berio Bibles and related manuscripts and the masoretetes. The main text in each of these codices was copied by a single scribe; the hands of these scribes do not appear in the Masorah, nor are they discernible in the marginal corrections and annotations. Unlike the scribes, the masoretetes of this group appear to be much more involved with one another. The masoretetes of the linear Masorah knew at the outset that they would cooperate with other masoretetes; they left the micrographic panels and sometimes other portions of the Masorah to be completed by these additional masoretetes or worked with them simultaneously.

So far, we have also seen that the same masoretic hands participated in the production of the Volterra Bible and the Berlin Prophets-Writings and that other hands wrote the Masorah in the Berio and Paris Bibles and the Göttingen Prophets. How these two groups of masoretetes were connected one to the other can be seen from the masoretetes' names. As these names suggest, the principal masorete of the first group, Ḥayyim ben Senior (the Volterra Bible and Berlin Prophets-Writings) could have been the father or the son of Senior ben Ḥayyim, the masorete of the second group (the Berio and Paris Bibles).⁷⁵ It is, however, not only the names but also the distinct similarities between the manuscripts they produced that implies a close connection between the two masoretetes. The codices associated with the work of Ḥayyim ben Senior and Senior ben Ḥayyim are of a similar content, layout, and codicological profile, and they share a similar approach to decoration, which is entirely formed by the lines of the Masorah shaped into interlaced scrolls and geometrical patterns enclosing various animals, hybrids, chimeras, and human figures. They both arranged their micrographic designs around the initial words of the Bible books, sometimes adding a micrographic banner in the bottom margins (the Volterra and Paris Bibles and the Berlin Prophets-Writings) and embellished the bottom margins between the quires with micro-

⁷⁵ The son-father relationship between these two masoretetes has been already suggested by Rahel Fron-da (Fron-da 2016, 273). She assumes that Ḥayyim was the father of Senior because his manuscript was produced earlier, which is of course possible but is not an established fact.

graphic images (the Volterra and Paris Bibles). Moreover, comparing the work of Ḥayyim ben Senior and Senior ben Ḥayyim reveals that some micrographic compositions in the manuscripts they produced are nearly the same. Such are, for example, the micrographic bottom banner of the folio opening Exodus in the Volterra Bible and the one opening Ruth in the Berlin Prophets-Writings, both executed by Ḥayyim ben Senior, and a very similar bottom banner at the end of Exodus in Senior ben Ḥayyim's Paris Bible (figs. 37–39). The structure of the ornament repeats itself in the three manuscripts: a running line of MM creates a frame and continues into halves of the circles interlaced with one another in exactly the same way in the three codices. The spaces between the circles are filled with floral motifs, small circles, and dots. It is also remarkable that although both masoretes used the same ornament, they executed it in different, individual styles. Among the main differences is the proportional relationship among the various components of the composition. In contrast to Ḥayyim, Senior drew the lines of the design further away from one another, so that like in his micrographic panels, the arrangement appears to be airier. He also rendered the details differently, such as the leaves between the circles, preferring simple, less undulating shapes.

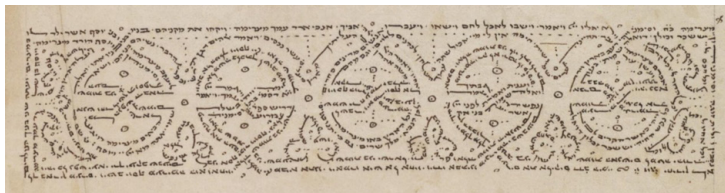


Fig. 37: Ḥayyim ben Senior's micrographic banner in the bottom margins of the folio opening Exodus. Biblioteca Apostolica Vaticana, MS Urb. ebr. 1, fol. 63v.



Fig. 38: Ḥayyim ben Senior's micrographic banner in the bottom margins of the folio opening Ruth. Berlin, Staatsbibliothek, Preußischer Kulturbesitz, MS Ham. 80.2, fol. 154v.



Fig. 39: Senior ben Ḥayyim's micrographic banner in the bottom margins at the end of Exodus. Paris, Bibliothèque nationale, MS hébr. 8, fol. 107v.

Another example is Ḥayyim ben Senior's bottom micrographic decoration at the beginning of the Song of Songs in the Berlin Prophets-Writings and Senior ben Ḥayyim's bottom decoration at the beginning of Ezekiel in the Paris Bible. The decoration consists of six-pointed stars—five in the Berlin Prophets-Writings and four in the Paris Bible (figs. 40, 41). The pattern in which the components of the stars interlace is the same in both manuscripts, but they display the same stylistic differences that characterize the work of the two masoretes as described above. The space around the stars is filled with small circles and dots, as in the previous example.



Fig. 40: Ḥayyim ben Senior's micrographic banner in the bottom margins of the folio opening Song of Songs. Berlin, Staatsbibliothek, Preußischer Kulturbesitz, MS Ham. 80.2, fol. 146r.



Fig. 41: Senior ben Ḥayyim's micrographic banner in the bottom margins of the folio opening Ezekiel. Paris, Bibliothèque nationale, MS hébr. 9, fol. 129v.

The similarity between Ḥayyim ben Senior's and Senior ben Ḥayyim's artistic forms are also reflected in the design of their colophons, which, to the best of my knowledge, is unique to these two codices (figs. 42, 43). The words of both colophons are integrated within a geometrical pattern of rectangles created by the intersecting lines of the Masorah.



Fig. 42: Ḥayyim ben Senior's colophon. Berlin, Staatsbibliothek, Preußischer Kulturbesitz, MS Ham. 80.2, fol. 255r.



Fig. 43: Senior ben Ḥayyim's colophon. Paris, Bibliothèque nationale, MS hébr. 10, fol. 85v.

Such similarity could not be coincidental but rather suggests the use of common models for decoration. It is of course possible that Ḥayyim ben Senior and Senior ben Ḥayyim copied the decoration from each other, altering it slightly in the process. However, since the manuscripts they worked on were delivered to their patrons upon completion, it is more likely that they were both familiar with these designs as they were part of the family repertoire or that they used a common pattern book which remained in the family. Scribal model books—collections of decorative patterns and images to be used as models in the production of other works of art—were part and parcel of the medieval visual culture. Starting from the earliest extant examples from the twelfth-century Latin West, such notebooks were conceived as a guide for scribes and artists as to how to embellish letters and add larger segments of decoration to the page.⁷⁶ For example, the six-pointed star (figs. 40, 41) could have been depicted in such a model book as a single motif, and the masorettes could have duplicated it several times to create the decoration of the bottom margins. The wide range of decorative shapes usually found in a model book provided a source of inspiration, so that the scribes and artists did not have to invent decorations from scratch each time; they could also use them to show their patrons samples of motifs they would include in the manuscript.

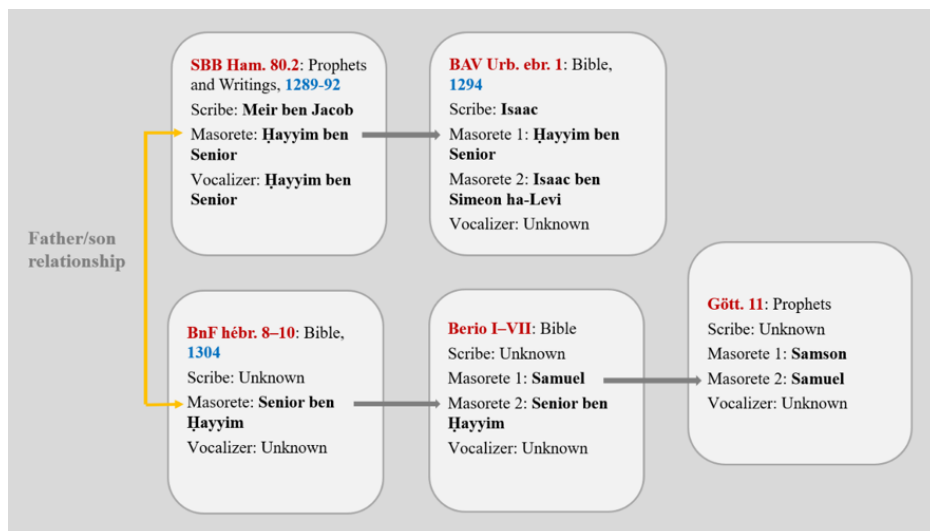
The similarities between the manuscripts of Ḥayyim ben Senior and Senior ben Ḥayyim, then, suggest that they both drew from the same collection of models and must have worked side by side, which may imply the existence of a family workshop specializing in writing the Masorah and vocalization. As I noted above, the rise of such family masoretic workshops in Ashkenaz around 1300 may have been related both to the professionalization of the work of masorettes as distinctive from that of scribes and the further specialization of some masorettes in the micrographic Masorah. The latter specialization was most likely an outcome of the demand for large-scale micrographic compositions, which required the involvement of several masorettes, especially for the commissioned codices that had to be completed by a specific deadline. As a result, the division of labour among the masoretic

⁷⁶ Erik Kwakkel. 2018. *Books before Print* (Leeds: Arc Humanities Press), 111–15. On different kinds of model books, see Jonathan J. G. Alexander. 1992. *Medieval Illuminators and Their Methods of Work* (New Haven and London: Yale University Press), 85–87.

hands in these codices does not necessarily correlate with particular textual or codicological units but rather was dictated by the character of the Masorah itself.

Based on the evidence detailed above, I suggest the following scenario for the work of Ḥayyim's and Senior's family workshop. Both Ḥayyim and Senior were equally skilled in writing the linear Masorah and the *masora figurata*. As in many workshops, the masters had apprentices, such as Isaac ben Simeon ha-Levi, who was learning the art of micrography and was responsible for the micrographic decoration in the Volterra Bible. The decorative motifs that appear in Isaac's designs are highly reminiscent of those used by both Ḥayyim and Senior, which points to a certain dependence of his work on Ḥayyim's and Senior's visual repertoire and shared model books. Apart from being commissioned for entire manuscripts, Ḥayyim and Senior must have cooperated with other masorettes. Samuel, apparently a self-employed masorete, worked with Senior ben Ḥayyim possibly on a contract basis. Ḥayyim and Senior also sometimes had similar cooperative arrangements with other vocalizers. Although Ḥayyim was the masorete and vocalizer of the Berlin Prophets-Writings, as he noted in his colophon, neither he nor the second masorete, Isaac ben Simeon ha-Levi, vocalized the Volterra Bible. The vocalizer was another individual who also served as the proofreader of the main text.⁷⁷ The same holds true for the Paris Bible. According to its colophon, Senior ben Ḥayyim wrote its Masorah but did not vocalize the text. It is more difficult to determine the vocalizer(s) of the Berio Bible and the Göttingen Prophets as the manuscripts do not have colophons.

Thus, the relationship between the manuscripts associated with Ḥayyim's and Senior's workshop can be visualized by the following scheme:



⁷⁷ His corrections to the main text are written in the margins and between the text columns in light brown ink, as are the vocalization and accentuation, and are marked by a 'S-shaped' sign, for example, BAV, MS Urb. ebr. 1, fols. 346r, 350r, 373r, 377v.

As three of these manuscripts are dated (1291/92, 1294, and 1304), it can be assumed that the two undated codices were also copied around the same time, ca. 1300, but it is more difficult to identify the geographical area in which this workshop was active. The Ashkenazi scripts and the codicological profile of the manuscripts make it obvious that they were produced in the German-speaking lands. The same attribution is suggested by the micrographic decorations that take up much of the text space, unlike the case in French codices which generally only feature marginal micrography. Different scholars have attributed individual manuscripts of this group to the southern German lands or Franconia.⁷⁸ Franconia is of course much more likely than southern German lands, but there is no concrete evidence for such attribution.

What is clear is that, owing to the enormous quantity of parchment required and the time needed to produce them, the resulting high cost of such books implies a milieu of economically stable Jewish communities and wealthy patronage. Nonetheless, neither their scribes and masorettes nor the patrons of these codices can be identified with certainty in other contemporary sources. The name of the patron of the Volterra Bible, Eleazer ben Samuel, and that of the Berlin Prophets-Writings, Abraham ben Nathan, were both quite common so distinguishing between them and homonymous people mentioned in other medieval sources is difficult without additional evidence. For example, a man with the same name, Eleazer ben Samuel, was buried in 1302 in Mainz, but the name alone and the date are not sufficient for deciding that this was the patron of the Volterra Bible.⁷⁹ It is even less possible to identify the patron of the Paris Bible, Jacob ben Isaac, because it was such a very common name. Yet, it is worth noting that a patron in Ashkenaz with the same name commissioned another manuscript of a large-size masoretic Bible in 1295–1297, which is held today in the Barberini collection in the Vatican.⁸⁰ Although the dates of copying make it conceivable that the same Jacob ben Isaac commissioned both manuscripts, there is no evidence in the Barberini Bible that hints at a connection with the Paris Bible. Thus, for now, the question of a more precise geographical attribution of this group of manuscripts remains open.

Conclusions

During the second half of the thirteenth century developments in the production of masoretic Bibles in Ashkenaz culminated in the execution of giant codices that were lavishly decorated with micrography. Unlike in France, the micrography in these Ashkenazi manuscripts spread from the margins into the text space covering half or even entire pages. The enormous size of the manuscripts and the amount of micrographic decoration they contained apparently made it difficult for a single masorete to do all the required work alone.

78 Garel 1991, no. 89 and Fronda 2016, 271–73 respectively.

79 Alfred Haverkamp and Jörg R. Müller. 2015. *Corpus der Quellen zur Geschichte der Juden im spätmittelalterlichen Reich* (Trier), MZ01, Nr. 83, <https://t1p.de/j1t2x> [accessed 08/2023].

80 BAV, MS Barb. Or. 161–164 (Richler and Beit-Arié 2008, 514–15).

This may have led to the further narrowing of the specializations. While all masorettes could write the linear Masorah, only some of them specialized in large-scale *masora figurata*. Facing the growing demand for micrographic codices, some professional masorettes started working together on a regular basis, probably organizing themselves into family teams that arranged their work in a structured and efficient way, cooperating with other masorettes and taking on apprentices who were not necessarily members of the same family. Specifically, these aspects allow us to talk about such teams in terms of masoretic (not scribal) workshops. On the practical side, if masoretic workshops did exist, it was probably not easy for them to earn a living solely from writing Masorah and vocalizing manuscripts. It is thus possible that these masorettes, as the medieval scribes, engaged in several different occupations so that vocalizing and furnishing manuscripts with Masorah was not their only business. While the scribes were often involved in other kinds of handcrafting, such as seal carving and book binding,⁸¹ the masorettes were more likely to undertake tasks associated with their status as grammarians, well versed in the Bible and its exegeses, which apparently included educational and scholarly activities.⁸²

Apart from the Volterra and Berio Bibles, for which the analyses of their production indicate the likely existence of a family masoretic workshop, many other Ashkenazi Bibles from ca. 1300 reflect multiple masoretic hands which are often divided into those writing the linear Masorah and those responsible for the *masora figurata*. The implications of these findings for understanding the Ashkenazi masoretic traditions are more far reaching than it would seem at first glance. How did the division of the masorettes' working process into two different stages and consequently two different sets of craftsmen each apparently using different models, affect the consistency of the masoretic corpus? What were the functions of the two types of Masorah, the linear and the figurative, in the same manuscript and what was the textual status of the micrography? These general questions are difficult to answer on the basis of the still limited number of manuscripts in which the Masorah has been transcribed and analysed, but, hopefully, it will eventually be possible to develop a synthesis of relevant findings.

81 The colophon in an Ashkenazi liturgical Pentateuch from 1310 notes that its scribe Samson ben Jacob Vivant was a seal carver: ...אני שמשון הסופר ב"ר יעקב זצ"ל המכונה ויוואנט החוקק חותמות כתבתי זה החמש... (BL, MS Add. 10455, fol. 460v). The manuscript is furnished with the linear Masorah, apparently written by another hand. For other crafts undertaken by the scribes, see, for example, Ilona Steimann. 2022. "Beautiful Books with Beautiful Covers": The Bindings of Hebrew Manuscripts in Late Medieval Ashkenaz," *Manuscript Studies: A Journal of the Schoenberg Institute for Manuscript Studies* 7/1: 79.

82 The scribe-vocalizer-masorete of the Liturgical Pentateuch from Rouen (1239), Elijah ben Berekhiah ha-Naqdan, was, for example, a tutor; see Hanna Liss. 2022. "Teaching in Tiny Letters. Eliyyah ben Berekhiah ha-Naqdan's Way of Teaching as Displayed in MS Bibliotheca Apostolica Vaticana ebr. 14," *Corpus Masoreticum Working Papers* 1: 6.

Appendix: The Division of Work between the Masoretes in the Volterra Bible

Most of the MM and MP was copied by Ḥayyim ben Senior, except for the following parts that were copied by Isaac ben Simeon ha-Levi and other three masoretes:

Text	Isaac ben Simeon ha-Levi	Other masoretes
Genesis: fols. 1r–62r (fols. 62v–63r are blank)	fol. 1r: micrographic panel around the book title fol. 62r: micrographic panel at the end of the book	
Exodus: fols. 63v–111v	fol. 63v: micrographic panel around the book title	
Leviticus: fols. 112r–145v	fol. 112r: micrographic panel around the book title	M1: fols. 119r–126v (=one quire)
Numbers: fols. 146r–196r (fol. 196v is blank)	fol. 146r: micrographic panel around the book title	
Deuteronomy: fols. 197r–239v (fols. 240r–240 ^b v are blank)	fol. 197r: micrographic panel around the book title	M2: fols. 225r–232v (=one quire)
Joshua: fols. 240 ^b r–268v	fol. 240 ^b r: micrographic panel around the book title	M3: fols. 243v–244r (middle of the quire)
Judges: fols. 269r–297r (fol. 297v is blank)	fol. 269r: micrographic panel around the book title fols. 280r, 287v, 288r, 295v, 296r: bottom micrographic MM at the ends and beginnings of quires	

<p>1–2 Samuel: fols. 298r–365r (fol. 365v is blank)</p>	<p>fol. 298r: micrographic panel around the book title and bottom micrographic MM</p> <p>fols. 303v, 304r, 311v, 312r, 319v, 320r, 327v, 328r, 335v, 336r, 343v, 344r, 351v, 359v, 360r: bottom micrographic MM at the ends and beginnings of quires</p> <p>fol. 364v (end of the book)</p>	
<p>1–2 Kings: fols. 366r–437r (fol. 437v is blank)</p>	<p>fol. 366r: micrographic panel around the book title and bottom MM</p> <p>fols. 367v, 368r, 375v, 376r, 383v, 384r, 391v, 392r, 399v, 400r, 407v, 408r, 415v, 416r, 423v, 424r, 431v, 432r: bottom micrographic MM at the ends and beginnings of quires</p> <p>fol. 437r: micrographic panel at the end of the book</p>	
<p>Jeremiah: fols. 438r–504r (fol. 504v is blank)</p>	<p>fol. 438r: micrographic panel around the book title</p> <p>fols. 438r, 438v, 439r, 446v, 447r, 454v: bottom micrographic MM at the ends and beginnings of quires</p> <p>fol. 504r: micrographic panel at the end of the book</p>	<p>M2: fols. 463r–463v, top MM (open the quire)</p>
<p>Ezekiel: fols. 505r–536v (fol. 560v is blank)</p>	<p>fol. 505r: micrographic panel around the book title and bottom micrographic MM</p> <p>fols. 512v, 513r, 520v, 521r, 528v, 529r, 536v: bottom micrographic MM at the ends and beginnings of quires</p> <p>fols. 537r–560r (=three quires)</p>	
<p>Isaiah: fols. 561r–616v</p>	<p>fols. 561r–616v (=seven quires)</p>	
<p>Minor Prophets: fols. 617r–662v (fols. 663r–663v are blank)</p>	<p>fols. 617r–662v (=sex quires)</p>	

Ruth: fols. 663 ^b r–668r (fol. 668v is blank)	fol. 663 ^b r: micrographic panel around the book title fol. 668r: micrographic panel at the end of the book	
Psalms: fols. 669r–743r (fol. 743v is blank)	fols. 671r–742v (=nine quires) fol. 743r: micrographic panel at the end of the book	
Job: fols. 744r–775v	fol. 744r: micrographic panel around the book title fol. 775v: micrographic panel at the end of the book	
Proverbs: fols. 776r–801v	fol. 776r: micrographic panel around the book title and bottom MM fols. 783r–798v (=one quire) fol. 801v: micrographic panel at the end of the book	
Ecclesiastes: fols. 802r–817r (fol. 817v is blank)	fol. 802r: micrographic panel around the book title and bottom MM fol. 817r, micrographic panel at the end of the book	
Song of Songs: fols. 818r–822v (fols. 829 ^b r–829 ^b v are blank)	fol. 818r: micrographic panel around the book title and top and bottom MM fols. 823r–829v (=one quire)	
Lamentations: fols. 830r–837r	fol. 839r: micrographic panel around the book title and bottom MM fol. 837v: micrographic panel at the end of the book	
Esther: fols. 838r–867r	fol. 838r: micrographic panel around the book title and bottom MM fols. 851v, 853r–853v (ends the quire) fol. 862r: top MM and micrographic bottom MM opening the quire fol. 867r: bottom MM	

Dream of Mordecai in Aramaic: fols. 867v–868r	fol. 867v: micrographic panel	
Daniel: fols. 868v–878v	fols. 868v, micrographic panel around the book title and bottom micrographic MM–878v	
Ezra and Nehemiah: fols. 879r–894v	fols. 879r–894v	
1–2 Chronicles: fols. 895r–979v	fols. 895r–979v	

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- Berlin, Staatsbibliothek, Preußischer Kulturbesitz, MS Ham. 80.1
- Berlin, Staatsbibliothek, Preußischer Kulturbesitz, MS Ham. 80.2
- Genoa, Archivio di Stato, MSS 312 and 313
- Genoa, Biblioteca Civica Berio, MS B.H. I–VII
- Göttweig, Benediktinerstift, Cod. 10
- Göttweig, Benediktinerstift, Cod. 11
- Hamburg, Staats- und Universitätsbibliothek Hamburg Carl von Ossietzky, Cod. hebr. 208
- London, British Library, MS Add. 10455
- London, British Library, MS Harley 150
- London, British Library, MS Harley 340
- Moscow, The Russian State Library, MS Guenzburg 96
- Paris, Bibliothèque nationale, MS hébr. 8–10
- Paris, Bibliothèque nationale, MS hébr. 402
- Parma, Biblioteca Palatina, Cod. Parm. 2226
- Vatican, Biblioteca Apostolica, MS Barb. Or. 161–164
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