

The Small Masorah:
Genealogical Relationships in 112 Early Hebrew Bible Codices
Based upon the Masorah Parva

Vincent David Beiler
St. Edmunds College
Faculty of Asian and Middle Eastern Studies
University of Cambridge
Prof. Geoffrey Khan, supervisor

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Declaration of Originality

This thesis is the result of my own work, and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text. It has not been submitted prior for a degree or other qualification. The thesis does not exceed the prescribed word limit for the Asian and Middle Eastern Studies Degree Committee, set at 80,000 words, exclusive of footnotes, appendices, and bibliography, nor does it exceed the overall total of 100,000 words, exclusive of bibliography.

Abstract

This thesis, written by Vincent D. Beiler and entitled *The Small Masorah: Genealogical Relationships in 112 Early Hebrew Bible Codices Based upon the Masorah Parva*, examines the Tiberian Masorah parva in 10th–12th-century Hebrew Bible manuscripts. In order to integrate the vast amount of data available, select subsections of the Masorah of these 112 manuscripts were collated, amounting to ca. 43,000 Masorah parva notes. The database that arose from this collation was then mined for similarities and differences between the manuscripts, with the goal of providing a stemma of early Hebrew Bible manuscripts.

In the main, the Masorah parva data indicate that there is a central cluster of manuscripts that are highly uniform, and then a larger number of manuscripts that diverge in various ways, both large and small, from the centre nucleus. These data confirm the centrality of the Aleppo Codex and highlight the value of a number of additional codices that have heretofore been largely overlooked. It is also shown that many of the codices that scholars traditionally have relied upon are perhaps not the optimal MSS with which to begin research of the Tiberian Masorah.

Additional subgroupings of manuscripts are also noted, particularly (a.) for a cluster of N. African manuscripts, (b.) for a cluster of codices that resemble the Cairo Codex, and (c.) for the manuscripts of Samuel b. Jacob.

It is also demonstrated that the collection of Bible MSS in St. Petersburg, previously known to many as a scattered collection of leaves, is perhaps more substantial than has been realised. This is because many of the classmarks can be matched with other classmarks of the Firkovich collections, resulting in Bible

manuscripts of much more substantial length. These classmark matches number nearly 400 and are set forth here for the first time.

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1. Preface

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2. Abbreviations and Terms

2.1. General Abbreviations and Terms

A.G.	The dating system of the Seleucid era (<i>Anno Graecorum</i>), which takes year 312/311 B.C.E. as its starting point.
A.H.	The dating system of the Arabic calendar (<i>Anno Hegirae</i>), which takes year 622 C.E. as its starting point.
A.M.	The dating system of the year of creation (<i>Anno Mundi</i>), which takes year 3760 B.C.E. as its starting point. ²
Babylonian (<i>yeshiva</i>)	A strain of Judaism that followed the religious customs and guidance of the Talmudic academies of Babylonia. Within the MSS of the present thesis, evidence of the Babylonians is to be found most notably in codices of Egypt and N. Africa. N.B.: these codices primarily contain the Tiberian Masorah.
Babylonian Masoretic tradition	The Masoretic tradition for the proper reading and writing of the Hebrew Bible as preserved by the Jews of Babylonia (see also Tiberian Masoretic tradition).
colophon	(1.) A statement by the scribe at the beginning or end of a codex giving his/her name, location, details of the work, etc. (2.) Any information added to a codex that provides

² For dates given according to A.H. and A.M., the following calendar converter was used: <https://www.fourmilab.ch/documents/calendar/> (last accessed September 2023). For the imprecisions that can arise when converting from one date to another, see Beit-Arié, *Hebrew Codicology*, pp. 168–175, ad loc.

information regarding the persons, places, ownership transfers, and usage history—excepting short *heqdeshim* with no biographic information. In this thesis, the second meaning of the term is used unless otherwise specified.

cumulative Masorah	As opposed to enumerative Masorah ; the term is borrowed from Penkower: “where some phenomenon is gathered, e.g., all words beginning with <i>waw</i> and <i>mem</i> and which occur only once” within the Masorah magna. ³ Elsewhere referred to as “collative Masorah” (Yeivin, <i>Introduction</i> , p. 78) or “accumulative Masora” (Ofer, <i>The Masora on Scripture and Its Methods</i> , pp. 49ff).
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enumerative Masorah	As opposed to cumulative Masorah ; the term is borrowed from Penkower: “where a count is given of a word, how many times it is spelled with or without a <i>yod</i> or a <i>waw</i> ”, etc. within the Masorah magna. ⁴
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<i>haftara</i>	A series of selections from the Prophets that are read in synagogue and generally linked thematically to the weekly Torah portion. <i>Haftara</i> readings vary widely among Jewish communities, both historically and in the present day.
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<i>heqdes</i>	A pious endowment in which an article of value was bequeathed by a person to an entity (e.g., a synagogue).
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³ Penkower, “An Eleventh-Century Eastern Masoretic Pentateuch Codex”, p. 161.

⁴ Ibid., p. 161.

There are also rarer instances where the transfer is person to person. Many of the MSS examined in this thesis are marked as *heqdeshim*, often through the use of the phrase ‘Holy to the Lord God of Israel, do not steal and do not ransom ...’.

Karaite/Karaism	A strain of Judaism that rejects the Oral Law, recognising only the Bible as the supreme authority. Karaites competed, for a time, with Rabbinic Judaism, both in the Land of Israel and in Egypt. Their “golden age” was ca. 900–1100 C.E.
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<i>masran</i>	In this thesis, the term refers to the scribe who added the Masoretic notes to a Bible codex, whether or not the scribe doing so is considered to be a “Masorete” of any standing.
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Mm	= Masora magna, the lengthier Masoretic notes found at the head, foot, left, or right margin of the main text.
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model Bible codex	Refers to the stereotypical layout of a Tiberian codex. These Bibles are almost always written with three columns in an Oriental square script and containing vocalisation, accent markings, and full Masorah.
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Mp	= Masora parva, the shorter Masoretic notes found between columns of the main text generally consisting of no more than several abbreviated words.
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Mp Comment	Clarifying remarks that may follow the Mp numeral , e.g., וְכִי 'and spelled defectively'.
Mp Numeral	Refers solely to the numeric portion of a Masora parva note, e.g., ל' '1x'.
Mp String	The section of main text (word/s) linked to the Mp numeral in the margin.
Mp String Similarity Percentage	A measure of similarity between two MSS, expressed as a percentage, based upon the collocation of verse-specific Mp strings .
Mp Numeral Similarity Percentage	A measure of similarity between two MSS, expressed as a percentage, based upon the collocation of verse-specific Mp strings and Mp numerals .
MS/MSS	Manuscript/Manuscripts
N. Africa	= <i>maghreb</i> ; this zone includes all of Africa under Muslim rule where Jews lived excepting Egypt. N. African manuscripts are sometimes grouped with Spanish (Sephardi) manuscripts and sometimes with Oriental manuscripts as a bit of both zones can be seen in these codices. The Jews that lived in this region appear largely to have been followers of the Babylonian yeshiva .
<i>naqdan</i>	The scribe who vocalised and/or provided the accents in a Bible codex.

Numerals' = **Mp Numeral Similarity Percentage** (see above)
percentage/

Numerals' ratio

Orient(al) The primary zone in which Jewish manuscripts were produced during the mediaeval period, consisting of Babylonia, Palestine, Egypt, and, to a lesser extent, N. Africa and Yemen. The limits of the zone are based upon the Hebrew script common in those regions. N.B.: Oriental is not to be confused with "Oriental"; in the present thesis when within double quotes the term signifies a subset of manuscripts within the broader Oriental zone (see §4.2.8).

Palestinian (*yeshiva*) A strain of Judaism (ca. 850–1200 C.E.?) that followed the religious customs and guidance of the academy of the Land of Israel. At the height of its influence, it competed with the **Babylonian** Gaonate for the support of diasporic Jewish communities.

parasha/parashiyyot A section of text in the Hebrew Bible offset from surrounding sections through the use space breaks, i.e., either *petuḥa* 'open' or *setuma* 'closed'.

petuḥa = ***parasha petuḥa***, i.e., an 'open portion'; a space break that consists of an empty line—or most of an empty line—to separate a section of text from what precedes it (see also *setuma*).

quaternion quiring	Quaternion quiring refers to a gathering of four bifolia (= 8 lea.; = 16 pp.). Quaternion quiring in medieval Hebrew codices during the time period covered in this thesis is generally to be found in Europe, N. Africa, Byzantium, and (somewhat) in Babylonia. It is an atypical pattern for Oriental codices.
quinion quiring	Quinion quiring refers to a gathering of five bifolia (= 10 lea.; = 20 pp.). It is the dominant quiring method for parchment codices in the Oriental zone for the time period covered in this thesis.
quire	The basic codicological unit of a book/codex, consisting of several bifolia, and amounting to a slim “notebook”. The quires are then sewn together successively, jointly making up the larger book.
rule stating Mp note	= Mp note that contains a stipulation (e.g., ‘all Chronicles spelled thus’) rather than a strictly numeric Mp note . Rule stating notes can occur as part of an Mp comment , or they can occur on their own. They are most frequently to be found in the Babylonian Masorah.
SbJ	= Samuel b. Jacob, the scribe, vocaliser and Masorete of five manuscripts in the present corpus.
scribe	(1.) In common usage, scribe can refer to any person who helped to write a codex; (2.) in a Masoretic codex, scribe

refers only to the person who wrote the consonantal biblical text unless the context indicates otherwise.

setuma = ***parasha setuma***, i.e., a ‘closed portion’; a space break of a part line (see also ***petuḥa***).

Strings’ percentage/ = **Mp Strings’ Similarity Percentage** (see above)

Strings’ ratio

tafsīr The 10th-century translation of the Hebrew Bible into Arabic by Sa’adia Ga’on (d. 942).

targum The Aramaic translations of the Bible (first oral and then written) that had its beginning around the start of the Common Era. The two most important ***targumim*** are Targum Onkelos (Torah) and Targum Jonathan (Prophets).

Tiberian Masoretic tradition The Masoretic tradition for the proper reading and writing of the Hebrew Bible as preserved by the Jews of Palestine, chiefly centred in Tiberias (see also **Babylonian Masoretic tradition**).

2.2. Codex Abbreviations⁵

A	Aleppo Codex
B	Or. 4445, the original, 10th century sections <i>exclusively</i>
B2	= the 16th-century, Yemenite, secondarily added sections of B
C	Cairo Codex of the Prophets
G6, G18, etc.	G = Gottheil; N.B.: Gottheil 34 is referred to as C in keeping with long precedent
IB, IBibl., IIB, IIC	= I B, I Bibl., II B, and II C respectively; i.e., various subcollections of MSS obtained by Abraham Firkovich (§4.7.). Spaces are omitted in light of the size constraints of the various tables throughout.
L	Leningrad Codex; some researchers have taken to calling L the St. Petersburg Codex in an effort to reflect the current name of the city where L is kept.
L17	= St. Petersburg, Ms. EVR IBibl.13 <i>and</i> St. Petersburg, Ms. EVR IBibl.80. N.B.: other abbreviations favoured by Kahle and Yeivin, e.g., L1, L2, L3, etc. are not used in the thesis due to complications arising from the many classmark matches the thesis has identified. They are listed, however, in the bolded header of each relevant MS in the Corpus Description (§4.).

⁵ For full classmark information, see §4.3–4.5 ad loc.

M88	Michigan Pentateuch
S	Sassoon 507/Damascus Pentateuch
S1	Sassoon 1053
R3	Codex Reuchlinianus/Reuchlin 3
T3	Tbilisi Torah
V448	Vat.ebr.448
WP	Washington Pentateuch, the original sections <i>exclusively</i>
WP2	= the secondarily added sections of WP comprised of the final chapters of Deuteronomy

2.3. Reference Works/Database Abbreviations

<i>EHLL</i>	<i>Encyclopedia of Hebrew Language and Linguistics</i>
<i>EJIW</i>	<i>Encyclopedia of Jews of the Islamic World</i>
<i>BHS</i>	<i>Biblia Hebraica Stuttgartensia</i>
BW	Bible Works, 2006, Version 7.0.012g
Ktiv	Hebrew/Jewish manuscript website of the National Library of Israel
WTT	Westminster Theological Text (in most cases identical with <i>BHS</i>)

2.4. Bible Book Abbreviations

All Bible books are referred to by their first three letters or numbers, with no spaces or periods, e.g., Gen (= Genesis), 1Sa (= 1 Samuel), Joe (= Joel).

2.5. Transcription Convention

Transcription in the thesis is limited almost entirely to proper nouns. For simplicity—and to aid future researchers who may wish to search the Genizah for persons mentioned in the below corpus descriptions—I have attempted to follow the somewhat idiosyncratic usage of Cambridge University Digital Library (CUDL) and the Princeton Geniza Project:⁶ viz., names that occur in English (i.e., that are frequent in the Bible) are generally written according to conventional English spelling (e.g., Jacob, Samuel), whereas names with infrequent English usage are transliterated slightly more precisely (e.g., Ḥananya, Ḥubbīš). Long vowels are marked for Arabic names but not for Hebrew names. Gemination is marked. בג"ד כפ"ת is marked where already occurring by convention (e.g., *aleph*).

⁶ The present practice is longstanding and doubtless familiar to most researchers; i.e., it is not confined to the aforementioned databases. See, e.g., Cohen, *Jewish Self-Government in Medieval Egypt*, from the Note following the Preface.

3. Introduction

3.1. Constituent Parts of a Tiberian Masoretic Codex

Broadly speaking, the Masorah is the means by which the biblical text was transmitted during the latter part of the first millennium of the Common Era, particularly in Islamic lands. This method of transmission refers to practically every aspect of the production of a Bible codex, as will be described in the following several paragraphs. The term Masorah has also a specific meaning, viz., the marginal notes that help to safeguard the biblical text. This rather more narrow meaning will occupy most of the remaining pages of the thesis.⁷

The **Tiberian Masoretic tradition**, so named because it reflects the reading tradition, accents, and Masoretic notes passed down by Masoretes of Tiberias, is the most prestigious of the Masoretic traditions. The **Babylonian Masoretic tradition**, i.e., the Masoretic tradition of the Jews of Babylonia, although influential for a time, was generally regarded as inferior to that known in Palestine. Jews of the diaspora, whatever their affiliation otherwise, tended to follow the reading traditions of the Land of Israel. This generally meant that they attempted to emulate the Tiberian Masorah (i.e., essentially the Aleppo Codex), although some communities, mostly in Europe, tended to reflect what has been termed “Non-Standard Tiberian type of vocalisation”.⁸

⁷ The term Masorah (מסורה) is understood nowadays as essentially synonymous with tradition, but the original meaning may have been somewhat different. See Khan, *A Short Introduction*, p. 1, n. 1.

⁸ Khan, *The Tiberian Pronunciation of Biblical Hebrew*, vol. 1., p. 130. For an overview of the various traditions see Khan, “Tiberian Reading Tradition”, *EHLL*; Ofer, המסורה הבבלית לתורה; idem., “Masora, Babylonian”, *EHLL*. One should also note a vocalisation system found in Palestine that was unknown to modern researchers until the discovery of the Cairo Genizah. Most—but not all—of these materials

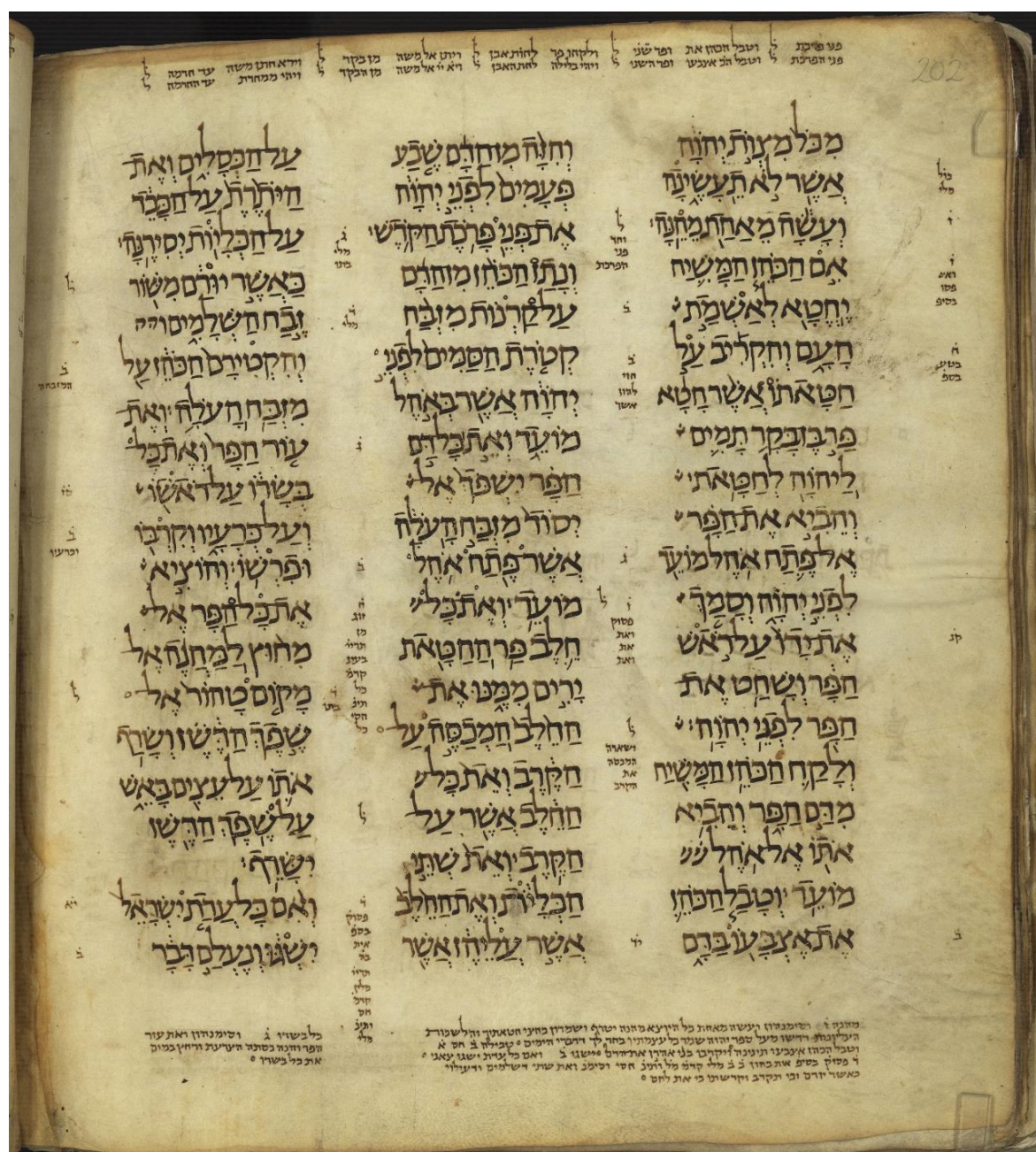
The Tiberian Masoretic tradition contains several important features as evidenced by the Hebrew Bible codices that record them.⁹ These include (1.) the consonantal biblical text, (2.) the vocalisation markings of the consonantal text, and (3.) the accent markings of the consonantal text (indicators for reading/chanting).

Beside the three principle features, one can also observe extensive marginalia that surrounds the main text. These notations occur in a smaller hand and may appear anywhere on the page: on the right or left margin, between columns of text, or the *supra* and/or *infra* margins—as Fig. 3.1a. shows.

are non biblical; see Heijmans, “Vocalisation, Palestinian”, *EHLL*; Yahalom, *Palestinian Vocalised Piyyuṭ Manuscripts in the Cambridge Genizah Collections*.

⁹ The consistency of appearance between MSS indicates a long-standing tradition in codex production already at the close of the first millennium C.E. See Beit-Arié, “Some Codicological Observations”, p. 27.

Fig. 3.1a. Sassoon 507 (p. 202)



In the above image, the main text and its associated vocalisation and accent markings appear in the three, carefully-lettered columns. The marginalia, although ostensibly written with equal care, are unpredictable in their content and placement. From an organizational standpoint, there is one bit of convention that guided the method. Longer marginal notes were placed on the top and bottom of the

page while shorter notes were inserted between the columns.¹⁰ These shorter and longer notes are referred to as Masorah parva and Masorah magna respectively (hereafter **Mp** and **Mm**, or when referring to both: Masorah).¹¹ On this particular image of Sassoon 507, there are 29 Mp notes and 6 Mm notes,¹² a note frequency which is not unusual.¹³ As Sassoon 507 contains 460 pages of biblical text (230 leaves), the total number of Mp notes is probably well-over 10,000 (29 x 460 = 13,340). The Mm notes, at six per page, would equal 2,760. In a codex containing the entire Hebrew Bible, then, the total number of Mp notes can reach thirty or forty thousand (see also §6.2.).¹⁴

In the main, the *raison d'être* of both the Mp and Mm notes seems to have been the preservation of the main text, a sort of second line of defence against an accidental misreading or miswriting.¹⁵ Thus, the notes tend to highlight

¹⁰ Either by virtue of the additional space found at the top and bottom of the page, or because Mp and Mm represent two different traditions combined in one codex (see Stern, “First Jewish Books,” pp. 168–169), Mm notes are more elaborative than Mp notes, indicating where additional examples of a given lexeme or phrase were to be found.

¹¹ Among European scholars, the Latin names for the marginalia (*parva* and *magna*) are often preferred over the Hebrew terms *qetana* and *gedola*.

¹² To be precise, there are five Mm notes pertaining to the page in question on the inferior margin, and a list of phrases (i.e., cumulative Masorah) on the superior margin.

¹³ Lyons, “Or. 4445,” p. 178, found 20.5 Mp notes per page from a random inspection of 20 pages of B. On the pages I reviewed, however, the density was somewhat higher: 24, 34, 25, and 23 (26.5 notes on average) on folios 85r-86v.

¹⁴ In the four books of the Former Prophets alone (Joshua, Judges, Samuel, Kings) in the Leningrad Codex, the precise number of Mp notes comes to 7,653; Marcus, *The Masorah of the Former Prophets*, vol. 1, p. x.

¹⁵ Ofer, *The Masorah on Scripture*, p. 111; Martín-Contreras, “Medieval Masoretic Text”, p. 420. For an overview, see Stern, “The First Jewish Books”, pp. 172–173. In later times at least—and probably earlier in the case of less competent scribes, sometimes Mp and Mm notes were copied into codices by scribes who failed to grasp their import. Jacob ben Ḥayyim writes: “ורובם היו כתובים בקשרים וציורים, ” “עד שלא היה באפשרות להבין מהן שום דבר, כי כוונת הסופר היתה ליפות כתיבתו ולא להבין ולעייין בה And most [of

unanticipated spellings, vocalisations, and the like, assuring the reader that the main text was not written in error.¹⁶ In Mp notes specifically, the notes begin most frequently with a numeral, indicating the number of times a particular lexeme or phrase occurs. Following the numerical comment, the scribe would sometimes clarify the intended meaning of the comment with an elaboration such as *בסיף* ‘in the book’, or *וכל מלא* ‘and all instances are spelled *plene*’.¹⁷ In the present discussion, the numeric indicator will be referred to as the **Mp numeral** and the word/words of the main text that are being commented upon as the **Mp string**. Any non-numeral portion of an Mp note is labelled **Mp comment**. In a limited number of cases, an Mp note may contain no Mp numeral whatsoever. These notes often provide a general rule, e.g., ‘all instances *plene*’, and are referred to here as **rule stating Mp notes**.

The several constituent parts of a Bible codex gave rise to specialisation of the scribes who produced these MSS. The person who wrote the main text is the *sofer* (= scribe). The *naqdan* is the scribe who added the vocalisation and accent marks; the *masran* is the scribe who added the Mm and Mp. Sometimes one person

the Bible codices known to Ben Ḥayyim] were written in an abbreviated and ornamental manner, until there was little chance to understand anything from them, for the scribe’s desire was to beautify his writing and not to understand or to grasp the sense of it’; see Ginsburg, *Jacob ben Chajim ibn Adonijah’s Introduction to the Rabbinic Bible*, p. 79.

¹⁶ A majority of Mp notes are concerned with the consonantal text; a smaller number marks vocalisation, and the occasional note marks the accents. See also the detailed description of the various topics of the Mp note in Yeivin, *Introduction*, pp. 68–74.

¹⁷ In this thesis, the use of a circle to denote abbreviation (e.g., *ס*) is preferred to *geresh* or similar (e.g., *יב*) as it bears closer resemblance to what appears in a Masoretic codex.

would do all three, e.g. Samuel b. Jacob (**SbJ**), and in other instances the *naqdan* and *masran* may have been the same person—it is not always clear.¹⁸

The most important Tiberian *masran* is Aaron b. Asher (fl. 10th century), the last known of an illustrious family of Masoretes. Other Masoretes were also influential, most notably Ben Naphtali, also thought to have resided in Tiberias. Of Ben Naphtali little is known. Ben Asher's influence is directly attributable to the Aleppo Codex (A), the accuracy of which has been amply documented. For example, no other Bible codex approaches the concordance of the Aleppo Codex when comparing its orthography (i.e., consonantal text) with its attendant Mm and Mp. To a large degree, it is because of evidence furnished by the Aleppo Codex that we can speak of a uniform Masoretic text (see also the suggestions in §6.5.6.). By way of contrast, the Leningrad Codex (L), whose *masran* explicitly claims to base his codex on the work of Ben Asher, contains many contradictions of orthography and Masorah.¹⁹

Not all *masranim* had the same Mm and Mp notes in mind when they produced their codices. Some *masranim* such as Ben Asher only wrote lists of Mm relevant to the text at hand in the upper and lower margins. For instance, on the page of Jos 2.2 in the Aleppo Codex, there is an Mm note on the upper margin that

¹⁸ One could object with this division, instead limiting the use of *masran* to an acknowledged Masoretic authority. While such a definition is also acceptable, it is less useful as the term *scribe* is then forced to do double duty for both the *sofer* and the *masran*, making it unclear to which sort of scribe one is referring.

¹⁹ See Ofer, *The Masora on Scripture and Its Methods*, chap. 3, esp. pp. 36–37, 44–45, and sources cited therein. While it is true that no two Tiberian codices are exactly alike, in orthography and vocalisation a very high level of uniformity is evident. This is particularly the case once obvious errors are accounted for (e.g., when the main text of an MS does not agree with its own Masorah).

reads: *לְחַפֵּר ג' וְחָסַ אֶת הָאָרֶץ אֶת כָּל הָאָרֶץ וְלַעֲטֹלָפִים* ‘*lahpōr* [to search] occurs 3x and they are spelled defectively; the references are Jos 2.2, Jos 2.3, and Isa 2.20’. The Mm note occurs on this page because it relates to Jos 2.2 and 2.3, both of which appear on this page. This sort of Mm note is referred to here as an **enumerative Mm note** and is the standard type of Mm note. Other *masranim*, however, also would include **cumulative Mm notes** to their Mm rubrics.²⁰ Cumulative Mm notes generally consist of a series of words that occur only once in the Bible; in these lists it is not essential that any of the listed words also appear within the main text on the page where the list occurs.²¹

Apart from Mp and Mm notes, other information also can be found in the margins and layout of a Hebrew Bible codex. One important feature is the subdivision of the text into smaller units, known as *parashiyyot*. The subdivision is achieved through actual separation of *parashiyyot* by means of space breaks. These space breaks come in two types. *Petuḥa* ‘open’ space breaks generally consist of an empty line, or most of an empty line. *Setuma* ‘closed’ space breaks consist of an empty space of less than a line, sometimes even a blank space in the centre of a line. The practice of including space breaks predates the MSS surveyed by a considerable

²⁰ The terms enumerative Mm and cumulative Mm are borrowed from Penkower, “An Eleventh-Century Eastern Masoretic Pentateuch Codex”, p. 161. The usual Hebrew terms are *מצרפת* and *מפרסת* respectively (e.g., Yeivin, *המסורה למקרא*, pp. 66–79). Revell, in his translation of Yeivin’s *Introduction*, p. 78, uses the terms “elaborative” Masorah and “collative” Masorah; for ‘cumulative’ Ofer uses the term “accumulative” (Ofer, *The Masora on Scripture and Its Methods*, pp. 49ff. Penkower’s terminology will be used here for consistency.

²¹ The amount of cumulative Mm also can vary widely. For example, B and T3 contain cumulative Mm on practically every leaf.

extent,²² and the precise placement of these breaks remained somewhat variable for a time, gradually coalescing around the list of space breaks as set forth by Maimonides.²³ Regardless, the placement of these space breaks is an important part of a Bible codex and the discussion regarding space breaks was ongoing, as evidenced by secondary scribes “correcting” space breaks with which they disagreed.

Many codices were used for lectionary purposes, indications of which also may be found in the margins. The most common of these markings is that of the *haftara*, a section of the Prophets that was read in conjunction with the Torah portion. Sometimes the reference for the *haftara* occurs alongside the text of the Torah portion; in other cases the reference for the Torah portion occurs alongside the appropriate selection from the Prophets. Either way, because reading customs varied widely, it is sometimes possible to tell which community had possession of a codex.

The three main Jewish communities of the 10–12th centuries in the Near East can be separated into the **Babylonians** (those who followed the academies of Babylonia), the **Palestinians** (those who followed the academy of the Land of Israel) and the **Karaites** (‘readers [of the Bible]’, i.e., those who rejected the Oral Law).²⁴ In the 10–12th centuries, “Palestinian” Jews were often from Palestine or

²² Space breaks with similar functions can be seen already in the Dead Sea Scrolls; Tov, *Scribal Practices and Approaches*, pp. 143–163.

²³ See Maimonides’s *Mishneh Torah*, chapters 7 and 8; Ofer, *The Masora on Scripture and Its Methods*, pp. 116–120. For space break examples, see *ibid.*, pp. 10–12.

²⁴ For an overview of the Palestinian and Babylonian *yeshivas*, see Rustow, “Gaon and Gaonate”, *EJIW*. See also Erder, “Yeshiva of Palestine”, *EJIW*; Lasker and Beinín, “Karaism”, *EJIW*; Cassuto, “Karaites Synagogues of Jerusalem and Cairo”, *EJIW*. See also §4.8.3.; 4.8.4.

Egypt; Karaite Jews were often from Babylonia, Palestine, or Egypt; “Babylonian” Jews were often from Babylonia, Egypt, or N. Africa. There are a number of exceptions depending upon the year in question, but this general picture is in keeping with what the corpus MSS reveal.

As already adumbrated, “Babylonian” Jews often used Bibles that followed the Tiberian tradition. In other words, the Babylonian Masoretic tradition seems to have been a non-essential custom of Babylonian Jewry—an admission that the Masorah of the Land of Israel was considered superior to what was preserved in Babylonia.

Although of lesser importance from a localisation perspective, it is worth noting that Bible codices sometimes contained the Hebrew text in translation, either in Aramaic (*targum*) or in Arabic (*tafsīr*). The former has a usage history that dates back to the start of the Common Era; the latter refers to the Arabic translation of the Torah by Sa‘adya Ga’on (d. 942).

It is often possible to glean historical information about a codex based upon notes in the MS that pertain to ownership and the right of possession. In the thesis, any and all such notes are termed **colophons** for the sake of convenience. The most sought after colophons are those written by the scribe/*naqdan*/*masran* and any ornately decorated pages with the name of the owner; these types of colophons give the clearest indications regarding the early history of the codex. Also useful are ownership transfers, either through purchase or through pious donation. The pious

donation (*heqdes*²⁵) was a favoured means for gifting a codex to a synagogue.

Heqdes are a recurrent feature of 10–12th century codices, although it is not always clear which are authentic and which may have been inserted by way of forgery.

Palaeography and codicology can provide valuable information about a codex. Based upon script style, it appears that the corpus MSS are generally from within the **Oriental zone**,²⁶ i.e., from N. Africa to Iran. There are various additional clues that can help to further localise the MSS. In codicology, for example, the number of bifolia gathered together into a small “notebook”, i.e., **quire**, before being sewn into the larger codex is often indicative. It was common in most parts of the Oriental zone to gather five bifolia together (**quinion quiring**), although at the fringes of the zone, e.g., N. Africa, Babylonia, N. Syria, **quaternion quiring** seems to have been preferred.²⁷ The method of left justification in a codex is also indicative (§6.6.4.).

The constituent parts of a Tiberian Masoretic codex are important because it is through the careful comparison of these many features that a certain degree of localisation becomes possible. It should not be overlooked, moreover, that in many respects comparisons are dependent upon Bible codices that seek to emulate a given

²⁵ A *heqdes* is similar in many respects to the Arabic *waqf* or *ḥabs*; there are many documents attesting to their existence in the Cairo Genizah (see Gil, *The Institution of Charitable Foundations in the Light of the Cairo Genizah Documents*, pp. 11ff; idem., *Documents of the Jewish Pious Foundations from the Cairo Genizah*, pp. 3–4; for a list of Genizah MSS that record a *heqdes*, see Gil, *Documents*, pp. 603ff). See also §4.8.2.

²⁶ The term Oriental is not felicitous (cf. already the complaint of Goshen-Gottstein in 1962, “Biblical Manuscripts in the United States”, p. 37), but remains the de facto designator for MSS with a specific script type shared by virtually all extant Bibles from the 10–12th centuries.

²⁷ Beit-Arié, *Hebrew Codicology*, pp. 289–323.

model, i.e., that are produced in a highly traditional manner. The degree to which a scribe/*naqdan*/*masran* follows the practices of others is, in many instances, the degree to which comparisons become possible. For these reasons, most of the corpus MSS of the present thesis are **Model Bibles**, i.e., Bibles with full Masorah, vocalisation, and accents, generally with three columns of main text, and written in an Oriental square script.²⁸

3.2. Comparing Mp Rubrics

Much can be learned about the categorisation of MSS based upon extended comparisons of individual Mp rubrics. This is because Tiberian *masranim* had the freedom to include—and omit—whichever notes they chose. Some Mp numerals appear alongside every occurrence of a given Mp string. Other Mp numerals comment on a recurrent Mp string sporadically. Sometimes a *hapax legomenon* is carefully marked; other times it is completely ignored. On occasion, an Mp string may be accompanied by different information in different places (e.g., ה' '5x' in one place and ו' '6x' in another).²⁹

²⁸ For dated examples of Oriental square script of the 10–12th centuries, see Beit-Arié and Engel, *אסופות כתבים עבריים*, vol. 1, pp. 1–72, noting especially the images of Bible MSS.

Corpus MSS that diverge from the ‘model Bible’ standard are noted throughout the thesis. Admittedly the term ‘model Bible’ is not a perfect one, as (1.) the precise line between ‘model’ and non-model’ is unclear, and (2.) because it suggests that Bibles not conforming to this standard are somehow non-model—which may or may not have been the case in the eyes of the persons who used these Bibles. Nevertheless, as the most prestigious and expensive Bibles of the period fit under the rubric of ‘model Bible’, e.g., A, L, C, G18, etc., it seems that the term speaks to a long-standing perception. Although Ofer eschews the word ‘model’, what he describes in *The Masora on Scripture and Its Methods*, pp. 10–13, is essentially that of a ‘model Bible’.

²⁹ This is not to say that the one entry is correct and the other in error. In some cases, the two comments pertain to different facts concerning the same Mp string.

Although Ofer has shown that Babylonian Masorah can be traced back to a single list, in part because the practice of the Babylonian school³⁰ was to present the Masoretic information as a unit in a free-standing treatise,³¹ the practice of *masranim* who produced Tiberian Masoretic information was different: rather than a compilation of Mm and Mp comments into a single work, which could be widely disseminated, the Masoretic information of the Tiberian school is spread throughout the margins of a Bible codex. This decentralized approach, it would appear, gave rise to greater variation among Tiberian Masoretic Bibles than that which is found in the Babylonian school (§6.1.3.; 6.1.6.).

Due to the variability of Mp notations, the question arises if genetic affiliations between MSS can be determined based upon Mp note coherence. That is, what can be discerned regarding the interrelationships of MSS if one tallies the Mp note similarities? An attempt to sketch a stemma of Mp notes is, to the best of my knowledge, without real precedent. This is perhaps to be expected as the work required to make thoroughgoing comparisons is a project of many years' duration. Based on what was stated above, if one codex of the complete Bible would contain ca. 40,000 Mp notes, and one would wish to compare all the Mp notes from even the Oriental codices, the total number of Mp notes is certain to surpass 500,000,

³⁰ 'Scribal school' is a frequently employed term with undefined parameters (What makes a 'school' a school?: Shared texts? Similarly trained scribes? A regional identification?). Further complicating matters, Jewish scribes probably worked from their homes—unlike those working in Latin book production. See Olszowy-Schlanger, "The Hebrew Bible", p. 31; Beit-Arié, "The Individual Nature of Hebrew Book Production and Consumption", pp. 17–28.

³¹ Ofer, "Masora, Babylonian", *EHLL*; idem, המסורה הבבלית לתורה, p. 3.

perhaps even twice that number.³² Alternatively, one can focus on specific subsections of text, collate all the available notes from within those sections, and present those partial findings as (likely) representatives of the larger MSS. Such an approach is not unlike that of a linguist who constructs the grammar of a dead language from a (generally quite) small corpus, or a pollster who can ascertain public opinion through a small number of interviews. The end results may not be perfect in every detail, but in the main, the contours of the study are indicative.

3.3. State of Research

The present study is reliant upon the research of many.

In codicology and palaeography, the comparative approach has become possible in large part due to the work of Malachi Beit-Arié, who was the first to gather dated examples of Hebrew texts and present them in a carefully contextualised manner, permitting future comparisons to be built upon the broadest foundation possible. Important publications include the recent *Hebrew Codicology* (2021), *Codices hebraicis*, 3 vols. (1997–2002), and אסופות כתבים עבריים מימיהביניים, 3 vols. (2002).

Many explanations of the Tiberian Masorah itself are dependent upon Israel Yeivin, whose descriptions of the differences of Masoretic codices based upon vocalisation and accent markings make his publications required reading in the field, e.g., *המסורה למקרא/Introduction to the Tiberian Masorah* (2003/1980) and כתר ניקודו וטעמיו (1968). The list of Masoretic terms he includes—with

³² According to Ofer, “The History and Authority of the Aleppo Codex”, p. 34, there are approximately 50 codices from the 10th and 11th centuries with 100 or more pages extant. Similarly, Dukan, *La Bible hébraïque*, notes 74 MSS prior to 1280, with another 158 manuscript fragments from the Cairo Genizah. We will qualify these claims further below (§4.).

attendant examples—are also indispensable. Yeivin’s research into the Masorah has been further augmented, particularly by Yosef Ofer, whose המסורה הבבליית לתורה (1998) describes many features of the Babylonian Masorah and reproduces a significant portion of that Masoretic rubric, allowing for ready comparisons between the Babylonian and the Tiberian Masorah.³³ Also, Ofer’s *The Masorah on Scripture and Its Methods* (2019) is the most up to date description of the Masorah, crucially outlining discussions where past researchers have not always been in agreement.

The thesis does not make extended use of Geoffrey Khan’s work, e.g., *The Tiberian Pronunciation of Biblical Hebrew*, 2 vols. (2020), although a comparison of Khan’s detailed description of the tradition with the materials gathered in the present thesis is an obvious next step in furthering the research of the Tiberian Masorah, e.g., to what extent can the salient categorisation features set forth here correlate with Tiberian and/or extended Tiberian vocalisation?

In terms of orthography, Mordechai Breuer’s כתר ארם צובה והנוסח המקובל של (1976) and נוסח המקרא ב”כתר ירושלים” (2003) permit a fruitful comparison of the consonantal text of the corpus MSS (§6.5.6.).

Finally, the thesis is reliant upon the example set by Benjamin Kennicott (d. 1783) and Christian David Ginsburg (d. 1914). The former scholar collated the consonantal text from many Bible manuscripts; the latter scholar collated the Masorah.³⁴ While the present work falls far short in regard to the energy and

³³ To my great regret, the present thesis was unable to incorporate the Babylonian Masorah in a significant way; it is hoped that future studies will attempt to make these comparisons.

³⁴ Kennicott’s comment on his own work is classic: “[D]uring the past Ten Years ... my general rule has been, to devote to it [collation] 10 or 12 hours in a day, and frequently 14; at least, that this was my practice till such severe application became no longer possible, through the Injuries done to my

dedication shown by these scholars of the past, it is hoped that the ca. 43,000 Mp notes collated here will provide some value, particularly in furthering the research that Ginsburg began into the specific differences between Masoretic codices.

Constitution.” See Kennicott, *The Ten Annual Accounts*, p. 163. For a detailed account of Kennicott’s labours where this quote also appears, see McKane, “Benjamin Kennicott”, pp. 445–464. Ginsburg similarly states: “[W]orking at the MSS., many of which are partially defaced, for more than forty-five years and having reached the age of seventy-three years, my sight has been greatly impaired ...” (*The Massorah*, vol. 4, from the Preface).

Principle publications of these scholars include: Kennicott, *Vetus Testamentum hebraicum cum variis lectionibus* (1776–1780); Ginsburg, *The Massorah: Compiled from Manuscripts Alphabetically and Lexically Arranged*, vols. 1–3 (1880); *ibid.*, *The Massorah: Translated into English with Critical and Exegetical Commentary* (1905).

4. Corpus Description

The present section is intended to clarify the size and nature of the corpus—typically a straightforward task in most corpus descriptions. There is also a secondary reason for describing the corpus that makes this section much more than a simple description. Namely, the majority of codices used in this study are not complete: pieces of many of them are spread across various classmarks, the degree to which has been unappreciated—even completely overlooked.

For example, in Ofer's incisive comments regarding dedicatory colophons in several early codices, it is assumed that the remaining pages of a classmark in question belong with the colophon³⁵—which is not the case.³⁶ Similarly, Wagner, in his description of IIB55 and IIB247, a codex that, according to Wagner is closer to the Aleppo Codex than any other of the early codices, seems unaware that the “codex” of which he writes is composite: there are two codices represented (see below: ‘IIB26 + ’ and ‘IIB55 + ’).³⁷

³⁵ Ofer, “Two Dedicatory Inscriptions”, p. 68; see also Yeivin, *Introduction to the Tiberian Masorah*, p. 24, who similarly assumes that the non-contiguous leaves belong with the dedication.

³⁶ At issue are the colophons of IIB223 and IIB225, which have been miscatalogued (see Ofer, “Two Dedicatory Inscriptions”, p. 70): IIB223 is classmark IIB225 and IIB225 is classmark IIB223. Even with this needed correction, there are 18 lines of text in the colophon that precedes Isa 1, while the other pages that ostensibly belong to this colophon contain 20 lines. In addition, the hands are visibly different. Yeivin, *Introduction*, p. 24, notes the difference between the two sections, but then describes features of the classmark in a way that does not distinguish between the two sections—in effect, treating them as though they still belonged (somehow) to the self-same codex.

³⁷ Wagner, “כתב יד של נביאים וכתובים שהוגה ונמסר על ידי בן אשר, כתב יד ל”, מאוסף פירקוביץ”, p. 646f. It is not that Wagner is unaware of matches, as he successfully links Gottheil 22 with IIB55. Dukan, *La Bible hébraïque*, p. 330, has pointed out that not all leaves appear similar in IIB55 but makes no further comment on the matter: “Manuscrit des Derniers Prophètes, dont 481 feuillets dépareillés et en très mauvais état, ont été conservés” ‘Manuscript of the Latter Prophets, including 481 mismatched leaves in very poor condition, have been preserved’.

The same can be said of several manuscripts used in the Hebrew University Bible Project. Gottheil 22, which Yeivin has examined at length,³⁸ is listed as a source for the HUBP critical edition of Ezekiel;³⁹ there does not appear to be an awareness that the majority of IIB76, another MS from the same list, is indisputably part of the same codex. Moreover, IIB76, as it currently stands, is actually a composite; in this classmark are two different codices, a fact that was unacknowledged by the HUBP editors.⁴⁰

In sum, the present section, although ostensibly merely a description of the corpus, represents, to the best of my knowledge, the first attempt to set sizeable portions of the IIB collection in order—and is therefore a worthy contribution in its own right.

In the present thesis, with only several exceptions,⁴¹ I have limited my inquiry to codices that were probably composed before 1200 C.E.,⁴² resulting in 88

³⁸ Yeivin, “כתב־יד קרוב מאוד לכתר ארם־צובה נמצא בבית־הכנסת הקראי בקאהיר (ק1)”.

³⁹ *The Book of Ezekiel*, Moshe H. Goshen-Gottstein and Shemaryahu Talmon (eds.), p. xlii.

⁴⁰ I mean no offense to the aforementioned scholars. My successes in untangling many classmarks of the IIB collection are largely the result of happy circumstance. I began my research at about the same time that the Firkovich manuscripts were being made available online through the websites of The Friedberg Jewish Manuscript Society (fjms.genizah.org) and The National Library of Israel (Ktiv and Merhav). Had I begun my research only several years earlier (at least in Cambridge), access to the thousands of images from the Firkovich collections would have been much more difficult. Also, I doubt that I would have had the vision to examine the entire IIB collection without the encouragement of my supervisor Geoffrey Khan.

⁴¹ E.g., the secondarily added sections of B (16th century) are examined to ensure that they were not copied from the leaves that they replaced. As many codices of the present corpus lack colophons, the confidence that the manuscripts are uniformly early should not be held too closely. Nonetheless, my palaeographic assessments have attempted to follow commonly held academic wisdom and are therefore not likely to be controversial.

⁴² This cutoff point is somewhat arbitrary. Some scholars have suggested that the point of divergence between highly quality MSS and the MSS that merely mimic them occurred around 1100 C.E. (e.g.,

codices from the Torah and the Former Prophets in the IIB and IIC collections, plus an additional 24 codices from other collections. It should be noted that there are a small number of undeniably ancient codices to be found of the Latter Prophets and Writings within IIB that I have not included.⁴³ In sum, the present corpus is an attempt to include all early Tiberian MSS from the Torah and Former Prophets that are sufficiently extant for significant comparative work to be done. As many of these MSS are to be found in the National Library of Russia in St. Petersburg, a considerable amount of time will be spent discussing that collection of MSS.

4.1. Table of Corpus MSS

The present section provides a succinct overview of the corpus. The fuller descriptions upon which Table 4.1a. is based can be found by consulting §4.3.–4.5.

Throughout Table 4.1a., four specific bracketing conventions are used to denote the source of the information.

- Round brackets () reflect the suggestions of the present author
- Square brackets [] indicate the estimation of Yeivin⁴⁴
- Curly brackets {} indicate what is listed on Ktiv

Kelley, et al., *The Masorah of Biblia Hebraica Stuttgartensia*, p. 23). I have extended the range to 1200 C.E. to allow for some flexibility of interpretation regarding dates of composition and because of the influence of Maimonides (d. 1204) and Abulafia (d. 1244) on certain aspects of the writing of the Torah. Regardless, as the present corpus is almost entirely on parchment (with the notable exception of II C 1 +), it is highly probable that they are of the early 14th century or prior; cf. Beit-Arié, *Hebrew Codicology*, p. 241.

⁴³ These will appear in Khan et al., *The Oxford Grammar of Biblical Hebrew*, forthcoming.

⁴⁴ As cited in Yeivin, *המסורה למקרא*, pp. 11–28. The flaw in Yeivin's otherwise outstanding work is his apparent lack of knowledge regarding the many manuscript matches to be found in MSS from St. Petersburg.

- The omission of brackets indicates that the information, either by common consent or colophon attestation, has been taken as unproblematic

Within each of the four bracketing conventions, an asterisk indicates that the information may be dubious. Cautious suggestions are accompanied by a question mark.

Abbreviations of Table 4.1a. include:

- **For column 3, ‘text’:** T. = Torah; F.P. = Former Prophets; P. = Prophets; W. = Writings
- **For column 7, ‘sect(s)’:** Kar. = Karaite; Pal. = Palestinian; Bab. = Babylonian

Manuscript numbers and abbreviated classmark information are provided in column

1. The MSS are ordered according to MS number for convenience.

Table 4.1a. Overview of corpus MSS							
MS	date	text	# ff.	# cols.	places mentioned and/or provenance	sect(s)	comments
1/IIB38 +	{10/11th}	T.	129	3	Jerusalem synagogue	Kar.	
2/IIB79 +	(early 11th)	T.; <i>haftara</i>	114	2	Jerusalem, Fustāt	Pal.; Kar.?	
3/IIB41 +		T.	134	3	(N. Africa)		
4/IIB128	(11/12th)	T.	324	2	Fustāt	Kar.	
5/IIB20 +	(early 11th)	T.	176	3	Jerusalem	Kar.	proofreader Mishael b. Uzziel
6/IIB33 +	{12th}	T.; <i>haftara</i> ?	134	3	Fustāt	Kar.	scribe Zechariah b. Solomon
7/IIB46 +	[11th]	T.	176	3			
8/IIB97 +	1346	T.	100	3	Alexandria	(Pal.?)	
10/A/Aleppo C.	{930}	full Bible	294	3	Tiberias; Jerusalem; Fustāt	Kar.	<i>masran</i> Aaron b. Asher; scribe of IIB17 +
12/IIB96 +	1346	T.	100	3	Alexandria	Pal.	
13/IIB37 +	10/11th	T.	113	3			
14/IIB74 +	{11th}	T.	102	3			
15/IIB80 +	{10/11th}	T.	154	3			
16/IIB73 +	{11th}	T.	143	3	Fustāt?	Kar.?	scribe of IIB55 +

17/IIB138 +	11/12th	T.	127	3		Kar.	
18/IIB62 +	{10/11th}	T.	121	3	(Egypt)		
19/IIB8 +	(11th)	T.	179	3	Egypt	(Pal.)	
20/L/Leningrad C.	1008	full Bible	491	3	Fuṣṭāṭ		scribe Samuel b. Jacob
22/IIB13 +	(10/11th)	T.	143	3	Fuṣṭāṭ, Ibn Samīḥ synagogue	Kar.	
23/IIB18	(12th or later)	T.	316	3	(Syria?)		
24/IIB137 +		T.	101	3			
26/IIB162 +	(12/13th)	T.	18	3			
27/IIB84 +	[12th]	T.	235	2			
28/IIB142	early 11th	T.	8	3	Fuṣṭāṭ		proofreader Samuel b. Jacob
29/IIB65 +	1021	T.	182	3	Kūfah		scribe Walid ha-Kohen b. Ḥasan
30/B/Or. 4445	[ca. 925]	T.	186	3	Shaqlāwa		scribe Nissi b. Daniel ha-Kohen
31/B2/Or. 4445	1539	T.	null	3	Yemen		see MS 30
32/IIB56 +	(early 11th)	F.P.	124	3	(Jerusalem) or Fuṣṭāṭ	Kar.	owner Ḥananya ha-Levi b. Solomon
33/IIB77 +	(early 11th)	F.P.	185	3	(Jerusalem or Fuṣṭāṭ)		scribe of IIB67 +
34/IIB63 +	{10/11th}	F.P.	197	3			
35/IIB39 +	*989	F.P.	145	3	*Jerusalem		colophon dubious
36/IIB26 +	[ca. 950]	P.; W.	554	3			
37/IIB86 +	{11/12th}	P.	196	3	(N. Africa?)		
38/IIB99 +	(10/11th)	F.P.	112	3		Kar.	
39/IIB50 +		P.	399	3			
40/S/Sassoon 507	[10th]	T.	230	3	(N. Africa)		
41/IIB24 +		F.P.	216	3			
42/IIB70 +	(11/12th)	F.P.	91	3	(Egypt)		
43/IIB1281 +		F.P.	4	3			
45/IIB1167		F.P.	2	3	(Italy?)		marked for Italian <i>haftara</i> ?
46/IBibl.68	(12th?)	full Bible	233	3			
47/IIB124 +	{946}	P.	206	2	Qābis/Qayrawān		scribe Joseph ha-Sofer b. Samuel
48/IIB35 +	[12th]	P.	113	3		Bab.	
49/IIB43 +	{11th}	P.	48	3	(Egypt?)		
50/WP/Wash. P.	{11th}	T.	247	3			
51/WP2/Wash. P.	1141	T.	null	3	Alexandria		scribe Joseph b. Jacob; see MS 50
53/IIB1270	(12th?)	P.	57	3			
54/IIB1233 +	[12th]	P.	86	3			
55/Or. 9880	[end of 10th]	T.	37	3	Babylonia?		
56/IIB1243 +		F.P.	8	3			
57/IIB927		P.	29	3			
58/IIB1160 +		P.	184	3	(N. Africa?)	Bab.	
60/S1/Sass. 1053	[10th]	full Bible	396	3	Greater Syria		
62/IIB206 +		P.; W.	27	3			
65/IIB207 +		P.	46	3			

66/IB13/80	early 11th	F.P.	182	3	Fuṣṭāṭ		scribe Samuel b. Jacob
67/IIB134 +	{11/12th}	F.P.	78	3			
69/IIB1285 +		F.P.	11	3			
70/M88/Michigan Pentateuch	[ca. 1050]	T.	150	2	(N. Africa or Babylonia)		
71/IIB94 +	[ca. 1000]	full Bible	124	3	Egypt	Kar.	
72/IIB1169		F.P.	38	3	(N. Africa?)		
74/IIB71 +		P.; W.	74	3			
76/IIB90 +	{12th}	P.	129	3	Spain/N. Africa		
77/IIB1275		F.P.	72	3			
78/IIB1180 +		F.P.	15	3	N. Africa	Bab.	
79/IIB55 +	[11th]	P.	417	3	Egypt	Kar.	scribe of IIB73 +
80/C/Cairo Codex	[11th]	P.	308	3	Jerusalem; Fuṣṭāṭ	Kar.	
81/IIB51 +	(10/11th)	T.	195	3	Jerusalem	Kar.	
82/IIB1003 +		T.	28	3			
83/IIB52 +	1196	T.	215	3			scribe Yom Tov ha-Levi b. Amram
84/IIB27 +	[11th]	T.	234	3			
85/IIB15 +		T.	142	3	(N. Africa)		
86/IIB54 +	(ca. 1000)	T.	170	3	N. Africa		
87/IIB82 +	10/11th	T.	106	3	Fuṣṭāṭ/Jerusalem	Pal.; Kar.	
88/IIB127 +		T.	38	3	Fuṣṭāṭ; Ibn Samīḥ synagogue	Kar.	
90/IIB123 +	[11th]	T.	105	3	*Jerusalem	*Kar.	
91/IIB68 +	{11/12th?}	F.P.	77	2			
92/IIB996 +	(12/13th?)	Genesis	36	3		Pal.?	
93/IIB1014 +		T.	24	3			
94/IIB995		T.	8	3			
95/IIB994 +		T.	14	3			
97/IIB141	(10/11th)	T.	13	3			
98/G6/Gottheil 6	(late 12th)	T.	534	3	N. Africa		leaf count includes the secondary leaves
99/IIB991 +		T.	73	3			
126/IIB44 +		T.	91	3			
127/IIB48	[*966]	T.	112	3			
128/IIB60 +	early 11th	T.	211	3	Fuṣṭāṭ		scribe Samuel b. Jacob
131/IIB17 +	[930]	T.	244	3	Tiberias		scribe of the Aleppo Codex
137/IIB10 +	(10/11th)	T.	247	3	Kar.		
138/V448/Vat.ebr. 448	[ca. 1100]	T.; <i>targum</i>	350	3	N. Africa		
139/IIB159 +	943	T.	16	3	Greater Syria; Jerusalem	Pal.; Kar.	
140/T-S A4.13	(ca. 1100)	T.	3	3			
141/T-S A5.3		T.	1	3			

142/T-S A5.10	(ca. 1100)	T.	2	3			
143/T-S A5.17		T.	4	3			
144/IIB193	ca. 1200	T.	null	3			replacement ff. of MS 87/IIB82 + ; see MS 87
145/IIB1011	(12th)	T.	80	3	(Italy)		
146/IIB999 +	(ca. 1200?)	T.	122	3			
147/IIB989		T.	10	3			
148/IIB88 +		T.	74	3			some replacement ff.
149/IIB988 +		T.	36	3			
150/IIB289	(11th)	full Bible	18	3	(Egypt)		
151/IIB1008 +	(ca. 1000)	T.	97	3	N. Africa		(part of IIB40 + ?)
153/IIB1009 +	(11th)	T.	62	3	(Egypt)		
154/IIB19 +	{12th}	T.	257	3			
155/IIB67 +	(early 11th)	T.	110	3	Jerusalem	Kar.	owner Ḥananya ha-Levi b. Solomon; scribe of IIB77 +
156/T3/Tbilisi Torah	{10/11th}	T.	169	3	(Babylonia?)		
157/IBibl.54	[11/12th]	T.	60	3			
158/R3/Reuchlin 3	1105	P.; <i>targum</i>	385	2	Italy		scribe Zerah b. Judah
160/G18/Gottheil 18	[ca. 1000]	T.	580	3	Egypt/Jerusalem	Kar.	proofreader Mishaël b. Uzziel
161/G27/Gottheil 27	early 11th	F.P.	210	3	Fuṣṭāṭ	Kar.	scribe Samuel b. Jacob
162/IIC1 +	early 11th	T.; <i>tafsir</i>	528	1	Fuṣṭāṭ	Pal.	scribe Samuel b. Jacob
average no. leaves			174.9				

Perhaps the most important observation from Table 4.1a., at present, is the size of the MSS. The average number of leaves is 174.9, although the shortest of the MSS is only one leaf in length. In keeping with the thesis focus on what are hoped to be the most important representatives of the Tiberian Masoretic tradition, most corpus MSS have three columns. One MS has one column; seven MSS have two columns (see col. 5).

4.2. Script Types

The present corpus is divided into the following, mostly Oriental script MSS.⁴⁵

⁴⁵ Several of the MSS are double counted, being difficult to categorise. These cases are clearly marked in each of the following subsections.

1. Tiberian script (33 MSS)
2. Near-Tiberian script (26 MSS)
3. Jerusalemite script (8 MSS)
4. Near-Jerusalemite script (1 MS)
5. Proto-Sephardi script (6 MSS)
6. Italian script (2 MSS)
7. Yemenite script (1 MS)
8. “Oriental” (i.e., uncategorised) script (40 MSS)

One of the observations made in this thesis is that script and Mp data appear to correlate, particularly for certain Oriental script subtypes. Assessing script subtypes, then, is an important part of manuscript categorisation. The problem is that the field lacks commonly accepted Oriental subtypes for 10–12th-century model Hebrew Bibles, placing them, despite their obvious differences, into a single category, i.e., ‘Oriental’.⁴⁶ Due to this descriptive deficit, I found it necessary to coin several of my own terms for script types, e.g., ‘Tiberian script’ and ‘Jerusalemite

⁴⁶ Cf. Beit-Arié, *The Makings of the Medieval Hebrew Book*, p. 36, who remarks that dating is “hindered by the conservatism and conformism of handwritings in all areas, but foremost in the Orient, in which the many variants of script seem to be retained for centuries, and by the loss of most of the medieval books and the relatively small number of surviving dated manuscripts”. Also germane is Sirat’s statement in Beit-Arié, Sirat, and Glatzer., *Codices Hebraicis*, vol. 1, p. 20: “it is impossible to establish the provenance of a[n Oriental Hebrew] manuscript by the style of its writing”.

While Beit-Arié and Sirat’s observations are wholly on point, one should not assume that progress cannot be made in the subcategorisation of early Oriental Bible MSS, particularly when one takes into account paratextual features, the Masorah, and codicology, etc. alongside the general shape of the letters themselves. In this matter, of course, anything written here has been preceded in some form by Beit-Arié’s careful and methodical description of the many facets of palaeography, see, e.g., Beit-Arié, *The Makings of the Medieval Hebrew Book*, chapter one.

script'. There are two potential problems involved in the naming of scripts, and in the interest of maximal clarity, I wish to highlight both of them.

(1.) The first problem regards the type of names that one should choose. To wit, should generic, place-holder names be used (e.g., script A, script B, script C) or is it better to employ names with regional distinctives, e.g., 'Tiberian'? If no region can be identified, then the former option is self-evidently superior to the latter. In cases where it appears that the correspondence between script sub type and sub region is high, however, it has been the practice in Hebrew studies to use regional names. In his description of Ashkenazi script, Beit-Arié writes that,

Its definition applies to bookcraft and script style rather than to a geographic or political entity. It is therefore applicable beyond the boundaries of a certain region or geo-political unit. Just as the term 'Sefarad' may be misleading, since in our typology it comprises North Africa, Sicily, Provenance and Languedoc ... so can the term 'Ashkenaz' and its derivations be deceptive indeed.⁴⁷

In a similar vein, as recently as 2015 Olszowy-Schlanger divided Oriental scripts using the terms *Sud-Ouest* and *Nord-Est*. Notwithstanding the wholly regional nature of these terms, Olszowy-Schlanger still remarks that,

La division fondée sur l'origine géographique présumée de ces sous-types de l'écriture orientale n'implique pas toujours le lieu de production des manuscrits. À l'époque dite « classique » de la Geniza (époque Fatimide), les scribes formés dans les deux grandes traditions pouvaient se déplacer (par

⁴⁷ Beit-Arié, *Hebrew Codicology*, p. 82.

exemple, les migrations bien attestées aux IX^e-X^e siècles de l'Iraq abbaside vers l'Égypte et l'Afrique du Nord) et se trouver notamment en Égypte. De plus, les sous-types d'écriture correspondaient aussi aux centres intellectuels différents même s'ils étaient situés dans la même ville. Il sera notamment possible, pour la période ancienne qui nous intéresse ici, de différencier entre les sous-types d'écriture qui correspondent respectivement au rituel (et les institutions communautaires et éducation des scribes) « palestinien » et « babylonien ». Ainsi, sans toujours mener à une indication fiable du lieu de production d'un manuscrit ou document, l'identification du sous-type de l'écriture peut en revanche indiquer l'origine du scribe ou le milieu religieux et intellectuel auquel il appartenait.⁴⁸

The division based on the presumed geographical origin of these subtypes of Eastern writing does not always imply the place of production of the manuscripts. In the so-called “classical” period of the Genizah (Fatimid period), scribes trained in the two great traditions could move (for example, the well-attested migrations in the 9th–10th centuries from Abbasid Iraq to Egypt and North Africa) and are particularly found in Egypt. Furthermore, the writing subtypes also corresponded to different intellectual centres even if they were located in the same city. It will in particular be possible, for the ancient period which interests us here, to differentiate between the subtypes of writing which correspond respectively to the ritual (and the community institutions and education of the scribes) “Palestinian” and

⁴⁸ Olszowy-Schlanger, “Manuscrits hébreux et judéo-arabes médiévaux”, available online at <https://journals.openedition.org/ashp/1679#quotation> (last accessed November 2023).

“Babylonian”. Thus, without always leading to a reliable indication of the place of production of a manuscript or document, the identification of the subtype of writing can on the other hand indicate the origin of the scribe or the religious and intellectual environment to which he belonged.

Olszowy-Schlanger highlights what seems to me to be an important point. Namely, when using regional terms for script, the subtype of writing, even if occurring in the “wrong” zone, does not negate the value of the regional term being employed. Rather, it serves to bring greater clarity by highlighting possible interconnections between, say, MS X in Region 1 and MSS Y and Z in Region 2—a clarity that a term such as ‘script A’ would have obfuscated or rendered null.⁴⁹

In sum, the thesis acknowledges the difficulties inherent in the use of regional terms when marking script, but retains them due to academic precedence and to clarity. It should also be noted that as these terms are put forward here for the first time, they should be considered a starting point for future analysis, *not* the end point of it.

(2.) One should also note that in the present thesis the word ‘script’, when occurring in conjunction with a type of script, e.g., ‘Tiberian script’, has a slightly broader meaning than that often found in typical academic usage. This is wholly intentional. To discuss letters only, e.g., the shapes of *aleph*, *gimel*, and *shin*, while

⁴⁹ It should also be noted that these regional terms for script are adjectives, and that adjectives, as we know, are sometimes ascriptive and sometimes associative. For example, ‘Tiberian script’ could mean ‘a script that is Tiberian’ (ascriptive) or ‘a script that is written in the style of Tiberian’ (associative); some ambiguity is bound to exist. In the present thesis, clearly some of the clarifications being made are associative. Cf. Shore, “Making Sense of Adjectives”, pp. 2–18.

ignoring how the MS puts together its constituent parts is to deny the codex a major part of what makes it unique on one hand, and what makes it categorisable on the other.⁵⁰ To address this problem, I have operated with the conviction that a Bible leaf in a model codex is best analysed as a well-integrated whole rather than as the sum of its parts. Visual similarity of whole leaves is paramount; paratextual features, left justification strategies, Masorah layout, Mp note styling, and the like are essential parts of ‘script’, and must be taken into account.⁵¹

If ‘script’ seems too inferior a word to carry the weight of whole-page stylistic assessments, one might consider near synonyms such as ‘visual categorisations’ or ‘script plus *mise-en-page* categorisations’—which are perfectly suitable, albeit clunky, substitutions for ‘script’. In the present thesis, I have rejected lengthier terms for reasons of simplicity—although I welcome further suggestions and critiques on the matter. Whatever one’s opinion on the issue, at present it is necessary only to be aware that the use of ‘script’ in the thesis is intentionally, not accidentally, broad.

A great difficulty with the just-mentioned approach to ‘script’ is that these full-page comparisons are very hard to characterize in the abstract, viz., one could spend scores of pages describing how the features occur in tandem, but in the end still fail to strike upon the MSS’s visual essence(s)—or to effectively communicate that essence. At minimum, they cannot be summarized in an abecedary, where each

⁵⁰ The present view receives at least partial endorsement from leading Hebrew palaeographer Judith Olszowy-Schlanger, who states that an important, initial palaeographic consideration is the general placement of the letters upon the page, *not* the shape of the letters themselves (Olszowy-Schlanger, *Oxford Hebrew Manuscript Studies Workshop*, 2018).

⁵¹ It seems to me that ‘script’, transparently derived from Latin *scribō* ‘to write’ is a fitting and succinct word when indicating something written with the hand and need not relate only to letter shapes.

letter, separated from its surroundings, is analysed in isolation. To offset this problem as much as possible, while still endeavouring to be succinct, I shall lean upon the oft-quoted dictum that a picture is worth a thousand words.

4.2.1. Tiberian Script

Quintessentially, this script is found in A and codices most visually similar to it. L is of this category as well, although differences between A and Bibles written in Egypt (e.g., L) would probably permit an additional subdivision, viz., in my estimation the appearance of a Bible MS in Tiberias in the 10th century is *not* identical to the appearance of a Bible MS in Egypt in the 11th century. I have not attempted to make these secondary subdivisions, mostly because a sufficiently robust survey is enormously time intensive.

The choice of the term ‘Tiberian’ is not accidental. Not only are the Masoretic schools of Ben Asher and Ben Naphtali associated with Tiberias, according to the Muslim geographer al-Muqaddasī (d. after 991), so too are the scribes: “And seldom a jurist is seen to make innovations or a Muslim to act as scribe [in Palestine], except at Tiberias, because it never ceases producing scribes.”⁵²

The script, of course, is not original to Tiberias, having been brought from farther east,⁵³ but the general appearance of a Bible with this script is more associated with Tiberias than elsewhere. For example, compare St. Petersburg EVR

⁵² واقفٌ ما ترى به فقيهاً له بدعة او مسلماً له كتابة الا بطبرية فانها ما زالت تخرج الكتاب See Al-Muqaddasī, *Aḥsan al-taqāsīm fi maʿrifat al-aqālīm*, de Goeje (ed.), 1870 edition, p. 383. The English translation is taken from Chiesa, *The Emergence of Hebrew Biblical Pointing*, p. 12. See also Danilenko, “al-Muqaddasī”, *Encyclopaedia of Islam*, THREE.

⁵³ See Engel, “Script, History of Development” *EHL*. The great Masoretes of the 8–10th centuries, with few exceptions, are thought to have done their work in Tiberias. See, e.g., Kahle, *Masoreten des Westens*, vol. 1, p. 39.

IB.3 (*916 C.E.),⁵⁴ probably written in the East, with IIB10 (fig. 4.2.1a, below); the hands are similar, but the appearances of the full pages are very different.⁵⁵

Many of the “highly regarded” codices, from a scholarly point of view, possess Tiberian script. This is not surprising, as codices displaying Tiberian script are among the highest quality and most lavish productions of all Oriental codices. The script is consistent and highly calligraphic throughout; there is full Masorah; left justification of the main text involves no letter dilation; breaks between Bible books generally involve three or four blank lines—they do not attempt to reach the bottom of a column through gapping of text (unlike, e.g., C).

Of the present corpus, there are 30 MSS with Tiberian script, plus an additional three MSS, that, although difficult to categorise, nonetheless show significant similarity with the remaining Tiberian MSS.

Table 4.2.1a. Corpus MSS with Tiberian script

Tiberian:			
MS 1/IIB38 +	MS 20/L	MS 42/IIB70 +	MS 128/IIB60 +
MS 4/IIB128	MS 22/IIB13 +	MS 51/WP2	MS 131/IIB17 +
MS 10/A	MS 28/IIB142	MS 55/Or. 9880	MS 137/IIB10 +
MS 12/IIB96 +	MS 29/IIB65 +	MS 66/L17	MS 155/IIB67 +
MS 13/IIB37 +	MS 33/IIB77 +	MS 67/IIB134 +	MS 161/G27
MS 14/IIB74 +	MS 35/IIB39 +	MS 79/IIB55 +	MS 162/IIC1 +
MS 16/IIB73 +	MS 36/IIB26 +	MS 81/IIB51 +	
MS 18/IIB62 +	MS 38/IIB99 +	MS 97/IIB141	

⁵⁴ Images of IB.3 can be readily accessed at archive.org: <https://archive.org/details/CodexBabylonicusPetropolitanusSt.PetersburgRussianNationalLibraryEvr.I.B3> (accessed May 2023).

⁵⁵ For a rejection of the authenticity of the colophon of IIB10 + (989 C.E., Jerusalem), see below.

Tiberian/near-Tiberian:

MS 15/IIB80 + MS 27/IIB84 +

Tiberian/Jerusalemite:

MS 32/IIB56 +

The following five figures provide samples of Tiberian script.



Fig. 4.2.1c. Tiberian Script (IIB26, microfilm A, p. 31)





Fig. 4.2.1e. Tiberian Script (JER NLI 800.2 = 4, verso)



4.2.2. Near-Tiberian Script

A number of codices with at least a passing similarity to Tiberian script were collated. They are not necessarily later than MSS with Tiberian script, but many

probably are (e.g., IIB52 +). In other instances (e.g., B and S) the script differences primarily reflect a different locus of production (Babylonia; N. Africa?). Most importantly, the paucity of colophons and the variability of these near-Tiberian scripts permit only a negative definition, viz., these MSS do not form a discrete Oriental subgrouping per se, and cannot be described as such. They are merely lumped together due to their similarity with many points of Tiberian script—a similarity which is only partial.

Differences of near-Tiberian script with Tiberian script include: reduced use of partial letters for left justification, some inclination to dilate letters, reduced Masorah (in some cases), simpler letter strokes, flourishes and other minor designs when marking closure of the Mm, the increased occurrence of cumulative Mm lists, and an increased prevalence of Babylonian Masoretic terms. The division between near-Tiberian and Tiberian is not hard and fast in all cases, e.g., IIB84 + . As has already been stated, it should be understood that the categorisations are not end points, but places from which to begin analysis. Corpus MSS with near-Classic Oriental script number 23, with an additional three MSS that bridge the division between script groupings.

Table 4.2.2a. Corpus MSS with near-Tiberian script

Near-Tiberian:			
MS 19/IIB8 +	MS 70/M88	MS 90/IIB123 +	143/T-S A5.17
MS 24/IIB137 +	MS 71/IIB94 +	MS 91/IIB68 +	148/IIB88 +
MS 30/B	MS 72/IIB1169	MS 98/G6	149/IIB988 +
MS 34/IIB63 +	MS 82/IIB1003 +	MS 138/V448	156/T3
MS 40/S	MS 83/IIB52 +	MS 140/T-S A4.13	157/IBibl.54

MS 49/IIB43 + MS 88/IIB127 + 142/T-S A5.10

Near-Tiberian/Tiberian:

MS 15/IIB80 + MS 27/IIB84 +

Near-Tiberian/Proto-Sephardi:

MS 3/IIB41 +

Fig. 4.2.2a. Near-Tiberian Script (Michigan Pentateuch, f. 9r)





Fig. 4.2.2c. Near-Tiberian Script (Vat.ebr.448, f. 27v)







Fig. 4.2.2f. Near-Tiberian Script (Or. 4445, f. 32v)



4.2.3. Jerusalemite Script

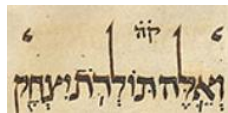
Codices with a Jerusalemite script are often well-produced, lavish, and possibly ancient (perhaps even 10th-century in some instances). Differences between this script and Tiberian are readily discernible, however, due to features that include:

- thicker calamus strokes for the letters of the main text

- different ways of concluding Bible books (in Jerusalemite script MSS a Bible book must begin at the head of a column)
- use of a non incipient, fully formed *mem* for left justification
- the use of the marginal *nun/zayin*
- slight letter dilation on the left margin to aid in left justification

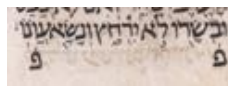
Similarly, *petuḥa* space breaks at the head or foot of a column are often marked with signs resembling reverse commas rather than the use of *peh* common in Tiberian script codices.

Fig. 4.2.3a. (WP, f. 26v)



Tiberian script MSS will have some version of the following.

Fig. 4.2.3b. (L, f. 67r)



Some of the distinguishing characteristics of the Jerusalemite script cited here have been mentioned by Beit-Arié et al. and by Penkower.⁵⁶ A fuller treatment is forthcoming.⁵⁷

In the present thesis I have delimited Jerusalemite script to only the most prominent examples of this script type. There are additional MSS in the corpus that display significant similarity to Jerusalemite script, but the precise boundaries of the script have not yet been established, and caution, therefore, seems recommended.

⁵⁶ Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 1, pp. 10–11; Penkower, “An Eleventh-Century Eastern Masoretic Codex of the Pentateuch”, pp. 160–161.

⁵⁷ Beiler, “Is There a Scribal School to Which the Cairo Codex Belongs?”, forthcoming.

The choice of the word ‘Jerusalemite’ is derived from the fact that prominent members of this script type are known to have spent their early years in Jerusalem. Most notably, C, G18, and IIB20 + appear to have been once associated with the Karaite *dār al-ʿilm* in Jerusalem (see their respective descriptions below).⁵⁸

More important than the name, however, is the fact that the script can reliably be distinguished from Tiberian, and that the scribal school⁵⁹ from which it arose, therefore, could not have been one and the same.

Table 4.2.3a. Corpus MSS with Jerusalemite script

Jerusalemite script:			
MS 5/IIB20 +	MS 41/IIB24 +	MS 80/C	MS 160/G18
MS 39/IIB50 +	MS 50/WP	MS 154/IIB19 +	
Jerusalemite script/Tiberian script:			
MS 32/IIB56 +			

⁵⁸ Other Jerusalemite script MSS include IIB57 + and IIB1283 (neither analysed in the thesis as both MSS contain only the Latter Prophets). The Mm of IIB57 + contains acrostics containing the name of a secondary owner; the name in these acrostics reappears in IIB274 where the owner is mentioned in conjunction with the Karaites in Jerusalem (cf. the same name in IIB56 + and IIB67 +). IIB1283 contains a sale colophon; the transaction took place in Jerusalem. An article on these MSS is forthcoming: Beiler, “A Karaite Collector of Masoretic Bible Codices whose Name Isn’t Firkovich? Ḥananya b. Solomon (fl. 11th Century), his Bibles, and How He Preserved Them”.

⁵⁹ By ‘school’ I do *not* mean scriptorium, but the preferencing of one layout model over another, roughly analogous to academics who work within the paradigm(s) of a respected guild member and are said to be part of his/her school.

Fig. 4.2.3c. Jerusalemite Script (Washington Pentateuch, f. 21r)



Fig. 4.2.3d. Jerusalemite Script (G18, image from Karaite Heritage Center, Jerusalem)

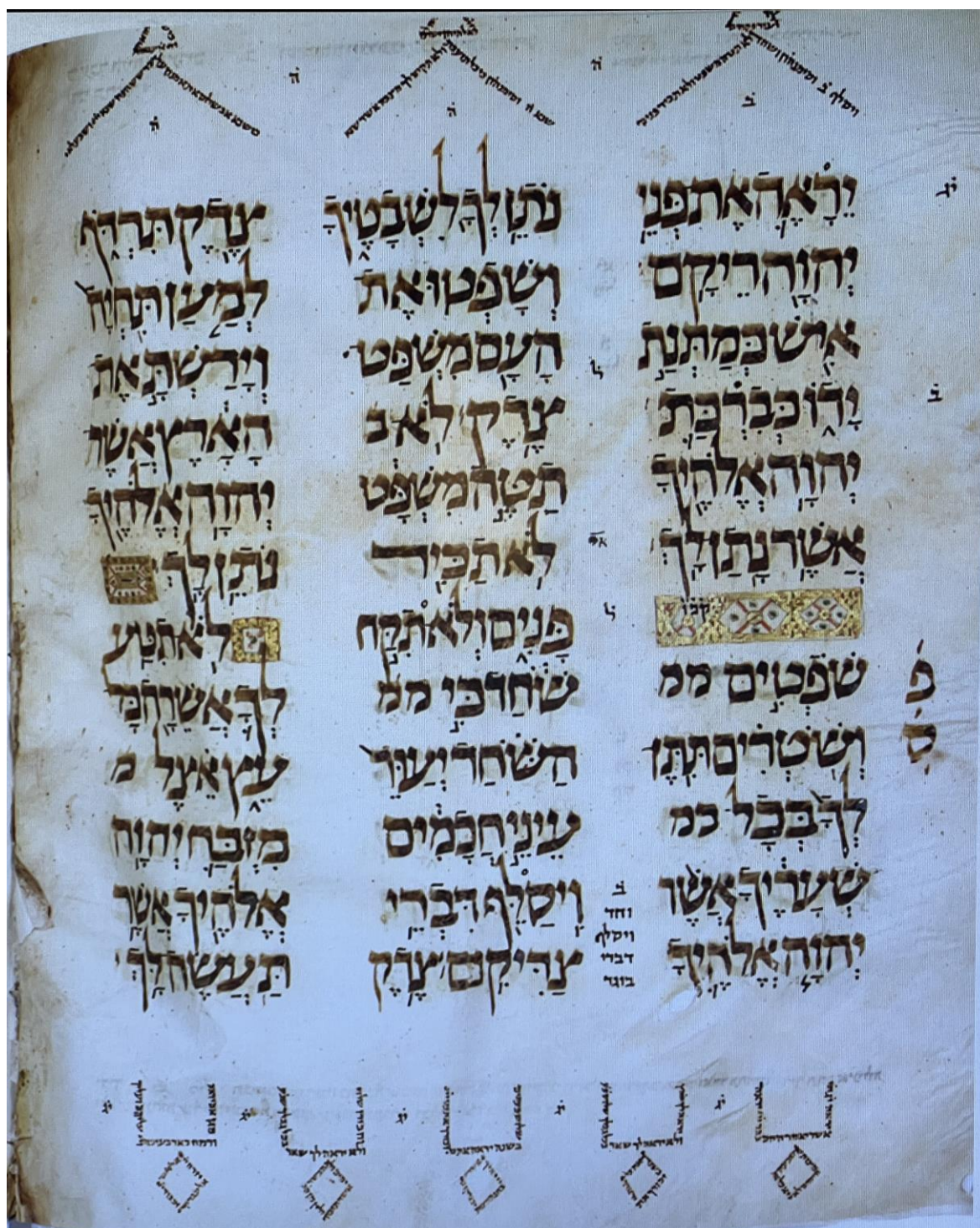


Fig. 4.2.3e. Jerusalemite Script (C, image from Karaite Heritage Center, Jerusalem)





Fig. 4.2.3g. Jerusalemite Script (IIB50, p. 26)



4.2.4. Near-Jerusalemite Script

As I have attempted to be cautious before making inclusions into this category (see also the previous section), the present category is limited to a single MS in the corpus (IIB46 +). While the hand of the main text is comprised largely of what one would expect from Jerusalemite script MSS, other features indicate a certain level of

difference between this and the remaining Jerusalemite script MSS. These differences include: letters produced with slightly more rounded strokes, the lack of a blank column (or partial column) between Bible books, the absence of the marginal *nun/zayin*, the absence of a fully formed *mem* for left justification, the absence of the signs resembling reverse commas when marking *petuḥa* at the head or foot of a column, and a *quaternion* quiring structure.

Fig. 4.2.4a. Near-Jerusalemite Script (IIB46, p. 9)



4.2.5. Proto-Sephardi Script

Sephardi script, classically defined, does not need an introduction, having been described in a number of publications over the past decades.⁶⁰ The present MSS, however, are proto-Sephardi rather than Sephardi proper, the latter script style not

⁶⁰ A good introduction to the Sephardi script can be found in Beit-Arié and Engel, אסופות כתבים עבריים, vol. 2, particularly the tables containing square script examples (Plates 1–62).

crystallising until the 13th century, whereas the present MSS are generally earlier and more Oriental in appearance.⁶¹ Indeed, in some cases it may be preferable to dispense with the term ‘proto-Sephardi’ altogether, focusing instead on MSS with a basket of features known to have been used in N. Africa (see esp. §6.6.2.). Nonetheless, the present categorisation is a useful heuristic, and will be retained throughout the thesis.

As with Jerusalemite script, there are probably additional examples of proto-Sephardi-like scripts in the present corpus, but I have attempted to be cautious in my assessments.

Proto-Sephardi scripts, unlike their later Sephardi counterparts, were only moderately concerned with left justification. Whereas Sephardi MSS generally left justify through letter elongation—sometimes significant letter elongation, the left margin of proto-Sephardi script tends to be ragged, and very little letter elongation occurs. This is true both of the few MSS listed here and of early Sephardi MSS more generally (cf. Gottheil 5 [1189 C.E.]; Paris, BN hébr. 105 [1197/8 C.E.]).

Tiberian script MSS and many near-Tiberian script MSS solve the left justification problem by using partial letters, such as *lamed* or *aleph* (cf. A), or through the use of incipient letters (cf. S), while Jerusalemite script MSS regularly deploy a fully-formed *mem* (cf. G18 and WP). Proto-Sephardi scripts, however, follow none of these methods. Instead, the few proto-Sephardi script MSS available to us (apart from the present MSS, notable examples include IIB40 + and IIB115 +)

⁶¹ Engel, “Script, History of Development”, *EHLL*. The precise status of corpus MS IIB90 + is perhaps early Sephardi rather than proto-Sephardi; this distinction makes no difference to the present analysis.

use nothing whatsoever—thus the ragged appearance, or simple dots (and sometimes, dashes) that cannot be mistaken for partial letters.⁶²

We are left to wonder regarding the reason for this marked differentiation in left justification practice between Tiberian and Jerusalemite scripts on the one hand and proto-Sephardi scripts on the other. We find the answer, it appears, in an examination of early MSS thought to have originated in Babylonia: EVR IB3 (*916 C.E.), B (Shaqḷāwa, ca. 920 C.E.), IIB65+ (Kūfah, 1021 C.E.), T3, and M88(?). None of these manuscripts uses partial letters to any appreciable degree for left justification, instead using dots or lines to fill in the space. This would indicate that the westward migrations of Jews from Babylonia into N. Africa carried along with it more than the shape of the letters themselves; it also brought along specific scribal practices, such as the method for left justification. In other words, the increased use of partial letters for left justification appears to have been a Tiberian innovation; other Oriental zones both to the east and to the west do not reflect this practice.⁶³

It is perhaps unsurprising, then, that some MSS with Tiberian Masorah that also contain significant amounts of Babylonian Masoretic material (e.g., IIB80+) are left justified using what most nearly amounts to a “non-Tiberian” justification method (a preference for dots instead of partial letters). A full-scale transformation from the former to the latter in both Masorah and layout had not taken place.

⁶² While there are examples of Classic Tiberian and near-Classic Tiberian script MSS that prefer dots to partial letters at least some of the time, these MSS are few (e.g., IIB80+, IIB99+, Or. 9880).

⁶³ The use of incipient letters for left justification is wider spread than that of partial letters. I am unsure of its source, but it also seems to have been a generally “Western” feature, possibly one that grew in popularity at the expense of the “partial letter system”. Both methods, in many respects, were eventually encompassed by an increased preference for letter elongation.

Table 4.25a. Corpus examples of proto-Sephardi script**Proto-Sephardi script:**

MS 47/IIB124 +

MS 76/IIB90 +

MS 86/IIB54 +

MS 151/IIB1008 +

Proto-Sephardi script/“Oriental” script:

MS 37/IIB86 +

Proto-Sephardi script/near-Tiberian script:

MS 3/IIB41 +

Fig. 4.2.5a. Proto-Sephardi Script (IIB54, p. 24)



Fig. 4.2.5b. Proto-Sephardi Script (IIB1008, p. 23)



Fig. 4.2.5c. Proto-Sephardi Script (IIB124, microfilm A, p. 61)

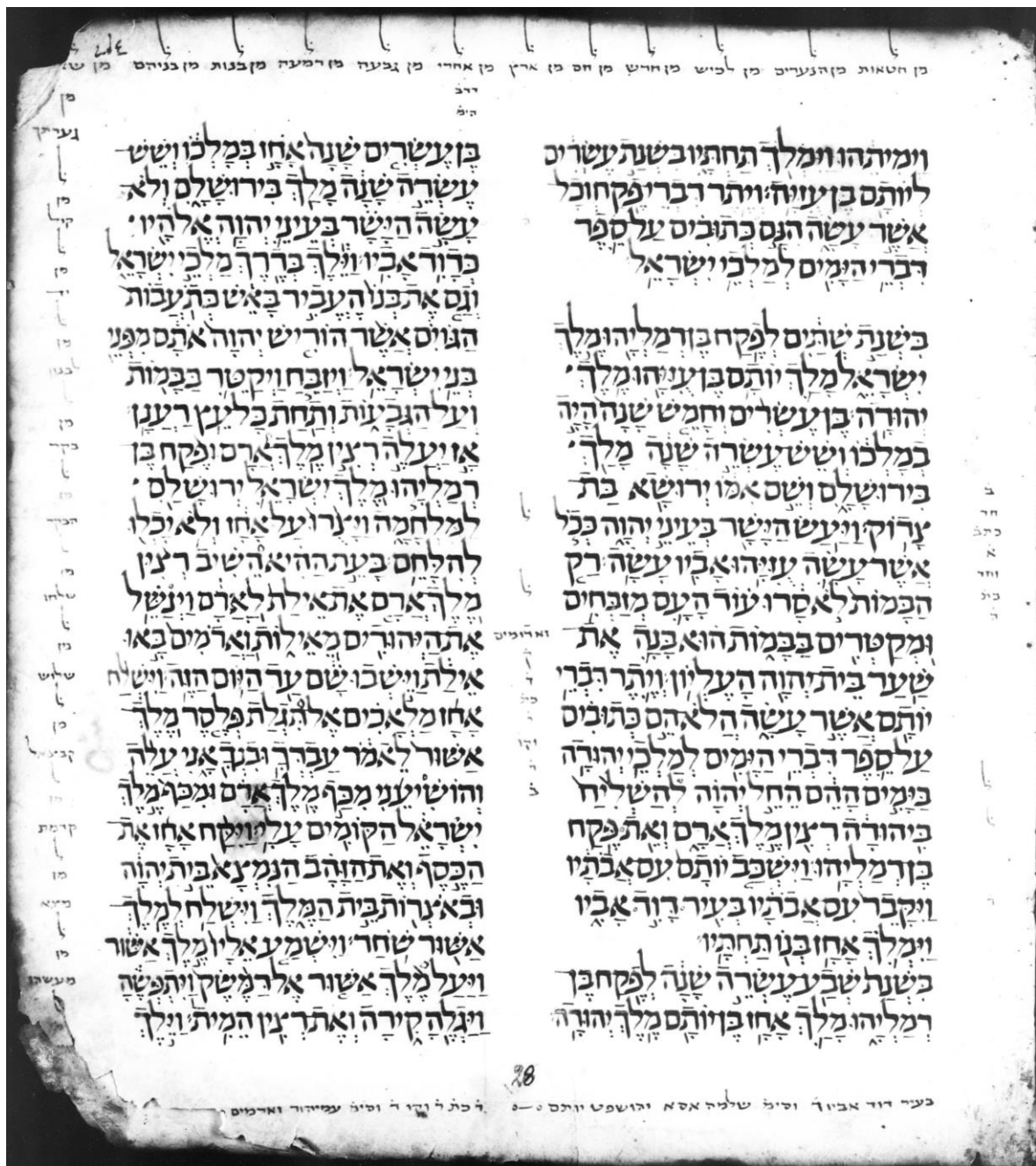


Fig. 4.2.5d. Proto-Sephardi Script (IIB90, p. 6)



Apart from the above four proto-Sephardi MSS, there are several “Oriental” MSS with paratextual features that fit best with the proto-Sephardi MSS. Because the script of these MSS tilts “Oriental”, however, they are not pictured in the present section. Most notably, these MSS include IIB41 + and IIB86 + ; several other MSS

that appear to be N. African MSS are mentioned, where appropriate, throughout the thesis (see esp. §6.5.3.; 6.6.2.).

4.2.6. Italian Script

Italian scripts are difficult to describe, in part because Jewish scribes from many different zones passed through Italy; Italian MSS, consequently, do not coalesce around a single script type to the extent that occurred elsewhere. Many different styles are evident.⁶⁴ We can sidestep these matters, however, because there are only two MSS of the present corpus that be linked to Italy. The first is unambiguously European, and suggested by Engel as having been written in Italy.⁶⁵ The second MS is placed here due to its visual similarity with the former. These two MSS cannot be compared vis-à-vis the Mp strings because the former (R3) contains the Former Prophets and the latter (IIB1011) contains the Torah. However, there are some indicators that link these MSS apart from their similarity of appearance. For example, both use ראשי to mark ‘head of verse’ (§6.5.2.), both cite בקריאה ‘in the Bible’ frequently (§6.5.5.2.), and both are far removed from the centre of the Tiberian Masoretic tradition (§6.3.). Both likewise contain original catchwords, and both, atypically for European MSS, are quired using the quinion structure instead of the expected quaternion.⁶⁶

⁶⁴ Engel, “Script, History of Development”, *EHLL*.

⁶⁵ *Ibid.*, Figure 21.

⁶⁶ For expected quiring practices, see Beit-Arié, *Hebrew Codicology*, p. 304.

Fig. 4.2.6a. Italian Script (Reuchlin 3, f. 3r)



Fig. 4.2.6b. Italian Script (IIB1011, p. 16)

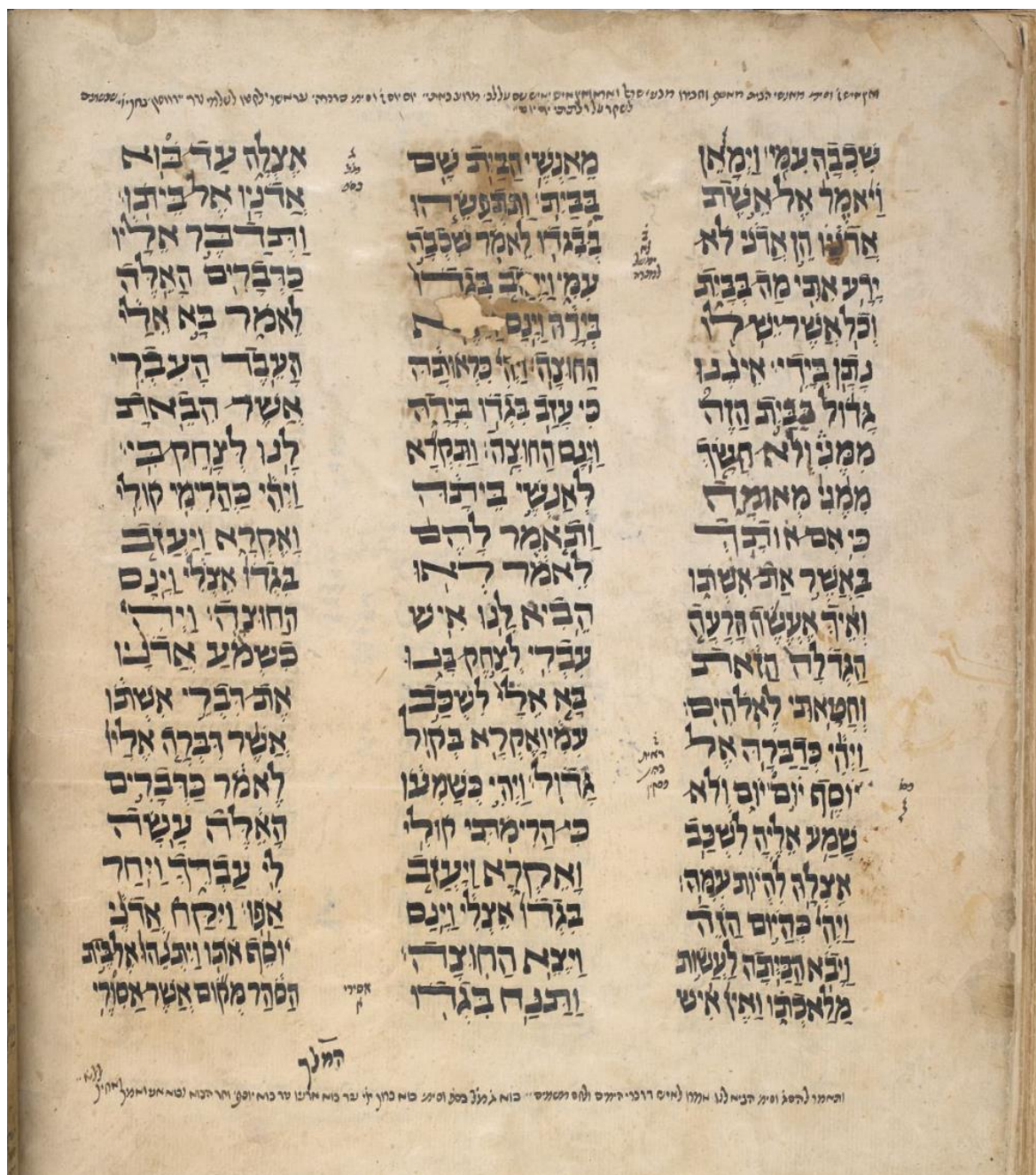


4.2.7. Yemenite Script

The single example of a Yemenite script in the corpus is from the 16th century, occurring in some replacement leaves of a much older codex (B). The motive for inclusion in the corpus was to ensure that the Masorah of the Yemenite leaves had

not somehow been copied from the Masorah of the leaves that it replaced (they were not).

Fig. 4.2.7a. Yemenite Script (B2, f. 28v)



4.2.8. "Oriental" Script

The remaining MSS of the corpus, i.e., those *not* assigned to one of the previous seven categories are placed here for lack of a better category. This is signified

through the consistent use of double quotes (i.e., “Oriental” = MSS of the present section) vs. the term without double quotes (i.e., Oriental = the Oriental zone, classically defined, see Introduction). There are additional subcategories that one could make here, but I have not taken sufficient time to untangle them. If there is a dominant characteristic (other than the generally Oriental features) it would be that the MSS are often of a somewhat lower production quality. Some MSS are explicitly owner-produced. These facts alone make categorisation more difficult; it is not always obvious what is indicative and what is merely idiosyncratic. This is not to say, of course, that the present MSS are insignificant. Some, such as S1, are among the most consulted Bible MSS by scholars today.

The present grouping contains 40 MSS. One should note that the division between the present “Oriental” script Bibles and near-Tiberian script Bibles in particular is not fully fixed. There are MSS in one category that could probably be placed in the other and vice versa. These individual cases do not affect the outcome of the present discussion.

Table 4.2.8a. Corpus examples of “Oriental” script

“Oriental” script:			
2/IIB79 +	53/IIB1270	77/IIB1275	126/IIB44 +
6/IIB33 +	54/IIB1233 +	78/IIB1180 +	127/IIB48
8/IIB97 +	56/IIB1243 +	84/IIB27 +	139/IIB159 +
17/IIB138 +	57/IIB927	85/IIB15 +	141/T-S A5.3
23/IIB18	58/IIB1160 +	87/IIB82 +	144/IIB193
26/IIB162 +	60/S1	92/IIB996 +	146/IIB999 +
43/IIB1281 +	62/IIB206 +	93/IIB1014 +	147/IIB989
45/IIB1167	65/IIB207 +	94/IIB995	150/IIB289

46/IBibl.68

69/IIB1285 +

95/IIB994 +

153/IIB1009 +

48/IIB35 +

74/IIB71 +

99/IIB991 +

“Oriental” script/proto-Sephardi script:

MS 37/IIB86 +

Fig. 4.2.8a. "Oriental" Script (Sassoon 1053, p. 49)





Fig. 4.2.8c. "Oriental" Script (IIB15, p. 12)





Fig. 4.2.8e. "Oriental" Script (IIB27, p. 64)



Fig. 4.2.8f. “Oriental” Script (IIB33, p. 20)





Fig. 4.2.8h. “Oriental” Script (IIB82, p. 44)



Fig. 4.2.8i. “Oriental” Script (IIB86, p. 11)



Fig. 4.2.8j. "Oriental" Script (IIB138, p. 97)



Fig. 4.2.8k. "Oriental" Script (IIB159, microfilm B, p. 8)



4.3. Corpus Manuscripts *not* from St. Petersburg

In the main, the majority of Masoretic research has centred on Bible codices listed in the present section, i.e., MSS *not* from St. Petersburg, and descriptions of many

may be found in Yeivin, Dukan, or Beit-Arié et al.⁶⁷ These MSS number 20, and are listed alphabetically according to their common names.

Within the bolded title of each MS, a manuscript abbreviation is included where appropriate in square brackets, e.g., for the Aleppo Codex: [= A]. Also within the bolded title is the internal MS number in the present database, given in round brackets, e.g., for the Aleppo Codex: (MS 10). It is not necessary for the reader to follow the MS numbers. They are provided merely for cross referencing, both in the composition of this thesis, and in the future should one wish to extract data from the present database.⁶⁸

As mentioned in §4.1., the MSS were checked against the dates listed by Yeivin and on Ktiv.⁶⁹ These listed dates, as well as the suggestions of the current author—where appropriate—can be found in the first full line of a manuscript's corpus description, following the bolded title. There is a specific system of bracket usage used to indicate the source of the suggested date, namely: (Beiler date), [Yeivin date], {Ktiv date}. No brackets indicate that the date, whether by common consent or by colophon mention, is considered to be unproblematic. A date preceded by an asterisk, e.g., *1009 C.E., indicates that the listed date is perhaps

⁶⁷ Yeivin, *Introduction*, pp. 16–29; idem., *המסורה למקרא*, pp. 11–28; Dukan, *La Bible hébraïque*; Beit-Arié et al., *Codices hebraicis*, 3 vols. I have attempted to avoid simply reiterating what has already been said in these fine volumes.

⁶⁸ The present database will be made available to the academic community, probably via the Apollo repository of the University of Cambridge; see <https://www.repository.cam.ac.uk/home> (accessed September 2023).

⁶⁹ Yeivin, *המסורה למקרא*, pp. 11–28; the home page for a Ktiv search is <https://www.nli.org.il/en/discover/manuscripts/hebrew-manuscripts/searchresultspage?projectName=MANUSCRIPTS&ShowAdvancedSearch=true> (English version, accessed September 2023).

not to be trusted; the use of a question mark following a date indicates a cautious suggestion. Dates supplied by others are noted in the footnotes where appropriate. Often several dates are listed. When these variations are presented in succession, they appear as follows, e.g., first the Beiler date, then the Yeivin date, then the Ktiv date: (10th century?), [*11th century], {12th century}. The preservation of multiple dates is so that the reader can be alerted to the presence of several opinions.

4.3.1. Aleppo Codex/Ben Zvi Institute, Jerusalem, Israel Ms. 1

[= A] (MS 10)

Full Bible, Tiberian script, 3 columns, 28 lines, [first half of 10th century], {930 C.E.}.

The extant parts of A are comprised of ca. 296 leaves; most of the Torah has been missing since the mid-20th century.⁷⁰ Owned by the Jewish community of Aleppo for most of its history, the codex was probably composed in Tiberias, taken to the Karaites in Jerusalem within several generations, and then ransomed from the Crusaders after the Siege of Jerusalem (Jun–Jul 1099), at which time it was moved to Cairo. Examined by Maimonides while in Cairo (ca. 1180), it eventually made its way to Aleppo,⁷¹ where it remained until modern times, being smuggled into Israel in the 1950s.

⁷⁰ Ben-Zvi, “The Codex of Ben Asher”, p. 2, estimated that the original number of leaves was about 380; Ofer, “A Fragment of the Aleppo Codex”, p. 192, has improved on these figures, showing that the true number of leaves was originally 481.

⁷¹ It is commonly believed that one of Maimonides descendants brought A to Syria ca. 1375. See, e.g., Anshel Pfeffer, “Fragment of Ancient Parchment from Bible Given to Jerusalem Scholars”, 6 November 2007, <https://web.archive.org/web/20090707031841/http://www.haaretz.com/hasen/spages/920915.html> (accessed June 2023).

Widely considered the best representation of the Tiberian school of Ben Asher, it was purportedly the personal copy of Aaron b. Asher, the last and highest regarded Masorete from the Ben Asher clan. Although the connection with Ben Asher is frequently mentioned nowadays, and the arguments for Ben Asher as the Masorete seem compelling, one should also note that the Ben Asher colophon (now lost) was not written until at least 100 years after A's composition.⁷²

The scribe of the main text is Solomon ha-Levi b. Buyā'ā, who also appears to have been the scribe of IIB17 + (see below), and it is from the colophon of IIB17 that the composition date of A is estimated.

4.3.2. British Library Or. 4445, original sections [= B] (MS 30)

Torah, near-Tiberian script, 3 columns, 20–22 lines, 10th century,⁷³ [ca. 925 C.E.], {9th century}.⁷⁴

Or. 4445 is comprised of 186 folios, some of which are secondarily inserted leaves of Yemenite provenance, written in 1539/1540 C.E. The secondary leaves are a bespoke addition; crucially, their Masorah is dissimilar to the Masorah of the older leaves of the MS, and thus cannot be regarded as having been copied from it. N.B.: in this thesis, the original leaves are referred to as B, and the Yemenite additions are referred to as B2.

⁷² Ben-Zvi, "The Codex of Ben Asher", p. 3; Ben-Zvi reproduces this and the other colophons of A in his article.

⁷³ As listed on https://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Or_4445 (accessed September 2023).

⁷⁴ The 9th-century listing is probably an entry mistake on Ktiv; the 10th century is almost certainly intended.

Now held in the British Library, B is one of the first of the early codices to which Western scholars have had consistent access. Repeatedly examined by Ginsburg in the late-19th/early-20th century, its Masorah is referenced frequently in the fourth volume of Ginsburg's massive collation of Masoretic notes.⁷⁵

Written by one Nissi b. Daniel ha-Kohen, B is long-thought to have originated in Babylonia/Persia. Ofer has recently confirmed this suspicion, its scribe apparently hailing from Shaqlāwa, a town in northeastern Iraq.⁷⁶

4.3.3. British Library Or. 4445, secondary additions [= B2] (MS 31)

See above entry.

4.3.4. British Library Or. 9880/2nd Gaster Bible⁷⁷ (MS 55)

Torah, Tiberian script, 3 columns, 23 lines, ca. 1100 C.E.,⁷⁸ [end of 10th century], {13th century}.

Highly fragmentary (ca. 37 leaves), this MS comes from the Cairo Genizah via Moses Gaster, who acquired the manuscript therefrom (via an intermediary?) in the late 19th century, and subsequently sold it to the British Library in 1924. It is possible that portions of the manuscript can be found in Genizah collections

⁷⁵ B would doubtless have been added to the previous volumes, except that it had not yet arrived in England. For Ginsburg's four-volume work, see Ginsburg, *The Massorah: Compiled from Manuscripts*, vols. 1–3 (London: 1880); idem., *The Massorah: Translated into English with Critical and Exegetical Commentary*, vol. 4 (1905).

⁷⁶ Ofer, "Acrostic Signatures in Masoretic Notes", pp. 240–241.

⁷⁷ In Gaster's own publication, *Hebrew Illuminated Bibles of the IXth and Xth Centuries*, Or. 9880 is referred to as "Codex No. 150"; see p. 13.

⁷⁸ The website of the British Library lists the date as the "last quarter of the 11th century or first quarter of the 12th century; see https://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Or_9880 (accessed September 2023).

elsewhere, although I am not familiar with any such discoveries—perhaps no one has ever taken the trouble to look.

Although from the *genizot* of Cairo,⁷⁹ it has been suggested that the provenance of Or. 9880 is an Eastern one, i.e., Babylonia/Persia.⁸⁰ The *masran* (the scribe who wrote the Masorah), unlike virtually all other early *masranim*, chose to double-dot (as opposed to single-dot or triple-dot) the Mp numerals with two, vertically aligned dots, a practice that serves to emphasize the potentially different point of origin—although, of course, this is only a minor difference and too much can be made from it.⁸¹ From the time of initial copy, prior even to the writing of the main text,⁸² the manuscript received extensive decorations, in colours and in gold, attesting to the wealth of its patron.

⁷⁹ Although it is customary to refer to the repository of MSS as a single entity, i.e., the Cairo Genizah, it has been noted that there was likely more than one *genizah*, and that, furthermore, the materials found in the Ben Ezra synagogue could easily have been brought from elsewhere, as recently as five years prior to Shechter's emptying of it; see Jefferson, "Deconstructing the Genizah", pp. 422–448.

⁸⁰ Gaster, *Hebrew Illuminated Bibles*, p. 16. Gaster's argument is based upon the design of the gold overlay and the conviction that this was a 9–10th century Bible, and thus written when Jewish wealth was more likely to be found in Babylonia than in points farther west. If, however, we apply the date commonly accepted nowadays (ca. 1100 C.E.—but note that Ktiv suggests a 13th-century date), the wealth concentration argument against Egypt loses some of its force.

⁸¹ I have observed other Genizah MSS with two vertical dots in the Mp; the number of such MSS appears to be very low, however.

⁸² Cf. Gaster, *Hebrew Illuminated Bibles*, pp. 15–16.

Fig. 4.3.4a. Vertical double dotting of Mp notes; gold medallions (Or. 9880, f. 5r)



Or. 9880 is not extant for most of the reference ranges examined in the thesis. The present analysis of the MS, therefore, is limited. From the Mp data collated thus far, however, it appears that the Mp rubric of Or. 9880 is markedly different from other Tiberian MSS—which may point towards a generally different point of origin. More work is needed to prove or disprove this impression.

There is no associated colophon.

4.3.5. Cairo Codex/Gottheil 34/Karaite Synagogue of Cairo, Cairo, Egypt

Ms. 34 [= C] (MS 80)

Former and Latter Prophets, Jerusalemite script, 3 columns, 23 lines, *896 C.E., [11th century], {10th century}.

C, one of the most elaborate MSS of the corpus, is comprised of 308 leaves. The biblical text is wholly extant, although perhaps a carpet page was stolen, and an expected purchase colophon is also missing.⁸³ Owned by the Karaites of Cairo, the

⁸³ For the stolen carpet page, see Epstein, “The Mystery of the Cairo Codex”, available at <https://www.thefreelibrary.com/The+the+mystery+of+the+Cairo+codex%3A+on+the+trail+of+a>

current location of the codex is something of an open secret (officially indeterminate, but few doubt that it is currently in Israel).⁸⁴

The page numbering system is confusing. Appearing in pencil, leaves are marked 1 (= recto) or 2 (= verso) alongside the page number, both of which appear on the right side of each page. Due to the r/v marking, it is easy to assume, as some scholars have, that the numbering is by folio rather than by page. Such is *not* the case, however.

The MS is a *heqdes*,⁸⁵ dedicated to the Karaites of Jerusalem by Ya‘beš b. Solomon. It is commonly held that C was ransomed out of Jerusalem from the Crusaders (ca. 1105), similar to what occurred with the Aleppo Codex several years prior. (It is also possible that the *heqdes* is a misleading bit of biography and the codex never left Egypt until the modern period.)⁸⁶

There are several additional matters of debate about this codex, the primary ones being date of composition, Masorete, and place of writing. Although the colophon unambiguously specifies all three (Moses b. Asher, 895/6 C.E., Tiberias),

[n + ancient + manuscript.-a0442453992](#) (accessed May 2023). For the missing purchase colophon, note that the Former Prophets are bought by one Bābšād (1v); there is no corresponding purchase colophon for the Latter Prophets, which seems odd (cf. the two colophons of IIB55+, each with their own colophon, below).

⁸⁴ The journalist J. Zel Lurie “Mysteries of the Cairo Codex: Part II”, <https://zlurie.tumblr.com/post/24543319736/mysteries-of-the-cairo-codex-part-ii>, 6 June 2012 (accessed June 2023), states that the Cairo Codex is kept in a locked and air-condition room at Hebrew University, and that the University has agreed to officially disavow possession as part of an agreement made with its Karaite owners. What Lurie says is far more than those in any official capacity state, naturally, and of course, there is no way to prove or disprove Lurie’s remarks.

⁸⁵ For a description of *heqdes*, see §4.8.2.

⁸⁶ See Outhwaite, “The Reliability of the Colophons of the Cairo Codex”, forthcoming. For the suggestion that C was ransomed ca. 1105 C.E., see Kahle, *Masoreten des Westens*, vol. 1, p. 10.

this colophon has been called into question,⁸⁷ and there is even a carbon-14 test that appears to indicate an 11th-century composition.⁸⁸ Similarly, Yeivin has shown that C's adherence to the Ben Asher system, vis-à-vis *Kitāb al-Khilaf* (= *Sefer ha-Hilufim* 'The Book of Differences') is lower than most other leading codices.⁸⁹

The present analysis appears to support the majority academic opinion that the Ben Asher colophon of C is unlikely to be trustworthy. Namely, the Mp rubric of C is at some distance from A and codices like it (see §6.4.2.).

4.3.6. CUL T-S A4.13 (MS 140)

Torah, near-Tiberian script, 3 columns, 23 lines, (ca. 1100 C.E.), [no mention], {not found}.

T-S A4.13 is comprised of three leaves, and contains Num 35.34–Deu 2.8; 31.14–32.11. There are some marginal corrections in an inferior hand. Otherwise, the MS, although tattered, appears to have once been a carefully executed copy of the Torah. There is plentiful Mm and Mp.

4.3.7. CUL T-S A5.3 (MS 141)

Torah, "Oriental" script, 3 columns(?), 24 lines, [no mention], {not found}.

T-S A5.3 is comprised of a single leaf, poorly preserved, that contains Deu 32.2–33.3. There are only two columns, but this may be attributable to the poetic layout of the Song of Moses found upon the leaf.

⁸⁷ See, e.g., Penkower, "(כ"י פירקוביץ' ב 188) אשר", pp. 355–370; Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 1, pp. 28–29; Sirat, *Hebrew Manuscripts of the Middle Ages*, pp. 42–43.

⁸⁸ The carbon 14 dating is based upon a fragment of the manuscript recovered via floor sweeping in the 1980's, but not analysed until the 1990's (Malachi Beit-Arié, personal correspondence, 16 June 2022).

⁸⁹ Yeivin, המסורה למקרא, pp. 13–19.

4.3.8. CUL T-S A5.10 (MS 142)

Torah, near-Tiberian script, 3 columns, 25 lines, (ca. 1100 C.E.), [no mention], {not found}.

T-S A5.10 is comprised of two leaves, containing Deu 27.25–28.39; 30.12–31.23. There is full Mm and Mp—in many regards a model Bible. The present MS, somewhat atypically for codices of this script type, uses the large, marginal letter to indicate *qere/ketiv*.⁹⁰ The few, extant Mp notes have severely restricted the analysis that can be done on this MS.

4.3.9. CUL T-S A5.17 (MS 143)

Torah, near-Tiberian script, 3 columns, 25 lines, [no mention], {not found}.

T-S A5.17 is comprised of four leaves, containing Deu 12.25–14.10; 24.8–26.6; 29.8–30.12; 32.24–33.4. The columns are exceptionally wide for a three-column codex. This fact coupled with the large number of lines (25) would permit the MS to have contained the full Bible without too much difficulty. There is full Mm and Mp. This MS, although similar to T-S A5.10 (above), cannot be part of it; the reference ranges miss by several words (at Deu 30.12).

4.3.10. Gottheil 6/University of Toronto Library, Ms. FR 9-005 [= G6] (MS 98)

Torah, near-Tiberian/“Oriental”/Sephardi script(s), 3 columns, 18 lines/21 lines, (late 12th century?), [no mention], {n.d.}.

The MS is comprised of 534 leaves from three hands and contains Gottheil 5 and 6 combined into a single codex of the Torah.⁹¹ This larger MS is currently bound

⁹⁰ See Beiler, “The Marginal *nun/zayin*”, pp. 75–113.

⁹¹ This appears to be the reason why the classmark is listed as “FR 9-005” instead of FR 9-006.

into two volumes, not separated between Gottheil 5 and 6, but merely at the approximate mid-point of the extant leaves.⁹² The combining of Gottheil 5 and 6 into one Bible happened prior to Gottheil's examination of it in 1905.⁹³ The primary hand (G6) is comprised of near-Tiberian script with full Masorah. This hand covers most of Gen–Num 14.41. The second hand (Gottheil 5) is Sephardi, and covers most of Num 15.26–end. The codices were combined at some point, and additional leaves were added as necessary to bridge the text ranges between the two sets of leaves. The bridging attempts are particularly evident as the joining scribe, being required to conclude the text at a certain point, resorted to drawing the text down into a funnel shape so as not fit too many words onto a page. The presence of this “joining” hand was not distinguished by Richard Gottheil, although he does comment upon the funnel shapes. Only the near-Tiberian script section is examined in the present thesis.

According to Gottheil, the MS came from the “Egyptian Synagogue” in Cairo, i.e., not from the Karaite synagogue. G6 was compared against the IIB MSS, but no matches were found. G6 contains some Babylonian Masoretic terminology; there is full Masorah.

There is no colophon for G6. The Mp notes show marked difference from many corpus MSS; their independence suggests that G6 was unlikely to have been

⁹² The present division of G5/G6 into two volumes—important to note to avoid pagination confusion—is not clear in the literature. Of all the lengthier MSS examined in the thesis, G6 is the only MS I was fortunate enough to examine *in situ* (Toronto, Thomas Fisher Rare Book Library, November 2022).

⁹³ Cf. Gottheil, “Some Hebrew Manuscripts in Cairo”, p. 620.

composed in Egypt (§6.3.)—or, perhaps the MS is not as early as has been assumed.

Olszowy-Schlanger has tentatively suggested that the MS may be N. African.⁹⁴

The Sephardi section appears to be early (e.g., no letter elongation for left justification). This section contains a colophon, written by Mešulem b. Ṭadrūs in Girona (the northeastern-most province of Catalonia) in 1189 C.E., confirming the early date and provenance for the non-G6 section of the MS.

As of 2 September 2023, a microfilm of the entire MS was made available on Ktiv.

4.3.11. Gottheil 18/Cairo Codex C3/Karaite Synagogue of Cairo, Cairo

Egypt Ms. 18 [= G18; elsewhere C3/Q3/3p] (MS 160)

Torah, Jerusalemite script, 3 columns, 12 lines, [ca. 1000 C.E.], {10th century?}.

G18 is comprised of ca. 580 leaves, an unusually large number for a Torah, but necessary due to the wide strokes and large letters of the main text. It is an elaborately ornamented codex, with splendid illuminations and micrography that attest to the wealth of its patron.

By the early part of the 11th century G18 was in the possession of the prominent Karaite Ibn Bakhtawī, whose ‘House of Knowledge’ (*dār al-‘ilm*) in Jerusalem was famed for the study of the Bible (fl. late 10th century–middle/late 11th century).⁹⁵ There, G18 was corrected by Mishael b. Uzziel, who, according to a colophon signed by Ben Uzziel himself, brought the codex very nearly in line with the Ben Asher tradition, as also recorded in Ben Uzziel’s own Masoretic treatise, *Kitāb al-Khilaf*. Apart from the general corrections, in a handful of places Ben Uzziel

⁹⁴ Olszowy-Schlanger, personal correspondence, September 2023.

⁹⁵ Mann, *Texts and Studies*, vol. 2, pp. 33–34.

notes his work with $\overline{\text{אמ}}$ (אמר מישאל) ‘according to Mishael’, marking the abbreviation by drawing a solid line above the two letters.⁹⁶ Although Ben Uzziel refers to himself in the third person, this abbreviation is taken to mean that Ben Uzziel did the corrections himself, i.e., ‘I, Mishael, think’, *not*, e.g., ‘Mishael said [and I as a secondary *masran* am following his opinion]’.

At some point (probably during the 1st Crusade), the MS came to Cairo where it was in the possession of the Karaites until the modern period. Its present location, like that of C, remains undisclosed—although G18 has almost certainly been transferred to Israel in the past several decades. A microfilm of the MS exists, viewable only on the premises of the National Library of Israel.

Apart from the corrector’s note of Mishael b. Uzziel, there are two dedicatory colophons, the authenticity of which has been questioned recently by Outhwaite.⁹⁷ These colophons aver, in essence, that the MS is a *heqdes*, dedicated to the Karaites. The first dedicator is Nissī b. Faḍlān al-Karajī, who places the codex in the guardianship of Sahl b. Ṣulḥ in Jerusalem; the second is Bundār b. Nasā’ b. Faḍlān [al-]Karajī. It appears that the latter owner is to be understood as the son of the former—but, as already noted, there are problems with accepting these colophons at face value. Dedicatory details aside, the fact that the MS was in Jerusalem, corrected by Mishael b. Uzziel, a Karaite, in the early 11th century, seems incontrovertible.

⁹⁶ For the full catalogue of these descriptions and where they can be found in the codex, see Penkower, “כתב־יד ירושלמי של התורה מן המאה העשירית שהגיהו מישאל בן עוזיאל (כתב־יד ק3)”, pp. 49–74.

⁹⁷ Outhwaite, “The Curious Case of the Corresponding Colophons in Cairo Codex 3”, pp. 392–417.

4.3.12. Gottheil 27/Lm of the Former Prophets/Karaite Synagogue of Cairo, Cairo, Egypt Ms. 27 [= G27; elsewhere C2/Q2/27] (MS 161)

Former Prophets, Tiberian script, 3 columns, 19 lines, early 11th century, {10–11th century?}.

G27 is comprised of ca. 210 leaves. Written by Samuel b. Jacob (no date),⁹⁸ G27 remained in the care of the Karaites in Cairo until the modern period, at which time it came into the possession of Manfred Lehmann, a Judaica collector in New York. Its precise whereabouts today are unknown, the probable cause of which is a confluence of inheritance disagreements and the means by which it was acquired by said collector.⁹⁹ At present, the family does not admit that it is in their possession.¹⁰⁰ A microfilm exists, viewable only on the premises of the National Library of Israel.

4.3.13. Michigan Pentateuch/University of Michigan Library, Ann Arbor, MI, USA Mich. Ms. 88 [= M88] (MS 70)

Torah, near-Tiberian script, 2 columns, 21 lines, [ca. 1050 C.E.], {10–11th century}.

M88 is comprised of 150 leaves, many in good condition. One of a select few early Hebrew Bible MSS in the United States, this two-column codex was acquired

⁹⁸ No one doubts that Samuel b. Jacob is the scribe, although the colophon is no longer extant (see the handwritten front paper included with digitized microfilm on Ktiv). For the colophon we are reliant upon the transcription of Gottheil, “Some Hebrew Manuscripts in Cairo”, pp. 636–637.

⁹⁹ The person(s) from whom Lehmann acquired this and Gottheil 14 almost certainly was/were not authorised to sell them. In effect, the MSS were stolen. See Al-Qudsi, “A History of Two of Ben Asher’s Codices”, p. 3. Al-Qudsi appears to suggest that Mr. Greville Janner (d. 2015), president of the Board of Deputies of British Jews, had something to do with the manuscripts’ disappearance. It is perhaps relevant that at the time when Al-Qudsi’s article was published (2004), Janner was under investigation for child sexual abuse, viz., the mention of Janner at this juncture may have been a rhetorical flourish meant to signal general untrustworthiness in the absence of solid proof.

¹⁰⁰ Email correspondence, 9 July 2020.

for five pounds by the University of Michigan in 1922. The MS was judged to be mid-10th century by Birnbaum in 1967,¹⁰¹ and mid-11th century by Yeivin a dozen or so year later.¹⁰²

There is full Masorah, including numerous cumulative Mm lists and some micrography. There are catchwords on every leaf; these do not appear to be original, however. Some scribal similarities with the Tbilisi Torah (described below), as well as the fact that it was acquired from the energetic seller of antiquities, Ibrahim Elias Géjou, who sourced significant portions of his artifacts from his home country of Iraq (i.e., from within the Ottoman Empire), would seem to indicate an Eastern provenance as opposed to an Egyptian or N. African one. However, there are a number of Masoretic and paratextual features in M88 that find their best match with MSS of N. Africa—and so, M88's provenance remains an open question.

Manuscript images, in full colour, are readily available.¹⁰³ There is no associated colophon.

4.3.14. Sassoon 507/Damascus Keter/ NLI, Jerusalem, Israel Ms. Heb.

24°5702 [= S] (MS 40)

Torah, near-Tiberian script, 3 columns, 20 lines, [10th century], {10th century}.

S is comprised of 230 leaves and is in relatively good condition, excepting the upper margin where most of the Mm was trimmed away. The bottom margin is intact. There is ample Mp; frequently even the Mp contains long notes. Nonetheless,

¹⁰¹ Birnbaum, "The Michigan Codex", p. 383.

¹⁰² Yeivin, *Introduction*, p. 28.

¹⁰³ See <https://babel.hathitrust.org/cgi/pt?id=mdp.39015094354761&view=thumb&seq=1> (accessed June 2023).

there are a considerable number of Mp entry errors, i.e., the *masran* appears to have been more of a copyist than a Masorete of rank. Somewhat idiosyncratically, for ‘15x’ S generally records הִ rather than the expected הִי. As regards the vocalisation, orthography, and accents, however, it has been claimed that S is second only to the Aleppo Codex in accuracy.¹⁰⁴

Yeivin considers S to be an MS with mixed accent traditions.¹⁰⁵ In much the same way, its Masorah is difficult to localise. There are significant similarities between S and MSS from N. Africa (see, e.g., §6.5.3.). At the same time, the Tiberian script MS with which S shares the most features and Mp notes appears to be IIB17 +, whose main text was probably written by the scribe of the Aleppo Codex. S also contains a significant amount of Babylonian terminology (see §6.5.5.),¹⁰⁶ and is one of the few non-Jerusalemite script MSS to employ the “reverse commas” when marking *petuḥa* at the head or foot of a column.¹⁰⁷ In short, there is a little bit of everything in S, which may be taken as confirmation of its antiquity.

Owned by the Jewish community in Damascus for a significant portion of its history, S was sold to private collector David Sassoon only days before the Ottoman Empire entered World War 1 (October 1914), a circumstance that delayed the transfer of the codex to London until 1919.¹⁰⁸ In 1975 the MS was acquired by the Jewish National and University Library (now NLI), where it is kept today.

¹⁰⁴ Shashar, “כתב־יד ירושלים”, p. xi.

¹⁰⁵ Yeivin, המסורה למקרא, p. 18.

¹⁰⁶ As also noted by Shashar, “כתב־יד ירושלים”, pp. 229ff, 238, 254, 271, etc.

¹⁰⁷ For examples, see §4.2.3.; cf. Beiler, “Is There a Scribal School to Which the Cairo Codex Belongs?”, forthcoming.

¹⁰⁸ Sassoon, אהל דוד, vol. 1, p. xi.

The original place of writing is unknown, although Beit-Arié has suggested either Palestine or Egypt,¹⁰⁹ and pointed out that a later Sephardi hand retraced some of the letters.¹¹⁰ A difficulty of placement is that S has few codices against which it can be compared from a purely visual perspective.¹¹¹ One possibility is Vat.ebr.448 (see below) that probably originated in North Africa.¹¹² This N. African designation for S seems as good a guess as any, particularly due to the repeated similarities of S with what appear to be N. African MSS.¹¹³

The only biographical information for S is found at the end of Deuteronomy where an unknown writer records a memorial to his wife, one Šulamit bat Caleb ha-Rofe (the doctor); the note is dated to the 18th(?) of Kislev, 4943 A.M. (= 15 November 1182 C.E.).

4.3.15. Sassoon 1053 [= S1] (MS 60)

Full Bible, “Oriental” script, 3 columns, 28/29 lines, mid-10th century/ca. 1200 C.E., [10th century], {10th century}.

S1 is comprised of 396 leaves, with full Masorah. The outer margins are in poor condition; frequently the Mm and Mp located there are illegible and/or have been trimmed off. Digital images of the highest quality have been made available on

¹⁰⁹ Beit-Arié, *The Damascus Pentateuch*, p. 10.

¹¹⁰ Beit-Arié, *The Makings of the Medieval Hebrew Book*, p. 118.

¹¹¹ As also noted by Beit-Arié, *The Damascus Pentateuch*, p. 8.

¹¹² Reasons include similarity of script, sporadic use of marginal *nun/zayin*, and design of *seder* marker, although these similarities should be taken as highly provisional without further research. For a similar script in the IIB collection, see also IIB1169 (below).

¹¹³ Pace Beit-Arié, *The Damascus Pentateuch*, p. 10, who does not think a N. African affiliation is warranted, largely due to issues of quiring (quinion instead of quaternion) and ruling. When the many similarities with N. African MSS noted in this thesis are taken into considerations, however, there are sufficient grounds to reconsider Beit-Arié’s suggestion.

Ktiv in the past year, which have greatly improved the study of what remains.¹¹⁴ A critical edition of the Mm of the MS is forthcoming.¹¹⁵

There were at least two *masranim* that wrote the Masorah of S1. The former wrote his notes in the mid-10th century and the latter wrote his notes ca. 1200 C.E. The latter *masran* not only added Masorah, he erased a portion of the former *masran*'s notes, the extent to which has been realized only recently thanks to the colour images and the careful work of Ofer.¹¹⁶ Early repairs were also carried out; in a few instances the main text was scraped off and replaced (cf. p. 84).

The MS has been carbon-14 dated, resulting in a confirmation of its antiquity (mid-10th century) for the original portions. The secondary portions appear to date to ca. 1200; there is also a section with a date of ca. 14th century.¹¹⁷ Neither the original text nor the later emendations suggests a provenance compatible with Tiberian and Jerusalemite script MSS.¹¹⁸ The entire MS is referred to as S1 in the thesis, despite the known presence of several *masranim*, the reason being that separating the hands is best done by someone with access to the MS itself (like Ofer).

¹¹⁴ Upload date, according to Ktiv, is 11 July 2022. The microfilms available previously on Wikipedia are badly overexposed. The present colour images can now also be accessed via a link on Wikipedia s.v. "Codex Sassoon 1053" (accessed August 2023).

¹¹⁵ The edition is being prepared by Yosef Ofer and others of Bar-Ilan University.

¹¹⁶ This was first pointed out to me by Yosef Ofer, email correspondence 30 May 2020.

¹¹⁷ The carbon-14 dating of the MS was conducted by the Swiss Federal Institute of Technology Zurich, 19 March 2018. The results were never made public, but leading material scientists and palaeographers have seen and accepted them. Six samples were taken; three are of the original section (10th century), two are of the secondary section (ca. 1200), and one is of the still later addition (ca. 14th century)—it was thought previously that the secondary inserts were all done at the same time.

¹¹⁸ For example, the left justification of both the original and secondary sections avoids the use of partial letters. Instead, incipient letters and pairs of dots are preferred.

The Mp collocations of S1 are dissimilar to those found in Tiberian MSS, e.g., A, IIB10+, IIB26+, IIB55+. ¹¹⁹ Other features also indicate a different zone of production. For example, ‘15x’ is written ט part of the time instead of the more common ה as in most Oriental MSS (§6.6.2.); the use of ריש instead of ראש ‘beginning/head’ by one of the *masranim* of S1 is also atypical in corpus MSS (§6.5.2.).

S1 was owned for a time by David Sassoon of London, and eventually acquired by the Swiss billionaire Jacqui Eli Safra towards the end of the 20th century. ¹²⁰ In the early part of 2023, it was announced that Safra would be reselling the manuscript at Sotheby’s in New York on 17 May 2023, with an estimated sale price in excess of 30 million USD. ¹²¹

Although there are no scribal colophons, several ownership and dedicatory colophons appear to attest to persons of the 11th century. First, there is a sale colophon (p. 373), written ca. 1000 C.E., where Khalaf b. Abraham, ¹²² associate of

¹¹⁹ Although the Mp data clearly show some distance from A, Ofer has observed several examples in the Masorah where S1 and A are very similar. His observations are not yet published, but see his comments in <https://www.sothebys.com/en/buy/auction/2023/codex-sassoon-the-earliest-most-complete-hebrew-bible/codex-sassoon-circa-900-land-of-israel-or-syria?locale=en> (accessed May 2023).

¹²⁰ The sale took place at Sotheby’s London, 5 December 1989. Note that the British Rail Pension Fund bought S1 from D. Sassoon (November 1978), owning the MS for about a decade before selling it to J. Safra in 1989.

¹²¹ S1 sold for \$38.1 million. It was purchased the American Friends of ANU and will be donated to the Museum of the Jewish People, Tel Aviv. See Tarmy, “An 1,100-Year-Old Hebrew Bible Sells for \$38.1 Million”, *Bloomberg*, 17 May 2023, available at <https://www.bloomberg.com/news/articles/2023-05-17/oldest-existing-hebrew-bible-codex-sassoon-sells-for-38-1-million-at-sothebys?leadSource=uverify%20wall> (accessed September 2023).

¹²² For a possible mention of Khalaf b. Abraham in the Cairo Genizah, see Oxford Ms. Heb. b.11/8, dated to early 11th century. This Khalaf b. Abraham probably lived in Greater Syria. Note: it is also

Abu Saʿīd Eli b. Ḥananya al-Ṣayarafī, sells the MS to Isaac b. Ezekiel al-ʿAṭṭār. The deed was written by Ṣedaqa b. Daniel of Jerusalem, and witnessed by Mubārak b. Wahīb [ha-]Kohen.

Second, the above purchaser, Isaac b. Ezekiel al-ʿAṭṭār, gives the MS to his two sons, Ezekiel and Maimon (p. 792). Third, the MS is dedicated, ca. 13th century, to the synagogue of Mākisīn (present-day Markada, Syria; pp. 567, 587). But even this dedication was not especially binding, the MS being entrusted to Salāmah b. Abī al-Fakhr for safekeeping during a time when the synagogue of Mākisīn was under attack (p. 792).

In sum, S1 was probably composed in greater Syria, amended there, and kept there until the 20th century.

4.3.16. Codex Reuchlinianus/Baden State Library, Karlsruhe, Germany

Ms. Cod. Reuchlin 3/Kennicott MS 154 [= R3] (MS 158)

Former and Latter Prophets with *targum*, Italian script, 2 columns, 31 lines, 1105/6 C.E., [no mention], {1106 C.E.}.

R3 is comprised of 385 leaves in relatively good condition. There is Mm and Mp, although the Masorah is somewhat sparse. R3 is the only MS examined in this thesis confirmed to have come from Europe, probably Italy,¹²³ although IIB1011, with no colophon extant, is similar (see below). The MS was for a long time in Karlsruhe, now in the collection of Badische Landesbibliothek. Its name is a tribute

possible that the Khalaf b. Abraham in question is someone different entirely, and may postdate the work of the second Masorete; Yosef Ofer, personal communication, November 2023.

¹²³ Engel, “Script, History of Development”, *EHLL*.

to the work of Johann Reuchlin, a German Catholic Hebrew scholar (d. 1522).¹²⁴

The inclusion of R3 into the present thesis is primarily one of curiosity: is the Mp note recension of R3 to be found in Oriental MSS of an only slightly earlier (or even contemporaneous) period, or is it entirely different?

Prima facie, R3 shows a number of significant differences with Oriental codices. For example, the Mp notes are unusually precise. Instead of merely marking an Mp numeral, as often occurs in Oriental codices—leaving one to wonder if the number of times in question refers to the book, the section of the Bible or the entire Bible—the Mp numerals of R3 are often followed with ‘in the book’, ‘in the Prophets’, or similar.

The vocalisation of R3 is non-standard Tiberian, and thus differs markedly from model codices such as A.¹²⁵ The consonantal text of R3, similarly, shows a great many differences from the Oriental MS examined here. Spelling differences, moreover, are not limited to the usual *plene* or defective differences; not infrequently, there are full-word substitutions (e.g., לַע in place of לֵא).

The Song of Hannah is arranged into a poetic layout like that found in the Song of the Sea and the Song of Deborah (brick over half brick), something that does not occur in Oriental MSS, where it is always written in non-poetic format. The large, marginal *nun/zayin* is used in R3, but—again contra to Oriental MSS—it

¹²⁴ For the work and influence of Johannes Reuchlin, see Leicht, “Johannes Reuchlin’s Collection of Hebrew Books”, pp. 227–242.

¹²⁵ See Sperber, *The Pre-Masoretic Bible*; Morag, “The Vocalization of Codex Reuchlinianus”; and the reoccurring mentions in Khan, *The Tiberian Pronunciation Tradition of Biblical Hebrew*.

sometimes is used for space division markings rather than solely for *qere/ketiv* (cf. f. 69v [space division usage] with f. 21r [*qere* usage]).¹²⁶

Although the Mm and Mp are rather thin, R3 nonetheless contains more instances of certain Masoretic terms than any other MS surveyed—which serves to further highlight its general independence from the Tiberian Masorah (cf. §6.5.3.). Similarly, the use of יֵאָמַר ‘there is’ is not limited to the typical *leit* (‘there is not’) formulations found in most corpus MSS. For example, regarding מֶרְאֹן ‘the town *Shimron-meron*’ (Jos 12.20) the *masran* writes יֵאָמַר ‘has *aleph*’; by contrast, a phrase with similar intent in A could be expected to read לֹא כֵּן ‘1x written with *aleph*’.¹²⁷

There are original catchwords visible at the bottom of some leaves (e.g., ff. 10v, 19v, 29v), showing that the quinion quiring method is employed.¹²⁸ Left justification is typically achieved through letter elongation.

According to the colophon (f. 382v), the MS was written by one Zerah b. Judah in 1105/6 C.E.

4.3.17. Tbilisi Torah/Korneli Kekelidze Georgian National Centre of Manuscripts, Tbilisi, Georgia Ms. Ebr. 3 [= T3] (MS 156)

Torah, near-Tiberian script, 3 columns, 21/23 lines, end of 11th/beginning of 12th century,¹²⁹ [no mention], {10–11th century}.

¹²⁶ The use of the marginal letter to indicate section divisions of dispute appears to be wholly European, at least during the first centuries of the 2nd millennium. See Penkower, “The 12th–13th Century Torah Scroll in Bologna”, esp. pp. 141–160. The practice appears to have spread in later centuries, however, reaching all the way to Yemen; e.g., BL Or. 2350, f. 154v (1408/9 C.E.).

¹²⁷ This Mp note occurs in A at 1Sa 18.29 regarding the lexeme וַיֵּאָמֶר ‘and he increased’.

¹²⁸ With quinion quiring, there are five bifolia (= 10 ff.); quinion is the common quiring of the Oriental zone; by contrast, Ashkenazi MSS have a strong preference for quaternion quiring; see Beit-Arié, *Hebrew Codicology*, p. 304.

¹²⁹ Weil and Guény, “Le manuscrit du Pentateuque de Tbilissi”, p. 186, also pp. 204–205.

The Tbilisi Torah is comprised of 172 leaves; three leaves are in Israel under classmark Ms. Heb. 4°5941, and the remainder are with the greater MS in Tbilisi, Georgia.¹³⁰ The MS is quired in quinions, excepting the first gathering, which is quaternion.¹³¹ For whatever reason, the quaternion gathering is written in 23 lines, whereas the remainder of the MS is written in 21 lines.¹³² The hands appear similar in both sections; probably the scribe is the same in each.

Taken from a synagogue in Lailashi in northern Georgia in the late 1930s, where it had been kept “for a very long time”,¹³³ T3 contains full Masorah and considerable micrography. הוא spellings of ‘she’ are marked systematically as *qere* in the margin rather than treated as *qere perpetuum*. ‘Head/beginning’ is generally spelled ריש instead of the widely used ראש. There are what appear to be transparent copyist mistakes, e.g., sometimes a given Mp string is listed as 5x (with *he*) and sometimes as 8x (with *het*) (p. 21).¹³⁴ ‘15x’ is sometimes written יה (i.e., like the first two letters of the Tetragrammaton) instead of the widely used יהי. There are some original holes in the parchment, as occasionally occurs, for example, in S1.¹³⁵

¹³⁰ Gomelaury and Ginsberg, *The Lailashi Codex*, esp. pp. 90–96.

¹³¹ Weil and Guény, “Le manuscrit du Pentateuque de Tbilissi”, pp. 181–184.

¹³² Gomelaury, *The Lailashi Codex*, p. 95. This is also noted by Weil and Guény, “Le manuscrit du Pentateuque de Tbilissi”, p. 185.

¹³³ Tschorni, *Journal de voyage dans les pays du Caucase ainsi que dans quelques autres pays de la steppe russe*, p. 146; as quoted in Weil and Guény, “Le manuscrit du Pentateuque de Tbilissi”, p. 179. The actual date of removal from the synagogue is unclear, but can only have been in the late 1930s; see Gomelaury, *The Lailashi Codex*, esp. p. 27.

¹³⁴ The Mp string in question, מְרֹאשָׁתִּי ‘his pillows’ is sometimes misunderstood in corpus MSS. While it clearly should read ‘8x’ rather than ‘5x’, instances with a clear *he* can also be found, e.g., L (1Sa 19.16), V (Gen 28.11).

¹³⁵ The presence of holes in the original parchment is a rarity in most of the highest quality Masoretic Bibles.

There is no colophon, although due to a rebinding of the MS, there are some dedicatory notes/pious wishes written in the margin of f. 95r in a later hand.

Crucially, there is a mention of כּוּתַּאִים (Kutaisi, Georgia, 65 km south of Lailashi), which serves to underline T3's longstanding Georgian heritage.

In sum, it appears that there are sufficient clues, both textual and circumstantial, to indicate that T3 is from a different zone of production (or time period) than the majority of corpus MSS.¹³⁶

4.3.18. BAV, Ms. Vat.ebr.448 [= V448] (MS 138)

Torah with *targum*, near-Tiberian script, 3 columns, 22 lines, late-11th–early-12th century,¹³⁷ [ca. 1100 C.E.],¹³⁸ {12–13th century}.

Now at the Vatican, and in Italy since at least the Late Middle Ages, this exceptionally well-preserved codex (350 leaves)¹³⁹ is Oriental, albeit with some Sephardi/N. African tendencies. Folios 1 and 2 are from an Italian MS of the 15th century; the remaining leaves are original. It has been suggested that the manuscript originated in either Spain or North Africa,¹⁴⁰ although the basis for this argument, at least for a Sephardi provenance, seems somewhat dubious; the N. African provenance appears to be as good a guess as any, however.

¹³⁶ Cf. Weil and Guény, “Le manuscrit du Pentateuque de Tbilissi”, p. 186, who think that the MS is not likely to be a 10/11th-century Egyptian product. They conclude (p. 207) that the MS is 12th century Palestinian—or from an adjacent area.

¹³⁷ See <http://bav.bodleian.ox.ac.uk/vat-ebr-448> (accessed 3 September 2023).

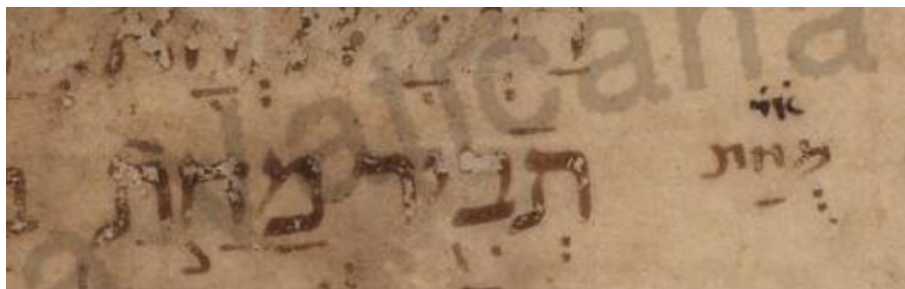
¹³⁸ See also Díez Macho, *The Pentateuch with the Masorah Parva and the Masorah Magna and with Targum Onkelos*, from the Introduction.

¹³⁹ According to Díez Macho, “Onqelos Manuscript with Babylonian Transliterated Vocalization in the Vatican Library”, p. 114, there are 349 leaves.

¹⁴⁰ See, for example, the description found on the Bodleian's website, where the MS is described as “Sephardic”, but with no justification for this claim; <http://bav.bodleian.ox.ac.uk/vat-ebr-448> (last accessed September 2023).

Secondary hands have added Mm and Mp notes in places; many of the additions are readily spotted thanks to subtle ink differences, which can be seen in the colour images made available by the Polonsky Foundation Digitization Project.¹⁴¹ Of these later additions, perhaps the most important are repeated references in the Mp to differences between אֲשֶׁר ‘Ben Asher’ and נַפְתָּלִי ‘Ben Naphtali’ that a scribe appears to have systematically entered into the MS. A poor hand in a very black ink has also gone through and marked indications for *petuḥa* and *setuma* in the margin, as well as some matters of lectionary importance. There are also some secondary notes that consist of אָמַר (אִית דְּאָמַר) ‘someone said’—i.e., there is another version (cf. the similar אֲמַר ‘according to Mishael’; see G18, IIB20+).

Fig. 4.3.18a. Example of the secondary addition of אָמַר



There is an associated colophon, albeit secondary (f. 349v), which may date to 1252 C.E. On the following page is the number 5844, which Díez Macho interprets to mean 1084 C.E.¹⁴² Both dates are dubious—at best. Even if credible, they must still be acknowledged as secondary additions.

¹⁴¹ See <http://bav.bodleian.ox.ac.uk/> (accessed June 2023).

¹⁴² See Díez Macho, “Onqelos Manuscript with Babylonian Transliterated Vocalization in the Vatican Library”, p. 114.

**4.3.19. Washington Pentateuch/Museum of the Bible, Washington, D.C.,
USA, Ms. 882 [= WP] (MS 50)**

Torah, Jerusalemite/Tiberian script(s), 3 columns, 19/21 lines, ca. 1000 C.E./1141 C.E.,¹⁴³ [no mention], {11th century}.

The Washington Pentateuch is comprised of 247 leaves; not all leaves are of the original codex. Like B, portions of the MS were replaced with later leaves; the majority of the replacement leaves were written in 1141 C.E. by the scribe Joseph b. Jacob of Alexandria (יִצְחָק בֶּן יַעֲקֹב) in a Tiberian script.¹⁴⁴ It is clear that Joseph b. Jacob's work was not initially intended to repair the original MS: the reference ranges do not match and the inserted leaves were trimmed significantly to conform to the size of the original leaves, the Mm being much diminished through the process. Both the original sections (WP) and the 1141 C.E. section (WP2) are examined separately, below.¹⁴⁵

There is a third section of leaves (ff. 2v–3v, 51r–52v, 60r/v, 160r/v, 218r/v). These leaves appear to have been a custom repair of WP (see ff. 50v and 51r, cf. f. 29r). They are not examined in the present thesis; they appear to be 11/12th century (= WP3).

Acquired by the Green Foundation in 2017 and subsequently donated to Museum of the Bible in Washington DC, WP/WP2/WP3 underwent a long history of

¹⁴³ As listed on <https://collections.museumofthebible.org/artifacts/34293-the-washington-pentateuch> (accessed September 2023).

¹⁴⁴ Joseph b. Jacob of Alexandria is known from IIC144 where he wrote, vocalised, and masoreted an entire codex of the Prophets in 1122 C.E.

¹⁴⁵ For an extended analysis of WP/WP2, see Penkower, “An Eleventh-Century Eastern Masoretic Pentateuch Codex”, pp. 152–170.

private ownership.¹⁴⁶ At some point it entered the possession of the Karaite community of Yevpatoria, Ukraine (S.W. Crimea), who gifted the MS to an Ukrainian archbishop in 1835—by which point the noted local Karaite bibliophile, Abraham Firkovich, who had not yet started to acquire his Bible MSS, had presumably seen it. WP/WP2/WP3 was acquired by a Russian theological academy in 1876, whereupon it eventually came into the possession of an Israeli rabbi. The MS was sold to David Sofer in 1990 and purchased by the present owners from Sofer in 2017.

4.3.20. Washington Pentateuch, secondary additions [= WP2] (MS 51)

See above entry.

4.4. Corpus Manuscripts from the First Firkovich Collection

Manuscripts of the present section number four. IBibl.85 was not added, as digital images of the sections of the Torah required for thesis analysis were made available only recently.¹⁴⁷

4.4.1. Leningrad Codex/NLR, St. Petersburg Russia Ms. EVR IBibl.19a [= L] (MS 20)

Full Bible, Tiberian script, 3 columns, 27 lines, [1008 C.E.], {1008/9 C.E.}.

L is comprised of 491 leaves, all well preserved, although some have been overwritten when the ink flaked off. Due to L's availability to German scholars

¹⁴⁶ Much of the information from this section was drawn from Museum of the Bible's website: <https://collections.museumofthebible.org/artifacts/34293-the-washington-pentateuch?tab=description> (accessed March 2023).

¹⁴⁷ This MS is Yeivin's L16, see Yeivin, *Introduction*, p. 26. A partial set of images existed for some time, but only recently (January 2023) was the full set uploaded. Regarding IBibl.85/L16, Yeivin remarks, "Written about 950. A beautiful and carefully produced MS." (*Introduction*, p. 26).

during the first part of the 20th century, coupled with its high-quality production, unproblematic colophon, known scribe, early date, and its (very rare) status as a complete Bible, the Leningrad Codex has become the basis for important Bible editions—and thus the primary Bible that scholars consult to this day.

It has long been known, however, that the Masorah of L does not match the quality of that found in some other early codices: namely, the consonantal text of L is sometimes at odds with its own Masorah. In addition, there are numerous issues of *plene* and defective spelling that indicate L's text is an outlier (i.e., less accurate) when compared to codices such as A, B, C, S, and S1.¹⁴⁸ In much the same way, in my own research with the IIB collection, I have found a number of examples where all codices, excepting L, were in agreement over spelling (§6.5.6.2.).

It has also been recognized, furthermore, that L has undergone various updates/corrections to its vocalisation, making it, for better or worse, something of an eclectic recension—certainly not a pristine manuscript. As it is not uncommon for codices to undergo revision, these issues are not unique to L. In a manner of speaking, however, L may have been a victim of its own success, viz., the more valuable and impressive the codex, the greater the impulse to ensure that it reflected the Masorah according to a (later) *naqdan*'s understanding of it. It is well-worth noting that the Mp of L does not appear to have been subjected to revision, permitting a comparison in the present thesis that is unaffected by issues that have plagued studies of its spelling, vocalisation, and accents.

¹⁴⁸ Breuer, *The Aleppo Codex and the Accepted Text of the Bible*, p. XII.

L was written by a single scribe, Samuel b. Jacob, who also wrote Gottheil 14, G27, and IIC1 +, and to whom are attributed L17 and IIB60 + (all of the aforementioned, except Gottheil 14, are analysed in the present thesis). Outhwaite has suggested that SbJ came from N. Africa,¹⁴⁹ but at some point he arrived in Cairo and seems to have done his principal work there. He was not a Masorete per se, but a master scribe who sometimes integrated Masoretic sources known to him.¹⁵⁰ This may account for his prolific, albeit sometimes flawed and inconsistent, output (cf. §6.5.6.).

**4.4.2. NLR, St. Petersburg Russia Ms. EVR IBibl.13 and IBibl.80 [= L17]
(MS 66)**

Former Prophets, Tiberian script, 3 columns, 17 lines, early 11th century, [ca. 975 C.E.], {11th century}.

IBibl.13/80 is comprised of ca. 182 leaves from the aforementioned two IBibl. classmarks: 13 and 80. The match has long been known.¹⁵¹ According to Firkovich, the MS was found in 1839 in the Crimean Karaite synagogue of Karasubazar (Белогóрск/Bilohirsk, Crimea). There is a colophon (IBibl.13, p. 240), but it has mostly been blacked out, perhaps by Firkovich; at the end we can read תרצח '4698 A.M. (= 938 C.E.)'. The letters of the date are awkwardly formed and should be regarded with suspicion. Recently, Phillips has proposed that the MS was

¹⁴⁹ Outhwaite, "Beyond the Leningrad Codex", p. 337.

¹⁵⁰ E.g., Ofer, "עבוד מסרני של ערכים ממחברת מנחם בידי שמואל בן יעקב", pp. 189–255.

¹⁵¹ The match was noted in Harkavy and Strack, *Catalog der hebräischen und samaritanischen Handschriften der Kaiserlichen Öffentlichen Bibliothek in St. Petersburg: Band I*, p. 103.

written by Samuel b. Jacob, the scribe of L.¹⁵² Based upon the SbJ connection, we can date the MS to the first part of the 11th century.

4.4.3. NLR, St. Petersburg Russia Ms. EVR IBibl.54 (MS 157)

Torah, near-Tiberian script, 3 columns, 25 lines, [11–12th century], {n.d.}.

IBibl.54 is comprised of ca. 60 leaves; no matches were observed. There is Mp and Mm, although the amounts of each are sparse in places. Of the Mm, about half of it is comprised of cumulative Masorah, i.e., Mm lists of words that occur once rather than Mm pertaining to the page at hand. Considerable cumulative Mm is blacked out (e.g., pp. 39, 45, 65) in a manner reminiscent of many colophons owned by Firkovich, especially in the IBibl. collection. One can only wonder why someone would go to the trouble of blacking out Masorah. Were these cumulative Mm lists than contained scribal/owner acrostics?

The MS does not have the appearance of a high-quality production, e.g., there are numerous instances where the main text was incorrectly copied, and long emendations were squeezed into as few lines as possible. There is no colophon associated.

4.4.4. NLR, St. Petersburg Russia Ms. EVR IBibl.68 (MS 46)

Full Bible, “Oriental” script, 3 columns, 40 lines, (12th century?), [no mention], {n.d.}.

IBibl.68 consists of ca. 233 leaves, 225 of parchment and the remaining eight of paper. The parchment portions appear well produced and contain full Masorah, including cumulative Masorah and some rudimentary micrography of the Mm notes;

¹⁵² Phillips, “A New Codex from the Scribe behind the Leningrad Codex: L17”, pp. 1–29.

the paper additions are unvocalised and lack Masorah. As typical with Oriental codices, the leaves are bound using a quinion structure (20 pp. = 10 ff. = 5 bifolia).

At each *seder* marker,¹⁵³ the number of verses within the *seder* are given, as typical. The scribe responsible for writing the numbers, however, added a less common flourish: a name with the numeric equivalent of the number of verses, e.g., יהללאל ק"ו השם '106 verses, with the name Yehallelel' (1Ch 4.16): יהללאל, 10 + 5 + 30 + 30 + 1 + 30 = 106.¹⁵⁴

No colophon was observed.

4.5. Corpus Manuscripts from the Second Firkovich Collection

There are 88 manuscripts in the present section. All but 15 are composite, that is, they are comprised of several classmark matches, as can be seen from the use of the plus symbol following a classmark (e.g., IIB8+). Because the classmarks for these 88 MSS all begin in exactly the same way (The National Library of Russia, St. Petersburg, Russia Ms. EVR II ...), the classmarks are not cited in full. For an overview of the St. Petersburg MSS, including the classmark system, see §4.7.

4.5.1. IIB8+ (MS 19)

Torah, near-Tiberian script, 3 columns, 20/21 lines, *1021 C.E., (early 11th century), [no mention], {1021?}.

¹⁵³ The *sedarim* divide the Bible into weekly reading sections in the Torah in a manner that takes approximately three years to complete. This is the custom of the Land of Israel. The Babylonian custom uses fewer subdivisions, resulting in an annual reading cycle; these readings are referred to as *parashot*. Note that *sedarim* also are used in the Prophets and Writings, but their use is of lesser importance. See Yeivin, *Introduction*, pp. 39–40.

¹⁵⁴ IBibl.68, p. 25. The same can be seen in T3, p. 20.

IIB8 + is comprised of 179 leaves from two IIB classmarks: 8 and 266.¹⁵⁵

There are carpet pages, Masorah *finalis*, transfer colophons, and a scribal colophon, in addition to plentiful Mm and Mp. The quiring is composed of quaternions, which is unusual for an Oriental MS; Beit-Arié has suggested that this difference indicates that the scribe of IIB8 + came from N. Africa.¹⁵⁶ In the thesis, IIB8 + was not observed to have N. African paratextual features, however.

The scribal colophon (IIB8, p. 386) reads אני משה הסופר בר ענן המלמד מארץ מערב נוחו גן עדן כתבתי ונקדתי ומסרתי זאת התורה בשנת ארבעת אלפים ... מאות ועשר שנים ושנה אחת 'I, Moses the scribe b. 'Anan ha-Melamed from the Land of the West, may his rest be Eden, wrote, vocalised, and masoreted this Torah in the year 4<?>11.' Beit-Arié et al. (and later Dukan) have suggested that 'Moses' was written over the name of the actual scribe Zechariah, who wrote a codex of the Writings in 1028 C.E.¹⁵⁷ The presence of this sister codex does lend some credibility to the substitution theory for the name in the colophon of IIB8 +, and allows for an approximate date of early 11th century.

There are also several purchase colophons (IIB8, pp. 5, 386). We learn that at one point the codex was given as a *heqdesh*. In another hand, the ownership transfer is registered with the *Beit Din* in Jerusalem. In conclusion, although particulars are elusive, IIB8 + seems to be an 11th-century codex either from Jerusalem or Egypt,

¹⁵⁵ The similarity of these two classmarks is also noted in Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 2, p. 27.

¹⁵⁶ Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 2, pp. 20, 22.

¹⁵⁷ Ibid., *Codices hebraicis*, vol. 2, p. 22; Dukan, *La Bible hébraïque*, p. 250. The MS written in 1028 C.E. is Gottheil 13. See Gottheil, "Some Hebrew Manuscripts", pp. 627–629; Meital, "A Thousand-Year-Old Biblical Manuscript Rediscovered in Cairo", pp. 194–219.

that eventually—like many early codices—found its way into the possession of a synagogue where it remained for many years thereafter.

4.5.2. IIB10 + [IIB10 = L3] (MS 137)

Torah, Tiberian script, 3 columns, 21 lines, (10/11th century), [prior to 946 C.E.], {10th century}.

IIB10 + is comprised of ca. 247 leaves from two IIB classmarks: 10 and 262. The script is professional and regular, and the MS is in surprisingly good condition. There are carpet pages and Masorah *finalis*, along with plentiful Mm and Mp.

There are a number of colophons, and it is difficult to make sense of all of them. The most reliable are the ornate and unimpeachable ownership colophons (IIB262, pp. 4, 6) indicating that the owner was Mevorakh b. Šedaqa b. Jonah b. Selah (שלה).

The MS is a *heqdes*—twice. The most obvious of these dedications is marked on every fourth or fifth leaf throughout the length of the MS (ca. 40x): קדש ליי אלהי ישראל ארור מוכרו וארור קונהו וארור מוציאו מהכנסת אלא בצורך ‘Holy to the Lord God of Israel. Cursed is he who buys it, sells it, or brings it out of the synagogue except in (time of) necessity’. The phrase is formulaic, excepting for the final clause ‘except in (time of) necessity’, which can be understood as a reference to uncertainties such as war, and the understandable concern that the codex would be protected from damage.¹⁵⁸ The same message occurs on an end leaf (IIB262, p. 7), complete with

¹⁵⁸ The exception clause is in the same hand as the remaining note and clearly intended from the outset of its writing. It is not likely to have been an insertion of a person looking for an excuse to remove the MS from its former location, and thus there is no cause to suspect Firkovich et al. here. The expression can also be found in later (i.e., post-13th century) colophons (e.g., IIB157, p. 29 [n.d.]; IIArab.933, p. 5 [1491 C.E.]).

the final exception clause, telling us that the dedicator is one Sitt al-Khayr bat Sa'adyahu b. Mevorakh, whose family is known as בני בגדודה(?);¹⁵⁹ the dedicatee is the Karaite synagogue in Cairo.¹⁶⁰

The second *heqdes* is written across the page in a manner similar to the above dedication, but in a different hand (IIB10, microfilm B, pp. 446–453). This *heqdes* appears to have been written with the former *heqdes* already on the page, the current scribe altering the placement of his dedication so that the phrase לִי אֱלֹהֵי יִשְׂרָאֵל 'to the Lord God of Israel' in one iteration of the former dedication could be retraced with a broader pen and repurposed into the present one (IIB10, microfilm B, p. 447). This secondary *heqdes* indicates that the dedicator is Abraham at-Tustarī b. Yašar b. Ḥesed, and the dedicatee is the Karaite synagogue in צֶעַן (Zoan, a biblicalism for Fustāṭ, see Num 13.22). The year of the dedication is 778 since the destruction of the Temple (ca. 846 C.E.).¹⁶¹ Abraham at-Tustarī is also well attested

¹⁵⁹ Dukan, *Le Bible hébraïque*, p. 352, reads בני בגדודה, but this cannot be correct. The letters are clearly בג, then ר/ד, then ו, and then finally ר/ד: *בגדודה.

¹⁶⁰ Sa'adya b. Mevorakh (Abū 'l-Faḍl Mevorakh b. Sa'adya) is the father of the ambitious Mevorakh b. Sa'adya (fl. ca. 1040–1111), Head of the Jews and consolidator of power, particularly after his return to the office in 1094 C.E. It is possible that the present Sitt al-Khayr is Mevorakh's sister, although the names of the third and fourth patronyms conflict with the family tree of the Mevorakh clan (Cohen, *Jewish Self Government*, p. 155). Also, I am unaware that the family name *בגדודה is associated with this clan. See, Rustow, "Mevorakh ben Sa'adya", *EJIW*; Cohen, *Jewish Self-Government in Medieval Egypt*, esp. chapters 4 and 6.

¹⁶¹ Found across IIB10, microfilm B, pp. 446–453, several words to a page: זֶה הַסֵּפֶר קִדֵּשׁ לִי אֱלֹהֵי יִשְׂרָאֵל: הַקִּדִּישׁ אוֹתוֹ הַשֵּׁר הַגָּדוֹל מִרְנוֹ וּרְבִנוֹ כִּגְלָה אֲבִרָהֶם אֶלְתִּסְתָּרִי בֶן כִּגְלָה מֶרְ וּרְבִי יִשָּׁר בֶּן חֲסֵד נִזְכָּר בְּנֵי מִקְרָא בְּצֶעַן מִצְרַיִם בְּיוֹם ו' טו' לַחֲדָשׁ זִיז כ"ה לַסְפִּירָה שְׁנַת תְּשַׁעֲפָה לַחֲרָבָן שְׁנֵי וְהוּא קִדֵּשׁ לִי אֱלֹהֵי יִשְׂרָאֵל לֹא יִמְכֹּר וְלֹא יִגָּאֵל §6.6.2.

in the Genizah; notably, he and his wealthy brother Ḥesed were killed for what appear to have been political reasons.¹⁶²

There are several problems with this *heqdes*, particularly as the codex, according to the previous *heqdes*, was already the property of the Karaites. Why dedicate it to them twice? Second, the date: 846 C.E. is suspiciously early. Kahle stated that the *shin* of the date was written over an original *tav* (ת"ש instead of ת"ת), moving the date to 946 C.E.¹⁶³ There are no traces of the purported emendation evident in the current images, however. Third, Abraham at-Tustarī (d. 1047) could not have gifted a Bible codex even in 946, 102 years before his untimely death—and previous generations of the at-Tustarīs were not named Abraham. Fourth, according to the colophon Abraham's grandfather's name was Ḥesed, while we know from the Genizah that his actual name was Israel.¹⁶⁴

There is also a badly damaged colophon (IIB10, microfilm B, p. 487), in what appears to be the hand of the secondary *heqdes*; it can be read with the help of Baer and Strack's transcription.¹⁶⁵ According to this colophon, the *masran* of the MS is the Masorete Asher the Elder (the great, great, great grandfather of Aaron b.

¹⁶² Abraham was killed on 25 October 1047; Ḥesed was killed approximately two years later. See Gil, *A History of Palestine*, p. 857. See also CUL T-S 13 J31.8; Rustow, "Tustarī Family", *EJIW*.

¹⁶³ Kahle, *Masoreten Des Westens*, vol. 1, pp. 60–64.

¹⁶⁴ See CUL T-S 16.50; Rustow, "Tustarī Family", *EJIW*. Beit-Arié, likewise, does not accept this colophon, see Beit-Arié, *The Makings of the Medieval Hebrew Codex*, p. 125 (MS g.).

¹⁶⁵ Baer and Strack, *Die Dikduke Ha-Teamim*, p. XXXIV: זה ספר תורת יהוה תמימה עם מסורת אבי מר ורב אשר המלמד הסופר הזקן הגדול ננ מכרתי אני נחמיה בנו לכנן השר הגדול מר ורב אברהם אלתסתר משנה למלך במצרים ומכרתי לידו ביום ראשון יד לראש חדשים ערב חג הפסח שנת תשכ"א לחרבן בית קדשנו יבנה בימינו אמן יזכה להגות בו הוא וזרעו וזרע וזרע ויקוים עליו הכ לא ימוש מפיד ומפי זרעך וג אמן.

Moses b. Asher),¹⁶⁶ sold by Asher the Elder's son Nehemiah in the year 789 C.E. (תשכ"א לחרבן בית קדשנו) to Abraham at-Tustarī. Baer and Strack suggest that this date is also 100 years too early—thus ca. 889 C.E. Whether or not Baer and Strack are correct is difficult to say from the present image, although it does appear that some sort of date emendation occurred. Kahle solves the problem by suggesting that the entire sale colophon from Nehemiah b. Asher to Abraham at-Tustarī was forged by Firkovich, who apparently mixed up the dates for the various generations of the Ben Asher clan, but corrected his mistake through some careful but still detectable emendation once he realized that his date landed in the wrong century.

Kahle continued to believe, however, that the dedicatory note of Abraham at-Tustarī, after adjusting for the 100-year emendation, was genuine—i.e., the codex was dedicated in 946 C.E. and therefore probably written in the decades prior. But, in light of the join with IIB262 and its impressive title pages, Kahle is probably wrong. It is more plausible to assume that the secondary dedicatory note was also written by Firkovich (i.e., it has the same hand as the at-Tustarī colophon; it is written in such a way that its secondary status is made evident; it is of a date that is much too early for a proper Abraham at-Tustarī mention).

In sum, we cannot say when IIB10+ was written. If we could establish who Mevorakh b. Šedaqa, ensconced in his impressive title pages as owner of the codex, was, then the composition date would be easy to fix. (I have looked, thus far without success, for someone by this name in the Cairo Genizah.) Until more about

¹⁶⁶ According to Kahle, *Masoreten des Westens*, vol. 1, p. 39, Aaron b. Moses b. Asher was the fifth generation from Asher ha-Zaqen, not the sixth. At issue is whether to follow BL Or. 5554A or St. Petersburg EVR II 145 and how to interpret the supra linear insertion of II145. See Chiesa, *The Emergence of Hebrew Biblical Pointing*, pp. 38–39, esp. n. 125, who argues for six generations.

Mevorakh b. Šedaqa is known, we can only say that IIB10+ could be 10th century, but it could equally well be of the 11th century.

4.5.3. IIB13+ (MS 22)

Torah, Tiberian script, 3 columns, 21 lines, (10/11th century), [no mention], {n.d.}.

Not to be confused with IIB13R,¹⁶⁷ IIB13+ is comprised of 143 leaves from three IIB classmarks: 13, 181, and 191. Some unexpected features can be noted. First, the Masorete made some use of Babylonian terminology, for example, writing ‘*plene*’ פלנ instead of מל in a number of instances. Second, the Masorete seems to have been somewhat confused when marking Mp strings. In some instances, there are Mp numerals with no attendant marking circles to indicate which word(s) was intended; in other instances, the Mp numeral is a line above or below the location of the Mp string. Does this indicate that our *masran*, who by all appearances was otherwise very skilled, was merely copying Masorah carelessly, or was his *sefer mugah* in sufficiently poor condition that he was required to employ some guess work?

The work of two Masoretes is evident in much of the Mm. The second hand inserted the Mm wherever he found space, sometimes above and sometimes below the previously entered Mm. It is perhaps a result of this mixing of Mp rubrics that IIB13+ is generally removed from the Masorah of most Tiberian MSS in the present corpus; the presence of Babylonian notes/influence may also be a factor.

A transfer colophon (IIB13, pp. 296/7), partially blacked out, informs us that the manuscript was dedicated at some point to the Karaites. Under the blackened

¹⁶⁷ IIB13R (portions of the Writings) is mentioned in Yeivin, המסורה למקרא, p. 24. “13 R” is a typographical error for IIB132 (Ofer, personal communication, May 2023).

section the synagogue name is provided: אבן סמיה 'Ibn Samīḥ', presumably indicating the Karaite synagogue Rav Simḥa. There is also a probable date under the blackened portion, but in this sub section the letters have been scraped away in addition to being blacked out; nothing can be deciphered with the present images. This effort of double coverup could indicate the work of two individuals working independently: first, someone erased the date; at a later point someone else inked over this part of the colophon.

The MS is marked as a *heqdes* (IIB13, p. 53).

4.5.4. IIB15 + (MS 85)

Torah, "Oriental"/proto-Sephardi script, 3 columns, 22 lines, [no mention], {n.d.}.

IIB15 + is comprised of 142 leaves from two IIB classmarks: 15 and 1048.

The MS makes the occasional use of the Aramaic ריש 'head/beginning' instead of the more typical ראש (*yod* in place of *aleph*, see §6.5.2.). It is not uncommon for adjacent Mp notes to be listed in reverse order; the explanation is that two hands added notes to the MS. This appears to have spoiled some of the accuracy of its Masorah.

Although the MS lacks Mm at various points, it has extensive Mp that sometimes makes up for it, viz., rather than writing an Mm note *supra* or *infra*, the "Mm" note is written alongside. Similarly, Mp strings that occur 2x often include the catchword for the other reference following the ֶׁ '2x' notation. Probably for the same reason, the rules for splitting the lines of the Song of Moses are written in the

margin adjacent to the Song itself (IIB15, p. 289).¹⁶⁸ In short, the Masorete(s) found it easier to maximise the Mp rather than going to the bother of writing Mm.

There is no colophon associated. Some Sephardi layout patterns, e.g., the placement of *sof pasuq* markers on the far-left margin in the writing of the Song of Moses, are compatible with a N. African provenance (§6.6.2.).

4.5.5. IIB17 + [IIB17 = L1] (MS 131)

Torah, Tiberian script, 3 columns, 20 lines (21 lines in the Song of the Sea and the Song of Moses), (*930 C.E.), [930 C.E.], {930 C.E.}.

IIB17 + is comprised of 244 leaves from four IIB classmarks: 17, 52 (pp. 5–6), 270, and 1061 (pp. 5–6); the inclusion of IIB52 is not certain; the inclusion of IIB270 has been noted previously by others.¹⁶⁹ There are carpet pages and Masorah *finalis*; the codex, although not especially legible on the microfilms, is easily shown to be a high quality production. According to the scribal colophon (IIB17, pp. 480–481), the consonantal text was written by Solomon ha-Levi b. Buyā‘ā, the scribe of A.¹⁷⁰ This has long been noted, and can be corroborated, for example, by examining the line fillers used in both MSS: they appear to be identical.¹⁷¹

¹⁶⁸ It reads: מן האזינו עד חמאת בקר יגמרו הפסוקים בסוף הדלת ומן חמאת בקר עד ראו עתה יגמרו במצע הדלת ומן ראו [...] יגמר בסוף הדלת 'For Deu 32.1–13, the verses end at the end of the column; for 32.14–38 the verses end in the middle of the column [i.e., between the two poetic stichs that jointly comprise the line]; for 32.39–43 the verses end at the end of the column'.

¹⁶⁹ See Dukan, *La Bible hébraïque*, pp. 238–239.

¹⁷⁰ The crucial, upper lines of the colophon are difficult to read in the present images on Ktiv. For the full wording we must rely upon earlier scholars such as Kahle, *Masoreten Des Westens*, vol. 1, p. 58.

¹⁷¹ See Glatzer, “מלאכת הספר של כתר ארם צובה”, pp. 228–229. Not all are in full agreement, however. See Sirat’s cautious treatment of the putative link between A and IIB17 + in Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 1, p. 18.

The *naqdan*, *masran*, and proofreader of the MS, Ephraim b. Buyā‘ā, is presumably the brother of Solomon b. Buyā‘ā, the scribe of the main text (IIB17, p. 484). The Mp is often profuse, and appears, moreover, to have been added over an extended period and/or by more than one hand. To confirm to whom the Mp should be attributed, an *in-situ* investigation is needed.

The colophon of Ephraim b. Buyā‘ā provides us with a date of composition: Kislev 1241 A.G. (= 929/30 C.E.). While this colophon and date have never been questioned in print, to the best of my knowledge, it is worth noting that a lot of Masoretic history hangs upon this colophon (e.g., the date of A). For my part, I am surprised that a scribal colophon occurs on an otherwise blank leaf; typically, scribal type colophons can be found either heavily ornamented or written on the first or final leaf of the biblical text—which is to say, what occurs with the Ephraim colophon is not wholly typical.

There is an ownership colophon: אברהם וצליח בני מימון ‘Abraham and Ṣaliaḥ, sons of Maimon’ (IIB17, p. 7). There is also a beautiful purchase colophon (IIB52, p. 5), where the codex is bought for ‘22 drachmas, round and good’ in the year 1509 (presumably A.G., = 1198 C.E.). As the inclusion of IIB52 into IIB17+ is, as of yet, uncertain, its present value is much reduced.

Dukan states that IIB17 was found by Firkovich in the Ben Ezra genizah,¹⁷² but I am unsure on what basis she makes her claim.¹⁷³

¹⁷² Dukan, *La Bible hébraïque*, p. 238.

¹⁷³ Whether or not Firkovich visited the Ben Ezra genizah remains a matter of debate. With IIC1 (see below), I suggest that, at the very least, he probably acquired MSS from the synagogue. Reif, *A Jewish Archive from Old Cairo*, pp. 15–16, declares the matter unresolved; Ben-Shammai, “Is ‘The Cairo Genizah’ a Proper Name or a Generic Noun? On the Relationship between the *Genizot* of the Ben Ezra

4.5.6. IIB18 (MS 23):

Torah, “Oriental” script, 3 columns, 16–20 lines, *968 C.E., (12th century or later), [no mention], {n.d.}.

IIB18 is comprised of 316 leaves; no matches were observed. Although neatly written, the scribe is careless (or perhaps less knowledgeable), e.g., his layout of the Song of Moses is not typical. His disregard for consistent line numbers, managing anywhere from 16 to 20 lines on a page, is likewise unusual. The specific script style is not to be found in other corpus MSS.

Although Oriental, the quaternion quiring (as opposed towards the nearly ubiquitous quinion quiring in Oriental MSS) likely indicates that the codex came from the fringes of the Oriental zone, in this case, perhaps near Byzantium.¹⁷⁴ There are catchwords in the hand of the main text (e.g., pp. 47, 64). There are also quire markings (e.g., pp. 49, 65); these appear to have been written by a separate hand.

There is a colophon (p. 655), but it has been blacked out. However, the ink from the original letters of the colophon transferred to the opposing, otherwise blank, leaf (p. 654) prior to being blacked out. Using the reverse image feature on Friedberg, I was able to decipher a tentative date: 4729 A.M. (= 968 C.E.). As this date seems too early to be taken seriously in the present instance (cf. the presence of original catchwords), I am unsure of its significance. Assuming that I have read the date correctly, however, it at least indicates that the person who wrote the date

and the Dār Simḥa Synagogues”, p. 45, is confident that Firkovich obtained nothing directly from the Ben Ezra genizah.

¹⁷⁴ Cf. Beit-Arié, *Hebrew Codicology*, p. 305, see also p. 85.

(and the carpet page on which it was written) was not the person who blacked out the colophon. Considerable time had to pass between the two events (cf. IIB13+).

4.5.7. IIB19+ (MS 154)

Torah, Jerusalemite script, 3 columns, 17 lines, [no mention], {12th century}.

IIB19+ is comprised of 257 leaves from two IIB classmarks: 19 and 1067. There is plentiful Masorah and many cumulative Mm lists; some of the Mm is made into micrography.¹⁷⁵ The consonantal text shows some mistakes, e.g., writing היא where typically הוא is written (e.g., Gen 26.7). This appears to have been an oversight, as elsewhere in the MS the spellings of ‘she’ with *vav* instead of *yod* are marked as *qere* in the margin (cf. T3). Interestingly, while the scribe uses the large, marginal letter frequently when marking *qere*, he does not use it in these הוא/היא instances.

In one Mp comment marking a defective spelling, the *masran*’s muscle memory got the better of him, marking ‘once’ with *lamed*: ל' חס' ‘occurs two times, **once** written defectively without *yod*’. Here, one expects either ל' or חד , both of which mean ‘once’, instead of *lamed* (= ‘there is none like it’).¹⁷⁶

For the most part, the Masorah of IIB19+ is not like that of the other MSS with Jerusalemite script. Consonant with this observation are some remarks on Ktiv, where it is suggested that the Masoretic lists are too developed to contain Masoretic

¹⁷⁵ In the classmark description on Ktiv of IIB19, it is noted that the Mm cumulative lists in the MS are developed and condensed, probably indicating that the lists are not composed of early Masoretic material (accessed May 2023).

¹⁷⁶ See IIB19, p. 157.

material in its early format.¹⁷⁷ Perhaps, then, IIB19+ was not written at the same time as other Jerusalemite script MSS (i.e., not the 10/11th century).

There is no colophon associated.

4.5.8. IIB20+ (MS 5)

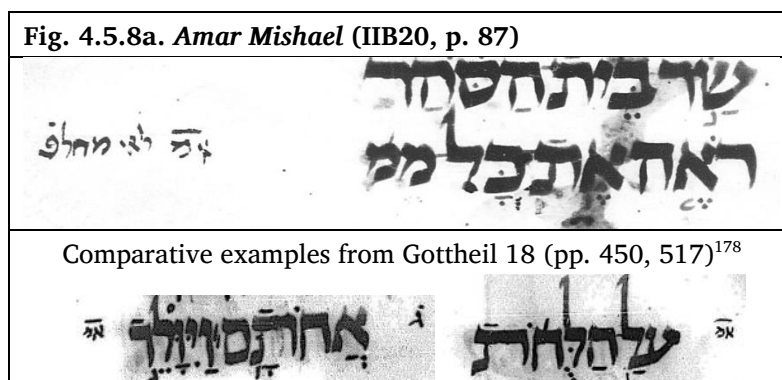
Torah, Jerusalemite script, 3 columns, 18 lines, (early 11th century) [no mention], {n.d.}.

IIB20+ is comprised of 176 leaves from five IIB classmarks: 20, 155, 1030, 1070, and 1296. The margins of the extant leaves are better preserved than most, and the hair side of the parchment is generally very legible. As is often the case, however, a significant amount of ink has flaked off of the flesh side of the parchment. There is full Masorah.

In a secondary hand alongside Gen 39.23 (IIB20, p. 87) are the words אִם לֹא 'אִם לֹא' does not differ'. The bar drawn over the *aleph-mem* string (see image below), and the shape of the letters themselves, are similar to another use of אִם: אִם 'according to Mishael/Mishael says', the proofreader of G18. Is this another example of the work of Mishael b. Uzziel? Other examples can be found throughout the codex: IIB20, pp. 12, 41, 67, 71, 75, 81, 94, 112, 117, 124, 126, 127, 128, 158, 171, 172, 174, 183, 204, 249, 261, 297. Some instances have only אִם, other examples may have אִם לֹא 'differs from Ben Naphtali', or אִם לֹא

¹⁷⁷ "נראה שהרשימות במצחף זה הן מגובבות ומפותחות, ולכן אני משער שאין כאן חומר קדום", Ktiv, available at https://www.nli.org.il/en/discover/manuscripts/hebrew-manuscripts/itempage?vid=MANUSCRIPTS&docId=PNX_MANUSCRIPTS990000989560205171&scope=PNX_MANUSCRIPTS (accessed September 2023). Note that it is unclear to whom the remarks on Ktiv should be attributed as well as the precise means by which these judgements are achieved; the reliability of these remarks, therefore, cannot be evaluated.

‘does not differ’, etc. The unifying characteristic of all the instances cited is that they are transparently by a secondary *masran*.



There are also some simple circles in the margin, likely indicating an issue that required emendation—or that it had been emended; it is not always clear. Examples include: IIB20, pp. 15, 22, 52, 63, 73, 84, 85, 92, 108, 131, 176, 177, 183, 200, 209, 269 (2x), 274 (2x), 280, 283, 288, 305, 310, 311, 312, 317.

From these many indications it appears that our MS was proofread, probably by Mishael b. Uzziel—to be certain, one would need to check the corrections against the known work of Ben Uzziel found in G18 and *Kitāb al-Khilaf*. The MS, therefore, was probably in early 11th-century Jerusalem, either composed there, or brought there from elsewhere to be checked.

No colophon was observed.

4.5.9. IIB24 + (MS 41)

Former Prophets, Jerusalemite script, 3 columns, 17 lines, [no mention], {n.d.}.

IIB24 + is comprised of ca. 216 leaves from five IIB classmarks: 24 (pp. 6–322), 135, 1184, 1323, and 1335. Well-preserved and carefully written, the codex

¹⁷⁸ For the complete list of such instances in G18, see Penkower, “כתיב ייד ירושלמי של התורה מן המאה”, “העשירית שהגיהו מישאל בן עוזיאל”, p. 58, n. 40.

contains both cumulative Mm notes and the occasional micrographic design (e.g., IIB24, p. 14). This codex can be placed, from a paratextual and script standpoint, with the Cairo Codex (e.g., the sporadic use of יפה *yafeh* ‘it is accurate/correctly written’; the use of the large, marginal letter when marking *qere/ketiv*; the insistence that each Bible book begin at the head of a column).

Not all is similar, however. The strokes of the horizontal lines are exceptionally broad; few scribes are so willing to cover a page in this much black ink. More importantly, there are some indications of the influence that the Babylonian Masorah has had upon this MS, for example: the frequent use of שׁ instead of מׁ to indicate *plene*; the high frequency of rule stating Mp notes that begin without a numeral, such as כול חסׁ בר מן גׁ שׁ ‘all instances spelled defectively except for 3 spelled *plene*’ (IIB24, p. 257).

No colophon is in evidence, although the MS was marked as a *heqdes* (e.g., IIB24, p. 33).

4.5.10. IIB26 + [IIB26 = L11] (MS 36)

*Prophets and Writings, Tiberian script, 3 columns, 18/19 lines, [ca. 950 C.E.],¹⁷⁹ {11th century}.

IIB26 + is comprised of 554 leaves from sixteen IIB classmarks: 26 (microfilm A, pp. 9–292), 55 (pp. 300–363, 366–367, 411–987), 76 (pp. 51–52, 95–110, 146–173), 145 (pp. 5–15, 18–35), 210 (pp. 5–14, 17–34), 220, 224 (pp. 9–10), 247, 1197, 1328 (pp. 5–20), 1346, 1354, 1355, 1411, 1412, and 1486. This long and winding match of classmarks is probably the most confusing of the entire IIB

¹⁷⁹ Yeivin’s date of 950 C.E., *Introduction*, p. 25, is based on the vocalisation and cantillation, *not* the colophons.

collection. It appears to cover both the Former and Latter Prophets as well as the Writings. It is possible that IIB26 + , as I have reconstructed it, was perhaps once several codices, e.g., one codex of the Prophets and another of the Writings; based on the current images available it is very difficult to be certain. At minimum, the various parts of IIB26 + appear to be by the same scribe.

The MS, contra Ktiv, does not contain IIB25, although one of the dedicatory colophons in IIB26 + reoccurs in the images of IIB25; this is a transparent mistake of the photographers and/or the cataloguers. This mistake, plus the aforementioned scrambling of leaves in IIB26 + , make Yeivin's comments in *המסורה למקרא* potentially misleading: when Yeivin writes of IIB25, it seems that he actually means IIB26 of the Former Prophets; when he writes of IIB26, it seems that he is indicating IIB61 + (Latter Prophets only, not analysed here).¹⁸⁰ Fortunately for our analysis, Yeivin reports that IIB26 of the Former Prophets is particularly close to A in the marking of various features of vocalisation and accents (IIB26 of the Latter Prophets, i.e., IIB61 + is slightly less similar).

There are two dedicatory colophons, almost identical (IIB26, microfilm A, pp. 3 and 5) among the leaves of IIB26. However, these colophons are *not* of IIB26 + ; their proper place is with IIB55 + (mentioned below). There is therefore no relevant colophon in evidence for this impressively preserved MS—although it is possible that one of the unattached colophons in IIB belongs here.

¹⁸⁰ IIB61 + (Latter Prophets) is comprised of 226 leaves from seven IIB classmarks: 26 (microfilm B, pp. 93–102, 129–154, 175–209, 212–213), 61, 221 (pp. 5–6, 17–28), 223, 1348, 1379 (pp. 45–46), and 1410.

4.5.11. IIB27 + (MS 84)

Torah, “Oriental” script, 3 columns, 18 lines, [11th century], {11th century}.

IIB27 + is comprised of 234 leaves from five IIB classmarks: 27, 149, 156, 1018, and 1292. There is full Masorah. The outer margins of some of the leaves of IIB27 were cut away with a knife, the purpose of which is not clear (to make *tefillin*?; to remove scribal Mm acrostics?; to remove errors?). It was not a simple attempt to trim the edges, as the cuts only removed jagged sections of the margin.

Quiring of the MS is in quinions, in keeping with the typical Oriental pattern; the quire markings appear original (cf. the *zayin* of the quire marking, IIB27, p. 31, with the *zayins* of the Mp). The MS is marked as a *heqdes*, although there is no colophon in evidence.

4.5.12. IIB33 + (MS 6)

Torah and *haftara*(?), “Oriental” script, 3 columns, 22/23 lines, [no mention], {12th century}.

IIB33 + is comprised of 134 leaves from five IIB classmarks: 33, 171, 897, 997, and 1060. According to the colophon, the MS includes *haftara*, although I have observed none in the present classmark matches; I have not systematically gone through potential *haftara* classmarks in IIB to see whether or not the *haftara* portions still exist, however.

The script is uniform; the codex appears well-produced; there is even limited micrography. The general appearance of the MS is rather different from most codices of the corpus, e.g., significant letter dilation for left justification occurs throughout; the letters of the main text are more rounded than what one expects from a “square script”.

A curling *nun sofit*/flourish sometimes precedes or follows an Mp note, e.g., (IIB33, pp. 40, 41, 55).

Fig. 4.5.12a. Curling Mp mark



These flourishes are generally found with numerical Mp notes, e.g., IIB33, pp. 40, 41, 55, 71, 82, 90; on occasion they can also be found with *qere* notes, e.g., pp. 7, 12. The use of a similar flourish preceding *qere* notes sometimes occurs with N. African/proto-Sephardi MSS (§6.6.2.),¹⁸¹ but the use of such a mark in numerical Mp notes I cannot recall having seen elsewhere. It is possible that this curling mark represents the work of a proofreader, or that there is some uncertainty regarding the veracity of the Mp note—the motive for its inclusion is not readily apparent. (The markings, to my eye, appear wholly original, which would cast doubt on them being the work of a proofreader.)

A secondary Mp hand has marked a number of instances where the MS differs with Ben Naphtali (e.g., IIB33, pp. 44, 53). This same hand has also noted at least one space break not observed in the MS (IIB33, p. 239: *פצל והוא סתום*: 'setuma section break'), as well as other corrections (IIB33, p. 42). This secondary hand (unlike the main text and first Mp hand) is similar in appearance to many hands seen in 11–13th century Egypt/Palestine.¹⁸²

¹⁸¹ Perhaps the most telltale indication of N. African origin would be how the MS marks '15x'. To this end I examined every leaf of IIB33+ but found no Mp instances marking 15x.

¹⁸² E.g., CUL T-S 13J11.5 (1035 C.E.); ENA 2727.28 (1104 C.E.); CUL T-S 8J16.3 (13th century).

There is a scribal colophon in the hand of the main text (IIB33, p. 247). The scribe is Zechariah b. Solomon. There seems to be no positive identification for this man in the Genizah.

On a carpet page (IIB33, p. 5), but above and below the original writing in a later hand, is a dedicatory colophon where one 'Astav(?) (אסטב) bat Joshua b. Samuel, known as Ibn al-Kāzirūnī (= Kazerun, Southcentral Iran) dedicates the codex to the Ibn Samīḥ (בן סמיה; Rav Simḥa) synagogue of the Karaites in the year <date erased> of the creation of the world. This would appear to link the MS to Fustāṭ, albeit by secondary ownership.

From the various clues given to us by the MS, then, it appears that IIB33 + was written somewhere other than Egypt but brought there secondarily.

Fig. 4.5.12b. Dedication of IIB33 + (IIB33, p. 5)



4.5.13. IIB35 + (MS 48)

Former and Latter Prophets, “Oriental” script, 3 column, 26/27 lines, [12th century], {11th century}.

IIB35 + is comprised of 113 leaves from two IIB classmarks: 35 and 1179.

There are both Mp and Mm, including occasional cumulative Mm lists, although the amount of Mm per page is less than in many codices. According to the catalogue

record on Ktiv, the MS tends toward agreement with Ben Naphtali.¹⁸³ Jos, Jud, 1Sa, and the Book of the Twelve are missing entirely; no colophon was observed.

A later hand added marginal indications for the *haftara* readings. Those checked match best with the Babylonian custom.

4.5.14. IIB37 + (MS 13)

Torah, Tiberian script, 3 columns, 22 lines, [no mention], {10–11th century}.

IIB37 + is comprised of 113 leaves from six IIB classmarks: 37, 987, 990, 1022, 1104, and 1108. Some leaves are stuck together and others badly damaged. There is full Masorah. No colophon was observed.

4.5.15. IIB38 + (MS 1)

Torah, Tiberian script, 3 columns, 22 lines, [no mention], {10–11th century}.

IIB38 + is comprised of 129 leaves from six IIB classmarks: 38, 49, 184, 190 (pp. 7–9), 1027 (pp. 11–12), and 1062. The script is very neat and uniform. Parts of the main text were overwritten, but the Mp and Mm were left undisturbed; these notes are difficult to read in places. There are carpet pages and Masorah *finalis*. The MS has the greatest amount of similarity with other Mp rubrics vis-à-vis the Mp Strings Similarity Percentage (§6.3.), which would appear to place it in the centre of the Tiberian Mp tradition.

In a large, square script (but in a hand that is not convincingly early) we read that the codex is dedicated ‘to the congregation of the Karaites ... the Jerusalem synagogue’ (לכניסת הירושלם), after which the text is covered with a repair (IIB49, p.

¹⁸³ See https://www.nli.org.il/en/discover/manuscripts/hebrew-manuscripts/itempage?vid=MANUSCRIPTS&docId=PNX_MANUSCRIPTS990000953720205171&scope=PNX_MANUSCRIPTS (accessed September 2023).

10). The repair is placed so strategically that it appears to be covering/emending part of the original dedication. Immediately below, in a semi cursive, 13/14th(?) century hand, we find that the codex was dedicated by Moses the servant b. Aaron the servant in the year <date erased> of documents. In addition to the erasure of the date, part of the surrounding colophon is blacked out. Are these erasures and blotting the work of one, two, or three people? These are questions that cannot be answered with the present images, unfortunately.

4.5.16. IIB39 + (MS 35)

Former Prophets, Tiberian script, 3 columns, 20 lines, *989 C.E., (11th century), [*989 C.E.], {*989 C.E.}.

IIB39 + is comprised of 145 leaves from five IIB classmarks: 39 (microfilm B, pp. 5–196, 199–323), 43 (pp. 82–84), 217, 222, and 1347; N.B.: the inclusion of IIB217, which contains a purchase colophon, is not certain. In one instance, two parts of the same leaf were catalogued in separate classmarks: IIB222 (pp. 5–6) forms the remainder of a torn leaf from IIB39 (microfilm B, pp. 150–151). There is full Masorah, and most of the leaves are entire; the microfilm images are generally poor/smudged, though.

IIB39 + is exceptionally close to A in terms of vocalisation and accents (including *ga'ya*).¹⁸⁴ *Prima facie*, the similarity may be attributable to the MS's close connection to Ben Asher. The colophon (IIB39, microfilm B, p. 323) avers that it was copied 'from the model codices ... of Aaron b. Moses b. Asher'.

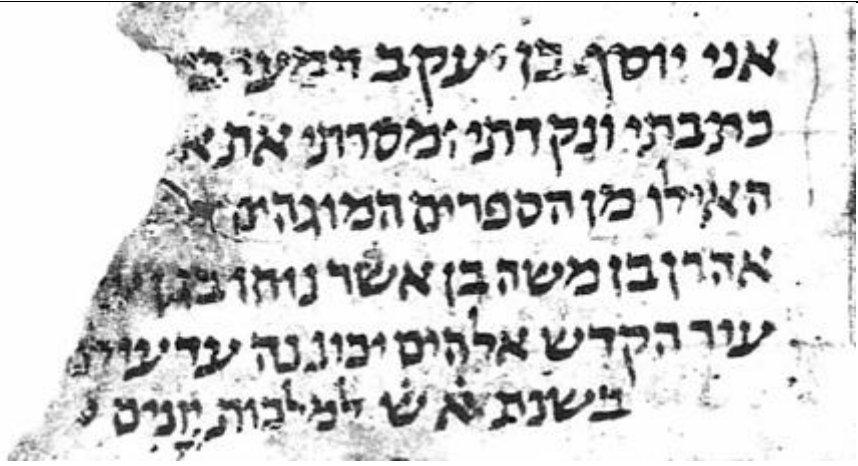
¹⁸⁴ Yeivin, *Introduction*, p. 24.

The authenticity of this colophon, however, is not clear.¹⁸⁵ First, the colophon occurs almost as an afterthought, squeezed into a tiny corner of a leaf that contains Masorah *finalis*. The typical placement for a scribal colophon, i.e., a colophon that begins ‘I, <name>, wrote this codex, etc. ...’, is typically to be found either (a.) on a dedicated carpet page, (b.) in the centre of a blank page, or (c.) on an empty column of the concluding page of the biblical text—this colophon does none of these things. Secondly, the date appears to have been written over an erasure: the letters $\psi\kappa$ of the date are spread out to fill a space where three letters should fit.

On the plus side, the left margin, although missing the final several centimetres, can be reconstructed so that each line of the colophon contains approximately 30 letters. This is important to note because a quick reading of the extant text of the colophon can give the impression that some lines were originally much longer than others. Why is this important? Had the colophon been created by a duplicitous scribe after the margin had disintegrated, for example, there is the potential that the artificial ellipses would be of accidentally inconsistent lengths. But such does not seem to be the case as the following reconstruction shows.

¹⁸⁵ Pace Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 1, pp. 22–23 (Manuscript no. 12), 88–97, who accepts the colophon. Beit-Arié points out the valuable fact that the scribe of IIB39+ used a pricking method used in N. Africa, suggesting that this indicates the scribe’s origin. This fact, taken in isolation, is far from conclusive, however.

Fig. 4.5.16a. Colophon of IIB39 (microfilm B, p. 323)

	
1. אני יוסף בן יעקב המערבי [ממדת נא אמון]	I, Joseph b. Jacob ha-Ma'aravi, [from the city of Alexandria?]
2. כתבתי ונקדתי ומסרתי את א[רבעת הספרים]	wrote, vocalised, and masoreted t[hese four]
3. האילו מן הספרים המוגהים [על דעת ¹⁸⁶ רבנו]	books from the model codices [according to the knowledge of R.]
4. אהרן בן משה בן אשר נוחו בגן ע[דן בירושלם]	Aaron b. Moses b. Asher, may his rest be in the Garden of E[den, in Jerusalem]
5. עיר הקדש אלהים יכוננה עד עולם [??]	the Holy City, may God establish her forever [...]
6. בשנת א'ש למלכות י'נים [סלה אמן]	in the year 1300 of the Greeks (= 989 C.E.). [Selah. Amen.]

The name Joseph b. Jacob is common in the Genizah (e.g., Joseph b. Jacob Ibn 'Awkal, ca. 1020; Joseph b. Jacob b. Yahboy, ca. 1045; Joseph b. Jacob ha-Bavli; Joseph b. Jacob Roš ha-Seder, ca. 12/13th century), but none, excepting Joseph b. Jacob ha-Bavli appears to have been a scribe.

The name Joseph also appears frequently in IIB colophons, but it does not appear elsewhere with the b. Jacob patronym, excepting only the owner of IIB224

¹⁸⁶ Cf. IIC144, p. 144; see also Penkower, "An Eleventh-Century Eastern Masoretic Codex of the Pentateuch", p. 156.

(dedicated 1041 C.E.): ‘Joseph b. Ḥananya b. Jacob b. Joseph b. Jacob b. Eli.’ For this Joseph b. Jacob, however, a 989 C.E. date would be far too late.

A scribe of the same name, Joseph b. Jacob, is known from two Bible MSS, IIC144 (1122 C.E.) and WP2 (1141 C.E.). In WP2, Joseph b. Jacob identifies himself as coming ‘from the Mt. Pisgah of the West’, i.e., Egypt/N. Africa, which is similar to the ha-Ma‘aravi ‘Westerner’ descriptor of IIB39. Thus, it appears that we have a potential match. If the date of IIB39’s colophon—already noted as potentially dubious—was changed from שׁנ״ח to something with three letters, such as ה״ח (= 1138 C.E.) or ה״ט (= 1128 C.E.), we are left with a potential resolution to the problem.

Nonetheless, I remain unconvinced of the above reconstruction for several reasons. First, as mentioned above, why is a scribal colophon placed so atypically? It looks like an afterthought. Second, the biography of Joseph b. Jacob ha-Ma‘aravi was certainly known to Firkovich (he almost certainly saw the [now named] Washington Pentateuch in Crimea; he owned IIC144). This would have been an easy forgery opportunity, if he wanted to use it—and one that, moreover, manages simultaneously to mention Ben Asher (cf. IIB10+). This objection cannot be proven or disproven, naturally, but it must be kept in mind.

Third, the hand of IIB39’s colophon, although written in square script, is quite different from the hand of the scribal colophon of WP. The same is true of the main text. There are no Tiberian MSS confirmed to be of the 12th century that display the script of IIB39+; in my estimation, IIB39+ is properly of the 10/11th century. I conclude, therefore, that at least the date—and possibly the entire colophon of IIB39 is a fake, and/or the colophon was written by a different Joseph

b. Jacob. This means, in short, that the colophon is dubious: the 989 C.E. date is useless, and the mentions of Jerusalem and Ben Asher are questionable.

The purchase colophon (IIB217, p. 5), which shows no sign of emendation, indicates that owner is Solomon b. Joseph, Head of the Yeshiva of Zion (ראש ישיבת ציון) b. <not extant>. The purchase occurred in the year 4953 A.M. (= 1192/3 C.E.). The dating system used (*Anno Mundi*) is characteristic of Palestinian MSS (e.g., IIBC 1 +, IIB159 +, IIB8 +; see §4.8.4.). Are we also to assume that ‘Head of the Yeshiva of Zion’ indicates the Palestinian *yeshiva*, i.e., *Yeshivat Ge’on Ya’qov*?¹⁸⁷ If so, we have before us an MS that, whatever its origin, by the late 12th century was in the hands of the Palestinian *yeshiva*, already in decline for 100 years.

4.5.17. IIB41 + (MS 3)

Torah (a complete Bible?), near-Tiberian/proto-Sephardi script, 3 columns, 25/26 lines, [no mention], {n.d.}.

IIB41 + is comprised of 134 leaves from four IIB classmarks: 41, 192, 1007, and 1056. There is full Mm and Mp. The Mp comment ‘and once’ with וְאִם instead of וְחַד is favoured almost exclusively (corpus distributions are 7/1 in favour of וְחַד; §6.5.4.). The layout of the Song of Moses has some Sephardi features: the left column of the poetic layout is right justified instead of left justified (cf. Kennicott 1); the *sof pasuq* markers are located on the far-left margin as commonly seen with Sephardi MSS. The script is also compatible with a N. African provenance.

¹⁸⁷ Although *Yeshivat Ge’on Ya’qov* was used as a name for both the *yeshivot* of Palestine and Babylon, its primary usage seems to have been in conjunction with the Palestinian *yeshiva*; see Rustow, “Gaon and Gaonate”, *EJIW*.

A tattered ownership colophon (IIB192, p. 5) indicates that the Bible (מקרא, only the Torah is extant though) was owned by one Moses b. Israel b. Sayyār b. Sulaymān b. Joseph(?) b. <...>. The transfer took place in the year 1<?>25 A.G. ... the West (= 1213–1513 C.E.).¹⁸⁸ המערב ‘the West’ does *not* appear to be part of a name, i.e., ha-Ma‘aravi, nor would its position in the colophon indicate as much. Instead, ‘the West’ appears to indicate a “western” provenance for the purchase, e.g., מארץ המערב ‘from the land of the West (N. Africa, Egypt, or Palestine). In light of layout features/paratextual elements that show similarity with Sephardi MSS, the location is unlikely to have been Palestine; N. Africa or Egypt is more probable.

The date is more problematic. It is written in a different hand from the remainder and to the left. The date is too late to suspect it to have been written by Firkovich. It is more likely that the date was rewritten when the bit of parchment with the original date cracked and fell off—or perhaps it was added secondarily.

There are also signs that the MS was a *heqdes* (IIB41, pp. 44, 45). The comments are vocalised and unlikely to date to the early part of the codex’s history. The same hand overwrote a few lines of the main text (cf. IIB41, p. 54).

4.5.18. IIB43 + (MS 49)

Former and Latter(?) Prophets, near-Tiberian script, 3 columns, 20 lines, [no mention], {11th century}.

IIB43 + is comprised of 48 leaves from three IIB classmarks: 43 (pp. 5–81), 226, and 1386. The inclusion of IIB226, the only one of the three classmarks that contains text of the Latter Prophets, is probable but not certain. There is full Mm;

¹⁸⁸ As the missing letter can only be a *qof*, *resh*, *shin*, or *tav*, this yields a date range of 1525–1825 A.G.

there is also cumulative Masorah and some micrography. According to the Ktiv listing, the MS tends towards similarity with Ben Naphtali and is markedly dissimilar from A.¹⁸⁹

The *masran* was unusually precise; Mp numerals are typically qualified with accompanying comments, e.g., בִּסְפָּ ‘in the book’ or בִּקְ ‘in the Bible’, leaving no doubt regarding the way in which the count was achieved. The hand of IIB43+ is similar to IIB8+ (see above) and may indicate an Egyptian provenance. Also similar to IIB8+, there is some slight letter elongation for left justification and the marginal *nun/zayin* occurs throughout. This final similarity is particularly interesting because the marginal letter is written in a small hand in both MSS, two of only a handful of MSS that write the letter small. There is no associated colophon.

4.5.19. IIB44+ (MS 126)

Torah, “Oriental” script (two types), 3 columns, 20–22 lines, [no mention], {n.d.}.

IIB44+ is comprised of 91 leaves from four IIB classmarks: 44, 139, 985, and 1063. The MS appears to have been written by two scribes. The first hand, up until Num 30.11, is written with a much thinner calamus. The second hand, from Num 30.11 onwards is written with a wider calamus. Both parts contain Mm and Mp in roughly similar amounts. A single *masran* appears to have annotated both sections of text, the Mm being particularly neat and small in both.¹⁹⁰ There is no colophon in evidence.

¹⁸⁹ See https://www.nli.org.il/en/discover/manuscripts/hebrew-manuscripts/itempage?vid=MANUSCRIPTS&docId=PNX_MANUSCRIPTS990000953990205171&scope=PNX_MANUSCRIPTS (accessed September 2023).

¹⁹⁰ As the thesis Mp data for IIB44 was taken only from Gen and Exo, any potential difference between the two halves of the MS is insignificant for the current analysis.

4.5.20. IIB46 + (MS 7)

Torah, near-Jerusalemite script, 3 columns, 20 lines, [11th century], {n.d.}.

IIB46 + is comprised of 176 leaves from seven IIB classmarks: 46, 1050, 1078, 1079, 1083, 1087, and 1088. There is full Mm and Mp. A difficulty with this match is that IIB46, where most of the leaves can be found, is not contiguous with the remaining classmarks. Furthermore, the script is a bit unpredictable, making identifications less certain. In the Song of the Sea, for example, there are some features not found on any remaining pages (e.g., the triple-dotted *gimel*), suggesting (1.) that several scribes shared duties in producing this codex and/or (2.) the scribe(s) was/were intentionally modelling their codex after other codices in places where layout was highly stylized.

The script is similar to many others with Jerusalemite script, however, IIB46 + does not share many of the paratextual features of those MSS, and remains a bit of an anomaly.¹⁹¹ Similarly, its Mp rubric shows considerable difference with that of other Jerusalemite script MSS of the Torah (§6.4.3.; 6.4.4.). Quiring of the MS is quaternion rather than the typical quinion of Oriental MSS, which also underscores IIB46 + 's atypicality.

No colophon was observed.

4.5.21. IIB48 (MS 127)

Torah, "Oriental" script, 3 columns, 22 lines, [*966 C.E.], {n.d.}.

IIB48 is comprised of 112 leaves; no classmark matches were observed. What remains of each leaf is easy to read, but the upper and side margins are much

¹⁹¹ See Beiler, "Is There a Scribal School to Which the Cairo Codex Belongs?", forthcoming.

damaged throughout. Both Mm and Mp are sparse. Yeivin lists the MS as being written in 966 C.E., which is probably a misprint, as no colophon, to the best of my knowledge, exists for this MS.¹⁹²

4.5.22. IIB50 + (MS 39)

Former and Latter Prophets, Jerusalemite script, 3 columns, 18/19 lines, [no mention], {n.d.}.

IIB50 + is comprised of 399 leaves from seven IIB classmarks: 50, 150 (pp. 8–13), 232, 1298, 1349, 1379 (pp. 5–44), and 1380. Written in a careful hand with ample Mm and Mp, this high quality MS has numerous paratextual features that link it with the scribal school of C. For example, Bible books begin at the head of a column (instead of anywhere on the page), non-incipient fully formed letters are used for left justification (instead of partial letters, dots, and the like), and the marking of *petuḥa* uses a sort of reverse tick mark (as opposed to the more common *peh*).¹⁹³ Somewhat idiosyncratically, ‘15x’ is often marked with הֵי instead of הִי.

No colophon was observed.

4.5.23. IIB51 + (MS 81)

Torah, Tiberian/“Oriental” script(s), 3 columns, 19 lines, purchased 1057 C.E., (10–11th century), [11–12th century], {11–12th century}.

IIB51 + is comprised of ca. 195 leaves from nine IIB classmarks: 51, 59 (pp. 7–22), 93 (pp. 11–16; 45–46), 158 (pp. 34–45), 180, 1044, 1076, 1077, and 1291. The codex is badly damaged; some of the leaves were replaced in a much inferior

¹⁹² Yeivin, המסורה למקרא, p. 25.

¹⁹³ For the full list of similarities, see Beiler, “Is There a Scribal School to Which the Cairo Codex Belongs?”, forthcoming.

hand. The extant text shows that the replacement leaves were written specifically for this codex. There is full Masorah on the original leaves; the replacement leaves have neither Mm nor Mp (and thus cannot be analysed properly here). Mm closure markings are often colon-circule-colon (i.e., :o:) as seen in SbJ codices and elsewhere. In a limited number of instances, Babylonian Masoretic terminology can be observed, e.g., שֶׁל בְּאוּרָא *‘plene in the Torah’*.

There are three colophons, two of purchase and one of dedication on a single leaf (IIB180, p. 5). This leaf (containing Gen 1 on the verso) was probably folded in half at some point; the centre of the page is severely damaged and sections of text there have fallen off. According to what appears to have been the primary purchase colophon, situated on the centre column of the page, the MS was bought by the elder Eli b. Ḥasan b. Saʿīd b. Shah-Murad (שהמרד) al-Arrajānī (modern-day Behbahan, west-central Iran). The hand of the colophon appears to be 10/11th century. No date is given; a quick scan of names in the Genizah yields no one named Eli b. Ḥasan b. Saʿīd.

A transfer colophon, written partially in Judaeo-Arabic, is found on the left column. The hand also appears to be early. The owner’s name is Ḥayyim b. Sahlaway b. Ḥayyim, and the purchase takes place in Jerusalem in Marḥeshvan, 1369 A.G. (1057 C.E.). The date is also given according to the Muslim calendar (לקרן זעירה): Shaʿbān, 449 A.H. (1057 C.E.). The transfer was overseen by Yeṣuʿa b. Judah, possibly the Karaite scholar Abū al-Faraj Furqān ibn Asad (fl. mid-11th century), known from accounts of the *dār* of Joseph b. Bakhtawayh in Jerusalem.¹⁹⁴

¹⁹⁴ Tirosch-Becker, “Jeshua ben Judah (Abū ʿl-Faraj Furqān ibn Asad)”, *EJIW*.

As for the owner, Ḥayyim b. Sahlaway b. Ḥayyim, both he and his father Sahlaway appear in the Genizah record during the first half of the 11th century in Fuṣṭāṭ, where they appear to be persons of means.¹⁹⁵ This colophon has the appearance of authenticity and there are no erasures or emendations, except for the insertion of several honorifics for Yešu‘a b. Judah, written above the line.

Finally, on the right column in a slightly later hand is a dedication to the Egyptian synagogue of Karaites. The dedicator is Aaron b. <... ..> known as the son of the secretary of the Arabs (הנודע בן כאתב אלערב).¹⁹⁶

These colophons are important as they date the MS to somewhat earlier than that estimated by Yeivin. They are also of interest because they appear to link IIB51 to the Karaite *dār* in Jerusalem. Based on the lack of concordance with the Mp of IIB51 + with other MSS known to have been in Jerusalem with the Karaites at about the same time (§6.3.; 6.4.3.; 6.4.4.), it would appear that the MS was brought from farther east to Jerusalem, much as occurred with IIB159 + (see below).

4.5.24. IIB52 + (MS 83)

Torah, near-Tiberian script, 3 columns, 18–20 lines, 1196 C.E., [no mention], {11th century}.

¹⁹⁵ E.g., CUL T-S AS 145.307; CUL T-S 13J8.14. It has also been proposed that the family was linked to the Tustarī clan; according to this understanding, Ḥayyim’s sister was married to Abū Naṣr Ḥesed at-Tustarī; see Rustow, “Tustarī Family”, *EJIW*, and the bibliography there.

¹⁹⁶ For the translation of כאתב as ‘secretary’, see Mann, *The Jews in Egypt and Palestine under the Fatimid Caliphs*, vol. 1, p. 20. There is an Abraham the scribe, known as Abu al-Muḥsin כאתב אלערב mentioned in two other places in the IIB collection (IIB13 and IIB1431). Is the Aaron of the present colophon Abraham’s son? There is also an Aaron b. Ezra b. Moses and an Abraham b. Ezra b. Moses, apparently brothers, that are well attested in the 15th century. I could find no evidence of the appellation ‘Kātib al-...’ in the Genizah, excepting one ‘Adaya b. Manasseh, a Karaite and Kātib al-Jayš ‘secretary/clerk of the army’, ca. 1020 C.E. (CUL T-S 32.4).

IIB52 + is comprised of 215 leaves from four IIB classmarks: 52 (pp. 7–435), 194, 924, and 925. There is extensive Masorah on the initial leaves, including cumulative Mm lists and some impressive micrography (e.g., IIB52, pp. 20, 31, 74); the Masorah diminishes progressively throughout the codex, however. The *masran* uses the phrase כן כתב 'written thus' in the Mp in much the same way that some MSS (e.g., C; IIB24 +) use *yafeh* 'correct'.¹⁹⁷ (Both terms generally occur without further comment, indicating that an adjacent spelling, vocalisation, etc. was correctly written.) The *masran* sometimes shows a preference for rule stating Mp notes: e.g., כל כתב חסר 'all written defectively' instead of Mp notes that head the Mp comment with the usual Mp numeral.

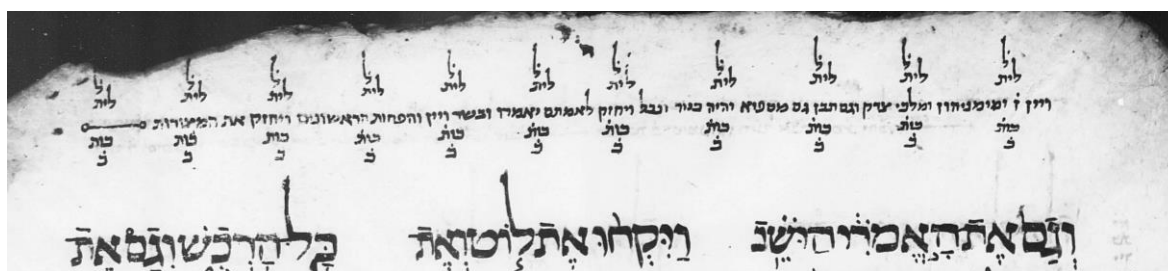
There are quire numberings in what appears to be the hand of the main text (e.g., IIB52, pp. 209, 229); as typical with Oriental MSS, the quiring uses the quinion structure. Not all leaves appear similar (cf., IIB52, pp. 427 and 428), but this seems to have occurred through text reinking, and is not to be attributed to a difference of hands in the original codex.

It is difficult to characterise the quality of the MS. The scribal hand is very consistent, and many features attest to someone who was familiar with typical codex layout features of the period. Other instances point towards downright ignorance of the *masran*. For example, in what appears (visually) to be a cumulative Mm list (IIB52, p. 26), the lexemes themselves are not written; only the catchwords are listed. The reason is because the Mm note is not cumulative but enumerative, listing seven instances of וַיִּין 'and wine'. Notwithstanding, the *masran* wrote לֹא לִית כּוּת

¹⁹⁷ In my database are 20 instances of כן כתב; six are from IIB52 + ; IIB24 + also uses כן כתב.

כּ '1x, 1x thus it is written' partly above and partly below the Mm at intervals in a manner that other scribes indicate that the lexemes occur only once. Also noteworthy is the *masran*'s apparent ignorance that כּ is an abbreviation of לית; there is no difference in meaning between כּ and לית, and no reason that '1x' ('there is none') should be written twice in succession.¹⁹⁸

Fig. 4.5.24a. Turning an enumerative Mm list into a cumulative Mm list (IIB52, p. 26)



There is a colophon (IIB194, pp. 6–7) in a hand very similar in size and shape to that of the main text. The scribe, *naqdan*, and *masran* is Yom Tov ha-Levi b. Amram ha-Levi, who completed the Bible in year 1507 (presumably A.G. = 1196 C.E.). No person by this name appears in Gil or Goitein, nor on CUDL, nor on the Princeton Geniza Project.

There are also some unusual shapes on the upper margin of pp. 235/6 (IIB52), that appear to have been written by pricking the parchment many times in

¹⁹⁸ For MSS with cumulative Mm lists that do not write '1x, 1x ...' in succession, but rather '1x thus' or similar, cf. IBibl.68, p. 5; IIB43, p. 16; IIB65, p. 16. More commonplace still is simply to write '1x', followed by the lexeme in question; cf. IIB19, IIB24. It is also possible that the scribe was well-aware of what כּ meant, but preferred to write redundantly for reasons of symmetry (cf. כּ 'written' which could also be taken to mean 'thus/like this')

succession.¹⁹⁹ Perhaps these shapes are actual letters or perhaps they are the result of an irresponsible doodler; I have not succeeded in reading them.

4.5.25. IIB54 + (MS 86)

Torah, Proto-Sephardi script, 3 columns, 24 lines, (ca. 1000 C.E.), [no mention], {n.d.}.

IIB54 + is comprised of ca. 170 leaves from three IIB classmarks: 54, 1059, and 1115. The script is proto-Sephardi, very similar to that of IIB1008 + (see below) and two well-preserved codices that contain the Writings: IIB40 + (994 C.E.) and IIB115 +. The similarity of the present codex with IIB40 + is a strong argument for a ca. 1000 C.E. date—although the appearance and position of the date in that colophon (IIB115, p. 77), also suggest caution (was the date added to the colophon secondarily, or is it original?).

IIB54 + makes frequent use of the expression דם (דסמיד) ‘which is adjacent’, typically used in the Mp when referring to specific word string combinations. For example, in IIB54 + the phrases וְגִבֹּר יִשְׂרָאֵל ‘and Israel prevailed’ and וְגִבֹּר עַמְלֵק ‘and Amalek prevailed’ are both marked as follows: לָ דם ‘1x with this two-word combination’ (Exo 17.11). By contrast, there are 17 additional MSS that mark the former Mp string within the corpus examples, and 18 MSS that mark the latter, but none, however, includes the Mp comment דם. As the use of ‘which is adjacent’ is especially favoured in MSS of European and N. African provenance (see §6.5.3.), its occurrence in this putatively N. African MS seems wholly to be expected.

¹⁹⁹ It is possible that the dots are written with ink rather than by pricking the parchment; with the current images it is difficult to be sure.

No quiring pattern was observed. One might suppose that the quaternion pattern was used, as happens with other Sephardi/N. African MSS (e.g., IIB115+), although this would need to be confirmed *in situ*. There is no colophon associated with IIB54+.

4.5.26. IIB55+ [Gottheil 22 = C1/Q1] (MS 79)

Former and Latter Prophets, Tiberian script, 3 columns, 19 lines, [11th century], {10–11th; 12–13th century}.²⁰⁰

IIB55+ is comprised of ca. 417 leaves from Gottheil 22 and eight IIB classmarks: 26 (microfilm A, pp. 3–6), 30 (pp. 115–116), 55 (pp. 5–299, 364–365, 368–410), 76 (pp. 5–50, 55–94, 111–143), 145 (pp. 16–17), 153, 240, 1413 (pp. 5–8).²⁰¹ Conspicuously absent from the above list is IIB247, a classmark noted by Ktiv, Yeivin, and others,²⁰² as belonging with IIB55. While that match is technically correct, it is also misleading: IIB247 matches with leaves from IIB55 that are *not* part of IIB55+; they belong with IIB26+ (see above).


According to Yeivin (keeping the just mentioned imprecision in mind), IIB55+ is very similar to the Aleppo Codex.²⁰³

²⁰⁰ Ktiv lists IIB55 as 10–11th century and Gottheil 22 as 12–13th century (accessed June 2023); the latter date seems to be a mistake.

²⁰¹ The match of Gottheil 22 with IIB55 has already been made by others, and is noted on Ktiv. Note that the dimensions listed by Gottheil (47 x 39.5 cm) for Gottheil 22 are probably for the full leaf; listed dimensions from the IIB classmarks indicate the height and width of the main text (29.25–33.25 x 28.25–29.34 cm).

²⁰² E.g., Wagner, “כתב יד של נביאים וכתובים שהוגה ונמסר על ידי בן אשר, כתב יד ל” מאוסף פירקוביץ”, pp. 641–666. Wagner’s extensive analysis is damaged because he treats what are doubtlessly two separate codices as a single codex.

²⁰³ See Yeivin, המסורה למקרא, p. 25 (regarding IIB55 and IIB247); the same comment is made separately regarding Gottheil 22, however, which is comprised *only* of IIB55+: “קרוב מאוד לא מכל: ‘very close to A in every way: spelling, vocalisation, cantillation, and Masoretic notes’ (p. 26).”

The leaves of the MS are particularly scrambled, as can be seen in the classmark matches in the above paragraph. The matches appear secure due to the many reference range joins,²⁰⁴ and due to the distinctive method employed for left justification. Namely, rather than partial letters, approximately one-half formed, such as the *lamed* or *aleph* of IIB26+ (e.g., ) , the scribe of IIB55+ uses line fillers that barely hint at letters, as can be seen repeatedly in the following figure. Once the differences in line justification styles between IIB26+ and IIB55+ are observed, distinguishing between the two scribes is mostly straightforward.

²⁰⁴ ‘Reference range joins’ = instances where the text of one classmark leaves off precisely where the text of another classmark picks up. This is a very strong indicator that the classmarks were historically part of the same codex; in only a handful of cases have I encountered a false match. False matches tend to occur between the first and second page of a codex, i.e., in Gen 1 or Jos 1, where many codices are breaking at approximately the same text point.

The same left justification markings appear only—to the best of my knowledge—in IIB73 (see below); it seems likely, therefore, that IIB55 and IIB73 were written by the same scribe.²⁰⁵

There are two, almost identically worded dedicatory colophons in IIB55 + , one appearing at the beginning of the Former Prophets and the other at the beginning of the Latter Prophets (IIB26, microfilm A, pp. 3, 5). It is possible, therefore, that IIB55 + was once bound into two volumes, one containing the Former Prophets and other containing the Latter.²⁰⁶ Both colophons fill the entire page, and are among the lengthiest of all the IIB colophons. The hand is arguably of the 11th century.

According to the colophons, the MS was dedicated by Bābšād ha-Kohen b. David b. Solomon b. Abraham b. Šahriyāl (Šahriyār?)²⁰⁷ b. אביון ב. בורגני, along with his son David. The dedication was made to the congregation of Karaites in Egypt (i.e., Fuṣṭāṭ), to be kept at the residence of the Naṣīʾ Šemaḥ b. Asa b. Saul, where one could consult the codex upon request, etc. If the caretaker(s) should leave Egypt, however, it is specified that the codex remain with someone who could honour the stipulations of the dedication.²⁰⁸

²⁰⁵ But the *masran* may have been a different person; the matter needs careful investigation. While IIB55 + is very similar to the Aleppo Codex vis-à-vis its Mp data, IIB73 (Torah, but with a text range that overlaps with A in Deu), is at some distance from A and is, in fact, closer to L (§6.4.3.; 6.4.4.).

²⁰⁶ But note also that the similar Bābšād colophon in C only mentions the Former Prophets. The corresponding colophon for the Latter Prophets (presumably there once was one) is now missing.

²⁰⁷ One colophon has a clear *lamed* (Šahriyāl), while the other perhaps has *resh* (Šahriyār). Dukan, *La Bible hébraïque*, p. 317, reads *resh*, probably assuming an error of the one colophon.

²⁰⁸ ואם יצאו הנשיאים הנזכרים, ישמרם אל, ממדינת מצרים יהיה עם אשר ירצו בו עדת הקראיים בעת ההיא להיות זה 'And if the aforementioned Naṣī'im, may God preserve them, leave Fuṣṭāṭ, [this codex] will be kept with whom the congregation of the Karaites shall designate at that time, to be kept according to its dedication to the Karaites in Fuṣṭāṭ'.

There is some ambiguity, however, regarding which stipulations are being referenced. Was it that the codex must remain free for consultation, was it that the codex must remain in Egypt, was it that the codex should remain in Karaite hands, or was it that the codex should merely be kept by someone whom the Karaites judged as trustworthy? A cynical reading of the dedication would permit someone like Firkovich to either (1.) have used such a provision to his advantage as a collector, or (2.) have written the entire colophon in order to justify his possession of the codex while simultaneously crafting a Karaite origin for it. As with many hypotheticals, we lack sufficient evidence to draw a reasonable conclusion regarding the first option.

But what about the second option? A strong argument in favour is that this Bābšād does not appear in the Cairo Genizah but he does appear, complete with the same six patronyms, in the Cairo Codex (1v). In this scenario, Firkovich would have added information into IIB55 + from C in order to “improve” its history and prestige.

But is attributing the colophon to Firkovich the simplest explanation of the evidence? Probably not. Instead, the match of names between C and IIB55 + could indicate that both MSS were in proximity at some point and were dedicated by the same persons. Thanks to the above listed classmark matches, this assertion can be proven. Namely, Gottheil 22, in the Karaite synagogue in Egypt as recently as the late 20th century,²⁰⁹ is part of IIB55 + . This Karaite synagogue is also the

²⁰⁹ The present location of Gottheil 22 is undoubtedly known, but it is not known to me. Gottheil 22, like C and G18, is still listed on Ktiv as being located at the Karaite synagogue in Cairo. Meital’s recent article on Gottheil 13 mentions the wrapping paper in which Gottheil 22 was (once) kept; this

caretaker/owner of C. On the face of it, this would indicate that Firkovich acquired various bits of IIB55+ from the Karaite synagogue (then Rav Simḥa). Firkovich either missed a section (Gottheil 22) or was forced to leave it behind. In either event, the similar wording of the colophons of IIB55+ with C can be explained without recourse to the crafty hand of Firkovich.

It is also worth considering whether Firkovich would have gone to such lengths to write two extended colophons to mimic C's, but not have bothered to provide them with dates. This is an excessive amount of work to engage in with a significantly reduced reward. Furthermore, the MS is already marked as a *heqdes*h on every second or third leaf in a beautiful, calligraphic hand, confirming, it seems, what is found on the dedicatory colophons. In sum, it appears that there was long-standing Karaite ownership of the MS, and that it is unlikely that Firkovich's possession of the MS tarnishes the colophons—this need not exonerate the colophons, of course, only Firkovich's handling of them.

4.5.27. IIB56+ (MS 32)

Former Prophets, Tiberian/Jerusalemite script, 3 columns, 17 lines, (early 11th century), [no mention], {10th century}.

IIB56+ consists of 124 leaves from six IIB classmarks: 56, 71 (pp. 5–6, 23–24), 81 (pp. 7–81, 106–107), 211, 214, and 216. The appearance of the letters is somewhat different from what is found in most Tiberian scripts. Another difference is that the columns are narrower and the number of lines fewer (most part-Bible

could imply that Gottheil 22 is there no longer. See Meital, “A Thousand-Year-Old Biblical Manuscript Rediscovered in Cairo”, p. 199.

codices with Tiberian script have at least 18 lines, many have either 19 or 21).²¹⁰

Although the script is also different from much of what appears in Jerusalemite script MSS, there are a few paratextual features that align with those MSS (e.g., marking of *petuḥa* at head/foot of column with “reverse commas”; beginning a Bible book at the head of a column; see §4.2.3.).²¹¹ One close match in regard to most of the aforementioned atypical features is IIB34 (not of this corpus), a codex of the Writings, that Yeivin estimates was written ca. 975 C.E.²¹²

There are two *masranim*, at least as pertains to the Mm (with the Mp it is difficult to tell). Part of the purpose for a second *masran* appears to have been practical. These later notes, using cumulative Mm lists to form an acrostic, permitted the insertion of the name of the new owner of the codex: Ḥananya ha-Levi b. Solomon. The man’s name also occurs in the dedicatory colophon, where Ḥananya’s father Solomon gives the codex to Ḥananya and his brother (IIB216, p. 6). If these two heirs should die without issue, then the codex was supposed to pass into the possession of the Karaites. The transfer from father to sons takes place in Jerusalem, indicating that the First Crusade (1099 C.E.) likely marks the *terminus ante quem*.²¹³

²¹⁰ Beit-Arié, *The Damascus Pentateuch Manuscript*, p. 8.

²¹¹ As described in Beiler, “Is There a Scribal School to Which the Cairo Codex Belongs?”, forthcoming.

²¹² Yeivin, *המסורה למקרא*, p. 22.

²¹³ Sometimes the transaction occurs in more than one place, which is to say, perhaps Ḥananya, his brother, and his father were in Fustāt all along. See CUL T-S 20.126, where the partial sale of two shops (probably located in Ramla) was first recorded in Jerusalem but then validated in Fustāt.

Ḥananya ha-Levi b. Solomon appears in at least five different Bibles, and appears to have been the owner of each, *not* the scribe.²¹⁴ There is no clear candidate in the Genizah with which to link Ḥananya ha-Levi. The best possibility, but still perhaps only as likely as not, is the father-in-law of the wealthy and influential Tunisian-born Abraham b. Isaac ha-Talmid (fl. mid-11th century).²¹⁵ An alternate possibility, based upon IIB274, is the caretaker of a (Karaites?) synagogue in Jerusalem.

The MS is marked as a *heqdesh* in a number of places (e.g., IIB56, p. 34).

4.5.28. IIB60 + (MS 128)

Torah, Tiberian script, 3 columns, 18–20 lines, early 11th century, [no mention], {n.d.}.

IIB60 + is comprised of 219 leaves from ten classmarks (nine IIB classmarks plus a classmark from the National Library of Israel): 47, 59 (pp. 31–34), 60, 78, 93 (pp. 5–10, 17–24, 27–44, 47–50), 164, 1071, 1074, 1075, and NLI

Ms.Heb.800.2 = 4. Recently, Ofer has made a compelling argument for Samuel b. Jacob authorship of this codex, and there are also features unmentioned by Ofer that point in a similar direction.²¹⁶ Features mentioned in the thesis that link the MS

²¹⁴ In addition to the present Bible, this list includes IIB57, IIB67 + (of the present corpus), CUL L-G Bib.IV.27, and CUL T-S A16.6.

²¹⁵ For the work of Ḥananya b. Solomon, particularly as it pertains to IIB56 +, see Beiler, “Who Wrote Acrostic Signatures in Early Masoretic Bibles?”, pp. 347–366. For the original identification of the scribal acrostic in IIB56, see Ofer, “Acrostic Signatures in Masoretic Notes”, esp. pp. 232–233. For the beautiful *ketubba* of Sitt al-Dār and Abraham b. Isaac (1050 C.E.), see CUL T-S 20.7.

²¹⁶ Yosef Ofer, “Hebrew Bible Manuscripts Written by Shmuel ben Yaakov”, Eleventh Congress of the European Association of Jewish Studies, Krakow, Poland, conference presentation (unpublished), 16 July 2018; Beiler, “Samuel b. Jacob and St. Petersburg EVR II B 60 +”, forthcoming; Beit-Arié has also stated that in his judgement Ms.Heb.800.2 = 4 was written by Samuel b. Jacob; see the comments of Ofer, המסורה הבבליית לתורה, p. 25, n. 30.

with SbJ include the abbreviation of ראשׁוּ 'head/beginning' (§6.5.2.), consonantal text differences (§6.5.6.2.), and specific left justification strategies (§6.6.4.). In addition, the general atypicality of the Mp rubric for SbJ codices when compared against other Tiberian script MSS (§6.3.), and the above average concordance of the Numerals' dendrograms (§6.4.2.; 6.4.4.) all suggest that SbJ wrote IIB60 + .

The MS has corrections of the main text in two hands. The first appears to have been Samuel b. Jacob himself, in a hand similar in size and shape to that of the main text. A second hand also added other emendations in a smaller hand. The codex, thus, is perhaps not the best example of SbJ's scribal skill (cf. G27, which is similarly full of corrections).

According to the dedicatory colophons (IIB60, pp. 227–228) the MS was Karaite owned and in Egypt. The patronyms of the dedicator, Rachel bat Yešu'a ha-Kohen b. Mordechai b. Elijah appear in other IIB colophons associated with Karaites in Egypt, where the name of the synagogue is given as Dār ibn Samīḥ (probably referring to Rav Simḥa, the leading Karaite synagogue of Cairo until 1931).²¹⁷ Similarly, Ms.Heb.800.2 = 4, in the current Karaite synagogue in Cairo (Mūsā Dar'ī) as late as the summer of 1981, would indicate a longstanding Karaite provenance for IIB60 + . There are no dates on the dedicatory colophons, but the script is compatible with the 12–14th century, i.e., some time removed from the original writing of the codex.

A Yešu'a ha-Kohen b. Mordechai, potentially the father of the above-named Rachel, appears in the Genizah, in an uncontextualized list of names on the

²¹⁷ Cf. IIB276, p. 5.

otherwise blank verso of a letter. That letter dates to 1030 C.E.; it is likely that the list on the verso is roughly contemporaneous with the letter on the recto. The difficulty, of course, is that the present Yešu‘a is early 11th century, while the Yešu‘a mentioned in the colophons of IIB60+ is perhaps of the 12–14th century. It is possible that I have misjudged the hands of the above colophons; it is more likely, however, that (1.) either the dedicatory colophons are spurious, or (2.) they were written several centuries after the initial dedication.

In sum, the only facts that seem incontrovertible are that the MS itself is early 11th century (probably by Samuel b. Jacob) and has historic connections with the Karaite synagogues in Egypt.

4.5.29. IIB62+ (MS 18)

Torah, Tiberian script, 3 columns, 18 lines, (11th century?), [no mention], {10–11th century}.

IIB62+ is comprised of 121 leaves from three IIB classmarks: 62, 198, and 1046. There is full Mm and Mp. The script of the main text is very similar to Samuel b. Jacob codices, as well as other codices written in Egypt in the 11th and 12th centuries, e.g., IIC144 (1122 C.E.). There is a colophon (IIB198, p. 7), but it has been inked over so that nothing can be read excepting the final words—which are not indicative. There is also what appears to be an acrostic by the owner/Masorete (IIB62, p. 48). The initial letters of the text string read חעלי בן רב יצקן, which is so close to reading Eli b. R. Isaac that it appears unlikely to be accidental. Perhaps the acrostic was transmitted by accident, and corrupted somewhat in the process? If so,

the string-initial *het* would precede the *qof* and the *nun* at the end of the string would be considered a secondary addition, yielding עלי בן רב יצחק.²¹⁸

On the scant evidence that we have, then, this is probably an Egyptian codex from the 11th century at the earliest.

4.5.30. IIB63 + (MS 34)

Former and Latter Prophets, near-Tiberian script, 3 columns, 19 lines, [11th century], {10–11th century}.

IIB63 + is comprised of 197 leaves from two IIB classmarks: 63 and 1352. The book of Joshua and most of the Latter Prophets are missing. There is full Masorah, but of a slightly reduced amount from typical. The script, although in many respects similar to Tiberian is written with a particularly marked slant of the vertical lines, moving rightward as they descend downward—even the riser of the *lamed* is placed at an angle. A similar script can be seen in IIB988 + (see below). Another similar script, albeit with a near-vertical *lamed* riser, is seen in IIB9 + (written prior to 1031 C.E.).²¹⁹

²¹⁸ The entire MS was examined for scribal acrostics. Additional (potential) examples include IIB62, pp. 232, 243, although neither page is sufficiently extant to be certain. Ofer, personal communication, November 2023, has suggested that as the ninth word of the acrostic (יושיבכם) is not to be found in the Bible—neither with *plene* or defective spellings, this acrostic is likely to be an example of a scribe who inserted the cumulative Mm list from memory—i.e., perhaps this is the scribe of IIB62 + 's actual name: עלי בן רב יצחק or עלי בן רב יצקן.

²¹⁹ IIB9 + of the Latter Prophets is comprised of IIB9 and IIB1403 and is not examined in the current study.

According to the Ktiv description, IIB63+ is more aligned with Ben Naphtali than Ben Asher.²²⁰ There are a number of textual corrections, especially in Kings. No colophon was observed.

4.5.31. IIB65+ [IIB59 = L9] (MS 29)

Torah, Tiberian script, 3 columns, 19 lines, 1021/2 C.E., [no mention], {11–12th century}.

IIB65+ is comprised of 182 leaves from three IIB classmarks: 59 (pp. 35–250), 65, and 158 (pp. 5–33). This codex, written in a stereotypically early hand, is particularly well-produced and well-preserved. Excepting the decaying upper margin, most leaves are legible in virtually all points. The Mm is profuse, often consisting of four lines (or more) both supra and infra. There are numerous lists with cumulative Mm; none appear to be scribal acrostics. The masorete frequently wrote Mp notes in their Hebrew forms rather than the (more typically seen) Aramaic ones: e.g., קמץ and not קמֿץ, סוף and not סוֹף. Although the hand of the main text is nearly identical to other Tiberian script MSS, differences between this MS and Tiberian script MSS more generally can be seen when comparing the left justification strategies employed. Namely, the present MS does not use partial letters as is otherwise common in Tiberian script MSS (see §6.6.4.).

There is a remarkable colophon (IIB59, p. 250), one of very few scribal colophons of a model Bible dating prior to the 12th century that is written in the hand of consonantal text. It reads, in part, וליד הכהן בן חסן ממדינת כופה כתב ונקד ומסר

²²⁰ See https://www.nli.org.il/en/discover/manuscripts/hebrew-manuscripts/itempage?vid=MANUSCRIPTS&docId=PNX_MANUSCRIPTS990000986190205171&scope=PNX_MANUSCRIPTS (accessed September 2023).

בְּעֻזַּת שְׂדֵי יְהִי שְׁמוֹ מְבֻרָךְ שְׁנַת אֲלָף שְׁלֹשׁ, ‘Walīd ha-Kohen b. Ḥasan, from the city of Kūfah (south-central Iraq), wrote, vocalised, and masoreted [this codex] with the help of God, may his name be blessed; year 1333 [A.G. = 1021 C.E.]’. The colophon also informs us that the codex was written for one ‘Alān b. Ḥananya b. Abraham, etc.

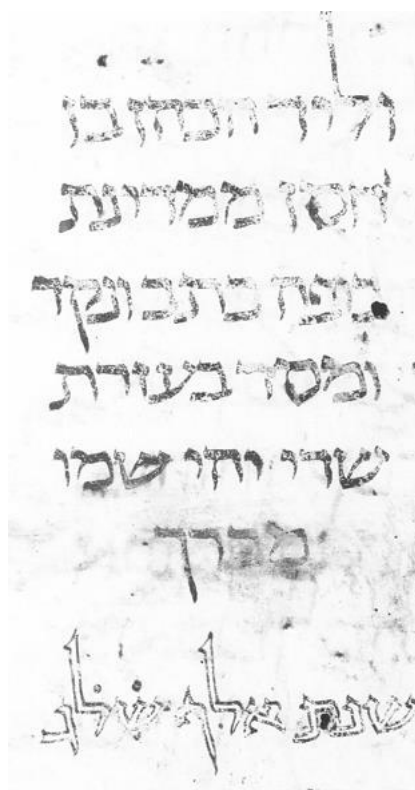
I could find neither scribe nor owner in the Genizah. Walīd b. Ḥasan is known to us, however, from a second codex now held in the Imam Reza Shrine Library in Mashhad, Iran.²²¹

The one potential difficulty with this unaltered colophon is that the date is written in outlined letters, while the remainder is written with a single pen stroke (see image below). Was the date inserted later? Fortunately, the Mashhad manuscript also supplies us with a date: 1019 C.E.²²² It seems, therefore, that the authorship date of IIB65 + can be considered reliable.

²²¹ This would imply that IIB65 + was brought westward; Firkovich never succeeded in traveling farther east than Syria and Palestine.

²²² For more information on the Mashhad MS see <https://sfardata.nli.org.il/#/manuscript/0Y009> (accessed March 2023). I have attempted to locate images for this MS, but have not yet been successful (September 2023).

Fig. 4.5.31a. Colophon of IIB65 + (IIB59, p. 250)



4.5.32. IIB67 + (MS 155)

Torah, Tiberian script, 3 columns, 21/22 lines, (early 11th century), [no mention], {11–12th century}.

IIB67 + is comprised of 110 leaves from six IIB classmarks: 67, 74 (pp. 106–113), 191, 1017, 1028, and 1061 (pp. 7–10). The hand of the main text is very similar to IIB77 + (see below), and is perhaps written by the same scribe. The MS is packed with Masorah. The hands of two *masranim* are visible throughout—this being at least part of the reason for the plentiful Masorah. In some cases, their abbreviations differ, e.g., ראש (primary *masran*) vs. רא (secondary *masran*).

No colophon is associated, although what appears to be the owner's signature can be found in six Mm acrostics: Ḥananya ha-Levi b. Solomon, a 10/11th-century Jerusalem (and Egyptian?) man of means, possibly a caretaker at the Karaite

synagogue in Jerusalem (see also IIB56 + , above).²²³ As was also the case with IIB56 + , the secondary Masorete added the Mm acrostics. The MS is marked as a *heqdes*.

4.5.33. IIB68 + (MS 91)

Former Prophets, near-Tiberian script, 2 columns, 19/20 lines, [no mention], {11–12th century?}.

IIB68 + is comprised of 77 leaves from four IIB classmarks: 68, 1308, 1446, and 1447. The scribe is skilled and there is full Mm and Mp. The marginal *nun/zayin* occurs frequently. No colophon was observed.

4.5.34. IIB70 + (MS 42)

Former Prophets, Tiberian script, 3 columns, 19 lines, (11/12th century), [no mention], {n.d.}.

IIB70 + is comprised of 91 leaves from three IIB classmarks: 70, 212, and 1374. With full Masorah and a careful hand, the codex appears to be high quality. A secondary, later hand has added to the cantillation markings a number of the vertical bars used to separate words, and then marked the margin with פסיק *pasiqa/paseq*. The secondary insertion of such markings is not unusual, occurring in a substantial minority of codices of the present corpus.

²²³ The acrostic is fully extant in only one instance (IIB1028, p. 11); but partially preserved acrostics can be found at five additional places: IIB67, p. 108; IIB1017, pp. 5, 18, 61; IIB1028, p. 9. The Mm acrostic is presumed to indicate the owner not the Masorete because (1.) there are signs of secondary Mm addition, and (2.) the person of interest is Ḥananya b. Solomon, a manuscript owner, who has eight other Mm acrostics with his name in them; see Beiler, “Who Wrote Acrostic Signatures in Early Masoretic Bibles?”, pp. 347–366. As of yet unpublished Mm signatures with Ḥananya’s name in them can also be found in IIB57 + (not of this corpus).

No colophon is in evidence; the script has the appearance of a hand from Egypt in the 11th or 12th century.²²⁴

4.5.35. IIB71 + (MS 74)

Prophets and Writings, “Oriental” script, 3 columns, 19 lines, [no mention], {n.d.}.

IIB71 + is comprised of 74 leaves from two IIB classmarks: 71 (pp. 7–22, 25–159), and 1144. There is full Masorah and some micrography. The marginal *nun/zayin* is used regularly. Quiring is done using five bifolia (quinion pattern); the quire markings appear original, i.e., they are written in the hand of the main text.

The handwriting of IIB71 + is precise and the number of corrections few. Bible books often begin on new columns, but preceding text concludes so near the bottom of a column, that this tendency is scarcely noticeable—in other words, the codex layout was carefully planned in advance (cf. IIB71, pp. 112, 124). The neatly written circles, marking the location of the Mp string in the main text, stand out from most MSS, where such circles are drawn either with two strokes (two semi circles put together) or with a circle that is either shaded in or not particularly round in shape. In sum, the MS is a high-quality production, albeit not from a model matching that of the most “popular” codices, e.g., A, C, L, S, S1. The most similar of such codices is possibly C, but even this Jerusalemite script codex is markedly different.

There is no colophon associated. Between Daniel and Ezra, in a later hand, are two lines of text: ‘Not to be sold and not to be ransomed. / Cursed is he who

²²⁴ Based upon the Mp note similarity of IIB70 + with A and codices like it (see below, §6.4.1.), it is reasonable to assume that IIB70 + was written after A arrived in Egypt—thus early 12th century. Cf. also the similarity of A with WP2, also from Egypt and also from the early 12th century.

sells it and cursed is he who buys it' (IIB71, p. 124). There is an additional line of text between these two, but it was erased; perhaps it contains what was written originally.

4.5.36. IIB73 + (MS 16)

Torah, Tiberian script, 3 columns, 19 lines, (11th century), [no mention], {11th century}.

IIB73 + is comprised of 143 leaves from eight IIB classmarks: 59 (pp. 23–30), 73, 93 (pp. 51–52, 55–56), 133, 188, 1027 (pp. 5–10), 1045, and 1062 (pp. 7–8).

The left justification of this Tiberian manuscript is unusual. In addition to truncated letters such as *aleph* or *lamed*, there are non round “dots”, which are probably to be understood as the barest hint of letters. See, for example, IIB73, p. 51:



This particular style of left justification, plus an identical script style are matched by IIB55 +, a very well-preserved codex of the Prophets with ties to the Karaite synagogue in Fustāt (see IIB55 +, above). It appears, then, that we have two codices, one of the Torah and one of the Prophets written by the self-same scribe.

The only extant colophon is found with IIB188, but I was unable to confirm the inclusion of IIB188 into IIB73 + to my satisfaction; it may be part of IIB73 +, or it may not: there is insufficient text to confirm the matter. Either way, the colophon

has its difficulties, being pronounced a forgery by Penkower.²²⁵ It is dedicated to the Karaites in Ramla (Ramla is written *supra linearly*), and purports to have been written by ‘our Rabbi Moses b. Asher for Ya‘abeš b. Solomon’ (IIB188, p. 5) in the year 840 of the destruction of the Second Temple (= ca. 910 C.E.), thus matching with significant biographic information from the similarly dubious colophon of C.²²⁶

4.5.37. IIB74 + (MS 14)

Torah, Tiberian script, 3 columns, 22 lines, (10–11th century), [no mention], {11th century}.

IIB74 + is comprised of 102 leaves from six IIB classmarks: 74 (pp. 5–107, 114–212), 93 (pp. 25–26), 163, 205, 1101, and 1102. There is full Mm and Mp. There are signs that the MS was a *heqdes**h*, marked in two different hands (cf. IIB74, p. 123 with p. 131). Some of the outer leaves of the codex are in especially poor condition; some repairs and rewriting were attempted. The final words of what appears to have been a colophon can be seen on the bottom of the final page (IIB74, p. 212): עולם אמן ואמן ‘... forever, Amen and Amen’; even these words have been reinked.

4.5.38. IIB77 + (MS 33)

Former Prophets, Tiberian script, 3 columns, 20/22 lines, (early 11th century), [11–12th century], {10–11th century}.

IIB77 + is comprised of 185 leaves from eight IIB classmarks: 26 (microfilm A, pp. 7–8), 39 (microfilm A, pp. 194–195), 77, 210 (pp. 15–16), 213, 1272, 1328

²²⁵ Penkower, “A Pentateuch Fragment from the Tenth Century Attributed to Moses Ben-Asher”, pp. 355–370.

²²⁶ On the colophons of C and their credibility, see Outhwaite, “The Reliability of the Colophons of the Cairo Codex”, forthcoming.

(pp. 21–32), and 1345. As with numerous other matches, the partial attributions are due to leaf mix-ups that occurred at some point; whether the mix-ups occurred prior or following Firkovich’s possession of them is unclear.

The MS is marked as a *heqdes* (e.g., IIB77, p. 146). There is full Mm and Mp. The hand of the main text shows marked similarity with IIB67 + (see above); it is probable that the main texts of 67 + and 77 + were produced by the same scribe.²²⁷ Various leaves have secondary Mp additions (e.g., IIB77, p. 230). As Mm additions sometimes signal the presence of Mm acrostic signatures (cf. IIB56 +, IIB67 +), all leaves of the MS were carefully examined for acrostics. No such signatures were observed—although the lack of any acrostic signature could be attributed to the missing upper margin on most leaves. What is more, the upper edge of many of the leaves appears not to have decayed, but to have been cut off. This could indicate the intentional removal of an Mm signature.²²⁸ Alternately, and perhaps more plausibly, the considerable mould damage to the outer margins may have necessitated the trimming of some of the leaves.

There is no colophon in evidence.

4.5.39. IIB79 + (MS 2)

Torah and *haftara*, “Oriental” script, 2 columns, 23/24 lines, (early 11th century), [no mention], {10–11th century; 11/12th century}.

²²⁷ The correctors, however, were probably different. Compare the corrections of IIB67, pp. 26, 51, 121 against IIB77, pp. 29, 53, 89, 117, 122.

²²⁸ It is unlikely that the Mm acrostic signature found on L-G Bib 4.27 is part of IIB77 +; the lower edge of L-G Bib 4.27 does not line up with the upper edge of IIB77, p. 40. See Ofer, “חתימות אקרוסטיכונים”, p. 63, regarding the probable placement of L-G Bib 4.27 at Jud 9.41.

IIB79+ is comprised of 114 leaves from three IIB classmarks: 42, 79, and 1133.²²⁹ The Mp notes are highly independent from most other codices of the corpus. Some imprecisions of the *masran* suggest that part of the “Masoretic originality” may be attributable to lack of skill—although it also seems clear that the Masoretic lists used to create IIB79+ were from a different source.

The *haftara* portions are mostly of the Latter Prophets and those that I checked were according to the Palestinian rite.²³⁰ In the hand of the main text, following the end of Deu, is written ... זכינו להשלים בשלום נזכה ונחיה ‘We had the merit to finish in peace. May we be worthy and live ...’, which appears as an addition in some versions of *Talmud Yerushalmi* (*Makkot* 3.13.4).²³¹

There are several dedicatory colophons throughout the MS, and although they do not contradict each other, not all were written at the same time nor by the same hand. The most impressive is the dedicatory colophon written within a carefully drawn border (IIB42, p. 8). The colophon is 15 lines long, but lines 3–9 are written in a what appears to be a second hand, thus indicating, potentially, that the centre section of the colophon was erased and written over. It is difficult to be certain of this, however, due to the present quality of the microfilm. There is no obvious evidence of erasure; the smudges that can be seen appear to be ink transfers

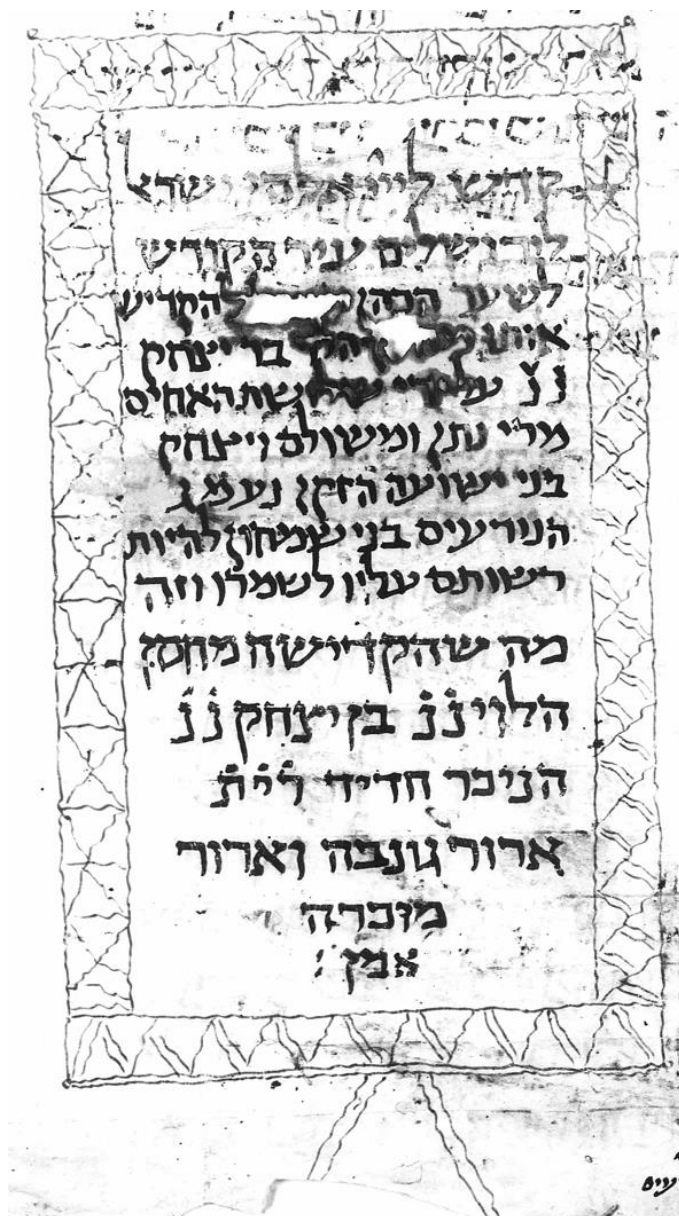
²²⁹ The match of IIB42 and IIB79 is noted on geniza.princeton.edu. See <https://geniza.princeton.edu/en/documents/38537/> (accessed October 2023). I was not previously aware that this was a known match.

²³⁰ Compared according to Yosef Ofer’s unpublished list, “ההפטרות על פי המנהג התלת-שנתי”, available at <https://faculty.biu.ac.il/~ofery/papers/haftarot3.pdf> (accessed May 2023).

²³¹ See [https://www.sefaria.org/Jerusalem Talmud Makkot.3.13.4?lang=bi](https://www.sefaria.org/Jerusalem_Talmud_Makkot.3.13.4?lang=bi) (accessed August 2023). Yosef Ofer, personal communication, October 2023, pointed out to me that the phrase does not appear in all MSS, but was probably written by the scribe of Ms. Kaufmann GEN 229. I thank Ofer for this important clarification.

from the page opposite. Was the centre section merely left blank for a time, and then filled in later (cf. IIB128)?

Fig. 4.5.39a. The main dedicatory colophon of IIB79 + (IIB42, p. 8)



According to lines 1–2 and 10–15 (the apparently original lines) we learn that the MS was dedicated in Jerusalem by Muḥsin ha-Levi b. Isaac, known as Ḥadīd/Ḥudayd. In the centre section (the “secondary” section), the codex again lists Muḥsin ha-Levi b. Isaac as the owner and places the codex into the care of three brothers: Nathan, Mešullam, and Isaac, sons of Yešu‘a the Elder, also known as sons

of Samḥūn (שמחון). The dedication takes place (in Jerusalem) at the Priest's Gate, i.e., probably at the Palestinian synagogue in Jerusalem known as 'the Cave' (*ha-Me'ara/al-Maghāra*), essentially located *below* the Priest's Gate.²³² I was unable to find a Muḥsin ha-Levi or Muḥsin b. Isaac in the Genizah, but the three brothers to whom the codex is entrusted are unambiguously mentioned on multiple occasions. They appear to be Palestinian Rabbanites in Fustāṭ from the middle of the 11th century.²³³

There are two more dedicatory colophons (IIB79, pp. 52, 101) in the same hand as what appears in the centre section of the above colophon, indicating that they were written at the same time. In these final two colophons, the name of the owner and the names of the three brothers are mentioned again. Even the place of dedication (Jerusalem at the Priest's Gate) is mentioned again. In one of these extra colophons (IIB79, p. 52), there are also several novel features. First, a date is listed: Sivan, in the year י"ז[?] of the creation of the world (= 817–1117 C.E.). The missing letter (either *qof*, *resh*, *shin*, or *tav*) was obviously erased. From what is still visible, *qof* is possible, but unlikely; *resh* does not appear possible; *tav* is possible, but unlikely (only 18 years after the First Crusade); *shin* would fit well within the

²³² To the best of my knowledge, this is the only Bible in the IIB collection to use the expression 'Priest's Gate'. For an account of this synagogue, its location, and the rebuilding of it after the collapse of part of the Western Wall (1034 C.E.), see Gil, *A History of Palestine*, pp. 636–649, esp. pp. 646–647. See also Reiner, "לשאלת שער הכוהן ומקומו", pp. 279–290.

²³³ The mentions of Nathan b. Yešu'a refer to him as ha-Levi or he-Ḥaver, see, e.g., CUL T-S 20.7, CUL T-S 8.187, CUL T-S 16.145, and CUL T-S 12.109. All examples are dated or dateable to the mid-11th century. The best attribution for Isaac is Isaac b. Yešu'a b. Samḥūn (CUL T-S 20.108, n.d.). For Isaac b. Yešu'a *without* the mention of a second patronym, see CUL T-S 8J41.5 (11th century) and CUL T-S 20.126 (1066 C.E. in Fustāṭ). Mosseri II 105.2 mentions Isaac and Mešullam, sons of Yešu'a (n.d.); I did not find instances of Mešullam mentioned on his own.

erased space and is consistent with the smudge that is still visible: thus, 1017 C.E. is the most probable reading. The person writing the dedication(?) (his function not entirely clear due to some missing text) is Yefet ha-Kohen b. Šu‘ayb, son-in-law of Muḥsin. A Mufarraḡ b. Yefet b. Šu‘ayb the Damascene appears in the Genizah, ostensibly the son of our Yefet b. Šu‘ayb. The document in which Mufarraḡ’s name occurs was drawn up in the synagogue of the Jerusalemites in Fuṣṭāṭ (11th century).²³⁴ To summarize up to this point, all the facts, even if written secondarily, appear to reference real Palestinians that are unvaryingly of the 11th century.

There are also the frequently mentioned curses against those who remove the codex from its place (IIB42, p. 60).

Finally, there are three more brief dedicatory remarks (IIB42, p. 8). The one (bottom, centre) basically repeats what was already mentioned, the only discernible difference is the spelling of Samḥūn (סמחון instead שמחון). It is possible that this colophon is in the hand of the previous three; the curling shape of the final *nun* is similar. A second comment (bottom, right) is a generic dedication, with no dates, names, or places visible. The third (top, left), a single line in length, written over what is possibly an erasure, makes a feeble attempt to turn the codex into a Karaite possession (קדש ליי ללקראיין לא ימכר ולא יגאל) ‘Holy to the Lord to the Karaites, not to be sold and not to be ransomed’—note the superfluous *lamed* preceding ‘to the Karaites’). This final colophon, the only one of the entire codex that mentions the Karaites, could conceivably have been written by Firkovich or someone like him. It certainly is far from original.

²³⁴ See CUL T-S 20.117.

Excepting the Karaite colophon, are the remaining colophons to be regarded as authentic, particularly in light of the numerous matches of date and name between these colophons and the Genizah? They certainly have a patina of authenticity. It is difficult to argue that the emendations, if such they are, were done by Firkovich. Should Firkovich have amended the original dedicatory colophon, for instance, we could expect some mention of the Karaites. But none appear. The dates from the Genizah, moreover, appear to match with the persons mentioned in the colophon, and it is hard to imagine that all these dates were known to Firkovich and his contemporaries even if they somehow had record of all the persons. In the absence of contrary evidence, then, the best explanation is that the colophons are indeed from the early life of the codex—thus we can date the MS to Palestinian Rabbanite, pre-Crusader Jerusalem (and prior to 1017 C.E.).

4.5.40. IIB80 + (MS 15)

Torah, near-Tiberian/Tiberian script, 3 columns, 21 lines, [no mention], {10–11th century}.

IIB80 + is comprised of 154 leaves from six IIB classmarks: 14, 80 (pp. 5–252), 88 (pp. 5–8), 170, 992, and 1032 (ff. 1r, 3r–4v). This codex, although vocalised and written largely according to the Tiberian Masorah, is notable for retaining a considerable amount of Babylonian Masorah terminology and note format. These matters have been discussed recently by Phillips.²³⁵ A colophon, found on IIB80, p. 253, is *not* part of IIB80 + ; it probably belongs with IIB1003 + (see below).

²³⁵ Phillips, “The Masoretic Notes in RNL EVR II B 80 +”, pp. 23–74. Phillips was also responsible for locating the first classmarks to match with IIB80 (IIB14 and IIB170).

4.5.41. IIB82 + (MS 87)

Torah, “Oriental” script, 3 columns, 25/26 lines, 10th–early-11th century,²³⁶ (ca. 1027 C.E. or prior), [no mention], {11–12th century}.

IIB82 + is comprised of 106 leaves from six IIB classmarks: 82, 193, 1039, 1043, 1053, and 1136. Around the year 1200,²³⁷ some of the leaves were replaced (cf. IIB193, replacement, with IIB1039, original), and other leaves were carefully mended. (e.g., IIB82, p. 94). Both sections are analysed separately in the present thesis (if of the original leaves, IIB82 + [MS 87]; if of the secondary leaves, IIB193 [MS 144]). The Mm is infrequent, and the MS is not exceptionally well-produced. There are some instances of Babylonian Masoretic terminology.

There is a remarkable amount of usage history we can learn from this Bible. To begin, there is at least one *haftara* reading noted in the margin (IIB82, p. 88) that is possibly from the early life of the codex. This *haftara* reading matches the triennial reading cycle, i.e., is according to the Palestinian custom.²³⁸

There is a short scribal colophon (IIB82, p. 5); the scribe’s name appears to be Eli b. Abraham, although much of the remainder is not legible. There is also an ownership colophon (IIB82, p. 6): ‘This crown of the five books of the Torah belongs to David b. ‘Ayyāš’, followed by some words of blessing, and then finally, in Atbash, ‘And Nathan ha-Levi wrote ...’.²³⁹ There is also a date, but it cannot be read with the

²³⁶ Judith Olszowy-Schlanger, email correspondence, December 2021.

²³⁷ As suggested by Judith Olszowy-Schlanger, email correspondence, December 2021.

²³⁸ See Ofer, “ההפטרות על פי המנהג התלת-שנתי”, available at <https://faculty.biu.ac.il/~ofery/papers/haftarot3.pdf> (accessed July 2023).

²³⁹ An Atbash (אֶתְבַּשׁ) is a reverse cipher where the first letter of the alphabet takes the value of the final letter, the second letter the second to last letter, the third letter the third to last letter, and so on.

present images. To the left of the main ownership colophon, semi erased, is ‘Jacob b. ‘Ayyāš’.

These ‘Ayyāš brothers, David and Jacob, appear in the Genizah in a court record (1027 C.E.). Jacob b. ‘Ayyāš wished to marry his brother’s widow, but she refused him. One would suspect, therefore, that the Bible came into Jacob’s possession after the passing of his brother David. In other words, he received a Bible when his brother died; he did not receive a wife.²⁴⁰ Because the Palestinian scribe David b. Yefet signs as one of the witnesses to the court record, the ‘Ayyāš brothers may well have been Palestinian.²⁴¹

A number of the leaves are marked with ‘Holy to the Lord’, etc., indicating that the MS became a *heqdes* at a later point (see §4.8.2.). The dedication itself can be found on the lower margins of three different leaves (IIB82, p. 159; IIB193, p. 5; IIB1136, p. 5) in Judaeo-Arabic: ‘this *waqf* [*heqdes*] is dedicated by Sheikh Ibrāhīm son of the honourable Ibn al-Kirmānī ...’. All three *heqdes*im dedicate the MS to the Karaites: once to the Cairo synagogue, once to the Ramla synagogue, and once not specified (the margin has crumbled away; the concluding text is not extant). Two of the three *heqdes*im are written on replaced leaves, indicating that the dedication did not happen until *after* the repairs to the MS had been made (i.e., post ca. 1200 C.E.).

In sum, it appears that IIB82+ is an authentically early (Palestinian?) MS that was later owned by the Karaites.

²⁴⁰ See CUL T-S NS J51. For the connection between the present Bible and T-S NS J51, I am grateful for the sharp eye of Ben Outhwaite.

²⁴¹ For references to Yefet b. David in the Cairo Genizah, see Gil, *A History of Palestine, 634–1099*, esp. pp. 750, 756, 763.

4.5.42. IIB84 + (MS 27)

Torah, near-Tiberian/Tiberian script, 2 columns, 17 lines, [12th century], {n.d.}.

IIB84 + is comprised of 235 leaves from two IIB classmarks: 84 and 1126. In a secondary Mp hand (script is both smaller and dimmer) there are repeated remarks regarding differences between Ben Asher and Ben Naphtali (e.g., בן נפתלי remarks regarding differences between Ben Asher and Ben Naphtali (e.g., בן נפתלי 'according to b. Naphtali, there is *ga'ya* in הַכֶּהֱנִים [Lev 21.1]'; IIB84, p. 275). As is common in some other codices with one and two columns, spacings are marked explicitly with פתוח 'open' or סתום 'closed' (note also the Hebrew spelling).

No colophon was observed.

4.5.43. IIB86 + (MS 37)

Former and Latter Prophets, "Oriental"/proto-Sephardi script, 3 columns, 18–20 lines, [no mention], {11–12th century}.

IIB86 + is comprised of 196 leaves from four IIB classmarks: 64, 86, 1405 (unclear if all parts belong), and 1406. The MS is well produced, with full Mm, including some cumulative Mm. The script is not that of the earliest codices; the edges of some leaves, moreover, indicate differences in parchment preparation (the hair follicles are still visible in places, as can be seen, for example, with Sephardi MSS). Quiring markings, possibly original, are sometimes visible (e.g., IIB86, p. 63). The catalogue record on Ktiv indicates that the MS has a preference for Ben Naphtali approaching 75%, although additional specifics are not given.²⁴² The

²⁴² "נראה עדיפות משמעותית לבן-נפתלי (75 אחוז בקרוב)" 'the MS shows a marked preference for Ben Naphtali of approximately 75%', see https://www.nli.org.il/en/discover/manuscripts/hebrew-manuscripts/itempage?vid=MANUSCRIPTS&docId=PNX_MANUSCRIPTS990001005020205171&scope=PNX_MANUSCRIPTS (accessed September 2023).

Aramaic ריש ‘head/beginning’ often occurs in the Mp in place of the more typical ראש (cf. IIB15+; T3). No colophon is in evidence.

4.5.44. IIB88 + (MS 148)

Torah, near-Tiberian script, 3 columns, 21 lines, [no mention], {n.d.}.

IIB88+ is comprised of 74 leaves from seven IIB classmarks: 88 (pp. 9–89), 167, 172, 187, 984, 1032 (ff. 1v, 2r/v), and 1092. There is a main hand and a secondary hand with bespoke replacements (cf. IIB984, pp. 11 and 12). The original hand contains full Masorah and appears well-produced. The replacement hand is also well-produced, but a careful comparison of this hand with the former show significant differences. In addition, the replacement hand does not include Mm or Mp.

There are instances of Babylonian Masoretic influence, e.g., the frequent use of rule stating Mp notes that begin with כול ‘all’.

There is no colophon associated.

4.5.45. IIB90 + (MS 76)

Former and Latter Prophets, Proto-Sephardi script, 3 columns, 18 lines, (12/13th century?), [no mention], {12th century}.

IIB90+ is comprised of 129 leaves from two IIB classmarks: 90 and 1297. There is Mm and Mp, including cumulative Mm lists. In addition to sometimes marking a quiescent *aleph* with *rafe*, on occasion the *masran* clarified that the letter was silent by writing לֹא סָפֵר ‘the *aleph* is not pronounced’ alongside, an expression I have not seen elsewhere.²⁴³

²⁴³ The comment ‘the *aleph* is not pronounced’ can be found in the following two examples: בְּלֵאָה ‘in secrecy’ (1Sa 18.22; spelled without *aleph* in L); וַיֵּאָסֶף ‘and [Saul] increased’ (1Sa 18.29).

Characteristic of early, near-Sephardi type scripts, left justification involves either the use of dots or nothing at all, avoiding the partial letters so common in Tiberian scripts (see IIB1169+; §6.6.4.). By Tiberian script standards, the leaf size is small: 24.75 x 23.25 cm (for Tiberian scripts, common dimensions are ca. 30–32 x 27–29 cm).²⁴⁴ Judging by the extant leaf of Masorah *finalis* (IIB90, p. 258), where headers written in large letters are interspersed with smaller text, a late(r) date for the writing of the MS seems preferable.²⁴⁵ There is no colophon associated.

4.5.46. IIB94+ [IIB94 = L12] (MS 71)

Complete Bible, Near-Tiberian script, 3 columns, 30/31 lines, *prior to 1099 C.E., [ca. 1000 C.E.], {11th century}.

IIB94+ is comprised of 124 leaves from six IIB classmarks: 94, 95, 203, 241, 254, and 1040. The codex is chock full of Masorah, including occasional Mm cumulative lists. The script is in keeping with what one might expect from Egypt in the 11th or 12th centuries, e.g., L, WP2, although the hand is less uniform (less practiced?) than the scribes of the aforementioned.

According to the dedicatory colophon (IIB94, p. 4) the MS contains the whole Bible, a claim unsubstantiated until recently, when I found the above listed matches from the Torah (IIB203 and 1040). The dedicator is one Joseph the elder b. Aaron, known as al-Ghazzī (the Gazan), and the dedicatee is the Karaite congregation (here

²⁴⁴ Dimensions are taken from the handwritten front papers included with the individual classmarks. These measure the dimensions of the writing, rather than the absolute size of an individual leaf.

²⁴⁵ Cf. Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 2, p. 23, who point out the use of large and small letters for the biblical text grows in popularity from the end of the 12th century onward. While this is not wholly similar to the present usage (within Masorah *finalis*), different size lettering is not to be found in the Masorah *finalis* of early codices generally (cf. IIB10+, IIB39+, IIB99+, etc.).

כח 'sect') in Egypt. The date of dedication is at the very end of note, and is possibly of a different hand. At present, it reads אֲמִיץ לִשְׁט '1051 of documents' but the *mem*, according to Kahle, was once a *tav*, i.e., 1411 A.G. (= 1099 C.E.).²⁴⁶ The MS is also marked as a *heqdesh* elsewhere, e.g., IIB94, p. 23: קדש ליהוה אלהי ישראל על עדת בני מקרא 'Holy to the Lord God of Israel to the congregation of Karaites'.

Thesis Mp data is taken only from the Former Prophets, the Torah sections not being of the necessary reference ranges.

4.5.47. IIB96 + (MS 12)

Torah, Tiberian Script, 3 columns, 21 lines, (11–12th century), [11th century], {10–11th century}.

IIB96 + is comprised of 56 leaves from two IIB classmarks: 96 and 1041. A number of leaves are stuck together, and the MS is in generally poor condition. Some of the lettering has eaten through the parchment, i.e., the ink used was iron gall, not charcoal. (The corrosion of the ink occurs infrequently in IIB; the reasons for which are not clear to me.)²⁴⁷ There is full Mm and Mp. The hand of the main text is quite similar to Samuel b. Jacob. Mm notes of three lines or more are generally centre justified. Left justification of the main text is typically through the

²⁴⁶ Kahle, *Masoreten des Westens*, vol. 1, p. 74.

²⁴⁷ It was generally accepted that carbon-based inks predate those of iron gall, this perhaps suggesting an explanation why the (early) codices of IIB seldom suffer from destruction arising from the chemical reaction of ink to parchment. However, this tidy chronology has been upended in the past decade; cf., Beit-Arié, *Hebrew Codicology*, p. 286; and especially the recent analysis by Cohen, *Composition Analysis of Writing Materials in Cairo Genizah Documents* (2022). Note also that although iron gall is a necessary ingredient for ink to cause a writing support to disintegrate, the simple presence of iron gall is not enough for the corrosion to take place. For example, the writing support of Sassoon 507 is in good condition, and S was written with iron gall ink; see Beit-Arié, *Hebrew Codicology*, p. 286.

use of partial letters such as *aleph* or *shin*. The Mm closure marking involves only a simple circle.

No colophon was observed. The script similarity with SbJ probably indicates the 11–12th century for the writing of this MS.

4.5.48. IIB97 + (MS 8)

Torah, “Oriental” script, 3 columns, 21 lines, 1346/7 C.E., [no mention], {n.d.}.

IIB97 + is comprised of 100 leaves from seven IIB classmarks: 97, 98, 169, 901, 917, 919, and 1052. The task of filling in the Masorah was never completed; some leaves have full Masorah while others are left blank. Left justification of the main text is mostly accomplished through letter elongation. Instead of placing Mp notes to the right of the relevant column where possible (the typical Masoretic practice), the *masran* of IIB97 + places the notes consistently on the outer margins. Catchwords in what appear to be the hand of the main text are visible on the lower left of some leaves (e.g., IIB97, pp. 23, 71; IIB98, pp. 43, 55); sometimes the quire numbers are included with the catchword. The number of bifolia per gathering is not readily discernible, but it probably could be reconstructed.

There is a colophon in the hand of the scribe himself (IIB901, p. 30). First, in the size of the biblical text are several appropriate words found in in a copy of *Talmud Yerushalmi*. ‘We have succeeded to finish in peace’ (y. *Makkot* 3.13.4).²⁴⁸ Following this and several other similar words, the colophon proper reads: ‘This pure Torah was completed in the fourth year, on the 9th of Nisan in the year

²⁴⁸ See https://www.sefaria.org/Jerusalem_Talmud_Makkot.3.13.4?lang=bi (accessed August 2023). Yosef Ofer, personal communication, November 2023, pointed out to me that the phrase does not appear in all MSS, but was probably written by the scribe of Ms. Kaufmann GEN 229. I thank Ofer for this important clarification.

5106/7 A.M. [= 1346/7 C.E.] in Alexandria, which after many days the young servant, Abraham b. Solomon wrote for himself and for his sons, may his rest be Eden.²⁴⁹ There are many men named Abraham b. Solomon in the Genizah; the few associated with Alexandria are all 11th century, and thus cannot be the same person as our scribe—but regardless, the colophon appears to be authentic. Also fully expected is the system of dating for Alexandrian MSS: namely, the use of A.M. instead of A.G. This system of dating, moreover, is characteristic of Palestinian ownership in corpus MSS.²⁵⁰

The date of the codex, 1346/7 C.E., probably makes this the “youngest” of the corpus MSS (excepting B2). Indeed, it appears that Beit-Arié is unaware of it; the last-dated parchment MS he cites was written in 1327.²⁵¹ Despite the amount of time removed between this MS and most remaining corpus MSS, the Mp data are remarkably unchanged from previous centuries; the highest Numerals’ percentage for IIB97 + is with IIB1008 + (ca. 1000 C.E.).

There are two tattered, dedicatory colophons. The first, only three lines long, is written in a nice square script, ‘to the synagogue of ...’. The second, in a semi cursive script characteristic of the 13/14th century, indicates that the MS is dedicated by a woman [name uncertain], ‘daughter of ...’ and her brother. Several

²⁴⁹ נשלמה זאת התורה הטהורה בארבעה בשנא דהוא תשעא יומין לירח ניסן שנת ה'ק"ו ליצרה במדינת נא אמן דעל כף ימה רבה וכתב העבד הצעיר לעצמו ולבניו אברהם בר שלמה נ"ע.

²⁵⁰ Many thanks to Ben Outhwaite and Nadia Vidro for this observation. Corpus MSS (with authentic colophons) that date according to A.M. include IIC1 +, IIB159 +, IIB39 +, S, IIB8 +, IIB33 +, and IIB79 +. All of these MSS, excepting possibly S and IIB33 +, appear to have been owned by the Palestinians (§4.8.4.).

²⁵¹ Beit-Arié, *Hebrew Codicology*, p. 242. And, in truth, I would not have added the MS to my corpus had the date of the MS been on the section of the MS that I examined initially (IIB97).

other names appear, but it is difficult to tell if they are patronyms or the person to whom the MS was entrusted.

In view of the quote from the Jerusalem Talmud and the use of A.M. to mark the date, the codex may have belonged to Palestinian Rabbanites—although their influence was, by the mid-14th century, already several hundred years in decline.

4.5.49. IIB99 + (MS 38)

Former Prophets, Tiberian script, 3 columns, 21/22 lines, (10–11th century), [no mention], {n.d.}.

IIB99 + consists of 112 leaves from eight IIB classmarks: 99 (pp. 5–6, 9–139), 152 (pp. 5–37, 40–62), 219, 1269, 1278 (pp. 5–16), 1325, 1326, and 1339. The MS has all the signs of a model codex. There is full Masorah, multiple pages of Masorah *finalis*, and the lettering is very careful and precise. For left justification, the main solution is a set of dots, appearing either immediately before or immediately after the final word on the line (the other significant example of this left justification style in the corpus is IIB80 +). Most margins are badly damaged through slow decay; some margins appear to have been cut off at an oblique angle with a knife. Likely the leaves were stuck together at those points, and it was easier to cut off the sticking sections than to pull them apart.

There is a long dedicatory colophon (IIB152, p. 5), with parts erased and overwritten. It appears that the dedicator Michal bat Daniel as-Sirāfi (אלסיראפי) dedicates the codex during her lifetime, but retains full possession until her passing, at which point the codex would pass to <name erased and overwritten>. The inserted name, with no attempt to make the script match, is Malka bat Yefet. The

clitic pronouns that follow are masculine, however, so a man's name was written originally.

This new owner, the original colophon continues, would keep the codex at his residence, where the Karaites could read it. If this owner has no place to keep it, he could give it <fully erased line> to the Karaites(?) in Jerusalem (i.e., this secondary owner would give the codex to the Karaites if he could not take care of it). Finally, the dedication is made in the year 1 <?> 20 of Documents. With the present images, additional decipherment of the date appears impossible. It is even plausible that the entire colophon, excepting the mention of Malka bat Yefet with its noticeably different hand, was written and subsequently emended by a single person.²⁵² None of these names appears identifiable in the Genizah record, and it is difficult to know what parts of the colophon—if any—can be relied upon.

Apart from these indeterminate clues, several words are scrawled at right angles to the main text on a page that otherwise consists only of Masorah *finalis* (IIB152, p. 13). Only partially extant, and perhaps not intended for this codex at all, the words appear to read “Second Adar פהדס, year 128 <?> A.G.”. This would yield a time range of 968–977 C.E. Without fuller context, this note cannot be relied upon either.

We are left with what was once a very nice codex that may be, judging by all appearances—excepting the dubious colophons—as early as the 10th century. It is possibly Karaite, but it was not very well cared for—and perhaps, therefore, taken

²⁵² For example, although ‘Jerusalem, the Holy City’ (lines 17–18), appears to be the original wording of the colophon, the prefixed *bet* (ב ‘in’) prior to ‘Jerusalem’ is unnaturally large and written over what appears to be אלא. Was this perhaps covering up an original פה רמלא ‘here [in] Ramla’? Thanks to Yosef Ofer, personal communication, November 2023, for this suggestion.

by Firkovich from a genizah. The MS is marked as a *heqdes* on several pages of the main text (e.g., IIB99, pp. 96–97, 123–124).

4.5.50. IIB123 + (MS 90)

Torah, near-Tiberian script, 3 columns, 21 lines, repaired *1188 C.E., [11th century], {10–11th century}.

IIB123 + is comprised of 105 leaves from six IIB classmarks: 123, 144, 161, 186, 1001, and 1093. Some leaves are stuck together; others have been reinked. According to Yeivin there is some Babylonian vocalisation and Babylonian Masoretic terminology.²⁵³ The MS is not conspicuously Babylonian vis-à-vis the features examined in this thesis, however.

There is a colophon marking the repair of the codex in what is ostensibly an early square script, where we learn that the MS, then with the Karaites in Jerusalem, is repaired with the money (חדשוהו ממון) of one Mawhūb b. Yefet ‘which he volunteered generously and repaired all the books in all the places of study (מדרשות) that belong to the Karaites ...’.²⁵⁴

Mawhūb b. Yefet is named in a letter from Solomon b. Judah in 1042 C.E., where terms for settling a leadership dispute of the Palestinian *yeshiva* are described.²⁵⁵ It would thus appear that the Mawhūb b. Yefet of the letter is

²⁵³ See Yeivin, המסורה למקרא, p. 26.

²⁵⁴ The first part reads: *זה התורה מספרי הקדש אשר בירושלם עיר הקדש תבנה במהרה במושבי בני בני מקרא ומסבי[בותם] / חדשוהו ממון מ' ור' הזקן המכבד מוהוב בן יפת אשר התנדב ברוח נדיבה ותקן כל הספרים הנמצא[ים] / 'This Torah, from the holy books which are in Jerusalem the Holy City—may it be rebuilt speedily—in the dwellings of the Karaites and from their environs, / is made new with the money of the honourable, etc. Mawhūb b. Yefet which he volunteered generously, and repaired all the books / in all the places of study that belong to the Karaites ...' (IIB186, p. 6).*

²⁵⁵ CUL T-S 13J15.11; see also Gil, *A History of Palestine*, pp. 716–717.

Palestinian, which stands in contrast with the conspicuous Karaite mention in the colophon of IIB123 + . Are these supposed to be the same person? Is the repair colophon a forgery?

Immediately following the repair colophon, but below and to the left in what may be a different hand is: ב[חצר] בכתויה ננ סנה אֶתְקָ ליוון 'in [the compound of] Bakhtawī, may his soul find rest, in the year 1500 of the Greeks (= 1188 C.E.)'. Probably this date and the prominent Karaite whose name precedes the date (see G18) are forgeries.²⁵⁶

4.5.51. IIB124 + [IIB124 = L4] (MS 47)

Former and Latter Prophets, Proto-Sephardi/“Oriental” script, 2 columns, 22–25 lines, 946–1036 C.E.,²⁵⁷ [prior to 946 C.E.], {946 C.E.}.

IIB124 + is comprised of 206 leaves from eight IIB classmarks: 124, 243, 1289, 1310, 1311, 1432, 1481, and 1485. It contains full Masorah. The ink of the codex is faded in many places, and large sections of the text, originally more Sephardi in appearance, were moved towards Oriental during a painstaking process of overwriting significant portions of the original text (in IIB124, cf. p. 16 [overwritten] with p. 62 [original hand]).²⁵⁸ The quiring (of IIB124 at least) is

²⁵⁶ Thanks to Yosef Ofer, personal communication, November 2023, who observed the Bakhtawī reference.

²⁵⁷ Beit-Arié, “Supplement: The Forgery of Colophons and Ownership of Hebrew Codices and Scrolls by Abraham Firkowicz”, p. 202.

²⁵⁸ The hand of the overwriting is still within the N. African script type—either due to the necessities of copying over a Sephardi base text or because the secondary scribe was, in fact, of N. African extraction. For a comparison of the overwritten text with similar examples still classed as “Sephardi”, see Beit-Arié and Engel, אסופות כתבים עבריים, vol. 2, esp. pp. 1–10.

quaternion, excepting for a quinion quire at the end of Kings.²⁵⁹ Quaternion quiring is to be expected for an MS from N. Africa (cf. IIB115).

It is also probable that more than one scribe was involved in the production of the codex. Although the Prophets consist of eight books, the scribal colophon reads ‘I, Joseph ha-Sofer b. Samuel b. Regātūs Qābassi, ... wrote three books of the Prophets: Jeremiah, Ezekiel, and the Book of the Twelve’.²⁶⁰ Presumably, then, other scribes also contributed to the codex but their colophons have since been lost. The MS was written in Qayrawān (Tunisia), which would account for the near-Sephardi script type of the original hand.

Firkovich presumably acquired the MS from Turkey, the Levant, or Egypt; viz., the MS travelled eastward during one of the many migrations of the intervening centuries.

The present colophon is partially blacked out; according to Beit-Arié, this was done by Firkovich. Due to legibility difficulties, the original date of composition is probably 946–1036 C.E. Firkovich, for his part, attempted to alter the colophon to read 407 C.E.²⁶¹ If the early date of C (895 C.E.) is not accepted (see above), IIB124 + appears to be one of the oldest, if not the oldest, near-complete copy of the Prophets in existence.

²⁵⁹ Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 2, p. 84.

²⁶⁰ For the decipherment of the colophon, I am reliant upon the transcription provided on Ktiv as the microfilm images are of very poor quality; see https://www.nli.org.il/en/discover/manuscripts/hebrew-manuscripts/itempage?vid=MANUSCRIPTS&docId=PNX_MANUSCRIPTS990000571730205171&scope=PNX_MANUSCRIPTS (accessed May 2023).

²⁶¹ Beit-Arié, “Supplement”, pp. 202–203.

4.5.52. IIB127 + (MS 88)

Torah, near-Tiberian script, 3 columns, 17 lines, [no mention], {n.d.}.

IIB127 + is comprised of 38 leaves from three IIB classmarks: 127, 157, and 1069. It appears to have been written by the scribe of IIB34 (cf. IIB34, p. 10 with IIB157, p. 24).²⁶² Even the corrections of the main text and the hand of the Mp appear similar. IIB127 + tends to mark instances of *qere* where the 3f pronoun is spelled with a *vav* instead of *yod* (וָ instead of הָ), a feature that can be found in a substantial minority of early codices.²⁶³

There is a dedicatory colophon (IIB157, p. 29) in a semi cursive hand that is unlikely to be earlier than the 13th century. According to this colophon, the MS is dedicated to the Karaites of the Ibn Samīḥ synagogue (בכניסה בן סמיח = Rav Simḥa), where it is not to be removed except in time of distress (אלא מן צורך).²⁶⁴ The date of the dedication appears to have been intentionally smudged.²⁶⁵ Evidence of the dedication are also marked on many leaves throughout (e.g., IIB127, p. 54).

4.5.53. IIB128 (MS 4)

Torah, Tiberian script, 2 columns, 9 lines, (11–12th century), [no mention], {n.d.}.

²⁶² IIB34 (Yeivin's L13) is not of the present corpus, but is potentially important due to the mention of the Sahlaway clan (noted Karaites in 10/11th century Egypt/Jerusalem; see IIB51 +). Note that the mentions of Eli b. Sahlaway in the 9th-century dated colophon of IIB34 may not be genuine. Yeivin has suggested the actual date is ca. 975 C.E.—this date still works for the Sahlaway clan though. See Yeivin, המסורה למקרא, p. 22.

²⁶³ In the MSS that I have observed, the וָ marked as *qere* does not appear to be a regional marker, but this would need to be confirmed.

²⁶⁴ This expression occurs several times in the IIB collection, e.g., IIB10 + and IIB128.

²⁶⁵ “The 28th of Marḥeshvan in the year <smudge> of Documents”. Note that the eight of ‘28th’ (תמאן) is spelled with the *mem* and *aleph* switched (תמאן).

IIB128 is comprised of 324 leaves, and has the smallest dimensions of the codices examined in the present study: 13.25 x 20 cm. No matching classmarks were observed. IIB128 shows some visual similarity with the work of Samuel b. Jacob (Cairo, early 11th century) and Joseph b. Jacob (Alexandria, early–mid 12th century). There is full Masorah.

There is a colophon (p. 646); however, the centre section appears to have been erased and subsequently rewritten (or, left blank and filled in later) by a different hand (cf. IIB79+). In the “rewritten” section, the colophon is dedicated ‘to the Egyptian synagogue, to the congregation of the Karaites’. This secondary hand is potentially of the 13th century or later.

Fig. 4.5.53a. Dedicatory colophon of IIB128 (p. 646)



4.5.54. IIB134 + (MS 67)

Former Prophets, Tiberian script, 3 columns, 17/18 lines, *1028 C.E., [no mention], {11–12th century}.

IIB134 + is comprised of ca. 78 leaves from five IIB classmarks: 24 (pp. 4–5), 81 (pp. 5–6, 82–105, 108–132), 134, 1336, and 1378. This badly faded and often tattered MS has full Masorah. On some leaves, the main text was retraced by a similar hand, albeit with a slightly thinner pen stroke. Vocalisation, cantillation, and Masorah were not rewritten.

A dedicatory colophon (IIB81, p. 5), certainly ancient and probably authentic due to the poor preservation of it, indicates that the MS was once dedicated by one Samuel b. Sanāqā, to be taken care of by Joseph b. Ḥasan b. Abraham b. <...> and kept at his house. Excepting Sanāqā (סנאקא), the names occur too regularly in the Genizah to be certain of accurate identification; I was not successful in locating the name Sanāqā whatsoever. To the right of the main colophon, in a later hand only partially preserved, is חדש אדר שני [אל]ף ושלש מאות וארבעים ‘the month of Second Adar, [in the year] 1340 [= 1028 C.E.]’.

4.5.55. IIB137 + (MS 24)

Torah, near-Tiberian/“Oriental” script, 3 columns, 21 lines, [no mention], {n.d.}.

IIB137 + is comprised of 101 leaves from five IIB classmarks: 137, 196, 908, 1095, and 1098. There is both Mm and Mp. The hand of this codex is variable; there are slight differences between the initial leaves and the final leaves. Making matters more confusing, inferior replacement leaves (without Masorah) were added in

places (cf. IIB908). As the text of the replacement leaves lines up perfectly with non-replaced sections, we can surmise that the replacements were created specifically for this codex. No colophon was observed, but following the end of Deuteronomy, a later hand indicates that the MS was a *heqdes* (קדש ליוי אלהים אלהי ישראל) 'Holy to the Lord God, the God of Israel'; IIB1098, p. 6).

4.5.56. IIB138 + (MS 17)

Torah, "Oriental" script, 3 columns, 21 lines, *1026 C.E., [no mention], {11–12th century}.

IIB138 + is comprised of 127 leaves from five IIB classmarks: 138, 178, 1029, 1096, and 1099. There is full Masorah and some micrography. There are numerous cumulative Mp lists, but many are no longer legible.

The scribe (or *naqdan/masran*?) wrote his name in Atbash,²⁶⁶ accompanied by a note in Aramaic: בריך אלהא דיהב חילא למבפזן עבדיה 'Blessed be God that gives strength to מבפזן [= Yešu'a], the servant of God' (IIB178, p. 7).

Immediately below this note is a dedicatory colophon. It is mostly blotted out, although some of the writing has reemerged over time. Among other things one can read 'Karaites, in the year 1338 of the Seleucids' (= ca. 1026 C.E.). The hand does not appear to be 11th century, however.

On the verso of the leaf (IIB178, p. 8, see also, e.g., IIB138, p. 109) we learn that the codex was a *heqdes*, but with no information indicating by nor for whom.

²⁶⁶ An Atbash (אָתבאַש) is a reverse cipher where the first letter of the alphabet takes the value of the final letter, the second letter the second to last letter, the third letter the third to last letter, and so on.

4.5.57. IIB141 (MS 97)

Torah, Tiberian script, 3 columns, 20 lines, (10/11th century), [no mention], {n.d.}.

IIB141 is comprised of 13 leaves. The MS has all the features common with the oldest Tiberian MSS, but exceptionally for the IIB collection, IIB141 does not appear to be part of a larger MS. The surviving leaves are tattered and in generally poor condition. Mm closure markings are often colon-circule-colon (cf., e.g., IIB51 +, IIB80 +, SbJ codices). The MS was once a *heqdes* (p. 15). There is no colophon associated.

In the present thesis, the MS's Mp data was not collated (insufficient data from within the predetermined reference ranges). The Mp terminology and paratextual features were examined, however, showing that IIB141 fits the left justification profile of most Tiberian MSS: a marked preference for partial letters.

4.5.58. IIB142 (MS 28)

Torah, Tiberian script, 3 column, 20 lines, early 11th century, [no mention], {n.d.}.

IIB142 is comprised of 8 leaves from the end of Deuteronomy. I was unable to find additional parts of the MS in IIB;²⁶⁷ perhaps it was collected/preserved due to its value-adding colophon, which reads: 'I, Samuel b. Jacob, checked and verified this codex of the Torah from the model, verified codices and it is correct and accurate' (p. 19). The hand of the colophon is similar to that of SbJ elsewhere (cf. L's colophon). It is also important to note that several emendations of the

²⁶⁷ For example, IIB141, also with 20 lines, is visually rather different; it is not likely to be part of the same codex.

consonantal text agree with L (an inserted *vav*, Deu 33.19; an inserted *yod*, Deu 33.25).²⁶⁸

On the same page as the SBJ note, but in a different hand, we learn that the codex was given as a gift from one Yefet b. Ya'abeš ha-Kohen to <...> b. חלל(?) ha-Kohen in the year 1320 A.G. (= 1009 C.E.). The date nearly matches that of L (A.G. 1319 vs. 1320). Finally, on the same page (p. 19), but in yet another hand, a Rachel bat Aaron b. Eleazer ha-Levi dedicates the codex. Most of this dedication is vocalised; the hand is not particularly early nor professional. The recipient of the donation is not specified.

None of the aforementioned, excepting, of course, Samuel b. Jacob, is known from the Genizah. On the evidence we have, it appears that this is indeed an early 11th-century codex, one that contains some emendations in the hand of Samuel b. Jacob.

4.5.59. IIB159+ [IIB159 = L2] (MS 139)

Torah, "Oriental" script, 3 columns, 23 lines, 943 C.E., [943 C.E.], {943 C.E.}.

IIB159+ is comprised of 16 leaves from two IIB classmarks: 159 and 998. The reference ranges are not contiguous, but the amount of missing text between the two is exactly equivalent to one leaf, based upon a careful comparison of the extant leaves. Both are also marked as *heqdeshim*, written in what appear to be the same hand (cf. IIB159, microfilm B, p. 6 with IIB998, p. 10); both contain 23 lines;

²⁶⁸ Not only was text of IIB142 amended to agree with L at several points, but these spellings also happen to be minority spellings. In one case, the only MSS containing that particular spelling are MSS written by Samuel b. Jacob (§6.5.6.), making the case for an SBJ connection compelling indeed.

the hands of the main text and Masorah appear similar; the leaf dimensions are almost the same.

The MS is notable chiefly for its early date and many colophons (all on IIB159, microfilm B, p. 10). It is written by Isaac ha-Kohen b. Yoḥai ha-Kohen he-Ḥaver (i.e., someone from the Palestinian *yeshiva*)²⁶⁹ in 943 C.E.

The primary owner listed is Bərikyaweh (בְּרִיקְיָוֶה) b. Ḥananya who has a large ownership colophon in the middle of the page (but no date). His name also occurs in a smaller purchase colophon on the right column where we learn that he is מְמַדִּינַת נְצִיבִין 'from the city of Nusaybin (N.E. Turkey)', but again, with no date. His name and place of origin appear in slightly different lettering from the remainder of that colophon; they were probably entered over the erased name and city of a previous owner (the remainder of this smaller purchase colophon contains generic information; swapping out the proper nouns probably was easier than writing a new colophon).

Finally, Bərikyaweh b. Ḥananya appears as the dedicator in the colophon on the left column; the codex is entrusted to Joseph b. Bakhtawī, a teacher (מְלַמֵּד) in Jerusalem to be kept in the possession of the Karaites. Presumably this caretaker is Abū Yaʿqūb Yūsuf ibn Bakhtawī, a Karaite who possessed an impressive library in 11th-century Jerusalem (also identified as Joseph ibn Nūḥ).²⁷⁰

²⁶⁹ Cf. Rustow, "*Ḥaver* (Fellow of the Palestinian Yeshiva), *EJIW*. There is no conflict between the MS being composed in greater Syria and the use of *Ḥaver*, as mention of *Ḥaverim* in the Northern Levant occurs in the Genizah.

²⁷⁰ See Khan, "Ibn Nūḥ, Joseph", *EJIW*. Joseph b. Bakhtawī's name also occurs in IIB1427: זֶה הַסֵּפֶר 'This Book of the Writings in the residence of the teacher Joseph b. Bakhtawī, may God have mercy on him ...'. Ibn Bakhtawī can also be found in

As the final colophon is the only one of the four in which the Karaites are mentioned, it is worth commenting that there do not appear to be any Firkovich emendations in it. The hand is beautiful, square-script Oriental of the 10/11th century, and, crucially, the bottom margin has decayed in such a way that it is hard to imagine a modern hand being clever enough to fit a colophon around the lacuna.

4.5.60. IIB162 + (MS 26)

Torah, “Oriental” script, 3 columns, 17–19 lines, (12–13th century), [no mention], {n.d.}.

IIB162 + is comprised of only 18 leaves from four IIB classmarks: 93 (pp. 53–54), 162, 1031, and 1068. There is considerable letter elongation on the left margin. Its Mp notes appear to be of the most independent of the present corpus. No colophon was observed.

4.5.61. IIB193, secondarily added sections of IIB82 + (MS 144)

Torah (sections of), “Oriental” script, 3 columns, 26 lines, ca. 1200 C.E.,²⁷¹ [no mention], {n.d.}.

This MS is a subsection of IIB82 + (see IIB82 +, above), but, because its leaves are a secondary addition to IIB82 +, it is analysed separately.

4.5.62. IIB206 + (MS 62)

Prophets and Writings, “Oriental” script, 3 columns, 30/31 lines, [no mention], {n.d.}.

several other MSS, e.g., G18 (see above). The Mp data of IIB159 + does not match other MSS found in the Karaite *dār* in Jerusalem, the simplest explanation being that the present MS was recognised as having “inferior” Masorah.

²⁷¹ According to the estimate of Olszowy-Schlanger, email communication, December 2021.

IIB206 + is comprised of 27 leaves from four IIB classmarks: 206, 253, 257, and 1397. The crowded format suggests that the MS may once have comprised a complete Bible. There is full Masorah, including cumulative Mm lists. No colophon was observed.

4.5.63. IIB207 + (MS 65)

Former and Latter Prophets, “Oriental” script, 3 columns, 24 lines, [no mention], {n.d.}.

IIB207 + is comprised of 46 leaves from four IIB classmarks: 207, 1165, 1166, and 1247. There is full Masorah. The books of Jos, Jer, Eze, and the Minor Prophets are missing entirely. No colophon was observed.

4.5.64. IIB289 (MS 150)

Full Bible, “Oriental” script, 3 columns, 34/35 lines, (11th century?), [no mention], {n.d.}.

IIB289 contains only 18 leaves from nine of the 24 books; parts of each of the three sections of the Bible are represented. This haphazard smattering of leaves, most with the margins intact, has the appearance of an MS being intentionally divided and sold/given away piecemeal (cf. what happened to many early Samaritan MSS).²⁷² No joins were observed; there is considerable visual similarity with IIB94 + and IIB206 + but either the physical dimensions do not match or the reference ranges conflict.

²⁷² For example, MS M of the Samaritan Targum is scattered across many libraries; see Schorch, “A Letter from the Chief of the Samaritans, with a Little Present”, pp. 419–435. It is also possible that IIB289 is a codex found in a genizah, and other sections exist in Cambridge, Oxford, or elsewhere.

The MS is a *heqdes* (p. 17). A later, careless hand added some catchwords and quire numbering, which probably occurred during a repair of the codex. The *parasha* markers are similar to what one might find in 11th-century Egypt, and in many respects the Bible appears to be a high-quality production. Although the script is not Tiberian, the difference with that script is, in part, attributable to the great many lines on each leaf: the letters of IIB289 are smaller and more crowded for practical reasons as much as for reasons of scribal skill.²⁷³ There is no colophon associated.

4.5.65. IIB927 (MS 57)

Former and Latter Prophets, “Oriental” script, 3 columns, 25/26 lines, [no mention], {n.d.}.

IIB927 is comprised of 29 leaves, containing parts of 1Sa–Jer. The MS does not contain Mm and the Mp is sparse. Part of a dedicatory inscription (*heqdes*) was written across the top of p. 6. No colophon is associated.

4.5.66. IIB988 + (MS 149)

Torah, near-Tiberian script, 3 columns, 22 lines, [no mention], {n.d.}.

IIB988 + is comprised of 36 leaves from two IIB classmarks: 988 and 1023. There is full Masorah; the hand of the MS is consistent and precise throughout. Non-numeric Mp notes consisting of single word, i.e., ׀ן ‘defective’, occur more frequently in this MS than elsewhere (*ḥaṣer* alone occurs 9x in the MS out of only 12 database instances). These would appear to be the work of a punctilious *masran*, not

²⁷³ Cf. the 34/35 lines of this codex with the 28 lines of the Aleppo Codex. Also relevant are the dimensions of the main text of IIB289: only 17.25x16.5 cm vs. 33x26.5 cm for A—note that the dimensions for the Aleppo Codex are for the full page *not* the size of the main text. See Ben-Zvi, “The Codex of Ben Asher”, p. 2.

an example of an alternate Mp recension. The *lamed* risers of the top row of each page are short; typically, scribes were happy to write the uppermost row with a notably extended length. There is no colophon associated.

4.5.67. IIB989 (MS 147)

Torah, “Oriental” script, 3 columns, 22 lines, [no mention], {n.d.}.

IIB989 is comprised of 10 leaves from parts of Exo, Lev, Num, and Deu. No matches with other IIB classmarks were observed. There is full Masorah, including cumulative Mm lists. Not all words are fully vocalised. *בִּי״ה שׁמוֹ* is disregarded in Deu 31.28 (וְאֶעֱדָה ‘and I will bear witness’). This is particularly noteworthy because וְאֶעֱדָה is one of the most reliable of the six incipient words to be observed, probably because it leads up to the Song of Moses. There is no colophon associated.

4.5.68. IIB991 + (MS 99)

Torah, “Oriental” script, 3 columns, 21/25 lines, [no mention], {n.d.}.

IIB991 + consists of 73 leaves from three IIB classmarks: 136, 991, and 1006. The MS is not particularly well-produced, and the number of lines varies drastically (21 and 25). The large “block” handwriting with equally thick vertical and horizontal lines is atypical. There is full Masorah, although perhaps not as dense as common. I was unsuccessful in discerning the number of bifolia per quire.

The binding of the MS is comprised of secondarily used parchment, probably added during a later repair. Some of the reused parchment has Arabic script (e.g., IIB991, p. 28) and some has Hebrew script (e.g., IIB991, p. 56). In one instance (IIB136, p. 23) there is what appears to be part of a colophon or legal document:

[...] ותשמע אמה [...]

[...] ל הכשרות עו [...]

[...] בן כִּגְלֹק השר [...]

[...] היה עושה כ [...]

[...] הירא מאל [...]

although no specifics can be gleaned from it. No “proper” colophon was observed.

4.5.69. IIB994 + (MS 95)

Torah, “Oriental” script, 3 columns, 20 lines, [no mention], {n.d.}.

IIB994 + is comprised of 14 leaves from three IIB classmarks: 994, 1051, and 1081. The poor condition of the MS and the few pages extant make the matches especially difficult; the inclusion of IIB1081 is not fully convincing. The Masorah is sparse. There are errors in the Mp, pointing towards a copyist with reduced understanding of his craft. One wonders, even, if a MS such as this one could have come from the genizah of the Ben Ezra synagogue;²⁷⁴ viz., it is not the sort of manuscript that one would keep past its useful life as a “holy relic”.

Despite these rather disparaging comments regarding the value of IIB994 +, the few Mp notes that IIB994 has nonetheless indicate that they were faithfully copied. They can be found in a great many other codices of the corpus that differ widely in appearance. The benefit of IIB994 +, then, appears to be its preservation of an ancient recension of Mp notes (§6.2.).

No colophon is associated.

²⁷⁴ The systematic comparison of IIB MSS against Cairo Genizah MSS to look for matches remains a desideratum. I have done some spot checking, but have thus far not been successful in finding matches.

4.5.70. IIB995 (MS 94)

Torah, “Oriental” script, 3 columns, 24 lines, [no mention], {n.d.}.

IIB995 is comprised of 8 leaves; no matches with other classmarks were observed.²⁷⁵ There is full Masorah; a number of the leaves were repaired in an inferior hand. A catchword is visible (p. 18), which is often considered to be a later feature.²⁷⁶ Due to the extensive repairs, however, the catchword could equally as likely have been written at the time of repair as at the time of initial copy. No colophon is associated.

4.5.71. IIB996 + (MS 92)

Book of Genesis, “Oriental” script, 3 columns, 22–26 lines, (12/13th century?), [no mention], {n.d.}.

IIB996 + is comprised of 36 leaves from five IIB classmarks: 996, 1013, 1037, 1106, and 1122. This is the only MS of the corpus that appears to consist of a single Bible book. The MS is not particularly well-produced (cf. the highly variable number of lines), but the script is distinctive, and the scribe enjoyed joining near-adjacent *lameds* on the top row of a page in the following manner.



The purpose of these “bows” is unclear, particularly as the scribe did not make them at every opportunity. One naturally suspects a sort of scribal signature that was

²⁷⁵ I checked the MS against all other 24-line MSS (February 2023). In MSS such as this one that are of lower quality, it is possible that adjacent leaves have line numbers other than 24, making the finding of joins much more difficult.

²⁷⁶ Beit-Arié, *Hebrew Codicology*, p. 333.

comprised of letters between the *lamed*s. When the initial examples of the “bows” are arranged sequentially from right to left, as I have done above, the text string begins ...ממשה בן חד אתכם ואת כ... which would yield something like ‘from Moses, son of one of you, and ...’. The word string descends into gibberish after this point, however; perhaps the above sequence is purely accidental, or perhaps I have not elucidated it properly.²⁷⁷

On the upper margin of a leaf in a hand that I would otherwise have judged to be older than the MS itself, is written ‘In the name of the God of Eternity we will do and succeed [...] / I will begin with the help of the Creator because he understands [...] / the truth and teaches a human knowledge and does righteousness to thousands [...]’ (IIB1013, p. 6).²⁷⁸ The wording of the first line is similar to Palestinian *ketubbot* (e.g., CUL T-S 12.548, בשם יי נעשה ונצליח).²⁷⁹ This could indicate that the owner was of Palestinian background. The final several words are written upon a repaired section of the codex, indicating that the writing occurred a considerable time after the composition of the codex—thus, the writer of this pious wish could only have been a secondary owner.

²⁷⁷ Allowing for creative license, one might read ממשה בן חדאת, where the *tav* of חדאת is understood to indicate *dalet*, i.e., Ḥaddād ‘the smith’. The remaining line still appears to be gibberish, however.

²⁷⁸ בשם אל עולם נעשה ונצליח ... / אתחיל בעזרת הבורא כי הוא המבין ... / האמת ומלמד אדם דעת ועשה חסד לאלפים ...לאה.

²⁷⁹ Thanks to Ben Outhwaite for pointing this out to me. See also Friedman, *Jewish Marriage in Palestine*, vol. 1, pp. 15, 91–97. Elsewhere, the first line occurs in early modern and modern Yemenite MSS: See John Rylands, Gaster Hebrew MS 4 (17th century); Refaeli Auction House, Lot 351, 3 April 2019 (19th century), viewable at <https://il.bidspirit.com/ui/lotPage/source/catalog/auction/6085/lot/127109/%D7%9B%D7%AA%D7%91-%D7%99%D7%93-%D7%A1%D7%93%D7%A8-%D7%AA%D7%99%D7%A7%D7%95%D7%9F-%D7%9C%D7%97%D7%92-%D7%94%D7%A9%D7%91%D7%95%D7%A2%D7%95%D7%AA?lang=en> (accessed May 2023).

No colophon was otherwise observed. There are catchwords that appear to be original (e.g., IIB1013, pp. 19, 33, 49), which probably indicates a later date of composition than many corpus MSS.²⁸⁰ The catchwords reveal that the MS is bound using the atypical (for Oriental codices) quaternion quiring pattern. As the script of the MS is as uncommon in the IIB collection as quaternion quiring, the probable provenance of this codex is outside of Egypt/Land of Israel. It could have been brought to Egypt(?) at an early point, whereupon the “older” (i.e., more typical early Oriental) hand wrote the above-translated pious statement. Alternately, perhaps Firkovich acquired the MS while in the earlier part of his trip to the Middle East (1863–1865) when he visited various towns in the northern Levant and Turkey.²⁸¹

4.5.72. IIB999 + (MS 146)

Torah, “Oriental” script, 3 columns, 23–25 lines, *893 C.E., (ca. 1200?), [no mention], {n.d.}.

IIB999 + is comprised of 122 leaves from nine IIB classmarks: 176, 200, 201, 999, 1015, 1033, 1111, 1114, and 1117. The codex appears to be an average quality production (full Masorah and generally neat, but not of the level of the Tiberian codices, nor, e.g., does the MS follow *בִּיָּה שְׁמוֹ* in Deu 31.28). The MS marks Mm closure with frequent recourse to the comma-circule-colon method (cf. SbJ). There is some letter elongation used to left justify the main text.

There is a dated colophon (IIB201, p. 5), only one line long, which reads: תם
שנת אֲרֶה לִינן ‘completed in the year 1205 A.G.’ (= 893 C.E.; perhaps אֲלֶה instead of

²⁸⁰ Beit-Arié, *Hebrew Codicology*, pp. 333, 357.

²⁸¹ See Elkin and Ben-Sasoon, “אברהם פירקוביץ’ וגניזות קהיר”, esp. pp. 60–62.

הָאֵלֹהִים, which would yield 1035 A.G./723 C.E.). Not only are both dates unacceptably early for an MS such as this, but the entire line also appears to have been written over an erasure.

There is also a full page of writing (IIB1114, p. 6), poorly preserved, that I have not succeeded in deciphering. Part of the trouble is that the ink on the page appears in reverse; viz., it is an ink transfer from a no longer extant page opposite. The distance between the lines shows that the ink transfer could not have come from a page of the present biblical text, and the shape of the letters (cf. *shin*) show that the hand of this “colophon” was probably not medieval. Perhaps the ink transfer is merely from a discarded document that was stored adjacent to IIB999+.

4.5.73. IIB1003+ (MS 82)

Torah, near-Tiberian, three columns, 21 lines, *purchased 1018–1027 C.E., [no mention], {n.d.}.

IIB1003+ is comprised of ca. 28 leaves from five IIB classmarks: 80 (pp. 253–254), 1002 (pp. 5–29),²⁸² 1003, 1047, and 1082. The extant pages are in generally poor condition; no repair attempts are visible. The MS has full Masorah, including cumulative Masorah. There is an ownership colophon (IIB80, p. 253) with a purchase date of 133<?> A.G. (= 1018–1027 C.E.).²⁸³ The MS belongs to Judah <...>. The name and date are the least legible parts of the colophon still extant; perhaps they are secondary insertions.

²⁸² The remaining leaves of IIB1002 do not appear to belong (pp. 30–73), but the ranges are non-contradictory with IIB1003+, and I have not succeeded in locating any matches for them elsewhere.

²⁸³ The inclusion of the colophon (IIB80, pp. 253–254) with IIB1003+ is probable, but cannot be stated definitively due to the small amount of text remaining. I would place the likelihood of the match at around 80%.

4.5.74. IIB1008 + (MS 151)

Torah, Proto-Sephardi script, 3 columns, 25 lines, (ca. 1000 C.E.), [no mention], {n.d.}.

IIB1008 + is comprised of 97 leaves from four IIB classmarks: 146, 182, 1008, and 1058. The hand is that near print-perfect proto-Sephardi hand also found in IIB40 + (994 C.E.), and may form part of the same codex. This is because IIB40 + 's colophon reports a full Bible, and with IIB1008 + we have the needed Torah, also in 25 lines, in a very similar hand.²⁸⁴

Haftara readings are noted explicitly in the margin in a manner I do not recall having seen so clearly elsewhere, e.g., אפטרותא דויקרא בישע' עם זו יצרת לי עד 'the *haftara* reading for *way-yiqra*' [Lev 1.1–5.26] is Isa 43.21–44.6' (IIB1008, p. 57). This particular example corresponds to the Babylonian reading cycle; it does *not* correspond to the Palestinian reading cycle.²⁸⁵

There is full Masorah. When marking Mp strings of more than three words, a circule is placed at every word junction of the chain, unlike many Tiberian MSS that prefer to mark the first and last word junctions only.

In some cases, a second hand has inserted some Mp comments, often adding catchwords to previously written Mp numerals (e.g., IIB1008, p. 9), or even Mm (e.g., IIB1008, p. 10). Similarly, a secondary Mp hand (the same one?) has noted

²⁸⁴ Another possibility, but with 24 lines instead of 25, is IIB54 + (see above). A short description of IIB40 + (not of this corpus) and a list of its relevant joins may be found in Khan et al., *The Oxford Grammar of Biblical Hebrew*, forthcoming.

²⁸⁵ For Palestinian readings, known from the Genizah, see Yosef Ofer's unpublished list, "ההפטרות על", available at <https://faculty.biu.ac.il/~ofer/papers/haftarot3.pdf> (accessed May 2023). For a convenient comparison of other traditions, see Wikipedia (Hebrew) s.v. "הפטרות"; see also the slightly different list in the English version of the same (both accessed May 2023).

some cantillation differences in the margin. Some are prefaced with אֶלְגַּזִּי *al-Ghazzī* (e.g., IIB1008, pp. 17, 25, 26, 30, 64); others begin with פִּלְגִּי ‘difference of opinion’ (e.g., IIB1008, p. 28); with others, the alternate is simply listed in the margin (cf., IIB1008, p. 46). The latter two types can be found in many codices. The first type, with אֶלְגַּזִּי, only occurs here, to the best of my knowledge. This authority is presumably a Masorete, the most likely candidate of which is Moses of Gaza (fl. ca. 800–825 C.E.).²⁸⁶

Although the quiring pattern, whether quaternion or quinion, cannot be detected, it is to be supposed that the quaternion pattern was used, as is the case with IIB115+, a visually similar Sephardi/N. African codex thought to be from the late 10th century.²⁸⁷ There is no colophon associated—but cf. the colophon of IIB40+, found on IIB115, p. 77, dating to 994 C.E.

4.5.75. IIB1009+ (MS 153)

Torah (full Bible?), “Oriental” script, 3 columns, 27/28 lines, (11th century), [no mention], {n.d.}.

IIB1009+ is comprised of 62 leaves from two IIB classmarks: 1009 and 1123. This was probably once a full Bible; I have not searched for matches outside of the Torah, however. There is full Masorah. A catchword is evident, but in a later(?) hand (IIB1009, p. 40). Some of the *sedarim* markers, *parashiyyot* markers, Mm closure markers, and ‘mid-point of book’ markers of IIB1009+ are quite similar to


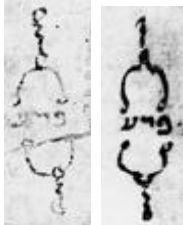
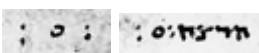

²⁸⁶ See Mann, *The Jews in Egypt and Palestine*, vol. 2, p. 47; Kahle, *Masoreten des Westens*, vol. 1, p. 39. Yeivin, מסורה למקרא, p. 114, refers to the what is perhaps the same person as Moses Gamzūz (משה גמזוז); see CUL T-S 18A1 (f. 4r and 3v), the name as given there is משה גמז׳. Finally, the name appears as משה העוזי הנקדן ‘Moses of Gaza the vocaliser’, in EVRII142.

²⁸⁷ Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 1, p. 99.

those of Samuel b. Jacob—even the Mm note layout of a two-column width of Mm notes (supra) over a single column width of Mm notes (infra) is like SbJ.²⁸⁸ It is difficult to suppose that these similarities are wholly coincidental.²⁸⁹

The main text, however, is decidedly different in appearance, and not all paratextual features match those of SbJ. Additionally, there are some Mp notes written in a very dim ink, while the remainder are highly legible (cf. IIB1009, p. 9). The simplest explanation is that several hands were at work. First, the main text and some Mp were entered by hand one. Then, at a later point, the codex was handed to SbJ or someone closely associated with his “school” to complete the task.²⁹⁰ Some of these original Mp were reinked; others were ignored. Mm was added. The vocalisation seems to have been added initially, but subsequently emended. (To what extent the vocalisation is the work of a secondary hand is difficult to establish with the current microfilm images.)

There is no colophon associated.

Fig. 4.5.75a. Paratextual features of IIB1009+ compared with an SbJ codex			
IIB1009+:			
IIB1009, pp. 5, 9 	IIB1009, pp. 7, 116 	IIB1009, pp. 35, 37 	 IIB1009, p. 10
Some selections from IIB60+ (an SbJ codex):			

²⁸⁸ See Phillips, “A New Codex from the Scribe behind the Leningrad Codex”, pp. 8–9.

²⁸⁹ For paratextual features common to Samuel b. Jacob codices, and a bibliography of recent research on SbJ, see Beiler, “Samuel b. Jacob and St. Petersburg EVR II B 60+”, forthcoming.

²⁹⁰ Alternately (and perhaps less probably), perhaps many of the SbJ codices and IIB1009+ were secondarily marked by the same person/group of people—at least as regards markers like *parasha* and ‘half point of book’.

IIB60, pp. 17, 23 	IIB60, pp. 19, 31, 40 	IIB60, pp. 7, 13 	IIB60, pp. 67, 87 
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4.5.76. IIB1011 (MS 145)

Torah, Italian script, 3 columns, 28 lines, (12th century), [no mention], {n.d.}.

IIB1011 is comprised of 80 leaves; parts of each book of the Torah are extant; no joins with other classmarks were observed. The hand is similar to that found in R3 (see above), hence the Italian script designation.

The Mm and Mp are limited. The Mp notes that do occur are more likely to be written in full (fewer abbreviations), or contain more words than typical. These differences are probably attributable to a different exemplar, as the following illustrates. In Gen 27.3, the *qere* צִיד ‘venison’ (*ketiv* צִידָה), in addition to being marked with a simple ק ציד ‘צִיד is read’, also notes a variant opinion: ציד קרי פלג קר ציד קרי פלג קר ‘צִיד is read; according to the dissenting opinion both what is read and what is written are צִיד’. The only other corpus MS to note the difference of opinion is S, which goes on to state that the school of Nehardea spelled the *ketiv* without the *he*. As this example shows, the exemplar of IIB1011 was both (1.) atypical and (2.) drew from Babylonian Masoretic materials.²⁹¹

The MS was ruled energetically with a hard point, viz., although the MS is in poor condition, and the microfilm not much better, the ruling lines are easily visible

²⁹¹ In the present database, a simple ק ציד (or similar) occurs in 31 MSS at Gen 27.3; IIB1011 and S are the only two MSS to opt for a longer Mp comment.

throughout. I am not confident whether the ruling was done on the hair side or the flesh side, but the hair side appears more likely. According to Beit-Arié, the Oriental practice was to rule on the flesh side while European and Maghrebi scribes did the opposite—which would indicate a non-Oriental zone of production for IIB1011.²⁹²

Catchwords, located in the lower left of the leaf preceding a new quire, indicate that quiring is according to the Oriental practice with a gathering of five bifolia, instead of the Ashkenazi gathering of four.²⁹³ R3, the other Italian script corpus MS also uses the quinion gathering.

There is no colophon associated.

4.5.77. IIB1014 + (MS 93)

Torah, “Oriental” script, 3 columns, 28 lines, [no mention], {n.d.}.

IIB1014 + is comprised of 24 leaves from two IIB classmarks: 1014 and 1035. There is full Masorah, including a considerable number of cumulative Mm notes. The consonantal text appears very accurate, excepting at least one instance where אלהים was substituted for יהוה (Gen 30.27). When marking for *qere*, sometimes only the replacement word is written adjacent; no ק or י/י is included. There is no colophon associated.

4.5.78. IIB1160 + (MS 58)

Former and Latter Prophets, “Oriental” script, 3 columns, 22–24 lines, [no mention], {n.d.}.

IIB1160 + is comprised of 184 leaves from ten IIB classmarks: 1159, 1160, 1162, 1239, 1248, 1249, 1256, 1280, and 1286. There are some slight differences

²⁹² Beit-Arié, *Hebrew Codicology*, p. 391.

²⁹³ Ibid., p. 304.

between the Former and Latter Prophets; it is possible that they are of two separate codices. The MS contains full Masorah. At some point, folio numbers were inserted on some leaves. The parchment contains some holes; the text is merely written around them (IIB1160, pp. 111/112, 115/116).

The consonantal text appears to follow L in some instances. For example, in 1Ki 8.52, the majority of corpus manuscripts spell פִּתְחוּת 'open' defectively (פִּתְחוֹת); only a handful of MSS follow L. The same occurs with הַתְּשִׁיעִית 'the ninth' (2Ki 17.6) where the majority of MSS use the defective spelling הַתְּשִׁעִית instead of that used by L and IIB1160+ (§6.5.6.).

A secondary hand marked some *haftara* readings. Those examined appear to be Babylonian (e.g., 1Sa 11.14 for *Korach*; IIB1160, p. 47); they do not match the Palestinian or Karaite customs. The left justification pattern (mostly a ragged margin or dots) is in keeping with a non-Palestinian zone (§4.2.5.; 6.6.4.).

There is no colophon associated; a N. African origin seems as likely as any.

4.5.79. IIB1167 (MS 45)

Former Prophets, "Oriental" script, 3 columns, 24 lines, [no mention], {n.d.}.

IIB1167 consists of only two leaves containing 1Sa 16.23–18.5. The codex has full Masorah, although the production itself is of a lower quality: there are frequent spelling differences from A and L; sometimes the text does not agree with its own Masorah; in some instances, the *setuma* spacing differs from what is commonly expected. In these instances of atypical *setuma* breaks, the masran corrected the spacing "failure" by marking the places with נֶאֱפָצַל 'a different custom has a section break here' (נוסחא אחרִינא פֿצל [פֿצל]), a rare instance where Arabic has

made it into the wording of the Masorah.²⁹⁴ For left justification, partial *aleph* or *shin* are used, along with limited letter dilation and incipient letters.

As with many manuscripts of the corpus, marginal *nun/zayin* are employed when marking *qere* (see §6.6.1.), however, these letters in IIB1167 are of the hand size of the remaining Mm and were added at the same time, rather than at a point prior—as is typically the case for this marginal letter.

1Sa 17.1 is marked as the *haftara* reading for כִּי־תֵצֵא ‘when you go forth’ (Deu 21.10), which indicates that the readings could *not* have been of the Palestinian rite. This is because the Palestinian tradition has seven *haftarot* of consolation following *Tisha B’av* whereas other traditions simply have the “usual” *haftarot*.²⁹⁵

IIB1167 has no associated colophon.

4.5.80. IIB1169 (MS 72)


Former Prophets, near-Tiberian script, 3 columns, 25 lines, [no mention], {n.d.}.

IIB1169 is comprised of 38 leaves, containing Jos 1.15–1Sa 10.11. No matching classmarks were found. There is full Masorah, and the script is very neat. The MS is an anomaly in that MSS with Tiberian/near-Tiberian scripts almost never have 25 lines (the maximum is 22 lines for part Bibles, while full Bibles have ca. 27–30 lines).²⁹⁶ Also less common is the means of left justification: in the majority of

²⁹⁴ In my database the word פָּצַל occurs 5x, and only in this MS. However, פָּצַל also occurs in three other corpus MSS: G18 (see Penkower, “כתב־יד ירושלמי של התורה”, pp. 58–59, n. 43), the examples from G18 have either פָּצַל or לֹא פָּצַל; IIB33 (p. 239); and IIB1281 + (IIB1337, p. 7).


²⁹⁵ Many thanks to Yosef Ofer, personal communication, November 2023, for pointing this out to me.

²⁹⁶ The claim is based upon data I collected regarding the number of lines in each MS in the IIB collection. I am happy to provide this information upon request.

instances, a pair of dots (e.g., ) is preferred over part letters.²⁹⁷ The script resembles that of S and V. Because both the double-dotting and script are features associated with N. Africa/early Sephardi MSS, a tentative N. African provenance may be suggested (see §4.2.5.; 6.6.7). Mm closure markings typically involve sequences of alternating circles and colons (i.e., o : o :). This method for Mm closure is found in Egypt by the 11th century (cf. Samuel b. Jacob, 1008 C.E.), but as SbJ probably immigrated to Egypt from farther west,²⁹⁸ the Mm closure marking in the present MS may be more than coincidental—at present, too little is known to be certain. There is no colophon associated.

4.5.81. IIB1180 + (MS 78)

Former Prophets, “Oriental” script, 3 columns, 26 lines, [no mention], {n.d.}.

IIB1180 + is comprised of only 15 leaves from four IIB classmarks: 1180, 1211, 1231, and 1235. Mm and Mp are minimal. Mm closures are often ornamental (e.g., ) . Very little is done to ensure left justification of the main text, making the margin somewhat ragged. On occasion, incipient letters are used as filler; slightly more frequently, three dots in the shape of an upside-down triangle occur

²⁹⁷ For proto-Sephardi/N. African MSS that employ dotting for left justification (as opposed to partial letters or letter dilation), cf. IIB90 + and IIB115 + (not of this corpus); V is similar (little/no partial letters, the use of dots is infrequent, the scribe leaves the left margin somewhat jagged); note also the tendency of IIB124 + to leave the left margin jagged (although no dots are used). Similarly, Sephardi-type MSS of the late 12th century and following preferred to avoid partial letters when left justifying, either leaving the left edge jagged or elongating letters, cf. Paris BN hébr. 105 (1197/8 C.E.). Also note that IIB99 +, with Tiberian script, uses the double-dotting method for left justification.

²⁹⁸ See the suggestions and considerations for SbJ’s ancestry in Outhwaite, “Beyond the Leningrad Codex: Samuel b. Jacob in the Cairo Genizah”, p. 337.

(i.e., ✡), a method that I have not seen elsewhere. Hair follicles can be seen on the margins of some leaves.

Following 2Ki 4.37, ‘to here’ was written in Judaeo-Arabic (אלי הנא). This indicates that the writer of the note followed the *haftara* custom now associated with N. Africa/Italy/parts of Ashkenaz to read 2Ki 4.1–37 for *parashat vay-yera* (Gen 18.1–22.24), rather than stopping at verse 23, as was the Sephardi custom. (For *vay-yera*, Karaites read Isa 33.17–35.12, and the Palestinians read starting in Isa 33.17.) Thus, the Bible was in possession of a Babylonian synagogue.²⁹⁹

There is no colophon associated.

4.5.82. IIB1233 + (MS 54)

Former and Latter Prophets, “Oriental” script, 3 columns, 24 lines, [12th century], {n.d.}.

IIB1233 is comprised of 86 leaves from two IIB classmarks: 1233 and 1245; the match is not wholly certain. Only the centre of this tattered codex is still preserved; Jos–1Ki (excepting several chapters in 1Sa) and Mic–Mal are missing entirely. Of the extant pages, some are stuck together, and thus not photographed; nearly all of the margins—and even some of the main text—has crumbled away. The Masorah, particularly the Mm, is sparse. The occurrence of the marginal *nun/zayin* is quite frequent, however (see §6.6.1.). No colophon is associated.

4.5.83. IIB1243 + (MS 56)

Former Prophets, “Oriental” script, 3 columns, 24 lines, [no mention], {n.d.}.

²⁹⁹ For all reading customs of the *haftara* excepting that of the Palestinians, see Wikipedia, s.v. “Haftara”. For the Palestinian custom, see Ofer, “ההפטרות על פי המנהג התלת־שנתי”.

IIB1243 is comprised of eight leaves from two IIB classmarks: 1243 and 1255. The MS has full Masorah. There is some letter elongation for left justification. No colophon is associated.

4.5.84. IIB1270 (MS 53)

Former and Latter Prophets, “Oriental” script, 3 columns, 22 lines, (12th century?), [no mention], {n.d.}.

IIB1270 contains 57 leaves and contains 2Ki 18.37–Jer 5.14; 6.15–17.8; no matches with other classmarks were observed. There is both Mm and Mp, but neither occurs with high frequency; sometimes the Mm on a page consists of a single note. There is evidence of more than one hand in the Mp notes. Although the Masorah is infrequent, the rate of use for the marginal *nun/zayin* is the highest of the corpus (see §6.6.1.).³⁰⁰

There are catchwords in the hand of the main text on the bottom left corner of the page, occurring only at the conclusion of each quire (e.g., pp. 21, 42). The use of catchwords is not known to occur prior to the 11th century, and remained a generally uncommon feature in the 11th and 12th centuries.³⁰¹ Typical for Oriental codices, the MS was quired in gatherings of five bifolia (the quinion structure).

There is no colophon associated.

4.5.85. IIB1275 (MS 77)

Former Prophets, “Oriental” script, 3 columns, 21 lines, [no mention], {n.d.}.

³⁰⁰ It is possible that the usage pattern of the marginal letter in this MS differs from usage patterns in other corpus MSS, i.e., the letter meant something different to this scribe; the matter deserves a careful investigation.

³⁰¹ Beit-Arié, *Hebrew Codicology*, pp. 328, 333.

IIB1275 is comprised of 72 leaves containing parts of Judges, Samuel, and Kings. No matching classmarks were observed. The hand is not exceptionally neat, and sizeable errors were introduced to the main text, e.g., the text of 1Sa 19.20–21 is badly scrambled through homoeoteleuton (p. 47). The Mm is limited, occurring mostly in a single line across the bottom of the page. The Mp, although sparse, occurs somewhat more regularly. Across the top of each page is written קדש ליהוה ‘Holy to the Lord’ (i.e., this MS was probably a *heqdes*). There is no colophon associated.

4.5.86. IIB1281 + (MS 43)

Former Prophets, “Oriental” script, 3 columns, 20/21 lines, [no mention], {n.d.}.

IIB1281 + consists of four leaves from two IIB classmarks: 1281 and 1337. This codex, although with full Masorah, is of an average hand—at best. A secondary hand marked a space break with the Judaeo-Arabic פצל ‘section break’ (IIB1337, p. 7).

Because it contains only four, nondescript leaves from the middle of 1Sa, there may be additional leaves of the codex within the classmarks of the IIB collection. As codices of this quality level are more likely to vary the number of lines used, it is possible that remaining leaves have line numbers slightly different than the present leaves; I have not yet been able to run these comparisons. No colophon is in evidence.

4.5.87. IIB1285 + (MS 69)

Former Prophets, “Oriental” script, 3 columns, 24 lines, [no mention], {n.d.}.

IIB1285 + consists of only 11 leaves from three IIB classmarks: 989, 1285, and 1474. There is no Mm and the Mp is sparse. The codex is not of particularly

high quality. On the margins of some leaves, hair follicles can be seen, something not typically seen with Oriental parchment—or, sometimes, with less expensive parchment.³⁰² There is no colophon associated.

4.5.88. IIC1 + (MS 162)

Torah with *tafsīr*, Tiberian script, 1 column, 19 lines, early 11th century, [by SbJ = early-11th century], {11th century}.

IIC1 + is comprised of 528 leaves.³⁰³ Despite the single column format, there is full Masorah. The scripts of the MS are of three sizes. First, the letters of the Hebrew biblical text are large, approximately what can be found in a more typical, three-column codex. Second, the *tafsīr* (the Arabic translation of the Hebrew by Sa'adia Ga'on, interposed between the Hebrew verses) is about half the size of the original Hebrew. Finally, the Mm and Mp are approximately half the size of the *tafsīr*.

The MS is bound into two volumes; one contains Gen–Lev, the other Num–Deu. The leaves are made of double-thick paper, two thin sheets glued back-to-back. At present, however, many of the leaves have become delaminated, so that each leaf appears to be blank on its (formerly glued) reverse. This has caused some confusion for researchers as the reverse side of most of these leaves has not been

³⁰² I have not kept a tally of the number of MSS with occasional hair follicles visible; there are probably a dozen or more, all, if my memory serves, on lower quality MSS. Regarding the usual obliteration of the hair follicles in the preparation of Oriental parchment, and the means through which it was achieved (polishing instead of scraping), see Beit-Arié, *Hebrew Codicology*, p. 242.

³⁰³ See Yeivin, המסורה למקרא, p. 24.

photographed, leading one to think that the occasional blank image is a blank verso when it is only the split centre where the glue once was.³⁰⁴

Additionally, several leaves are duplicates of one another, and can be found outside of St. Petersburg under the following three Genizah classmarks: CUL T-S Ar.1a.38, CUL T-S AS 72.79, and Oxford Heb.b.9/4.³⁰⁵ The Genizah leaves are the presumed originals that were discarded during original composition of the codex due to errors(?) found on them.³⁰⁶

The MS has colophons for six different people/groups of people. Four of these colophons reoccur in multiple places throughout the MS. First, and most importantly, there is a single scribal colophon by Samuel b. Jacob, the well-known Egyptian scribe, thus dating the MS to the early part of the 11th century.

The primary owner is Solomon ha-Paqid b. Abraham, written in large letters on eight different pages throughout the MS. As the hand of this ownership colophon

³⁰⁴ E.g., Ofer's suggestion that the reverse of a leaf of Exodus in IIC1 + was evidence of the placement of a *parasha* break at a place not elsewhere attested: it is not; it is merely the delaminated reverse. See the discussion by Ofer, "Hebrew Bible Manuscripts Written by Shmuel ben Yaakov", EAJS conference presentation, 2018.

³⁰⁵ The CUL fragments were noted in 2009 by Vollandt, "Two Fragments (T-S AS 72.79 and T-S Ar.1a.38) of Saadiah's *tafsir*", available at <https://www.lib.cam.ac.uk/collections/departments/taylor-schechter-genizah-research-unit/fragment-month/fragment-month-12-4> (accessed September 2023). The Oxford fragment has not been published, at least not in reference to SBJ; it was pointed out to me by Nadia Vidro and Ben Outhwaite (personal communication, November 2022), for which I am grateful.

³⁰⁶ CUL T-S AS 72.79, Ox. Heb.b.9/4, and IIC1 all share Exo 25.3–5. This suggests that one leaf required several rewrites to format properly. See also Beiler, "Genizah Fragments of Saadiah's *tafsir* by Samuel ben Jacob", available at <https://www.lib.cam.ac.uk/collections/departments/taylor-schechter-genizah-research-unit/fragment-month/fotm-2022/fragment-9> (accessed September 2023). The hypothesis that the paper leaves of IIC1 + were of double-thickness, suggested in the above publication, was confirmed by Ekaterina Belkina during a recent visit to the Russian National Library (December 2022). Many thanks Belkina and to Nehemia Gordon for their help.

is the same as that of the main text, i.e., written by SbJ, Solomon b. Abraham was presumably the person who commissioned the work.³⁰⁷

Above the Solomon b. Abraham colophons (5x), or below (1x), in a neat Oriental square script, is a purchase colophon of Obadiah b. ‘Olah ha-Zaqen, Ne’əman Bet Din [‘Court Trustee’?] b. Peraḥya he-Ḥaver b. Ḥalfon he-Ḥaver b. Isaac.

Below the Solomon b. Abraham colophons in a semi cursive hand are the purchase colophons (6x) of Solomon ha-Kohen, Av Bet Din of All Israel, b. Elijah ha-Kohen, Rosh Yeshivat Gaon Jacob [i.e., the Palestinian Gaon] for his associate(?) (לחמודי)³⁰⁸ Zadok ha-Kohen. The colophon itself was written by Amram he-Ḥaver b. Zedekiah on Friday, 3rd of Sivan, 4844 A.M. (= 10 May 1084 C.E.). Solomon ha-Kohen is a well-known from the Genizah, and was appointed Av Bet Din in Tyre in 1081 C.E. by his father Elijah during the waning years of the Palestinian Gaonate—and three years prior to Solomon’s acquisition of IIC1 + . The “associate” mentioned, Zadok ha-Kohen, is possibly Zadok b. Josiah, the third (השלישי) in leadership of the *yeshiva*, also appointed to that position in 1081 by Solomon’s father Elijah ha-Kohen.

³⁰⁷ There are no obvious Genizah matches for a Solomon b. Abraham of the early 11th century, although he may have been the son of Abraham b. Gaon Solomon b. Judah (fl. early 11th century); e.g., CUL T-S 18J4.17 (ca. 1025 C.E.), CUL T-S 13J26.1 (ca. 1029 C.E.), and CUL T-S 13J14.23 (ca. 1030). If Solomon’s father was active in the 1020s, then his son was probably of that time or later. SbJ contracted to write a codex of the Prophets and Writings in 1021 C.E. (CUL T-S 10J5.15), so we know he would have been a contemporary of Abraham b. Solomon; it is possible that SbJ continued working into the 1030s and 40s.

³⁰⁸ It is also possible that Zadok ha-Kohen was the son of Solomon ha-Kohen.

Solomon b. Elijah eventually succeeded his brother Abiathar as Gaon ca. 1112 C.E. It is not clear if Solomon or Zadok b. Elijah ever resided in Fuṣṭāṭ, or if they remained in northern Palestine (Tyre, and then Damascus) like Abiathar did, but succeeding Geonim clearly worked in Egypt. It is possible, then, that IIC1 + would have made its way (back) to Egypt, along with the Palestinians who were moving there in the early years of the 12th century.³⁰⁹ Alternately, perhaps Firkovich acquired the MS in Damascus.

Another ownership colophon, in a large, semi cursive script, occurs six times, in each case below a Solomon b. Abraham colophon. The owner, according to this colophon, is Sitt al-Kull Mubāraka Aveinu Gaon.³¹⁰

There is also a single colophon (microfilm D, p. 276) written in Judaeo-Arabic, signed by Aaron b. Joseph, and dated to 1598 A.G. (= 1286 C.E.).³¹¹

Conspicuously absent from these many colophons is a single mention of the Karaites. On the contrary, the persons mentioned are clearly of the Palestinian *yeshiva*. These data suggest that IIC1 + was *not* in the possession of a Karaite synagogue, as so many of Firkovich's MSS of the Second Collection appear to have been.

³⁰⁹ See Gil, *A History of Palestine*, pp. 745, 772–776. The chief source of information for these Geonim is the “Abiathar Scroll”, written in 1094 by Solomon's brother Abiathar. See Bareket, “Megillat Evyatar (Scroll of Abiathar)”, *EJIW*.

³¹⁰ Although many women in the Cairo Genizah are referred to as Sitt al-Kull, and many others go by the name Mubāraka, none quite match the name here; the closest I could find is Sitt al-Kull bat Berakot, mentioned in a *get* (CUL T-S 8.131).

³¹¹ No person named Aaron b. Joseph appears in the Genizah record for the late 13th century—as might be expected for the time period (cf. Goitein, *A Mediterranean Society*; Mann, *Texts and Studies*, vol. 1).

4.6. Difficulties with the Firkovich Collections

The manuscripts collected by our oft-mentioned, 19th-century, Crimean Karaite Abraham Firkovich suffer from a number of problems that have stymied or misled researchers in a variety of ways.

4.6.1. Access

Access to the manuscripts, all in St. Petersburg, was difficult prior to 1991, and continues to be difficult today (if not always for the same reasons). Although many leaves of the manuscripts were captured on microfilms in the 1990s, the image quality is mixed at best. It is only in the past several years, furthermore, that these microfilms were made accessible to viewers outside of the National Library of Israel. As the possibility of in-person visits to the National Library of Russia has all but closed over the past several years, we remain utterly reliant upon those sub-optimal microfilms.³¹²

4.6.2. Possibility of Forgery

Abraham Firkovich (d. 1874) has cast a shadow over the collections he assembled. Various studies have observed instances where Firkovich engaged in forgery when it suited his central purpose: namely, expanding the perceived influence of Karaites of the past by means of changing written evidence.³¹³ In previous sections I have

³¹² I planned two trips to the RNL, the first for November 2021 and the second for May 2022. The first trip was cancelled due to COVID; the second due to the current political climate.

³¹³ See Sirat, in Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 1, p. 20. Recent contributions specifically pointing out some of forgeries include Beit-Arié, “Supplement: The Forgery of Colophons and Ownership of Hebrew Codices and Scrolls by Abraham Firkowicz”, pp. 195–205; Shapira, “*Et tout le reste est littérature*, or: Abraham Firkowicz, the Writer with a Chisel”, pp. 173–194; Ofer, “Abraham Firkovich and the Dedication Inscription of the Aleppo Codex”, pp. 259–272; idem, “Two Dedicatory Inscriptions in Manuscripts of Scripture and Questions of Their Authenticity”, pp. 53–70. Also

attempted to point out some of these possible interpolations. Nonetheless, the degree to which Firkovich may have written new colophons in codices he acquired, erased dates (or added them), added Karaite mentions to otherwise factual biographical information and the like remains an open question. Part of the problem, of course, is that most research on Firkovich MSS is conducted using the black and white microfilms, which hamper the ready distinguishing of old hands from new ones—and the concurrent inability to decipher writing that has faded, been erased, or somehow made illegible through apparent intent, which is to say: if we knew *what* was erased, we might begin to understand *why* it was erased and therefore *who* may have erased it.

Furthermore, careful comparison of the colophons from Firkovich's collections has never been done, neither the syntax, the palaeography, the persons mentioned, nor the chemical composition of the ink. There are many examples of Firkovich's handwriting preserved in St. Petersburg which would provide a promising data point from which to begin, but to the best of my knowledge little use has been made of it.

With these difficulties acknowledged, one must necessarily be cautious. Colophons of the Firkovich collections were undoubtedly altered on occasion, and sometimes even manufactured "out of whole cloth" centuries after the fact, but by whom, and when, and why? There are too many partially extant colophons—indicating that writing of the colophon is probably not recent—and too many scribal hands to automatically pin any and all blame upon Firkovich. Current impressions,

germane, although the charge of forgery is not laid on Firkovich explicitly, is Outhwaite, "The Curious Case of the Corresponding Colophons in Cairo Codex Three", pp. 392–417.

whilst helpful and insightful, are not foolproof.³¹⁴ In most cases, therefore, it seems wisest to acknowledge the difficulties, while at the same time, where possible, allowing that the colophon may contain factually accurate details.

Nonetheless, in an abundance of caution in the present thesis I have attempted to proceed with as little recourse to colophons as possible. One can only hope that renewed interest in the Firkovich collections will lead to greater understanding of the colophons in the coming decades.

4.6.3. Firkovich's Sources

The sources of Firkovich's manuscripts remain something of a mystery. While he undoubtedly spent time in Cairo, gifting the Karaite synagogue there a tidy sum that may have made manuscript acquisition easier, we are unsure how many more synagogues Firkovich may have visited while in Egypt. Did he perhaps take MSS from the Ben Ezra Genizah? What about the many other non-Karaite synagogues? Firkovich also visited a number of Jewish communities elsewhere, such as Aleppo.³¹⁵ The lack of records for these acquisitions leaves much to guesswork.

³¹⁴ And of course, accepted academic wisdom, particularly as regards forgery, can shift drastically and dramatically. Cf. the recent controversy over the Shapira Scroll: Dershowitz, *The Valediction of Moses*; Dershowitz and Pat-El, "The Linguistic Profile of V"; Suchard, "A Valediction to Moses W. Shapira's Deuteronomy Document"; Richelle, "The Shapira Strips in Light of Paleography"; Hendel, "Notes on the Orthography of the Shapira Manuscripts"; etc.

³¹⁵ The list of communities visited on Firkovich's second and final visit to the Middle East includes the following: Istanbul, Jerusalem, Jaffa, Aleppo, Damascus, Antioch, Alexandretta [İskenderun, Turkey], Beirut, and Cairo; a planned trip to Iraq was cancelled, although Firkovich did manage to acquire Yemenite MSS from Moses Shapira, who had collected considerable manuscripts therefrom through less than honourable means. For Firkovich's second visit to the Middle East, see Elkin and Ben-Sasoon, "אברהם פירקוביץ' וגניזות קהיר", esp. pp. 60–62; for the acquisition of Yemenite MSS, see Tigay, *The Lost Book of Moses*, chap. 10.

4.6.4. Confused Conservation

As amply demonstrated in the Corpus Description, the organisation of the IIB collection leaves much to be desired, with manuscripts dispersed across various classmarks. Were the classmarks mixed up prior to Firkovich's acquisition or after?

There is some evidence that the mix-ups happened prior. For example, we can point to the leaves Firkovich left behind at Dār Simḥa. Perhaps the missing leaves of IIB55 + (Gottheil 22) were left intentionally, but the single leaf left behind from IIB60 + (NLI Ms.Heb.800.2 = 4) looks like an accident. This is hardly surprising. Loose leaves from old books tend to wander off in any library.

Similarly, the 19th-century cataloguers who produced the handwritten descriptions for the current classmarks, including the reference ranges, sometimes crossed off a reference range from the front paper of one classmark that "suddenly" reappears on the margin of another front paper. This shows that the cataloguers sometimes would move leaves from one classmark to another when they realized that leaves had been misplaced/wrongly assigned. In other instances, the cataloguers would write *viell. v. verschied. Codd.* 'perhaps from different codices' or *viell. v. 2 Codd.* 'perhaps from two codices' across the bottom of front papers (cf. IIB1062). From this it would appear that the cataloguers acted with caution, only moving leaves from one classmark to another when they felt that the adjustment was fully certain.

There are also several instances where mistakes have been created or were further perpetuated by Ktiv (e.g., the colophons of IIB55 + appearing with IIB25 *and* with IIB26).

For all these reasons, as well as, no doubt, to the sheer size of the Firkovich collections, researchers have tended to bracket the MSS—in effect proceeding as though this large assembly of Bibles of unparalleled antiquity did not exist—preferring instead to reference well-known MSS such as A, B, C, L, S, S1, etc.

4.7. Size and Nature of the Firkovich Collections

For the present research, the First and Second Firkovich collections are of primary importance. Firkovich assembled the First Collection over a number of years from MSS found in Crimea and Caucasia; it is referred to as Евр. I Библи ‘Hebrew I Bible’, or simply as I Bibl.—or even I B, where the “B” indicates Bible.³¹⁶ The Second Collection, Евр. II ‘Heb. II’, much larger than the First, consists of MSS that Firkovich collected during his final trip to the Middle East (1863–1865). This collection, various parts of which are listed as “II”, “II B”, or “II C”, should not be understood as indicating “Bible” as with the First Collection—although many of the manuscripts contained in the collection are Bible manuscripts. Here, “II” = scrolls, “II B” = codices on vellum, and “II C” = codices on paper. As we are concerned with the highest quality Masoretic codices, the IIB collection shall receive the remainder of the focus in the following sections.³¹⁷

4.7.1. IIB Collection Classmarks

In the IIB collection are 1582 classmarks, numbered consecutively from 1–1582. The whereabouts of six of these classmarks are unknown: nos. 1, 2, 11, 53,

³¹⁶ For reasons not clear to me, earlier MSS in the First collection are often referred to with a simple ‘B’, e.g., IB19a, while later classmark numbers are listed as ‘Bibl.’, e.g., IBibl.58.

³¹⁷ For overviews of the Firkovich Collections, see Golinets, “Biblical Manuscripts from the Collection of the National Library of Russia”, pp. 218–260; Vasilyeva, “Documents in the Firkovich Collection”, pp. 201–220; idem, “The Firkovich Odessa Collection”, pp. 45–53.

335, and 752.³¹⁸ Whether this means that the classmarks are physically missing from the NLR, merely missing from the inventory list, or simply unphotographed is unclear. In addition to the above six classmarks, I have not been able to access images for classmark nos. 294, 336, 337, and 339. In the IIB collection, then, I have examined, at least in passing, all classmarks excepting these ten (= 1572 classmarks currently available on microfilm).³¹⁹

One wonders also how many leaves of IIB classmarks were not photographed through error (e.g., in IIB60 the verso of p. 222 is not included)³²⁰ or through improper filing of the MSS.³²¹ In the small number of instances where more than one microfilm exists for a classmark, sometimes one microfilm contains leaves not found in the other.³²² Due to the thefts of Hebrew MSS in the 1980s and early 90s, it is a safe bet that some of the microfilmed leaves are no longer in St. Petersburg.³²³

4.7.2. Number of Folios in IIB

Unlike the cataloguing of many Genizah fragments, the IIB classmarks frequently are comprised of more than one leaf per classmark. According to my records, there

³¹⁸ Golinetz, “Biblical Manuscripts from the Collection of the National Library of Russia”, p. 224.

³¹⁹ As of June 2023.

³²⁰ With IIB microfilms it is often the case that the images are listed out of order, requiring a search throughout the codex to find the “missing” leaf. Such does not appear to be the case with IIB60, however.

³²¹ For example, many scrolls of the Firkovich Collections in NLR are stored on some upper shelves and the librarians are uncertain regarding what is where (Nehemia Gordon, personal correspondence, Summer 2022).

³²² A good example, although of the First Collection, is IBibl.85. Until January 2023, the microfilm on Ktiv contained perhaps two-thirds of the leaves claimed by Yeivin (*Introduction*, p. 26).

³²³ According to one source, “поначалу обнаружили пропажу 25 ценных рукописей (сейчас их количество увеличилось)” ‘at first 25 valuable manuscripts were missing, and now their number has increased’. See “Дело о краже рукописей” [The Case of the Theft of the Manuscripts], https://www.compromat.ru/page_10158.htm (accessed June 2023).

are 267 classmarks that contain 50 or more leaves; the upward maximum appears to be IIB55, with 482 leaves attached to a single classmark. Selecting 43 classmarks at random and averaging the number of leaves found in each yields an average of 39 lea./classmark, a figure that seems likely to be representative.³²⁴ This results in ca. 61,698 total leaves, a staggering number, particularly when one remembers that the leaves of IIB are in relatively good condition and that the number of Bible fragments in the Cairo Genizah—and many really are fragments—is estimated to be around “only” around 25,000.³²⁵

4.7.3. Number of Bibles in IIB

No one knows how many Bibles are contained in IIB. When I started working on the collection, I naively assumed that each classmark was likely to represent one Bible. I made this assumption because the recognition that matches between classmarks exist is virtually absent from the literature.³²⁶ As demonstrated above in the Corpus Description, however, most classmarks in IIB can be matched with at least one other classmark.

In codices where I have spent the most time proving linkages, i.e., three-column codices, there are four codices that contain eight classmarks, three have

³²⁴ Alternately, dividing the collection between classmarks containing > 50 leaves and those containing < 50 leaves, and then assuming a random distribution of the number of leaves within each subset yields ca. 55 lea./classmark. This figure is probably too high, however, as the distributions, particularly for the classmarks containing > 50 leaves are not entirely random.

³²⁵ As stated by Phillips, “Is the Masora Circule, too, among the Scribal Habits?”, p. 20, albeit without clarifying from whence this calculation is derived.

³²⁶ To the best of my knowledge, the only prior-recognized matches in IIB are Gottheil 22 (part of IIB55), IIB247 (part of IIB55), IIB270 (part of IIB17), IIB346 (part of IIB168), and (recently) some of the joins of IIB80 + (see Phillips, “The Masoretic Notes in RNL EVR IIB80 +”, pp. 23–73). Note: IIB247, although a match with IIB55, is actually part of IIB26 +, as described above. (Note: I learned of the match of IIB79 and IIB42 in October 2023).

nine, two have ten, and one has 16.³²⁷ To date, I have made ca. 550 matches,³²⁸ and the total number of internal matches is probably closer to 1000. This is because most classmarks not relevant for the thesis (e.g., one and two-column Bibles, Bibles without Masorah, non-Oriental Bibles) were only examined in passing.

The large number of linkages between classmarks indicates that no more than 500 codices could be represented in the IIB collection, and the actual number is probably lower still. If classmarks consisting of a single leaf with no apparent linkages to other classmarks are removed from calculation (i.e., solitary carpet pages and the like), the number of codices could not be above 400.

It should be noted that not all codices assembled by Firkovich in the IIB collection show great age or great skill of composition. There are many one-column and two-column Bibles that are visually quite similar to the reader-produced Bibles frequently found in the Cairo Genizah—nor, for that matter, are all three-column codices in IIB exceptionally well-produced. Furthermore, not all codices are Oriental, or even non-European. There are at least seven classmarks with obvious Ashkenazi provenance, and ca. 70 with unmistakable Sephardi script.³²⁹

Bracketing these not-so-old and not-so-model codices leaves us with ca. 150 codices; if counting only model Oriental codices likely to date prior to 1200 C.E.,

³²⁷ With 8 matches: IIB73+, IIB77+, IIB99+, and IIB124+; with 9 matches: IIB51+, IIB55+, IIB999+; with 10 matches: IIB60+, IIB1160+; with 16 matches: IIB26+.

³²⁸ Because numerous classmarks are split several ways, the actual number of classmarks joined is somewhere in the 400s.

³²⁹ These figures are based upon my as-of-yet unpublished research; I am happy to provide corroboration of the figures upon request.

the number of codices represented is perhaps around 100.³³⁰ These figures are, it should be stressed, approximations that await a much fuller inquiry. Regardless, the quality and quantity of the Firkovich collections remains unsurpassed and there is still much to learn about these relatively unresearched collections.

4.8. Colophons in the IIB Collection

The present section presents a short introduction to the colophons of IIB. The matter deserves a longer overview than can be provided at present, but it is hoped that these several comments can be of use in understanding much of the bigger picture.

The term colophon, as used here, shall be used to refer to any and all biographic comments that appear in a codex, such as dates, transfers of ownership, carpet pages with owner's name, etc.³³¹ According to this definition of colophon, there are 151 classmarks that contain colophons in the IIB collection.³³² Several dozen of these colophons have been published to date, albeit sometimes with mistaken attributions.³³³

³³⁰ Cf. these observations with the (much lower) estimates of Dukan, *La Bible hébraïque* (74 MSS prior to 1280 C.E., along with 158 Genizah fragments).

³³¹ Excluded in this count are *heqdeshim* markings, which can be found on various leaves of a MS, typically consisting of קדש ליהוה אלהי ישראל, לא ימכור ולא יגאל 'Holy to the Lord God of Israel, not to be sold and not to be ransomed'.

³³² Most colophons can be found in the first 300 classmarks of IIB, although they also appear sporadically throughout.

³³³ Most extensively and recently, the colophons are treated in Dukan, "*La Bible hébraïque* (IIB classmarks 8, 9, 10, 17, 25, 26, 34, 39, 59, 78, 80, 94, 115, 124, 142, 159, 168, 225, 231, 262, 263, 269, 280, 281, 282, 338, 1283, 1532, 1540). The other important publication is Beit-Arié et al., *Codices hebraicis*, 3 vols. See also Beit-Arié, "Supplement: The Forgery of Colophons and Ownership of Hebrew Codices and Scrolls by Abraham Firkowicz", pp. 195–205 (IIB124); Ofer, "Two Dedicatory Inscriptions", pp. 259–272 (IIB12); Penkower, "שריד כתב-יד של התורה", pp. 355–370 (IIB188); Beiler, "Who Wrote Acrostic Signatures in Early Masoretic Bibles?" (IIB216). Some of these colophons are also to be found older publications, most notably in Kahle, *Masoreten des Westens*, vol. 1, pp. 56–77.

4.8.1. Scribal Colophons

Of the colophons, the firmest place from which to begin is with scribal colophons that match the hand of the main text—and thus cannot have been added secondarily. Clear examples from the Second Firkovich Collection that provide a potential date number six (classmark of colophon *not* dealt with in the thesis in **red**).³³⁴

- **IIB17**: [...] שלמה הלוי בר בויאעא תלמיד סעיד בר פרגוי המכונה בלקוק כתבתי זה ספר [I] Solomon the Levite b. Buyā‘ā, student of Sa‘īd b. Farjoi known as Balqūq wrote this Torah of Moses’ (accepted date: ca. **930 C.E.**; probable location: **Tiberias**)³³⁵
- **IIB59**: וליד הכהן בן חסן ממדינת כופה כתב... שנת אלף שלג ‘Walīd ha-Kohen b. Ḥasan of Kūfah [southcentral Iraq] wrote ... in the year 1333 [of the Seleucids: = **1021 C.E.**.]’
- **IIB115**: אני משה סופר בר הלל כתבתי ונקדתי מקרא כולה עשרים וארבעה ספרים לר’ יוסף ‘I, Moses, scribe of Hillel wrote and vocalised all 24 books for Rav Joseph the Sephardi b. Isaac ... finished with the help of the Creator [...]754’ (<4>754 = **994 C.E.**)³³⁶ (location: **Spain/N. Africa**)

³³⁴ It is quite possible that this codex of the Writings (IIB115) matches with one of the codices of the Torah or Prophets from the corpus; this cannot be confirmed at present, however.

³³⁵ The attributions are based upon a secondary colophon in IIB17 and the fact that this MS is evidently written by the same hand that wrote the consonantal text of the Aleppo Codex.

³³⁶ The date, coming at the very end of the colophon, and barely extant, is perhaps a later addition, contra Yeivin, *Introduction*, p. 24, who accepts the colophon as genuine.

- **IIB159:** אני יצחק הכהן בירבי יוחיי הכהן החבר נִנְּ גמרתִי את התורה הזאת לקץ ארבעת
אלפים ושבע מאות ושלוש שנים לבריות עולם 'I, Isaac the priest, son of Rav Yoḥai ha-
Kohen he-Ḥaver, may his soul rest, have finished this Torah at the end of
[year] 4703 A.M. [= 943 C.E.]' (probable location: **Nusaybin, Turkey**)³³⁷
- **IIB194:** סימתי בחדש אייר בשנת אלף וחמש מאות ושבעה שנים 'I completed [the
codex] in the month of Iyyar in the year 1507 [= 1195 C.E.]'; on the
following page we find כתבתי ונקדתי ומוסרתי, אני יום טוב הלוי ... בן מר עמרם הלוי
... זצ"ל 'I wrote, vocalised, and masoreted. I am Yom Tov ha-Levi ... b. Mar
'Amram the Levite, may the memory of the righteous be a blessing'
- **IIB901:** נשלמה זאת התורה הטהורה בארבעה בשבא דהוא תשעא יומין לירח ניסן שנת ה'ק"ז
ליצרה במדינת נא אמון דעל כף ימה רבה וכתב העבד הצעיר לעצמו ולבניו אברהם בר שלמה נִנְּ
'This pure Torah was completed in the fourth year which is the ninth of the
month of Nisan in the year 5107 A.M. [= 1346 C.E.] in the city of
Alexandria on the shore of the Great Sea, which, after many days, the young
servant [of God] wrote for himself and for his sons, Abraham b. Solomon,
may he rest in Eden'

As these six manuscripts demonstrate, some of the places where IIB classmarks originate are Spain/North Africa, Alexandria, Tiberias, Nusaybin, and Kūfah, in other words, the entire breadth of the Oriental zone. Synagogues are not mentioned, which is to be expected as Bibles were produced for personal ownership, not (initially) for synagogue use.

³³⁷ The identity of the location comes from other colophons in IIB159. While I shall not state unequivocally that they are accurate, they are commonly accepted as such.

4.8.2. Dedicatory Colophons

The majority of biographic information in the IIB collection, however, is from colophons that were *not* written at time of initial copy.³³⁸ In these records we find ownership transferals. In some cases, the colophon records transactions between persons. More frequent is the *heqdesht*: i.e., a codex is gifted to a person or synagogue, usually a synagogue.³³⁹ As one might expect, the following three components are all necessarily mentioned in a *heqdesht*: (1.) a description of the codex, (2.) the identify of the person making the donation, and (3.) the intended recipient. In some cases, the transfers are conditional: e.g., if Person A dies without issue, then the codex is to pass into the possession of Person B (invariably a synagogue). Sometimes a caretaker is appointed, presumably to ensure that the codex would used as intended and held where intended, typically through the use of the phrase עַל יְדֵי ‘by the hand of’. Typical *heqdesht* language is highly formulaic, and stock phrases reappear in most iterations. For example:

³³⁸ The term colophon, technically speaking, applies only to the author/scribe. It is used in this thesis, however, according to the broader usage of the term (all biographic notes attached to a codex) for the sake of simplicity (see Terms).

³³⁹ A *heqdesht*, similar in many respects to the Arabic *waqf* or *ḥabs*, is an endowment or pious gift; there are many documents attesting to their existence in the Cairo Genizah (see Gil, *The Institution of Charitable Foundations in the Light of the Cairo Genizah Documents*, pp. 11ff; idem., *Documents of the Jewish Pious Foundations from the Cairo Genizah*, pp. 3–4; for a list of Genizah MSS that record a *heqdesht*, see Gil, *Documents*, pp. 603ff).

Judging only from the extant Genizah documents, we might assume that a *heqdesht* of a Bible codex was a rarity. This would be a mistake. According to the *heqdeshtim* of the Second Collection, gifts of codices were common. The difference between *heqdeshtim* involving houses or money and *heqdeshtim* of codices is that the former two cannot be written in (hence the presence of an external document recording the gift), while with the latter the record was naturally written on a leaf of the MS.

זה המצחף שלכתובים קדש לויי אלהי ישראל, לא ימכר ולא יגאל. הקדישה אותו
 סידון בת אברהם בן שבת נֶנְ אשת יעקב בן יצחק על יד יוסף בן סעיד ועל יד בתה
 סעדה בת יעקב, והוא קדש על בעלי מקרא הנודעים קראיין השוכנים בירושלם עיר
 הקדש ...

‘This codex of the Writings is holy to the Lord the God of Israel, not to be sold and not to be ransomed. It is dedicated by Sidon, bat Abraham b. Ševet, may his rest be peaceful, wife of Jacob b. Isaac to the trusteeship of Joseph b. Sa‘id and her [Sidon’s] daughter, Sa‘ada bat Jacob, and is dedicated to the Masters of Scripture, those known as the Karaites, who dwell in Jerusalem, the Holy City ...’ (IIB92, p. 160).³⁴⁰

4.8.3. Karaites

The colophons are remarkably disparate in hands and condition, a fact that complicates any simple Firkovich attribution in instances when the data seem somewhat suspicious. This fact notwithstanding, approximately one-third (53) of the colophons mention the Karaites (typically referred to as בעלי מקרא ‘Masters of Scripture’, בני מקרא ‘Sons of Scripture/Karaites’, or קראיין/קראים ‘Karaites’).

In rare instances, mention of the Karaites in colophons seems to have been erased, words that, one would think, should have been left intact if Firkovich had done the erasing. In IIB152, for example, the dedicatory colophon has undergone several erasures and additions; some words are completely illegible while others can be faintly discerned. Among these barely discernible words are בעלי מקרא ‘Masters of Scripture’. One could interpret this erasure as a double bluff from the duplicitous

³⁴⁰ Note that this leaf does not appear to belong with the remaining parts of the classmark.

Firkovich, but such an interpretation is by no means the simplest explanation, or the only explanation available to us.

4.8.4. The Palestinian *yeshiva*

Explicit mention of the Palestinians is minimal in corpus MSS.³⁴¹ The most obvious instance is with IIC1 + : referring to someone as *he-Ḥaver* from *Yeshivat Ga'on Ya'qov* (i.e., a person of rank of the Palestinian *yeshiva*).³⁴² Also notable is IIB159 + (mention of *he-Ḥaver*) and IIB8 + (mention of the *Beit Din* in Jerusalem). In addition to these several examples, there are various instances, where there is some evidence of Palestinian influence vis-à-vis the *haftara* reading or a quote taken from the Jerusalem Talmud, etc. (see Corpus Description, ad loc.).

Apart from the aforementioned indications, there is a secondary means for discerning the work of the Palestinians that may be useful in further research. Namely, the use of dates that employ the A.M. system rather than the A.G. system, i.e., the year according to the of Creation of the world (3760 B.C.E.) rather than the year of the Seleucids (311/2 C.E.). The following is a list of corpus MSS that use the A.M. system.

(1.) MSS with Potential Connection to the Palestinians:

- IIC1 + : persons and places mentioned show clear connection to the Palestinian *yeshiva*,
- IIB159 + : written by Isaac ha-Kohen b. Yoḥai ha-Kohen he-Ḥaver,

³⁴¹ I have not gone through the corpus looking expressly for Palestinian inferences; there may be examples that I have missed.

³⁴² See Rustow, "*Ḥaver* (Fellow of the Palestinian Yeshiva)", *EJW*.

- IIB39 + : 12th-century owner was one Solomon b. Joseph, Head of the Yeshiva of Zion (ראש ישיבת ציון),
- IIB8 + : mention of the *Beit Din* of Jerusalem,
- IIB79 + : persons, places, and quotes all attest to Palestinian authorship,
- IIB97 + : quote from the Jerusalem Talmud.

(2.) MSS without Clear Palestinian Connection

There are two MSS with dates according to the creation of the world where I have not observed an explicit Palestinian connection:

- IIB33 +
- Sassoon 507

In addition, there are two MSS with what seem to be forged dates, making them meaningless for the present purposes:

- IBibl.13/80
- IIB18

Apart from the present classmarks, there are an additional two MSS that potentially belonged to the Palestinians, but that lack a stated date (IIB82 + and IIB996 +).

The apparent proclivity of Palestinians to use the A.M. system has not been noted by Beit-Arié, to the best of my knowledge,³⁴³ and we should rightly question if

³⁴³ Cf. Beit-Arié, *Hebrew Codicology*, pp. 169–171, who writes that the A.M. dating system “was used in all periods and zones, but in the Middle East ... it has never been the preferred calendar. It served as the standard dating system only in the European zones ... Sephardic ... Ashkenaz ... Italy, and in Byzantium” (p. 169). Likewise, Sirat, in Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 1, p. 20, does not note any connection between the Palestinians and the A.M. dating system.

the present pattern would hold true over a larger sample size. Nevertheless, the pattern is unmistakable. Six of eight corpus MSS that use the A.M. date have been noted as having potential Palestinian ownership in the Corpus Description—without recourse to the present data. The two “Palestinian” MSS of the corpus that were not included in the present list do not have a date listed. The level of consistency is therefore remarkable and merits further research.

4.8.5. Synagogues Mentioned

The overwhelming majority of synagogues mentioned are located in Cairo/Fuṣṭāṭ and are Karaite. Why Karaites, who may have met in homes over this period, are mentioned as having synagogues is not clear.

Instances where a synagogue name is provided (and sufficiently extant to be read) are included below.

(1.) The Dār Samīḥ/Ibn Samīḥ Karaite synagogue (location not mentioned)

- [...] בניסת אבן סמיה ‘the Ibn Samīḥ synagogue [...]’³⁴⁴ (location not mentioned) (IIB13, p. 296/7)
- בניסת בן סמיה על עדת בני מקרא ‘the Ibn Samīḥ synagogue of the congregation of the Karaites’ (location not mentioned) (IIB33, p. 5)
- לכנסת דאר אבן סמיה ... עדת בני מקרא ‘congregation of Karaites ... the compound of Ibn Samīḥ’ (location not mentioned) (IIB276, pp. 5, 8)

Once the synagogue is spelled with *sin* rather than *samech*.

³⁴⁴ Note that the name of the synagogue appears to have been blacked out—although it remains sufficiently visible depending upon the image’s exposure; the following two-thirds of a line, however, have been erased entirely in addition to the blacking out.

- 'congregation of the Karaites ... the Ibn Samīḥ synagogue' (IIB285, p. 5)

(2.) The Karaite synagogue of Ramla

- 'to the Ramlaite synagogue of the Karaites' (IIB193, p. 5)

(3.) The Jerusalemite Karaite synagogue of Cairo³⁴⁵

- 'the synagogue of the Jerusalemites in the city of Cairo to the congregation of the Karaites' (IIB12, p. 6)
- 'congregation of the Karaites ... , the synagogue of the Jerusalemites' (IIB49, p. 10)

(4.) The Karaite synagogue of Fustāt

- 'Karaite synagogue in Zoan [= Fustāt], Egypt'

(5.) The Cairo/Egyptian synagogue of the Karaites

- 'to the synagogue of the Karaites ... in Cairo (IIB82, p. 159, as part of a וקף *'heqdesḥ'*)
- 'the congregation of the Karaites ... to the Cairo synagogue' (IIB60, p. 228)

³⁴⁵ Ofer, "Two Dedicatory Inscriptions", pp. 8–10, argues that no Jerusalemite Karaite synagogue in Cairo existed but is a fiction originating with Firkovich.

- לכנסת מצרים על עדת בני מקרא 'to the Egyptian synagogue, to the congregation of the Karaites' (IIB128, p. 146)
- עדת בני מקרא לכנסת מצרים 'congregation of the Karaites, the Egyptian synagogue' (IIB180, p. 5)
- כניסה אלקראיין באלקאהרה 'synagogue of the Karaites in Cairo' (IIB262, p. 7)
- עדת בני מקרא ... כניסת מצרים 'congregation of Karaites ..., the Egyptian [Cairo] synagogue' (IIB338, pp. 6, 276)

(6.) The Karaite synagogue (no city mentioned)

- בית הכנסת של בני מקרא 'the synagogue of the Karaites' IIB60, p. 227)

As the above examples show, all synagogues appear to have been Karaite. With only one exception (Ramla), the only city mentioned is Cairo (or Egypt = Fustāt). It is unconfirmed if all of the above colophons are reliable, but they do represent the breadth of what is mentioned in the IIB collection.

4.8.6. General Movement of MSS to Cairo/Fustāt

The view taken in this thesis is that the bulk of preserved Bible MSS of the 10th and 11th centuries, whatever their points of origin, eventually made their way to Cairo. Apart from larger political considerations (e.g., the *Reconquista*, the First Crusade, the Almohads), recurring economic crises, and the just as important rise of the influence of Egyptian Jewry in the latter part of the 11th century³⁴⁶—all of which contributed to the migrations of Jews to Egypt—there is some corroborating

³⁴⁶ For an account of the rise to power of Egyptian Jews at the particular expense of the Palestinian Gaonate, see Cohen, *Jewish Self Government in Medieval Egypt*.

evidence that Bible codices of these immigrants also made their way to Egypt. Namely, there are measurable differences in the Masorah of Bibles of the 11th century between Egypt and Jerusalem,³⁴⁷ differences that subside when comparing them with the Egyptian Bibles of the 12th century and following. These differences are commented upon, where appropriate, throughout Section 6.

³⁴⁷ Perhaps these differences are also sectarian, e.g., Karaite vs. Rabbanite, rather than location based; the reasons for the differences are not entirely clear.

5. Methodology

No study is complete without a careful explanation of the methods used, both for data collection and for data processing. Also necessary to consider is the issue of the reliability of partial data. The following sections attempt to clarify these processes.

5.1. Data Entry Table in MySQL

The present section is concerned with how and in what form the data are entered. This amounts to a description of the data entry rubric as well as the database configuration employed.

Data were input into MySQL Workbench, and stored on a local computer.³⁴⁸ A snippet of the main table is provided in the figure below. Other tables, the construction of which are too elementary to warrant a description, include the Manuscript Table (to keep track of manuscript matches; the source of the foreign key in the below table) and Reference Table (for filtering MSS matches according to shared reference ranges).³⁴⁹

³⁴⁸ The databases are not included due to lack of space (the spreadsheet that contains all the initial comparisons alone is ca. 300 pages when entered into a Word document). They will be uploaded to the Apollo repository upon the thesis's completion.

³⁴⁹ For repeated (and patient) advice on how to set up and run a MySQL database, I am indebted to Estara Arrant, who saved me much time and trouble through her kind and knowledgeable assistance.

Fig. 5.1a. Snip of main database table

mp_pk	ms_fk	ref	prob_or_bett	folio	2nd_mp_hand	per_BHS	note_marker	full_note
15830	22	Exo 17.11	yes	111	no sign	וגבר עמלק	ל	ל
15920	83	Exo 17.11	yes	142	no sign	והיה	ג	ג בט בס
16185	84	Exo 17.11	yes	99	no sign	והיה	ג	ג בטע בס
16186	84	Exo 17.11	yes	99	no sign	וגבר עמלק	ל	ל
16873	19	Exo 17.11	yes	122	no sign	וגבר ישראל	ל	ל
16874	19	Exo 17.11	yes	122	no sign	וגבר עמלק	ל	ל
17410	86	Exo 17.11	yes	115	no sign	וגבר ישראל	ל	ל דס
17411	86	Exo 17.11	yes	115	no sign	וגבר עמלק	ל	ל דס
17836	87	Exo 17.11	yes	9	no sign	והיה	ג	ג בטע בסיפ
17837	87	Exo 17.11	yes	9	no sign	וגבר ישראל	ל	ל
17838	87	Exo 17.11	yes	9	no sign	וגבר עמלק	ל	ל
18311	126	Exo 17.11	yes	39	no sign	וגבר ישראל	ל	ל
18448	90	Exo 17.11	yes	35	no sign	והיה	ג	ג בטע בספר
18628	7	Exo 17.11	yes	102	no sign	וגבר ישראל	ל	ל
18629	7	Exo 17.11	yes	102	no sign	וגבר עמלק	ל	ל

The nine column categories are as follows.

5.1.1. “ms_pk”

“ms_pk” = manuscript primary key. This is the unique identifier, automatically generated, for each new line of data, i.e., each Mp note. The database contains 44,837 line entries (as of 19 August 2023).

5.1.2. “ms_fk”

“ms_fk” = manuscript foreign key. This number specifies the codex from whence the note was taken. For example, the first entry in the above table, ‘22’, is MS 22, i.e., IIB13+. These MS numbers were assigned sequentially as new codices were added to the database. There are 112 corpus MSS. Corpus MSS have numbers anywhere from 1–162, however. This is because not all numbers of the range are “live”. Some were assigned to codices in the early stages of research that were later rejected from the corpus as being too fragmentary to be useful; other numbers were removed when a match was found between classmarks, e.g., if MS 2 was found to be

part of MS 1, then all information for MS 2 was migrated into the information for MS 1.

5.1.3. “ref”

“ref” = Bible reference. This is the book, chapter, and verse for that particular entry. Numbering is according to the Hebrew Bible, *not* the English versions. Entry follows the following format: 000 00.00, i.e., a three-digit book with no spaces (‘1Sa’ not ‘1 Sa’), a two-digit chapter, and then a two-digit verse: e.g., 1Sa 16.01.

5.1.4. “prob_or_bett”

“prob_or_bett” = the line entry is considered to have a reliability of probable or better. There are only two acceptable field entries for this column, ‘yes’ and ‘no’. This identifier protects against the introduction of potentially erroneous readings, particularly when text is only partially extant. All readings are assigned values of either ‘possible’ (= undefinable certainty), ‘probable’ (= ca. 75%+ certainty), and ‘certain’ (= where all aspects of the Mp note are fully extant and legible). A reading considered to be merely possible must have a ‘no’ value assigned. All other readings are to receive a ‘yes’. It is important to note that, in practice, most notes were entered only to the extent to which they appear to be extant/probable, in order to keep supposition to a minimum. (‘Possible’ portions of an Mp note, where relevant, are entered as ‘n/v’ [not visible], ‘n/e’ [not extant], etc.).

Lines of data with ‘no’ are filtered out in the statistical analysis. They are sometimes referred to in other sections of the thesis where appropriate.

5.1.5. “folio”

“folio” = the primary page number identifier as listed by the website, manuscript, or facsimile, etc. In practice, this means that most St. Petersburg MSS found on Ktiv

do not begin until page 5, the first several pages of each set of images consisting of library papers. I did not attempt to follow folio numbers in the IIB collection, even where they have been marked previously (e.g., IIB17), instead following the page (i.e., image) number for reasons of simplicity and ease of use.

Some other MSS, like the Cairo Codex, are numbered in a confusing manner, where some images follow the handwritten number found on each leaf, while other image numbers do not. I have attempted to follow the handwritten number in these cases, but for those who would wish to use the present dataset, be advised that some imprecisions may remain. (Folio numbers, whether right or wrong, have no bearing on the accuracy of the Mp comparisons.)

5.1.6. “2nd_mp_hand”

“2nd_mp_hand” = cases where an unambiguously second hand has added an Mp note. If a second hand was not detected, ‘no sign’ is the typical field entry. If the hand is secondary, ‘2nd’ is the typical field entry.

Early in the research I anticipated filtering the data according to this field for certain MSS, such as S1, where multiple hands are evident. This would allow one to measure the influence of the different *masranim* within an MS. In practice, however, I found the task too difficult, mostly because the identification of putative hands is open to interpretation—not to mention an enormously time intensive process. The difficulty is also a reflection of the access limitations of the St. Petersburg MSS: microfilms that are sometimes blurred or scratched and always in black and white are not a firm foundation from which to argue for multiple hands. It is conceivable, even highly possible, that there are MSS with multiple Mp hands in some of the microfilms examined that cannot be detected without high quality colour images. In

light of these difficulties, I did not filter the data according to this feature in the statistical analysis; it may be referred to on occasion when discussing a specific example.

Being required to treat each Mp rubric as a monolith is one of the great problems encountered in the thesis that I was unable to solve entirely. I do not think that the thesis data are contaminated in a manner that will lead to misleading conclusions, however. This is because MSS are unlikely to register high levels of connection where there is a cross contamination of the Mp rubrics; similarity at scale is not the sort of thing that can happen by accident. What multiple hands mean for the current analysis, then, is that some MSS may appear as generally distant from the mainstream, when their chief “problem” is merely that more than one hand added Mp notes.

The realisation that hands cannot be distinguished as readily as one would like is a key reason for the introduction of two ratios in the following sections: Strings’ ratios perform better when there is only one Masorete; Numerals’ ratios work from similarities between MSS that have already been identified, allowing them to “tune out” some of the otherwise misleading Mp string information (see §5.2.).

5.1.7. “per_BHS”

“per_BHS” = the consonantal text according to *Biblica Hebraica Stuttgartensia*. This header is not precise. The actual standard of measurement is an electronic one: the Westminster Text (WTT) of the Leningrad Codex, as it appears in *Bible Works 2007*. The difference between these two standards, for the purposes of the present analysis, is negligible.

Regardless of precise terminology, what is being recorded under “per_BHS” is the Mp string (word or phrase) which the Mp numeral is commenting upon, but—crucially—spelt according to WTT rather than as it appears in the MS. In instances of *qere/ketiv*, the *ketiv* is entered because it appears in the main text. If the *qere* is written in the main text instead of the *ketiv*, the *qere* is written instead.³⁵⁰ The most important point is that the field entry under “per_BHS” reflects precisely what word or words is/are being referred to by the MS according to the spelling of WTT.

There is a single exception to the above entry rule. This involves instances where a word reoccurs several times throughout a verse, such as with מן or את. These instances are usually marked in the margin with expressions such as, e.g., ה' מן מן ומן '5x where מן occurs three times throughout the verse; the first two instances are without *vav* and the third instance contains *vav*'. Instead of entering major sections of the verse, the first instance of the word in question is marked instead. Thus, this entry would simply appear as “מן” in the database. This abbreviation of the Mp string does not introduce confusion with a second, hypothetical entry involving only the word מן. This is because particles are seldom commented upon as stand-alone lexemes in the Masorah.

Regarding what would appear to be incorrectly marked Mp strings, i.e., when the marking circule does not appear quite where one would suspect that it should go, some consideration must be given for intentionality. If the *masran* appears to have “incorrectly” marked an Mp string repeatedly, this is grounds for assuming that the scribe misunderstood his task and/or was drawing from a mistaken

³⁵⁰ This occurs, albeit rarely, and only in codices of apparent lower quality.

exemplar—and thus, the string must be entered exactly as it appears in the MS. If, however, other instances of the Mp string within the MS are correctly marked, the string should be amended when entering the information. Thus, Mp string determination must be considered on a case-by-case basis.

Finally, although the WTT spelling is to be followed in data entry in this field, the actual spelling, if different from that of WTT, is to be added in parentheses in the “full_note” column within parentheses (see also §5.1.9.). For example, the *plene* spelling יִשְׁבַּ ‘sitting’ (1Sa 19.9) that appears in WTT is defective in IIB77 + . In the database, then, the “full_note” column entry is as follows: חֹסֶם (יִשְׁבַּ) ‘lacks *vav*’ (and is spelled defectively in the main text).

5.1.8. “note_marker”

“note_marker” = Mp numeral, i.e., ט ‘1x’, ב ‘2x’, ג ‘3x’, etc. Other acceptable field entries are ‘n/v’ (not visible), ‘n/e’ (not extant), or ‘none’ (where the Mp comment lacks an Mp numeral). The final option occurs primarily in three situations: (a.) instances of *qere/ketiv*; (b.) in rule stating Mp notes, e.g., ‘all instances *plene*’; and (c.) clarification regarding vocalisation, e.g., the marking of *legarmeh*. On rare occasions one can also find instances of *yafeh* ‘is correct’, *amar Misha’el* ‘according to Mishael [b. Uzziel]/Mishael [b. Uzziel] said’, כן כתוב ‘written thus’, and the like.

5.1.9. “full_note”

“full_note” = the Mp numeral plus the Mp comment, i.e., the Mp note in its entirety. The note is transcribed exactly as it appears in the MS whether or not it follows WTT. In cases of partial legibility, only what is legible is entered. There was no attempt made to reconstruct the missing parts of the note, even if it is easily

inferred from the context. This is because any reconstruction could muddle the abbreviation conventions of a particular scribe.

It is not uncommon for catchwords of Mp notes to be misspelled, e.g., perhaps the word is spelled defectively in the main text and *plene* in the Mp comment. (This also can occur in the Mm more generally.) I am of the opinion that one should not make too much of these supposed differences between the main text and the spelling of the same word in the Masorah, and therefore have not attempted to track them.³⁵¹

The present database is used to isolate relevant forms that are examined in the following sections, such as the use of the large, marginal letter, or the precise abbreviation habits of Samuel b. Jacob for the word ראש ‘head/beginning’. The queries are relatively simple to perform, and I was able to extract the data myself without difficulty.³⁵²

To extract the relevant manuscript pairings based upon the Mp in a time efficient manner, however, a more robust system was needed, and to that process we now turn.

³⁵¹ My reasoning is as follows. Catchwords in the Mp occur adjacent to the Mp string. There are instances where these catchwords are spelled differently than the lexeme to which they are adjacent, while obviously indicating precisely the same word. Thus, the difference is not likely to be meaningful; the scribe was well-aware of the “correct” spelling but chose not to use it. The issue is better understood, in my view, as an attempt to maintain clarity when omitting the vowel signs of the main text (the Masorah typically is not vocalised). This is why Mp notes are often likely to gravitate towards a *plene* spelling.

³⁵² Special thanks are due to Arrant, though, who first showed me how to run the queries.

5.2. The Process of Creating Mp Numeral and Mp String Percentages

As adumbrated in the Introduction, one of the main goals of the thesis is to construct a stemma, if and where possible, of 10–12th century Hebrew Bible codices based upon the Masorah Parva. The present section is concerned with describing how the Mp numeral and string percentages fulfil that purpose, and then detailing precisely the process by which the percentages are assembled.

At the outset of the research that led to this thesis, the biggest question was how to go about a comparison of Mp rubrics in a statistically rigorous way. There are a wealth of studies in the Humanities where texts are compared in stylometric³⁵³ fashion, sometimes with dramatic effect, e.g., the author of the Federalist Papers³⁵⁴ or the authorship of a disputed Shakespeare play.³⁵⁵ There are even some noteworthy—and recent—attempts in Hebrew Studies such as with the non-biblical Dead Sea Scrolls.³⁵⁶ The trouble with all these approaches is their lack of adaptability to something such as the Masorah, which, by definition, is concerned with the maintenance of tradition and *not* with innovation, viz., it is difficult to measure literary similarity/dissimilarity with something as succinct, highly stylized, and oft-repeated (in a variety of contexts) as an Mp note.

Due to these difficulties, it was necessary to construct new methods of comparison that could be applied to the Masorah. This was done with some

³⁵³ According to *OED* (1986) ‘stylometry’ is: “The technique of making statistical analyses of the features of a literary style, esp. by means of a computer.”

³⁵⁴ See Mosteller and Wallace, *Inference and Disputed Authorship: The Federalist* (1964).

³⁵⁵ Boyd and Pennebaker, “Did Shakespeare Write Double Falsehood? Identifying Individuals by Creating Psychological Signatures with Text Analysis”, (2015), pp. 570–582.

³⁵⁶ Van Hecke, “Computational Stylometric Approach to the Dead Sea Scrolls”, pp. 57–82.

hesitance, the reason being that new methods, while perhaps academically interesting, are less likely to yield results that other scholars are apt to appreciate and/or engage with, viz., it is unrealistic to expect scholars to learn the intricacies of a new method of comparison unless the method is simple or the payoff high. I leave judgements on the latter potentiality for others to decide, but as to the former, I can assure the reader that the methods used are easy to understand conceptually, and are probably simpler to construct than most of what is being done presently in other branches of stylometrics.³⁵⁷

5.2.1. Database Reference Ranges

Because there are thousands of Mp notes in a single codex, and time does not permit the entry of many of them, it was important to limit Mp note entry to select reference ranges. These are as follows:

Table 5.2.1a. Database reference ranges	
Torah:	
Gen 26–30	181 vv.
Exo 14–17	110 vv.
Deu 30–34	143 vv.
Total:	434 vv.
Former Prophets:	
Jud 3–6	126 vv.
1Sa 16–19	135 vv.
1Ki 8–10	123 vv.
2Ki 17–20	136 vv.
Total:	520 vv.

³⁵⁷ Of course, the methods outlined here can (and should) be further nuanced, but doing so rapidly extends beyond the scope of this thesis.

The reasons that these seven reference ranges were chosen was mostly a reflection upon the extant MSS at my disposal. For example, for A and WP2 to be added to the database of Torah MSS, it was important to include the last chapters of Deuteronomy. The reason multiple reference ranges were chosen over a single, longer range was for similar reasons: an MS not extant in the one range could perhaps be captured in another.

5.2.2. Partial Data; Contaminated Data

Once the data had been collated (§5.1.), the question remains how to compare one partial Mp rubric with another. Conceptually, the comparison can easily be imagined. Suppose MS A contains 150 Mp notes in Deu 30–34. MS B, likewise, contains 150 Mp notes within the same reference ranges. The comparative task is to find data similarities between the two Mp rubrics and reduce them to a ratio. For example, if the two aforementioned, hypothetical rubrics share 75 Mp notes, this would mean that the two rubrics have 50% similarity ($75 / 150 = .5$).

Of course, things are seldom quite so simple. Perhaps MS A contains Mp data on all five of the chapters in Deuteronomy (chpts. 30–34) while MS B is extant for the final three chapters only (chpts. 32–34). In this case, the Mp data for chapters 30 and 31 of MS A must be withheld from calculation or the resultant ratio would not be representative.

Also relevant to consider is the frequency of Mp note inclusion within an Mp rubric. Suppose MS A is extant in all five of the Deuteronomy chapters, but only contains 75 Mp notes; by contrast, MS B is similarly extant but contains 150 Mp notes. Assuming that the two MSS once again share 75 Mp notes, how should this ratio be expressed? From the point of view of MS A, the two manuscripts have an

Mp similarity of 100%; from the point of view of MS B the two manuscripts have an Mp similarity of only 50%.

Then there is also a practical consideration. The outer margins of a leaf are typically the first parts of a codex to decay. This means that many Mp notes will be partially extant: we know what the Mp string is, thanks to the marking circule(s), but the Mp note itself cannot be recovered. Can these notes be used when performing the comparisons, particularly when little else of the codex is extant? Also relevant to consider is the possibility that more than one hand may have added Mp notes—or perhaps even the same hand added notes from two, separate Mp exemplars. Is there a way to mitigate the interpretation problems that multiple hands create for the ratios?

These are important issues that have just been raised, and answering them poorly will reduce the value of the entire project. I will deal with each question in due course throughout the remaining parts of §5.

5.2.3. An Overview of Mp String Similarity Percentage

The first and simplest means of comparison used in the thesis is that of the Mp String Similarity Percentage (styled so that each word begins with a capital letter; also referred to as a “Strings’ percentage”). These percentages were chosen due to their simplicity and due to their ability to compare MSS without the need for the Mp numeral to be present. Verse specific Mp strings are compared between two MSS. Verses not shared by both MSS are removed from the calculation.

There are two important database modifications that are made when calculating the percentages. First, if the Mp string is *not* deemed to be ‘certain’, i.e., with < 75% certainty, it is removed from calculation as though it did not exist. This

is not ideal, obviously, as any removal of Mp data can only result in percentages of reduced usefulness.

In practice, however, I was generally able to keep such instances at a minimum by omitting verses from the calculation that are too poorly preserved to receive a $\geq 75\%$ certainty rating. Thus, although an MS may be extant, at least after a fashion, throughout the whole of Deu 30–34, verses were simply omitted where the data involved uncertainty. This generally ensures that the data are of high quality.³⁵⁸

Second is the problem of accurate representation of the Strings' percentage in cases where the two MSS being compared do not contain an equal number of Mp strings. The difference is minor in many MSS where the frequency of occurrence of Mp notes is roughly similar (on average, 1.53 Mp notes/verse, see §6.2.). The difference can be quite large, however, in MSS where Mp notes occur less frequently.³⁵⁹ To return to a previous example of the problem, where MS A has 75 Mp strings, MS B has 150 Mp strings, and all of MS A's Mp strings are matched in MS B, is the level of similarity 100% ($75 / 75 = 100\%$) or 50% ($75 / 150 = 50\%$)? The solution used in this thesis was to "level" the data by doubling it: add both Mp rubrics together (e.g., $75 + 150 = 225$), find the number of shared Mp strings (e.g., 75), multiply the shared strings by two ($75 \times 2 = 150$); and then divide the latter number by the total number of Mp strings ($150 / 225 = 66.7\%$). This allows for the

³⁵⁸ This practice is especially important with codices such as S1 where the margins of many leaves are highly compromised and the circles marking the Mp strings are sometimes difficult to see.

³⁵⁹ These codices with infrequent numbers of Mp notes are almost always of an appearance that is in keeping with an owner-produced codex. That is, other codices that are truly similar, from a whole-page visual perspective, are difficult to find.

Strings' percentage to be the same regardless of the direction from which the percentage was being calculated.³⁶⁰

On occasion in the thesis, it is necessary to divide the (mathematically) combined Mp rubrics in half to perform calculations on averages. In the above example this would result in a figure of *112.5 ($225 / 2 = 112.5$). An asterisk always precedes these hypothetical Mp totals to distinguish them from actual totals.

A partial page of Strings' percentages for MS 32 (IIB56 +) is provided for reference.

Table 5.2.3a. MS 32 compared to other corpus MSS of the Former Prophets vis-à-vis the Strings' percentage								
A	B	C	D	E	F	G	H	I
Mp data taken from:	MS A	MS B	MS A, # of Mp strings where v. also extant in MS B	MS B, # of Mp strings where v. also extant in MS A	Sum of cols. D & E	# of Mp strings shared by MS A & MS B	col. G x2	col. H/col. F (= Strings' %)
F. Prop.	32	10	727	517	1244	437	874	70.3
F. Prop.	32	20	839	669	1508	553	1106	73.3
F. Prop.	32	33	839	750	1589	628	1256	79
F. Prop.	32	34	820	520	1340	436	872	65.1
F. Prop.	32	35	586	458	1044	379	758	72.6
F. Prop.	32	36	650	495	1145	421	842	73.5
F. Prop.	32	37	332	221	553	180	360	65.1
F. Prop.	32	38	646	596	1242	478	956	77

5.2.4. An Overview of Mp Numeral Similarity Percentage

While the String's percentage is useful for comparing MSS with missing margins, especially in cases where the Mp notes were added by a single Masorete, it also

³⁶⁰ To be clear, there are *no* instances with sufficient data where every Mp string in an MS is matched by another MS. This is especially the case where one Mp rubric is rather thin and the other not. Typically, these "thin" Mp rubrics show their independence in a number of ways apart from the infrequency of Mp note inclusion; if it were otherwise, it would perhaps be necessary to revisit aspects of the above method for assembling the Strings' percentages.

masks over certain kinds of difference. Namely, perfect agreement of Mp strings would not indicate, necessarily, that two Mp rubrics are identical. This is because the Mp numerals can differ in regard to the same Mp string, e.g., ‘1x’ vs. ‘2x’.

Also, the Strings’ percentage can make two MSS appear very different, even when the difference should be less pronounced. Here, imagine that our MS A contains Mp notes from two, distinct Mp exemplars, while our MS B contains Mp notes from a single exemplar. According to the Strings’ percentage, the level of difference is likely to appear substantial, this despite the fact that, in theory, MS A and MS B could have been written by the same person—albeit armed with competing exemplars. The Mp Numeral Similarity Percentage (styled with capital letters or as “Numerals’ percentage”) eliminates the first of these two problems³⁶¹ and mitigates much of the imprecision arising from the second, as will be explained in the following paragraphs.

The process for creating the Numerals’ percentage is similar to that of the Strings’ percentage. First, reference ranges are matched to one another, eliminating vv. not found in one or the other of the manuscript pair. Second, Mp notes that are deemed to be < 75% reliable are removed from consideration. Third, verse specific, matching Mp strings are identified. Finally, of the matching Mp strings that have been identified, the Mp numerals are compared. For example, if there are 50

³⁶¹ One could argue that it is also necessary to include the Mp comment when making comparison. For example, there is substantial difference between ‘1x’ and ‘1x, and all instances in Chronicles are like it’. In practice, however, attempts to include the Mp comment would create more problems than they resolve. This is because many instance of a solitary Mp numeral contain an unstated proviso, e.g., ‘and all instances in Chronicles are like it’. When much is left unstated, it must first be reconstructed before it can be compared—which would make a significant amount of the resultant percentages dependent upon purely subjective criteria.

matching, verse specific, Mp strings between two MSS, and 40 of these Mp notes have identical Mp numerals, this would result in a similarity percentage of 80% ($40 / 50 = .8$).

Numerals' percentages are, in effect, measuring similarity between MSS that have already been preselected for a certain kind of similarity (matching Mp strings). As one might expect, therefore, Numerals' percentages are generally higher than Strings' percentages (§6.1.1.; 6.1.4.). Also, in many cases the two percentages rise and fall in tandem, indicating that cross contamination from a secondary Mp exemplar is either (1.) roughly consistent throughout the corpus, or (2.) kept to a minimum in the majority of instances. There are a number of important cases where the two percentages diverge, however, most notably in the Torah where the diffusion of competing Mp exemplars seems to have been more widespread (§6.4.4.).

A partial page of Numerals' percentages for MS 33 (IIB77 +) is provided for reference.

Table 5.2.4a. MS 33 compared to other corpus MSS of the Former Prophets vis-à-vis the Numerals' percentage						
A	B	C	D	E	F	G
Mp data taken from:	MS A	MS B	# of v. specific Mp strings where Mp numerals match	# of v. specific Mp strings where Mp numerals differ	col. D + Col. E (= sum of Mp strings used to perform the calculation)	col. D/col. F (= Numerals' %)
F. Prop.	33	10	545	31	576	94.6
F. Prop.	33	20	701	52	753	93.1
F. Prop.	33	32	526	40	566	92.9
F. Prop.	33	34	351	44	395	88.9
F. Prop.	33	35	517	25	542	95.4
F. Prop.	33	36	515	25	540	95.4
F. Prop.	33	37	153	34	187	81.8

5.2.5. Is a Strings' Percentage or a Numerals' Percentage to Be Preferred?

Strings' percentages and Numerals' percentages: Which ratio is a more accurate measure of Mp rubric similarity? As one might expect, there is no one-size-fits-all answer to this question. The answer should depend upon the available data, and what one wishes to measure.

Numerals' percentages, because they are a highly specific form of comparison, require a greater number of Mp notes in order to collate a sufficient number of examples, i.e., an adequate sample size is more difficult to obtain. Conversely, Numerals' percentages are not affected by Mp notes that are too dim to be detected (a reality of life when examining microfilms where much of the ink on a leaf may have flaked off). If an Mp note was inadvertently missed, its loss will reduce the number of Mp numeral comparison that can be made, but it will not artificially skew the data.

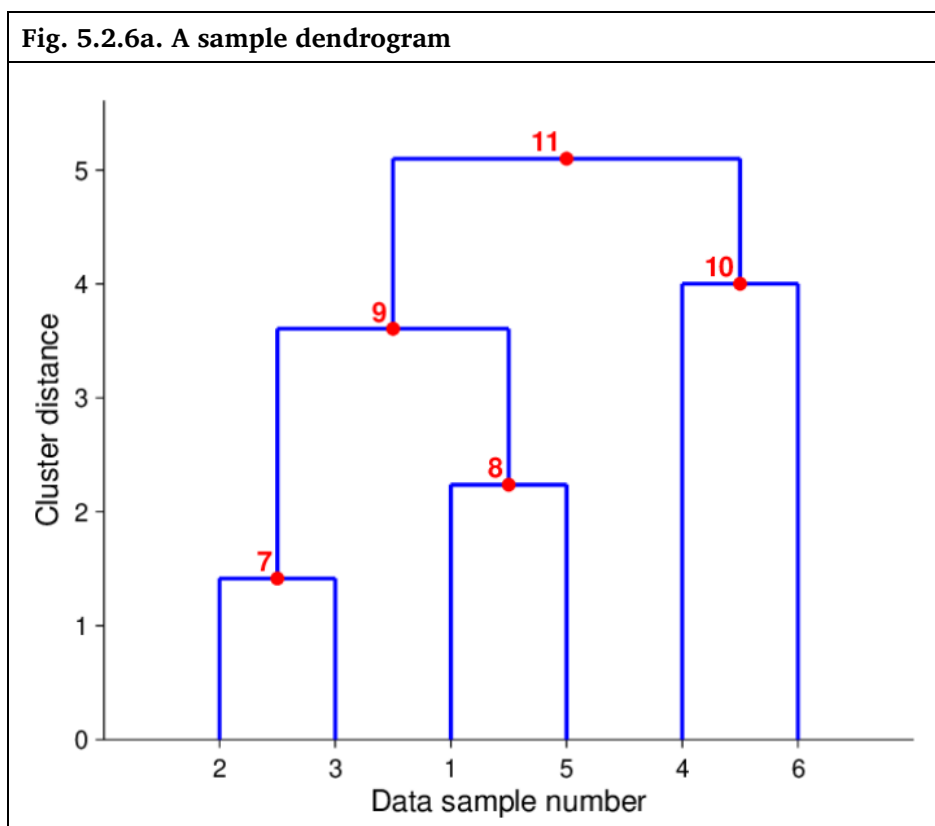
In my experience, it is easiest when the two numbers correlate, i.e., when they corroborate one another. This reduces the potential for misinterpretation of the similarity, allowing one to argue without qualifications that the Mp rubrics of two MSS are closely related.

5.2.6. An Overview of Dendrograms

Having described how the two percentages are constructed allows us to compare two MSS to one another vis-à-vis one method or the other. But what about groupings that are larger than two? Small corpus sizes might permit a manual grouping of MSS based upon a scanning of the various percentages. For any corpus

larger than, say, four or five MSS, a more rigorous method is needed. This is where dendrograms can be helpful.

A dendrogram, i.e., a tree diagram, is a visually useful way of presenting relationships between MSS. Like a family tree, relationships between various members are contextualised so that one can see varying levels of connectedness between MSS across the larger diagram. A simple dendrogram could appear as follows:



In the above example, the numbers located above 'Data sample number' can be taken as manuscript numbers. Each manuscript number represents a 'leaf' in dendrogram parlance. The closest join, according to the above table, is between MS 2 and MS 3 (marked '7' in red). This join is referred to as a 'branch'. The next closest branch is between MS 1 and MS 5 (marked '8'). The third closest branch is

not between the two remaining MSS, MS 4 and MS 6, but between the previous two branches (marked '9'). Only after these four MSS are linked together are the remaining two MSS sufficiently closely related to be linked (marked '10'). Finally, all the MSS join up into a single cluster (marked '11').

In the above table, the order of operations was to begin with the most closely related pair of manuscripts, and proceed until all MSS had been added successively to the dendrogram. This method, Agglomerative Hierarchical Clustering, is well-suited for MSS comparisons, allowing MSS to be grouped in a reproducible, statistically rigorous way.

There are several common misinterpretations that can arise when representing the data in a dendrogram. The first involves the assumption that adjacent MSS in the dendrogram are closely related by virtue of their proximity. This is certainly the case in some instances, e.g., MS 2 and MS 3, the first two MSS in Fig. 5.2.6a. However, the amount of similarity between MS 3 and MS 1, the second and third MSS in Fig. 5.2.6a., is identical to the amount of difference between MS 2 and MS 1.³⁶² In other words, each branch of the dendrogram is free to rotate on its axis, like a baby mobile; one orientation is not preferable to another. This must always be kept in mind.

A second common misinterpretation can arise by scanning only the bottom of the figure and not keeping the entire dendrogram in view. In the above figure, one might gather the impression that because MS 4 and MS 6 form a branch, they are

³⁶² The actual amount of difference between MS 2 and MS 1 vs. MS 3 and MS 1 is unlikely to match exactly, but according to the groupings of the dendrogram, any relatedness here is overridden by the fact that MS 2 and MS 3 are more closely connected than either the MS2-MS1 or the MS3-MS1 pairing.

therefore closely related. While it is true that they are more closely related to each other than to any other MSS of the table, their shared level of similarity is actually lower than that of the previous four MSS. In other words, the distance from the bottom of the chart to where the branching takes place, i.e., the ‘cluster distance’, is very important. The longer it takes for a branch to be formed, the lower the strength of the relationship to be found in that particular branch. To help mitigate this problem, the dendrogram branches in the present thesis mark percentages rather than simple numbers.

5.2.7. Mp String Similarity Percentage Dendrograms: How to Assemble Them

The following descriptions are somewhat technical. It is not necessary to follow these descriptions closely unless one wishes to reproduce the thesis results using the same data set.³⁶³ In the interest of clarity, there is some repetition of what was already mentioned.

The column terminology is taken from the MySQL table that was described in a previous section, a portion of which reproduced here for reference:

mp_pk	ms_fk	ref	prob_or_bett	folio	2nd_mp_hand	per_BHS	note_marker	full_note
15830	22	Exo 17.11	yes	111	no sign	וגבר עמלק	ל	ל
15920	83	Exo 17.11	yes	142	no sign	והיה	ג	ג בט בס
16185	84	Exo 17.11	yes	99	no sign	והיה	ג	ג בטע בס
16186	84	Exo 17.11	yes	99	no sign	וגבר עמלק	ל	ל
16873	19	Exo 17.11	yes	122	no sign	וגבר ישראל	ל	ל

(1.) Things to filter at the outset

³⁶³ I wish to express my gratitude to Alex Harris of TextClever, who wrote the code to create the dendrograms. I provided Alex with the order of operations, which he followed precisely. Alex tracked the iterative processes in a spreadsheet, so that I could double check his work. To the best of my knowledge, Alex’s work is, in the words of Samuel b. Jacob, “הוא באר היטב” ‘is correct and accurate’ (IIB142, p. 19).

- If “prob_or_bett” is not equal to ‘yes’, then that line of data cannot be used in any calculations.
- If a “per_BHS” field has ‘n/v’ or ‘n/e’ (not visible; not extant) then that line of data cannot be used in any calculations. Note that ‘none’ is an acceptable field entry.

(2.) With the above filters in place, the next step is to construct the initial set of ratios. Each MS is compared with each remaining MS; Mp string similarity of each comparison is expressed as a percentage. Manuscripts are compared *only* where they both share extant reference ranges.³⁶⁴ In the few cases where an MS contains Mp data from both the Torah and the Former Prophets, e.g., L, the reference range sections are split so that one side contains Gen, Exo, and Deu, while the other side contains Jud, 1Sa, 1Ki, and 2Ki.³⁶⁵

Once the shared reference ranges for each manuscript pair are established, the shared number of verse-specific Mp strings are calculated. As part of this process, the percentages are levelled by multiplying the Mp strings by two and adding the two Mp rubrics together (§5.2.3.). In addition, if the sum of the two Mp rubrics is less than 70, that ratio is removed from calculation. This is done as the smaller ratios are unlikely to be representative of their larger Mp rubrics (§5.3.3.).

³⁶⁴ This is done using a specially prepared reference table where the range of vv. examined are stated explicitly.

³⁶⁵ In earlier stages of the research, two MSS were compared over a successive number of reference ranges, e.g., over matching sections of Jud, then matching sections of 1Sa, then matching sections of 1Ki, etc. As the resultant percentages were found to be fairly consistent across reference ranges, it was not judged necessary to keep them separate—although one certainly could do so with the present data if that was deemed necessary (see §5.3.2.).

The results of all these calculations will indicate which manuscript pair of all the manuscript pairs is the most closely related based upon the Mp String Similarity Percentage for (a.) the Torah and (b.) the Former Prophets. In the event that ratios are identical to more than one decimal place, the ratio constructed from a larger number of Mp notes is selected.³⁶⁶

Everything done to this point has solved one single question, namely, which manuscript pair is the most closely related of all the manuscript pairs of the corpus? The answer to this question forms the first branch of the dendrogram. Note that because there are two sets of calculations, one for the Torah and one for the Former Prophets, there are, in effect, two data sets. The processes being described must be done in each data set.

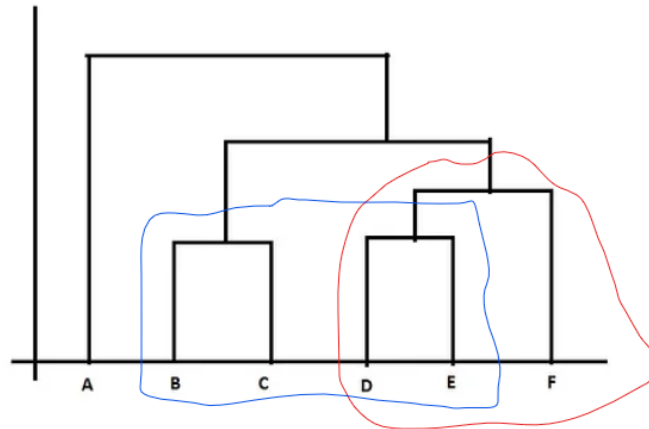
(3.) Once the first branch of the dendrogram has been established, the two joined manuscripts create their own, discrete, Mp rubric. This means that all the relevant Mp strings for both manuscripts are sectioned together, and treated as though they were a single manuscript (e.g., MS_A-B). This requires several adaptations: (a.) the new manuscript pair will contain a number of overlapping entries, these need to be removed so that each Mp string is only represented once; (b.) there will be a number of Mp strings found in only one or the other of the manuscripts *within* the shared reference ranges that should be added into the Mp rubric; (c.) Mp strings found in reference ranges *outside* of the matching sections should also be added into the Mp rubric. For example, if Manuscript A is wholly extant for the Torah reference ranges in Gen, Exo, and Deu, and Manuscript B is

³⁶⁶ This scenario is unlikely to occur, provided ratios constructed of only a few Mp notes (here, < 70) are removed from calculation prior.

extant only in Exo and Deu, then the reference range for MS_A-B should contain all three reference ranges even though the initial match was only based on the Exo and Deu reference ranges.

MS_A-B is then compared against all remaining relevant manuscripts. As before, reference ranges must match exactly between manuscript comparisons so that like is compared with like. If MS C, for example, contains only Deu, then the reference range of MS-A-B is limited only to the Deu reference ranges for comparison with MS C, and the calculations are based upon Deu alone. The process for finding which manuscript is the closest to MS_A-B follows the pattern described above in Step 2. As before, ratios with sums of Mp notes fewer than 70 are removed from calculation. If there are identical ratios beyond one decimal place, the ratio formed from the larger number of Mp numerals is selected.

At the end of the comparison of MS_A-B with all the other MSS, we have now determined which manuscript is the most similar to MS_A-B. This result is then compared against the percentages calculated in Step 2. If any of those percentages are higher than the highest percentage from the calculations involving MS_A-B, then that manuscript set becomes its own branch of the dendrogram (e.g., MS_C-D) If, however, the highest percentage from the MS_A-B calculations is higher than any from the previous step, then this third manuscript would become a third prong of the MS_A-B schema. In other words, one of the following two scenarios (circled in blue and red respectively) would take place.



(4.) This new match is sectioned together to create a new, hypothetical Mp rubric. As before, (a.) overlapping entries should be removed, (b.) Mp strings that only occur in one of the three manuscripts are added in, and (c.) the reference range for this new Mp rubric equals the maximal extent to which these manuscripts are extent.

The process described above proceeds through as many iterations as are necessary until all manuscripts that share reference ranges in either the Torah or the Former Prophets have been joined into a single dendrogram.

It is not a given that all MSS will be able to join the dendrogram. Depending upon the reliability thresholds chosen, the amount of Mp notes preserved, or upon the independence of an Mp rubric, some MSS may be unable to join up with the larger dendrogram.

5.2.8. Mp Numeral Similarity Percentage Dendrograms: How to Assemble Them

The process for creating dendrograms based upon Numerals' percentages is in many points similar to the one described in the preceding section for Strings' percentages.

(1.) Things to filter at the outset: When creating Numerals' percentages, Mp numerals are essential. Thus, a "note_marker" field range of 'n/v' or 'n/e' is not useable for Mp numeral calculations; these data lines must be removed before the calculations can be done. A field range of 'none' remains acceptable, however.³⁶⁷

It is not necessary to use the external Reference Table when establishing Numerals' ratios. This is because the verse specific comparisons of Mp strings are only possible in instances where both MSS are already extant. In instances where an MS contains verses from both the Torah and the Former Prophets, one must elect whether or not to keep the reference ranges separate. In the present thesis, the reference ranges of the Torah are kept separate from the Former Prophets (see §5.3.2) as it was thought that this could enhance the reliability of the results.

(2.) In this step the number of shared, verse specific, Mp strings between two MSS are tallied. For example, let us suppose that MS A (300 Mp notes total) and MS B (300 Mp notes total) share 200, verse specific, Mp strings. Of these 200 shared Mp strings, 150 also share matching Mp numerals. This would result in a Numerals' percentage of 75% ($150 / 200 = .75$).

³⁶⁷ In the thesis I opted to use field entries of 'none' in order to maximise the data; I am agnostic whether their use will increase or decrease accuracy of the ratios, provided the sample size is already adequate without them. Note that field entries of 'none' are generally used in instances where the Masorete marks *qere/ketiv*, and so any use of these entries will result in ratios that are partially based upon *qere/ketiv*—which may be preferable in some situations.

Whereas the Strings' percentage was to be constructed of ≥ 70 Mp notes, the Numerals' ratio requires ≥ 40 Mp numerals.³⁶⁸ Any ratio constructed of fewer than 40 Mp notes is not used due to reliability concerns (§5.3.3.).

The result of all these calculations will indicate which manuscript pair is the most closely related of all manuscript pairs based upon the Mp Numeral Similarity Percentage for (a.) the Torah and/or (b.) the Former Prophets. In the event that ratios are identical to more than one decimal place, the ratio constructed from a larger number of Mp notes is selected.³⁶⁹

(3.) A new Mp rubric can now be created (e.g., MS_A-B). This new rubric is created in the following manner.

- From the MS_A-B manuscript pair, any overlapping entries are to be removed. These overlapping entries consist of instances of exact correspondence of 'ref', 'per_BHS', and 'note_marker'.
- There will be a number of lines of Mp data where the correspondence between the two manuscripts is only partial. Each of these data lines is also added to this new Mp rubric, MS_A-B.

³⁶⁸ Because the Numerals' percentages are measuring, in effect, levels of similarity from MSS that have already been noted for their similarity (vis-à-vis the Mp strings), the number of Mp notes required for the Numerals' ratio to be representative can be reduced. These thresholds are admittedly arbitrary (but see §5.3.).

³⁶⁹ This scenario is unlikely to occur, provided ratios constructed of only a few Mp notes (here, < 40) are removed from calculation prior.

MS_A-B is then compared against all remaining manuscripts. The process for finding which manuscript is the closest to MS_A-B follows the pattern described in Step 2.

(4.) At the end of the comparative process, we have now determined which manuscript is the most similar to MS_A-B. This manuscript either becomes the third leg of the dendrogram *or* it is determined that a manuscript pair from the previous pair becomes its own separate branch of the dendrogram.

The process continues to reiterate until all manuscripts that share reference ranges in the Torah or the Former Prophets have been joined into a single dendrogram.

It is not a given that all MSS will be able to join the dendrogram. Depending upon the reliability thresholds chosen, the amount of Mp notes preserved, or upon the independence of an Mp rubric, some MSS may be unable to join up with the larger dendrogram.

5.3. Reliability and Adequate Sample Size

It is important to ensure that the Mp sample sizes are sufficiently large to be representative of the greater rubrics of each MS.³⁷⁰

5.3.1. Sample Size in the Database

In order to evaluate the reliability of the results arising from the current data set, we need to identify the number of comparisons (i.e., Mp notes) used to construct the ratios. We shall determine the number of useable Mp notes in each MS, the average

³⁷⁰ I wish to express my thanks to Prof. Byran Smucker (Statistics Dept., Miami University of Ohio) and his graduate student Jacob Smith, who, early in my research project, ran some sample size calculations, and provided me with guidelines that informed subsequent data collection.

number of Mp notes used to construct the Strings' ratios and the average number of Mp notes used to construct the Numerals' ratios.

There is an average of 379.2 Mp notes per manuscript in the database.³⁷¹ The maximal number of Mp notes collated from a single MS of the Torah is 1098 (Sassoon 507) and 1049 from a single MS of the Former Prophets (IIB77 +). The minimal number of Mp notes collated from a single MS of the Torah is 11 (IIB995) and 15 from a single MS of the Former Prophets (IIB927).³⁷² These totals and averages are listed on the following table.

Table 5.3.1a. Number of usable Mp notes per MS (usable = Mp notes listed as probable or better)					
MS	Mp notes	MS	Mp notes	MS	Mp notes
40/S	1098	158/R3	470	49/IIB43 +	149
33/IIB77 +	1049	85/IIB15 +	468	139/IIB159 +	149
60/S1 (Former Prophets)	999	154/IIB19 +	455	149/IIB988 +	148
137/IIB10 +	993	50/WP	452	148/IIB88 +	144
20/L (Former Prophets)	949	162/IIC1 +	451	24/IIB137 +	142
131/IIB17 +	949	86/IIB54 +	446	70/M88	137
79/IIB55 +	932	128/IIB60 +	440	45/IIB1167	131
38/IIB99 +	907	15/IIB80 +	435	150/IIB289	121
41/IIB24 +	850	42/IIB70 +	427	54/IIB1233 +	109
32/IIB56 +	839	87/IIB82 +	423	144/IIB193	89
29/IIB65 +	833	3/IIB41 +	414	77/IIB1275	88
22/IIB13 +	796	126/IIB44 +	413	6/IIB33 +	83
60/S1 (Torah)	790	81/IIB51 +	409	74/IIB71 +	83
10/A (Former Prophets)	781	4/IIB128	403	65/IIB207 +	82
80/C	777	1/IIB38 +	383	83/IIB52 +	81
160/Gott. 18	774	88/IIB127 +	378	147/IIB989	79

³⁷¹ MSS with Mp notes in the database from the Torah *and* the Former Prophets are calculated separately. These MSS include A, L, and S1.

³⁷² The MSS with few notes were collated in the hopes that other reference ranges from each could also contribute; with most MSS this was successful.

36/IIB26 +	771	51/WP2	371	31/B2	75
66/IB13/80	763	18/IIB62 +	354	141/T-S A5.3	75
35/IIB39 +	739	10/A (Torah)	340	72/IIB1169	74
23/IIB18	737	5/IIB20 +	303	99/IIB991 +	74
20/L (Torah)	730	71/IIB94 +	301	95/IIB994 +	58
155/IIB67 +	722	47/IIB124 +	278	78/IIB1180 +	57
161/Gott. 27	709	84/IIB27 +	266	140/T-S A4.13	55
2/IIB79 +	708	98/G6	259	127/IIB48	49
138/V448	708	37/IIB86 +	244	53/IIB1270	45
19/IIB8 +	707	12/IIB96 +	243	76/IIB90 +	43
39/IIB50 +	669	146/IIB999 +	238	92/IIB996 +	38
14/IIB74 +	652	90/IIB123 +	233	143/T-S A5.17	38
27/IIB84 +	640	48/IIB35 +	232	82/IIB1003 +	37
13/IIB37 +	591	28/IIB142	230	55/Or. 9880	34
156/T3	545	93/IIB1014 +	210	26/IIB162 +	32
34/IIB63 +	540	153/IIB1009 +	202	56/IIB1243 +	29
7/IIB46 +	534	145/IIB1011	194	43/IIB1281 +	27
58/IIB1160 +	523	30/B	193	69/IIB1285 +	27
8/IIB97 +	520	151/IIB1008 +	169	142/T-S A5.10	27
16/IIB73 +	491	157/IBibl.54	167	62/IIB206 +	21
17/IIB138 +	479	91/IIB68 +	156	57/IIB927	15
46/IBibl.68	477	67/IIB134 +	152	94/IIB995	11
Chart Total: 43,229 Mp notes		114 MSS		379.2 Mp notes/ MS	

The above table, however, only shows the number of Mp notes that are *available* when comparing a given MS against another MS. It does not consider the actual number of Mp notes that can be used after accounting for reference range disparity or lack of Mp rubric concordance. Such figures must necessarily be somewhat lower. The average number of database Mp notes used to make each Strings' ratio is 225.2, while the average number of database Mp notes used to make each Numerals' ratio

is 112.5. We can adjust these averages upward as necessary simply by removing the MSS with fewer database Mp notes from consideration and/or removing ratios constructed of what are deemed as too few Mp notes.³⁷³ For example, if we remove the bottom ten MSS from the above table (those with 37 Mp notes or fewer, marked in red in the above table), the averages are as follows.³⁷⁴

- Average number of Mp notes available per MS: 413.2
- Average number of Mp notes used to make each Strings' ratio: 250.3
- Average number of Mp notes used to make each Numerals' ratio: 125.5

Or, if we remove the bottom ten MSS of the list in the above table *and* all instances where the Strings' ratios comprise < 70 Mp notes *and* all instances where the Numerals ratios comprise < 40 Mp notes, the averages are as follows.

- Average number of Mp notes available per MS: 424.1
- Average number of Mp notes used to make each Strings' ratio: 327.6
- Average number of Mp notes used to make each Numerals' ratio: 169.3

Keeping these averages in mind, we can now consider the optimal number of Mp notes required in order for the ratios to be representative. According to the calculations of Smucker and Smith, a sample size of as few as 250 Mp notes can provide a margin of error of 5% for the manuscript comparisons.³⁷⁵ A margin of

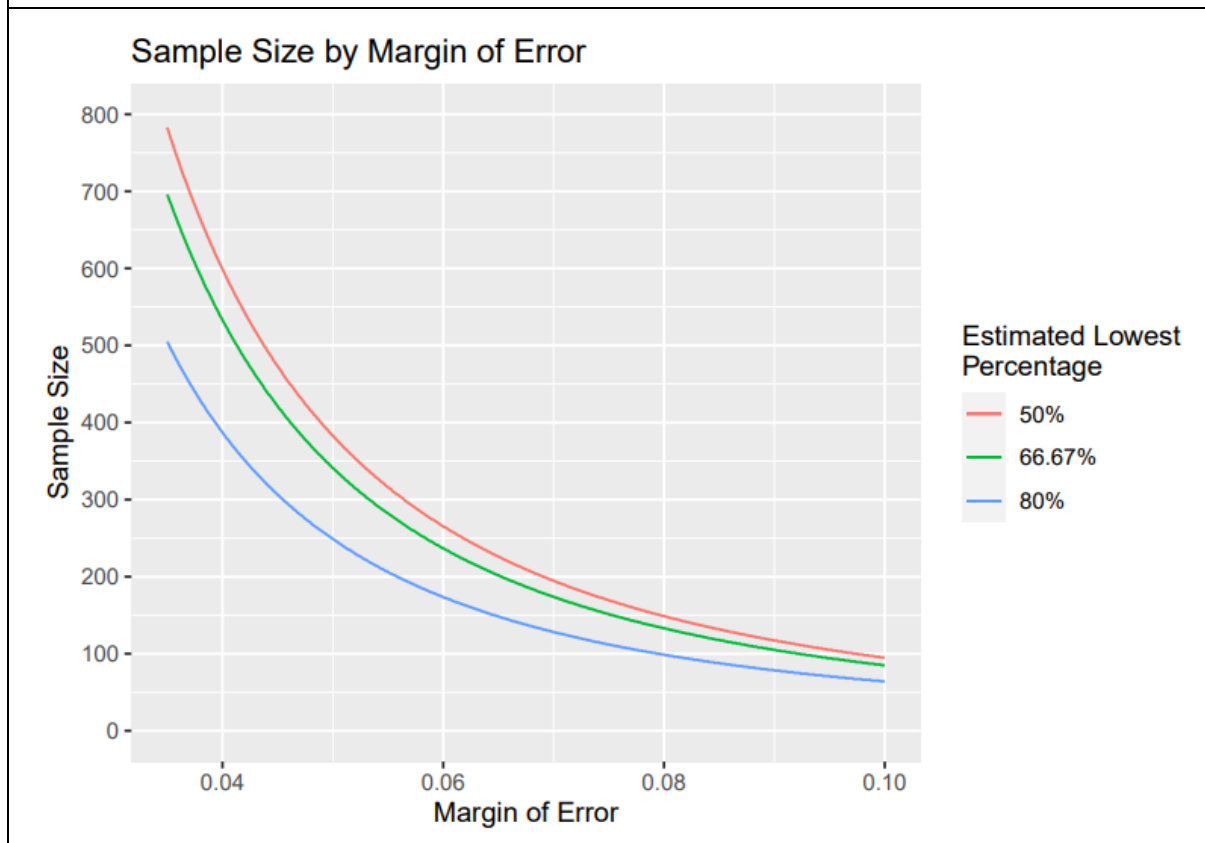
³⁷³ In the above section it was stated that the sum of the Mp notes for the Strings' percentages must be ≥ 70 ; the sum of the Mp notes for the Numerals' percentages must be ≥ 40 .

³⁷⁴ Due to reliability thresholds mentioned in the above sections, nine of the ten MSS with the fewest number of database Mp notes are not included in the Numerals' ratio dendrograms.

³⁷⁵ Smucker and Smith, email correspondence, April 2020–April 2021. The minimal sample sizes were placed on firm footing from the outset of the research, thanks to their advice and guidance—for which I am exceedingly grateful.

error of 10% would permit as few as 60 Mp notes to be used in a comparison. These margins of error (and many others) can be seen in the following figure, kindly provided to me by Smith.³⁷⁶

Fig. 5.3.1a. Estimation of number of Mp notes needed for a representative sample size



Manuscripts with low levels of similarity require more Mp notes in order to achieve the same level of reliability. An ‘Estimated Lowest Percentage’ of 80% (blue line) is generally sufficient when calculations involve Mp Numeral Similarity Percentages, as the average percentage of these ratios is almost 90% (§6.1.4.); an ‘Estimated Lowest Percentage’ of 50% (red line) is more appropriate when

³⁷⁶ Jacob Smith, personal correspondence, May 2020. Smith’s calculations were based upon Brown, Cai, and DasGupta, “Interval Estimation for a Binomial Proportion”, pp. 101–133.

calculating Mp String Similarity Percentages, as the average percentage of these ratios is slightly more than 50% (§6.1.1).

According to Fig. §5.3.1a., the margin of error for the Strings' ratios (average of 250.3 Mp notes per ratio),³⁷⁷ is slightly more than 6% (red line). Of course, Strings' ratios constructed with higher numbers of Mp notes (in the database, maximally 1080 Mp notes) have an error percentage of as little as 2%.

The margin of error for the majority of Numerals' ratios (average of 125.5 Mp notes per ratio)³⁷⁸ is approximately 7% (blue line); the maximal number of database Mp notes used to construct a Numerals' diagram is 753, which would place the margin of error around 1% in those instances.

To summarise the preceding paragraphs, the margin of error for the Mp ratios constructed in this thesis is generally in the single digits, often around 6 or 7%. Put differently, with the infusion of perhaps another 45,000 Mp notes into the database we could probably reduce the margin of error to somewhere between one and two percent in all instances—a fine goal, but one that is not realistically attainable within the time constraints of a thesis.

5.3.2. Margin of Error Assumptions

The figure in the above section, as with all margin of error calculations, is built upon several assumptions. These will now be made explicit. First, for the margins of error stated in §5.3.1. to hold, it is necessary that the comparisons being made are

³⁷⁷ This average represents all but the 10 MSS with the fewest number of database Mp notes (in red in above table).

³⁷⁸ This average represents all but the 10 MSS with the fewest number of database Mp notes (in red in above table).

binary (either full similarity or full dissimilarity). This requirement is easily fulfilled; all of the present ratios are built upon binary comparisons of Mp notes.

The second assumption is that all the comparisons must be independent. In essence, this means that each Mp note must be a random sample. This requirement can be met provided one defines precisely what is and what is not being measured.

In a public opinion poll, the random sample requirement is fulfilled by polling a truly random cross section of the populace. It would not be acceptable to poll several family members, for example. It would also be unacceptable to poll several persons on a single street, or persons from a single vocation, income level, ethnicity, etc.

The difficulty with mediaeval MSS is that we cannot randomly select from the total number of MSS that were once extant, only from the MSS that have survived. It is likely, for example, that higher-value/higher-quality codices were preserved more frequently than those of lower quality. Also, as is widely known, many of the best-preserved Bible MSS came from Egypt. This fact may have as much to do with geopolitics and a dry climate as anything. It would be naïve to assume, therefore, that the surviving codices provide a representative cross section of all Bibles of the period. So, in regard to an independent sample, we can only say that our present samples are independent insofar as they do *not* purport to describe the breadth of Hebrew Bible Mp tradition of the 10–12th centuries, but only the breadth of that tradition as observable *in the MSS that happen to have been preserved*.³⁷⁹

³⁷⁹ A fuller definition should also note that I chose MSS based upon an assumption that three-column MSS were more likely to yield the necessary data than MSS with other column numbers. Of the corpus MSS, only a handful have anything other than three columns. My selection process is unlikely to be controversial, but it does need to be kept in mind.

The third margin of error assumption is that the comparisons are identically distributed. I understand this to mean that trends cannot be present in the data. For example, perhaps an Mp rubric for Exodus is different from an Mp rubric for Deuteronomy. If such were the case, it would be a mistake to mix Mp notes from these two reference ranges; any resulting ratios could vary drastically, based solely upon the Mp note matrices. I will attempt to address this question in two ways, first by making some observations and then by taking a look at some Mp data from the Former Prophets.

From a theoretical point of view, it is easy to suppose that trends are unlikely to be present within the current Mp data set. In the Masorah, consistency is prized. A single spelling difference, e.g., ‘19x’ instead of ‘20x’, will echo throughout an Mp rubric in as many as 19 or 20 different places; it would be unreasonable to expect any change to be found in one place only.

What could happen, however, is that Mp rubrics diverge through the long accretion of mistakes and zealous “corrections” by copyists. This hypothetical scenario seems more likely to occur with sections of the Bible that were copied more frequently (like the Torah), than with sections that were copied less frequently (like the Prophets)—and, in fact, the dendrograms of the Torah and Former Prophets seem to bear this out: the Mp rubrics found in the MSS of the Former Prophets are simpler to arrange hierarchically than the MSS of the Torah (cf. §6.4.1.–6.4.4.). Thus, from a purely theoretical point of view, it seems likely that the thesis practice of comparing MSS of either (a.) the Torah or (b.) the Former Prophets is generally a reasonable one.

We can double check this hypothesis by examining ratio differences between manuscript pairs in 1 Samuel 16–19 vs. the same manuscript pairs in 2 Kings 17–20.³⁸⁰ The present sample (MS 10/A paired with another MS) was chosen merely because it happened to be first on the list.

Table 5.3.2a. Comparison of Mp ratios between 1Sa 16–19 and 2Ki 17–20										
MS pair	Strings' ratios					Numerals' ratios				
	1Sa 16–19		2Ki 17–20			1Sa 16–19		2Ki 17–20		
	%	# notes	%	# notes		%	# notes	%	# notes	% variation
10/35	82.6%	*235.0	83.6%	*67.0	1%	96.2%	183	90.0%	50	6.2%
10/42	84.4%	*128.0	81.4%	*140.0	3%	96.0%	99	89.6%	96	9.4%
10/38	69.9%	*204.5	75.9%	*147.5	6%	95.4%	131	92.9%	99	2.5%
10/33	71.7%	*263.5	68.3%	*83.5	3.4%	94.8%	173	84.0%	50	10.4%
10/80	68.7%	*212.5	73.8%	*112.5	5.1%	94.0%	134	90.1%	71	3.9%
10/34	70.8%	*217.5	72.6%	*111.5	1.8%	93.6%	140	89.9%	69	3.7%
10/32	68.7%	*259.0	71.1%	*149.0	2.4%	92.8%	166	89.5%	95	3.3%
10/20	65.7%	*240.5	71.3%	130.5	5.6%	90.7%	140	86.6%	82	4.1%
10/60	72.8%	*248.5	68.4%	137.5	4.4%	90.5%	147	94.1%	68	3.6%
10/39	75.4%	*213.5	64.8%	*105.0	10.6%	89.9%	149	89.5%	57	.4%
Av.		222.3		118.4	4.3%		146.2		73.7	4.8%

According to the above table, the Strings' ratios fluctuated 4.3% on average between 1Sa and 2Ki (col. 6). The Numerals' ratios fluctuated 4.8% on average between the same (col. 12). When we compare these averages with the margin of error chart (Fig. 5.3.1a.), we can see that the present fluctuations between 1Sa 16–19 and 2Ki 17–20 are well within the predicted ranges.

³⁸⁰ For convenience, these data are taken from a comparison chart drawn up during the spring of 2021. The current values are perhaps slightly amended, as the database is updated continuously, but the percentages are unlikely to have changed to a statistically meaningful degree.

Based upon the above calculations and observations, it seems likely that trends are not present in the Mp data. Thus, the comparisons can be considered to be independently distributed for the purposes of this thesis, provided one distinguishes between Mp data taken from the Torah and the Former Prophets.

5.3.3. Arbitrary Cut-off Values

When providing the minimum threshold values for creating the dendrograms (§5.2.7; 5.2.8.), no justification was provided. This threshold is important to evaluate as it seems, based upon the probable margin of error in Fig. 5.3.1a., that ≥ 70 (combined) Mp Strings and ≥ 40 Mp Numerals are insufficient for providing optimal reliability. In other words, it is conceivable that some percentages are insufficiently representative, even if, on average, there is sufficient data.

My justification for the present thresholds is as follows. First, I have attempted to eliminate what appear to be meaningless/near-meaningless ratios. For example, there are nine corpus MSS (MSS 43, 55, 56, 57, 62, 69, 82, 94, 142) that are not included in at least some of the dendrograms at the current cut-off thresholds.

I am also cognisant of the fact that if the current thresholds were raised to, say, 150 combined Mp strings and 75 Mp numerals, which would easily provide single digit margin of error, an additional six or eight MSS would need to be excluded. This would be advisable depending upon the circumstances. However, to exclude the ratios in the present analysis is only to remove data for little purpose: it seems better to catch a glimpse (of what may be) than not to see it at all.

To include ratios with reduced reliability into a dendrogram has its risks, but they can be mitigated merely by keeping track of which MSS have them and being

careful not to read too much into these relationships. As it happens, the majority of MSS with lower quality Mp ratios are seldom that well connected to other MSS of the corpus anyway, which removes a fair amount of the risk of interpretation.

5.3.4. What Is Meant by ‘Centre of the Tiberian Tradition’?

In various places throughout the thesis, it is stated that MS X is closer to the centre of the Tiberian tradition than MS Y. As was already noted in preceding paragraphs, this perceived ‘centre’ should *not* be taken to mean the centre of all Tiberian MSS in the 10/11th centuries. Instead, what is indicated is *the centre of the Tiberian tradition based upon the MSS that happen to have been preserved*.

On the other hand, it would be amiss not to point out that a number of the surviving MSS that appear to have been in Jerusalem with the Karaites in the 11th century are also some of the best MSS from the point of view of accurate preservation of the Tiberian Masorah (§6.3.), e.g., A and G18. This does not mean, necessarily, that the Karaites possessed the best Mp rubrics of the period—see above paragraph. However, the present MSS do not preclude that interpretation either; in fact, the supposition is likely to be more probable than not.

Thus, while over interpreting the data would a mistake, and must be guarded against, the same can be said for a carelessly partial interpretation of it.

6. Statistical Comparisons

6.1. Baseline Variations

As with any data set, it is important to establish the amount of variation between the things that are being compared. In the present instance we are concerned specifically with how much similarity one can expect to find between codices, e.g., are two codices that match in 75 out of 100 instances similar because they agree 75% of the time or dissimilar because they differ 25% of the time?

We can attempt to answer these questions by establishing baseline variations, first by examining Mp String Similarity Percentage and then by examining Mp Numeral Similarity Percentage. Manuscript classmarks are not identified in the present sections as we are concerned only with probability, not with specific individual relationships.

One should note that the statistics compiled within the following sections (§6.1.1.–6.1.6.) are *not* derived from the aggregate Mp String Similarity Percentages and Mp Numeral Similarity Percentages, i.e., from all of the Torah references or from all the Former Prophets references. Instead, MSS are compared within specific reference subsections, e.g., only from Exodus or only from Deuteronomy. This is why a manuscript pair can occur several times within a given list.

6.1.1. Median and Average Mp String Similarity Percentage

The Mp String Similarity Percentage asks one basic question: to what extent is Mp rubric A similar to Mp rubric B? When all the ratios between every manuscript pair in the corpus are added together, we arrive at the following:

- Median Mp String Similarity Percentage (Torah): 53.9%.
- Average Mp String Similarity Percentage (Torah): 52%.

- Median Mp String Similarity Percentage (Former Prophets): 60.5%.
- Average Mp String Similarity Percentage (Former Prophets): 57.1%.

According to the above data, the average and median ranges for Shared Mp String Similarity Percentages, viz., how often a given Mp string may occur in another codex, is generally ca. 52–60%, i.e., slightly more likely than not. In the case of the Torah, the likelihood that the string can be found elsewhere is in the lower 50s while in the Former Prophets the likelihood of co-occurring Mp strings is in the upper 50s/low 60s. In other words, there is less variation in the Mp rubrics of the Former Prophets than there is in the Mp rubrics of the Torah.

6.1.2. Highest Mp String Similarity Percentage

- Highest Mp String Similarity Percentage for the Torah only: 100%. Perfect similarity occurs only 1x (MS 7/MS 147) out of 4089 manuscript comparisons made.
- Highest Mp String Similarity Percentage for the Former Prophets only: 100%. Perfect similarity occurs 2x (MS 35/MS 67, MS 62/MS 161) out of 1492 comparisons made.

As the above data indicate, rare are the instances with perfectly matching Mp rubrics. When comparisons with low reliability (i.e., < *60 shared Mp strings) are removed from consideration, no two MSS are exactly the same. The following are the Mp string collocations that have > *60 shared Mp strings *and* at least 87% Mp String Similarity.³⁸¹

³⁸¹ Note: The asterisk affixed prior to the numbers indicates an averaged amount of difference so that we can compare like with like (if one Mp collocation contains more items than the other—as is

- MS 150/MS 162 (97.5%, *81 comparisons)
- MS 155/MS 162 (93.9%, *222.5 comparisons)
- MS 4/MS 27 (93%, *93.5 comparisons)
- MS 35/MS 79 (92.4%, *257.5 comparisons)
- MS 4/MS 162 (91.6%, *83 comparisons)
- MS 35/MS 36 (91.3%, *80 comparisons)
- MS 10/MS 162 (90.7%, *193 comparisons)
- MS 10/MS 35 (90.2%, *246 comparisons)
- MS 10/MS 79 (90%, *269 comparisons)
- MS 137/MS 162 (89.9%, *199 comparisons)
- MS 36/MS 79 (89.4%, *254 comparisons)
- MS 35/MS 42 (89.3%, *131 comparisons)
- MS 35/MS 36 (88.9%, *247.5 comparisons)
- MS 42/MS 79 (87.6%, *137 comparisons)
- MS 36/MS 42 (87.6%, *133.5 comparisons)
- MS 36/MS 79 (87.5%, *271 comparisons)
- MS 35/MS 79 (87.5%, *252.5 comparisons)
- MS 35/MS 36 (87.5%, *243.5 comparisons)

As the above percentages show, Mp String Similarity can run as high as 97.5%. Two MSS with this level of similarity can be said to have a close genetic affiliation vis-à-vis their Mp rubrics.

almost always the case, it would otherwise appear that the one MS more strongly resembles its counterpart rather than the reverse; see §5.2.3.).

It is also noteworthy that certain MSS reappear frequently in the above comparisons, indicating, it would seem, that they are more nearly situated at the centre of Tiberian Masorah parva entry practice, i.e., the influence of a specific Mp rubric can be identified in a number of codices, highlighting their interconnected nature. We will explore these issues further in the relevant sections below.

6.1.3. Lowest Mp String Similarity Percentage

- Lowest Mp String Similarity Percentage in the Torah only: 4.2% (MS 82/MS 85).
- Lowest Mp String Similarity Percentage in the Former Prophets only: 3.4% (MS 38/MS 77).

When removing instances with < *60 available comparisons, as before, we are left with the following picture:

- MS 58/MS 77 (12.1%, *99.5 comparisons)
- MS 37/MS 77 (13.8%, *79.5 comparisons)
- MS 41/MS 77 (14.6%, *123 comparisons)
- MS 33/MS 77 (15.0%, *127 comparisons)
- MS 60/MS 77 (15.1%, *119 comparisons)
- MS 6/MS 40 (15.5%, *103.5 comparisons)
- MS 77/MS 161 (15.8%, *95 comparisons)
- MS 6/MS 139 (16.1%, *99.5 comparisons)
- MS 3/MS 157 (16.2%, *68 comparisons)
- MS 20/MS 77 (16.4%, *109.5 comparisons)
- MS 66/MS 77 (16.5%, *115.5 comparisons)
- MS 40/MS 83 (16.8%, *119 comparisons)

- MS 6/MS 22 (17.2%, *93 comparisons)
- MS 10/MS 77 (17.2%, *99 comparisons)
- MS 32/MS 77 (17.2%, *116 comparisons)
- MS 2/MS 6 (17.4%, *97.5 comparisons)
- MS 95/MS 98 (17.9%, *61.5 comparisons)
- MS 6/MS 144 (17.9%, *67 comparisons)
- MS 37/MS 77 (17.9%, *95 comparisons)
- MS 77/MS 79 (18.0%, *83.5 comparisons)
- MS 23/MS 83 (18.6%, *70 comparisons)
- MS 83/MS 162 (18.6%, *86 comparisons)
- MS 31/MS 144 (18.7%, *69.5 comparisons)
- MS 83/MS 156 (18.7%, *75 comparisons)
- MS 6/MS 131 (18.7%, *85.5 comparisons)
- MS 83/MS 90 (19.0%, *79 comparisons)
- MS 2/MS 6 (19.0%, *136.5 comparisons)
- MS 2/MS 31 (19.0%, *137 comparisons)
- MS 20/MS 69 (19.3%, *97.5 comparisons)

As the above list shows, the Mp String Similarity Percentage can be surprisingly low (minimally 12.1%). Stated oppositely, the *lack* of concordance between Mp string collocations may be as high as 87.9%. In extreme cases such as these it is clear that variation could and did spread throughout the various Mp rubrics.³⁸² These

³⁸² Or perhaps the precise manner in which the Mp notes were expressed were always somewhat different. The point being made is merely that there are measurable differences, which represent a useful starting point when comparing MSS.

differences are perhaps inconsequential, e.g., perhaps no more than ‘6x’ in one MS versus ‘1x in the Torah and 5x in the Writings’ in another MS. Nonetheless, these differences provide one with the means to measure the degree of absolute dissimilarity between MSS as regards the Mp data.

6.1.4. Median and Average Mp Numeral Similarity Percentage³⁸³

The Mp Numeral Similarity Percentage compares two given MSS based upon shared Mp strings. It shows the degree to which the two MSS share Mp numerals rather than merely comparing the Mp strings that occur in each. In this sense, the Mp Numeral Similarity Percentage is really a focused kind of similarity: Of the parts of the two Mp rubrics that are already similar (shared Mp strings), how many Mp numerals are also shared? Thus, an Mp Numeral Similarity Percentage of 90% does *not* indicate that the two MSS share 90% similarity. Instead, the percentage indicates the number of matching Mp numerals from the pool of already matching Mp strings.

- Median Mp Numeral Similarity Percentage (Torah): 89.2%
- Average Mp Numeral Similarity Percentage (Torah): 88.2%
- Median Mp Numeral Similarity Percentage (Former Prophets): 88.9%
- Average Mp Numeral Similarity Percentage (Former Prophets): 87.2%

According to the above figures, both the median and average figures for Mp Numeral Similarity Percentage between the Torah and the Former Prophets are nearly identical (.5% variation or less in all instances). In all cases the Mp Numeral

³⁸³ The Median Shared Mp String Percentage and the Average Shared Mp String Percentage for the full table are 89.3% and 88.2% respectively (N.B.: double counts were not removed from the full table for completeness, which inflates the median and average values approximately .1–.4 percent—thus the true percentages are ca. 89.1% and ca. 88.0% respectively).

Similarity Percentage is slightly less than 90%. Within the corpus, therefore, the level of similarity must be ca. 90% or greater to be considered as having an above average level of similarity. Phrased differently, the average likelihood that two MSS will agree on the Mp numeral for a given Mp string (e.g., *both* have '1x', *both* have '20x', etc.) is *87.7%.

6.1.5. Highest Mp Numeral Similarity Percentage

- Highest Mp Numeral Percentage for the Torah only: 100%.

This result occurs in 363 instances out of a total number of 4,089 instances (8.9%).

- Highest Mp Numeral Percentage for the Former Prophets only: 100%.

This result occurs in 141 instances out of 1,492 instances (9.5%).

These figures indicate that nearly 10% of the comparisons yielded perfect similarity within the given reference ranges. The vast majority of these percentages, however, have too few comparisons to be representative (i.e., < 40), and thus, cannot be said to provide indicative percentages. Upon removing percentages based on fewer than 40 Mp notes, we are still left with the following ten manuscript pairs.

- MS 10/MS 36 (100%, 102 comparisons)
- MS 10/MS 79 (100%, 102 comparisons)
- MS 13/MS 150 (100%, 97 comparisons)
- MS 41/MS 47 (100%, 54 comparisons)
- MS 10/MS 42 (100%, 53 comparisons)
- MS 72/MS 80 (100%, 50 comparisons)
- MS 39/MS 72 (100%, 46 comparisons)
- MS 27/MS 90 (100%, 44 comparisons)

- MS 4/MS 27 (100%, 42 comparisons)
- MS 60/MS 72 (100%, 40 comparisons)

6.1.6. Lowest Mp Numeral Similarity Percentage

- Lowest Mp Numeral Percentage (from within the Torah): 33.3% (MS 83/MS 84).
- Lowest Mp Numeral Percentage (from within the Former Prophets): 25% (MS 67/MS 158).

Disregarding Mp comparisons with < 40 members yields the following seven manuscript pairs with Mp Numeral Similarity Percentage of $\leq 70\%$.

- MS 58/MS 161 (64.8%, 54 comparisons)
- MS 18/MS 31 (65.1%, 43 comparisons)
- MS 90/MS 145 (65.9%, 44 comparisons)
- MS 12/MS 31 (67.4%, 46 comparisons)
- MS 37/MS 60 (68.3%, 41 comparisons)
- MS 37/MS 41 (69%, 58 comparisons)
- MS 85/MS 145 (70%, 50 comparisons)

Once above 70%, the comparisons having > 40 members become much more frequent. Phrased differently, two Tiberian MSS that disagree vis-à-vis their Mp numerals in more than 30% of cases can be said to be of markedly different Mp numeral recensions.

6.1.7. Summary

The outermost limits and expected values of both the Strings' and the Numerals' percentages were described in §6.1.1.–6.1.6. For the Mp String Similarity

Percentage between two Mp rubrics comprised of at least *60 Mp strings, the range

of similarity can vary from 12.1–97.5%; the median value is *57.2%. For the Mp Numeral Similarity Percentage between two Mp rubrics, the range is similarity can vary from 64.8–100%, with a median value of *89.1%.

In practically all cases, the Mp String Similarity Percentage of a given comparison will be lower than its accompanying Mp Numeral Similarity Percentage. This is to be expected. A given Mp string is marked essentially at the discretion of the *masran*; there is no real obligation to mark an Mp string at every opportunity. Once the *masran* elects to mark the string, however, there is a very good possibility that the Mp numeral entered alongside will correspond with other Mp rubrics. In the present MSS, that likelihood is nine out of ten (*89.1%).

6.2. Mp note Frequency

In the present section, corpus MSS of the Torah (74 MSS) are investigated for Mp note frequency. The frequency of Mp notes in the Former Prophets was not surveyed, although anecdotal evidence appears to indicate that the frequency of Mp note occurrence in the Former Prophets is slightly lower overall than that of the Torah.³⁸⁴

The most densely annotated MS from the database is MS 155 (IIB67 +) with 722 Mp notes in only 250 vv. This means that there is an average of 2.89 Mp notes per v. examined in IIB67 + . At the opposite end of the spectrum is MS 6 (IIB33 +) with 83 Mp notes in 223 vv. (.37 Mp notes/v.). Over three vv., therefore, IIB33 +

³⁸⁴ The frequency of Mp note occurrence can depend somewhat upon the section of text being measured. For example, sections with more *hapax legomena* and/or unusual vocalisations are likely to receive more Mp notes. This is a classic example of non-identical distribution (see §5.3.2.); the only way to ensure that the sample sizes are truly representative would be to add notes from a number of additional reference ranges.

will have ca. 1.1 Mp notes while IIB67+ will have ca. 8.7 Mp notes, a difference of 7.6 Mp notes in the space of only three vv.

The average distribution of Mp notes per v. in the database is 1.53, that is, approximately three Mp notes for every two vv. At an average distribution of 1.53 Mp notes/v., one can expect ca. 8954 Mp notes in a codex of the Torah (1.53×5852 vv. = 8954). In a “maximally stocked” Mp rubric, one can anticipate ca. 16,386 Mp notes in a codex of the Torah (2.8×5852 vv. = 16,386).

Table 6.2a. shows the Mp note frequency in the Torah MSS based upon the database information. MSS are organised according to Mp note frequency; the right half of the table is a continuation of the list found on the left half. The classmarks are colour coded according to script type as listed in Corpus Description (see colour key on bottom of table).

Table 6.2a. Mp vote frequency in the Torah (Mp notes/verse)								
MS	# vv.	Mp notes	Mp/verse		MS	# vv.	Mp notes	Mp/verse
155/IIB67 +	250	722	2.89		82/IIB1003 +	24	37	1.54
18/IIB62 +	127	354	2.79		86/IIB54 +	291	446	1.53
162/IIC1 +	173	451	2.61		126/IIB44 +	276	413	1.50
51/WP2	143	371	2.59		7/IIB46 +	366	534	1.46
2/IIB79 +	279	708	2.54		87/IIB82 +	290	423	1.46
40/S	434	1098	2.53		81/IIB51 +	283	409	1.45
131/IIB17 +	385	949	2.46		148/IIB88 +	100	144	1.44
10/A	143	340	2.38		84/IIB27 +	188	266	1.41
99/IIB991 +	32	74	2.31		88/IIB127 +	270	378	1.40
137/IIB10 +	429	992	2.31		141/T-S A5.3	54	75	1.39
12/IIB96 +	109	243	2.30		85/IIB15 +	343	468	1.36
22/IIB13 +	380	796	2.09		149/IIB988 +	110	148	1.35
151/IIB1008 +	84	169	2.01		55/Or. 9880	26	34	1.31
27/IIB84 +	325	640	1.97		139/IIB159 +	114	149	1.31
140/T-S A4.13	28	55	1.96		90/IIB123 +	190	233	1.23
4/IIB128	207	403	1.95		17/IIB138 +	397	479	1.21
29/IIB65 +	434	833	1.92		93/IIB1014 +	177	210	1.19

28/IIB142	122	230	1.89		147/IIB989	67	79	1.18
14/IIB74 +	349	652	1.87		128/IIB60 +	377	440	1.17
60/S1	428	790	1.85		146/IIB999 +	211	238	1.13
150/IIB289	66	121	1.83		98/G6	238	259	1.09
30/B	107	193	1.80		153/IIB1009 +	192	202	1.05
1/IIB38 +	214	383	1.79		26/IIB162 +	32	32	1.00
8/IIB97 +	291	520	1.79		3/IIB41 +	431	414	0.96
160/Gott. 18	434	774	1.78		70/M88	160	137	0.86
13/IIB37 +	341	591	1.73		144/IIB193	105	89	0.85
23/IIB18	434	737	1.70		143/T-S A5.17	45	38	0.84
20/L	434	730	1.68		142/T-S A5.10	32	27	0.84
138/V448	434	708	1.63		94/IIB995	14	11	0.79
19/IIB8 +	434	707	1.63		145/IIB1011	270	194	0.72
5/IIB20 +	188	303	1.61		127/IIB48	76	49	0.64
15/IIB80 +	274	435	1.59		92/IIB996 +	60	38	0.63
154/IIB19 +	287	455	1.59		157/IBibl.54	275	167	0.61
156/T3	345	545	1.58		31/B2	143	75	0.52
16/IIB73 +	314	491	1.56		95/IIB994 +	111	58	0.52
50/WP	291	452	1.55		83/IIB52 +	197	81	0.41
24/IIB137 +	92	142	1.54	6/IIB33 +	223	83	0.37	
Average Mp notes/verse			1.53					
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"								

We might hypothesise that the most independent of the Mp rubrics are to be found near the statistical edges in Table 6.2a., i.e., in codices that have an excessive number of Mp notes or in codices that hardly have any Mp notes whatsoever. Such a hypothesis would be partly right—but there are exceptions.

(1.) Markedly independent Mp rubrics are likely to be found near the bottom of the list, e.g., in codices with $\leq .7$ Mp notes/v. In general, these MSS do not resemble one another vis-à-vis their Mp data nor are their Numerals' percentages particularly affiliated with Mp rubrics of other, more fully annotated codices (§6.4.3.; 6.4.4.). When one surveys the MSS, a possible reason for the general

independence of these less-full Mp rubrics suggests itself. Namely, such MSS are often of visually inferior quality; there is reduced likelihood that they are the most reliable exemplars of Tiberian Mp. It is probably not accidental, moreover, that IIB52 + (2nd from bottom) is a late-12th century, owner produced codex, and B2 (4th from bottom) is a 16th-century Yemenite MS.

The one exception to the just-made characterisation of the bottom-most MSS is with MS 95 (IIB994 +), an otherwise unremarkable codex (in appearance) that has an average Mp Numeral Similarity Percentage of 93.5%. For the purpose of comparison, the average Numerals' percentage of corpus MSS for the Torah is 88.2% (§6.1.4.). MSS with which IIB994 + is the most similar contain a variety of script styles (cf. col. 2 in Table 6.2b.).

Table 6.2b. MS 95 (IIB994 +) compared according to Numerals' percentage			
MS	Script of MS in Col. 1	Shared Mp notes	Shared Mp String %
7/IIB46 +	near-Jerusalemite	42	97.6
50/WP	Jerusalemite	42	97.6
126/IIB44 +	"Oriental"	41	97.6
87/IIB82 +	"Oriental"	38	97.4
27/IIB84 +	near-Tiberian	36	97.2
19/IIB8 +	near-Tiberian	35	97.1
23/IIB18	"Oriental"	35	97.1
160/G18	Jerusalemite	43	95.3
14/IIB74 +	Tiberian	40	95
15/IIB80 +	near-Tiberian	40	95
17/IIB138 +	"Oriental"	39	94.9
138/V448	near-Tiberian	39	94.9
16/IIB73 +	Tiberian	36	94.4
13/IIB37 +	Tiberian	44	93.2
137/IIB10 +	Tiberian	42	92.9
86/IIB54 +	proto-Sephardi	38	92.1
2/IIB79 +	"Oriental"	36	91.7
131/IIB17 +	Tiberian	40	90

Moreover, the dates and likely places of composition of MSS in the table vary widely. A partial list includes: IIB17+ (Tiberias, early 10th century), IIB54+ (N. Africa, ca. 1000 C.E.), G18 (Jerusalem?, early 11th century), IIB8+ (Egypt, early-mid 11th century), V448 (N. Africa, late 11th/early 12th century), IIB18 (N. Levant?, 12th century or later).

These data would appear to indicate that the Mp rubric used to create IIB994+ was from the centre of the Tiberian Mp tradition. It is possible, even probable, then, that the Mp notes of IIB994 point towards an Mp recension that is as old as that of any other codex in the corpus.

(2.) Regarding if maximally “stocked” Mp rubrics also tend towards dissimilarity, it appears that we must also be somewhat equivocal. Some of the fullest Mp rubrics of the corpus, e.g., IIB79+ and S, are generally independent. With others, e.g., IIB67+, and, probably, IIB17+, the difference of the Mp rubric may be attributable to the presence of multiple *masranim*.

There are MSS near to the top of the list that share a remarkable amount of Mp data, however. Notable instances include WP2, A, IIB10+, and IIB96+ (§6.4.3.). When there are multiple MSS with relatively “packed” Mp rubrics, we can safely surmise that there was an Mp tradition that encompassed the large majority of the notes found in these codices. In other words, it is not necessary to posit that the fuller the Mp rubric, the more likely that the *masran* borrowed from several sources. Such may be the case, as was noted with IIB79+, S, etc., but it is by no means obligatory.

6.3. Which MSS Appear more “Interconnected”?

In this section, we would like to observe which codices appear most and least frequently at the centre of the Tiberian Mp tradition irrespective of their Mp note entry frequency. The present calculations cover corpus MSS of both the Torah and the Former Prophets.

These determinations are based upon the average Strings’ percentages and the average Numerals’ percentages. Namely, if the percentages of MS A are 70%, 80%, and 90%, then MS A is considered to have an average percentage of 80%. If MS B has percentages of 40%, 50%, and 60%, then MS B has an average percentage of 50%. One can easily see how that MSS with greater similarity to the remainder will be isolated via this evaluation method.

Table 6.3a. organises the corpus MSS according to the average Strings’ percentage of a given MS (col. 3, in **bold**). The average Numerals’ percentage is also given (col. 5). Several other notations are also important: (1.) MSS preceded by an asterisk are of the Former Prophets; MSS without an asterisk are of the Torah. (2.) Numbers given in **red** are formed from small sample sizes; the margin of error for these percentages is likely to be at least several percentage points, and are therefore not considered in the present analysis. These MSS are included in the table, though, in order to present the fullest picture possible.

Table 6.3a. MSS ranked by their interconnectedness with other corpus MSS					
MS * = Former Prop.	vv. extant	Strings’ % avg.	# of MSS per Strings’ % avg.	Numerals’ % avg.	# of MSS per Numerals’ % avg.
*35/IIB39 +	393	64.4	38	90.3	38
*10/A (F. Prop.)	471	63.7	37	90.0	37
*36/IIB26 +	425	63.3	39	90.4	39

*79/IIB55 +	486	63.1	39	89.0	39
*67/IIB134 +	82	63.0	31	85.2	31
*34/IIB63 +	394	62.8	37	89.5	37
*56/IIB1243 +	22	62.6	25	95.3	25
*39/IIB50 +	520	62.4	39	90.5	39
1/IIB38 +	214	62.4	53	90.7	54
*80/C	520	62.1	39	89.4	39
*42/IIB70 +	240	62.1	35	91.7	35
151/IIB1008 +	84	61.6	67	88.9	67
*52/IIB206 +	21	61.6	22	79.5	22
50/WP	291	61.5	55	92.7	55
10/A (Torah)	143	61.5	54	90.4	53
12/IIB96 +	109	61.1	52	85.9	52
*71/IIB94 +	194	60.9	32	86.6	32
160/G18	434	60.6	73	90.6	73
51/WP2	143	60.4	52	89.4	52
5/IIB20 +	188	60.2	55	89.9	55
*38/IIB99 +	417	60.1	39	89.3	39
150/IIB289	66	60.1	51	89.6	51
*33/IIB77 +	520	59.9	39	88.5	39
*47/IIB124 +	255	59.6	37	87.7	37
162/IIC1 +	173	59.6	72	87.7	72
27/IIB84 +	325	59.5	73	90.5	73
87/IIB82 +	290	59.0	55	90.4	55
13/IIB37 +	341	58.9	73	90.8	73
*66/IB13/80	380	58.7	37	87.8	37
155/IIB67 +	250	58.5	69	88.9	69
4/IIB128	207	58.5	73	91.0	73
*32/IIB56 +	388	58.4	37	88.3	37
86/IIB54 +	291	58.2	55	90.0	55
14/IIB74 +	349	58.1	73	89.5	73
137/IIB10 +	429	58.0	73	88.8	73
19/IIB8 +	434	57.9	73	89.1	73
*41/IIB24 +	396	57.9	39	85.8	39

*20/L (F. Prop.)	520	57.8	39	85.6	39
*50/S1 (F. Prop.)	509	57.7	39	86.4	39
*161/G27	414	57.6	39	87.4	39
7/IIB46 +	366	57.4	72	92.6	71
126/IIB44 +	276	57.4	54	91.3	53
28/IIB142	122	57.4	53	88.3	52
84/IIB27 +	188	57.3	53	88.1	53
*74/IIB71 +	67	57.0	32	87.9	32
15/IIB80 +	274	56.7	70	89.8	70
*48/IIB35 +	259	56.3	35	85.9	35
148/IIB88 +	100	56.3	54	88.0	54
23/IIB18	434	56.2	73	88.4	73
8/IIB97 +	291	56.2	55	88.5	55
81/IIB51 +	283	56.1	73	89.7	72
30/B	107	55.9	48	85.5	48
156/T3	345	55.8	72	83.0	72
24/IIB137 +	92	55.8	52	88.8	51
*78/IIB1180 +	52	55.8	28	88.9	28
*37/IIB86 +	177	55.4	32	77.8	32
29/IIB65 +	434	55.3	73	88.8	73
*76/IIB90 +	43	55.0	27	83.7	27
20/L (Torah)	434	54.8	73	87.7	73
16/IIB73 +	314	54.6	72	87.2	72
50/S1 (Torah)	428	54.5	73	86.3	73
40/S	434	54.3	73	84.6	73
154/IIB19 +	287	54.3	72	87.1	72
18/IIB62 +	127	54.0	53	87.3	52
88/IIB127 +	270	53.8	70	89.7	70
131/IIB17 +	385	53.6	72	89.2	72
*53/IIB1276	58	53.6	24	78.4	24
*54/IIB1233 +	104	53.3	27	89.5	27
*49/IIB43 +	102	53.1	33	82.9	33
93/IIB1014 +	177	52.9	49	89.6	49
146/IIB999 +	211	51.8	69	87.2	69

22/IIB13 +	380	51.6	73	88.6	73
85/IIB15 +	343	51.6	72	88.6	72
140/T-S A4.13	28	51.4	48	91.3	48
90/IIB123 +	190	50.0	54	89.2	53
17/IIB138 +	397	49.5	73	88.2	73
*72/IIB1169	75	49.4	23	94.7	23
138/V448	434	49.3	72	86.7	72
26/IIB162 +	32	48.2	47	79.4	46
147/IIB989	67	47.9	51	84.3	50
149/IIB988 +	110	47.8	48	86.3	48
99/IIB991 +	32	47.3	59	84.1	58
*43/IIB1281 +	28	47.0	23	82.8	23
143/T-S A5.17	45	45.6	49	85.5	48
*46/IBibl.68	520	45.5	39	83.9	39
2/IIB79 +	279	45.5	73	85.3	73
141/T-S A5.3	54	45.3	44	89.0	44
3/IIB41 +	431	44.5	73	88.6	73
142/T-S A5.10	32	43.7	49	90.8	48
139/IIB159 +	114	43.5	52	86.1	52
128/IIB60 +	377	43.1	73	87.7	73
92/IIB996 +	60	42.8	45	90.0	44
82/IIB1003 +	24	42.6	33	97.5	33
153/IIB1009 +	192	42.1	67	87.7	67
55/Or. 9880	26	41.8	48	89.8	48
*158/R3	516	40.6	39	77.2	39
*91/IIB68 +	159	40.0	36	84.5	36
145/IIB1011	270	39.9	54	80.2	54
*65/IIB207 +	160	37.5	32	88.1	32
98/G6	238	37.2	55	82.3	55
*57/IIB927	31	36.3	25	95.1	25
127/IIB48	76	36.2	47	90.2	47
144/IIB193	105	34.5	49	84.6	49
157/IBibl.54	275	34.3	55	85.2	55
95/IIB994 +	111	34.3	47	93.4	47

94/IIB995	14	33.8	39	95.7	38
*58/IIB1160 +	447	33.7	39	81.0	39
*45/IIB1167	120	33.1	24	81.5	24
*77/IIB1275	206	32.9	32	90.2	32
70/M88	160	32.8	69	83.7	68
31/B2	143	30.1	53	79.4	52
6/IIB33 +	223	25.6	70	87.0	69
*69/IIB1285 +	71	23.2	22	78.6	22
83/IIB52 +	197	19.3	59	76.7	52
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; Proto-Sephardi; Italian; Yemenite; "Oriental"					

There are 114 MSS listed in Table 6.3a. Forty are MSS of the Former Prophets and 74 are Torah MSS; put differently, 35% are MSS of the Former Prophets and 65% are MSS of the Torah. Assuming an equal distribution of MSS, one should expect to encounter an MS of the Torah on the table two-thirds of the time.

The average Strings' percentages range from 19.3–64.4%; the average Numerals' percentages range from 76.7–97.5%. Keeping these ranges in mind, several observations appear worthy of note.

(1.) The first observation concerns the bifurcation of Strings' ratios in MSS of the Former Prophets. Using the asterisk to disambiguate between Torah and Former Prophet MSS (see col. 1), one notes that the top 20% of the table (23 MSS) is disproportionately composed of MSS of the Former Prophets. Of these 23 MSS, 14 are of the Former Prophets. This amounts to a 61% distribution of MSS of the Former Prophets when one would otherwise expect 35%. In other words, some MSS of the Former Prophets tend towards greater similarity of Strings' percentages than do the MSS of the Torah (see also §6.1.1.).

One should not assume that the Strings' percentages of the Former Prophets merely trend higher, however, leaving the Torah MSS to settle towards the bottom of the table. The bottom 20% of the table (23 MSS) contains eight MSS of the Former Prophets. This is a distribution of 35%, exactly what we would have expected had the distribution of MSS of the Former Prophets been entirely random.

It appears, then, that there is something of a bifurcation in MSS of the Former Prophets vis-à-vis the average Strings' percentages. The most connected MSS yield Strings' percentages that are higher than those typically found in the Torah, while, simultaneously the least connected of the MSS of the Former Prophets are statistically no more likely to show similarity than those of the Torah. This bifurcation essentially leaves a disproportionate percentage of MSS of the Torah in the middle of Table 6.3a.

(2.) The next observation concerns MSS from the bottom of the table, those with the least amount of average Strings' similarity. These MSS appear to be of several types, and it is important to highlight the differences.

First are MSS where the Strings' percentage is low and the Numerals' percentage is reasonably high (ca. 85% or higher). This indicates that the Mp rubric of the MS in question, although perhaps thin, is otherwise similar to the majority of MSS. For example, the third MS from the bottom, IIB33+, has an average Strings' percentage of only 25.6%, indicating that, on average, IIB33+ shares an Mp note with another MS only one-fourth of the time. The average Numerals' percentage of IIB33+, however, is 87.0%. Thus, of the Mp notes that IIB33+ does have, the agreement of these notes with other MSS generally is relatively high. The same can

be said IIB1275+ (sixth from bottom), IIB994+ (10th from bottom), and IBibl.54 (11th from bottom), etc.

Another type of MS at the bottom of the list can be found where the percentages are constructed from a low number of verses. These ratios are marked in red. For example, IIB995 (ninth from bottom) is based on only 14 verses. Although the average Strings' percentage is a low 33.8%, the average Numerals' percentage is an abnormally high 95.7%, the second highest of all the average Numerals' percentages listed on Table 6.3a. What has happened? It appears that the small number of available Mp notes happen to have been in low agreement with other MSS vis-à-vis the Mp strings while simultaneously being in high agreement with other MSS vis-à-vis the Mp numerals. One should not expect such ratios to be fully representative, therefore.

The third and most important type of MS near the bottom of Table 6.3a. is comprised of MSS where both the average Strings' percentage *and* the average Numerals' percentage are exceptionally low. Nowhere is this more evident than with IIB52+, the final MS of the list. The data, drawn from 197 vv. (col. 2), are likely to be representative; both the average Strings percentage (19.3%) *and* the average Numerals' percentage (76.7%) are the lowest of the entire table. The same can be said for B2 (fourth from bottom), with percentages of 30.1% and 79.4% respectively. The former MS was owner produced in 1196 C.E. (location unknown); the latter MS is from 16th-century Yemen.

Other MSS from the bottom of Table 6.3a. with an above average distance from the larger corpus vis-à-vis the average Strings' and Numerals' percentages include M88 (5th from bottom; 32.8% and 83.7%), G6 (15th from bottom; 37.2%

and 82.3%), IIB1011 (17th from bottom; 39.9% and 80.2%), and R3 (19th from bottom; 40.6% and 77.2%).

These latter four MSS were mentioned because something is presumed to be known about them. M88 appears to be either of Babylonian or N. African provenance (cf. §4.3.13.; 6.5.2.; 6.6.2.); IIB1011 and R3 are Italian MSS (§4.2.6.; cf. §6.5.2.; 6.5.5.2.); Gottheil 6, kept in an Egyptian synagogue until the modern era, remains an anomaly. Its low level of similarity with other corpus MSS suggest that it is unlikely to have been composed in Egypt, at least not in the 11/12th century, but where and when this could have been remains unclear.³⁸⁵

(3.) The third observation arising from Table 6.3a. regards MSS with the highest average Strings' percentages, i.e., from those towards the top of the table. Several issues are worthy of note. First, using the colour coding for script type, it is readily observed that MSS highlighted in yellow or light blue (Tiberian and Jerusalemite script MSS respectively), are by far the most frequent occupants of the top of the table. This is especially the case once subtracting MSS with a reduced number of vv. extant (those in red). Of the top 20 MSS, all but three are Tiberian or Jerusalemite script MSS. These data would appear to confirm what has long been stated about MSS of these script types, viz., these MSS are the best representatives of the Tiberian Masoretic tradition.

It is also worth noting which MSS are at the top of the list in respect to the Torah and/or the Former Prophets. As regards the Former Prophets, A is the second MS from the top; as regards the Torah, A is the third MS from the top. Clearly the

³⁸⁵ Olszowy-Schlanger, personal communication, September 2023, has tentatively suggested that G6 is from the Maghreb, i.e., N. Africa.

Mp tradition of A is well-reflected in the corpus MSS. By contrast, L is in 16th place on the table in regard to the Former Prophets and 31st in regard to the Torah; S1 is 17th on the table in regard to the Former Prophets and 33rd in regard to the Torah. For both L and S1, this amounts to no more than approximately the “middle of the pack”. For B and S in the Torah the results are nearly similar with those of L and S1: B is 28th place and S is 34th. Of the commonly referred to codices, only C shows an average String’s percentage approaching to that of A: seventh place for MSS of the Former Prophets.³⁸⁶

While the present data do *not* indicate which MS is most similar to which, it is probable that the MSS at the top of the table are likely to share the greatest amount of Mp similarity. Thus, it is scarcely accidental that IIB39 + , IIB26 + , and IIB55 + , the three highest ranking MSS of the Former Prophets in Table 6.3a. (excluding A) have all been singled out by Yeivin as being exceptionally close to the Aleppo Codex in certain aspects of the Masorah.³⁸⁷

Also worth referencing is the early location history of the MSS at the top of Table 6.3a. Of the top ten MSS for the Former Prophets and Torah respectively, the following is known and/or suspected to be the case (cf. §4.3.–4.5. ad loc.).

Former Prophets

- IIB39 + : Jerusalem, 989 C.E. (it is the opinion of the present author that this date and place are unreliable)

³⁸⁶ N.B.: the present paragraph disregards counts based upon MSS with low documentation (indicated in red in Table 6.3a.).

³⁸⁷ Cf. Yeivin, *Introduction*, p. 24 (IIB39 +), p. 25 (IIB26 +); idem., *המסורה למקרא*, p. 25 (regarding IIB55 and IIB247; the same comment is made separately regarding Gottheil 22, however, which is comprised *only* of IIB55 + , [p. 26]).

- A: Tiberias, ca. 920 C.E., but with the Karaites in Jerusalem by at least the middle of the 11th century³⁸⁸
- IIB55 + : By the 11th century was with the Karaites in Egypt; any prior location is unknown
- C: Karaites, Jerusalem, 11th century; post 1099 C.E. with the Karaites in Cairo
- IIB70 + : has the appearance of an MS of Egypt of the 11/12th century
- IIB94 + : dedicated to the Karaites in Egypt in 1099; any prior location or ownership is unknown

Torah

- IIB38 + : Karaites, Jerusalem
- A: see above, **Former Prophets**
- IIB96 + : 11/12th century Egypt(?)
- G18: examined by Mishaël b. Uzziel, Karaites, Jerusalem, early 11th century
- WP2: 12th-century Alexandria
- IIB20 + : proofread by Mishaël b. Uzziel, thus with the Karaites in Jerusalem in the early 11th century
- IIC1 + : Egypt, Samuel b. Jacob, 11th century
- IIB82 + : 10th–early-11th century, Palestinian(?), Egypt; later dedicated to the Karaites

According to what is known of the above MSS, it appears plain that MSS from Jerusalem and Egypt are at the centre of the Tiberian Mp tradition as recorded in

³⁸⁸ Ofer, “Two Dedicatory Inscriptions in Manuscripts of Scripture”, p. 54.

the corpus MSS. The Karaites are frequently mentioned, and Jerusalem as the locus of much of this activity in the early to mid 11th century seems probable as attested by A, G18, IIB20 + , C, and IIB38 + .³⁸⁹ This activity, moreover, would appear to be consonant with the Karaite *dār* in Jerusalem and its attention to matters of the Masorah.

As a secondary locus of Bible codices, one also finds what appear to be non-Karaite Bible MSS in 11th-century Egypt: IIC1 + and IIB82 + . The same can be said, albeit with more clarity, to 12th-century Egypt (WP2). We will return to this secondary locus in a moment.

(4.) It was noted in a preceding paragraph that L is “middle of the pack” when examining its average Strings’ percentages. This same trend generally holds with the other MSS written by or proofread by the 11th-century, Egyptian scribe Samuel b. Jacob. SbJ MSS of the Former Prophets rank as follows: L17 (13th), L (16th), G27 (18th); SbJ MSS of the Torah rank as follows: IIC1 + (8th), IIB142 (20th), L (31st), IIB60 + (50th). Because the Mp rubrics of the SbJ codices are shown to show significant similarity vis-à-vis the dendrograms (§6.4.1.–6.4.4.), the present relatedness metric is therefore slightly inflated. For example, with L and L17 removed from calculation, Gottheil 27 drops from 13th place in MSS of the Former Prophets to *19th place.

Another MS of which we know at least some of its history is IIB79 + (11th-century Jerusalem, Rabbanite), 47th from the top of the list of Torah MSS. This MS is significant because we know it (spatially) to be near the locus of the Tiberian Mp

³⁸⁹ The colophon of IIB38 + appears to be the work of a later hand.

tradition as attested in the corpus MSS, while it simultaneously contains an Mp rubric quite different from codices found in the same city of approximately the same time.

(5.) From the evidence at hand, MSS associated with the Karaite *dār* in Jerusalem are likely to contain Masoretic notes from the “centre” of the Tiberian tradition,³⁹⁰ while MSS of roughly the same time and place *not* pertaining to the Karaites are less reflective of the Mp corpus centre. These data corroborate what others have anticipated. Namely, whether or not Karaites were involved in early Masoretic activity, by the 11th century their codices had an outsized impact in the transmission and safeguarding of the Masoretic enterprise (perhaps assisted by their fortuitous ownership of the Aleppo Codex?).

While MSS of Egypt of roughly the same time (prior to the First Crusade) are generally less interconnected to the Tiberian Mp tradition, if one extends the timeline to include MSS written after the First Crusade, e.g., WP2 (12th-century Alexandria) we find that the Mp rubrics appear to have again converged. That is, the Bible MSS owned by the Jews in Palestine that were brought into Egypt appear to have brought homogeneity to the Masorah written in Egypt for a time thereafter.

6.4. Dendrograms: MSS Groupings Based upon Mp String and Mp Numeral

³⁹⁰ It could be argued that the “centre” is only referred to as such because of the extant MSS that we happen to have on hand. Had a different set of MSS been preserved, we might be left with a different picture regarding what constitutes the “centre”. The force of this objection subsides, however, when one remembers that the Aleppo Codex, everywhere regarded as the most accurate of the Tiberian MSS, is one of these “centre” MSS. See also §5.3.4.

Up until the present we have dealt with the MSS vis-à-vis their Mp String Similarity Percentage or their Mp Numeral Similarity Percentage averages, viz., with generalisations regarding which MSS are more or less connected to the general “Tiberian Mp rubric” of which all corpus MSS can be said to form a part.

Now we face the much more difficult task of forming manuscript subgroupings that contain more than two members. To properly solve the problem, ideally one would need access to the “original” Mp lists—which are not available to us. The second-best option is to create dendrograms, thereby creating a family tree of manuscripts. This allows one to probe the manuscript similarities in a statistically rigorous way. For an explanation of the process, see §5.2.6.–5.2.8.

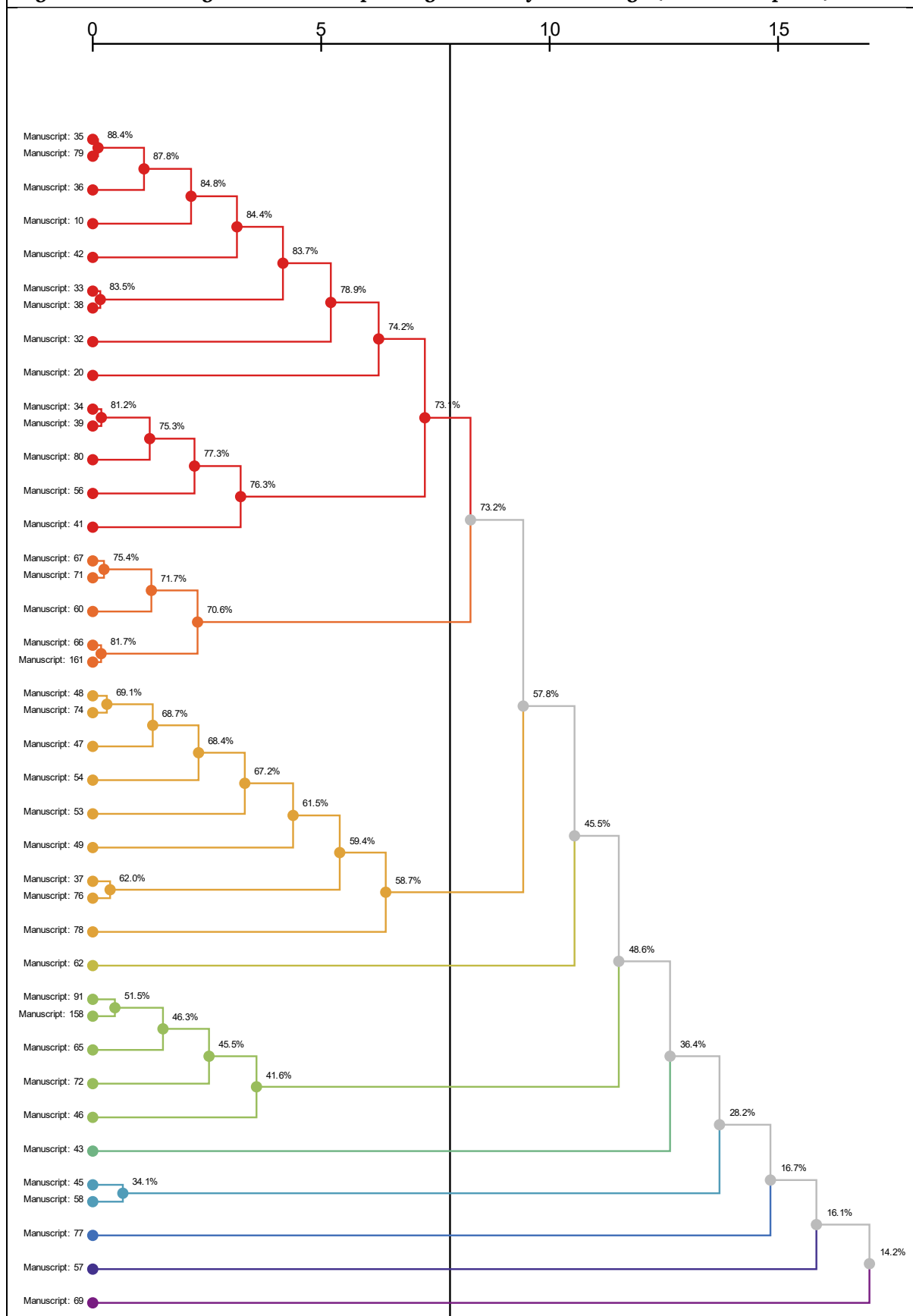
6.4.1. Mp String Similarity Percentage Dendrogram: Former Prophets

We begin with the Former Prophets rather than the Torah because there are fewer MSS involved and because the groupings are simpler. This section includes all 40 corpus MSS of the Former Prophets.

In order to fit the dendrogram into a Word document, the output display is horizontal rather than vertical. The figure is read from left (closest relationships) to right (most distant relationships). The vertical bar that separates the groups from each other is placed at a distance that appears to offer insight, although its optimal placement will vary depending upon how the MSS join together. The point of primary importance is not the placement of the vertical bar, but the simple observation that manuscript clusters exist and can be readily identified.

According to the placement of the vertical bar, there are ten manuscript groupings in Fig. 6.4.1a., below.

Fig. 6.4.1a. Dendrogram vis-à-vis Mp String Similarity Percentage (Former Prophets)



The small sizes of group 4 (MS 62) and groups 6–10 are insignificant from a subcategorisation standpoint, particularly as the bottom five groups (6–10) were added on in the final iterations of the calculation (note the staircase shape of the lower right side of the dendrogram). The four larger groups (groups 1–3, 5), however, provide substantive comparisons. These four groups are colour-coded for simplicity in Fig. 6.4.1a., and consist of

- the “red” group (14 MSS),
- the “orange” group (5 MSS),
- the “gold” group (9 MSS), and
- the “green” group (5 MSS).

Of these four groups, the “red” group is notable for having what amounts to a secondary subdivision: the first nine MSS form the first branch, and the remaining five MSS form the second branch. When we place these MSS into a table, add classmarks, and then colour-code the classmarks according to script type, we arrive at the following:

Table 6.4.1a. Side-by-side comparison of Strings’ Dendrogram (Former Prophets)				
“Red” group A	“Red” group B	“Orange” group	“Gold” group	“Green” group
35/IIB39 +	34/IIB63 +	67/IIB134 +	48/IIB35 +	91/IIB68 +
79/IIB55 +	39/IIB50 +	71/IIB94 +	74/IIB71 +	158/R3
36/IIB26 +	80/C	60/S1	47/IIB124 +	65/IIB207 +
10/A	56/II 1243 +	66/L17	54/IIB1233 +	72/IIB1169
42/IIB70 +	41/IIB24 +	161/G27	53/IIB1270	46/IBibl.68
33/IIB77 +			49/IIB43 +	
38/IIB99 +			37/IIB86 +	
32/IIB56 +			76/IIB90 +	
20/L			78/IIB1180 +	
The remaining MSS of the dendrogram, by colour coding:				
62/IIB206 +, 43/IIB1281 +, 45/IIB1167, 58/IIB1160 +, 77/IIB1275, 57/IIB927, 69/IIB1285 +.				
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; “Oriental”				

What can we learn from the above subdivisions? First, column 1 (“red” group A), contains MSS almost entirely with Tiberian script, while the remaining “red” group MSS (column 2, contains the three corpus examples of Jerusalemite script. Whilst too much can be made from this difference, it provides an example of how Tiberian and Jerusalemite script MSS are similar and yet slightly different.

One might also ask why three Tiberian MSS (in yellow) can be found in column 3 if the remainder of such MSS are in column 1. Because the categories are not hard lines, but approximations, some inevitable mixing will result. However, there is also a possible explanation that involves the supposition of difference between Mp rubrics found in Egypt and Jerusalem. Note how that L17 and G27 are both by Samuel b. Jacob—thus 11th-century Egypt. The third MS highlighted in yellow in column 3, IIB134 + , also has the appearance of an Egyptian MS (see IIB134 + , §4.5.54.). In much the same way, IIB94 + , according to its colophon, appears to be from Egypt (column 3, in green). Thus, these Tiberian script MSS appear to be slightly different, despite their generally Tiberian script, by virtue of the fact of their apparent Egyptian location.³⁹¹

I hasten to point out that L, in column 1, does not share the Mp rubric of L17 and G27, despite being written by the self-same *masran*. The independence of L appears to be a recurrent feature, L being slightly removed from the remaining SbJ

³⁹¹ Potential counter examples are IIB70 + , in column 1, which also appears to be an Egyptian MS. I would place this MS in the same category as WP2 (see IIB70 + , above), by suggesting that the Mp rubric similarity of IIB70 + with A et al. is a direct result of A having been brought to Egypt in the beginning of the 12th century. Also note that IIB43 + , column 4, according to its colophon, is an Egyptian MS.

codices (cf. the other three dendrograms, below—noting also the similarity of L with L17 and G27 in the Numerals’ dendrogram of the Former Prophets).

The fourth column contains the only examples of proto-Sephardi script in the Former Prophets within the corpus, a pattern that partially holds in the Numerals’ dendrogram (§6.4.2., below).

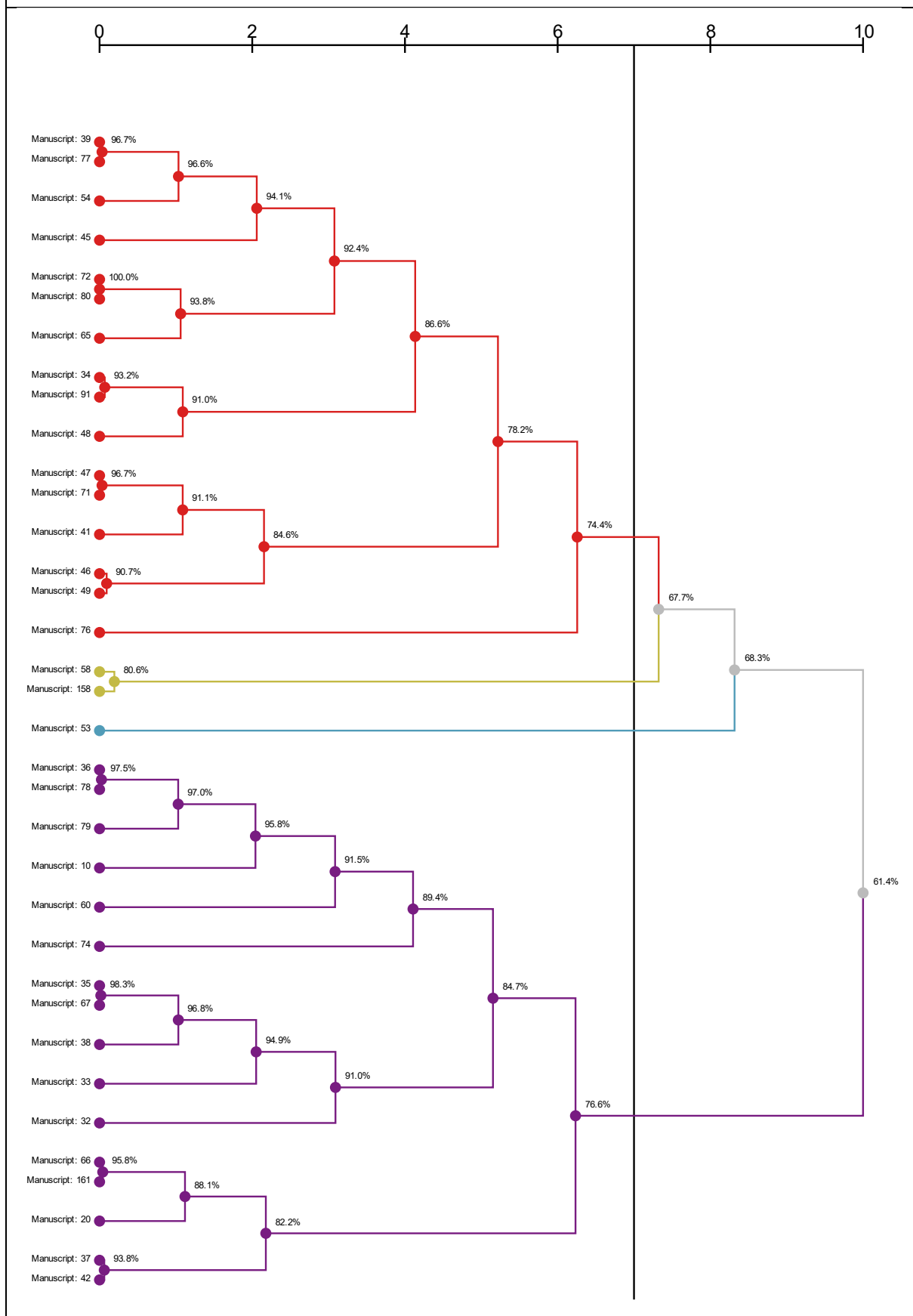
The location of R3 within the dendrogram appears to confirm what has already been said elsewhere: its Masorah was not drawn from Tiberian MSS (i.e., A), instead reflecting extended Tiberian vocalisation.³⁹² The closest companion of R3 in the present dendrogram is IIB68 + , which regrettably lacks a colophon (but note how that even this connection is not particularly noteworthy—only 51.5% similarity).

6.4.2. Mp Numeral Similarity Percentage Dendrogram: Former Prophets

The present section divides the MSS of the Former Prophets into a dendrogram according to Mp Numeral Similarity Percentage. Of the 40 corpus MSS of the Former Prophets, 35 contain sufficient data to be included. Those that were excluded, MS 43 (IIB1281 +), MS 56 (IIB1243 +), MS 57 (IIB927), MS 62 (IIB206 +), MS 69 (IIB1285 +), were shown on the Mp Strings’ dendrogram to be generally the least interconnected MSS; their absence is not likely to be critical.³⁹³

³⁹² There is a danger that one can overstate the difference, of course. For an important argument regarding the representative value of early Ashkenazi codices for the Tiberian Masoretic tradition, see Attia, “On Some Variants in Ashkenazic Bibles from the Twelfth and Thirteenth Centuries”, pp. 593–616.

³⁹³ The sole exception is MS 43 (IIB1281 +), which can be found grouped with the majority of “important” codices in the largest grouping.

Fig. 6.4.2a. Dendrogram vis-à-vis Mp Numeral Similarity Percentage (Former Prophets)

The above table provides us with four manuscript groupings, colour coded as red, olive, blue, and purple respectively.³⁹⁴ The two groups about halfway down the figure (3 MSS total) are not significant from a statistical point of view, leaving us with what amounts to two basic groupings: those of the red group and those of the purple group, each with 16 members. If we colour code these groupings to examine for script-type similarities, we are left with the following:

Table 6.4.2a. Side by side comparison of Numerals' dendrogram (Former Prophets)			
"Red" group MSS		"Purple" group MSS	
39/IIB50 +	91/IIB68 +	36/IIB26 +	38/IIB99 +
77/IIB1275	48/IIB35 +	78/IIB1180 +	33/IIB77 +
54/IIB1233 +	47/IIB124 +	79/IIB55 +	32/IIB56 +
45/IIB1167	71/IIB94 +	10/A	66/L17
72/IIB1169	41/IIB24 +	60/S1	161/G27
80/C	46/IIB168	74/IIB71 +	20/L
65/IIB207 +	49/IIB43 +	35/IIB39 +	37/IIB86 +
34/IIB63 +	76/IIB90 +	67/IIB134 +	42/IIB70 +
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"			

The eight MSS not included in Table 6.4.2a. are colour-coded as follows:

MS 43/IIB1281 +, MS 56/IIB1243 +, MS 57/IIB927, MS 62/IIB206 +, MS 69/IIB1285 +, MS 58/IIB1160 +, MS 158/R3, MS 53/IIB1270.

³⁹⁴ The reduction of MSS groupings from 10 in the previous dendrogram to four in the present dendrogram is partially a reflection of where one chooses to place the vertical bar separating the groups. However, it is also important to note that Numerals' dendrograms, by virtue of the fact that the truly novel—or even atypical—cannot be compared, will tend to produce dendrograms with fewer MSS groupings. Note how the present groupings do not successively add on to previously grouped MSS in the stair-step manner of the previous dendrogram. The same is true for the dendrograms pertaining to the Torah (below).

The above colour-coding demonstrates that MSS with Classic-Tiberian script form a reliable subgrouping when comparing the Numerals' percentages. The same group of MSS, with very little difference, was also found when comparing MSS according to their Strings' percentage (§6.4.1.). There is a clear argument to be made, then, that not only did Tiberian script MSS originate from scribes who sought to emulate a similar visual model, to a large extent they also shared Mp rubrics.

Looking more closely at smaller sub groupings, we can see that MS 66 (L17), MS 161 (G27), and MS 20 (L) form an initial cluster, providing yet another bit of evidence regarding their putative joint Samuel b. Jacob authorship. Note also that in the Strings' dendrogram (§6.4.1.), L17 and G27 were closely linked. L was placed at some distance. Why the difference between the two dendrograms? The likely explanation is that L contains Mp notes from several sources. This would account for a difference of Mp strings while allowing for a similarity of Mp numerals (§5.2.5.).

Something similar can be seen with MS 80 (C) and MS 72 (IIB1169). According to the present dendrogram, the MSS have 100% agreement of Mp numerals—that is, all shared Mp strings reflect precisely the same Mp numerals. When comparing the two MSS vis-à-vis the Strings' dendrogram in Fig. 6.4.1a., however, the two MSS appear very different. Thus, while the Mp rubrics of one or the other (or both) of the MSS is/are composite, upon the points where the two share data, they are clearly derived from a shared Mp rubric.

It is also noteworthy that MS 80 (C) is not closely related to Tiberian script MSS. This was true of the Strings' dendrogram, and remains true here. To my mind, this is a powerful argument against putative Moses b. Asher authorship. One could alter, at least in theory, the “style sheet” with which a manuscript is accented and

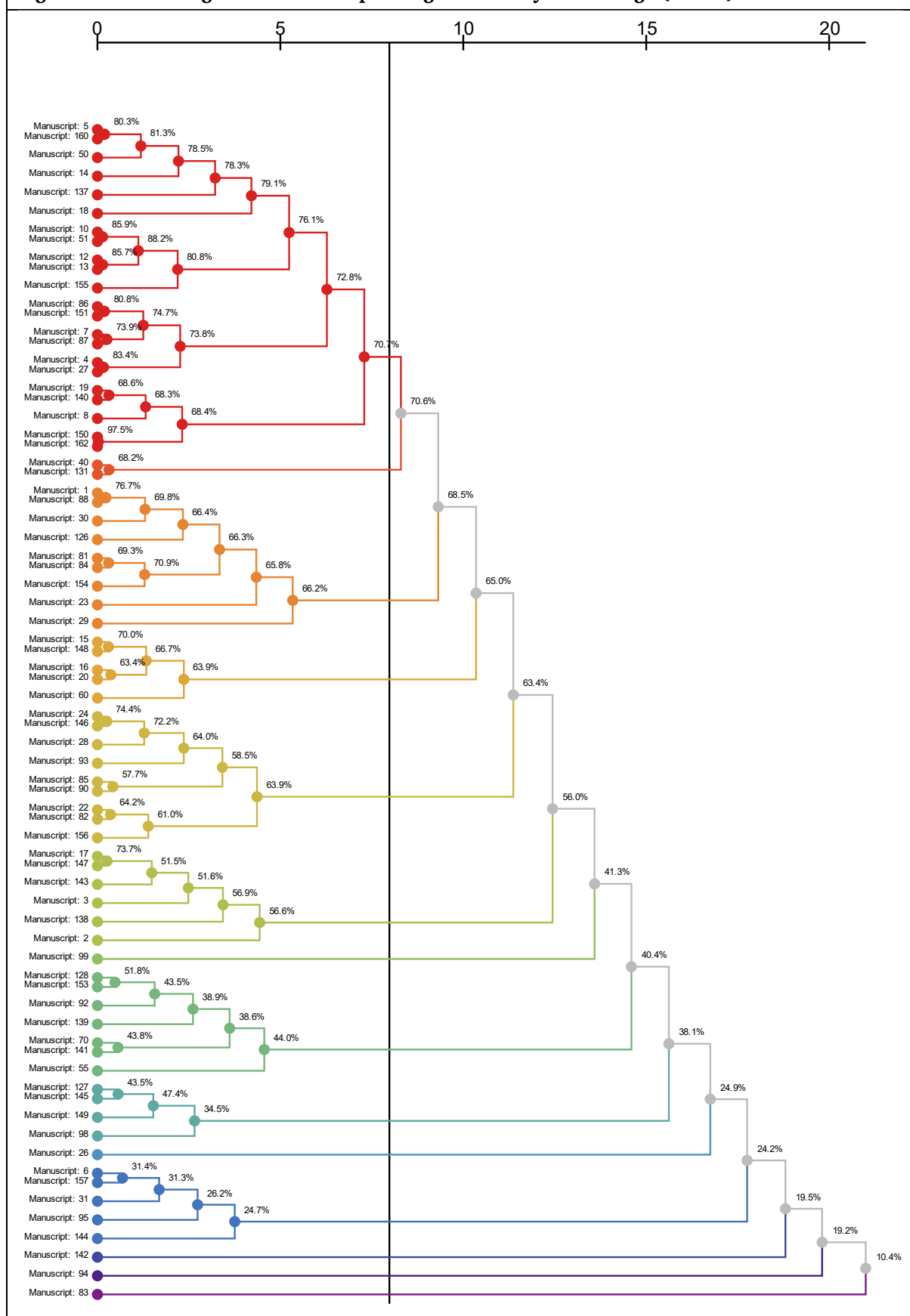
vocalised, permitting father and son to produce significantly different Masoretic codices. The amount of work required to create a markedly different Mp rubric, however, is one that cannot be papered over so easily, even in theory.

It is difficult to categorise what appear, from a paratextual and script standpoint, to be N. African MSS. Note that MS 47 (IIB124 + , Tunisia, 9/10th century), is closely related to MS 71 (IIB94 +) according to the Numerals' dendrogram—according to the Strings' dendrogram the connection was not apparent. Similarly, the remaining MSS with scripts similar to IIB124 + in the one dendrogram do not match the second dendrogram. There is therefore no unequivocal N. African subgroup in the Former Prophets MSS that can be singled out, although there are perhaps the faint outlines of one.

6.4.3. Mp String Similarity Percentage Dendrogram: Torah

The present section describes the subgroupings and some interconnections of 74 MSS of the Torah using the following dendrogram based upon the Strings' percentages.³⁹⁵

³⁹⁵ One corpus MS is missing: IIB141. IIB141 does not contain any Mp information in the database, but is examined for several other purposes in the thesis.

Fig. 6.4.3a. Dendrogram vis-à-vis Mp Strings Similarity Percentage (Torah)

Of the 14 groupings,³⁹⁶ several consist of a single MS (groups 7, 10, 12–14), and one with only two MSS (group 2). Others contain matches with below average Strings’ percentages (groups 8, 9, 11). We will disregard these groupings for the present. This leaves us with five subgroups. As the “red” group is approximately twice as large as the remaining groups, it is divided into an ‘A’ group and a ‘B’ for closer analysis, much like what was done in the Strings’ dendrogram of the Former Prophets (§6.4.1). These subgroupings are arranged on the table below, along with their respective classmarks and colour coding based upon script type similarity discussed in §4.2.

Table 6.4.3a. Side-by-side comparison of Strings’ dendrogram (Torah)					
“Red” group A	“Red” group B	“Lt. orange” grp.	“Gold” group	“Olive” group	“Lt. green” grp.
5/IIB20 +	86/IIB54 +	1/IIB38 +	15/IIB80 +	24/IIB137 +	128/IIB60 +
160/G18	151/IIB1008 +	88/IIB127 +	148/IIB88 +	146/IIB999 +	153/IIB1009 +
50/WP	7/IIB46 +	30/B	16/IIB73 +	28/IIB142	92/IIB996 +
14/IIB74 +	87/IIB82 +	126/IIB44 +	20/L	93/IIB1014 +	139/IIB159 +
137/IIB10 +	4 /IIB128 +	81/IIB51 +	60/S1	85/IIB15 +	70/M88
18/IIB62 +	27 /IIB84 +	84/IIB27 +		90/IIB123 +	141/T-S A5.3
10/A	19/IIB8 +	154/IIB19 +		22/IIB13 +	55/Or. 9880
51/WP2	140/T-S A4.13	23/IIB18		82/IIB1003 +	
12/IIB96 +	8 /IIB97 +	29/IIB65 +		156/T3	
13/IIB37 +	150/IIB289				
155/IIB67 +	162/IIC1 +				

³⁹⁶ Using the vertical, dividing bar as a guide, we can see that the MSS can be subcategorised into 14 groups (the 14 instances where horizontal lines marking the manuscript groups intersect with the vertical line). We can decrease or increase the number of groups simply by moving the vertical bar to the right or left respectively. For example, as the average Mp String Similarity Percentage is 52% (§6.1.1.), we might consider setting the vertical bar at 52%. This would result in the top 53 MSS being part of a single group. The size of such a grouping is probably too large to be insightful, however, unless that group of MSS was particularly closely related—which does not appear to be the case in the present instance. Alternately, we might move the bar farther to the right. As each group essentially stacks onto to the previous groupings, this would also do little to aid in clarity either. For these reasons, we will leave the line where it is for the current analysis.

Script key:	Tiberian;	near-Tiberian;	Jerusalemite;	near-Jerusalemite;	proto-Sephardi;	Italian;	Yemenite;	"Oriental"

We shall take the groups in order.

(1.) “Red” group A: This grouping involves the first 11 MSS of the dendrogram, all having Strings’ percentages of 76.1% or higher (col. 1). The MSS consist *only* of codices with Classical Tiberian or Jerusalemite script. Note also how three of the four Jerusalemite script MSS are clustered together (they are the first three MSS of Fig. 6.4.3a.). It would be natural to suppose that MS 5 (IIB20+) and MS 160 (G18), in light of their mutual connection to Mishael b. Uzziel, would have similar Mp rubrics, but the present grouping appears to confirm it.

In “red” group A, it is highly probable that IIB20+, G18, A, and IIB67+ spent time in Jerusalem. WP2 is probably from Egypt, albeit from the 12th century, i.e., after A had been moved to Egypt. The status of IIB62+ is unclear. On a purely visual perspective, I would judge the MS to be of Egypt of the 11th century or later. In short, of what we know about the MSS in col. 1, they appear to be MSS from Palestine of the 10/11th century, or Egypt from the 11/12th century.

(2.) “Red” group B: The grouping involves the final 11 MSS from the first subgrouping (col. 2). Two of the MSS, similar vis-à-vis the dendrogram—as well as visually, are the proto-Sephardi IIB54+ and IIB1008+. The remaining MSS, what we know of them, appear to be from Egypt:

- 11th century: IIB82+, IIB8+, IIC1+, IIB289(?),
- 11/12th century: IIB128+,
- 14th century: IIB97+.

Of the entire dendrogram, the manuscript pair with the highest similarity percentage is to be found in this subsection: MS 150 (IIB289) and MS 162 (IIC1 +). The similarity percentage is 97.5 percent, i.e., in the two Mp rubrics, all but 2.5% of the Mp strings marked are exactly the same. This high level of similarity could be seen as an indication that IIB289 is from Egypt (as already suggested, see IIB289).

(3.) “Light Orange” group: This subgrouping consists of nine MSS (col. 3, Table 6.4.3a.). Two of the MSS are known to have been written in Babylonia (B; IIB65 +), and there is slight evidence that IIB51 + is also of this category. It was suggested, similarly, that IIB18 is from the N. Levant.

There is perhaps a case to be made here for a manuscript grouping located somewhere north and east of Palestine, but without further investigation, the suggestion should be considered tentative. For example, S1 and IIB159 + , both likely to be Syrian MSS, are not to be found in this column.

(4.) “Gold” group: This subgrouping consists of five MSS. There are no obvious features known to me that link these MSS to a region, to a subscript, or to a basket of paratextual features. The closest we have is with the spelling of ‘head’, i.e., ראש vs. ריש (IIB80 + and IIB88 + ; §6.5.5.1.); the use of ט for 15x (S1 and IIB88 + ; §6.5.2.); and the general avoidance of non-incipient, partial letters for left justification (S1, IIB80 + , IIB88 + ; see §6.6.4.). L and IIB73 + , the two Tiberian script MSS in the column, are not from the centre of the Tiberian Mp tradition (Table 6.3a.).

(5. and 6.) “Olive” and “Lt. green” groupings: There are no obvious manuscript interconnections to be found in either of these groups in a manner that can be corroborated externally (i.e., vis-à-vis the visual similarity, the colophons, or

the attendant Masoretic terminology). Perhaps these groupings are entirely on point, but without external data to corroborate it is difficult to say.

In sum, it appears that a number of the MSS in Table 6.4.3a., particularly those in the rightmost columns, do not fit within Tiberian Mp sub-traditions that can be externally corroborated. This may be because I have failed to examine the MSS closely enough, because the comparative method employed is insufficiently nuanced, or because an insufficient number of MSS have survived, etc. There are many possible explanations that could be given.

It is also eminently plausible that the lack of obvious categorisation may be attributable to the simple fact that the *masranim* of the present codices were attempting to emulate a model (the Tiberian Masorah). Thus, one should not expect symmetrical categories that can be layered over location or scribal school in all instances. Instead, the MSS should be roughly conceptualised as centre (here, the “red” group, cols. 1 and 2, comprised primarily of Tiberian script MSS) and the periphery (the remaining MSS not of the “red” group) that spread out in a sort of fan cloud around the centre. Consonant with this explanation are the multiple percentages of 70% or greater in the red group (18/21 instances) vs. the remaining percentages (only 6/51 of instances). Note also the “stairstep” shape on the bottom right half of the dendrogram: viz., each new subgrouping appears to be added on to the larger mass of Mp note rubrics that precede it, rather than being its own, discrete entity.

6.4.4. Mp Numeral Similarity Percentage Dendrogram: Torah

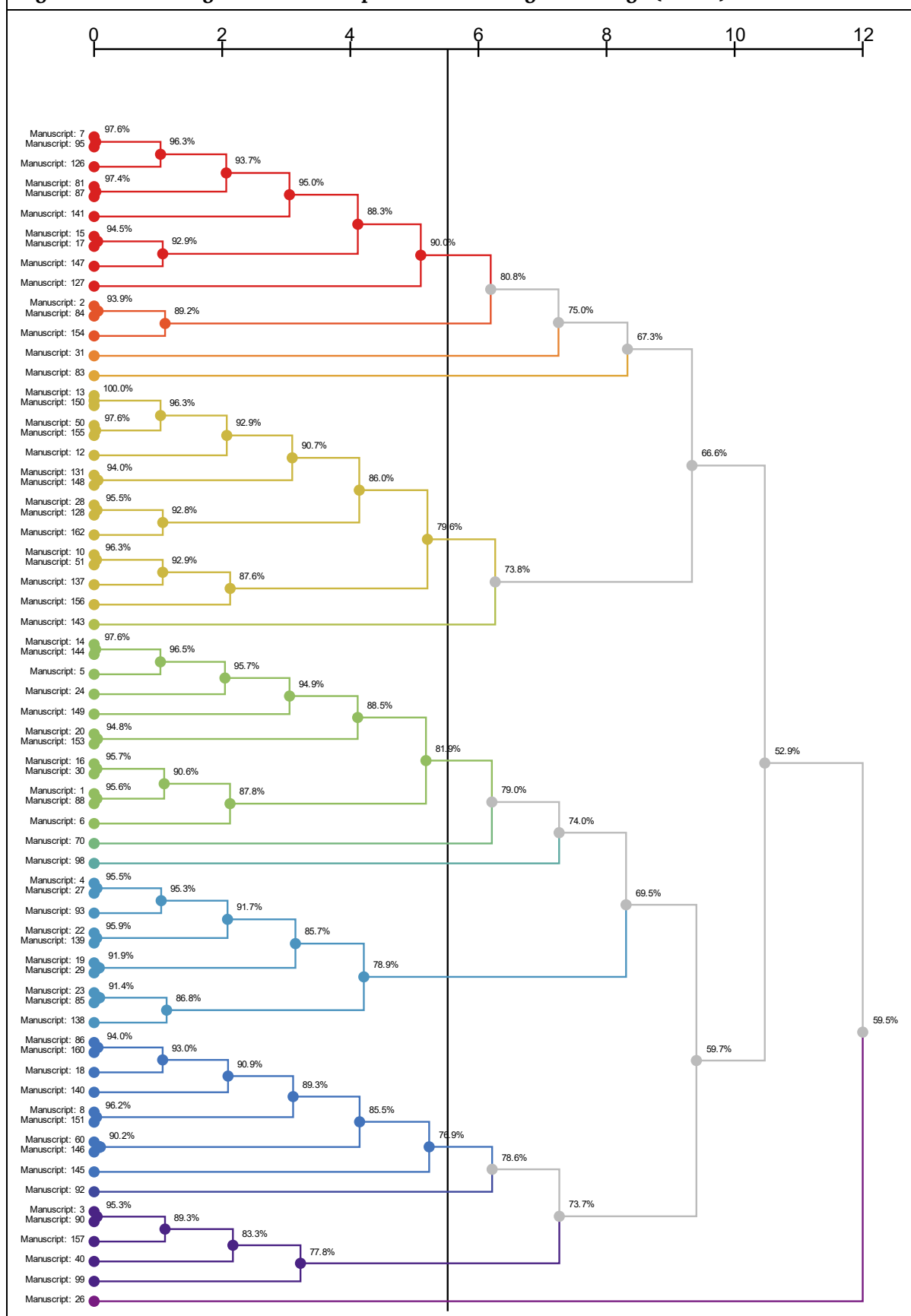
The Numerals’ dendrogram for the Torah is configured somewhat differently from the Strings’ dendrogram (§6.4.3.). The same asymmetry was seen in the

dendrograms of the Former Prophets, but with the Torah dendrograms they are more pronounced. Specifically, in neither the Former Prophets nor the Torah do the respective Numerals' dendrograms build into some sort of "stair shape", where the final MSS are successively joined to the larger group as is the case with both Strings' dendrograms.

A large part of the reason for this difference between the two types of ratios is probably due to the difference in the way the Strings' and Numerals' ratios are constructed. Uncommon and novel Mp strings are a part of every iteration of the Strings' ratios—just as the more commonly occurring strings are, while the Numerals' ratios tend to filter out these less common Mp notes and not use them—excepting in the rare cases where two MSS happen to share an uncommon Mp note (§5.2.4).

Fig. 6.4.4a., below, divides 70 MSS (out of a possible 75 Torah MSS of the corpus)³⁹⁷ into 14 groups.

³⁹⁷ The MSS *not* included are MS 55 (Or. 9880), MS 82 (IIB1003+), MS 94 (IIB995), MS 97 (IIB141), and MS 142 (T-S A5.10).

Fig. 6.4.4a. Dendrogram vis-à-vis Mp Numerals String Percentage (Torah)

Moving the vertical bar separating the groups slightly farther to the right, to ‘7’ instead of ‘5.5’, reduces the number of groups to ten and is stylistically slightly neater, and will be used instead of the 14 groups in the above figure. As with previous dendrograms, some of the groupings are not statistically meaningful (too few members), and of those that are larger not all show particularly strong relationships. The five largest of the ten groupings are placed in Table 6.4.4a., below.

Table 6.4.4a. Side-by-side comparison of Numerals’ dendrogram (Torah)				
“Red” group	“Olive” group	“Light green” group	“Light blue” group	“Dark blue” group
7/IIB46 +	13/IIB37 +	14/IIB74 +	4/IIB128	86/IIB54 +
95/IIB994 +	150/IIB289	144/IIB193	27/IIB84 +	160/G18
126/IIB44 +	50/WP	5/IIB20 +	93/IIB1014 +	18/IIB62 +
81/IIB51 +	155/IIB67 +	24/IIB137 +	22/IIB13 +	140/T-S A4.13
87/IIB82 +	12/IIB96 +	149/IIB988 +	139/IIB159 +	8/IIB97 +
141/T-S A5.3	131/IIB17 +	20/L	19/IIB8 +	151/IIB1008 +
15/IIB80 +	148/IIB88 +	153/IIB1009 +	29/IIB65 +	60/S1
17/IIB138 +	28/IIB142	16/IIB73 +	23/IIB18	146/IIB999 +
147/IIB989	128/IIB60 +	30/Or. 4445	85/IIB15 +	145/IIB1011
127/IIB48	162/IIC1 +	1/IIB38 +	138/V448	92/IIB996 +
2/IIB79 +	10/A	88/IIB127 +		
84/IIB27 +	51/WP2	6/IIB33 +		
154/IIB19 +	137/IIB10 +	70/M88		
	156/T3			
	143/T-S A5.17			
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; “Oriental”				

Dendrogram MSS excluded from Table 6.4.4a., with their respective script colour coding, are as follows: 31/B2, 83/IIB52 +, 98/G6, 3/IIB41 +, 90/IIB123 +, 157/IIB1.54, 40/S, 99/IIB991 +, 26/IIB162 +.

The colour coding in Table 6.4.4a. corroborates some comments previously made about the script types, but raises questions about others.

First, column 2 appears to contain the centre of the Tiberian script MSS. The grouping of Tiberian script MSS is easily observed in all the dendrograms; it is a fact indisputable that these MSS are similar both visually and vis-à-vis their Mp data. This Mp similarity applies to both the Strings' ratios and the Numerals' ratios in the large majority of instances.

Still present with the Tiberian script MSS in column 2 is IIB289. In the Strings' dendrogram the MS was noted for its high level of similarity with IIC1 + . In the present instance, the similarity between these two MSS is still high, but slightly higher still is the similarity of Mp numeral between MS 13/IIB37 + and MS 150/IIB289. Out of 97 shared Mp strings, every accompanying Mp numeral was in perfect agreement.

The two proto-Sephardi MSS of the Torah (MS 86/IIB54 + and MS 151/IIB1008 +) are both found in col. 5, not adjacent to one another, but well within the same grouping; an adjacent grouping was also observed with these two MSS in the Strings' dendrogram. That these two MSS should have ended up within the same grouping in both dendrograms cannot be accidental: in the Strings' dendrogram IIB54 + and IIB1008 + were grouped within the same section as the Tiberian MSS, showing that their Mp string collocations were remarkably similar to Tiberian MSS (all were within col. 1 in the Strings' dendrogram; Fig. 6.4.3a.). In the present dendrogram, both proto-Sephardi script MSS have moved a considerable distance from the Tiberian MSS and *none* of the Tiberian MSS that were formerly with them has moved along in tandem (Tiberian script MSS are in col. 2; the proto-

Sephardi script MSS are in col. 5). There are two MSS that have moved along with IIB54+ and IIB1008+, however: MS 160/G18 and MS 140 T-S A4.13. These four MSS, it would appear, are quite similar vis-a-vis their Mp string collocations *and* the Mp numerals found within those string collocations.

In the Numerals' dendrogram of the Former Prophets (Fig. 6.4.2a.), the SbJ MSS tended to group together. In that instance, L17 and G27 formed an initial branch whose next closest branch was with L. In the present dendrogram of the Torah, the two SbJ codices of the Torah plus the single MS known to have been proofread by SbJ are clustered together: MS 28/IIB142 and MS 128/IIB60+ form an initial branch, and their next closest branch is with MS 162/IIBC1+. MS 20/L, however, remains at some distance from the other SbJ codices in the Torah.

In a few instances though, the MSS that show the greatest amount of similarity are not matches that could have been anticipated. MS 81/IIB51+ and MS 87/IIB82+ are within adjacent groupings in the Strings' dendrogram; viz., they are more similar with each other than with approximately two-thirds of the remaining MSS. In the Numerals' dendrogram, however, IIB51+ and IIB82+ show 97.4% similarity, one of the highest listed. In 151 database instances of shared Mp strings, there are only four Mp numerals that differ.

The present dendrogram also contains some initial surprises. There are various corpus MSS with Tiberian script that appear to have been written in Egypt—or so I have claimed in the Corpus Description (§4.3.–4.5.). These MSS include L, IIC1+, IIB60+, IIB62+, WP2, IIB96+, IIB128+, and IIB142. While I stand by those estimations, in light of the obvious similarity of script of WP2 and the SbJ MSS, the present dendrogram does that analysis no favours. Tiberian script MSS

with a potential Egyptian provenance can be found in cols. 2, 3, 4, and 5. In other words, although the SbJ MSS are clearly related, the same cannot be said for the remaining MSS with potential Egyptian provenance. Perhaps this is to be expected in what appear to be 11–12th century MSS, or perhaps the answer lies elsewhere. It is difficult to say.

Some aspects of the dendrogram are probably incorrect. In col. 3, it is surprising that MS 14/ IIB74+ is sectioned here rather than with the larger group of Tiberian script MSS in col. 2. This is especially the case as the ratios between IIB74+ and all of the Tiberian script MSS in col. 2 appear high. Why is IIB74+ in col. 3? It appears that the exceptionally high Numerals' ratio between IIB74+ and MS 144/IIB193 is to blame (97.6%). It is constructed of only of 42 Mp numerals, which is only two more than the minimum threshold of 40. This ratio, then, is an example of the risks of including MSS with lower numbers of Mp numerals (see §5.3.1.).

6.4.5. Summary

The previous four sections, concerned with the Strings' and Numerals' dendrograms for the Former Prophets and the Torah respectively, have shown that Tiberian script MSS form reliable clusters when evaluated according to degree of similarity of Mp rubric. Several other observations also seem to hold.

- The Mp rubrics of MSS of the Former Prophets appear to have diverged to a lesser extent than those of the Torah; differences between the Strings' and Numerals' dendrograms in the Former Prophets are less marked. This observation is noteworthy because in other respects the Tiberian Masoretic

tradition of the Former Prophets appears less fixed than that of the Torah (e.g., orthography, see §6.5.6.1.).

- Regarding Mp rubrics, particularly those of the Torah, there is a discernible centre of the tradition, and then a periphery.
- An Mp rubric of 10/11th century Palestine (Tiberias, or perhaps Jerusalem) is generally distinguishable from an Mp rubric of the same period written in Egypt when considering the Former Prophets. A clear dividing line between 11th-century Egypt and 11th-century Palestine is absent in MSS of the Torah. However, Torah MSS of Samuel b. Jacob cluster together in the Numerals' dendrogram (excepting L), which shows that some level of difference is still present.
- A proto-Sephardi script Mp rubric is discernible in the dendrograms, particularly in the Torah, and could perhaps be recovered—although the small number of these MSS could make such an attempt difficult.
- Jerusalemite script MSS generally cluster together. In the first three dendrograms, the groupings were evident. In the fourth dendrogram, however, no clustering was detected.
- Reuchlin 3, the only MS of the corpus confirmed to have originated in Europe, is far removed from the centre of the Tiberian Masoretic tradition vis-à-vis the Mp notes. This has long been noted as regards vocalisation, i.e., extended Tiberian vs. Tiberian vocalisation, but the present examination demonstrates that the characterisation also holds for the Mp notes.
- In order to maximise the reliability of the dendrograms, more data are needed. Ideally, the margin of error, now ca. 5%, should be reduced to $\leq 1\%$.

According to the reliability discussion in §5., this would require double the number of Mp notes presently collated—although perhaps the judicious addition of 20–30,000 would be sufficient. Either way, a significant amount of time would be required for data entry.

In sum, the dendrograms represent a starting point for further research. They are oftentimes insightful, but they seldom present the entire picture. For that, more data are needed.

6.5. Comparisons of Masoretic Terminology

Although the use of dendrograms is a statistically rigorous way to compare the MSS, this is not the only means of comparison available to us, nor does it reveal all that can be learned about the Mp of the MSS. For additional comparisons, we now turn to some comparison of Masoretic terminology.

The following sections mine the dataset for various similarities and differences between the MSS. In some cases, additional data were collated; this is always specified on the respective tables.

6.5.1. Marking ‘like them’/‘which are like them’ (דכותיהן, דכותיה, etc.)

The present section tabulates the different ways of writing the Mp comment דכותיה (sg.) or דכותיהן (pl.) ‘which are like it/which are like them’. As with many Mp comments, the phrase is seldom written in full. Abbreviations are of various lengths (e.g., דכוּת, דכוּ, דכּוּ), and sometimes exclude the relative pronoun ד (e.g., כּוּת, כּוּ). While some variation is to be expected in an MS, particularly where space is at a

premium, it is also clear that scribes tended to slip into certain tendencies when making abbreviations.

The following 12 ways of marking ‘like them’ were observed in the database, in the following order of popularity: דכות (262x), דכו (166x), כות (90x), דכ (37x), כו (17x), דכוו (11x), כוו (5x), דכוות (3x), כוות (1x), דכותה (1x), כותה (1x), דכוי (1x).

(1.) Several points may be noted. First, the decision to use (or omit) the relative pronoun is often a distinguishing characteristic of this abbreviation. For example, IIB10+ yields 17 database examples, all of which begin with ד: דכות (9x), דכו (7x), דכותה (1x). Other MSS that strongly favour the relative pronoun are L (20/22x), S1 (25/25x), IIB67+ (14/14x), and R3 (50/51x). With these MSS, the length of the abbreviation is variable, but the relative pronoun is almost always present.

MSS that consistently omit the relative pronoun *ד* and abbreviate in more than one way were not observed.

(2.) Next to consider are MSS that show remarkable consistency in the form of the abbreviation itself. These MSS include IIB56+ (דכות, 18/18x), IIB26+ (דכות, 22/22x), IIB99+ (דכות, 14/14x), S (דכות, 36/36x), and WP (כות, 11/11x). Preference can also be seen with IIB24+ (דכו, 10/11x), IIB18 (כות, 9/11x), and IIB138+ (כו, 13/16x).

(3.) Finally, there are some MSS that are neither consistent with the use of the relative pronoun nor the length of the abbreviation. These MSS include A (דכות, 9x; דכו, 1x; כות, 6x), IIB8+ (דכות, 3x; כות, 8x), IIB65+ (דכות, 1x; דכו, 4x; כות, 5x; כותה, 1x), IIB55+ (דכות, 8x; כות, 7x), G18 (דכות, 3x; דכו, 2x; דכוות, 3x; כוו, 1x; כוות, 1x), and C (דכו, 2x; דכ, 8x; כות, 4x).

In the above paragraphs, only 17 MSS out of a possible 112 were mentioned. There are several reasons for this. First, for a thorough overview of each MS, the presently available data are insufficient; out of caution I have not mentioned MSS with fewer than ten corpus examples from which to draw. The lack of instances is especially marked in cases where an MS is poorly preserved.

Secondly, and more importantly, the infrequency of occurrence of ‘like them’ is a direct reflection of the Mp rubrics from which the data are drawn. A *masran* may elect to cite only the Mp numeral, omitting the Mp comment, e.g., a simple בּ ‘2x’ in lieu of something like בּ וכל דבּ הימּ דכוּתּ ‘2x, plus all instances in Chronicles are like it’).

Are MSS that omit the Mp comment likely to be of a lower production quality? Sometimes. Of the 17 MSS with sufficient data to be cited in this section, many are also to be found in the centre of the Tiberian Mp tradition (cf. §6.4.1.–6.4.4.): i.e., A, G18, IIB10+, IIB26+, IIB55+, IIB67+, and WP, leading one to suppose that excellence of Mp rubric extended to more than mere numeric superiority of the Mp.³⁹⁸

At the same time, the presence of other MSS in the present list is probably a reflection of their respective Masorete’s interest in recording the notes precisely. Nowhere is this more evident than with R3. Although this codex has a generally thin assembly of Mp notes, the 51 instances of ‘like them’ in the data set is far more than that found in any other MS. The same can be said for S with 36 examples of ‘like

³⁹⁸ One should also note the possibility of the reverse: perhaps the clarifying comment ‘like them’ was omitted in the Mp because it already existed in the Mm. This scenario is perhaps less likely than the one mentioned above, but it is also plausible. Thanks to Kim Phillips, personal correspondence, November 2023, for pointing this out.

them'. R3 and S are far from the centre of the Tiberian Mp tradition (cf. §6.4.1–6.4.4.); their “excessive” interest in marking ‘like them’ is yet another means of confirming this difference.

Table 6.5.1a. presents the data regarding the use of ‘like them’. MSS with ten or more usages of ‘like them’ are in **red**.

Table 6.5.1a. Database instances of ‘like them’							
1. Instances of דָּכַח (262x)				2. Instances of דָּכַח (166x)			
MS	Classmark	Instances Observed	Instances/ Total	MS	Classmark	Instances Observed	Instances/ Total
5	IIB20 +	1	1/1	1	IIB38 +	3	3/4
8	IIB97 +	3	3/3	3	IIB41 +	1	1/3
10	A	9	9/16	4	IIB128	2	2/2
12	IIB96 +	1	1/1	6	IIB33 +	2	2/3
13	IIB37 +	3	3/9	7	IIB46 +	2	2/3
14	IIB74 +	3	3/8	10	A	1	1/16
16	IIB73 +	7	7/8	13	IIB37	6	6/9
18	IIB62 +	3	3/5	14	IIB74 +	2	2/8
19	IIB8 +	3	3/11	17	IIB138 +	3	3/16
20	L	16	16/22	18	IIB62 +	2	2/5
22	IIB13 +	6	6/8	20	L	4	4/22
27	IIB84 +	1	1/6	23	IIB18	2	2/11
28	IIB142	1	1/1	27	IIB84 +	5	5/6
29	IIB65 +	1	1/11	29	IIB65 +	4	4/11
30	B	1	1/3	33	IIB77 +	1	1/3
31	B2	1	1/1	34	IIB63 +	4	4/4
32	IIB56 +	18	18/18	35	IIB39 +	5	5/9
35	IIB39 +	4	4/9	37	IIB86 +	1	1/8
36	IIB26 +	22	22/22	41	IIB24 +	10	10/11
37	IIB86 +	7	7/8	42	IIB70 +	2	2/7
38	IIB99 +	14	14/14	46	IBibl.68	1	1/2
39	IIB50 +	4	4/4	47	IIB124 +	3	3/8
40	S	36	36/36	48	IIB35 +	2	2/2
42	IIB70 +	3	3/7	51	WP2	1	1/7
47	IIB124 +	3	3/8	58	IIB1160 +	1	1/3
49	IIB43 +	1	1/3	60	S1	6	6/25
51	WP2	6	6/7	67	IIB134 +	4	4/4
55	Or. 9880	1	1/1	70	M88	1	1/1
60	S1	6	6/25	71	IIB94 +	2	2/4
66	L17	5	5/5	80	C	2	2/14
71	IIB94 +	2	2/4	81	IIB51 +	3	3/4
79	IIB55 +	8	8/15	84	IIB27 +	4	4/8

81	IIB51 +	1	1/4	85	IIB15 +	1	1/8
84	IIB27 +	2	2/8	87	IIB82 +	3	3/3
85	IIB15 +	4	4/8	91	IIB68 +	2	2/3
88	IIB127 +	3	3/3	93	IIB1014 +	1	1/1
91	IIB68 +	1	1/3	98	G6	2	2/6
128	IIB60 +	3	3/3	126	IIB44 +	1	1/2
131	IIB17 +	2	2/6	137	IIB10 +	7	7/18
137	IIB10 +	9	9/18	138	V448	2	2/4
140	T-S A 4.13	2	2/2	149	IIB988 +	5	5/5
147	IIB989	1	1/1	150	IIB289	1	1/1
153	IIB1009	2	2/2	155	IIB67 +	3	3/14
154	IIB19 +	1	1/7	157	IBibl.54	2	2/2
155	IIB67 +	11	11/14	158	R3	42	42/51
156	Tbilisi Torah	8	8/8	161	G27	2	2/5
160	G18	3	3/10		Total	166	
161	G27	3	3/5				
162	IIC1 +	6	6/6				
	Total	262					
3. Instances of כוח (90x)				4. Instances of דב (37x)			
MS	Classmark	Instances Observed	Instances/ Total	MS	Classmark	Instances Observed	Instances/ Total
1	IIB38 +	1	1/4	42	IIB70 +	1	1/7
6	IIB33 +	1	1/3	47	IIB124 +	1	1/8
10	A	6	6/16	58	IIB1160 +	1	1/3
14	IIB74 +	3	3/8	60	S1	13	12/25
15	IIB80 +	6	6/6	80	C	8	8/14
16	IIB73 +	1	1/7	86	IIB54 +	1	1/3
19	IIB8 +	8	3/11	126	IIB44 +	1	1/2
20	L	2	2/22	151	IIB1008 +	1	1/1
22	IIB13 +	2	2/8	154	IIB19 +	5	5/7
23	IIB18	9	9/11	158	R3	5	5/51
29	IIB65 +	5	5/11		Total	37	
30	B	2	2/3				
41	IIB24 +	1	1/11				
42	IIB70 +	1	1/7				
46	IBibl.68	1	1/2				
49	IIB43 +	2	2/3				
50	WP	11	11/11				
58	IIB1160 +	1	1/3				
74	IIB71 +	1	1/1				
78	IIB1180 +	1	1/1				
79	IIB55 +	7	7/15				
80	C	4	4/14				
84	IIB27 +	1	1/8				

85	IIB15 +	3	3/8
90	IIB123 +	1	1/1
131	IIB17 +	4	4/6
138	V448	2	2/4
146	IIB999 +	1	1/1
148	IIB88 +	1	1/1
154	IIB19 +	1	1/7
	Total	90	
5. Instances of כו (17x)			
MS	Classmark	Instances Observed	Instances/ Total
17	IIB138 +	13	13/16
83	IIB52 +	1	1/1
84	IIB27 +	1	1/8
86	IIB54 +	2	2/3
	Total	17	
7. Instances of כוו (5x)			
MS	Classmark	Instances Observed	Instances/ Total
3	IIB41 +	2	2/3
47	IIB124 +	1	1/8
158	R3	1	1/51
160	G18	1	1/10
	Total	5	
9. Instances of כוות (1x)			
MS	Classmark	Instances Observed	Instances/ Total
160	G18	1	1/10
11. Instances of דכותה (1x)			
MS	Classmark	Instances Observed	Instances/ Total
137	IIB10 +	1	1/18

6. Instances of דכוו (11x)			
MS	Classmark	Instances Observed	Instances/ Total
7	IIB46 +	1	1/3
33	IIB77 +	2	2/3
98	G6	3	3/6
158	R3	3	3/51
160	G18	2	2/10
	Total	11	
8. Instances of דכוות (3x)			
MS	Classmark	Instances Observed	Instances/ Total
160	G18	3	3/10
10. Instances of דכו (1x)			
MS	Classmark	Instances Observed	Instances/ Total
98	G6	1	1/6
12. Instances of כותה (1x)			
MS	Classmark	Instances Observed	Instances/ Total
29	IIB65 +	1	1/11

6.5.2. Marking ‘head of verse’ (ראש, ריש, etc.)

When marking ראש פסוקא ‘head/beginning of the verse’ in the Mp, it is common to write it using the first two or three letters of ראש, i.e., רא and ראש. In some cases, a

simple רִי is used. In this latter instance, the larger word string provides sufficient context to avoid confusing ‘head’ with another abbreviation. Also appearing, albeit with reduced frequency, is רִישׁ , that is, with *yod* in place of *aleph*. On rare occasion one can also find רִישׁי ‘heads of’.³⁹⁹ No instances of רִי were observed.

Two matters are in need of comment. First, the distribution of abbreviation tendencies overwhelmingly falls into the following three categories: (1.) MSS that use רִישׁ/רִשׁ in $\geq 75\%$ of instances (26% of MSS); (2.) MSS that use רִי in $\geq 75\%$ of instances (44% of MSS); and (3.) MSS that fall between these two extremes, i.e., MSS that generally alternate between רִישׁ and רִי (22% of MSS). The remaining 8% abbreviate in no fewer than six different ways, and are statistically inconsequential. Among the dominant three subdivisions, above, there is no obvious usage pattern that correlates with script type, viz., one cannot predict an abbreviation method based upon external factors such as the appearance of the manuscript.

Despite the unpredictability of abbreviation method, *all* five of the MSS attributed to Samuel b. Jacob fall into category one: the use of רִישׁ/רִשׁ in $\geq 75\%$ of instances.⁴⁰⁰ From a statistical point of view, this is noteworthy. The probability that five corpus manuscripts selected at random would belong to category one is one-tenth of 1% (.001).⁴⁰¹ These data provide yet another compelling argument for SbJ authorship of IIB60+ and L17.

³⁹⁹ The database does not distinguish between רִישׁ and רִשׁ ; I have therefore not considered this distinction here.

⁴⁰⁰ These include MS 20 (L), MS 128 (IIB60+), MS 162 (IIC1+), MS 66 (L17), and MS 161 (G27).

⁴⁰¹ To ensure that an accurate abbreviation distribution was represented, I also calculated (1.) the distribution of MSS with Tiberian script and (2.) the distribution of MSS with a Tiberian script most similar to that of the SbJ codices. In each case, the probability that all five SbJ MSS should belong to

Secondly, it is worth considering the atypical cases where ריש or ראשי are used in place of the expected ראש/ראשׁ and/or רא. We begin with ריש. In the present corpus, MSS where ריש was observed number eight: IIB41 + (8/50), IIB86 + (25/25), IIB137 + (1/20), IIB289 (1/31), M88 (23/23), R3 (2/10), S1 (6/52), and T3 (4/13). Of these eight MSS, half are noted as marking 15x with טו (IIB41 +, IIB86 +, M88, and S1), see §6.6.2. As is noted in §6.6.2., the early stages of the use of טו are not to be associated with the Land of Israel. It is possible that the present data can be read similarly—although more data are needed to confirm.

One should also note that the distribution patterns of ריש in the eight MSS are not identical. IIB86 + and M88 use ריש in every corpus instance; IIB137 + and IIB289 use ריש rarely; the remaining four MSS alternate between spellings with *aleph* and spellings with *yod*.

The spelling variability of S1 probably can be attributed to the presence of several Masoretes. The Mp notes with ריש form the minority (6/52) and appear to have been written by the first Masorete. This is surprising. According to Ofer's judgement, the later hand contributed טו.⁴⁰² One would have supposed the 'טו' hand and the 'ריש' hand to be one and the same—but such is not the case.

category one was less than 1% (Tiberian script MSS: probability of three-tenths of 1%; Tiberian script MSS most similar to SbJ MSS: probability of two-tenths of 1%). MSS judged as resembling the script of SbJ MSS include IIB37 +, IIB51 +, IIB62 +, IIB96 +, IIB128, IIB134 +, and IIB142. N.B.: to avoid skewing the data, SbJ MSS were not included when figuring the distribution percentage for (2.).

⁴⁰² Note how that on p. 60, the instance of ריש is centred and in a lighter ink, while the instances of ראש are in a darker ink and placed with less consistency. See also p. 87, where ראש occurs over an obvious erasure, i.e., is clearly secondary. Neriah Klein kindly confirmed that ריש does not occur in the Mm of the later Masorete—excepting, of course, instances where the letter *resh* is being indicated (Klein, personal correspondence, July 2023).

It is also possible that two hands were at work in T3. For example, although the hand of the *masran* appears consistent throughout, later sections of the codex seem to favour ריש while earlier sections use ראש/ראשׁ or רא. Colour images or an *in-situ* examination are needed to determine which hand(s) wrote what.⁴⁰³

In IIB41 + the variability of abbreviation for ‘head’ appears to follow a consistent pattern. In this MS, Mp notes with a short and straightforward use of ‘head’ abbreviate using רא, e.g., רא פסו ‘occurs 7x at head of verse’ (Exo 3.1). By contrast, the usage of ריש seems confined to instances where there is a second condition added, e.g., ב חזר ריש פסו וא סו פסו ‘2x, once at the head of the verse and once at the end of the verse’ (Num 10.28). What are we to make of this consistent usage difference in IIB41 +, particularly as the Mp hand appears uniform throughout? The simplest explanation is that two separate Mp rubrics and/or lists were involved: the *masran* copied the note and its attendant terminology precisely from each.

Uses of ראשי were observed in only three MSS: IIB206 +, IIB1011, and R3. IIB1011 and R3 are the only two Italian MSS of the corpus; thus, the shared hesitance to abbreviate the word is perhaps not coincidental. IIB206 + appears to be a typical Oriental MS, however. To my eye there are no obvious features which would place IIB206 + anywhere other than at the centre of the Oriental MS tradition—viz., it is unlikely to be a N. African or Italian MS. (This is not to say that no other MSS use ‘heads of’; the other MSS, however, prefer to abbreviate using ראשׁ, רא, or similar.)

⁴⁰³ Weil and Guény, “Le Manuscrit du Pentateuque de Tbilissi”, p. 186, suggest that more than one *masran* is evident in T3, but they likewise are hesitant to differentiate between hands.

Table 6.5.2a. 'Head/beginning' of verseNote: table data is drawn from two sources: the database *and* pp. mentioned in col. 2

MS	additional pp. consulted	with ראש	with רא	with ר	with ריש	with ראשי
1/IIB38 +	IIB38, pp. 115–165	20	12	0	0	0
2/IIB79 +	IIB79, pp. 85–135	13	13	2	0	0
3/IIB41 +	IIB41, pp. 130–190	0	42	0	8	0
4/IIB128	pp. 190–270	2	18	0	0	0
5/IIB20 +	IIB20, pp. 130–146, 149–185	15	2	0	0	0
6/IIB33 +	IIB33, pp. 66–116	0	16	0	0	0
7/IIB46 +	IIB46, pp. 110–160	3	15	0	0	0
8/IIB97 +	IIB97, pp. 5–27	21	0	0	0	0
10/A		4	15	3	0	0
12/IIB96 +	IIB96, pp. 5–55	11	10	0	0	0
13/IIB37 +	IIB37, pp. 24–74	2	25	0	0	0
14/IIB74 +	IIB74, pp. 114–144	17	2	1	0	0
15/IIB80 +	IIB80, pp. 75–125	1	17	0	0	0
16/IIB73 +		11	1	0	0	0
17/IIB138 +	IIB138, pp. 97–137	13	1	0	0	0
18/IIB62 +	IIB62, pp. 5–55	1	21	0	0	0
19/IIB8 +	IIB8, pp. 136–176	19	1	0	0	0
20/L		21	7	0	0	0
22/IIB13 +		4	13	0	0	0
23/IIB18		0	10	0	0	0
24/IIB137 +	IIB137, pp. 62–132	0	19	0	1	0
26/IIB162 +	IIB162, pp. 5–15	0	0	1	0	0
27/IIB84 +	IIB84, pp. 214–236	1	15	0	0	0
28/IIB142	all leaves examined	7	1	0	0	0
29/IIB65 +	IIB65, pp. 5–37	25	5	0	0	0
30/B	ff. 115r–124v	1	11	0	0	0
31/B2	ff. 1r–14r	0	14	0	0	0
32/IIB56 +		21	1	0	0	0
33/IIB77 +		17	3	0	0	0
34/IIB63 +		0	12	0	0	0
35/IIB39 +		0	17	0	0	0
36/IIB26 +		9	1	2	0	0

37/IIB86 +	IIB86, pp. 21–91	0	0	0	25	0
38/IIB99 +		6	10	0	0	0
39/IIB50 +		9	0	0	0	0
40/S		15	8	0	0	0
41/IIB24 +		15	2	0	0	0
42/IIB70 +		0	11	0	0	0
43/IIB1281 +	IIB1281, pp. 5–9; IIB1337, pp. 5–8	0	1	0	0	0
45/IIB1167	all leaves examined	0	0	0	0	0
46/IIB1.68		0	14	0	0	0
47/IIB124 +	IIB124, pp. 25–62	2	9	0	0	0
48/IIB35 +	IIB35, pp. 125–177	0	10	0	0	0
49/IIB43 +	IIB43, pp. 5–27	0	10	0	0	0
50/WP	ff. 115v–135r	9	3	1	0	0
51/WP2	all leaves examined	2	2	0	0	0
53/IIB1270	pp. 20–90	0	1	5	0	0
54/IIB1233 +	IIB1233, pp. 20–73	0	9	0	0	0
55/Or. 9880	ff. 1r–9v	0	12	0	0	0
56/IIB1243 +	all leaves examined	0	1	2	0	0
57/IIB927	all leaves examined	0	0	0	0	0
58/IIB1160 +		0	7	3	0	0
60/S1	pp. 60–90	34	9	3	6	0
62/IIB206 +	IIB206, pp. 6–33	8	0	0	0	5
65/IIB207 +	IIB207, pp. 5–20	0	1	0	0	0
66/L17		22	1	0	0	0
67/IIB134 +	IIB134, pp. 5–31, 33–52	17	0	0	0	0
69/IIB1285 +	all pages examined	0	0	0	0	0
70/M88	pp. 108–168	0	0	0	23	0
71/IIB94 +	IIB94, pp. 133–143	9	16	0	0	0
72/IIB1169	pp. 5–39, 51–60	0	11	0	0	0
74/IIB71 +	IIB71, pp. 107–159	1	10	0	0	0
76/IIB90 +	IIB90, pp. 30–80	0	0	10	0	0
77/IIB1275	pp. 9–36	0	5	1	0	0
78/IIB1180 +	IIB1180, pp. 5–16; IIB1211, pp. 5–18	0	1	0	0	0
79/IIB55 +		10	9	0	0	0
80/C		0	13	1	0	0
81/IIB51 +		0	8	1	0	0
82/IIB1003 +	IIB1003, pp. 5–33	0	9	0	0	0
83/IIB52 +	IIB52, pp. 7–42	0	12	0	0	0
84/IIB27 +	IIB27, p. 12–64	11	5	0	0	0

85/IIB15 +		0	10	0	0	0
86/IIB54 +	IIB54, pp. 19–49	0	23	0	0	0
87/IIB82 +	IIB82, pp. 69–96	6	10	1	0	0
88/IIB127 +	IIB127, pp. 5–20, 33–55	9	1	1	0	0
90/IIB123 +		4	7	0	0	0
91/IIB68 +	IIB68, pp. 16–56	1	10	0	0	0
92/IIB996 +	IIB996, pp. 7–22; IIB1013, pp. 6–49	16	7	0	0	0
93/IIB1014 +	IIB1014, pp. 5–41	4	10	0	0	0
94/IIB995	pp. 5–20	0	12	0	0	0
95/IIB994 +	IIB994, pp. 16–25; IIB1051, pp. 5–8	0	0	0	0	0
97/IIB141	pp. 5–29	2	5	0	0	0
98/G6	ff. 3r–19r	22	2	0	0	0
99/IIB991 +	IIB991, pp. 5–58	0	24	0	0	0
126/IIB44 +	IIB44, pp. 47–72	7	7	5	0	0
127/IIB48	pp. 5–57, 76–134	2	3	0	0	0
128/IIB60 +	IIB60, pp. 19–79	22	1	0	0	0
131/IIB17 +	IIB17, pp. 11–31	8	12	1	0	0
137/IIB10 +		3	7	0	0	0
138/V448	ff. 3v–10v	1	17	0	0	0
139/IIB159 +	IIB998, pp. 5–34	0	20	0	0	0
140/T-S A4.13	all leaves examined	1	2	0	0	0
140/T-S A5.3	all leaves examined	0	0	0	0	0
142/T-S A5.10	all leaves examined	2	1	0	0	0
143/T-S A5.17	all leaves examined	0	3	0	0	0
144/IIB193		0	4	0	0	0
145/IIB1011	pp. 5–24, 34–69, 76–170	1	13	0	0	3
146/IIB999 +	IIB999, pp. 62–101	0	15	0	0	0
147/IIB989	all leaves examined	6	0	0	0	0
148/IIB88 +	IIB88, pp. 19–39	1	12	1	0	0
149/IIB988 +	IIB988, pp. 21–60	0	13	0	0	0
150/IIB289	all leaves examined	0	30	0	1	0
151/IIB1008 +	IIB1008, pp. 33–49	0	15	0	0	0
153/IIB1009 +	IIB1009, pp. 50–58	17	0	0	0	0
154/IIB19 +	IIB19, pp. 185–245	0	15	2	0	0
155/IIB67 +	IIB74, pp. 106–113 ⁴⁰⁴	21	10	0	0	0
156/T3	ff. 61–91	1	8	0	4	0
157/IIB1.54	pp. 48–63	0	15	0	0	0

⁴⁰⁴ The alternation between רֶאֱשׁ and רֶא is directly attributable to the presence of two hands.

158/R3		4	3	0	2	1
160/G18		14	0	0	0	0
161/G27		15	1	0	0	0
162/IIC1 +	IIC1, microfilm 1C, pp. 5–56	35	0	0	0	0
Totals		654	908	47	70	9
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; Proto-Sephardi; Italian; Yemenite; "Oriental"						

6.5.3. Marking ‘which is adjacent’ (דסמיד)

The expression דסמיד ‘which is adjacent’ is used in several situations. The first and most common is with Mp strings of two words. In these instances, the term refers to the number of times two or more words may occur in succession. For example:

- Gen 30.20: וַתִּקְרָא אֶת־שְׁמוֹ ‘and she called his name’, where we learn that דם ‘the phrase occurs 10x’ (MS 15/IIB15+).

In some MSS, the type of ‘adjacency’ is one of vocalisation-accent combination rather than words. This use is not to be confused with the former.

- Deu 31.07: וְאַמֶּץ ‘and be strong’; the accompanying Mp note reads כֹּמֶץ ‘20x of *qameṣ* with the accent *zarqa* [i.e., *segolta*]’ (MS 40/S).

Sometimes the expression is used without the genitive particle ך, i.e., סמיד instead of דסמיד. As the number of such instances in the database is in the low double digits in almost as many MSS, they will not be considered here.

Although the expression is considered to be part of the Tiberian Masorah generally (cf. Yeivin), it is worth noting in which MSS the expression appears to occur the most frequently. The 76 database examples are listed in the table below, and can be found in only 18 MSS.

Table 6.5.3a. Database instances of דסמך				
Classmark	# occurrences		Classmark	# occurrences
158/R3	28		15/IIB80 +	1
138/V448	17		16/IIB73 +	1
86/IIB54 +	8		22/IIB13 +	1
70/M88	4		29/IIB65 +	1
40/S	3		34/IIB63 +	1
65/IIB207 +	2		74/IIB71 +	1
85/IIB15 +	2		126/IIB44 +	1
151/IIB1008 +	2		131/IIB17 +	1
3/IIB41 +	1		155/IIB67 +	1
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"				

What is immediately noticeable is that MSS with multiple occurrences of דסמך are from, or appear to be from, N. Africa and Italy: R3 (Italy), V448 (N. Africa), IIB54 + (N. Africa), S (N. Africa?), IIB15 + (N. Africa?), and IIB1008 + (N. Africa). The “exceptions” are M88 and IIB207. In the discussion regarding the use of ט ‘15x’ (§6.6.2.), it is noted that the supposition that M88 is of a Babylonian provenance should perhaps be reconsidered due to its similarity with MSS of N. Africa. The present data point again in that direction. As regards IIB207, there is no information regarding location off of which to build. Can this MS, through other means, also be linked to N. Africa?

6.5.4. Marking ‘1x’ as ו and וחד

The most common means for writing ‘1x’ as part of the Mp comment is with וחד ‘and once’, with 1,041 instances in the database. By contrast, there are only 143 instances of ו. The five MSS with more than 30 instances of וחד are S (88 instances), IIB65 + (68 instances), IIB24 + (48 instances), S1 (41 instances), and

IIB1160+ (33 instances). Another nine MSS have 20–29 instances, and a considerable number have 10–19. The clear majority, however, have 0–9 instances; the average is 9.1 instances of וחד per MS. As the database records an average of 379.2 Mp notes per MS (see §5.3.1.), this amounts to the mention of וחד in only 2.3% of the Mp notes.

The rate of occurrence of וחד in the Tiberian Masorah can scarcely be regarded as consequential for most research purposes. However, it is important to note that the present results are not what I (at least) anticipated. Namely, Tiberian MSS, with their generally careful Mp note rubrics, are not particularly quick to use this clarifier. The Aleppo Codex, for example, with only seven instances of וחד in 1,131 database Mp notes, seems to use the term only as a last resort. Most of the remaining Tiberian script MSS, excepting those elsewhere noted as being somewhat atypical (e.g., IIB65+, IIB51+, IIB13+, L) also have a reduced number of instances of וחד.

The use of אֶי, where the *aleph* presumably stands for ‘1x’ and not as an abbreviation for אַחַד,⁴⁰⁵ only occurs 143 times in the database. These occurrences are found in only 28 MSS corpus MSS, and of these, in only several are the instances of אֶי particularly frequent: C (35 instances), IIB41+ (24 instances), IIB18 (12 instances), and G18 (10 instances). In all the remaining MSS, the number of instances of אֶי are fewer than ten.

Again, there is little here for most researchers of the Masorah. Note, however, how that C once again distances itself from the Tiberian script MSS. By the same

⁴⁰⁵ There are no instances of אֶי or אַחַד in the database; any functional difference between the two is inconsequential for the present analysis.

token, all the other MSS with Jerusalemite script similarly have at least one recorded instance of שׁו. I would not consider this to be strong mark of difference between MSS of Jerusalemite and Tiberian scripts, but it is, nonetheless, a small difference that is worth pointing out.

All the counts cited in the present section are listed in the following table. MSS are ordered according to frequency of occurrence of שׁו, followed by their frequency of occurrence of שׁו.

Table 6.5.4a. Database instances of שׁו and שׁו					
MS	שׁו	שׁו	MS	שׁו	שׁו
80/C	35	9	30/B	0	8
3/IIB41 +	24	0	49/IIB43 +	0	8
23/IIB18	12	11	153/IIB1009 +	0	8
160/G18	10	24	158/R3	0	8
86/IIB54 +	8	9	10/A	0	7
138/V448	7	24	47/IIB124 +	0	7
154/IIB19 +	7	10	126/IIB44 +	0	7
27/IIB84 +	5	16	2/IIB79 +	0	6
84/IIB27 +	5	0	48/IIB35 +	0	6
40/S	4	88	70/M88	0	6
4/IIB128	4	14	8/IIB97 +	0	5
5/IIB20 +	3	3	88/IIB127 +	0	5
148/IIB88 +	2	4	91/IIB68 +	0	5
78/IIB1180 +	2	0	98/G6	0	5
144/IIB193	2	0	35/IIB39 +	0	4
22/IIB13 +	1	29	45/IIB1167	0	4
137/IIB10 +	1	29	51/WP2	0	4
156/T3	1	25	128/IIB60 +	0	4
20/L	1	24	141/T-S A5.3	0	4
39/IIB50 +	1	18	151/IIB1008 +	0	4
85/IIB15 +	1	16	6/IIB33 +	0	3
50/WP	1	10	24/IIB137 +	0	3
81/IIB51 +	1	4	54/IIB1233 +	0	3

146/IIB999 +	1	4	83/IIB52 +	0	3
74/IIB71 +	1	2	87/IIB82 +	0	3
143/T-S A5.17	1	1	7/IIB46 +	0	2
26/IIB162 +	1	0	33/IIB77 +	0	2
77/IIB1275	1	0	38/IIB99 +	0	2
29/IIB65 +	0	68	99/IIB991 +	0	2
41/IIB24 +	0	48	139/IIB159 +	0	2
60/S1	0	41	17/IIB138 +	0	1
58/IIB1160 +	0	33	28/IIB142	0	1
19/IIB8 +	0	29	53/IIB1270	0	1
32/IIB56 +	0	27	92/IIB996 +	0	1
131/IIB17 +	0	23	93/IIB1014 +	0	1
155/IIB67 +	0	19	140/T-S A4.13	0	1
66/IIB13/80	0	18	149/IIB988 +	0	1
46/IIB1.68	0	17	43/IIB1281 +	0	0
16/IIB73 +	0	16	55/Or. 9880	0	0
13/IIB37 +	0	15	56/IIB1243 +	0	0
14/IIB74 +	0	15	57/IIB927	0	0
79/IIB55 +	0	13	62/IIB206 +	0	0
15/IIB80 +	0	12	65/IIB207 +	0	0
31/B2	0	11	67/IIB134 +	0	0
161/Gott. 27	0	11	69/IIB1285 +	0	0
18/IIB62 +	0	10	72/IIB1169	0	0
42/IIB70 +	0	10	76/IIB90 +	0	0
71/IIB94 +	0	10	82/IIB1003 +	0	0
157/IIB1.54	0	10	94/IIB995	0	0
162/IIC1 +	0	10	95/IIB994 +	0	0
1/IIB38 +	0	9	97/IIB141	0	0
12/IIB96 +	0	9	127/IIB48	0	0
34/IIB63 +	0	9	142/T-S A5.10	0	0
36/IIB26 +	0	9	145/IIB1011	0	0
37/IIB86 +	0	9	147/IIB989	0	0
90/IIB123 +	0	9	150/IIB289	0	0

Totals (115 MSS) ⁴⁰⁶	143	1041
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"		

6.5.5. Babylonian Features

As is well-known, codices that are generally Tiberian in appearance sometimes use terms associated with the Babylonian Masorah. The following four subsections examine some of these differences, particularly pointing out where the largest number of such features occur.

6.5.5.1. Marking Non-numeric Mp Notes (כול and כול)

A significant minority of corpus MSS employ rule-stating notes that do *not* begin with an Mp numeral. These notes typically begin with כול/כול 'all instances' (כולהו), e.g., 'all instances of A are spelled/vocalised thus'. Sometimes exceptions are also stated: 'all instances of A are spelled/vocalised thus, excepting X instances'. In these notes there is no indication of how many times the lexeme occurs, only the form in which it is to occur. This type of note is of particular interest because it is regarded as a reliable marker of the Babylonian Masorah.⁴⁰⁷

Among corpus MSS, 'all' is sometimes spelled with *vav* and sometimes without, the defective spelling probably occurring under the influence of Hebrew. Both spellings occur in near equal amounts (כול: 129x; כל: 146x). It is noteworthy, however, that MSS that regularly mark rule-stating notes tend to use the *plene*

⁴⁰⁶ There are 112 MSS listed in the above table, but A, L, and S1, all of which contain Mp data from both the Torah and Former Prophets, are counted twice to avoid skewing the averages.

⁴⁰⁷ See Dotan, "שקיעי בבליית בכתב־יד לונדון של התורה", p. 36; Ofer, המסורה הבבליית לתורה, pp. 105–107. See also Phillips, "The Masoretic Notes in RNL EVR II B 80", pp. 39–43.

spelling כול while MSS where rule-stating notes occur with reduced frequency tend to use כל—with several exceptions. Note how that, in the table below, the occasional כל can be found in many MSS, while the few MSS that use כול tend to do so frequently.

Table 6.5.5.1a. Database instances of כול/כל					
MS	כול	כל	MS	כול	כל
1/IIB38 +		1	58/IIB1160 +		1
2/IIB79 +		1	60/S1		7
3/IIB41 +		4	65/IIB207 +		2
4/IIB128	1	2	66/L17	3	1
7/IIB46 +		1	71/IIB94 +		1
15/IIB80 +	28		74/IIB71 +		2
17/IIB138 +		2	80/C		4
18/IIB62 +		1	83/IIB52 +		3
19/IIB8 +		3	85/IIB15 +		2
20/L		1	86/IIB54 +	4	7
22/IIB13 +	4	4	87/IIB82 +		2
23/IIB18		2	90/IIB123 +	1	
27/IIB84 +		2	91/IIB68 +		2
29/IIB65 +		6	98/G6		3
30/B		12	126/IIB44 +		1
31/B2	1		128/IIB60 +		1
32/IIB56 +		3	131/IIB17 +	24	2
34/IIB63 +	1	2	138/V448	38	6
36/IIB26 +		1	145/IIB1011		1
39/IIB50 +		1	146/IIB999 +		1
40/S		7	148/IIB88 +	16	3
41/IIB24 +	8	15	151/IIB1008 +		1
42/IIB70 +		1	154/IIB19 +		3
45/IIB1167		2	155/IIB67 +		8
46/IBibl.68		2	158/R3		3
49/IIB43 +		2	162/IIC1 +		1
			Totals:	129	146

According to Table 6.5.5.1a., there are four MSS where the use of כּוּל is especially noteworthy: IIB80 + , IIB17 + , V448, and IIB88 + . In all four MSS this non-numeric Mp note is well-integrated in the margin, indicating that these notes are not secondary additions. There are only two MSS that use כּל regularly: IIB24 + and B. Once again, the rule-stating ‘all’ notes do not appear to be secondary additions, being well-situated in the margin.

It is worth considering whether the present MSS are linked vis-à-vis the Strings’ or Numerals’ dendrograms. That is, is there a discernible Mp note assemblage in the corpus that may contain a significant number of Mp notes stemming from the Babylonian Masorah? (Of the present six MSS, all, excepting IIB24 + , are of the Torah, and can be compared.)

The answer to this question is somewhat mixed. There is a definite overlap of Mp notes between at least some of the present five MSS of the Torah. In the Strings’ dendrogram (§6.4.3.), IIB80 + and IIB88 + form an initial branch. Nearby—not within the same grouping, but closer than ca. 75% of the remaining MSS—are B and IIB17 + . V448 is at a slightly greater distance.

In the Numerals’ dendrogram (§6.4.4.), a similar picture can be seen. In this dendrogram, IIB17 + and IIB88 + form an initial branch. Nearby, again not within the same grouping, but grouped sufficiently close to match or exceed ca. 75% of the remaining MSS, are IIB80 + and B. As before, V448 is somewhat farther removed.

In short, using the dendrograms, there are definite signs of similarity between the Mp rubrics of these five MSS. It is even possible that a Babylonian Mp rubric could be extracted from the database by tracking instances where these MSS differ

In the Tiberian Masorah, the standard way of marking ‘in the Bible’ is with בקריאה (often abbreviated בִּקְ). By contrast, the Babylonian Masorah uses בעלמא ‘in the world’ (בְּעָלְמָא); i.e., it is the whole of Scripture rather than a part thereof that is being referenced. Database instances where בעלמא was observed are listed in the table below.

⁴⁰⁸ The Mp note, preserved in its entirety in other codices, is “רָעָה occurs 3x, 1x with *mil’el* [accent on first syllable; Gen 29.9] and 2x with *milra’* [accent on second syllable; Pro 25.19, Isa 24.19]”. Many thanks to Yosef Ofer, personal communication, November 2023, for pointing this out to me.

				Note: the note is secondary; the translation is based upon the presumed meaning when making comparison with other codices (cf. A).
IIB19+	Gen 27.17	עֲשֵׂתָהּ	הָ בַעַל	‘5x (with this vocalisation) in the Bible’
Script key:				
Tiberian;	near-Tiberian;	Jerusalemite;	near-Jerusalemite;	proto-Sephardi;
Italian;	Yemenite;	“Oriental”		

Table MSS noted in the preceding section as having some Babylonian features include IIB80+, IIB24+, IIB17+, and V448. The other seven examples from Table 6.5.5.2a. are new entrants to the list.

In the Corpus Description (§4.3.–4.5.), it was suggested that several of the above codices—with no recourse to the present table—are likely to be of a N. African provenance. These MSS include IIB1160+, V448, and IIB1008+. Of the remaining table MSS, one is clearly from Egypt (L), one (IIB18+) is probably from the N. Levant, and several are difficult to place (IIB80+, IIB24+, IIB19+, IIB1167). A N. African or Egyptian provenance could work for any of these four MSS; if IIB24+ and IIB19+ are of the early 11th century, then they could even be from Jerusalem. The single MSS that that appears to have a Tiberian provenance is IIB17+, demonstrating again that despite sharing a scribe with A, the *masran* of IIB17+ was working from a markedly different exemplar.

The Tiberian term בקריאה occurs in many of the corpus Bibles (267 examples), usually as בָּקַר, but also as בָּקַרְ, בָּקַרְי, בקריה, בקרייה, and בָּקַרְא. It does not always occur in the Bibles where one might expect. For example, the term does not occur within the corpus reference ranges of A, L, S1, IIB94+, or IIB289, the five MSS in the present thesis that contain the entire Bible. As these manuscript

examples make clear, the Masorah was not amended to include or exclude instances based upon the amount of text contained within a codex.

MSS that mark בקריאה most frequently are noted in Table 6.5.5.2b.

Table 6.5.5.2b. Corpus examples of בקריאה (MSS with 5 instances or more)	
MS	Instances
158/R3	126x
145/IIB1011	29x
19/IIB8 +	24x
49/IIB43 +	12x
70/M88	9x
86/IIB54 +	9x
154/IIB19 +	8x
156/T3	7x
41/IIB24 +	6x
138/V448	6x
15/IIB80 +	5x
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"	

It should be noted that the first two MSS of the list are the *only* MSS in the corpus that are listed as Italian. The next two MSS, IIB8 + and IIB43 + are visually very similar, as was commented upon in the Corpus Description—this appears to be yet another corroboration of their similarity.

Tiberian script MSS are missing from this list (excepting IIB80 +), a finding which surprised me. Further research, considerably beyond the limits of the corpus data, is required to uncover possible reasons; it is perhaps telling that a number of the above classmarks reappear throughout the discussion of terms found most

commonly in the Babylonian Masorah. Perhaps some of the Mp notes containing בקריאה are imports from the Babylonian Masorah.

In sum, the above table contains a variety of MSS, that, despite their differences, do not appear to be accidental entrants to the list.

6.5.5.3. Marking ‘Torah’ (תור and אור)

The use of the Aramaic term אורייתא instead of its Hebrew equivalent, תורה ‘Torah’, is sometimes considered a feature of the Babylonian Masorah.⁴⁰⁹ Its frequent “intrusion” into the Tiberian Masorah, however, could indicate that the term is a shared one.⁴¹⁰ What do the sources reveal?

Table 6.5.5.3a. Database instances marking ‘Torah’						
(MS numbers in red indicate codices of the Former Prophets)						
MS	תורה	אורייתא		MS	תורה	אורייתא
1/IIB38 +	4	1		67/IIB134 +	0	0
2/IIB79 +	5	10		69/IIB1285 +	0	0
3/IIB41 +	14	0		70/M88	5	0
4/IIB128	13	2		71/IIB94 +	0	1
5/IIB20 +	1	0		72/IIB1169	0	0
6/IIB33 +	8	0		74/IIB71 +	0	0
7/IIB46 +	8	0		76/IIB90 +	0	0
8/IIB97 +	8	1		77/IIB1275	0	0
10/A	17	1		78/IIB1180 +	0	0
12/IIB96 +	15	0		79/IIB55 +	0	1
13/IIB37 +	14	0		80/C	1	0
14/IIB74 +	21	0		81/IIB51 +	12	0
15/IIB80 +	17	11		82/IIB1003 +	0	0
16/IIB73 +	15	0		83/IIB52 +	0	0
17/IIB138 +	5	0		84/IIB27 +	4	0
18/IIB62 +	21	0		85/IIB15 +	12	0
19/IIB8 +	13	1		86/IIB54 +	9	1
20/L	35	3		87/IIB82 +	8	1

⁴⁰⁹ See Ofer’s list of Babylonian terms, המסורה הבבלית, p. 39.

⁴¹⁰ Yeivin, *Introduction*, p. 83, does not even mention the possibility of אורייתא as a Babylonian term. In Yeivin’s המקרא למקרא, p. 95, the term is marked as co-occurring in Tiberian and Babylonian MSS.

22/IIB13 +	38	1		88/IIB127 +	9	0
23/IIB18	9	0		90/IIB123 +	10	0
24/IIB137 +	1	0		91/IIB68 +	0	0
26/IIB162 +	0	0		92/IIB996 +	0	0
27/IIB84 +	28	0		93/IIB1014 +	1	0
28/IIB142	3	0		94/IIB995	0	0
29/IIB65 +	35	1		95/IIB994 +	0	0
30/B	10	1		98/G6	8	0
31/B2	5	0		99/IIB991 +	0	0
32/IIB56 +	1	6		126/IIB44 +	1	0
33/IIB77 +	0	1		127/IIB48	2	0
34/IIB63 +	0	0		128/IIB60 +	14	2
35/IIB39 +	0	1		131/IIB17 +	20	23
36/IIB26 +	0	1		137/IIB10 +	33	0
37/IIB86 +	0	0		138/V448	29	9
38/IIB99 +	0	2		139/IIB159 +	4	0
39/IIB50 +	1	0		140/T-S A4.13	3	0
40/S	65	3		141/T-S A5.3	2	0
41/IIB24 +	0	1		142/T-S A5.10	0	0
42/IIB70 +	0	1		143/T-S A5.17	0	0
43/IIB1281 +	0	0		144/IIB193	7	1
45/IIB1167	0	0		145/IIB1011	0	0
46/IBibl.68	0	0		146/IIB999 +	7	0
47/IIB124 +	1	0		147/IIB989	3	0
48/IIB35 +	0	0		148/IIB88 +	5	2
49/IIB43 +	0	0		149/IIB988 +	3	0
50/WP	1	0		150/IIB289	6	0
51/WP2	24	0		151/IIB1008 +	8	0
53/IIB1270	0	0		153/IIB1009 +	5	1
54/IIB1233 +	0	0		154/IIB19 +	6	2
55/Or. 9880	2	0		155/IIB67 +	29	4
56/IIB1243 +	0	0		156/T3	22	0
57/IIB927	0	0		157/IBibl.54	4	0
58/IIB1160 +	0	0		158/R3	0	2
60/S1	16	7		160/G18	29	1
62/IIB206 +	0	0		161/G27	0	1
65/IIB207 +	0	0		162/IIC1 +	15	3
66/L17	0	1				
				Totals:	810	112

Excepting MSS with two database instances or fewer,⁴¹¹ there are three MSS (IIB17 +, IIB56 +, and IIB79 +) that prefer to use אורייתא over תורה. An additional three MSS (IIB80 +, S1, and V448) also use אורייתא in a significant number of instances. Of these six, IIB17 +, IIB80 +, and V448 have been noted prior as containing Babylonian Masorah. Of the remaining three, we can be relatively confident that IIB56 + and IIB79 + belong in pre-Crusader Jerusalem, and S1 in Syria.

These data suggest that אורייתא is indeed a feature that leans Babylonian. At the same time, it should be remembered that several MSS elsewhere noted as having Babylonian tendencies regularly write תורה instead of אורייתא. What is the explanation? It appears that a number of the *masranim* that were otherwise drawing from lists containing Babylonian Masorah successfully expunged the term אורייתא from the codices in which they wrote, replacing it with תורה instead.

6.5.5.4. Marking of 'plene' (שלם and מלא)

According to Yeivin's ארם-צובה, בתר ארם-צובה, שלם/שלם essentially functions as a synonym to the more common Tiberian Masoretic term מלא 'spelled *plene*'. Furthermore, while שלם is certainly Babylonian in some sense, it should not be assumed that occurrences of the term necessarily indicate that notes in which it appears were taken from the Babylonian Masorah.⁴¹² While this is a very reasonable statement to make when analysing only the Aleppo Codex, as Yeivin did in the just-cited publication, it becomes obvious that in the overwhelming majority of instances in

⁴¹¹ These are primarily MSS of the Former Prophets, where references to the number of occurrences in the Torah are, as one might expect, generally few and far between.

⁴¹² Yeivin, ארם-צובה, p. 74.

the present corpus the term cannot be considered to be a Tiberian one. That is, שלם, in most cases, is not a term that Tiberian Masoretes used to provide variation, but an indication of the Babylonian source of the larger note. The following table provides the database examples of שלם; potential Babylonian terms are written in red.

Table 6.5.5.4a. Database instances of שלם/שלמא			
MS	Reference	Mp string	Mp comment
2/IIB79 +	Gen 26.05	חקותי	ל של באור
15/IIB80 +	Exo 17.14	כתב	כול חס בר מן ה של בלישנ
	Gen 26.04	ככוכבי	כול לישנ של בר מן ב חס
	Gen 27.33	כשמע	ל רא פס וכול לישנ חס בר מן ח של
22/IIB13 +	Gen 30.31	אשמר	כול חס בר מן חד של אשמור לו חסדי
	Gen 30.38	בבאן	ב חד פת וחד מל דרך הקדים של
	Gen 30.42	העטפים	ב חד חס וחד מל ברעב שלמ
41/IIB24 +	1Ki 08.11	לעמד	כול חס בר מן ג של
	1Ki 08.28	לשמע	כול חס בר מן ד של
	1Ki 08.33	והודו	כול של בר מן חד חס
	2Ki 17.32	מקצותם	כול של
	2Ki 18.23	אשור	כול של בר מן א
	2Ki 18.32	ותירוש	כול של בר מן ג חס
60/S1	1Sa 16.17	מיטיב	ל שלמ דשלמ (Note that WTT has מטיב)
87/IIB82 +	Gen 26.04	והרביתי	כל של
	Gen 26.04	גויי	כל אור של
98/G6	Gen 30.25	יוסף	כל שם ברנש של
	Gen 30.37	המקלות	כל כת של
138/V448	Gen 28.11	מראשתיו	ה מראשתיו מרשתי כול חס כי ירד מראשתכם של בעל

In only three of the database instances was שלם marked in isolation of another Babylonian term. Indeed, some notes appear to be purely Babylonian. For example,

MS 87/IIB82 + reads כָּל אוֹר שֶׁל 'all the Torah is spelled *plene*'; in the present context, each of these three words may be considered Babylonian.

It is also possible that some of the Mp notes in the above table are composite in nature, one part being Tiberian and the other Babylonian. For instance, in Gen 27.34, IIB80 + gives an Mp note of two parts for כְּשָׁמַע 'when he heard': לֹא רָא פֶּס וְכוּלִּי לִישׁוֹן חֵם בֵּר מִן חֵם שֶׁל 'Occurs 1x at the head of the verse, *and* all forms are spelled defectively except 8x spelled *plene*'. In principle, the first part of the note could well be Tiberian.⁴¹³ The rule-stating part that follows, however, is almost certainly derived from the Babylonian Masorah.

In the above table, each of the eight MSS with database occurrences of שלם is found to have other Babylonian features in at least some of the foregoing sections. Some, like IIB24 +, IIB80 +, and V448, appear frequently in each section. Thus, it is difficult to argue that the presence of שלם represents anything other than evidence of a Babylonian Mp note.

6.5.6. Differences of Orthography

The present section compares MSS vis-à-vis their orthography. These instances generally involve instances of *plene* and defective spelling. For reasons of space and due to the limitations of the data set, the examinations make no attempt at being comprehensive. Rather, we will discuss levels of orthographic variability between the Torah and the Prophets, followed by some specific case studies where the spelling of L is not widely followed in the other MSS. In many instances, furthermore, it can be shown that L is situated outside of the Tiberian Masoretic

⁴¹³ And probably is Tiberian. Of the 30 database instances of כְּשָׁמַע, only here does the second half of the note occur.

mainstream in regard to spelling. In some instances, it appears that Samuel b. Jacob made novel “mistakes” in spelling: the alternative spelling cannot be found in other MSS of the Tiberian Masoretic tradition—or only in other SbJ codices.

For lack of a better alternative, the text of L is used as the basis of analysis.⁴¹⁴ It is hoped that the present contribution can illustrate how an eclectic consonantal text of the Masoretic Bible could achieve significant accuracy in orthography merely by following the majority of extant MSS.⁴¹⁵

6.5.6.1. Orthographic Variation in the Torah vs. the Former Prophets

According to Breuer’s detailed analysis, the Leningrad Codex possesses 120 spelling instances in the Torah that do not agree with the Masorah. Of the other Torah MSS surveyed by Breuer (B, S, and S1), B does not agree with the Masorah in 65 instances, S does not agree in 25 instances, and S1 does not agree in 20.⁴¹⁶ These figures led Breuer to declare L to be “the most error-filled of all the ancient manuscripts”.⁴¹⁷

The picture of L is slightly improved in the Prophets. Of the MSS surveyed by Breuer (A, C, L, and S1), there are ca. 280 spelling instances in L that do not agree with the Masorah versus seven for A, 150 for C, and 500 for S1.⁴¹⁸ Here L is the second-worst of the MSS, according to Breuer’s analysis.

⁴¹⁴ Strictly speaking, the Westminster Text (WTT), as presented on Bible Works 2007 is the basis of the analysis; I am unaware of any differences between WTT and L as regards spelling.

⁴¹⁵ Cf. the approach of Breuer, בחר ארם צובה, esp. the Forward (pp. 3–32).

⁴¹⁶ Breuer, בחר ארם צובה, p. 86.

⁴¹⁷ Ibid., p. XIII.

⁴¹⁸ Ibid., p. 139.

Whether or not L is the “worst” manuscript from the point of view of orthography, it is apparent from the foregoing that spelling stability in the Torah, according to the codices examined by Breuer, is greater than spelling stability in the Prophets (230 instances in the Torah vs. 937 instances in the Prophets).⁴¹⁹

The following two tables, of the Torah and the Former Prophets respectively, present the corpus instances where MSS differ with L. There are 268 observed differences with L in the Torah, out of 16,165 vv. examined, for an average of 60.3 vv./spelling difference.⁴²⁰ In the Former Prophets the number of observed differences is 265, approximately the same number as that of the Torah. However, the number of verses required to amass this total is much lower, 10,242 vv., for an average of 38.6 vv./spelling difference.⁴²¹

The difference between the Torah and the Former Prophets is starker still when comparing the total number of database entries for each Bible section. There are 27,310 database entries pertaining to the Torah vs. 16,849 entries pertaining to the Former Prophets. In other words, it only takes approximately half as many

⁴¹⁹ Similar conclusions can be reached when comparing the absolute number of spelling differences observed by Breuer in the Torah and the Prophets (בתר ארם צובה, קק. 311–325). According to my line count of Breuer’s figures on pp. 311–325, these totals are 237x (Torah) and 901x (Prophets).

⁴²⁰ Note: the present data is *not* an examination of every word within the given reference ranges in the present codices. Instead, the differences recorded are limited to word(s) on which the Mp comments. Thus, many consonantal differences probably were missed. At the same time, contested spellings are a typical reason to add an Mp note, which makes the present tables rather more representative than not.

⁴²¹ The number of database entries, per reference range section, are as follows: 1Ki 8–10 (3746), 2Ki 17–20 (4140), 1Sa 16–19 (4629), Jud 3–6 (4334), Gen 26–30 (10152), Exo 14–17 (7468), Deu 30–34 (9690).

entries in the Former Prophets as it did in the Torah to amass an equal number of spelling differences.

The MSS in the following tables are organised according to their agreement with L. The right side of each table is a continuation of the left side.

Table 6.5.6.1a. Instances in the Torah that differ with the orthography of L								
MS	# instances	vv. extant	verses/instance		MS	# instances	vv. extant	verses/instance
145/IIB1011	1	270	270.0		95/IIB994 +	2	111	55.5
83/IIB52 +	0	197	197.0 +		149/IIB988 +	2	110	55.0
153/IIB1009 +	1	192	192.0		131/IIB17 +	7	385	55.0
5/IIB20 +	1	188	188.0		141/T-S A5.3	1	54	54.0
93/IIB1014 +	1	177	177.0		30/B	2	107	53.5
16/IIB73 +	2	314	157.0		14/IIB74 +	7	349	49.9
50/WP	2	291	145.5		17/IIB138 +	8	397	49.6
128/IIB60 +	3	377	125.7		156/T3	7	345	49.3
98/G6	2	238	119.0		19/IIB8 +	9	434	48.2
146/IIB999 +	2	211	105.5		29/IIB65 +	9	434	48.2
144/IIB193	0	105	105.0 +		40/S	9	434	48.2
148/IIB88 +	1	100	100.0		22/IIB13 +	8	380	47.5
86/IIB54 +	3	291	97.0		27/IIB84 +	7	325	46.4
87/IIB82 +	3	290	96.7		6/IIB33 +	5	223	44.6
88/IIB127 +	3	270	90.0		23/IIB18	10	434	43.4
138/V448	5	434	86.8		151/IIB1008 +	2	84	42.0
162/IIC1 +	2	173	86.5		7/IIB46 +	9	366	40.7
3/IIB41 +	5	431	86.2		137/IIB10 +	11	429	39.0
13/IIB37 +	4	341	85.3		12/IIB96 +	3	109	36.3
127/IIB48	0	76	76.0 +		10/A	4	143	35.8
8/IIB97 +	4	291	72.8		81/IIB51 +	5	283	56.6
160/G18	6	434	72.3		155/IIB67 +	7	250	35.7
31/B2	2	143	71.5		99/IIB991 +	0	32	32.0 +
51/WP2	2	143	71.5		142/T-S A5.10	0	32	32.0 +
1/IIB38 +	3	214	71.3		26/IIB162 +	1	32	32.0
4/IIB128	3	207	69.0		18/IIB62 +	4	127	31.8
126/IIB44 +	4	276	69.0		2/IIB79 +	9	279	31.0
157/IIB1.54	4	275	68.8		24/IIB137 +	3	92	30.7
15/IIB80 +	4	274	68.5		28/IIB142	4	122	30.5
147/IIB989	0	67	67.0 +		140/T-S A4.13	0	28	28.0 +

150/IIB289	1	66	66.0	70/M88	6	160	26.7
90/IIB123 +	3	190	63.3	55/Or. 9880	0	26	26.0 +
84/IIB27 +	3	188	62.7	139/IIB159 +	5	114	22.8
60/S1	7	428	61.1	143/T-S A5.17	2	45	22.5
92/IIB996 +	0	60	60.0 +	94/IIB995	0	14	14.0 +
154/IIB19 +	5	287	57.4	82/IIB1003 +	2	24	12.0
85/IIB15 +	6	343	57.2				
				Totals:	268	16165	60.3 (average)
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"							

Table 6.5.6.1b. Instances in the Former Prophets that differ with the orthography of L

MS	# instances	vv. extant	instances /verse	MS	# instances	vv. extant	instances /verse
49/IIB43 +	1	102	102.0	34/IIB63 +	9	394	43.8
35/IIB39 +	4	393	98.3	76/IIB90 +	1	43	43.0
80/C	6	520	86.7	77/IIB1275	5	206	41.2
38/IIB99 +	5	417	83.4	65/IIB207 +	4	160	40.0
67/IIB134 +	1	82	82.0	32/IIB56 +	10	388	38.8
91/IIB68 +	2	159	79.5	71/IIB94 +	5	194	38.8
72/IIB1169	0	75	75.0 +	66/IIB13/80	10	380	38.0
39/IIB50 +	7	520	74.3	48/IIB35 +	7	259	37.0
69/IIB1285 +	1	71	71.0	47/IIB124 +	7	255	36.4
79/IIB55 +	7	486	69.4	54/IIB1233 +	3	104	34.7
161/G27	6	414	69.0	57/IIB927	0	31	31.0 +
74/IIB71 +	1	67	67.0	41/IIB24 +	14	396	28.3
33/IIB77 +	8	520	65.0	43/IIB1281 +	0	28	28.0 +
42/IIB70 +	4	240	60.0	60/S1	21	509	24.2
10/A	8	471	58.9	45/IIB1167	5	120	24.0
53/IIB1270	0	58	58.0 +	62/IIB206 +	0	21	21.0 +
46/IIB168	9	520	57.8	58/IIB1160 +	25	447	17.9
36/IIB26 +	8	425	53.1	56/IIB1243 +	2	22	11.0
78/IIB1180 +	0	52	52.0 +	158/R3	55	516	9.4
37/IIB86 +	4	177	44.3				

					Total:	265	10242	38.6 (average)
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"								

The present data are insufficient to group MSS based upon their similarity with L, in my estimation, although the tables do provide likely MSS where one might begin such research. Note, too, that MSS such as A are “middle of the pack” MSS when compared against the orthography of L; about as many MSS are more similar to L as are dissimilar.

It is also clear that some MSS provide far more spelling variations than those found in L. MS 158/R3, with a difference ratio of 9.4 vv./difference, is the most different text, orthographically speaking, with a statistically significant sample size. Other statistical outliers with abundant data, all likewise from the Former Prophets, include MS 58/IIB1160 + (17.9), MS 60/S1 (24.2), and MS 41/IIB24 + (28.3). This is *not* to say that these MSS are somehow alike, only that the amount of spelling variation seen in these MSS is much higher than average.

6.5.6.2. The Orthography of the Leningrad Codex Compared to Other Corpus MSS

In the present section are 15 database examples where the orthography of L differs with at least five other MSS. Once the instances have been thus identified, the remaining corpus MSS lacking the relevant Mp note were consulted, with the following results. The Leningrad Codex (WTT) and codices that agree with it can be found on the left column. Those MSS with an alternate spelling are found in the

right column. The codices written/corrected by Samuel b. Jacob are preceded by an asterisk (*).

Table 6.5.6.2a. Select instances where the consonantal text of L differs with other MSS (red indicates that the present spelling is a secondary emendation)						
1. Gen 27.31, 'so that': בַּעֲבוֹר (WTT) vs. בַּעֲבָר (6 MSS vs. 33 MSS)						
MSS with בַּעֲבוֹר	MSS with בַּעֲבָר					
2/IIB79 +	1/IIB38 +	15/IIB80 +	60/S1	98/G6	146/IIB999 +	
3/IIB41 +	5/IIB20 +	16/IIB73 +	85/IIB15 +	126/IIB44 +	153/IIB1009 +	
17/IIB138 +	6/IIB33 +	19/IIB8 +	86/IIB54 +	*128/IIB60 +	154/IIB19 +	
*20/L	7/IIB46 +	22/IIB13 +	87/IIB82 +	131/IIB17 +	156/T3	
40/S	8/IIB97 +	23/IIB18	88/IIB127 +	137/IIB10 +	157/Ibbl.54	
145/IIB1011	13/IIB37 +	29/IIB65 +	90/IIB123 +	138/V448	160/G18	
	14/IIB74 +	50/WP	93/IIB1014 +			
2. Exo 14.13 'you shall add': חֲסִיפּוֹ (WTT) vs. חֲסִפּוֹ (1 MS vs. 40 MSS)						
MSS with חֲסִיפּוֹ	MSS with חֲסִיפּוֹ					
*20/L	1/IIB38 +	19/IIB8 +	60/S1	98/G6	148/IIB88 +	
	3/IIB41 +	22/IIB13 +	70/M88	126/IIB44 + (?)	149/IIB988 +	
	4/IIB128	23/IIB18	81/IIB51 +	127/IIB48	151/IIB1008 +	
	7/IIB46 +	27/IIB84 +	84/IIB27 +	131/IIB17 +	154/IIB19 +	
	8/IIB97 +	29/IIB65 +	85/IIB15 +	137/IIB10 +	155/IIB67 +	
	14/IIB74 +	30/B	86/IIB54 +	138/V448	156/T3	
	15/IIB80 +	40/S	87/IIB82 +	145/IIB1011	157/Ibbl.54	
	17/IIB138 +	50/WP	90/IIB123 +	146/IIB999 +	160/G18	
3. Exo 14.14 'you shall hold your peace': תַּחֲרִישׁוֹן (WTT) vs. תַּחֲרִישׁוֹן (2 MSS vs. 39 MSS)						
MSS with תַּחֲרִישׁוֹן	MSS with תַּחֲרִישׁוֹן					
*20/L	1/IIB38 +	19/IIB8 +	60/S1	98/G6	149/IIB988 +	
126/IIB44 +	3/IIB41 +	22/IIB13 +	70/M88	127/IIB48	151/IIB1008 +	
	4/IIB128	23/IIB18	81/IIB51 +	*128/IIB60 +	154/IIB19 +	
	7/IIB46 +	27/IIB84 +	84/IIB27 +	137/IIB10 +	155/IIB67 +	
	8/IIB97 +	29/IIB65 +	85/IIB15 +	138/V448	156/T3	
	14/IIB74 +	30/B	86/IIB54 +	145/IIB1011	157/Ibbl.54	
	15/IIB80 +	40/S	87/IIB82 +	146/IIB999 +	160/G18	
	17/IIB138 +	50/WP	90/IIB123 +	148/IIB88 +		

4. Deu 30.9 'for good': לְטוֹבָה (WTT) vs. לְטֹבָה
(1 MS vs. 40 MSS)

MSS with לְטוֹבָה	MSS with לְטֹבָה				
*20/L	3/IIB41 +	16/IIB73 +	27/IIB84 +	85/IIB15 +	150/IIB289
	6/IIB33 +	17/IIB138 +	*28/IIB142	88/IIB127 +	151/IIB1008 +
	7/IIB46 +	18/IIB62 +	29/IIB65 +	*128/IIB60 +	153/IIB1009 +
	10/A	19/IIB8 +	31/B2	131/IIB17 +	154/IIB19 +
	12/IIB96 +	22/IIB13 +	40/S	137/IIB10 +	155/IIB67 +
	13/IIB37 +	23/IIB18	51/WP2	138/V448	156/T3
	14/IIB74 +	24/IIB137 +	60/S1	143/T-S A5.17	160/G18
	15/IIB80 +	26/IIB162 +	81/IIB51 +	146/IIB999	*162/IIC1 +

5. Deu 32.24 'cattle': בְּהֵמוֹת (WTT) vs. בְּהֵמָה and בְּהִימוֹת
(9 MSS vs. 28 MSS, plus one instance of בְּהִימוֹת)

MSS with בְּהֵמוֹת	MSS with בְּהֵמָה				
3/IIB41 +	2/IIB79 +	17/IIB138 +	31/B2	85/IIB15 +	138/V448
19/IIB8 +	6/IIB33 +	18/IIB62 +	40/S	88/IIB127 +	141/T-S A5.3
*20/L	10/A	23/IIB18	51/WP2	*128/IIB60 +	155/IIB67 +
22/IIB13 +	12/IIB96 +	24/IIB137 +	60/S1	131/IIB17 +	160/G18
27/IIB84 +	13/IIB37 +	*28/IIB142	70/M88	137/IIB10 +	*162/IIC1 +
99/IIB991 +	14/II 74 +	29/IIB65 +	81/IIB51 +		
143/T-S					
A5.17					
144/IIB193					
147/IIB989					
	MS with בְּהִימוֹת: 139/IIB159 +				

6. Deu 33.19 'and the hidden': וְשִׁפְנֵי (WTT) vs. וְשִׁפְנֵי
(4 MSS vs. 30 MSS)

MSS with וְשִׁפְנֵי	MSS with וְשִׁפְנֵי				
*20/L	2/IIB79 +	14/IIB74 +	27/IIB84 +	81/IIB51 +	137/IIB10 +
*28/IIB142	3/IIB41 +	17/IIB138 +	29/IIB65 +	82/IIB1003 +	138/V448
*128/IIB60	4/IIB128	18/IIB62 +	40/S	83/IIB52 +	144/IIB193
+	6/IIB33 +	19/IIB8 +	51/WP2	85/IIB15 +	139/IIB159 +
*162/IIC1 +	7/IIB46 +	22/IIB13 +	60/S1	88/IIB127 +	155/IIB67 +
	10/A	23/IIB18	70/M88	131/IIB17 +	160/G18

7. Deu 33.25 'your bars': מְנַעֲלֶיךָ (WTT) vs. מְנַעֲלֶיךָ
(11 MSS vs. 21 MSS)

MSS with מְנַעֲלֶיךָ	MSS with מְנַעֲלֶיךָ				
3/IIB41 + 7/IIB46 + *20/L *28/IIB142 31/B2 70/M88 81/IIB51 + *128/IIB60 + 139/IIB159 + 144/IIB193 160/G18	2/IIB79 + 6/IIB33 + 10/A 14/IIB74 + 17/IIB138 +	18/IIB62 + 19/IIB8 + 22/IIB13 + 23/IIB18	27/IIB84 + 29/IIB65 + 40/S 51/WP2	60/S1 82/IIB1003 + 83/IIB52 + 85/IIB15 +	131/IIB17 + 137/IIB10 + 138/V448 155/IIB67 +

8. Jud 5.11 'his rulers': פְּרוֹנוֹ (WTT) vs. פְּרוֹנוֹ
(3 MSS vs. 14 MSS)

MSS with פְּרוֹנוֹ	MSS with פְּרוֹנוֹ				
*20/L 46/IBibl.68 69/IIB1285 +	10/A 33/IIB77 + 35/IIB39 +	36/IIB26 + 39/IIB50 + 58/IIB1160 +	60/S1 *66/L17 71/IIB94 +	72/IIB1169 79/IIB55 + 80/C	158/R3 *161/G27

9. 1Ki 8.29 'open': פְּתוּחוֹת (WTT) vs. פְּתוּחוֹת and פְּתוּחוֹת
(4 MSS vs. 14 MSS, plus one instance of פְּתוּחוֹת)

MSS with פְּתוּחוֹת	MSS with פְּתוּחוֹת				
*20/L 34/IIB63 + 46/IBibl.68 47/IIB124 +	10/A 32/IIB56 + 33/IIB77 +	36/IIB26 + 37/IIB86 + 39/IIB50 +	41/IIB24 + 48/IIB35 + 60/S1	*66/L17 74/IIB71 + 77/IIB1275	80/C *161/G27
	MS with פְּתוּחוֹת: 158/R3				

10. 1Ki 8.52 'open': פְּתוּחוֹת (WTT) vs. פְּתוּחוֹת and פְּתוּחוֹת
(4 MSS vs. 20 MSS, plus one instance of פְּתוּחוֹת)

MSS with פְּתוּחוֹת	MSS with פְּתוּחוֹת				
*20/L 39/IIB50 + 48/IIB35 + 58/IIB1160 +	10/A 32/IIB56 + 33/IIB77 + 34/IIB63 +	36/IIB26 + 37/IIB86 + 41/IIB24 + 42/IIB70 +	46/IBibl.68 47/IIB124 + 49/IIB43 + 60/S1	*66/L17 71/IIB94 + 74/IIB71 + 76/IIB90 +	77/IIB1275 78/IIB1180 + 80/C *161/G27
	MS with פְּתוּחוֹת:				

	158/R3				
11. 2Ki 17.6 ‘the ninth’: התשעית (WTT) vs. התשעית (5 MSS vs. 18 MSS)					
MSS with התשעית	MSS with התשעית				
*20/L 48/IIB35 + 58/IIB1160 + 91/IIB68 + 158/R3	32/IIB56 + 33/IIB77 + 34/IIB63 + 35/IIB39 +	36/IIB26 + 38/IIB99 + 39/IIB50 + 41/IIB24 +	46/IBibl.68 47/IIB124 + 49/IIB43 + 56/IIB1243 +	57/IIB927 60/S1 65/IIB207 +	66/L17 79/IIB55 + 80/C
12. 2Ki 17.13 ‘turn’: שבו (WTT) vs. שובו (13 MSS vs. 10 MSS)					
MSS with שבו	MSS with שובו				
*20/L 32/IIB56 + 33/IIB77 + 35/IIB39 + 38/IIB99 + 39/IIB50 + 42/IIB70 + 46/IBibl.68 56/IIB1243 + 57/IIB927 65/IIB207 + *66/L17 79/IIB55 +	34/IIB63 + 41/IIB24 +	47/IIB124 + 48/IIB35 +	58/IIB1160 + 60/S1	80/C 91/IIB68 +	158/R3 *161/G27
13. 2Ki 18.17 ‘fuller’: כובס (WTT) vs. לבס (8 MSS vs. 13 MSS)					
MSS with כובס	MSS with לבס				
*20/L 34/IIB63 + 46/IBibl.68 47/IIB124 + 48/IIB35 + 60/S1 65/IIB207 + 80/C	10/A 32/IIB56 + 33/IIB77 +	38/IIB99 + 39/IIB50 + 41/IIB24 +	42/IIB70 + 54/IIB1233 + 58/IIB1160 +	*66/L17 79/IIB55 +	91/IIB68 + 158/R3

14. 2Ki 18.29: יִשָּׂא (WTT) vs. יִשָּׂא (3 MSS vs. 19 MSS)					
MSS with יִשָּׂא	MSS with יִשָּׂא				
*20/L 58/IIB1160 + 158/R3	10/A 32/IIB56 + 33/IIB77 + 34/IIB63 +	36/IIB26 + 38/IIB99 + 39/IIB50 + 41/IIB24 +	42/IIB70 + 46/IBibl.68 47/IIB124 + 48/IIB35 +	54/IIB1233 + 60/S1 65/IIB207 + *66/L17	79/IIB55 + 80/C 91/IIB68 +
15. 2Ki 18.31: בֹּרוּ (WTT) vs. בֹּרוּ (3 MSS vs. 20 MSS)					
MSS with בֹּרוּ	MSS with בֹּרוּ				
*20/L 60/S1 158/R3	10/A 32/IIB56 + 33/IIB77 + 34/IIB63 +	35/IIB39 + 36/IIB26 + 38/IIB99 + 39/IIB50 +	42/IIB70 + 46/IBibl.68 47/IIB124 + 48/IIB35 +	54/IIB1233 + 58/IIB1160 + 65/IIB207 + *66/L17	79/IIB55 + 80/C 91/IIB68 + *161/G27
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; 'Oriental'					

(1.) In the above 15 examples, 14 were instances where L's orthography is in the minority. These data are certainly in keeping with Breuer's observations that the consonantal text of L is not to be highly regarded. There is one counter example (no. 12). Here, 12 MSS agree with L's defective spelling (שְׁבוּ) while ten MSS spell the word *plene* (שְׁבוּ). However, L and five other MSS were amended to the defective spelling secondarily, confusing the issue regarding which reading should be the majority one.

The outcomes of the present table also agree with נוסח המקרא בכתר ירושלים, where Breuer draws from the Mp and Mm notes when presenting the witnesses for the orthography of the Bible. Every instance in the above table where L is the minority reading was also determined by Breuer to be the inferior reading when

examining the Masoretic data, further strengthening the case that L's consonantal text is "wrong".⁴²² These instances are as follows.

- From example 1: L's Mp agrees with the majority reading, contradicting its own text.
- From example 3: L's Mp agrees with the majority reading, contradicting its own text; the Mp of A and C also agree with the majority reading.
- From example 4: L's Mm agrees with the majority reading, contradicting its own text.
- From examples 9 and 10: L's Mp agrees with the majority reading, contradicting its own text.
- From example 11: L's Mm agrees with the majority reading, contradicting its own text; the consonantal text of A (this instance not recorded in the database) and the Mm of A also agree with the majority reading.
- From example 13: L's Mm agrees with the majority reading, contradicting its own text.
- From example 14: L's Mp agrees with the majority reading, contradicting its own text.
- From example 15: L's Mp agrees with the majority reading, contradicting its own text; the Mm of S1 also agrees with the majority reading.

⁴²² Breuer, גוסס המקרא בכתר ירושלים, ad. loc.

The one exception is with example 12, where it was already noted that L's (corrected) orthography is the majority reading. Here Breuer observes that the Mp of A, L, and S all agree with the consonantal text of L. Thus, there is no disagreement between the present findings using many codices and the findings of Breuer who used only a few; the present data merely strengthen Breuer's case.

(2.) In the Torah in particular, the spellings of L are not found in many other MSS. There are 34 attestations that agree with L's text versus 232 attestations against it (34 attestations = 13% of instances). In two instances (nos. 2 and 4) L's spelling was not observed in any other manuscript whatsoever. Are these spellings to be taken as the only surviving examples of a now lost *Urtext* of L? Perhaps. The more likely explanation, though, is that SbJ made a mistake, introducing spelling differences that we are still sorting out over 1000 years later.

Standing in slight contrast with the atypical orthography of L in the Torah, the Former Prophets finds L moving slightly towards the mainstream. In the eight examples provided there are 43 attestations for L's spelling versus 130 attestations against it (43 = 25% of instances), which is nearly double the 13% of instances in the Torah. This is still a long way from being considered a "mainstream" MS, of course. Nonetheless, it is possible that SbJ did better work and/or possessed a better exemplar for the text of the Former Prophets than he did for the Torah.⁴²³

(3.) A reason to think that SbJ was not particularly careful in his work in the orthography of L is because his spellings are not necessarily consistent across MSS. In the above 15 instances, there are ten instances where no other manuscripts

⁴²³ These data would concur with the observations of Breuer regarding the quality of L in the Torah vs. in the Prophets. Cf. Breuer, *בית ארם צובה*, p. 139.

associated with Samuel b. Jacob follow the spelling of L (nos. 1, 3–5, 8–10, 13–15). Two instances are not extant in the other SbJ MSS (nos. 2 and 11). In only three instances does another SbJ manuscript follow L (nos. 6, 7, and 12). In effect, most Samuel b. Jacob manuscripts follow the majority; only rarely do they follow L, which is to say: the orthography of L appears to be the *least* reliable of all the SbJ MSS surveyed in the present corpus.

It is unreasonable to suppose that SbJ did not produce all the codices attributed to him, however. In no. 6, there are only three MSS that agree with L. Two of them, IIB60+ and IIC1+, were written by SbJ, and the third, IIB142, was proofread by SbJ. Furthermore, the text of IIB142 was amended to the spelling of L in both nos. 6 and 7, strong evidence that SbJ did, in fact, proofread the codex as the colophon claims.

(4.) In the above table, the MSS that agree with L are colour coded so that their script types can be noted at a glance. When examining the script types it becomes obvious that few MSS with Tiberian script follow L. Apart from the other SbJ MSS, and excepting the sole instance where the text of L is the majority reading, there are only two Tiberian script MSS that follow L (1x each): MS 22 (IIB13+) and MS 81 (IIB51+). These MSS, as shown in the dendrograms (§6.4.1.–6.4.4.), were not found to be near the centre of the Tiberian Masoretic tradition. They are, like L, approximately midway between the centre and the periphery.

(5.) From the above 15 examples, the MSS with spellings that agree with L at least 50% of the time are limited to the following.

- MS 3/IIB41+: 3 of 4 instances follow L
- MS 144/IIB193: 2 of 3 instances follow L

- MS 46/IBibl.68: 4 of 8 instances follow L
- MS 28/IIB142: 2 of 4 instances follow L

These four MSS are partially preserved, and little is known about them, excepting that IIB142 was proofread by Samuel b. Jacob. The remaining three codices are not particularly noteworthy, visually speaking. They may have been written much later than L, or they may have been written at a different place, as seems to be the case with IIB41 + (N. Africa?).

Other MSS that agree with L on at least two occasions are as follows.

- MS 48/IIB35 +: 3 of 7 instances follow L
- MS 58/IIB1160 +: 3 of 7 instances follow L
- MS 65/IIB207 +: 2 of 5 instances follow L
- MS 158/R3: 3 of 8 instances follow L
- MS 60/S1: 2 of 6 instances follow L
- MS 128/IIB60 +: 2 of 6 instances follow L
- MS 34/IIB63 +: 2 of 7 instances follow L
- MS 47/IIB124 +: 2 of 7 instances follow L
- MS 39/IIB50 +: 2 of 8 instances follow L

The present data are insufficient to gain a full picture and caution is advised. What can be said at present, though, is that none of the above MSS has clear links to Palestine. IIB124 + is from N. Africa; S1 is from Syria; R3 is from Italy; IIB35 + and IIB1160 + have *haftara* markings for the Babylonian custom. Most of these MSS are not themselves particularly closely related vis-à-vis the Mp data—although note that IIB1160 + and R3 form their own grouping in the Numerals' dendrogram (§6.4.2., above).

Whence, then, did Samuel b. Jacob derive his exemplar for the text of L? Judging from the just-cited MSS, it is not likely to have been Palestine, and probably not Egypt either. The more probable option is N. Africa.

As the present section documents, the orthography of L is a poor place to begin when examining the consonantal text of the Tiberian Masorah. But if not with L, the best preserved of the early codices, where should one begin? The simplest approach, and probably the best one, is the method adopted by Breuer, viz., follow the majority.⁴²⁴ As was amply demonstrated above, the best reading is likely to be well-documented.

6.6. Marking of Paratextual Features

The distinction between a text and its paratext is often unclear, and even somewhat artificial, particularly with the Masorah, which itself functions as a kind of paratext. The present use of paratext refers to scribal practices that do not form part of the language of the Masorah itself, nor are they part of the consonantal text, the vocalisation, or the accents. The practices observed may have been done by the scribe of the main text, or they may have been done by the *masran*.

6.6.1. Marginal *nun/zayin*

A letter the size of the letters of the main text sometimes occurs in the margin alongside the (smaller) Mp.⁴²⁵ Its use in the present corpus is most closely linked with markings of *qere*; in European MSS of the 12th century and later there are instances where the letter (or a notation similar to it) appears to mark space

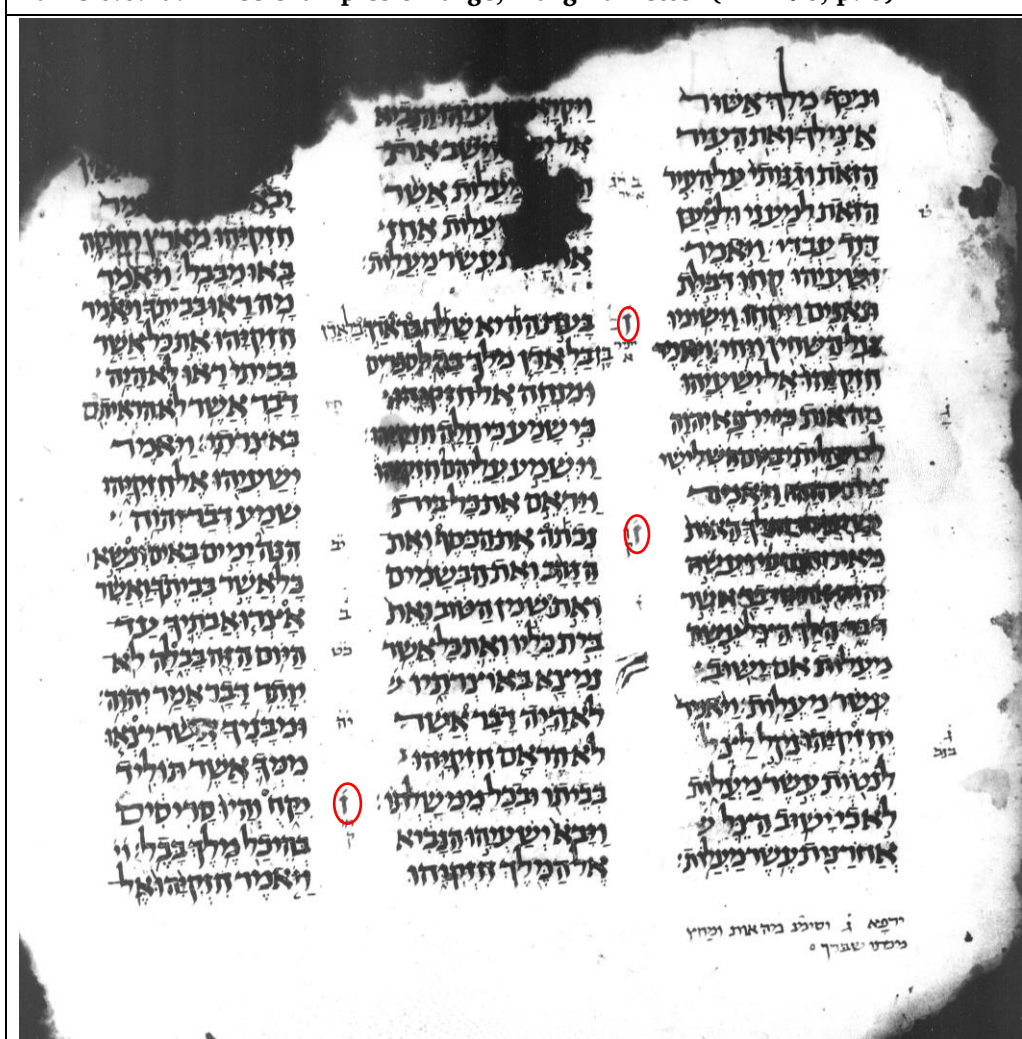
⁴²⁴ “The majority” refers to both the MSS examined and the Masoretic notes in those MSS. For Breuer’s justification of the validity of the method, see Breuer, *בית ארם צובה*, esp. in the Forward (pp. 3–32).

⁴²⁵ On occasion, the letter is the size of the surrounding Mp.

divisions, particularly when they are under dispute.⁴²⁶ The specific meaning of the letter remains unclear: it is often supposed that the letter marks places where traditions differ, or where some uncertainty remains in the text.⁴²⁷

In most instances the letter was written at the time of the main text, i.e., strictly speaking, the origin of the letter appears not to have been Masoretic but scribal.

Table 6.6.1a. Three examples of large, marginal letter (IIB1270, p. 8)



⁴²⁶ The only observed instance in the corpus where the letter marks space division is with R3. This is not unexpected for an Italian MS of the 12th century; cf. Penkower, "The 12th–13th-Century Torah Scroll in Bologna", pp. 135–166. To the best of my knowledge, however, no early Oriental MSS use the marginal letter to mark space divisions.

⁴²⁷ For the most recent discussion of this letter, as well as a full bibliography, see Beiler, "The Marginal nun/zayin", pp. 75–113.

Crucially for our purposes, the use of the letter is not obligatory. Some scribes never use it; others use it only on occasion. The elective nature of this letter provides an opportunity to probe for regional difference in the usage distribution of this letter.

Table 6.6.1b. Database instances of marginal letter ⁴²⁸			
MS	# occurrences	vv. extant	vv. extant/instances of marginal letter
53/IIB1270	7	58	8.3
54/IIB1233 +	10	104	10.4
48/IIB35 +	18	259	14.4
56/IIB1243 +	2	29	14.5
57/IIB927	2	31	15.5
39 IIB50 +	29	520	17.9
80/C	27	520	19.3
65/IIB207 +	8	160	20.0
91/IIB68 +	7	159	22.7
41/IIB24 +	24	574	23.9
45/IIB1167	5	120	24.0
49/IIB43 +	4	102	25.5
74/IIB71 +	2	67	33.5
154/IIB19 +	6	287	47.8
58/IIB1160 +	8	447	55.9
69/IIB1285 +	1	71	71.0
145/IIB1011	3	270	90.0
4/IIB128	2	207	103.5
40/S	4	434	108.5
95/IIB994 +	1	111	111.0
34/IIB63 +	3	394	131.3
27/IIB84 +	2	325	162.5

⁴²⁸ It should be remembered that instances of the letter can be found in corpus MSS *not* appearing on this table (e.g., L, WP). This is because the database is not exhaustive. Thus, the present table is best suited to examinations of frequent usage of the marginal letter.

One should also note that there are several ways to measure letter frequency. One way is to number instances where *qere* is marked without the use of the large, marginal letter, and then to divide these against the occurrences of the marginal letter. According to this metric, the occurrences of the marginal letter in WP are fairly frequent; those of L remain infrequent.

5/IIB20 +	1	188	188.0
84/IIB27 +	1	188	188.0
131/IIB17 +	2	385	192.5
19/IIB8 +	2	434	217.0
160/G18	2	434	217.0
6/IIB33 +	1	223	223.0
126/IIB44 +	1	276	276.0
86/IIB54 +	1	291	291.0
Total:	186	7668	41.2 vv./marginal letter
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"			

Many of the MSS in the above table are unremarkable visually; perhaps this is the reason that many are not particularly well-preserved either. Such is the case with the MSS highlighted in reddish brown, i.e., the “Oriental” script MSS. None have extant colophons.

Of the MSS with a probable provenance, we have S (N. Africa?), IIB54 + (N. Africa), IIB1011 (Italy?), IIB8 + (Egypt), IIB128 (Egypt), IIB20 + (Jerusalem), G18 (Jerusalem), C (Jerusalem), and IIB17 + (Tiberias). Missing from the table are most MSS with Tiberian script. Is this an accident? Out of the 32 corpus MSS categorised as possessing Tiberian script, only two can be found on the present table. I have argued elsewhere that Tiberian script MSS, as a general rule, did not use the marginal letter,⁴²⁹ and this appears to be borne out in the database attestations as well. Moreover, the use of the marginal letter in Tiberian script MSS is almost always sporadic; it is not a systematically used feature.⁴³⁰ We can conclude,

⁴²⁹ Beiler, “The Marginal *nun/zayin*”, pp. 75–113.

⁴³⁰ Note that corpus MS 20 (L) contains instances of the marginal letter, but its use is confined to the Writings almost entirely. See Martín-Contreras, “The Marginal *Nun* in the Masora of the Cairo Codex of the Prophets”, p. 81. The only Tiberian script MS known to me that uses the marginal letter regularly is IIB61 + (Latter Prophets; not of this corpus).

therefore, that the marginal letter, whatever its origin, had, by the 11th century, generally ceased to be used in Tiberias and by scribes best positioned to emulate that scribal tradition.⁴³¹

6.6.2. Marking ‘15x’ (יָהּ, הָּ, and וּ)

In most database instances, there is a single method for marking Mp numerals, viz., the use of alphabet letters according to their corresponding numeric values (e.g., בּ ‘2x’).⁴³² Differences in Mp numeral marking arose in the Masorah, however, when numerals began similarly to the incipient letters of the name of God: הָּ ‘15x’ could be mistaken for an abbreviation of יהוה ‘the Lord’. The sanctity of the combination of these two letters for many scribes also meant that another means for expressing ‘15x’ needed to be sought.

(1.) One common solution was to reverse the order of the two letters (יָהּ). This practice is well attested already in the earliest corpus examples and is the dominant practice of the period. A secondary method, already evident ca. 1000 C.E., was to write וּ (for this secondary method, see below).

Not all *masranim* were equally troubled by this problem, however. Some even write הָּ consistently. Are these *masranim* Karaites? Other *masranim* show a marked preference for the reverse order, יָהּ, but occasionally slip up and write הָּ instead. The following table summarizes the use of יָהּ in the database, alongside any instances of הָּ or וּ that may also be present.

⁴³¹ Consonant with this observation is Ofer’s position (*The Masora*, pp. 89–91) where the marginal letter is understood to predate the vocalisation and cantillation signs. Once these signs came were accepted, the letter was no longer needed, and fell into disuse.

⁴³² Excepting, of course the well-known use of לָּ ליתא דכותיה ‘there is none like it’) in place of אָּ to indicate ‘1x’.

Table 6.6.2. The use of ከ and ከ in corpus MSS⁴³³

MS	Instances with ከ (red = when ከ is the dominant method)	Instances with ከ	Comments/ Occurrence of ከ
1/IIB38 +	IIB38, pp. 19, 36 (2x), 48, 53, 100, 101	none observed	
2/IIB79 +	IIB79, pp. 21, 35 (2x)	none observed	
17/IIB138 +	IIB138, pp. 9, 19, 21, 38, 76, 78, 79	none observed	
19/IIB8 +	IIB8, pp. 50, 115, 117	IIB8, pp. 18, 33, 49, 118	
22/IIB13 +	IIB13, p. 284	IIB13, pp. 32, 102, 105 (2x), 106	
23/IIB18	pp. 23, 27, 36, 64	pp. 66, 182	
32/IIB56 +	IIB56, pp. 41, 223	IIB56, pp. 55, 91, 218, 221	
34/IIB63 +	IIB63, pp. 27, 52, 62, 210, 212	none observed	
39/IIB50 +	IIB50, pp. 8, 20, 51, 54, 55, 144	IIB50, p. 27	
40/S	pp. 6, 8 (2x), 24 (2x), 132 (2x), 135, 136	p. 199	
48/IIB35 +	IIB35, pp. 12, 21, 33, 49, 160	none observed	
49/IIB43 +	IIB1386, p. 5	IIB43, pp. 7, 25, 26, 41	
50/WP	f. 116v	ff. 19r (2x), 23r, 33v, 79r, 80v, 81r	
53/IIB1270	p. 8	none observed	minimal Mp
58/IIB1160 +	IIB1286, p. 14; IIB1160, pp. 35, 38, 60, 100	none observed	
60/S1	p. 21 (2x)	p. 206	Also contains ከ: pp. 45, 53, 54, 65 (2x), 319
69/IIB1285 +	IIB1474, p. 6	none observed	minimal Mp
71/IIB94 +	IIB94, p. 27	IIB94, pp. 13, 15, 29 (2x), 42, 50, 51, 52, 53, 58, 64	
80/C	pp. 46, 47	Pp. 19, 20, 30, 33, 35, 38, 43, 47, 103, 189	
81/IIB51 +	IIB51, pp. 90, 123	IIB51, pp. 27, 33, 54, 126, 127	

⁴³³ The data is drawn from two sources: the database and the perusal of > 50 pages from each manuscript. The results are not exhaustive, but likely to be indicative.

83/IIB52 +	IIB52, p. 58, 65	none observed	Also contains ם: IIB52, pp. 24, 34 (2x), 48, 50
84/IIB27 +	IIB149, p. 11; IIB27, pp. 11, 87, 92	IIB27, pp. 18, 90	
90/IIB123 +	IIB123, pp. 26, 29, 30, 38, 67	none observed	
127/IIB48	p. 62	none observed	minimal Mp
131/IIB17 +	IIB17, pp. 29, 67	IIB17, pp. 29, 42, 44, 49, 63, 68, 152, 154	
154/IIB19 +	IIB19, pp. 33, 39, 161, 518	IIB19, pp. 16, 23, 159	
156/T3	ff. 7v, 9r, 14r, 55v, 56r, 57r	f. 55v	
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"			

From the table data it seems clear that *masranim* were not wholly consistent in the writing of 15x. Likely this was not judged to be the sort of “error” that required correction. The inconsistency also may be attributable to the work of several *masranim*, as appears to be the case in IIB17 +.⁴³⁴

When one examines the MSS that clearly favour ם (MSS marked in red in Table 6.6.2a, col. 2), it becomes apparent that such MSS are likely to be either “Oriental” or near-Tiberian. There is a single Tiberian script MS that uses ם as the dominant method; no proto-Sephardi script manuscript whatsoever was observed to use ם.

As regards a locus for the use of ם, much remains speculative. None of the table MSS, excepting IIB79 +, contains a reliable colophon. In the Corpus Description (§4.3.–4.5.), suggestions of provenance were made, some stemming from observations made by the current author and some from inferences made in

⁴³⁴ The Mp notes of IIB17 + are often crowded and made to fit around other notes and/or without a sense of methodical placement in the margin. In cases such as these, the presence of several hands seems rather more likely than not—although the oftentimes smudged leaves of IIB17 + make distinguishing the putative hands very difficult.

the colophons. While these suggestions must be regarded with at least some ambivalence, they were made without recourse to the present data, and are therefore helpful to consider.

- IIB38 + : Karaites, Jerusalem,
- IIB123 + : Karaites, Jerusalem,
- IIB79 + : 11th-century Palestinian, Jerusalem,
- T3: *not* Palestine of the 10/11th century,
- IIB35 + : *not* Palestine,
- S: N. Africa, and
- IIB1160 + : N. Africa.

These data suggest that the use of ֿ to write ‘15x’ was generally not a practice of Tiberias. Simultaneously, one cannot attribute the use of ֿ to Karaite *masranim*—such may be the case, but the data are far from unanimous.

(2.) A second solution to avoid writing the incipient letters of the name of God was to mark ֿ for ‘15x’, i.e., 9 + 6 instead of 10 + 5. The practice can be seen as early as ca. 1000 C.E. in the corpus examples; there are non-corpus examples known to us from as early as the second half of the 10th century.⁴³⁵ The marking of ֿ eventually became the *de facto* method for all marking of 15x (e.g., European

⁴³⁵ For the earliest examples of ֿ known to me, see CUL T-S K2.25, P.1r (second half of 11th c.) and the classmark match of CUL T-S NS 98.17, CUL T-S AS 144.191, CUL T-S AS 144.192, and ENA 3826.6 (second half of 10th c.). Many thanks to Nadia Vidro for pointing me to these examples. For further, potential examples of early usage, compare the classmarks examined by Vidro, “Calendar Fragments as a Tool for Palaeography”, available at <https://www.lib.cam.ac.uk/collections/departments/taylor-schechter-genizah-research-unit/projects/calendar-fragments-tool#1150%20CE> (accessed June 2023).

Bible MSS) and continues to be used in certain religious settings until the present day.

Table 6.6.2b. records instances of ם in corpus MSS. First, database instances were assembled, and then additional leaves of relevant MSS examined, particularly in cases where the usage distribution of ם seemed unclear (e.g., was the hand that wrote ם primary or secondary?). The present instances record the corpus MSS known to me that use ם, although it is assumed that at least a few additional MSS with instances of ם could be found by working one's way systematically through the 112 corpus MSS.

Table 6.6.2b. Instances of ם '15x' in corpus MSS			
MS	Date	Instances with ם (not exhaustive)	Instances with ה״ and/or ה״ (not exhaustive)
3/IIB41 +		pp. 23, 28, 41 (IIB41).	With ה״ (IIB41, p. 52). With ה״ (IIB41, p. 56).
29/IIB65 +	1021/2 C.E.	p. 40 (IIB59)	With ה״ (IIB65, pp. 34, 43, 52, 79; IIB59, pp. 38, 41, 236).
37/IIB86 +	11–12th cent.	pp. 87, 112 (IIB86)	With ה״ (IIB86, pp. 27, 64). With ה״ (IIB86, pp. 7, 17, 47, 49, 52, 65, 114).
47/IIB124 +	946–1046 C.E.	pp. 31, 56, 86, 125 (IIB124, microfilm A)	With ה״ (IIB124, pp. 18, 30, 41).
60/S1	ca. 1200 C.E. (secondary additions)	pp. 45, 53, 54, 65 (2x), 221, 319	
70/M88	mid-11th cent.	pp. 22, 26, 64, 102	
76/IIB90 +	12th(?) cent.	p. 56 (IIB90)	
78/IIB1180 +		p. 8 (IIB1180)	With ה״ (IIB1211, p. 14; IIB1235, p. 6).
83/IIB52 +	1196 C.E.	pp. 24, 34 (2x), 48, 50	With ה״: (IIB52, pp. 58, 65)
86/IIB54 +	ca. 1000 C.E.	pp. 8, 19, 22, 108 (IIB54)	
138/V448	ca. 1100 C.E.	ff. 12r, 100r	
151/IIB1008 +	ca. 1000 C.E.	pp. 30, 50, 55 (IIB1008)	
158/R3	1106 C.E.	f. 30v	
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"			

In the above table containing 13 MSS, there is a single instance where a Tiberian MS was found to use ֿו (MS 29/IIB65 +). Further examinations of ca. 50 pp. of IIB65 + yielded multiple instances of ֿה but no more instances of ֿו . Was this ֿו perhaps a secondary insertion?

It is clear that secondary insertion applies to MS 60/S1: the use of ֿו appears to have been the work of the second Masorete (ca. 1200 C.E.).⁴³⁶

The use of ֿו in other early MSS is more difficult to discount. IIB54 + and IIB1008 + , both early proto-Sephardi script MSS, regularly use ֿו . In the case of IIB1008 + , the use of ֿו appears to have been original. With IIB54 + there are instances of secondary Mp additions that involve ֿו , but ֿו can also be found on the putatively original Mp notes.⁴³⁷ Thus, the use of ֿו in both of these MSS appears to have been well-established from initial composition.

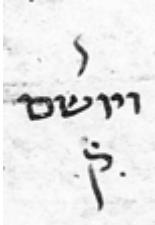
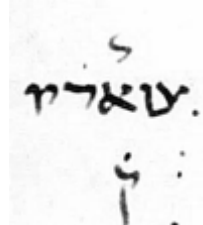
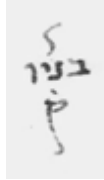
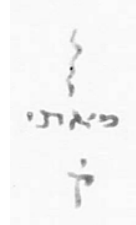
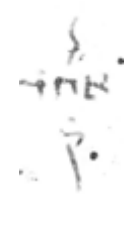
The MSS from Table 6.6.2b. appear to be localisable. Without recourse to the present data, it was noted in the Corpus Description (§4.3.–4.5.) that eight of the MSS presently under consideration, namely IIB41 + , IIB86 + , IIB124 + , IIB90 + , IIB1180 + , IIB54 + , and V448, and IIB1008 + , contain features that could place them in N. Africa. These features include:

- proto-Sephardi script (IIB124 + , IIB54 + , IIB90 + , IIB1008 +)

⁴³⁶ Based upon the research of Yosef Ofer, who is preparing a critical edition of S1's Masorah; Ofer, personal correspondence, June 2023. Note that Ofer holds that the second Masorete of S1 acted in the 11th century; I have followed the carbon-14 dating in an attempt to be non-controversial.

⁴³⁷ Whether or not an Mp note is judged to be primary or secondary is somewhat subjective. In the present instance, the pronouncement does not appear difficult due to the awkward placement of some of the Mp notes.

- the use of dotting for left justification (single dot, IIB1008 + ; double dot, IIB41 + , IIB54 + , IIB86 + , IIB90 + , V448; triple dot, IIB1180 + ; varying numbers of dots, IIB124 +)⁴³⁸
- the use of a dot within a circle when marking Mm closure (IIB54 + , IIB86 + , IIB90 +)
- the placement of *sof pasuq* markers at the extreme left margin of the text when writing the Song of Moses (IIB41 + , V448)⁴³⁹
- the use of an ornamental flourish above a *qere* note (IIB54 + , IIB41 + , IIB1180 + , IIB90 + , IIB124 +), as the following examples show.⁴⁴⁰

Fig. 6.6.2a. Ornamental flourish preceding <i>qere</i> note				
IIB54, p. 25	IIB41, p. 46	IIB1180, p. 5	IIB90, p. 35	IIB124, p. 27
				

⁴³⁸ The use of dotting, especially double dotting, for left justification is not limited to Sephardi type MSS, but is a common feature of them. See §6.6.4.

⁴³⁹ Unfortunately, neither IIB54 + nor IIB1008 + , although both of the Torah, contain the Song of Moses. IIB1180 + contains the Former Prophets.

⁴⁴⁰ Marc Michaels, personal correspondence, June 2023, suggests that this flourish may be a cursive *nun sofit*. This is a worthy consideration, except that one is then required to explain how a single cursive letter should appear in an otherwise square script environment. A possible answer, again pointed out to me by Michaels, is CUL T-S 10H7.4, which Michaels tentatively dates to the end of the 11th century. Another MS to use this flourish is IIB33 + , where the mark also occurs with non-*qere* Mp notes (cf. IIB33, pp. 71, 82, 90). I examined every leaf of IIB33 + for the writing of 15x but found no examples.

As the just-cited, proto-Sephardi script MSS and MSS similar to them make clear (8 MSS altogether), the distribution of v cannot be attributed to accident. Rather, it appears to be a feature that was deployed first in N. Africa before spreading elsewhere.

Of the 13 MSS from the above table, there are three that we have not yet discussed: IIB52 + , R3, and M88. IIB52 + was written in 1195 C.E., this late(er) date restricting the number of conclusions that might be drawn.⁴⁴¹ R3 is an Italian MS from 1106 C.E.; it is therefore not surprising that v was used. The placement of the M88 is more difficult. It was suggested in the Corpus Description that M88 was composed somewhere to the east of Palestine, a suggestion that sits uncomfortably with the present data.

6.6.3. Marking '13x' (g and v)

Apart from the marking of '15x', the reverse order of numerals can also occur with '13x'. The reason for this arrangement is unclear. Perhaps the reader might confuse *gimel* with *vav* and read v , which could be understood as an abbreviation for the name of God.⁴⁴² This is unlikely to be the explanation, however, as there are no instances whatsoever of v in the corpus, this despite the fact that v seems far more likely to be confused with the name of God than g . In much the same way, MSS of the corpus write '18x' as h , with only one example of h , despite the obvious potential confusion of *het* with *he* in the small lettering of the Masorah.⁴⁴³ The

⁴⁴¹ Nor is it clear where IIB52 + was composed. Is it N. African?

⁴⁴² In corpus MSS, the usual abbreviation of the name of God is with either two or three *yods* (approximately y or yy respectively) or less commonly as y .

⁴⁴³ And the single example may be a mistake and/or a poorly written *he*. It is found in MS 137 (IIB10 +) at Exo 14.8: $\text{וּבְנֵי יִשְׂרָאֵל, ח}$ 'and the sons of Israel, 18x'. The most common Mp numeral

inverse order of *yod* and *gimel* does not appear to have a theological motive, therefore.

An alternate explanation has been suggested by Bin-Nun, who thinks that scribes wished to avoid confusion with יש גורסים ‘there are those who hold the view’.⁴⁴⁴ This is as plausible an explanation as any, although it does not explain why the form יג would occur sporadically in some MSS. For example, IBibl.68 marks חזקיה, the short form of ‘Hezekiah’, as occurring יג, only to reverse the order of the letters two verses later and write יג. Similarly, IIB82+ marks קדש ‘holy’ as יג חס ‘13x defective’ in one verse and then as יג חס in the very next verse.

recorded here is ‘15x’, although database instances also include one instance of ‘19x’, and two instances of ‘14x’.

⁴⁴⁴ Boris Kleiner, personal correspondence, July 2023. Kleiner based his suggestion upon a discussion he had with Adam Bin-Nun. Yosef Ofer, personal correspondence, October 2023, kindly pointed out to me that Ma’agarim, the online database of The Historical Dictionary Project of the Hebrew language, also has several examples that show that the reverse order יג became a standard way of writing in a few MSS—in other words, a scribal attempt towards clarity that developed into a habit. I was unsuccessful in locating the instances mentioned by Ofer, however, when searching ‘יג’. See <https://maagarim.hebrew-academy.org.il/Pages/PMain.aspx> (accessed November 2023).

Fig. 6.6.3a. Instances of גי and יג on the same page

IBibl.68, p. 205



IIB82, p. 113



One might also consider the possibility of variation for purely stylistic reasons. But this hypothesis is similarly susceptible to critique: why should stylistic variation only occur with the גי/יג Mp numeral grouping? In light of these examples, it is difficult to offer an explanation for the use of גי.

Table 6.6.3a. provides corpus examples of גי; instances of יג, if observed, are recorded in the rightmost column.⁴⁴⁵

⁴⁴⁵ Also observed is one instance of טג (IIB62, p. 24), an MS which has every appearance of being of 11th-century, Egyptian provenance.

Table 6.6.3a. Corpus examples of marking '13x' in the Mp					
MS	Reference	Page #	Mp string	Mp comment	Instances of גי (not exhaustive)
5/IIB20 +	Exo 16.20	p. 121 (IIB20)	עלהם	גי חס	pp. 16, 31, 56 (2x), 65 (IIB20)
41/IIB24 +	Jud 19.23	p. 51 (IIB24)	ויצא	גי חס	none observed
	1Sa 17.18	p. 97 (IIB24)	תביא	גי	
	2Ki 18.14	p. 59 (IIB135)	חזקיה	גי	
	2Ki 18.14	p. 59 (IIB135)	חזקיה	גי	
	2Ki 18.16	p. 59 (IIB135)	חזקיה	גי	
	2Ki 18.16	p. 59 (IIB135)	חזקיה	גי	
	2Ki 18.18	p. 59 (IIB135)	אלהם	גי חס בספ	
46/IIB1.68	2Ki 18.14	p. 205	חזקיה	גי	pp. 21, 26, 28 (2x), 31, 35 (2x), 39, 49
87/IIB82 +	Gen 27.28	p. 30 (IIB82)	ויתן	גי רפ	pp. 58 (2x), 80, 92, 113 (IIB82)
	Gen 36.17	p. 41 (IIB82)	ואלה בני	גי	
	Gen 36.18	p. 41 (IIB82)	ואלה בני	גי	
	Gen 36.25	p. 41 (IIB82)	ואלה בני	גי	
	Exo 23.17	p. 65 (IIB82)	יראה	גי	
	Exo 23.19	p. 65 (IIB82)	תביא	גי	
	Lev 21.8	p. 113 (IIB82)	קדש	גי חס	
49/IIB43 + ⁴⁴⁶	2Sa 10.16	p. 13 (IIB43)	ויצא	גי חס	p. 8 (IIB43)
	2Sa 13.4	p. 19 (IIB43)	בבקר בבקר	גי	
	2Sa 13.9	p. 19 (IIB43)	לאכול	גי מל	
	2Sa 13.18	p. 20 (IIB43)	ויצא	גי	
	2Sa 17.29	p. 33 (IIB43)	לאכול	גי מל	
	1Ki 12.28	p. 46 (IIB43)	אלהם	גי חס בסיפ	

Of the five MSS in the table, only IIB82 + has a clear colophon (late-10th–11th-century Palestine/Egypt). IIB43 + is visually quite similar to IIB8 + (early–mid-11th century Egypt), which could likewise place IIB43 + in Egypt. IIB20 + was proofread in Jerusalem, and both IIB20 + and IIB24 + are Jerusalemite script MSS (§4.2.3.). None of these indications, excepting that of IIB82 + can be considered

⁴⁴⁶ IIB8 +, visually similar to IIB43 +, was checked for instances of גי. Within the first 50 pp., none were found; instances of גי can be found on pp. 27 (2x), 32, 33, 42, 49 (IIB8), however.

proof positive localisations, but the present collocation is nonetheless unanimous:

the use of ם for '13x' appears to occur in MSS of Egypt/Jerusalem.

6.6.4. Left Justification

The issue of left justification is surprisingly complex, there being a number of means by which a scribe could provide a visual straightedge to the left margin.⁴⁴⁷ Methods include incipient letters of the next line (either partial or fully formed), non-incipient partial letters, slash marks, dots, non-incipient full letters, gapping of words, and letter dilation.⁴⁴⁸ Complicating the matter, in most MSS the scribe would use more than one justification method. In addition, not all scribes were equally keen to keep the left margin straight; with some MSS the left margin tends to be ragged while with other MSS the margin is carefully preserved.⁴⁴⁹ Table 6.6.4a. provides an overview for manuscript specific methods of left justification. The data are based upon a sampling of ca. 10 pages from each manuscript.⁴⁵⁰

⁴⁴⁷ Beit-Arié, *The Making of the Medieval Hebrew Book*, pp. 119–120, places great emphasis on the value of left justification patterns when localising MSS.

⁴⁴⁸ Incipient letters, partial letters, and gapping were already in use at the time of the Dead Sea Scrolls. See Tov, *Scribal Practices and Approaches*, pp. 104–108 (N.B.: a non-authorised PDF of the book lists the page range as 100–101). For a full account of the many means of left justification available to Hebrew scribes, not all of which are relevant in the current discussion of Bible MSS, see Beit-Arié, *Hebrew Codicology*, Chapter 7.

⁴⁴⁹ Although some scribes may have been aware of, e.g., b. *Menaḥot* 30a–30b, where the number of letters transgressing the margin is narrowly prescribed, it is exceedingly obvious that most corpus scribes did not take this *baraitha* to heart—nor were they required to do so, these being codices rather than scrolls.

⁴⁵⁰ Although ten pages is a small sample size for a codex of several hundred pages, from what I have observed this amount appears to be representative, the only exception being when there is more than one scribe involved in the production of the MS.

Table 6.6.4a. Patterns of left justification in corpus MSS

(in red = primary justification method for that MS)

MS	incipient letters	non incipient partial letters	slash mark	dot(s) (# in brackets = usual # of dots used)	non incipient full letters	letter dilation	gapping ⁴⁵¹	ragged left margin ⁴⁵²
1/IIB38 +	yes	yes						
2/IIB79 +		yes	yes					yes
3/IIB41 +	yes	yes		yes (2)		yes	yes	yes
4/IIB128	yes	yes		yes (2)				
5/IIB20 +				yes (1)	yes	yes		
6/IIB33 +	yes	yes				yes	yes	
7/IIB46 +	yes	yes				yes		
8/IIB97 +			yes			yes		
10/A	yes	yes						
12/IIB96 +		yes		yes (2)				
13/IIB37 +		yes						
14/IIB74 +		yes		yes (1, 2)				
15/IIB80 +	yes	yes		yes (2)				
16/IIB73 +		yes		yes (1, 2)				
17/IIB138 +	yes	yes		yes (1)	yes	yes		
18/IIB62 +	yes	yes		yes (1)				
19/IIB8 +	yes	yes		yes (1)		yes		
20/L	yes ⁴⁵³	yes		yes (1, 2)				
22/IIB13 +	yes	yes						
23/IIB18	yes					yes	yes	yes
24/IIB137 +	yes	yes		yes (1)		yes	yes	
26/IIB162 +	yes	yes				yes		
27/IIB84 +		yes						yes
28/IIB142	yes	yes		yes (1, 2)				
29/IIB65 +				yes (1)				yes
30/B	yes	yes		yes (2, 3)				yes
31/B2	yes					yes ⁴⁵⁴	yes	
32/IIB56 +		yes		yes (1)				yes
33/IIB77 +		yes						
34/IIB63 +		yes	yes				yes	
35/IIB39 +		yes		yes (1, 2)				

⁴⁵¹ Gapping = ‘over spacing’, see Beit-Arié, *Hebrew Codicology*, p. 455.⁴⁵² An imprecise definition—as any pronouncement of “ragged” is obviously a judgement call, I have limited identifications of this feature to MSS where it seems especially pronounced *or* to instances where other left justification strategies are infrequent.⁴⁵³ Instances of incipient letters in L appear confined to letters that are near complete, i.e., lacking one or two strokes, rather than fully formed.⁴⁵⁴ Although not listed on the table, B2 sometimes places the final words of a line at an angle to help them fit into the space. This practice is characteristic of MSS from the 14th century and onwards, and thus mostly out of the purview of the present corpus, although the practice can be observed as early as 1023 C.E.; see Beit-Arié, *Hebrew Codicology*, p. 456.

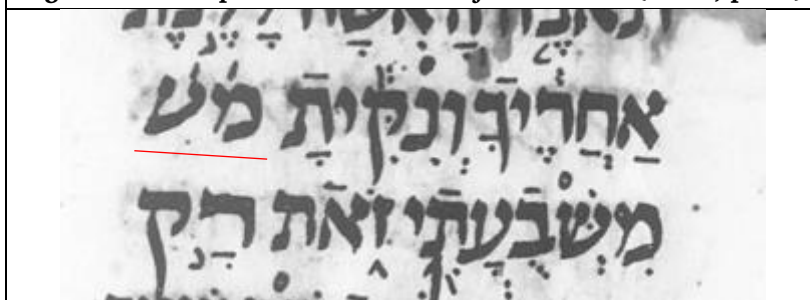
MS	incipient letters	non incipient partial letters	slash mark	dot(s)	non incipient full letters	letter dilation	gapping	ragged left margin
36/IIB26 +		yes		yes (1, 2)	yes			
37/IIB86 +	yes			yes (2)		yes	yes	yes
38/IIB99 +		yes		yes (2)				
39/IIB50 +	yes			yes (1)	yes	yes		
40/S	yes	yes						
41/IIB24 +	yes	yes		yes (2)	yes	yes		
42/IIB70 +		yes					yes	
43/IIB1281 +				yes (3)	yes	yes		
45/IIB1167	yes	yes				yes		
46/IIB1.68	yes	yes	yes			yes		yes
47/IIB124 +	yes	yes		yes (2, 3)				
48/IIB35 +			yes	yes (1)			yes	yes
49/IIB43 +	yes	yes		yes (1, 2)		yes	yes	
50/WP	yes	yes	yes	yes (1)	yes	yes		
51/WP2		yes						
53/IIB1270	yes	yes		yes (1, 2)		yes		
54/IIB1233 +	yes			yes (1)	yes	yes	yes	
55/Or. 9880		yes		yes (2)	yes			
56/IIB1243 +		yes		yes (2)		yes	yes	
57/IIB927	yes		yes			yes	yes	yes
58/IIB1160 +	yes	yes	yes	yes (1)			yes	yes
60/S1				yes (2)		yes	yes	yes
62/IIB206 +	yes	yes			yes		yes	
65/IIB207 +	yes	yes				yes		
66/L17		yes		yes (1, 2)	yes			
67/IIB134 +		yes						yes
69/IIB1285 +	yes	yes		yes (1)		yes	yes	
70/M88			yes					yes
71/IIB94 +	yes	yes	yes					yes
72/IIB1169		yes		yes (1, 2)				yes
74/IIB71 +	yes	yes		yes (1)		yes		
76/IIB90 +				yes (2)		yes		
77/IIB1275		yes						
78/IIB1180 +	yes	yes		yes (2, 3)			yes	yes
79/IIB55 +		yes						
80/C	yes	yes		yes (1)	yes			
81/IIB51 +		yes		yes (1)				yes
82/IIB1003 +		yes		yes (1)			yes	yes
83/IIB52 +	yes	yes	yes	yes (2)		yes	yes	
84/IIB27 +	yes	yes						yes
85/IIB15 +	yes			yes (3)			yes	yes
86/IIB54 +				yes (1-3)				yes
87/IIB82 +	yes	yes		yes (1-3)	yes	yes		yes
88/IIB127 +		yes		yes (2)		yes	yes	
90/IIB123 +	yes	yes		yes (1, 2)				yes
91/IIB68 +		yes				yes		

MS	incipient letters	non incipient partial letters	slash mark	dot(s)	non incipient full letters	letter dilation	gapping	ragged left margin
92/IIb996 +	yes	yes				yes	yes	
93/IIb1014 +	yes	yes						yes
94/IIb995		yes				yes	yes	
95/IIb994 +	yes	yes		yes (1, 2)				yes
97/IIb141	yes	yes						
98/G6	yes	yes		yes (2)		yes	yes	
99/IIb991 +				yes (1, 2)				
126/IIb44 +	yes				yes	yes	yes	yes
127/IIb48		yes	yes	yes (1, 2)	yes	yes		
128/IIb60 +		yes		yes (1, 2)				
131/IIb17 +		yes		yes (1)			yes	
137/IIb10 +		yes	yes					
138/V448			yes	yes (2)		yes	yes	
139/IIb159 +	yes	yes	yes	yes (3)	yes	yes		yes
140/T-S A4.13		yes						yes
141/T-S A5.3				yes (1)				yes
142/T-S A5.10		yes		yes (2)		yes		
143/T-S A5.17	yes	yes		yes (1, 2)				
144/IIb193		yes		yes (1)		yes	yes	
145/IIb1011		yes		yes (1)		yes	yes	yes
146/IIb999 +	yes			yes (2, 3)		yes		
147/IIb989	yes	yes		yes (1)	yes			
148/IIb88 +		yes	yes	yes (2)			yes	
149/IIb988 +	yes	yes		yes (2)		yes	yes	
150/IIb289		yes		yes (1-4)				yes
151/IIb1008 +				yes (1, 2)				yes
153/IIb1009 +	yes	yes		yes (2)			yes	
154/IIb19 +			yes	yes (1)	yes	yes		
155/IIb67 +	yes	yes						
156/T3		yes	yes				yes	
157/IIb1.54		yes						yes
158/R3	yes	yes		yes (2)		yes	yes	
160/G18	yes			yes (1, 2)	yes	yes		
161/G27		yes		yes (1, 2)				
162/IIc1 +		yes		yes (2)	yes			
Totals (of 112 MSS):	12/57 MSS	42/89 MSS	3/18 MSS	8/73 MSS	9/20 MSS	14/47 MSS	5/35 MSS	19/35 MSS
Script key: Tiberian; near-Tiberian; Jerusalemite; near-Jerusalemite; proto-Sephardi; Italian; Yemenite; "Oriental"								

Several patterns in Table 6.6.4a. are worthy of note.

(1.) Incipient letters: Here we are referring to part words that are written in the line prior to where they appear in full, for the purpose of filling up the line. These letters are sometimes fully formed and sometimes partial. If several letters in length, the string often begins with a full letter(s) and ends with a partial letter(s). Some scribes place dots above the incipient letters to prevent any confusion with an actual word. Fifty-eight MSS use this method at least some of the time, in MSS as early as A (early 10th century), B (early 10th century), IIB124+ (late 10th century?) and as late as IIB52+ (1195 C.E.).

Fig. 6.6.4a. Incipient letters for left justification (IIB46, p. 10)



In Beit-Arié's estimation, incipient letters were the culmination of left justification practice in the 10/11th centuries, although this claim is not obvious in the present corpus.⁴⁵⁵ Indeed, it is easy to see how it might occur naturally, viz., if a scribe was unsure if a word might fit, he had only to try. If the word fitted, well and good. If the word did not fit, he simply left off when he reached the left margin and dotted above the letters, as deemed necessary, to indicate that they were fillers.⁴⁵⁶

⁴⁵⁵ Beit-Arié, *Hebrew Codicology*, p. 472.

⁴⁵⁶ Excepting, one would assume, instances that began with the letters of the name of God. Nehemia Gordon, email correspondence, December 2023, recalls observing rare instances where incipient letters of the name of God were used for line fillers, but did not note in which MSS these examples occur.

(2.) Partial letters: Codices with Tiberian script overwhelmingly prefer the use of partial letters for left justification. There are only five exceptions to this general rule in Table 6.6.4a. Of the five exceptions moreover, all but IIB65 + (11th century, Babylonia) also employ partial letters as a secondary option. Thus, this feature is to be expected in Tiberian script MSS.

The most commonly abbreviated letter is *aleph*,⁴⁵⁷ with a secondary preference for *lamed*.⁴⁵⁸ Some MSS also use a partial *shin*, *mem*, or *hey/het*—and there are doubtless other letters that are used on occasion.

Fig. 6.6.4b. Examples of non incipient partial *aleph* and *lamed* for left justification
(IIB26, microfilm A, p. 42)



⁴⁵⁷ The use of an *aleph* as line filler may have a long history. Cf. Peshier Habakkuk, and the X-like *aleph* that occurs there as filler: <http://dss.collections.imj.org.il/he/habakkuk> (accessed September 2023). For a fuller discussion of the use of this *aleph* in Second Temple period MSS, see Beit-Arié, *Hebrew Codicology*, p. 454, n. 13.

⁴⁵⁸ Beit-Arié, *Hebrew Codicology*, p. 453, states that *aleph* and *shin* are the most common truncated letters used, but does not provide further details regarding the actual breakdown.

It should also be noted that the appearance of partial letters in Tiberian script MSS is, in most cases, a frequent occurrence. For example, for some of the MSS in Table 6.6.4a., determining which justification practice was dominant was not immediately apparent; perhaps several methods occurred with roughly the same frequency or perhaps justification itself was minimal. Not so with Tiberian script MSS. With these MSS, determining the type of left justification is simple; it is not unusual for five to eight lines in a single column to be justified using non incipient partial letters.

Of course, not all MSS that prefer partial letters over other left justification patterns possess a Tiberian script. As shown in the table above, 14 MSS with script types other than Tiberian left justify using similar patterns to the Tiberian MSS. Where were these MSS written? Unfortunately, none of these MSS contains colophons to aid our identification of where they were written. On appearance, though, the bulk of these MSS appear to have been written in Egypt/Palestine, in some cases as much as a century or two *after* the writing of the Tiberian script MSS.

The preference for partial letters (both within and without Tiberian script MSS) may be contrasted with MSS that originated (or are thought to have originated) from places outside of the Palestinian/Egyptian zone: e.g., M88, B, Or. 9880, R3, S1, T3, V448, IIB18, IIB33 +, IIB41 +, IIB54 +, IIB65 +, IIB86 +, IIB90 +, IIB124 +, IIB159 +, and IIB1008 +.⁴⁵⁹ In the aforementioned 17 MSS, the use of partial letters for left justification sometimes occurs, but only infrequently.⁴⁶⁰ Thus,

⁴⁵⁹ Although not of this corpus, cf. also Codex Babylonicus Petropolitanus (St. Petersburg EVR IB.3).

⁴⁶⁰ The above pattern is very strong within the corpus. The single, counter example known to me is S, which I have suggested above as having been composed in N. Africa.

it appears that the use of partial letters as a frequent left justification strategy was a development that began with the Tiberian script before diffusing throughout the Oriental zone more generally.

It is also worth pointing out individual differences between scribes that use partial letters for left justification. In the present corpus there are scribes who appear to have written more than one manuscript. These claims are based upon script similarity and left justification similarity. We will mention only left justification here. These MSS include the following.

- IIB73 + and IIB55 + : These two MSS, the former of the Torah and the latter of the Prophets share non-incipient partial letters abbreviated to the point of being little more than square “dots”. I have not seen this practice elsewhere, at least not to the extent used by this scribe. Also, the use of partial *lamed* is often preferred over the use of a partial *aleph*.
- IIB67 + and IIB77 + : Like the above pair, these two MSS are of different parts of the Bible, the former of the Torah and the latter of the Former Prophets. The partial letters of the two MS are larger, i.e., more typical, in size.
- Aleppo Codex and IIB17 + : This pair has long been noted, and I will add nothing new at present.⁴⁶¹ Partial letters of this pair, like that of MSS IIB67 + and IIB77 + , are larger in size.

⁴⁶¹ See Glatzer, “מלאכת הספר של כתר ארם צובה”, pp. 228–229. Edna Engel has been quoted as averring that IIB30 (not of the corpus) was written by Solomon b. Buya‘a, the scribe of A (see Gordon, “Blotting out the Name, part 2”, p. 135, n. 166). In my humble opinion this claim is unlikely to be correct. There is also IIB61 + , which has a number of features found in IIB17 + , and certainly deserves a closer look. For the attribution of IIB61 + to Solomon b. Buya‘a, see Beiler, “A Bible Codex of the Latter Prophets Written by Solomon b. Buya‘a: St. Petersburg EVR II B 61 + ”, forthcoming.

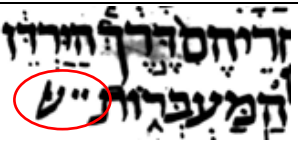
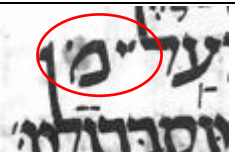
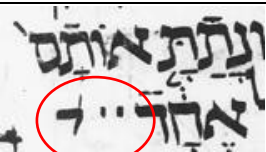

- IIB127 + and IIB34 (IIB34 not of corpus): The former MS is of the Torah and the latter of the Writings. These codices, apart from their striking visual similarity, alternate between partial letters and dots when left justifying.
- The Samuel b. Jacob codices (L, IIB60 + , L17, G27, and IIC1 +): These codices use four non-incipient partial letters for left justification, namely *aleph*, *lamed*, *shin*, and *mem*. The first two are common in Tiberian script MSS, as already adumbrated. *Shin*, although attested elsewhere (e.g., IIB39 +) is less frequent, and *mem* does not occur elsewhere with regularity, to the best of my knowledge. As these four letters can be arranged to spell Samuel (שמואל), Phillips has suggested that presence of these letters may not be accidental in codices written by Samuel b. Jacob.⁴⁶²

While Phillips's suggestion is possibly a good one, more work is required to confirm. This left justification strategy is so subtle that one wonders if it is indeed intentional. For example, the distribution of the four letters is not even. *Aleph* predominates, particularly in L. One can flip through many leaves of L before finding a non-incipient partial *mem*, for example, whereas a non-incipient partial *mem* is a common occurrence in the remaining four SbJ codices. Is this an indication that SbJ's left justification strategy changed over time, and if so, which method came first?

Another quirk that sets the left justification of some SbJ codices apart from the "standard" Tiberian script codex is the use of two dots (on occasion, a single

⁴⁶² E.g., Phillips, "A New Codex from the Scribe behind the Leningrad Codex", p. 14. The four letters can also be arranged to spell 'left' (שמאל).

dot) in conjunction with a *shin*, *mem*, or *lamed*—but not *aleph*. Other codices may use both partial letters and dots to left justify, but not together on the same line.⁴⁶³

Fig. 6.6.4c. Combination of partial letters and dots for left justification in SbJ codices			
Gottheil 27 (p. 5)	IBibl.80 (p. 39)	IIB60 (p. 35)	IIC1 (microfilm C, p. 16)
			

The pattern is easily noted in IIC1 + , IIB60 + , and G27. I did not observe the pattern in L, however, and was hard pressed to find it in L17.⁴⁶⁴ Once again, did the left justification pattern of SbJ change over time, and if so, which manuscripts predate which?⁴⁶⁵

(3.) Dot(s): The use of dots for left justification does not fit into a single script type, but its use, nonetheless, does not appear accidental.

The lack of categorical “neatness” is attributable, perhaps, to the simplicity of the pattern, viz., it can easily be imagined that scribes could happen upon this method by accident and not only via an inherited tradition. Note how, for example, 73 of the 112 corpus MSS use a dot or dots at least some of the time. Perhaps each

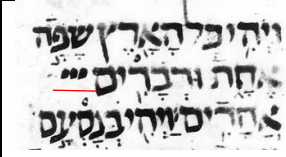


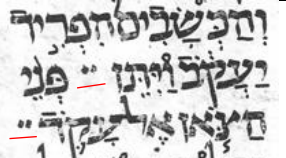
⁴⁶³ B, f. 35v, presents a counter example: two dots are followed by a partial *aleph*. This is far from a dominant practice in B, however, and one should note the occurrence of the dots in conjunction with *aleph*; the SbJ MSS prefer to follow the two dots with a *shin*, *mem*, or *lamed*.

⁴⁶⁴ It is possible that the above example of L17 is not of double dotting but of a less carefully drawn partial *aleph*. While double-dotting certainly occurs in L and L17, it occurs in the way it occurs in other Classic Tiberian script codices: either dots only or partial letters only.

⁴⁶⁵ Of the present five MSS, the only one for which we possess a firm date is L (ca. 1008/9 C.E.). According to CUL T-S 10J5.15, we know that SbJ was still writing Bible MSS in 1021 C.E., and CUL T-S Misc. 35.108 (1032/1035 C.E.) has also been attributed to SbJ. This could imply that the production of L came early in SbJ’s career—although the work required to write, vocalise, and masorete an entire Bible means that it is not the sort of project a near-novice might attempt.

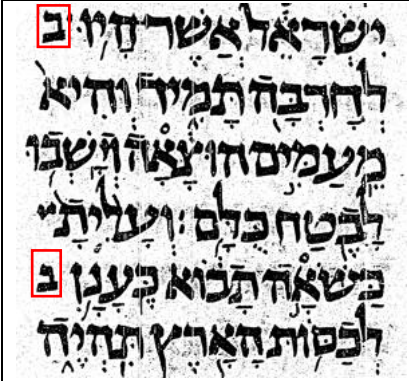
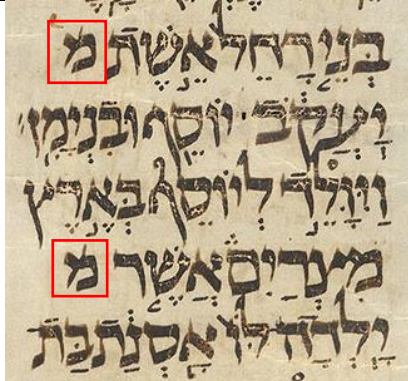
scribe “borrowed” the method from another scribe, but it seems likely that at least some scribes gravitated towards this method due to its simplicity, whether or not other scribes were using it. At the same time, the practice can be seen in the Ashkar-Gilson Torah scroll (7/8th century). This would seem to indicate that the roots of the practice are very old.

Rare are the MSS that prefer the use of dots over other left justification methods, however; in only eight corpus MSS is this method the most common type. Of these eight, three are with proto-Sephardi script, i.e., from N. Africa (IIB54 + , IIB90 + , IIB1008 +), two appear to be from Babylonia (IIB65 + , Or. 9880), and of three we have no clear means to reach an inference (IIB80 + , IIB99 + , IIB991 +). These data suggest that the use of dots is a scribal practice associated with the eastmost and westmost parts of the Oriental zone.

Fig. 6.6.4d. Dots as a means of left justification			
IIB54, p. 4	IIB90, p. 118	IIB65, p. 6	IIB80, p. 13
			

(4.) Non-incipient, full letters: Jerusalemite script MSS prefer to use non-incipient, full letters for left justification, such as *bet* or *mem* (§4.2.3.). Concurrently, it has been suggested that the use of non-incipient, full letters was not used prior to the 11th century.⁴⁶⁶

⁴⁶⁶ See Beit-Arié, Sirat, and Glatzer, *Codices hebraicis*, vol. 1, p. 28.

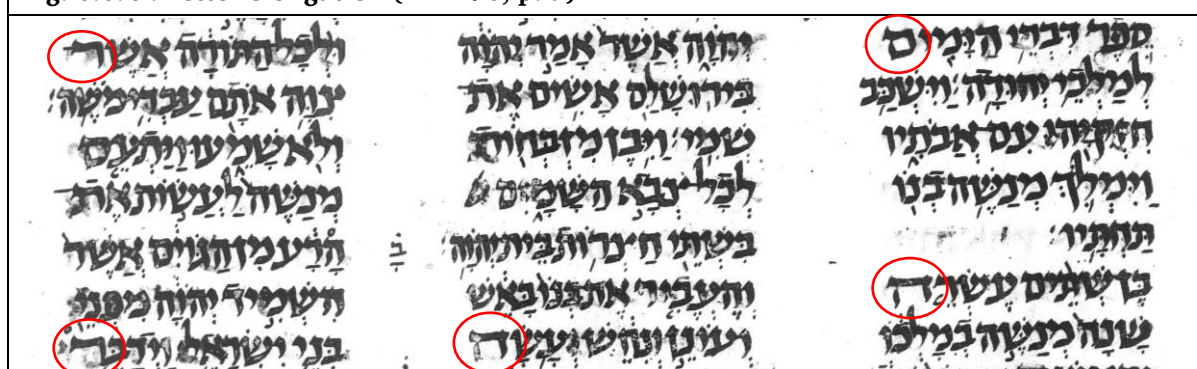
Fig 6.6.4e. Examples of non-incipient, full letters	
Cairo Codex (p. 492)	Washington Pentateuch (f.56v)
	

The use of a fully formed, non-incipient *mem*, observed in only 20 MSS of the corpus, appears to be the dominant left justification method in only nine MSS. Six of these MSS possess a Jerusalemite script, as can be seen in the above two examples.⁴⁶⁷ Of the remaining three MSS not possessing a Jerusalemite script, IIB48, IIB82 +, and IIB1233 +, there is only a colophon only for IIB82 + (late-10th–11th-century Egypt). There is just cause, then, for supposing this to be essentially a feature of Egypt/Jerusalem.

(5.) Letter dilation: Forty-seven MSS use this method at least some of the time. The amount of elongation is seldom equal to 50%. In many cases, the elongation is barely noticeable—unless, of course, one is looking for it.

⁴⁶⁷ The practice of using full, non-incipient letters for left justification in Jerusalemite script MSS extends beyond the present corpus. See Beiler, “Is there a Scribal School to Which the Cairo Codex Belongs?”, forthcoming, where out of a corpus of 19 MSS, all but one MS use this left justification method. These MSS are all part of the Jerusalemite script type (§4.2.3.).

Fig. 6.6.4f. Letter elongation (IIB1270, p. 9)



This method is avoided entirely by the Tiberian MSS and proto-Sephardi MSS,⁴⁶⁸ although other bona fide early MSS, e.g., S1 (10th century), G18 (early 11th century), IIB20+ (early 11th century), use this method on occasion.

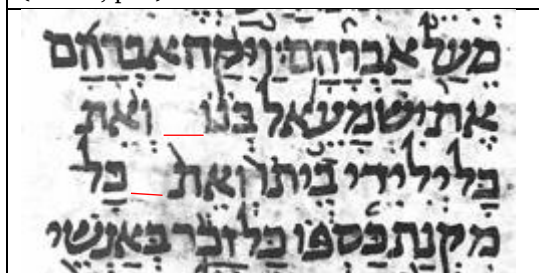
In some case, rather than elongating letters, scribes would cram additional letters into a small space (the opposite of elongation). Because these instances are often subtle still, they were not recorded in the present study.

(6.) Gapping: This is the preferred method of five corpus MSS. According to Beit-Arié, the practice of placing additional space prior to the final word of the line to achieve a better margin was especially noteworthy in Spain;⁴⁶⁹ the proto-Sephardi MSS of the corpus do not show this inclination, however. Nonetheless, gapping was the preferred method of IIB41+, IIB1180+, and V448, three MSS that contain a basket of N. African features (§6.6.2.). Gapping is also the preferred method of S1 (Syria) and IIB995.

⁴⁶⁸ Exception is found with IIB90+, which is unlikely to be earlier than the 12th century. There is also the occasional letter elongation in Tiberian MSS, the sort of thing one might see every 100 pages or so—i.e., it is a most infrequent occurrence.



⁴⁶⁹ Beit-Arié, *Hebrew Codicology*, p. 456.

Fig. 6.6.4g. Gapping for left justification
(IIB995, p. 9)



(7.) Ragged left margin: The margin may appear ragged for several reasons, such as a general lack of neatness on the part of the scribe, or an indifference to (i.e., an unawareness of) this aesthetic ideal. Examples of both can be found in Table 6.6.4a., above. In general, though, MSS that fall towards the “sloppy” side of the spectrum appear to have been written later, while dateable MSS that are otherwise neat in appearance seem to be less conscious of the left margin because excessive attention to this feature had not yet come into vogue.

Fig. 6.6.4h. Examples of ragged left margin as opposed to left justification

IIB79, p. 9 (11th-century Jerusalem)	IIB86, p. 6 (11/12th century?)	IBibl.54, p. 14 (11/12th century?)
		

The general trend towards a straight, left-hand margin can be observed in the corpus, with different manuscript groupings providing various solutions to this perceived problem. In particular, Tiberian script MSS prefer partial letters, while other groupings rely more heavily upon incipient letters, dots, letter dilation, and the like. The present patterns, of course, were in many respects subsumed by extreme letter dilation (cf. later Sephardi and Ashkenazi MSS) and, in other MSS, the practice of writing the final word at an angle to the line to help it fit into the space (cf. Oriental MSS especially of the 13th century and following, and B2 and Yemenite MSS generally).

6.7. Conclusions

As stated in the Introduction, the goal of this thesis is to construct a stemma, if and where possible, of early Tiberian Masoretic Hebrew Bible codices based primarily upon the Masorah parva. The study is intended to complement and externally corroborate classifications based upon palaeography, codicology, and information gleaned from colophons. Arriving now at the Conclusion, we must take stock to see if the data presented have fulfilled the goals that were set forth at the beginning. The following is a summary of some of the leading observations.

(1.) MSS were divided into eight script types (§4.2.). While several of these “scripts” are little more than placeholder names (e.g., “Oriental”) until a more detailed categorisation study could be conducted, Tiberian, Jerusalemite, and proto-Sephardi scripts were shown to largely correspond to the Mp data as set forth in the dendrograms (§6.4.1.–6.4.5.).

(2.) As a general rule, MSS with Tiberian and Jerusalemite scripts are the most likely to be at the centre of the Tiberian Masorah, the Mp notes from these codices being the most widely disseminated of the corpus (§6.3.; 6.4.).

(3.) Of codices long cited by scholars as being of the most important of the Tiberian Masorah MSS, namely, the Aleppo Codex, the Cairo Codex, the Leningrad Codex, Or. 4445, Sassoon 507, and Sassoon 1053, only A finds itself at the centre of the Tiberian tradition (as preserved in the corpus MSS). There are numerous MSS much closer to A, according to the Mp data, than any of the aforementioned remaining five MSS. This has not been noted systematically heretofore.

(4.) There is a cluster of MSS that can be linked to the 11th-century Karaites in Jerusalem. Comparing these MSS against MSS of the same century also written in

Egypt and Jerusalem suggests that Karaites were in possession of a considerable number of model Bible Mp exemplars of the time period. After the First Crusade, however (ca. 1099 C.E.), such Mp rubrics appear to have “democratised”, suggesting that the information in the MSS owned by the Karaites (the Aleppo Codex among them) was disseminated more widely in Egypt than it had been in Jerusalem (§6.3.).

(5.) Babylonian features can be found in a number of corpus MSS (§6.5.5.).

These MSS, although sharing an above average affinity based upon Mp notes, cannot be said to be sufficiently related to share a single Mp rubric. Rather, the importation of Babylonian Masoretic terms and information into these codices appears to have been more ad hoc. Terms such as שלמא ‘full’ were shown to be generally strong indicators of the presence of Babylonian Masorah.

(6.) Samuel b. Jacob: The five corpus codices attributed to SbJ are closely related vis-à-vis the Numerals’ dendrograms (§6.4.2.; 6.4.4.). Other evidence also links the MSS, such as the marking of ‘head of verse’ (§6.5.2.), and the pattern of left justification (§6.6.4.). It was also shown that IIB142, the corpus MS putatively proofread by SbJ, is in agreement with the consonantal text of L in a manner that is unlikely to be accidental (§6.5.6.2.).

(7.) When writing ‘15x’ as an Mp numeral, corpus MSS show that the use of הִי was generally not a Tiberian practice, these *masranim* preferring הִי. Many proto-Sephardi script and/or MSS of N. African provenance, however, preferred וִי (§6.6.2.); it is probable that the use of וִי originated in N. Africa.

(8.) One cannot always be certain if MSS with Mp terms and term usage frequency that distinguish themselves from Tiberian MSS are to be located to the east or west of the Land of Israel, i.e., N. Africa on one hand or N. Syria/Babylonia

on the other. Indeed, there are some indications that these two regions shared more with each other than they did with the Tiberian MSS in between them (cf., §6.6.4.).

(9.) Finally, the four dendrograms (§6.4.) provide stemmas of the majority of the corpus MSS. Because so little of the provenance and the precise usage history of the MSS is incontrovertible, out of caution the linkages provided by these dendrograms were only discussed in instances where the internal Mp data can be corroborated with external observations—which inevitably have lacunae of their own. One can assert with confidence, however, that there was an acknowledged centre of the Tiberian Masorah, and all *masranim* who sought to emulate this pattern did so with varying degrees of success based upon their location, access to the best Mp exemplars, and their levels of understanding of the Masoretic craft.

* * * * *

It is also hoped that the present research can assist in future studies focused upon vocalisation and accents by comparing the results of those groupings with the present Mp data and script-type similarities. For example, Yeivin’s remarks regarding the vocalisation of a number of corpus MSS suggest that the Tiberian script type is where codices that most resemble the vocalisation of A are to be found.⁴⁷⁰

⁴⁷⁰ See Yeivin, המסורה למקרא, pp. 11–24; *ibid.*, *Introduction*, pp. 16–28. Compare Yeivin’s remarks regarding three MSS with Tiberian scripts against three other MSS whose scripts are clearly *not* Tiberian:

- L (Tiberian script), “This is the MS showing the closest tradition to A”;
- IIB39 + [L5] (Tiberian script), “close to A in the system of marking vowel signs, accent signs, and *ga‘ya*”;

What must also be acknowledged is that the thesis data cannot provide a complete stemma of the early Hebrew Bible manuscripts with that desirable margin of error range of $\leq 1\%$, i.e., with a margin of error that ensures the optimal configuration of the dendrograms in all instances. To do so, one would be required to collate tens of thousands of additional lines of Masorah parva data, and conduct an in depth and *in situ* examination of each MS in order to prevent the cross contamination of Mp data from a (potential) second hand. It is also regrettable that many MSS lack colophons; of the available colophons, moreover, not all can be trusted. Without the firm anchor of a reliable colophon (and perhaps even with it), a certain amount of imprecision remains difficult to dispel.

In sum, and as should be expected, the thesis does not clarify the entire stemmatic picture; rather, it provides one additional step towards the disambiguation of the Oriental Hebrew manuscripts of the Tiberian Masoretic tradition. According to this modest goal, it is hoped that the project can be judged a success.

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- IIB26 + [*L11] (Tiberian script), “very similar to A”;
- versus
- S1 (“Oriental” script), “less carefully written than the other MSS described”;
 - IIB159 + [L2] (“Oriental” script), “differs greatly from A in the use of vowel letters and shows various signs of lack of precision in the pointing”;
 - IIB124 + [L4] (proto-Sephardi script), “shows a number of signs of carelessness”.

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