The Quality of Hasmonaean Biblical Manuscripts

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**Abstract**

Recent research has introduced the categories of deluxe or high-quality Dead Sea Scrolls. We reconsider this category and propose a classification of manuscripts on the basis of handwriting quality. As a test case, we classify all Hasmonaean-type biblical manuscripts as elegant, professional, or substandard. We discuss eleven scrolls with elegant handwriting and consider other physical, scribal, and textual features of these scrolls. Our study calls into question the idea that especially biblical manuscripts would have been copied according to the highest standards. We show that different quality standards were in operation for Hasmonaean-type biblical manuscripts.

**Keywords**

The tangible manuscript evidence of the Dead Sea Scrolls is diverse in terms of quality, physical as well as scribal. The scholarly category of so-called de luxe or luxury manuscripts brings this to the fore most clearly. It suggests that a differentiation can be made between manuscripts in such a way that some of them can be singled out as of the highest quality. This category is then often linked to a textual category, so that the production of de luxe scrolls would have been mainly preserved for biblical texts. It should be noted that those manuscripts from the Dead Sea Scrolls that have been categorized as de luxe are almost exclusively written in Herodian- and post-Herodian-type script.

In this exploratory study, we reconsider the category of de luxe manuscripts by highlighting the largely neglected criterion of calligraphy, or high-quality handwriting, in assessing biblical manuscripts in Hasmonaean-type script. First, we consider the diverse physical, scribal, and copying qualities of the scrolls, and suggest differentiating between three classes of handwriting quality: substandard, professional, elegant. Then we briefly survey how scholars have discussed the quality of the Judaean Desert manuscripts. Third, we illustrate the differentiation between two of the highest three classes of handwriting quality for Hasmonaean-type script, professional and elegant. Fourth, we present an overview of all biblical manuscripts written in Hasmonaean-type script (taking also so-called Archaic script into account), totalling ninety-six manuscripts, and we roughly classify the handwriting quality of these manuscripts on a spectrum running from elegant, through professional, to substandard. Fifth, having singled out only eleven manuscripts with elegant handwriting quality, we also briefly consider other scroll qualities of these Hasmonaean-type biblical manuscripts.

Why is it necessary to discuss the category of de luxe and high-quality manuscripts among the Dead Sea Scrolls? First, we consider it important to critically consider our scholarly categories, and to base classifications and interpretations of the scrolls on a rigorous analysis of material remains and cultural artifacts. Second, scholarly differentiations between manuscripts on the basis of their perceived quality, as more or less valuable, have been used to argue for different social or cultural backgrounds. This has been the case most clearly with regard to biblical manuscripts, for example, the assumption that many de luxe scrolls were produced in Jerusalem. So, what is at stake is how we, as scholars, analyse the material evidence of the scrolls as a means to interpret the social and cultural history of ancient Judaea.

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2 Tov, Scribal Practices, 128, 321.
1 Scroll Qualities

The Hebrew and Aramaic manuscripts from the Judean Desert (from Qumran and other findsites) differ from another in many physical and scribal respects. For example, texts were inscribed on parchment or on papyrus. The height, length, and thickness of parchment sheets vary considerably. The sheets that were used could be smoother or coarser, and could have holes, tears that were stitched, or other surface damage on areas on which a scribe would not write. Good quality scrolls would consist of smooth, larger sheets of comparable appearance, with a minimum of damage. However, in the case of the many manuscripts that have suffered damage and are only preserved in fragments, the original physical quality is often difficult to assess.

Scribal aspects pertaining to the layout of manuscripts, such as the width of columns, the height of writing blocks, and the size of margins, also differ considerably. The same holds for the distance between the lines, the size of the letters, the spacing between words, and sometimes the division between sense units by means of larger spaces or even empty lines. While some features are related to physical aspects (the width of columns is in part determined by the width of sheets) or to textual aspects (large compositions require one scroll with a large writing block, or multiple scrolls), others are related to cultural norms, the function or intended use of the scroll, and the skill of the scribe. Larger upper and lower margins, and a generous use of vacats and empty lines, are sometimes seen as indicative of scrolls of good or high quality, but there is no necessary reason to see these as major criteria for the scribal quality of scrolls.

The manuscripts from Qumran Cave 4, in particular, display a large diversity of script styles and writing skills. The choice for specific script styles (traditionally described as formal, semiformal, and semicursive) would be influenced by cultural conventions and the intended function of the manuscript (hence the term “bookhand” for script styles preferred for literary texts). Scribes could attempt to enhance the appeal of their script in a variety of ways, according to ruling calligraphic fashions, such as ornamentation in first and second-century CE bookhands. One may assume that manuscripts not written in the conventional script style would generally have had less quality, and those in a calligraphic bookhand a higher quality. Regardless of the specific script style, the handwriting quality attested in manuscripts consists not only in the scribe's

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3 The best overview of the physical aspects is Kottsieper, “Physicality.” For many scribal aspects, see Tov, Scribal Practices.

formation of individual letters according to that style, but also in regularity in size, ductus, height, and inking, as well as the proportion and arrangement of letters, words, and lines horizontally and vertically. The common differentiation between formal, semiformal, and semicursive script styles has no clear correspondence to writing skills. Only the traditional qualification “vulgar” expresses an evaluation of skill. Apart from Émile Puech, scrolls editors do not comment systematically on handwriting quality. We propose to distinguish between three classes of handwriting quality, (1) elementary or substandard, (2) standard or professional, and (3) elegant or calligraphic, though these terms also have been related to script styles.

Throughout the scrolls, there are also clear differences with respect to the copying quality. Where some manuscripts display many corrected or uncorrected textual or orthographic errors, other manuscripts display few, if any, errors or corrections. Such errors have not been recorded systematically in the editions and are sometimes even overlooked by editors. The modern scholar also must assess whether unexpected or difficult readings in biblical manuscripts are due to copying errors or to ancient interpretative activity.

2 Quality of Judaean Desert Scrolls: State of the Art

In the first decades of scholarship on the Judaean Desert scrolls, few scholars provided descriptions of the quality of scrolls. An exception was Józef Milik. Take, for example, his description of 4Q203 (4QEnGiants) and 4Q204 (4QEn):

Skin of a colour which varies from deep cream to very dark brown, thick and stiff in places; surface smooth or finely granular ... Calligraphy from the calamus of a professional and skilful scribe (not, however, without variations in the shape and size of letters), dating from the early Herodian period or the last third of the first century B.C. ...

The arrangement of the text in the columns of the scroll is very free, with an abundance of vacat and lines left blank, which testify to a well-established system of interpunction. This in turn reflects, moreover, a prosperous economic situation in which the price of parchment did not in any way restrict the practices of copyists, precisely the situation in the Herodian period, but also that of the Hasmonaean. ... The same system of
interpunction recurs in other Herodian manuscripts, particularly in the Manual of War, 1QM, and previously, but less regularly, in Hasmonaean manuscripts, such as 1QS and 1QIṣ.\(^8\)

Only after most manuscripts had been published, could one study the quality of scrolls in a more comprehensive manner. In several publications, Emanuel Tov has argued for a separate category of “de luxe editions,” or, more recently, “luxury scrolls.”\(^9\) Referring to scholarship on Greek bookrolls, he argues for a large margin size as the main criterion for those luxury scrolls, alongside additional criteria such as “large intercolumnar margins, the use of a large writing block, careful scribal transmission, a late date, and MT content in the Scripture scrolls.” Interestingly, William Johnson, who has studied the quality of Greek bookrolls, questions the approach of earlier classicists who regarded a generous size of margin and a large column height as evidence for de luxe editions. Instead, Johnson introduces the style of script as the clearest general indicator.\(^10\) Based on a detailed study of measurements of more than 300 Greek bookrolls from Oxyrhynchus, Johnson observes that manuscripts written in a fine script—when they differ at all from other manuscripts with a standard script—most likely have a short height for the column, an excessively large upper and lower margin (6–7 cm or more), a large script written in tight format, and a roll of excessive length. Clearly, Tov’s proposed category of and criteria for luxury Hebrew or Aramaic scrolls is quite different from Johnson’s description of contemporary Greek bookrolls.

We challenge Tov’s category of “luxury scrolls” based on the criteria of margin and writing block size. His criteria are largely features specific to first and second-century CE biblical scrolls found at other findplaces than Qumran. Moreover, though he briefly mentions fine calligraphy as a criterion, he focuses almost exclusively on codicological dimensions as indicative for his category of de luxe editions (looking as well at copying mistakes and scribal interventions), which is also how scholars in the field have usually adopted this category.\(^11\) Instead, we argue that the quality of the handwriting, or calligraphy, must be considered. Some of the Qumran scrolls labeled “luxury” by Tov may have somewhat larger than average margins, but many are average or even substandard with respect to physical or handwriting quality.\(^12\)

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\(^8\) Milik, *Books of Enoch*, 178–79.
\(^12\) For Mur3, see Popović, “Book Production,” 227.
Some of the first and second-century CE biblical scrolls found at findplaces other than Qumran were described by Kipp Davis in 2016 as high-quality scrolls from the post-Herodian period.\footnote{Davis, “High Quality.”} He detects in these scrolls and four of the Schøyen biblical scroll fragments,\footnote{On the authenticity, see Justnes and Munch Rasmussen, “More Dubious.”} a pattern of “high quality, ornamental late or post-Herodian” script, high and narrow columns, large margins, and (for some) similar color and physical quality. Rather than referring to these as “luxury” scrolls, he tentatively suggests a common scribal milieu or a series of scribal conventions, or standard construction procedures, for certain kinds of texts in the late and post-Herodian period.

Building on his earlier work on types of Hebrew/Aramaic scripts within the ERC project The Hands that Wrote the Bible, Drew Longacre argued in 2022 for a relationship between types (such as ornate or simple rectilinear and curvilinear, semicursive) and levels (calligraphic or common; formal, semiformal, and informal) of scripts, and kinds of copies of the Psalter: more formal calligraphic scripts were used for large presentation copies of the MT and 11Q5 versions of the Davidic Psalter, whereas less formal scripts were used in smaller, textually distinctive manuscripts.\footnote{Longacre, “Palaeographic Style.”} Indeed, copies of the Psalter and other texts are often attested in large or medium-to-large manuscripts written in more formal or calligraphic scripts, but also in small manuscripts penned in what Longacre calls an informal script. However, for ongoing research along this promising line, more differentiation should be made between types and levels on the one hand, and handwriting quality on the other. Longacre’s characterization of large copies as exquisite or high register, used for presentation or communal reading, largely because of their ornate formal type of script, seems unwarranted. From a palaeographic perspective, the restriction of high-level literary script to rectilinear script, even for the so-called pre-Herodian period, would need more analysis. A typical element of the Herodian bookhand, rectilinearity, seems to have been applied anachronistically as a criterion for assessing Hasmonaean and earlier hands.\footnote{See also Longacre, “Palaeographic Style,” 74 table 2.}

In his 2023 handbook of the Qumran Aramaic Scrolls, Daniel Machiela aims at appraising the overall manuscript quality of the Aramaic scrolls, based on a range of criteria, such as “the formality, carefulness, and consistency of script, manuscript preparation and quality of skin/papyrus, regulation and size of spacing, and number and length of vacats,” as well as degree of scribal mistakes.
and clear visible ruling. Our examination of the three manuscripts which he qualifies as “excellent” and the twelve assessed as “very good—excellent” shows that for Machiela the size of margins, spaces, and vacats, counts heavily in his assessment, frequently more than beauty, formality, carefulness, and consistency of script. Thus, for example, 11Q10, 2Q24, and 4Q546, are qualified as “very good—excellent” despite 11Q10’s highly irregular letter forms and ornaments. 2Q24’s irregular margin (frag. 4) and large spaces that do not always correspond to sense divisions, and 4Q546’s very informal or even unskilled handwriting. On the other hand, the manuscript 4Q197, extolled as a beautiful manuscript written by a highly trained scribe, is assessed as “very good,” apparently because “the spacing of lines and intercolumnar margins are slightly more cramped than in the best manuscripts.”

Also in 2023, Mladen Popović followed up on Johnson’s proposal that the clearest indicator of the quality of a manuscript is its script style and adopted his three classes of script (deluxe or elegant; everyday professional; substandard) to assess the handwriting quality of the Isaiah and the Rule of the Community manuscripts and to correlate these with average letter size. From a heuristic perspective, this kind of study of manuscript quality gives possible insights into book production and circulation. Based on criteria of handwriting quality (regularity, proportion, arrangement), Popović concludes that perhaps two Isaiah manuscripts might be classed as elegant, but all other Isaiah and Rule of the Community manuscripts as everyday professional or substandard. Compared to Johnson’s analysis of the Oxyrhynchus and other bookrolls, the near absence of elegantly written manuscripts in the copies of Isaiah and the Community Rule is striking, as is the diversity and pluriformity of the quality of these scrolls. The large number of substandard quality scrolls suggests

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18 Machiela qualifies 1Q20, 4Q205, and 4Q209 as “excellent”; 1Q21, 1Q72, 2Q24, 4Q203, 4Q204, 4Q245, 4Q531, 4Q537, 4Q544, 4Q546, 4Q554a, and 11Q10 as “very good—excellent.” Machiela also describes 4Q529 as belonging to the best manuscripts. See Machiela, *Handbook*, 51. Note that 4Q544 has early Hasmonaean-type script; that 4Q531, 4Q546, 4Q554a, and possibly 4Q537, have a late Hasmonaean-type scripts; and the other ten manuscripts a Herodian-type script.
19 We would qualify the hand of 11Q10 (11QtgJob) as that of a not very skilled scribe attempting to write calligraphically.
21 Popović, “Book Production.” A clear difference with the bookrolls studied by Johnson, where elegant bookrolls have larger letters, is that in the Isaiah and Community Rule scrolls a large letter size is mainly attested in substandard manuscripts, while professional scrolls have smaller letters.
those were not copied for a general book trade, but rather within a private, communal setting.22

These recent studies show quite different assessments of the quality of manuscripts. Even though quality is always reflected in a combination of features, authors privilege some features above others. As Tov observed, some of the manuscripts which he would consider luxury manuscripts on account of margin size, have too many copying mistakes to really count as luxury.23 But one should also question whether a scroll like 4Q2 written in a skilled hand and with large margins, but—according to Cross—on poorly prepared coarse leather, would have been regarded as a high quality (let alone a luxury) scroll.24 Or how a scroll like 4Q72, containing a sheet with a tear that had been stitched before writing, could still be considered a luxury product. Important is also that scholars interpret features differently. In the quote given above, Milik explained the abundant use of vacats and uninscribed lines in scrolls as reflecting the prosperous economic situation. Tov and Machiela assume a high cost of writing materials, so that scrolls with generous margins and other uninscribed sections, apparently would be more special (luxury, or high quality).25

A second observation is that most of these studies, even though they use different criteria, suggest a strong and almost exclusive correlation between what their authors see as luxury or high-quality scrolls and the (post-)Herodian period. One may speculate as to whether this perceived quality difference of Hasmonaean and Herodian manuscripts is related, for example, to historical developments, to the heterogeneity of the dataset, or to a bias in scholars’ approaches, or otherwise. For this exploratory study our research question is limited: how we should assess, primarily based on handwriting quality, and secondarily on other aspects of quality mentioned above, the quality of the Hasmonaean biblical manuscripts.

22 Popović, “Book Production,” does not correlate writing quality with script type. It is remarkable that the seven Isaiah manuscripts which he classifies as substandard (4Q62, 4Q63, 4Q64, 4Q65, 4Q66, 4Q67, and 4Q68) are all Hasmonaean-type. The elegant and professional styles are represented equally by Herodian and Hasmonaean types (p. 221). For the Community Rule manuscripts there is no such imbalance (p. 237).

23 Tov, Scibil Practices, 128, excluded 1QIsa a from his list of de luxe manuscripts: “Much scribal intervention is evidenced” in 1QIsa a that is far from being a de luxe edition … and is therefore not included.” Tov, “Luxury Scrolls,” does include the manuscript in the list, but comments that it would not have been a luxury scroll.


25 Tov, “Luxury Scrolls,” 421: “Writing material was expensive and the fact that scroll manufacturers left writing surface unused had a special meaning in ancient times”; Machiela, Handbook, 13: “large margins equate to more empty space and, presumably, to higher expense.”
3 Professional and Elegant Hasmonaean Script

Cross used the label “Hasmonaean” to denote what he considered to be the script of the Hasmonaean period, from roughly 150 to 30 BCE, preceded by Archaic or Proto-Jewish script, and followed by Herodian script.26 Elsewhere, we argue that the specific dates assigned to these scripts, and the idea of a linear development from Hasmonaean to Herodian, need to be revised.27 For this publication we have examined all biblical manuscripts written in scripts traditionally referred to as Archaic and Hasmonaean. We include most of the manuscripts written in what Cross qualified as a so-called late Hasmonaean or early Herodian hand, even though we consider this qualification problematic. We focus here on biblical manuscripts, because of suggestions that high-quality features (such as large format, or formal calligraphic script) are found especially, though not exclusively, in copies of biblical books. We have taken the pragmatic decision to examine those manuscripts that are regarded as “biblical” in the Discoveries in the Judaean Desert series, excluding Tefillin, Mezuzot, and “Targums,” but including the five so-called Reworked Pentateuch manuscripts. This also means that the examined manuscripts may include both what were once full copies of entire biblical books and abbreviated or excerpted copies.

For assessing the handwriting quality of manuscripts, we adopt the three classes of Johnson—elegant; everyday professional; substandard—even though he used this classification of the hands of Greek literary bookrolls to characterize a combination of script style, decoration, and handwriting quality.28 We prioritize for the Hasmonaean manuscripts the handwriting quality above the script style, because, contrary to the relatively homogeneous Greek Hellenistic and Hebrew/Aramaic Herodian bookhands in formal style, Hasmonaean script styles used in writing literary texts are heterogeneous, including formal, semiformal, and semicursive styles.29

For Hasmonaean formal and semiformal script style, distinguishing between professional and substandard writing quality of manuscripts is relatively easy and objective. Professional manuscripts display what one may call the principles of regularity, proportion, and arrangement for the writing of more formal or literary texts; substandard manuscripts fail to meet these principles, due to a scribe’s lesser concern for neat writing, or lack of skill. Of course, in applying

26 Cross, Development.
27 Popović et al., “Dating Ancient Manuscripts.”
28 Johnson, Bookrolls, compare 102 and 161.
29 For the Hasmonaean “semiformal” style, compare Cross, Development, 145 and 158.
these principles, one should consider typical characteristics of the Hasmonaean script, such as a larger variation of the size of different letters than in later bookhands.

In contrast, it is more difficult to determine the difference between elegant or calligraphic and everyday professional script. We consider those manuscripts to be elegant that strike us as being more appealing to the reader than everyday professional manuscripts because of their higher degree of writing consistency and legibility, or a sustained calligraphic enhancement of the standard letter forms of the entire script.

To illustrate our differentiation between professional and elegant, we present the script of 4Q30 (4QDeut$c$), presented by Cross as a typical Hasmonaean bookhand, and the script of 4Q545 (4QVisions of Amram$c$).\textsuperscript{30} In his classical treatment of the Jewish scripts in the Hellenistic and early Roman period, Cross discussed and presented only a few samples of Hasmonaean formal script or bookhands.\textsuperscript{31} He described two samples as transitional, namely 4Q28 (4QDeut$a$) between the Archaic and Hasmonaean periods, and 4Q51 (4QSam$a$) as a late Hasmonaean or early Herodian hand. As typical Hasmonaean bookhands he put forward 4Q30 (4QDeut$c$) and, secondarily, 1QIsa$a$. Overall, and viewed from a distance, the script of 4Q30 (dated by Cross to 125–100 and in the DJD edition to 150–100 BCE) has a professional, regular, and pleasant appearance. Most letter forms are attested in several forms (strangely, sometimes the \textit{lamed} leans backwards, sometimes forwards), but overall, the style of writing remains the same. Yet, when paying closer attention, the scribe is in some of the preserved fragments much less consistent than in others. For example, in frag. 32 we see corrections (i 10 and ii 3), and occasionally poor arrangement of letters within words (in i 7 \textit{resh} in \textit{לכְפֶר} intersects with the head of \textit{pe}; and the \textit{tav} of \textit{שביעי} touches the head of preceding \textit{waw}). Also, the spacing between the words varies (contrast the limited spacing in i 4–5 with the much broader spacing in i 6–8), and the arrangement of the words vis-à-vis the intercolumnar margin fluctuates considerably. Repeatedly in the manuscript the scribe fails to keep a straight line of writing, going upwards or downwards, and then after one or two words going back to the ruling line (see, e.g., the difference between \textit{תובדנ} and \textit{ךדי} in i 8).\textsuperscript{32} For all such reasons, we consider the

\textsuperscript{30} High quality photographs of virtually all the manuscripts discussed here can be found online on the Leon Levy Dead Sea Scrolls Digital Library (deadseascrolls.org.il). High quality images of 1QIsa$a$ can be found on http://dss.collections.imj.org.il/shrine. For images of 1Q8 one should consult Ulrich and Flint, \textit{Isaiah Scrolls}.

\textsuperscript{31} Cross, \textit{Development}, 166–73.

\textsuperscript{32} In 4Q30 frag. 5 line 2 the scribe avoided a bad patch, while the apparent irregularities in lines 3–4 are due to later distortion of the leather.
handwriting of 4Q39 to be professional but irregular in multiple respects, and therefore not elegant.

The handwriting of 4Q545 (4QVisions of Amramε) is very regular, well proportioned, and arranged. The size of individual letters varies to a small extent, and especially at the end of words they can be slightly larger. The writing and the spacing are compact, but this trait does not affect the legibility. Most importantly, however, the hand is written calligraphically, apparently inspired by older Aramaic script. Three features are noteworthy, (1) the variation between thicker and thinner strokes, the latter especially for downstrokes; (2) the curvature, generally subtle (as in, e.g., zayin, nun, descender of qoph, the arms of shin and legs and foot of tav, or the head of bet, he, and sometimes qoph; sometimes the basestrokes of bet and kaph) but occasionally more pronounced (especially gimel, sometimes lamed) of many strokes; (3) the occasional emulation of archaic elements of letter forms (sometimes with aleph in final position, 1 ii 11; tav written larger than most letters, and occasionally its left leg being slightly longer than the right one). All these features warrant the qualification "elegant."33

4 Hasmonaean Biblical Manuscripts (Elegant, Professional, Substandard)

There is no reliable overview of the writing script and style of all the Dead Sea Scrolls manuscripts. Starting with Milik’s editions of the Qumran Cave 4 Enoch manuscripts and of the Cave 4 Tefillin, Mezuzot and Targums34 most editions provide a script label (like Hasmonaean or Herodian) or a date, and sometimes a style label (like formal, semiformal, etc.), generally based on Cross’s analysis. Yet, references in some editions are missing, the labels or dates are often only approximate and inconsistent, and occasionally they are wrong. Moreover, the overview in DJD vol. 39 lumps together manuscripts written in different scripts, gives artificial dates to manuscripts, and has many errors.35

Here we present an overview of all biblical manuscripts (excluding identifications of small fragments in the last decades36) found in the caves near Qumran written in the Hebrew/Aramaic Archaic and Hasmonaean script, totalling

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33 Most of these observations derive from Puech, Qumrân Grotte 4.xxii, 331–32.
34 Milik, Books of Enoch; Milik, “Tefillin.”
35 Webster, “Chronological Index.”
36 For such identifications, see Steudel and Tigchelaar, “Identifications.”
ninety-six manuscripts, some minimally preserved. We differentiate roughly between Archaic (and Archaic-Hasmonaean), early Hasmonaean, middle Hasmonaean, late Hasmonaean, and late Hasmonaean/early Herodian. Our overview is based on the editors’ descriptions and our own rough evaluations which do not always correspond to those of the editors. It is questionable whether one should imagine a linear development from early through middle to late Hasmonaean and transitional to early Herodian, but we adopt these labels here for pragmatic reasons. Scholars have described the hands of many manuscripts as late Hasmonaean transitional to early Herodian. We have tried to classify such manuscripts as either late Hasmonaean or early Herodian, and only retained the transitional label where we could not choose. It should be noted that we use these labels for script types, not for periods.

We roughly classify the handwriting quality of these manuscripts on a spectrum running from elegant, through professional, to substandard. In our classification we take professional as default, and substandard and elegant for special cases, as described above.

<table>
<thead>
<tr>
<th>Handwriting</th>
<th>Elegant</th>
<th>Professional</th>
<th>Substandard</th>
<th>Too small to assess</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archaic / Archaic Hasmonaean</td>
<td>4Q83?</td>
<td>4Q52 4Q70</td>
<td>4Q17</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>4Q109</td>
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<tr>
<td>Early Hasmonaean</td>
<td>4Q141</td>
<td>4Q16 4Q23</td>
<td>4Q76 4Q77</td>
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<td></td>
<td>4Q24b42</td>
<td>4Q29</td>
<td>4Q98g 4Q576</td>
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</tr>
<tr>
<td></td>
<td>4Q38d43</td>
<td>5Q1</td>
<td></td>
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</tbody>
</table>

37 There are no Hasmonaean-type biblical manuscripts from other findplaces in the Judaean Desert. The only non-Qumran Hasmonaean-type literary texts are Mur6 and Masih (MasSir), and perhaps Masup (MasUnclassified), which could be late Hasmonaean or early Herodian.

38 Some important differences are 4Q71 (we opt for middle Hasmonaean instead of the first half of the second century BCE); 4Q72a (late Hasmonaean instead of the first half of the second century BCE); 4Q84 (late Hasmonaean–early Herodian instead of late Herodian); 4Q90 (late Hasmonaean instead of Herodian); 4Q100 and 4Q117 (early Herodian instead of transitional late Hasmonaean–early Herodian; hence not included here); 5Q1 (early Hasmonaean instead of Archaic).

39 See Popović et al., “Dating Ancient Manuscripts.”

40 See Popović et al., “Dating Ancient Manuscripts.”

41 On the script and handwriting of 4Q1, see Tigchelaar, “4Q1,” 35–37.

42 Tigchelaar, “Reconsidering 4Q24,” recognized that 4Q24 consists of two different manuscripts, 4Q24a and 4Q24b.

43 Published in Tigchelaar, “Forgotten.”
According to our assessment, most manuscripts have a professional or a substandard writing quality. Since these are on a spectrum, the writing quality of some manuscripts might be regarded as on the low end of professional or the high end of the substandard. Also, within manuscripts the writing quality may

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44 Popović, “Book Production,” 221, 223, categorizes 1Q8 as a professional copy. In the current study, the question mark with 1Q8 in the category “elegant” denotes the difficulty to draw a hard distinction between professional and elegant handwriting within Hasmonaean-type script. 1Q8 is clearly of a higher handwriting quality than, e.g., 4Q56, but 4Q51 is still of a higher quality than 1Q8. We must reckon with a range of writing quality within the heuristic categories of elegant, professional, and substandard handwriting. And, in this case, 1Q8 should be considered either at the high end of the professional category or perhaps even at the lower end of the elegant category, hence the question mark.

45 4Q14 (4QExod46) is one of several borderline cases with regard to its script. The distinction cannot be firmly made whether it should still be regarded as of the Hasmonaean type or of the Herodian type.

46 Tigchelaar, “Reconsidering 4Q24,” recognized that 4Q24 consists of two different manuscripts, 4Q24a and 4Q24b.
vary. For example, in 4Q24a (= 4Q24 frags. 1–8) the writing of some preserved sections would warrant the qualification professional, but in other sections the writing quality is clearly substandard.

We consider the writing of about 10% of the manuscripts to be elegant (or possibly elegant) according to our criteria. We do not only pay attention to the forms of letters, but also to regularity, and, even more importantly, to proportion and arrangement. Therefore, we consider manuscripts like 4Q70, 4Q109, or 4Q112, with many individual elegant letter forms, but overall, very uneven and irregular, not as elegant but as professional. For example, in 4Q70 the penning of some individual letters is often elegant and beautiful, but letter size, thickness of the strokes, and inking of the letters, varies constantly, in some columns (e.g., cols. III–IV) more than in others (col. XI), and sometimes even from line to line.

We consider four of the manuscripts as possibly elegant and have added a question mark in the table above. In the case of 4Q69 (4QpapIsaP) with skilled, fine lettering, a more confident assessment of the handwriting quality as elegant, rather than professional, would require more text.47 In the case of 4Q83 (4QPs), the writing is quite regular and well arranged, even though the size of the writing shows some variation (col. III; frag. 20). We nonetheless choose to consider the writing of this manuscript as possibly elegant because of its enhancements: a very small curvilinear writing (letter size ~1.8–2.2 mm) written with thicker and extremely thin strokes.48 1Q8 (1QIsaB) and 4Q14 (4QExodC), on the other hand, are written very regularly, in many but not all sections even highly regularly, yet their bookhands lack specific calligraphic enhancements.

The other manuscripts which we assess as elegant, 4Q4 (4QGenD), 4Q15 (4QExodD), 4Q51 (4QSamE), 4Q73 (4QEzekE), 4Q92 (4QPsK), 4Q99 (4QJobE), and 5Q2 (5KKings) are all written very to highly regularly and in proportion. In the case of 4Q4 the exact degree of regularity cannot be assessed, due to the damage from which the manuscript has suffered. One feature of elegance is that the forms of the letters within words vary, apparently intentionally, according to the relation to the preceding or following letter. For example, the base stroke of bet is longer, not only in word-final position, but also when followed by ‘ayin and qoph; see also the basestroke of word-initial bet attached not to the bottom, but at two thirds of the downstroke of following he in line 7 הדמה (see similarly 4Q73). Likewise, the degree of curvature of the downstroke of nun.

47 See also Popović, “Book Production,” 222.
48 See also Longacre, “Palaeographic Style,” 77: “among the most elegant of curvilinear semi-formals.”
seems related to its position to the preceding letter, as does, occasionally, the extending of the bottom part of the diagonal of 'aleph, so that it minimizes the spacing between the letters.

4Q15, of which only one small fragment remains, also displays a high regularity and awareness of proportion and arrangement of its writing. The spacing between letters within the words, and the spacing in between words is quite small. The regularity of the script is enhanced by minimizing the length of qoph, final kaph, and final nun. At the same time, several letters, like bet, but also yod, ‘ayin, and gimel, are penned slightly smaller. The only irregularity within this small fragment is some variation in the leading or distance between the lines, a feature that we see in almost all the manuscripts we assessed, even the ones with elegant writing. This manuscript is also a good example of the difficulties of differentiating between earlier or later types of Hasmonaean script. The editor describes the hand as “an elegant Hasmonaean hand, similar to that of 4QExod⁴, from approximately the late second, or possibly the early first, century BCE.”⁴⁹ Within Cross’s model, this time frame would probably correspond with the middle period of the Hasmonaean script. Yet, the bilinearity of the script (except for the mentioned bet, gimel, yod, and ‘ayin) and the forms of the letters are closer to that of the late Hasmonaean 4Q51, then to Cross’s typical (mid) Hasmonaean 4Q30. One may also note that 4QExod⁴, to which the hand is compared, is described as late Hasmonaean by the same editor.

4Q51, one of the bookhands presented by Cross, is written in a highly regular script, even more than 1Q8. Though both hands are generally considered to be transitional from late Hasmonaean to early Herodian, their appearance is quite different because of the different pens used by their scribes. 1Q8 is written with thicker and thinner strokes; 4Q51 more boldly, with a uniform stroke width. Also, the letters of 4Q51 are written more rectilinearly than those of 1Q8, thus appearing closer to the Herodian script type.

Though written in a quite different style, with some correspondences to 4Q15, 4Q73 also displays regularity and a high degree of proportion and arrangement with regard to letters, letter height, and spacing. Noteworthy is the distinction between thick strokes for the heads of several letters, most notably he and reš, and occasionally thin letters for vertical strokes. This hand has individual modifications of some letters, probably for calligraphic reasons, such as the frequent horizontal drawing of the arm of mem, or the horizontal right arm of šade with ticks upwards and downwards. As in 4Q15, the distance between the lines does show some irregularities.

⁴⁹ Sanderson, “15. 4QExod⁴,” 127.
Only one small fragment remains of 4Q92. Its script and spacing stand out as remarkably regular. Occasional letter form variations, regarding the size of final mem, and horizontal or slanting base stroke of final mem, may in part have been influenced by the appearance of the entire word. See, for example, the continuation of the three strokes from right arm of šin, through the slanting base stroke of mem to the base stroke of final kaph in ימש. Compared to other manuscripts, the distance between the lines is rather large.

The fragments of 4Q99 might be considered too small to assess whether the script is professional or elegant. We include this manuscript because of its regular and neat small-sized writing and spacing, the uniform distance between the lines, and the variation of thick and thin lines.

5Q2 has a regular, very small and elegant writing (average letter height 2.0 mm).

5 Elegant Hasmonaean Handwriting and Other Manuscript Qualities

We have singled out only eleven manuscripts with elegant handwriting quality out of a total of ninety-six manuscripts. Some of those eleven might also be considered upper range professional. In addition to their handwriting quality, briefly described above, we should also investigate other scroll qualities of these manuscripts, where they can be discerned. For some of the large manuscripts, like 1Q8 and 4Q51, many data are available, some of which have been described extensively in the editions. In the case of the smallest ones, very little data is available. We will not repeat all details mentioned in the editions, but highlight some features potentially related to scroll qualities, and occasionally add other scholarly discussions, or our own observations or interpretations.

Only a few fragments are preserved of 4Q83 (4QPs\(^a\)), a scroll with moderately thin skin. Scholars have been mainly interested in the reconstruction of the manuscript and its relation to the MT or 11Q5 versions of the Psalter. The DJD editors argued that the scroll could have contained the entire Psalter.\(^{50}\) Jain’s reconstruction proposes a smaller scroll, of 35 columns of 35 lines each, allowing for the text of Psalms 1–89, be it in a sequence that occasionally differs from that of the MT.\(^{51}\) The distance between the lines varies from less than 6 mm to more than 7 mm. The largest preserved bottom margin is ca. 2.5 cm. Divisions between psalms are generally indicated with a vacat or even an entire blank.

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\(^{50}\) Skehan, Ulrich, and Flint, “Psalms,” 7–8.

\(^{51}\) Jain, Psalmen oder Psalter, 64–74.
line, except for the transition Ps 38:23 → 71:1. The editors refer to the generally careful and meticulous copying and detected only one scribal correction.

Even fewer fragments remain of 4Q99 (4QJob⁴), the skin of which was thin and well-prepared, according to the editors.²⁵² The text was, where possible, arranged in stichometric fashion in narrow columns of 5 to 6 cm. In several lines the second half was left blank. The preserved text has one superlinear addition, and one possibly secondary correction, away from the mt. The scroll had 16 lines per column, with a writing block of ca. 10 cm. Based on the number of words in the two columns with Job 36:13–24 and Job 36:25–35⁵⁵ one would calculate that if the manuscript contained the entire book of Job, it would have had ca. 72 columns. Including intercolumnar margins of 1 cm or slightly more, this would imply a scroll of ca. 475 cm, which seems rather long for a scroll with a writing block of 10 cm.

Only a few fragments remain of 4Q73 (4QEzek⁴). The editor reports the skin was well prepared on the recto, but coarse on the verso.⁵³ Its top margin measures 3.0 cm, and reconstruction of frag. 3 i–ii based on the text of the mt suggests 41–42 lines per column. Tov therefore includes the manuscript in his list of deluxe editions. However, corresponding damage patterns and unevenly ruled lines in frags. 1 and 2 allow for an alternative reconstruction of only 25 lines per column. This, in turn, would imply a considerably shorter text than that of the mt in frag. 3 i–ii. This might support the suggestion of Brooke that this manuscript was an excerpted text.⁵⁴

4Q92 (4QPs⁴) is one single fragment consisting of two pieces which were joined with a coarse piece of cord. The distance between the lines varies from 8 to 9 mm. Reconstruction based on the mt indicates the lines were “unusually long.” Remnants of Ps 135 on the right column and of Ps 99 on the left, indicate a different arrangement from that of either the mt or 11Q5. The editors suggest the sequence Ps 135 → [Ps 136] → Ps 99, but Jain argues for Ps 135 → [136 →137 →138] → 99, which would require 26–30 lines per column.

The column height of 4Q4 (4QGen⁴) of 11 lines indicates it was a small manuscript probably containing, like 4Q7 (4QGen⁴) and possibly 4Q8 (4QGen⁵⁵), only the very beginning of Genesis.⁵⁵ The preserved fragment with Gen 1:18–27 shows intervals after verses 19 and 25, while reconstruction indicates another interval between verses 23 and 24.

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⁵² Ulrich and Metso, “4QJob⁴.” For corrections and additions to the edition, see, most recently, Luther and Tigchelaar, “More Fragments,” and the literature mentioned there.
⁵⁵ See also the extensive and detailed study of 4Q4 by Brooke, “4QGenesis⁴.”
The small remaining fragment shows that 4Q15 (4QExod\(^d\)) was “well-prepared and smoothly polished.” Little remains of the text, which jumps from Exod 13:15–16 (the conclusion of the consecration of the firstborn) to 15:1 (the beginning of the Song of the Sea). Reconstruction according to the \textit{MT} suggests broad lines of 12–14 cm, and a large interval between 13:16 and 15:1. Tov observes that the fragment does not reflect the rabbinic regulations for the arrangement of Exod 15.

5Q2 (5QKings) contains part of the very beginning of a scroll of Kings, to wit, a large uninscribed area, at least 7 cm wide and some words of the very right part of the first column, which had minimally 40 lines. Its large size, formal and tiny script, and the lack of errors suggest that this was a professional scroll, which may have contained both 1 and 2 Kings.\(^{56}\)

1Q8 (1QIsa\(^b\)), which contained the entire book of Isaiah, apparently consisted of 28 columns with on average 51 lines. The original size of the upper and bottom margin is unknown. From col. XVII onwards, the entire width of the columns is preserved. In cols. XVI–XVIII the width is ca. 11 cm; in cols. XIX–XXVI ca. 9 to 10 cm; in cols. XXVII and XXVIII 12 cm. Only eight scribal corrections are preserved in the manuscript. The scribe frequently increased or reduced the size of word-dividing spaces towards the end of the line, to avoid a jagged left margin.

4Q14 was well-prepared, moderately thin, contained about 43 lines per column, and likely covered the entire book of Exodus.\(^{57}\) The top margin measured more than 4 cm, and the bottom margin ca. 3.3 cm.\(^{58}\) Though this manuscript shows elegance and care of the handwriting, there are also many copying errors, including multiple cases of parablepsis.\(^{59}\) A full evaluation of the textual profile (“\textit{MT}-like” or “non-aligned”), based on a new edition of the text, is a desideratum.\(^{60}\)

4Q51 (4QSam\(^a\)) originally contained the books of 1 and 2 Samuel. The scroll counted 47 lines per column, a height of ca. 32.7 cm, including a bottom margin of 3.3 cm.\(^{61}\) The editors report only eight scribal corrections in the manuscript. Already in antiquity the manuscript was worn and reinforced with papyrus pieces (with semicursive writing) glued onto the back of the scroll, and also two leather patches (one of which, frag. 85, is the basis for the bottom margin reconstruction, together with frag. 121). Cross, too, called 4Q51 the work of a

\(^{56}\) Tigchelaar, “Reading.”

\(^{57}\) Sanderson, “14. 4QExod\(^d\),” 97.

\(^{58}\) The scale indicated in Sanderson, “14. 4QExod\(^d\),” pl. XIX, is incorrect.

\(^{59}\) Sanderson, “14. 4QExod\(^d\),” 100, 102.

\(^{60}\) See Tigchelaar, “Improving,” esp. 185–86.

\(^{61}\) All data on material and scribal features are provided Cross et al., \textit{1–2 Samuel}, 3–23.
highly skilled scribe with a polished and elegant script, with little variation in the size and form of the letters. He also commented on the use of “fine carbon-black ink that did not fade over the centuries.”62 Contrary to the scribe of 1Q8, the scribe of 4Q51 seemed less concerned with a flush left margin, as he could stop short of the left dry line marking of the left margin by a letter or two, or more often, run over the line by three or as many as four letters (once five letters).63 Also, the width of the columns varies considerably, probably caused by the irregular sizes of the sheets of animal skin.64

Noteworthy is the large variety of Hasmonaean biblical scrolls with elegant handwriting in terms of their physical characteristics, letter size, textual character, and whether they are a full copy of a biblical work or not. These include some large scrolls, with a relatively large writing block, such as 1Q8, 4Q51, 5Q2, and possibly 4Q73, but also a very small scroll like 4Q4. In several cases, we cannot be certain about the extent of the scroll, whether it contained an entire biblical book, or only part or an abstract (4Q83, 4Q99, and possibly 4Q73). Large margins (according to Tov’s criterion of 3 cm or more) are attested in 4Q51 and 4Q73, but they are either smaller or not preserved in the other manuscripts. The letter size varies from very small (ca. 2 mm in 4Q83 and 5Q2), small (~2.0–2.5 mm in 1Q8, 4Q14, 4Q51, and 4Q99; ~2.5–3.0 mm in 4Q15, 4Q73, and 4Q92; ca. 3.0 mm in 4Q4), to relatively large in 4Q69 (~3.5–5.0 mm), perhaps due to the writing on papyrus. A few manuscripts (1Q8, 4Q4, 5Q2) agree textually with the MT, but others have different textual sequences or other variants (4Q15, 4Q51, 4Q73, 4Q83, 4Q92, 4Q99; 4Q14 requires more examination).

6 Discussion and Conclusions

This study was specifically aimed at investigating how we should assess the quality of the Hasmonaean-type biblical manuscripts, especially with regard to their handwriting quality.

As discussed above, Tov’s criteria for luxury manuscripts, and that of other scholars following him in this respect, are different from our criteria for handwriting quality. Yet, we may compare the results of both approaches. In his lists of Hebrew/Aramaic deluxe texts found in the Judaean Desert, mainly on the criterion of large top or bottom margins, he records four Hasmonaean biblical

62 Cross et al., 1–2 Samuel, 5.
63 Cross et al., 1–2 Samuel, 24.
64 Cross et al., 1–2 Samuel, 16.
manuscripts: 1QIsa\(^a\), 4Q14 (4QExod\(^c\)), 4Q51 (4QSam\(^a\)), and 4Q73 (4QEzek\(^a\)).\(^{65}\) We assessed the latter two, 4Q51 and 4Q73, as being manuscripts having elegant handwriting, and 4Q14 as possibly elegant. Tov included 1QIsa\(^a\) only because of its large margin but commented that because of the many scribal interventions 1QIsa\(^a\), and probably also 4Q14, should not be considered a luxury manuscript.\(^{66}\) Popović argued that 1QIsa\(^a\), because of the handwriting quality of its two scribes, was not an elegant manuscript but rather an everyday professional copy, copied by two scribes for scholarly purposes.\(^{67}\)

However, we also found high-quality handwriting in manuscripts with smaller margins, or, as in 4Q4, with small writing blocks, or with excerpts of biblical books. As briefly discussed above, even 4Q73 with its large top margin, may have been an excerpt of sections from Ezekiel. This asks us to reconsider the rule of thumb that small manuscripts, like 4Q4, or excerpts, would have been copied for private or personal functions, and therefore would be written less professionally.\(^{68}\)

Our study shows that according to our criteria for elegant handwriting (to wit, a high degree of regularity, proportionality, and arrangement, and/or calligraphic enhancement), eleven out of ninety-six (11.5\%) such manuscripts can be regarded as elegant (or possibly elegant), and most manuscripts have a professional or a substandard writing quality.

This result is important because of the idea in the literature that especially biblical manuscripts would have been copied according to the highest standards. Our study calls that into question in several ways. First, the evidence shows different quality standards to have been in operation for Hasmonaean-type biblical manuscripts. This applies to both full copies of biblical books as well as copies that contained parts of a biblical book. Such manuscripts were most often copied according to professional and substandard handwriting quality instead of elegantly. Second, the surveyed data indicates that the highest writing quality standards were not used exclusively for biblical manuscripts. Thus, the example of 4Q545 with a very elegant hand, and the many Hasmonaean-type biblical manuscripts written in a less elegant hand, shows

\(^{65}\) Tov did not include 4Q38d, a single fragment with Deut 24:20–22 written in professional script, and a bottom margin of 3.6 cm, possibly because it was not included in the DJD series. For its edition, see Tigchelaar, “Forgotten.” In his list of nonbiblical deluxe texts, three Hasmonaean-type manuscripts are included (4Q382, 4Q532, 4Q541), but in all three cases the measurements or interpretations of the margins are incorrect.


\(^{67}\) Popović, “Book Production,” 230.

\(^{68}\) For another interpretation of the function of 4Q4, see Brooke, "4QGenesis\(^d\)," 70.
that there is no direct relationship between writing quality and a specific textual character. Future research may validate this.

This study was also aimed at analysing the material evidence of the scrolls to consider different social or cultural backgrounds and to interpret the social and cultural history of ancient Judaea.

From a comparative perspective, the percentage of high-quality manuscripts among the Hasmonaean-type biblical manuscripts (11%) is considerably smaller than the 34% elegant bookrolls from the Oxyrhynchus sample in Johnson’s study.\textsuperscript{69} We do not know how to explain this discrepancy. Part of the difference may be due to variations in the research setups. To what extent is our category of “biblical manuscripts” comparable to Johnson’s literary texts from the classical canon?\textsuperscript{70} Also, Johnson’s three categories are based on script style as well as handwriting quality, while we prioritize handwriting quality.\textsuperscript{71} But the discrepancy may also be related to different cultural and historical circumstances. The socio-economic circumstances relating to book production in Roman period Egypt (Oxyrhynchus and other places) need not have been the same as those in third to first-century BCE Judaea.

Assuming that most “large de luxe editions, in scrolls from 50 BCE onwards” were biblical and that their textual character was mostly in agreement with the MT or the proto-rabbinic text form, Tov suggested that “many de luxe scrolls were produced in the spiritual center of Judaism.”\textsuperscript{72} Instead, our study of Hasmonaean-type biblical manuscripts in elegant handwriting shows that textual diversity was rather the rule than the exception in these scrolls.\textsuperscript{73} Only 1Q8, 4Q4, and 5Q2 agree textually with the MT, but most high-quality Hasmonaean-type biblical manuscripts have different textual sequences or other variants. We see, therefore, no reason to correlate these manuscripts’ textual characteristics with a specific location of production or to argue for different social or cultural backgrounds. Furthermore, regarding social context and book production,\textsuperscript{74}

\textsuperscript{69} This percentage is derived from Johnson, \textit{Bookrolls}, 155–56, charts 3.9a–b.
\textsuperscript{70} Johnson, \textit{Bookrolls}, 9–10, 158 n. 81.
\textsuperscript{71} We compared Johnson’s style assessments of eight papyri (MP 785.1; MP 962; MP 1039; MP 1388; MP 1409; MP 1537; P.Oxy 255; P.Oxy 2545) to the descriptions of these papyri given in Cavallo and Maehler, \textit{Hellenistic Bookhands}. While there are no glaring differences, this comparison demonstrates in a few cases either different approaches, or different assessments. E.g., Cavallo and Maehler, \textit{Hellenistic Bookhands}, 34, describe P.Petrie 1.5–8 (MP 1388) as a “very small, upright and highly skilled hand,” which Johnson, \textit{Bookrolls}, categorizes as style 2 (everyday professional).
\textsuperscript{72} Tov, \textit{Scribal Practices}, 125, 128.
\textsuperscript{73} Tov, \textit{Scribal Practices}, 125.
\textsuperscript{74} Popović, “Book Production.”
our study of Hasmonaean-type biblical manuscripts in elegant handwriting demonstrates a diversity in physical characteristics (large or small scrolls, e.g., 4Q4) and shows that high-quality handwriting was used for producing full copies, parts, and excerpts of biblical works. Thus, there is no ground for inferring one production format or one specific function or social context for these manuscripts, say a “coffee-table de luxe book.”

In the future, our examination of Hasmonaean-type biblical manuscripts in this study should be complemented with research on Herodian biblical manuscripts from Qumran, or on Herodian and post-Herodian manuscripts from other findplaces in the Judean Desert. That project should make clear whether there is a quantitative increase of elegant handwriting among Herodian biblical manuscripts, perhaps related to the rise of the Herodian ornamental bookhand. It may also serve as a control to determine whether our aesthetic assessments (for example of arrangement and proportion) have been influenced by the Herodian evidence.

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