

Critique of Vaticanus Distigme-Obelos Denials

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Building on over twenty-five years of research on this issue,¹ my 2017 *NTS* article, “Vaticanus Distigme-obelos Symbols Marking Added Text, Including 1 Corinthians 14.34–5”,² analyzes combinations of Vaticanus two-dot distigmai, which mark the location of textual variants, with horizontal bars with a particular set of characteristics. It refers to these bars as “characteristic bars” and argues that they are obeloi marking locations where the original text³ was interrupted by a specific kind of variant, namely widely acknowledged multi-word additions (henceforth “insertions”). It calls the combination of a distigme and a characteristic bar a “distigme-obelos”.

Two April 2019 *NTS* articles, however, deny that distigme-obelos symbols exist. I am grateful to both of their authors for providing valuable observations that, in fact, support recognizing characteristic bars as obeloi. Unfortunately, neither Fellows’s nor Krans’s article acknowledges this support. Furthermore, both ignore the fundamental question: How does one identify the meaning of any marginal symbol? The answer is that one looks for consistent patterns. Then using statistical analysis, one tests whether a pattern is statistically significant and to what level of significance. My previous research on these symbols is grounded in statistical analysis. Fellows and Krans provide no refutation of this. They provide no statistics that justify their distigme-obelos denials. Nor do they provide any explanation for the 100% conjunction of characteristic bars with insertions. Numbers in parentheses hereafter identify page(s) in their *NTS* articles. “2017:” precedes page numbers of my 2017 *NTS* article.

¹ See the works cited above in notes 11, 122, and 123 plus Philip B. Payne and Paul Canart, “The Originality of Text-critical Symbols in Codex Vaticanus”, *NovT* 42 (2000) 105–113; Philip B. Payne, “The Text-Critical Function of the Umlauts in Vaticanus, with Special Attention to 1 Corinthians 14.34–35: A Response to J. Edward Miller”, *JSNT* 27 (2004) 105–112; Philip B. Payne and Paul Canart, “Distigmai Matching the Original Ink of Codex Vaticanus: Do They Mark the Location of Textual Variants?”, in *Le manuscrit B de la Bible (Vaticanus graecus): Introduction au fac-similé, Actes du Colloque de Genève (11 juin 2001), Contributions supplémentaires* (HTB 7; ed. Patrick Andrist; Lausanne: Éditions du Zèbre, 2009) 199–226.

² *NTS* 63 (2017) 604–624, free download link at <https://www.cambridge.org/core/services/aop-cambridge-core/content/view/A5FC01A6E14A2A1CF1F514A9BF93C581>.

³ “Original text” here refers to the text of each individual book of the New Testament as first distributed publicly, the ultimate source of all later copies of that book.

Critique of Richard Fellows's Distigme-Obelos Denial⁴

Fellows Makes Two Important Contributions

First, Fellows identifies a bar I missed at 1285B (Mark 6:11) that “is hard to spot because it was inked successfully only at its extreme ends” (249, see its image in Appendix A above, p. 130). A large mid-line gap in this line marks the exact point where some manuscripts add between fifteen and eighteen words. Fellows cannot say I “cherry-picked” (251) this case since he discovered it. It strengthens the statistical argument for distigme-obelos symbols and for the early text of the Vaticanus Gospels. Its horizontal bar has exceptionally long extension into the margin and is exceptionally long. Consequently, including it with the other characteristic bars heightens the contrast between the average measurements of those bars and paragraphoi by distigme lines. Fellows's October 3, 2017 email to me acknowledged that his discovery strengthened my statistical case. Nevertheless, his article states, “Our conclusions would not change if we included this bar in the analysis” (249).

Fellows's discovery caused me to reexamine the Vaticanus New Testament five more times, twice with Vince Huffaker's help, to see if I had missed any other bars by distigme lines. These examinations identified eight characteristic bars by distigme lines that my 2017 *NTS* article had missed. On each such line, NA²⁸ and/or Reuben Swanson⁵ identify manuscripts with inserted text precisely at a gap in that line. The examinations also revealed twelve more undisputed paragraphoi by distigme lines, each lacking at least two of the five features of characteristic bars:

1. Each is by a line with a distigme.
2. Each extends farther into the margin than most undisputed distigme-line paragraphoi.
3. Each is longer than most undisputed distigme-line paragraphoi.
4. Each occurs where the original text was interrupted by an NA²⁸- and/or Reuben Swanson-noted, widely acknowledged, insertion of four or more consecutive words.
5. Each, except one by a later hand,⁶ has a gap in its line at the precise insertion point.

Thus, the examination of each of the characteristic bars discovered after my 2017 *NTS* article confirms their distinction from paragraphoi. It also revealed that the only distigme-obelos-

⁴ Richard G. Fellows, “Are There Distigme-Obelos Symbols in Vaticanus?”, *NTS* 65 (2019) 246–251.

⁵ See p. 131, n. 134 above.

⁶ 1390A's image in Appendix A shows downward dipping ink from both dots and bar.

marked case my 2017 article listed as adding only three words, actually adds five-to-six words.⁷ This contributes significantly to the statistical argument because NA²⁸- and/or Reuben-Swanson-noted four-or-more-consecutive-word blocks of added text occur, on average, only once in 83.5 *Vaticanus* lines, whereas three-or-more-word-adding variants occur, on average, once in 27.8 *Vaticanus* lines.⁸

The ideal confirmation of a thesis identifying what rarely occurring symbols mean is if it accurately describes all cases not originally considered. My thesis accurately describes insertions at a gap following all eight later-discovered characteristic bars. Insertions coincide with all sixteen characteristic bars but only three of thirty-one distigme-line paragraphoi.⁹

The research hypothesis that characteristic bars mark locations where the original text was interrupted by a block of added text perfectly explains why all sixteen characteristic bars coincide with widely acknowledged blocks of added text. Fellows and Krans assert the null hypothesis, the opposite of the research hypothesis, namely that characteristic bars are unrelated to insertions. The chi-square test is the proper procedure for calculating the probability that the null hypothesis is correct. This test determines the probability that this stark difference between the frequency of blocks of added text on characteristic-bar lines (sixteen of sixteen) and on undisputed paragraphos lines (three of thirty-one) would occur if characteristic bars are unrelated to insertions.

To prevent overestimation of statistical significance when the number of occurrences is small, this chi-square test includes Yates' correction. Even factoring in Yates' correction gives the chi-square value $\chi^2 = 32.096$, d.f. (degrees of freedom) = 1. This shows that the probability of such starkly different frequencies of insertions occurring is extraordinarily low, just 1.467 in

⁷ At Mark 5:40; see the image above on p. 128 and the discussion below on p. 149.

⁸ See Payne, "Distigme-obelos", 620, n. 60. I counted fifty-six four-or-more-consecutive word NA²⁸-listed additions to Matthew. Matthew has 5,343 lines in *Vaticanus*. $5343 \div 56 =$ one per 95.410714 lines. Swanson also includes the full additions at Mark 3:5 and 5:40. Taking the comparatively greater number of Swanson-noted than NA²⁸-noted four-or-more-consecutive word additions where distigme-obelos symbols occur (16:14) as roughly representative of such additions' greater frequency in Swanson than NA²⁸ raises the odds of hitting these additions by 16/14. $1/95.410714 \times 16/14 = .01197828937$, namely one in 83.5 lines. Similarly, $1/31.8 \times 16/14 = .0359389039$, namely one in approximately 27.8 *Vaticanus* lines.

⁹ The words added to Mark 14:70 (1301B) and Acts 14:18 (1403B) are at a gap. The words added to 1 Corinthians 10:17 (1469C) are not at a gap. Note that because distigmai mark the locations of textual variants, it is not exceptional that out of thirty-one such variants three would be variants adding four or more words.

100,000,000.¹⁰ Statistically, any probability less than one in twenty is sufficient to reject the null hypothesis. This test rejects the hypothesis that characteristic bars are unrelated to insertions at a level 3,408,316 times greater than the threshold needed to reject Fellows's and Krans's hypothesis as false.¹¹

Furthermore, what occurs by distigme-obelos symbols is even more remarkable than multi-word variants occurring somewhere in all sixteen Vaticanus distigme lines with a characteristic bar. In every case but one with downward dipping ink from both dots and the bar (1390A), indicating a different hand (2017: 614), a gap marks the exact insertion point (2017: 612–617, images above, Appendix A, pp. 127–130). Random occurrence cannot plausibly explain this. Nor does the common occurrence of gaps with paragraphoi explain why all fifteen of these gaps coincide with the precise point where blocks of text were added. Nine of the thirty-one distigme lines with undisputed paragraphoi have no gap.¹² Therefore, if all fifteen evidently original characteristic-bar lines were paragraphoi, it is doubtful that they would all have a gap, let alone that all fifteen gaps would be at the precise point where some manuscripts add blocks of text. Furthermore, it is not just all eight newly found distigme-obelos symbols that confirm the thesis—every newly discovered bar by a distigme line confirms the distinction between obeloi and paragraphoi.

Fellows's second important contribution was to convince me in 2017, when he kindly emailed me the measurements used in his blog post, to remeasure all bars by distigme lines with greater precision than I had done originally.¹³ I therefore purchased a high-precision ruler. Using the high-resolution IPZS facsimile,¹⁴ with two large magnifying glasses I carefully measured both the extension into the margin and the overall length of all forty-seven bars by a distigme line.

My new, more precise, measurements are much closer to Fellows's measurements. Fellows had objected that my length "measurements of all but one of the undisputed paragraphoi are smaller than" his measurements (251). Four of my new, more precise, undisputed paragraphos length measurements are longer than or equal to Fellows's, and all but six are within 0.1 mm of his measurements.

¹⁰ Standard chi-square calculators determine the probability of this happening as p (probability) = 0.00000001467, e.g. <http://courses.atlas.illinois.edu/fall2017/STAT/STAT200/pchisq.html>.

¹¹ 1.467 in $100,000,000 = 1$ in $68,166,325.835$. $68,166,325.835 \div 20 = 3,408,316.29175$.

¹² 1245B, 1312C, 1342C, 1345B, 1401B, 1442C, 1504B, 1505 B26, 33.

¹³ On October 5, 2017 Fellows emailed to me his length and margin-extension measurements.

¹⁴ *Bibliorum Sacrorum Graecorum Codex Vaticanus B* (Rome: Istituto Poligrafico e Zecca dello Stato, 1999), available at <https://www.linguistsoftware.com/codexvat.htm>.

Similarly, regarding the extension into the margin of the eight originally identified characteristic bars, Fellows had objected, “His measurements of all but one of his eight ‘obeloi’ are greater than mine” (249). Of my eight new, more precise, measurements, seven are smaller than Fellows’s, including the bar at the start of 1 Corinthians 14:34 (Fellows 2.65 mm, Payne 2.4 mm¹⁵). The reason why this one measurement was longer than Fellows’s was that Fellows did not include in his measurement the dot at the left end of the bar at 1259 A33, Matthew 18:10/12. Fellows writes, “I do not include it because it adds little to the visible impression of length” (249). That is not, however, a valid reason for excluding the dot from his measurements. This dot makes perfect sense in context as the left end of the bar. Interpreted as unrelated to the bar, it is completely out of place here.¹⁶

Fellows’s exclusion of this portion of the bar shortened his measurements of both its extension into the margin and its total length by approximately 1 mm. His exclusion recharacterizes this bar from one of the longest characteristic bars with respect to both extension into the margin and total length to the shortest by far in both measurements. Both this and Fellows’s exclusion of the bar at Mark 6:11, which has unusually long extension into the margin and total length, reduce his calculation of the average extension into the margin and length of the characteristic bars. Nevertheless, Fellows writes, “Our conclusions would not change if we included this bar in the analysis or if we included the dot at Matt 18.10, 12” (249).

Fellows’s Two Central Assertions Are False

Fellows’s article focuses on two central assertions regarding the measurements of bars “adjacent to distigmai” (247). The first relates to their extension into the margin, the second to their length. Fellows writes that by his measurements the eight characteristic bars average 2.69 mm extension into the margin compared to 1.95 mm for the twenty distigma-line, undisputed paragraphoi (249). This is a remarkable disparity for their *average* extension into the margin given Fellows’s view that they are all paragraphoi, especially since it excludes both the dot at the end of the bar at Matthew 18:10/12 and the bar at Mark 6:11 with an exceptionally long extension into the margin. Nevertheless, Fellows asserts that all eight characteristic bars are ‘indistinguishable’

¹⁵ A blank sheet of paper covering all but a barely-visible sliver of the far-left edge of the farthest-left letter in a column established my measurements’ starting point. Letters added later in the margin, e.g. 1460 B20, were ignored.

¹⁶ In the IPZS facsimile, that dot appears to have the same color as the rest of this bar. Gaps in bars’ ink are common immediately to the right of the beginning of bars, as at 1250 A40, 1259 B26, 32, 1271 A22, C26, 1274 B5, 1275 C34. This dot is also aligned with the rest of the bar similarly to the bars on the same page at 1259 A2, B10, C2, 7. After making initial stylus contact, something presumably interrupted or sped up the scribe’s stroke, or there was some irregularity in the vellum’s surface or oil on it. In any such case, this dot makes best sense understood as part of the bar.

from paragraphoi (246, 251). His Figures 2 and 3,¹⁷ however, clearly show that all eight characteristic bars are located by insertions, and all are longer by Fellows's own measurements in both overall length and extension into the margin than most undisputed paragraphoi by a distigme.

Fellows's first central assertion regarding bars by distigme lines¹⁸ is: "there is no strong correlation between extension into the margin and the number of words of omitted text in textual variants."¹⁹ Any trend is explicable by chance" (249). By referring to "*omitted* text in textual variants" instead of "*added* text in textual variants", Fellows describes obeloi as though they were asterisks. This is not what my thesis argues. Vaticanus's "obeloi" always mark locations where text was added, whether the added text is in Vaticanus or not. I assume that Fellows intended to refer to *added* text in textual variants since that is what I argue and since the correlation of characteristic bars with added text is obvious in Fellows's Figure 3 (250). All eight characteristic bars coincide with widely acknowledged, NA²⁸-cited insertions, including the five adding the most words and four of the five bars with the greatest extension into the margin in Fellows's Figure 3. By Fellows's own measurements and added-word count, none of "the twenty undisputed paragraphoi" (249) both coincide with an NA²⁸-cited three-or-more-word addition and also extends into the margin as far as the characteristic bar with the least extension into the margin by far, 2.24 mm, even after excluding the dot at the end of the bar at Matthew 18:10/12.

Fellows's second central assertion is: "there is no strong correlation between bar length and number of added words in textual variants" (251). Yet a strong correlation between these is obvious in Fellows's Figure 2. All eight characteristic bars coincide with widely acknowledged, NA²⁸-cited, three-or-more-word additions, including the five marking the addition of the most words and four of the five longest bars in Figure 2. By Fellows's own measurements and added-word count, none of the other twenty bars (undisputed paragraphoi) by distigme lines²⁰ both coincides with an NA²⁸-cited three-or-more-word addition and is also as long as the shortest characteristic bar by far, 3.88 mm, even after excluding the dot at the end of the bar at Matthew 18:10/12.

¹⁷ The first (248) is mislabeled *Figure 2. Bar extensions into the margin*. It should be on p. 250 listed as *Figure 3. Bar length*. The second (250) is mislabeled *Figure 3. Bar length*. It should be on p. 248 listed *Figure 2. Bar extensions into the margin*.

¹⁸ Fellows's reference to "black diamonds" in this sentence specifies bars by distigme lines.

¹⁹ The similarity between Fellows's "omitted text in textual variants" and Krans's closely parallel and similarly odd expression, "omission ... in other manuscripts" (256, see below, pp. 155–156 and n. 199) suggests that Krans's article may have influenced Fellows's wording here, or vice versa.

²⁰ Distigme lines are implied by "these measurements" (251).

My research hypothesis that characteristic bars mark locations where the original text was interrupted explains why all characteristic bars coincide with widely acknowledged insertions. Fellows, however, denies any valid distinction between characteristic bars and undisputed paragraphoi. Indeed, he asserts that they are “indistinguishable” (246, 251).

The standard chi-square probability test is the proper test to assess Fellows’s two central assertions regarding the twenty-eight distigme + bar instances listed in my 2017 *NTS* article. This test shows that if Fellows’s and Krans’s distigme-obelos denial were correct, the probability of such starkly different frequencies of NA²⁸-noted insertions occurring (eight of eight vs. zero of twenty in both cases) is just 1.378 in 1,000,000 for either assertion.²¹ Statistically, any probability less than one in twenty is sufficient to reject Fellows’s and Krans’s distigme-obelos denials as a false hypothesis. Based on Fellows’s own measurements of the first twenty-eight distigme lines identified with a bar, this test rejects his hypothesis that characteristic bars are unrelated to insertions at a level 36,284 times greater than the threshold needed to reject it.²² This test overwhelmingly establishes as false both of Fellows’s two central assertions: “there is no strong correlation between extension into the margin and the number of words of [added] text in textual variants” (249) and “there is no strong correlation between bar length and number of added words in textual variants” (251). This chi-square test strongly supports the research hypothesis that characteristic bars mark locations where a block of added text interrupted the original text. It justifies distinguishing characteristic bars from undisputed paragraphoi.

Fellows contends that “these are not two independent observations: the bar is longer than average precisely because it extends further into the margin” (251). Yet his own lists of examples both of length and extension into the margin from 1 Corinthians (249 n. 9, 251 n. 10) demonstrate that these observations are largely independent. Eighteen of the examples Fellows cites for these two observations apply to only one of them, and only seven apply to both. The independence of these measurements is confirmed by the full sets of bars by distigme lines discovered later. Of the forty-seven bars by lines with a distigme, 1237C is the shortest, yet only three of the other thirty-one undisputed paragraphoi by lines with a distigme clearly exceed its extension into the margin: 1268A, 1469C, and 1504B. Similarly, 1429C and 1361A appear to have the least extension into the margin of these forty-seven bars but are longer than most of the thirty-one undisputed

²¹ The chi-square (χ^2) value = 23.311, d.f. (degrees of freedom) = 1. To prevent overestimation of statistical significance when the number of occurrences is small, this chi-square value includes Yates’ correction. Standard chi-square calculators, such as the calculator at <http://courses.atlas.illinois.edu/fall2017/STAT/STAT200/pchisq.html>, determine the probability of this happening as p (probability) = 0.000001378.

²² 1.378 in $1,000,000 = 1$ in $725,689.4$. $725,689.4 \div 20 = 36,284.47$.

paragraphoi. As height and weight are different characteristics, so are extension into the margin and bar length.

Fellows Omits Crucial Data and Does Not Reveal his Far Different Posted Measurements

On October 4, 2017, I emailed to Fellows, “To avoid the false impression that we were measuring the same thing, you must acknowledge that I was measuring the 1999 *Codex Vaticanus B* facsimile.” Nevertheless, Fellows writes, “the systematic differences between Payne’s measurements and mine cannot be explained by his use of different photographs or his use of a different measurement technique” (249). He acknowledges that his measurements were based on the online Vaticanus images (249 n. 6). Those images were scanned.²³ Digital images have limited resolution and are far less dependable in color reproduction because the color displayed varies from monitor to monitor. Even the highest-resolution third-generation retina-display MacBook Pro’s resolution is only 227 ppi.²⁴ By contrast, from four inches away, the human eye can perceive up to 2,190 ppi of a high-resolution printed image.²⁵ It is precisely up-close, sharp resolution that is required for these measurements, not long or mid distance or even from a foot away. One should not claim that measurements from different images are truly comparable.

Second only to the original manuscript, which is harder to measure accurately because of its irregular surface, the 1999 IPZS facsimile is the ideal standard for measurements since it is unaffected by monitor display and scaling limitations. The Vatican-produced Vaticanus New Testament color facsimile lacked the precision and faithful color reproduction necessary for high-level research. So the Vatican commissioned Istituto poligrafico e Zecca dello Stato, world-renowned for its extraordinarily accurate reproductions of the Leonardo da Vinci folios, to create the highest-precision and most faithful color reproduction possible of Codex Vaticanus B.²⁶

My own experience illustrates how accurate the IPZS facsimile is. After my 1995 *NTS* article conjectured that some distigmai might match the original ink color of Vaticanus, Paul Canart invited me to examine the original manuscript with him at the Vatican. Using the Vatican-

²³ <https://digi.vatlib.it/news/#news-2>.

²⁴ <https://www.apple.com/macbook-pro-13/specs/>; https://en.wikipedia.org/wiki/Retina_display; ppi = pixels (or points) per linear inch.

²⁵ <https://news.ycombinator.com/item?id=8459962>. <https://wolfcrow.com/notes-by-dr-optoglas-the-resolution-of-the-human-eye/>.

²⁶ ‘con tecniche di riproduzione non convenzionali’, <https://searchworks.stanford.edu/view/471397>.

produced color facsimile,²⁷ I made a list of the most likely cases of original-ink Vaticanus distigmai. Canart confirmed that only eleven from my list match the original Vaticanus ink color.²⁸ On receipt of one of the first copies of the IPZS 1999 color facsimile, I examined every distigme to see if any others match the apricot color that I remember so vividly from the original manuscript. I emailed to Canart a list of forty that appeared in the IPZS facsimile to match that original apricot color. Canart confirmed by careful comparison with the original that there are, indeed, forty more original-ink distigmai.²⁹ This exemplifies how reliable the IPZS facsimile is in accurately representing the original Vaticanus text. The pixel limitations of all computer monitors, the difficulty of confirming that the on-screen image is exactly the original size, and the limitations of measuring on-screen images constitute arguments that future measurements should be based on the IPZS 1999 facsimile rather than on-line scanned images.

I suspect that online measurement limitations may have contributed to Fellows's article including as bars in 1 Corinthians that "have greater extension into the margin than that [bar] at the start of 1 Cor 14:34" (249 n. 9) bars that in the IPZS facsimile have less extension: 1466 B25, 1469 C17, and 1471 B11. Similarly, Fellows includes among the bars in 1 Corinthians that "are measurably longer" than the one at the start of 1 Corinthians 14:34 (251 n. 10) bars that are clearly shorter in the IPZS facsimile: 1463 B7 and 1476 C31.

Fellows fails to mention the fifteen cases where the range of his measurements and my previous measurements overlap.³⁰ Nor does he mention that in at least four cases, his own earlier posted measurements of the length of the twenty-eight bars are clearly outside the measurement ranges his Figure 2 gives for bar lengths.³¹ This raises doubts about the reliability of the ranges Fellows's figures list. Bar-length measurement differences cannot be attributed to different definitions of "the margin". Fellows writes that my "length measurements are greater than [his]

²⁷ *Novum Testamentum e Codice Vaticano Graeco 1209 (Codex B) tertia vice phototypice expressum* (Vatican: Bibliotheca Apostolica Vaticana, 1968).

²⁸ Payne and Canart, "Originality", 105–109 lists the eleven cases.

²⁹ Payne and Canart, "Distigmai", 204–208 lists these forty cases.

³⁰ As shown in Fellows's Figure 3 (250, ordered from bottom to top), nine of my measurements of extension into the margin lie within Fellows's range: 1505 B26 (Col. 3:18f), 1280C, 1442C, 1345B, 1262C, 1284C, 1253B, 1332C, 1390A. In two cases, my measurement was only 0.02 mm different from Fellows's measurement: 1262C and 1284C. As shown in Fellows's Figure 2 (248), six of my measurements of bar length lie within Fellows's range: 1505 B26 (Col. 3:18f), 1268A, 1504B, 1505B (Col. 3:20), 1470A, 1500C.

³¹ 1505B (Col. 3:20), 1365A, 1403B, 1385B, posted "9/29/2017 4:25 PM" at <http://evangelicaltextualcriticism.blogspot.com/2017/09/more-payne-no-gain-on-distigmai.html>.

for six of the eight ‘obeloi’” (251), but Fellows’s earlier-posted length measurements are greater than *seven* of the eight obeloi length measurements in his *NTS* article. On October 4, 2017 I emailed to Fellows, “Why is it that in the numbers you posted on ETC [the EvangelicalTextualCriticism blogsite] your number was larger than mine in 46 of the 56 measurements including six of the ‘characteristic bar’ measurements, but now you write that ‘he gets greater measurements for all but one of the characteristic bars ...?’” Fellow’s response did not address this question.

Fellows writes that “the eight ‘obeloi’ have been ‘cherry-picked’ because of their measurements” (251) and “the greater margin intrusion of Payne’s eight ‘obeloi’ proves nothing on its own since he has selected them for their greater margin intrusion!” (249). Since bar measurements are not themselves insertions, identifying a completely consistent pattern between those bar measurements and insertions is not “cherry-picking”. I recognized them because of their shared characteristic features and because wherever they occur, insertions also occur. It is precisely by identifying a consistent pattern that the meaning of any symbol is properly established. The lines marked by all eight newly identified instances of characteristic bars have a gap in the text at the precise point of insertions that occur on average only once in 83.5 Vaticanus lines.³² This demonstrates my thesis’s predictive value.

Fellows recommended including bar measurements of all bars by distigme lines where NA²⁸ lists one-or-two-word additions (251). This ignores the exceptional pattern of insertions I had already established, and that was confirmed by the one additional case he discovered. It also does not take into account that additions of words are commonly marked by distigmai since distigmai mark the location of variants. Out of twenty distigme lines Fellows refers to as being by undisputed paragraphoi, the inclusion of six with NA²⁸-noted one-or-two-word additions and two more with NA²⁸-noted five-or-six-word additions would be typical rather than something pointing to special significance. Fellows’s inclusion of eight paragraphoi in his calculation of the average length of bars by added text (251) waters down and conceals the characteristic bars’ exceptional length.

Fellows’s article nowhere acknowledges that by the measurements used in his article, the *average* total length of the characteristic bars is 4.418 mm,³³ and the *average* total length of undisputed paragraphoi by distigme lines is 3.762 mm.³⁴ If both sets of bars are simply paragraphoi, why is there such a strong contrast in their *average* total length? Nor does Fellows’s article mention that by his originally posted measurements, the average length of the eight

³² See Payne, “Distigme-obelos”, 620 n. 60 and below, p. 139 and n. 153.

³³ $35.34 \div 8 = 4.4175$ from the measurements in Fellows’s email to me of October 5, 2017.

³⁴ $75.24 \div 20 = 3.762$ from the measurements in Fellows’s email to me of October 5, 2017.

characteristic bars was much higher, 4.625 mm,³⁵ even though the average of his paragraphoi measurements was almost the same, 3.795 mm.³⁶ Fellows's systematically lower "obelos" length measurements in his *NTS* article than his own earlier posted measurements raise doubts about his assertions, "There can be no systematic bias in my own measurements" (249) and "I excluded the possibility of bias" (251).

On October 3, 2017 Fellows emailed to me that he was using the center of the vertical strokes as his definition of the margin rather than "the far-left edge of letters on the margin" as Payne, "Distigme-obelos", 610 n. 27 explained I had used. Consequently, Fellows's original measurements had a systematic bias making all his extension-into-the-margin measurements larger than mine. On October 4, 2017 I emailed to Fellows that his remedy of simply subtracting one value for all cases "is not the proper way to determine the margin. This can only be done on each page based on the actual margin within which scribe B wrote."

Fellows concludes, "The bar at the start of 1 Cor 14.35 is indistinguishable from other paragraphoi" (251) even though he had just acknowledged that it "is longer than the average bar *and* extends further into the margin than the average bar" (251, Fellows's italics). He asserts, "The bar at the start of 1 Cor 14.34 is not at all exceptional in its length" (251). Yet by his own measurements shown in Figure 2, none of the twenty undisputed paragraphoi by distigmai lines is longer. Fellows's measurements do not support, but rather contradict, his conclusions. Indeed, they confirm a strong correlation between insertions and both characteristic bars' extension into the margin and their total length.

Conclusion regarding Fellows's Critique

By Fellows's own measurements and categorization, none of the twenty undisputed paragraphoi both coincides with an NA²⁸-cited three-or-more-word addition and also extends into the margin as far *or* is as long as *any* of the characteristic bars. Yet every characteristic bar coincides with a widely acknowledged, NA²⁸-cited, three-or-more-word addition. Fellows's own measurements, therefore, contradict both of his central assertions denying a strong correlation between characteristic bars and insertions. Fellows's critique also ignores most of the evidence that distigme-obelos symbols mark places where the original text was interrupted by a widely acknowledged block of added text. It does not acknowledge that Fellows was not measuring the same images I was. It does not acknowledge that many of my measurements lie within the measurement ranges shown in Fellows's charts. It does not acknowledge that his earlier publicly

³⁵ $37.7 \div 8 = 4.625$ from the measurements Fellows posted "9/29/2017 4:25 PM" at <http://evangelicaltextualcriticism.blogspot.com/2017/09/more-payne-no-gain-on-distigmai.html>.

³⁶ $75.9 \div 20 = 3.795$ from the measurements Fellows posted "9/29/2017 4:25 PM" at <http://evangelicaltextualcriticism.blogspot.com/2017/09/more-payne-no-gain-on-distigmai.html>.

posted measurements differ markedly from those cited in his article, including measurements that lie outside the range of measurements shown in his two charts.

Fellows's article does not provide his own sharply contrasting bar-length average measurements for characteristic bars and for undisputed paragraphoi by distigme lines or his earlier posted measurements of their even more sharply contrasting averages. None of Fellows's measurements or observations warrants his denial that distigme-obelos symbols exist. In fact, Fellows has recently argued that 1 Corinthians was not originally in the text but was added later.³⁷

Critique of Jan Krans's Distigme-Obelos Denial³⁸

Krans Contributes Six Important Insights

First, Krans identifies “the addition of εἶδοτες ὅτι ἀπέθανεν in *f*¹³ etc.” (256 n. 14) at the gap at 1284 C12 (Mark 5:40). This shows that more words were added here than NA²⁸ lists: ὁ δὲ Ἰησοῦς in *f*¹. In 2017, while searching for more characteristic bars, I found that W and *f*¹³ add εἶδοτες ὅτι ἀπέθανεν ὁ and 124 adds εἶδοτες ὅτι ἀπέθανεν ὁ δὲ Ἰησοῦς.³⁹ Krans's identification demonstrates that this characteristic bar, like all the others, coincides with an insertion of four or more consecutive words. Since NA²⁸- and/or Swanson-noted insertions of four or more consecutive words occur on average about once in 83.5 Vaticanus lines whereas insertions of three or more consecutive words occur about once in 27.8 lines,⁴⁰ this significantly reduces the likelihood that all eight of these characteristic bars would randomly coincide with insertions of four or more words. This important insight by Krans is marred by his incorrectly stating three times that I identified the added text at Mark 5:40 as αὐτὸς δὲ Ἰησοῦς (256 and n. 14). In fact, I simply cited the addition NA²⁸ identifies: ὁ δὲ Ἰησοῦς (2017:613). Note 14 incorrectly asserts: “it is not a ‘multi-word addition’, and is not found at the location Payne

³⁷ Richard Fellows, “The Insertion of 1 Cor 14:34–35 into the western manuscripts”, posted at <http://paulandco-workers.blogspot.com/2021/01/the-insertion-of-1-cor1434-35-and-rom.html>, argues: “Clause length transpositions occurred in Z ([exemplar of D, ancestral line of F G] or a predecessor) only in text that was added from another manuscript. Therefore 1 Cor 14:34–35 was absent from the manuscript and was added, along with Rom 16, by an editor with a tendency to transpose.”

³⁸ Jan Krans, “Paragraphos, Not Obelos, in Codex Vaticanus”, *NTS* 65 (2019) 252–257. Numbers in parentheses are page numbers in Krans's article.

³⁹ Documented in Swanson, *Mark*, 77.

⁴⁰ See Payne, “Distigme-obelos”, 620, n. 60 and above, p. 139 and n. 153.

indicates.” In fact, ὁ δὲ Ἰησοῦς is a multi-word addition, and both it and the longer insertions including it or part of it all interrupt the Vaticanus text precisely at this gap.

Krans’s second important contribution is his inclusion of bars by lines with distigmai on the right side of the far-right, sixth column of the open codex (254–255). Krans correctly criticizes my 2017 article because it “only considers cases where paragraphos and distigme are physically close, that is, when the distigme is found at the left of the column” (255). I realized this omission in late 2017 and searched the Vaticanus New Testament five times for any bar on a line with a distigme, twice with Vince Huffaker. We found thirteen bars by distigme lines in the sixth column. Four of these bars share all five characteristic features, including a gap precisely where some manuscripts add a block of text.⁴¹ The other nine bars by distigme lines in the sixth column are all undisputed paragraphoi and lack at least two of the five characteristic features.⁴² Consequently, all thirteen sixth-column instances support the distinction between characteristic bars and paragraphoi identified in my 2017 *NTS* article.

Krans incorrectly asserts that one of these, “the distigme at John 7:52 ... is one line too high to possibly refer to the *Pericope de adultera*” (255 n. 11). In fact, both this distigme and its associated characteristic bar are perfectly positioned to mark “the interface between the original text and the *pericope adulterae*” (2017:617, image in Appendix A). Krans also incorrectly asserts, “the distigme in 1 Cor 14 is actually one line too high” (256, 2017: 617, image in Appendix A). In fact, every distigme-obelos gap marks the exact point where the original text was interrupted by a widely acknowledged block of added text, as does the obelos at Isaiah 51:23, 1051 B31, where, like 1 Corinthians 14:34–35, the added text starts at the beginning of the next line and continues beyond that line (2017: 617 and above, pp. 78–79). Likewise, paragraphoi underscore lines when the paragraph break is at the end of that line. Both paragraphoi and obeloi in distigme-obelos symbols are consistently positioned under a line when the end of that line marks a new paragraph or the exact point where the original text was interrupted by a widely acknowledged insertion. Both mark the interface between the prior text and, respectively, a new paragraph or added text.

Krans’s third and fourth important contributions are that “spacing is introduced by the original scribe, whereas in Vaticanus the paragraphoi seem to be later” (254). A crucial part of the evidence that scribe B penned distigme-obelos symbols is that only the original scribe could leave gaps in the text. There is a gap at the precise point where the original text was interrupted by a widely acknowledged insertion in all fifteen Vaticanus lines with an apparently original distigme and characteristic bar. This consistent co-occurrence of distigmai, characteristic bars, and gaps supports a common source for them all, scribe B. Gaps should not be regarded as

⁴¹ See the images in Appendix A.

⁴² See below, p. 151, n. 191.

irrelevant simply because gaps often occur with paragraphoi. Only eleven of the nineteen originally identified paragraphoi have a gap,⁴³ so it would be statistically surprising for all fifteen of the cases mentioned above to have a gap if they were merely paragraphoi. Furthermore, the probability is astronomically low that insertions that occur on average only once in 83.5 Vaticanus lines would interrupt the original text precisely at all fifteen of these gaps if the characteristic bars were unrelated to added text.

Krans's observation that "paragraphoi seem to be later" (254) is also an important part of the evidence in support of distinguishing distigme-obelos symbols from paragraphoi. Krans's statement is confirmed by the absence of any Vaticanus New Testament paragraphoi that match the original ink color.⁴⁴ In sharp contrast, Canart confirmed that fifty-one distigmai match Vaticanus's original ink color (2017: 605 n. 6). Consequently, when scribe B penned the Vaticanus New Testament, there would have been no nearby paragraphoi with which these characteristic bars could have been confused.

Krans's fifth important contribution is that paragraphoi randomly coinciding with distigmai "are to be expected, and their total number of about thirty is well within the range of statistical probability" (254). Thirty-one is the exact number of undisputed paragraphoi⁴⁵ by distigme lines, as our new searches confirmed.⁴⁶ If characteristic bars by distigme lines are obeloi and not paragraphoi, this affects the number of paragraphoi only in books containing distigme-obelos symbols. It also affects the calculation of the expected number of paragraphoi only in books containing distigme-obelos symbols. The chart below identifies the expected number of paragraphoi by distigme lines⁴⁷ (= expected # ¶ column heading in the chart below) in each

⁴³ 1280C at Mark 3:5 is a characteristic bar, not an undisputed paragraphos. 2017: 612 n. 32 incorrectly identified it as a paragraphos.

⁴⁴ Cf. above, p. 131.

⁴⁵ This does not count the sixteen characteristic bars or the bars with an additional stroke at the end of the Gospels, Jude, 1 and 2 Corinthians, and Ephesians that do not separate paragraphs. Obviously later symbols with an additional stroke not added to an underlying paragraphos are also excluded, as at 1463 B9 and 1464 A11.

⁴⁶ Nineteen were identified in Payne, "Distigme-obelos", 612 n. 32, which incorrectly listed the obelos a 1280C as a paragraphos. Three of the twelve newly identified ones occur in the first five columns of the open codex at 1255B, 1312C, and 1454C. The remaining nine with a distigme on the opposite (right) side of the sixth column are 1237C, 1245B, 1267C, 1287C, 1387C, 1395C, 1429C, 1447C, 1469C. Ten of the thirty-one are in books with no characteristic bars.

⁴⁷ Vaticanus lines in the book ÷ its number of paragraphoi = its average number of lines between paragraphoi. The number of distigmai in that book ÷ its average number of lines between paragraphoi = the expected number of paragraphoi by distigme lines in that book. ¶ = undisputed paragraphoi.

book having any distigme-obelos symbols (¨+obelos). Each book is treated separately because the frequency of paragraphoi (# lines/¶) and distigmai varies widely from book to book.

Book	# lines	# ¶	# lines/¶	# ¨	# ¨+obelos	# ¨+¶	expected # ¨+¶	# ¨+any bar
Matthew	5,343	403	13.258	93	5	7	7.015	12
Mark	3,265	199	16.407	57	4	2	3.474	6
Luke	5,753	369	15.591	80	2	3	5.131	5
John	4,164	351	11.863	48	2	2	4.046	4
Acts	5,463	174	31.397	138	2	5	4.395	7
1 Corinthians	1,938	73	26.548	59	<u>1</u>	<u>2</u>	<u>2.222</u>	<u>3</u>
Totals for all these books combined:					16	21	26.283	37

If Matthew’s five characteristic bars are obeloi in distigme-obelos symbols and not paragraphoi, then the statistically expected number of paragraphoi by distigme lines (7.015) is almost identical to the number of undisputed paragraphoi (7) by distigme lines (# ¨+¶). If, however, these obeloi were paragraphoi, then the total number of paragraphoi (12) would far exceed their expected number (7.015). Similarly, if Acts’ two characteristic bars were not obeloi, but paragraphoi, then the statistically expected number of paragraphoi (4.395), instead of being close to the actual number would be far exceeded by it (7). The same is true for 1 Corinthians (2.222 is closer to 2 than to 3). Mark, Luke, and John have approximately 1.5–2 more expected paragraphoi than actual ones, but this is easy to explain as random coincidence. The expected total number of distigme-line paragraphoi for these books combined (26.283) is far closer to the total of their undisputed paragraphoi (21) than to the total number of undisputed paragraphoi plus characteristic bars combined (37). Consequently, expected frequency compared to actual frequency of paragraphoi clearly favors distinguishing characteristic bars from paragraphoi.

Krans’s sixth important contribution is his acknowledgement that “distigmai signal ... a place where a variant reading was known” and that “this hypothesis, first advanced in 1997, has found wide acceptance” (252–253). Actually, I first advanced this in *NTS* in 1995.⁴⁸ Unfortunately, Krans continues, “methodological control is difficult to achieve here” (253). Methodological

Wieland Willker’s distigmai list www.willker.de/wie/Vaticanus/umlauts.txt minus one-or-two letter spelling corrections (1262 A2, 1361 C1, 1423 A14) and probable offset ink at 1246 C6, plus distigmai in these books Willker missed at 1257 C32, 1277 C19, 1345 B11, 1473 B2 provide the number of distigmai in each book (# ¨).

⁴⁸ Payne, “Fuldensis”, see above, p. 132, n. 137.

control is illustrated by that 1995 study, pp. 252–254, which Krans cites (252 n. 2). Krans’s own n. 4 to this paragraph acknowledges: “Statistical tests ... offer the strongest indication that at least many distigmai have been entered as a reminder of the existence of some variant reading at their respective locations”, and p. 257 concludes, “Payne ... seems to be correct on the text-critical status of the distigmai”. Since obeloi are scribe B’s standard symbol for insertions, they are the obvious symbol to add to distigmai to specify that variants are insertions.

These six valuable insights support the distinction between characteristic bars and paragraphoi, but Krans’s presentation of them does not acknowledge any of this.

Crucial Errors in Krans’s Article

Krans asserts that the conjunction of blocks of added text with characteristic bars is just “the coincidental combination of distigme and paragraphos” (252, 257), that the distigme-obelos symbol “does not exist but is only the fruit of Payne’s imagination” (255, 256) and these symbols are “markings created by him” (254), and that the differences between distigme-obelos symbols and paragraphoi that occur randomly occur by distigme “turn out to be insignificant” (255).

If these are “markings created by” me (254), why do they appear in every facsimile with identifiable characteristics that together distinguish them from all distigme-line paragraphoi, and why do they all coincide with locations where some manuscripts insert blocks of text? The standard chi-square probability test results listed above for the original eight or all sixteen characteristic bars, pp. 143, 139–140, demonstrate that the likelihood of all these co-occurrences being random coincidences is extraordinarily low. Is the eight of eight co-occurrence of insertions with bars having greater extension into the margin vs. zero of twenty for originally identified distigme-line paragraphoi an insignificant random variation? Is the eight of eight co-occurrence of insertions with greater bar length vs. zero of twenty for originally identified paragraphoi insignificant random variation? Is it insignificant random variation that the original text was interrupted by a widely acknowledged block of added text precisely at a gap in all seven apparently original characteristic bars identified in my 2017 *NTS* study and all eight subsequently discovered characteristic-bar lines (see the images in Appendix A)?⁴⁹ Is it random variation that the sixteen characteristic bars lines average over twenty inserted words per line, but the thirty-one distigme lines with undisputed paragraphoi average 1.258 inserted words per line?⁵⁰ Is it random variation that the sixteen characteristic bars’ average extension into the

⁴⁹ For chi-square data confirming that the eight bars with characteristic features identified in my 2017 *NTS* article are not simply paragraphoi but mark blocks of added text, see above p. 143 and n. 166.

⁵⁰ Using the most-extensively-supported NA²⁸- or Swanson-listed long insertion, 322 total words were inserted in the sixteen characteristic-bar lines ($322 \div 16 = 20.125$), but only thirty-nine total words were inserted in the thirty-one distigme lines with undisputed paragraphoi ($39 \div 31 = 1.258$).

margin is 72.5% greater than the thirty-one other bars (undisputed paragraphoi) by distigme lines.⁵¹ Is it random variation that the average proportion of characteristic bars in the margin vs. in the text is almost double the corresponding proportion of others bars by distigme lines?⁵² As Appendix D shows, even just the sixteen characteristic bars' combination of extension into the margin plus length sets every one of them apart from all but one of the thirty-one undisputed paragraphoi that just happen to occur by a line with a distigme. Are these all insignificant random variations?

Krans asserts that applying “measurements only to the small set where paragraphoi and distigmai go together” is “a basic error” (255). Not only is this not an error, this specification is essential for making a statistically valid determination as to whether a distinguishable subset of bars by distigmai signify that the original text was interrupted by a block of added text. Since distigmai mark places where variants occur, variants, including insertions, are far more likely to occur in distigme lines than in random lines of Vaticanus. The degree of difference this makes statistically is enormous. If one does not restrict this to distigme lines, the probability that sixteen random Vaticanus lines would all coincide with widely acknowledged, NA²⁸- and/or Swanson-noted, four-or-more-consecutive-word insertions is astronomically lower, only one in $83.5^{16} = 5.5845 \text{ in } 10^{30}$. By contrast, the chi-square test limited to distigme lines gives a probability of all sixteen characteristic-bar lines coinciding with such insertions compared to three out of thirty-one distigme + paragraphos lines of 1.467 in 100,000,000 (= 10^8). The focus on bars by distigme lines is also justified because of the remarkable correlation of characteristic bars with such insertions. Furthermore, insertions are a specific subcategory of what distigmai mark (2017: 607–608) and so are logically related to them. Not only are insertions conventionally indicated by an obelos, scribe B explains that obeloi signal insertions (2017:608–609).

It is puzzling in light of scholarly consensus that obeloi mark places where text was added,⁵³ as well as the consistent description throughout my article of obeloi marking places where text was

⁵¹ Characteristic bars average 2.6375 mm extension into the margin. Other bars by distigme lines average 1.529 mm extension into the margin. $2.6375 \div 1.529 = 1.725$. “Extension into the margin” is from the far-left edge of letters on the margin, excluding \top Υ Φ and Ψ , whose vertical strokes abut the margin, and χ , which straddles the margin. A blank sheet of paper covering all but a barely-visible sliver of the far-left edge of the farthest-left letters in a column established this measurement's starting point. Letters added later in the margin, e.g. 1460 B20, were ignored.

⁵² Characteristic bars: $2.6375 \text{ mm in the margin} \div 1.89375 \text{ mm in the text} = 1.3927$. Other bars: $1.529 \text{ mm in the margin} \div 2.19 \text{ mm in the text} = 0.698$. $1.3927 \div 0.698 = 1.995$.

⁵³ LSJ 1196 identifies $\acute{\omicron}\beta\epsilon\lambda\acute{\omicron}\varsigma$: “horizontal line, — (representation of an arrow acc. to Isid. *Etym.* 1.21.3), used as a critical mark to point out that a passage was spurious.” Eric G. Turner, *Greek*

added, that Krans criticizes me for giving “obelos” an “unusual meaning” (256). It is Krans who gives an unusual meaning for “obelos”: “In the other seven places the presumed obelos would have an unusual meaning, namely to signal the presence not of an omission but of an addition in some other manuscripts” (255–256). Surely Krans is aware that obeloi signal places where the original text was interrupted by added text. In contrast, asterisks signal places where original text was omitted. It appears that Krans chose this awkward English expression in order to give the impression that my “obelos” usage was inconsistent.⁵⁴ In my usage, however, an “obelos” always signals places where the original text was interrupted by added text.

Krans writes that my recommendations for apparatus notation “for the *Pericope de adultera* and 1 Cor 14.34–5” (253 n. 3) are “extremely unwise” because “identifying specific readings remain[s] speculative” (253). Yet for all fifteen apparently original distigme-obelos symbols there is always a single obvious candidate for added text. Gaps at the precise point where some manuscripts add a block of text permit precise identification of the variant in these fifteen cases.⁵⁵ For every distigme-obelos symbol, multiple manuscripts attest the added text. To omit B̄- notation from critical apparatuses, as Krans recommends, would deprive readers of awareness of the earliest evidence for the *Pericope Adulterae* at John 7:53–8:11 and that Vaticanus marks 1 Corinthians 14:34–35 as later-added text.

Manuscripts of the Ancient World (Oxford: Oxford University Press, 1971), 38 writes, “obelos to indicate spurious text”. Victor Gardthausen, *Die Schrift, Unterschriften und Chronologie im Altertum und im Byzantinischen Mittelalter* (Leipzig: Veit, 1913), 2:413 writes, “zur Tilgung von Vorten und Buchstaben... Athetesen, durch einen Obelus” and cites “Diogenes Laert. 3,65-66, ὀβελὸς πρὸς τὴν ἀθέτησιν”. Schironi, “Ambiguity,” 103 argues the obelos has “a rather unequivocal meaning” marking where text “is considered spurious, and this is an unambiguous piece of information.” Origen’s letter to Africanus (ca. 240 C.E.) acknowledges, “I marked, for the sake of distinction, with the sign the Greeks call an obel[o]s ... those passages in our copies which are not found in the Hebrew.” Translation from <http://john8.net46.net/TEXT/diacrit.html>. S. P. Brock, “Origen’s Aims as a Textual Critic of the Old Testament,” *StPatr* 10/1 (TU 107; Berlin: Akademie, 1970), 218 notes that Origen “quite frequently speaks of the current LXX text as being corrupt.” N. R. M. de Lange, “The Letter to Africanus: Origen’s recantation?” pp. 242–247 in *Papers Presented to the Seventh International Conference on Patristic Studies held in Oxford, 1975*, ed. Elizabeth A. Livingston (*StPatr* 16; TU 129; Berlin: Akademie Verlag, 1985), 246 argues that Origen used obeloi to mark that text is “spurious”.

⁵⁴ On Fellows’s similarly odd usage, see above, p. 142 and on.

⁵⁵ Because the average length of these additions is over twenty words, in many cases there is some variation in the precise form of the variant. Of course, in those cases, the distigme-obelos does not favor any particular form of that obvious candidate.

Krans states that “[o]nly in 1 Cor 14 ... would the presumed obelos have its usual meaning of marking a portion of the text as absent elsewhere” (256). In fact, scribe B used obeloi 121 times in the LXX to mark the location of additions that are present in Vaticanus’s text. Consequently, 1 Corinthians 14:33/34’s obelos marking Vaticanus’s text as added is scribe B’s most common obelos usage. Vaticanus obeloi always mark places where the original text was interrupted by later-added text, whether or not the addition is in Vaticanus’s text. My definition of “obelos” is consistent and corresponds to “distigme” use. Just as distigmai in general do not specify whether it is Vaticanus or another manuscript that omits, adds, transposes, or otherwise changes words, phrases, or clauses, so, too, it is natural that obeloi used in conjunction with distigmai would not specify whether it is Vaticanus or another manuscript that adds text.

The absence from the Vaticanus Gospels of their thirteen distigme-obelos-marked additions is explained by the Vaticanus Gospels’ text being so early that it was not corrupted by any of these thirteen additions (2017: 621–623). The distigme-obelos signifying that the original text was interrupted by 1 Corinthians 14:34–35 is the only distigme-obelos in the epistles. The Vaticanus epistles were copied from an exemplar that was not as early as its Gospels’ exemplar. The Vaticanus epistles have sentence-ending periods throughout, but the Vaticanus Gospels have virtually no sentence-ending periods. Consequently, it is not surprising that the block of text at 14:34–35 had already been added to scribe B’s exemplar for the Vaticanus epistles. 2017: 617 n. 49 explains that Krans’s single-word (διδᾶσκω) distigme referent proposal (256) is highly unlikely because the far more obvious and noteworthy variant in the manuscripts he proposes is something else, the transposition of verses 34–35 to follow verse 40. Nor does it fit the distigme-obelos pattern because διδᾶσκω is not a multi-word addition and does not occur at this line’s gap. In any event, διδᾶσκω is apparently not in any manuscript prior to the ninth century.

Krans Misunderstands my Article

Krans criticizes me for assuming “the unity of the distigmai as a set” (253), even though I have repeatedly and explicitly repudiated this.⁵⁶ The very passage Krans’s n. 7 cites for this, my “Distigmai”, 214–216, disproves it. “Distigmai”, 215 n. 97 identifies many cases where the medieval reinker of Vaticanus associated distigmai not with textual variants as understood in textual criticism, but rather with one-or-two-letter spelling corrections made to Vaticanus. Krans also incorrectly implies that I include all two-dot symbols in “the original set” (253 n. 7). I argue that offset ink from distigmai leaving a mirror impression on the opposite page should not be

⁵⁶ 2017: 607 n. 12 documents this. I also argue in detail against the view that all distigmai are a unified system as expressed by Peter Head in a paper read to the SBL New Testament Textual Criticism Seminar in 2009, “Distigmai and Marginalia of Vaticanus”, at <https://pbpayne.com/wp-content/uploads/2010/03/Critique-of-Vaticanus-Marginalia-15Apr2010.pdf>.

regarded as distigmai.⁵⁷ Apparently every study of a large sample of distigmai has concluded that they mark the location of textual variants. Therefore, when two horizontally aligned dots in the margin appear to mark something other than the location of a textual variant, they should not be called “distigmai”. It is just as improper for Krans to designate as “distigmai” dots used as “a reference system between text and marginal notes” (254 n. 9) as it would be to designate as “obeloi” bars that do not mark a location where text was added.

Ironically, while criticizing me for assuming “the unity of the distigmai as a set” (253), Krans’s entire argument presupposes the unity of paragraphoi as a set since he treats any bar underscoring a line’s first letter as a paragraphos. For example, Krans writes that if a bar functions as an obelos, this is “additional” to its paragraphos function (255). This presupposes a paragraphos-marked text, but by Krans’s own acknowledgement, the original Vaticanus New Testament did not include paragraphoi but did include gaps by the original scribe (254). Krans’s article does not even acknowledge the possibility that scribe B might have added bars at a time when the Vaticanus New Testament had no surrounding paragraphoi. His critique ignores this possibility even though I argue through an array of converging lines of evidence that scribe B is associated both with the distigme-obelos symbols and the gaps on their lines (2017: 612, 615, 618, 619, 621–625). Krans mentions none of this or that scribe B explained three times in Isaiah that horizontal-bar obeloi mark the location of added text (2017: 608–609). Nor does Krans acknowledge that wherever a bar has the graphic characteristics 2017: 620–621 identifies, a gap in that line is at the precise location where the original text was interrupted by an insertion (2017: 612–615). Krans insists that no bars in a position similar to paragraphoi could be obeloi. He does not mention the variety of positions of horizontal-bar obeloi throughout Greek literature, as abundantly exemplified in LXX G. Even in Vaticanus, scribe B used obeloi with and without dots, both in the margin and in the text (2017: 608). Krans does not acknowledge the four reasons why the Vaticanus New Testament and LXX obeloi are in different positions as explained by 2017: 619.

Not only does Krans not mention any of these clues in my argument to understanding the Vaticanus New Testament characteristic bars, he asserts that “there is no clue for concluding that a paragraphos doubles as an obelos” (255). 2017: 620–621, however, identifies five characteristic features of the bars in distigme-obelos symbols that together consistently distinguish them from paragraphoi. Furthermore, as Fellows’s measurements also demonstrate, not even one of Fellows’s list of twenty undisputed paragraphoi both coincides with an NA²⁸-cited three-or-more-word addition and also extends into the margin as far *or* is as long as *any* of the characteristic bars.⁵⁸ This confirms an extraordinarily strong correlation between multi-word textual additions and these bars, both in their extension into the margin and in their length. As

⁵⁷ Payne, “Distigmai”, 210–212.

⁵⁸ See above, pp. 142–144.

the table in Appendix D shows, the combination of just their extension into the margin (average 2.9 mm) and length (average 4.6 mm) sets the sixteen distigme-obelos symbols apart from all except one of the thirty-one instances where undisputed paragraphoi just happen to occur by a distigme. In sharp contrast, the thirty-one undisputed paragraphoi average 1.64 mm extension into the margin and 3.72 mm in length. If all forty-seven are paragraphoi, why such disparity in their *average* measurements?

Krans writes that my “demonstration of [distigmai’s] antiquity is not conclusive. Its main pillar is similarity [to Vaticanus’s original] ink colour” (254). As well as this not accurately describing my argument, as explained in the next paragraph, Krans speculates without providing any evidence that the LXX G “signs may be more recent as well” (254). David Parker, however, concluded that regarding my dating of distigmai, “Payne successfully vindicated his case” against Niccum’s late dating of distigmai.⁵⁹

Regarding distigme-obelos symbol dating, even more important than evidence from ink color⁶⁰ is the occurrence of fifteen characteristic bars by distigme lines with gaps, which only the original scribe could insert, at the exact point where some manuscripts add a block of four or more words.⁶¹ As illustrated above, pp. 78–79, all three of Scribe B’s abbreviated “obelos” explanations in Isaiah provide precedents for scribe B inserting a recognizable gap and positioning a horizontal-bar obelos below and to the right of an abbreviated explanation (in the New Testament a distigme explaining that a textual variant occurs in the following line of text) where some manuscripts add a block of text. These precedents make scribe B the natural source not only of the Vaticanus New Testament’s fifteen distigme-obelos-line gaps (which Krans acknowledges are by the original scribe) positioned precisely where insertions interrupt the original text, but also of their associated distigme-obelos symbols that explain this. These precedents also account for the typical position of characteristic bars below and to the right of their distigmai and their extension measurably farther into the margin than most undisputed paragraphoi by distigme lines, because this extra extension into the margin helps associate these bars with the distigme.

Krans implies that I made “[t]he assumption of a conscious, consistent and recognisable system” (255). In fact, it is the Vaticanus data itself, not my assumptions, that reveals a consistent and

⁵⁹ David Parker, “Through a Screen Darkly: Digital Texts and the New Testament”, *JSNT* (2003) 395–411, at 408 n. 17, referring to the arguments in Payne and Canart, “Originality”, 109 n. 25 and Payne, *Man and Woman, One in Christ*, 235–237, rebutting Curt Niccum’s conjecture that distigmai postdate the fourteenth century in “The Voice of the Manuscripts on the Silence of Women: The External Evidence for 1 Cor 14.34–5”, *NTS* 43 (1997) 242–255, at 245, n. 20.

⁶⁰ 2017: 614; see the images of Matthew 6:13; 7:21; Mark 2:16; and Luke 14:24 in Appendix A.

⁶¹ Appendix A, pp. 127–130 cites each block of added text.

recognizable pattern that distinguishes characteristic bars from undisputed paragraphoi by distigme lines. Krans acknowledges various changes from my earlier studies' conclusions (254 n. 10). Such changes show that my new conclusions were not an "assumption". If they were just an assumption, why do all the newly discovered instances confirm it?

Krans incorrectly attributes to me the claim that scribe B was *consciously* differentiating obeloi from paragraphoi by extending them farther into the margin and making them longer than paragraphoi (255). We agree that apparently no paragraphoi were in the original Vaticanus New Testament text (254 and above, p. 131). Consequently, there was no need for scribe B to distinguish obeloi from paragraphoi. It is simply natural that one category of bars (obeloi) would have different characteristics than another category of bars (paragraphoi) inserted by different scribes at different times for completely different purposes.

Krans describes me as claiming "similarity in [Vaticanus's distigmai's] ink colour, described as 'apricot'. In reality the dots show various colors, and are so small that conclusions cannot be certain" (254). Here Krans gives the false impression that I write that most distigmai have an apricot color, though he acknowledges on p. 253 n. 7 that I cite Paul Canart's identification of fifty-one apricot-color distigmai (2017: 605 and n. 6⁶²). Furthermore, with the high-power, internally lighted loupe Canart and I used, each dot looks like a huge moon with color that unambiguously matches the color of undisputed original-ink letters nearby on the same page.

Krans asserts, "Payne explains away this difficulty [distigme-marked variants not listed in critical editions] by assuming that variants unknown today have to be at stake, but this solution is just an expression of embarrassment" (253). Yet newly discovered or recently published New Testament manuscripts reveal more and more variants not documented in critical editions.⁶³ Newly discovered variants imply that not all variants are known. The wide range of manuscripts containing variants marked by original-ink distigmai and by distigme-obelos symbols show that scribe B had access to far more pre-Vaticanus New Testament text than survives today. That would, almost inevitably, include some variants not known today. The very passage in "Distigmai", 216 that Krans ridicules (253 n. 3) cautions, "Since there is always the possibility that a distigme in Vaticanus might signal a variant other than the ones known today, critical editions should explain this in their description of B".

Conclusion regarding Krans's Critique

Krans provides six key insights that support recognizing the characteristic bars in distigme-obelos symbols as obeloi. First, he shows that the only addition marked by a characteristic bar that I listed as adding only three words in fact adds four or more words. This greatly decreases

⁶² Which also cites two instances of apricot-color ink protruding from under reinked distigmai.

⁶³ E.g. those listed in Payne, *Man and Woman, One in Christ*, 253 and Payne, "Distigmai", 218.

the probability that it is a mere coincidence that all characteristic bars occur where the original text was interrupted by such insertions. NA²⁸- or Reuben Swanson-noted three-or-more-word blocks of added text occur on average about once in 27.8 lines of Vaticanus text whereas four-or-more-word blocks of added text do so only about once in 83.5 lines.⁶⁴ Since all sixteen distigme-obelos symbols coincide with four-or-more-word insertions, and since all fifteen original ones have a gap precisely at the insertion point, this cannot plausibly be attributed to the random coincidence Krans alleges.

Second, Krans notes additional distigmai with bars in the sixth column. Four of these are characteristic bars by lines with a gap at the precise point where the original text was interrupted by multi-word textual additions, just as my thesis described. The other nine are undisputed paragraphoi lacking at least two features of characteristic bars. All thirteen confirm the distinction in distigme lines between undisputed paragraphoi and characteristic bars with gaps that mark the precise locations where the original text was interrupted by a block of widely acknowledged added text.

Third, Krans affirms that the original scribe introduced spacing. This associates scribe B with the fifteen gaps at the exact point where the original text was interrupted by added text.

Fourth, Krans affirms that paragraphoi seem to be later, which is why the characteristic bars originally could not have been confused with nearby paragraphoi.

Fifth, Krans's reference to "about thirty" paragraphoi randomly occurring by lines with a distigme almost exactly matches the actual thirty-one undisputed paragraphoi by distigme lines, not counting the sixteen characteristic bars. The statistically expected number of paragraphoi by distigme lines in books with characteristic bars corresponds far more closely to the actual number of undisputed paragraphoi than to the sum of those plus the sixteen characteristic bars.

Sixth, Krans affirms that distigmai signal places where a variant reading was known. This makes them logically related to obeloi, which mark a specific kind of variant, namely added text. All six important insights support distinguishing characteristic bars from paragraphoi. Unfortunately, Krans does not acknowledge any of the converging lines of evidence for regarding characteristic bars as obeloi marking where the original text was interrupted by a block of added text. He repeatedly misrepresents my article. Krans provides no explanation why all characteristic bars occur at insertion points. Furthermore, in all fifteen apparently original characteristic-bar lines, a gap is present at that exact insertion point. Understanding the sixteen characteristic bars as obeloi explains this perfectly.

⁶⁴ The calculations are from Payne, "Distigme-obelos", 620 n. 60, and above, p. 139 and n. 153.

Conclusion

Despite their valuable insights, Fellows and Krans ignore the fundamental question: How does one identify the meaning of a symbol? One looks for consistent patterns. Then one tests whether a pattern is statistically significant and to what level. Fellows and Krans provide no explanation why all eight distigme-obelos symbols I originally identified coincide with locations where the original text was interrupted by NA²⁸-cited and widely acknowledged three-or-more-word additions. They provide no statistics that justify their distigme-obelos denials. By Fellows's own measurements, not even one of the twenty originally identified paragraphoi coincides with NA²⁸-cited three-or-more-word insertions and also extends into the margin as far *or* is as long as *any* of the characteristic bars. Including the eight newly identified distigme-obelos symbols, all sixteen extend farther into the margin and are longer than most undisputed paragraphoi, and all sixteen occur where the original text was interrupted by a four-or-more-consecutive-word block of text. Such variants occur, on average, only about once in 83.5 Vaticanus lines. Furthermore, in all fifteen cases linked to the original scribe, there is a gap precisely at the insertion point.

All three of Scribe B's abbreviated "obelos" explanations in Isaiah give precedents for scribe B inserting a recognizable gap where an insertion interrupts the original text. In all three, a horizontal-bar obelos is below and to the right of an abbreviated explanation. In the New Testament, characteristic bars are typically also below and to the right of an abbreviated explanation, namely a distigme explaining that a textual variant occurs in the following line of text. All these rare correlations cannot plausibly be attributed to chance, yet both Fellows and Krans assert that bars with those characteristics by distigme lines are unrelated to insertions. They provide no credible explanation or statistical justification for dismissing the distigme-obelos symbols' 100 percent correlation with blocks of added text. Nor do they explain why all undisputed paragraphoi by distigme lines lack at least two of the five features of the characteristic bars in distigme-obelos symbols. The thesis that scribe B left these gaps precisely where the original was interrupted by an added block of text and marked them with distigme-obelos symbols explains all this data perfectly.