

2.1

Critical Signs

The Bridge between Edition and Commentary

1. The Critical Signs (σημεία) Used by the Alexandrians
2. *Ekdosis*, *Hypomnema*, and Critical Signs
3. Homeric *Hypomnema* on Papyrus and Critical Signs
4. Homeric *Ekdosis* on Papyrus and Critical Signs
5. Conclusions

Before delving into a detailed analysis of Aristarchus' work on the *Iliad*, it is necessary to introduce briefly some of the most important tools that Aristarchus employed throughout his exegetic and critical activity: (1) the critical signs, which linked the *ekdosis* to the *hypomnema*; (2) the manuscript evidence and the role it played (if any) in Aristarchus' *diorthosis*; and (3) the paraphrase, that is, the rewording of the Homeric text into Koine, a procedure which Aristarchus extensively used to discuss and solve many philological problems, beyond the simple understanding of the text. The next three chapters will be dedicated to analyzing each one of these tools.

1. The Critical Signs (σημεία) Used by the Alexandrians

Critical signs (σημεία) are a staple of Alexandrian criticism.¹ Even if they probably originated from the work on Homer, ancient scholars employed

1. This chapter is partly based on Schironi 2012a. For an overview on critical signs, see Gudeman 1922 and Stein 2007. On critical signs and signs on papyri, see McNamee 1992 and Nocchi Macceto and Scappaticcio 2017.

antisigma (·) or ·), for passages which contained tautologies.¹⁶ The testimony of the *Anecdota Romanum* does not always match the use of these signs in the scholia, which also mention another sign: the *stigma*, the 'dot' (·).¹⁷ Another very rare Homeric sign is the *kerainion* ('sign shaped like a thunderbolt': Τ), whose meaning is uncertain; the Homeric scholia only attest to its use by Aristophanes.¹⁸ The *Anecdota Romanum* remarkably claims, moreover, that such a sign is very rare and indicates 'many types of questions beyond those already mentioned'.¹⁹

In its margins, the *Venetus A* almost exclusively contains the most securely attested Aristarchean signs: the *obelos*, the *asteriskos*, the *asteriskos* with *obelos*, the *diple*, and the *diple peristigmene*; other signs appear only in a very few instances.²⁰ While I have discussed elsewhere the possible function of the less common Aristarchean critical signs (*antisigma*, *antisigma peristigmene*, and *stigma*),²¹ for the rest of this chapter I will focus on the use of the *senia* in the actual 'physical' products of Aristarchus' activity: the *ekdosis* and the *hypomnema*.

2. *Ekdosis*, *Hypomnema*, and Critical Signs

There is an important difference between how Zenodotus and Aristophanes worked with critical signs, and how Aristarchus used them. As far as the evidence goes, neither Zenodotus nor Aristophanes ever wrote a commentary;²²

16. *An. Rom.* 54.27–28: ·, τὸ δὲ δατύλγυα πεπεστηγμένον παρὰθέραι ὅταν ταυτολογία καὶ τὴν αὐτὴν διανοίαν δεύερον λέγῃ [the dotted *antisigma* is used when [the poet] repeats himself and says the same concept twice]. The *Anecdota Romanum* has *antisigma* with two dots here, which is its main entry. The manuscript, however, has a second, shorter list of critical signs (*An. Rom.* 55.34–47) and there (at 55.41) the sign (called δατύλγυα καὶ στυγίη) appears as ·, with only one dot. Similarly, when this sign is used in the *Venetus A*, it has only one dot; see Schironi 2017, 613 with n. 21, 614.

17. See Aristonicus in *Sch.* II, 2.192a; 2.203a; 8.535–7.

18. *Sch.* H Od. 18.282 ... εὐρέας τοῖς, δὸν καὶ κεραυνὸν παρὲθέραι Ἀποτροφῆν [this is cheap; therefore Aristophanes also placed a *kerainion* next to it].

19. *An. Rom.* 55.29–30: Τ τὸ δὲ κεραυνὸν ἐστὶ μὲν τὸν σπαινὸς παρὰθέραι, ὁμοῖον δὲ καὶ αὐτὸ πολλὰς ἡμετέρας πρὸς ταῖς προσηγμέναις [the *kerainion* is one of the signs rarely used. It, too, marks many types of questions beyond those already mentioned]. On the so-called ἄλογοι mentioned by Didymus as placed to II, 16.613 in the second edition of Aristarchus (*Sch.* II, 16.613), see Lehrs 1882, 341; Ludwig 1884–1885, I 412.1–21; van Thiel 2014a, III 81–82.

20. Bird 2009, 92–94, gives the following figures for the critical signs in the *Venetus A*: *diple* (1875), *diple peristigmene* (292), *obelos* (440), *asteriskos* (73); *asteriskos* and *obelos* (52); *obelos* and *asteriskos* (14), *antisigma* (5), *antisigma peristigmene* (2), *sigma peristigmene* (3), *stigma* (3).

21. Schironi 2017.

22. Cf. Pfeiffer 1968, 115 and 212; Nickau 1977, 14–17.

still they used *senia*. This means that, at least in their original conception, critical signs were linked only to the ecdotic process and their meaning should have been clear within the *ekdosis* of Zenodotus or Aristophanes, without any additional explanation in a separate commentary. On the other hand, as was discussed in Chapter 1.2, Aristarchus prepared editions (*ekdoses*) of the *Iliad* and the *Odyssey*, and discussed in detail specific points related to textual variants, suspicious lines, mythological questions, and other exegetical issues in the commentaries (*hypomnema*). The scholia derived from the work of Aristonicus confirm that the explanations of the meaning of critical signs in the *ekdosis* were the core of the Aristarchean *hypomnema*.

The difference between Zenodotus' and Aristophanes' philological activity, on the one hand, and that of Aristarchus, on the other, is also reflected in the particular *senia* that they employed. The meaning of the signs used by the former two scholars (*obelos*, *asteriskos*, and *sigma-antisigma*) was straightforward and unambiguous in an *ekdosis*: the *obelos* simply indicated an athetesis; the *asteriskos* meant that a line was repeated elsewhere; the pair *sigma* + *antisigma* together marked tautologies. No further elucidations were needed to explain these signs, unless the reader wanted to explore further why the lines were athetized or where the repeated lines occurred elsewhere in the text. On the contrary, the new sign invented by Aristarchus, the *diple*, necessarily required explanations since it had an intrinsically ambiguous meaning: NP. While direct students of Aristarchus could hear their teacher expound on the signs during their scholarly gatherings,²³ the meaning of a specific *diple* was impossible to determine for a reader of an *ekdosis* without the *hypomnema* or without the opportunity to attend Aristarchus' lectures.²⁴ In all probability, Aristarchus did not write *hypomnemata* because he had to explain the *diple*; still, he could use an ambiguous sign like the *diple* and be confident that later generations of scholars could understand its meaning, *exactly because* he had a commentary where he could explain what it meant.²⁵

23. As Martin West *per litteras* wrote to me: "When Aristarchus lectured to a group of students, I imagine they had before them a text marked up with his signs, the significance of which he explained orally. There was probably not an individual copy for each student, but one that they could all see. It need not have contained all the readings he favoured, as he could explain in each case what he believed should be read. So the signs could exist at first without a written *hypomnema*, and still serve their purpose."

24. See McNamee 1981, 252; Schironi 2012a, 92 and 98–99. Yet, as McNamee 1992, 8, observes, the ambiguous *diple* is the most common Aristarchean sign in Homeric papyri.

25. Admittedly, the same is valid for the equally ambiguous *kerainion*, whose use is attested only for Aristophanes. Perhaps this sign was meant to be accompanied by some oral explanation by Aristophanes himself, which his pupils would have written down in their notes. Yet the thin evidence we have for the use of the *kerainion* makes any hypothesis all but speculative. In fact, the very circumstance that the *kerainion* was ambiguous and that, as far as we know, Aristophanes did not write any commentary which could explain the meaning of the *kerainion* itself with reference

The *ekdosis-hypomnema* system thus provided a new exegetical tool through which a scholar could discuss the interpretative issues in the Homeric texts and his editorial choices in detail. For modern scholars, however, Aristarchus' innovation has raised the question of how, in practical terms, he intended the critical signs in the *ekdosis* and the *hypomnema* to be used together and what these two products looked like. Rudolf Pfeiffer²⁶ explained the function of the critical signs with his idea of a *hypomnema* separate from the *ekdosis*: Aristarchus would write a critical sign in his *ekdosis* next to a line where he had some remarks to make, and then would repeat that critical sign followed by his comments in another roll, which contained the commentary. The critical signs were thus the link between the edition (*ekdosis*) and the commentary (*hypomnema*): they both alerted the reader of the *ekdosis* that a line was of special interest and indicated the corresponding comment in the accompanying *hypomnema*. The reader could easily find the scholar's note in the *hypomnema* since this was ordered as a running commentary by lemmata (indicating the lines commented upon) preceded by the same critical signs that were used in the *ekdosis*. In fact, critical *σημεῖα* were also helpful in finding the right lemmata—especially in a time when there was no line numbering and, in a commentary, lemmata were simply indicated by the incipit of the lines from which they came.

Figure 1 visualizes the application of Pfeiffer's hypothesis by comparing a Homeric *ekdosis* with remnants of Aristarchus' *hypomnema*. For the text, I have reproduced Allen's *editio maior* of the *Iliad*²⁷ and 'reconstructed' Aristarchus' *hypomnema* from the Aristonicus scholia preserved in the *Venetus A*. I simplified this model by introducing word-divisions rather than maintaining *scriptio continua*, as in a real text on papyrus.²⁸ This choice, which goes against an exact paleographical reconstruction, allows the reader to recognize more easily the lemmata in the *hypomnema*, and how they work with the reference text (*Il.* 2.109–124), as well as with the critical signs.²⁹

to a specific Homeric line might have contributed to its unpopularity and hence to its disappearance from the scholia and the Homeric manuscripts.

26. Pfeiffer 1968, 218–219.

27. Throughout this study, I quote the Homeric text according to Allen 1931 (*Iliad*) and Allen 1917 (*Odyssey*), since they often follow Aristarchus' choices (cf. Janko 1990, 333), rather than, for example, van Thiel's editions, which adopt the medieval vulgate. On the other hand, the more recent edition of the *Iliad* by West 1998–2000, though very good in many respects, is too idiosyncratic and far from the Hellenistic text to be useful. I have, however, normally referred to the critical apparatus of West 1998–2000. On West's *Iliad*, see Janko 2000b.

28. For example, the first three lines of the facsimile of the *ekdosis* (*Il.* 2.109–111) would have looked like this:

τῷ σ' ἐπειδὴ μὲν οὐ γὰρ ἐτιοιοι μετ' ἡνῶν
οὐ φάλοισι πρὸς δαδῶσι βεβλήτοισι τ' ἐκ δ' ἡνῶν
ζεύς τε μετὰ κρονίῳ δ' ἀτρεκέλει δ' ἀτρεκέλει

29. I have also added the critical signs expected from the content of the scholia; these are not always the critical signs present in the *Venetus A*, which has a *diple* at 109, a *diple peristigmene* at

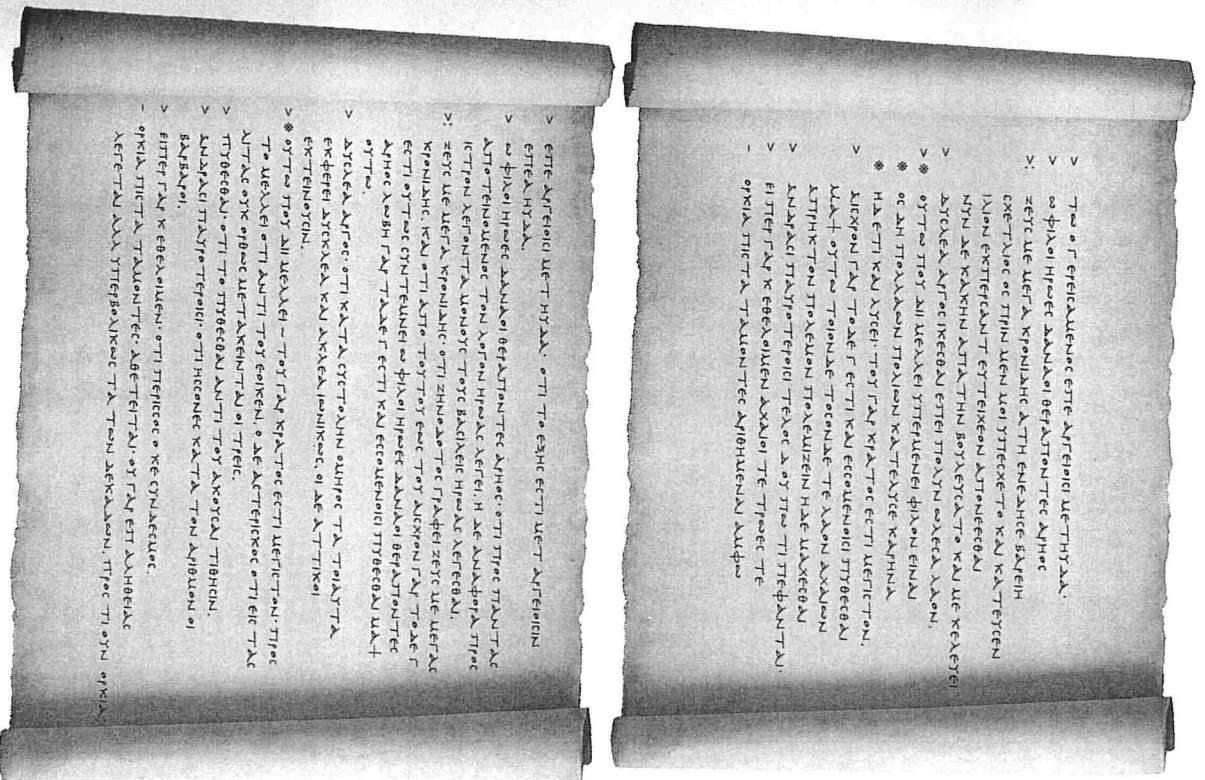


Fig. 1. Reconstruction of an ancient *ekdosis* (above) with corresponding *hypomnema* (below) to *Iliad* 2.109–124

3. Homeric *Hypomnema* on Papyrus and Critical Signs

Pfeiffer's reconstruction is the most rational way to account for such an editorial practice. Nevertheless, no papyrus fragments have ever been found that provide an example of the presence of two rolls, one containing an *ekdosis* with critical signs, and the other containing the *hypomnema* referring to that *ekdosis*, where the critical signs link the two rolls. As Kathleen McNamee has shown,³⁰ where the critical evidence is fairly disappointing when it comes to Aristarchean papyrological signs in Homeric papyri. Yet some fragments from *hypomnema* and *ekdoseis* signs in Homeric papyri. These fragments have been found. Though sparse and tiny, on papyrus showing critical signs have been found. Through sparse and tiny, these fragments seem to confirm that the Aristarchean system of *ekdosis* and *hypomnema* linked by critical signs worked in the way that Pfeiffer proposed.

The closest example to what originally might have been an 'Aristarchean' *hypomnema* is P.Oxy. 1086. This is a fragment of a commentary dating to the first half of the first century BCE³¹ and commenting on *Il.* 2.751–827. Certain parts of the text either mention or explicitly show some critical signs, but they are not consistent: the *diple* is present before lemmata in only four instances (at lines 27, 54, 97, and 114, corresponding to *Il.* 2.767, 785, 809, and 819) and John Landon, who has recently re-edited the papyrus, adds this sign in lacuna in three other places where the commentary mentions a *σημείον*.³² Still at least in one place the *diple* has been omitted in the fully preserved margin, at line 44 (on *Il.* 2.781–782), while the commentary refers to it (at line 47). Three *obeloi* are present in the papyrus at lines 61–62 for the athetesis of *Il.* 2.791–795.³³ While it is certainly interesting to see at least one ancient *hypomnema* showing lemmata with critical signs, a total of seven signs for forty-six lemmatized lines (taken from *Il.* 2.751–827, which includes a total of seventy-seven Homeric lines) is relatively small.³⁴ In the papyrus, sigla would be expected in several places, for example, beside the many notes which clarify a Homeric expression, such as at lines 20–25 (on *Il.* 2.765), at lines 40–41 (on *Il.* 2.779), at lines 56–57 (on *Il.* 2.787), etc. There are also entries consisting of a paraphrase of Homeric

syntax into Koine syntax (e.g., lines 41–42 on *Il.* 2.780, lines 51–54 on *Il.* 2.784, lines 57–58 on *Il.* 2.788); in none of these cases, however, is there a trace of any sign before the lemma (which is entirely preserved), nor any mention of *σημείον* in the entry. This lack of critical signs to indicate linguistic problems is not what one would expect in an Aristarchean *hypomnema* because many Aristonicus scholia explicitly prove that explanations of difficult Homeric words and paraphrases were marked by the *diple*.³⁵ P.Oxy. 1086, therefore, does use critical signs, but sporadically and not as consistently as the actual Aristarchean *hypomnema* would have employed them.

As McNamee³⁶ and Landon³⁷ have shown, P.Oxy. 1086 is a text with some ambition and of superior quality, as it goes beyond the simple paraphrase and the fundamentals of Homeric scholarship. Yet it is not exclusively an excerpt of the original *hypomnema* of Aristarchus.³⁸ In fact, even if much of its content is indeed Aristarchean, there is at least one sign which no source ascribes to him: the § sign (to be understood as meaning *χρηστόν* or *χρησιμὸν*, 'useful', or *χρηστός*, 'usage'), which appears in the margin next to lines 43 (on *Il.* 2.780), 57 (on *Il.* 2.788), and 112 (on *Il.* 2.816).³⁹ The overlap with many scholia from Aristarchus suggests that P.Oxy. 1086 was written by someone who had philological interests and probably had access both to the original *hypomnema* of Aristarchus (or a copy of it) and to other commentaries. The papyrus, the result of excerpting several different scholarly sources, is important as it is

35. See, for example, *Sch. Il.* 16.142a (ἡ δὲ δῖπλη μὲν οἷος ἐντοκιστὶ πᾶσι: ἡ δὲ δῖπλη, ὅτι ἀντὶ τοῦ ἐδύνατο μόνος ἐδύνατο χρησιμεύειν τῷ ὁδοῦν) [but he alone knew how to wield it: the *diple* [is placed here] because [ἐντοκιστὶ is used] instead of ἐδύνατο: only he was able to use the spear]. For an example of paraphrase to clarify syntax, see *Sch. Il.* 18.283a (οὐδὲ πῶς ἐκτρέπον: <πῶς> μὴ κῖνες ἐκτρέπον: καὶ οὐκ ἔστιν ἐλάνθη: ὁ λόγος, δὲ ὅτι τὸν ἐκτρέπον αὐτὸν οἱ κῖνες κατέδοντα, ἡ γῆρας ἐκτρέπον' (*Il.* 1.29) [I nor will he sack it; sooner will the swift dogs devour him: the *diple* [is placed here] because this is the meaning: 'the dogs will devour him before he sacks the city'. And the sentence is not elliptical as it is not [elliptical] in this line: 'I will not set her free; sooner will old age come upon her' (*Il.* 1.29)]. On the use of paraphrase in Aristarchus' criticism, see Chapter 2.3.

36. McNamee 1981, 249–250.

37. Landon 2002a.

38. As Landon 2001, 839, seemed to imply; Landon 2002a, on the other hand, more correctly does not make such a claim, but simply labels the fragment as 'Aristarchean' (for example, in the title of his monograph: *Un commentario aristarcheo al secondo libro dell'Iliade*: P.Oxy VIII 1086).

39. See Landon 2002a, 23. On the § sign, see also McNamee 1992, 20–21, who notes how this sign was often equated with the *chi* sign (×). The latter is ascribed to Aristarchus once by Burt. 1921.55 (ad *Od.* 22.144): *σημειοῦσα δὲ καὶ ὅτι τὸ περὶ τῶν διόδων σκατέρω καὶ τὸ ἐπεὶ Ἀριστάρχου ἀθετήσας κεχάκην, δόξαντες εἶναι εἰνὼν τοιαύτα βαρύντα ἀθροῦν [note also that saying that it was impossible for a person to carry all these [weapons]]. Even though I translated claims: "in the single case in which Eustathius uses χῆκω in a critical context (on *Od.* 22.144) he is actually discussing an Aristarchean athetesis, and clearly gives the verb the general meaning of 'mark with a critical sign'."*

110, 111, and 115, an asteriskos and a *diple peristigmene* at 116, a *diple peristigmene* at 119 and 122, and an *obelos* at 124. According to Erbse, scholia ad loc., these discrepancies are due to a mistake of the scribe of the *Venetius A*. On other discrepancies between the critical signs in the *Venetius A* and what one would expect from the Aristonics' notes, see Chapter 4 § 1.1.

30. McNamee 1981 and McNamee 1992, 8–11.

31. This is the new dating proposed by Landon 2002a, 17, in his new edition of the text. For another edition, see Erbse 1969–1988, I 164–174 (pap. II).

32. At lines 11 (referring to *Il.* 2.763, where, however, even the mention of a *σημείον* in the entry is in a lacuna), 82 (referring to *Il.* 2.801), and 106 (referring to *Il.* 2.816).

33. The lines forming the lemma (*Il.* 2.791–795) are written in full, one after the other, with the *obeloi* placed before the beginning of each line. In the papyrus, line 794 is omitted altogether, and the *obelos* before line 791 is missing.

34. On the lemmata included in P.Oxy. 1086, see Landon 2002a, 31–37.

dated to the first half of the first century BCE; that is, it was written within ca. 100 years of Aristarchus' activity. Thus, *P.Oxy.* 1086 also shows how the original signs tended to be omitted or only partially reported even at a very early stage. There are other minor fragments from *hypommennata* preserving critical signs,⁴⁰ here listed in chronological order:

- *P.Pisa Lit.* 8 (first century CE),⁴¹ a commentary on *Odyssey* 11. At lines 3 and 14, the phrase σμηειον ὄρι⁴² is used to introduce two explanations; for the first, the lemma is unknown; the second sign, on the other hand, refers to *Od.* 11.475–476, the only lemma recognizable in the fragment, at lines 11–13.⁴³ In the papyrus, however, no critical sign is evident (but the margin is in lacuna at lines 1–8).
- *P.Daris inv.* 118 (second century CE),⁴⁴ a commentary on *Il.* 4.164–169 (or 170?). At line 5, a *diple* in the text (> δε παρὰ κεραι(ι)) is followed by the explanation to *Il.* 4.164.⁴⁵
- *P.Cairo JE* 60566 (second century CE),⁴⁶ a commentary on *Il.* 6.240–241, 251–257, and 277–785. It has three *diploiai* placed before lemmata: in fr. a, ii, 10 (on *Il.* 6.257) and in fr. b, i, 3 and 5 (on *Il.* 6.277 and 278); in the last two cases the explanation is introduced with ρὸ σμηειο(ν) ὅ(τ)ι (fr. b, i, 4 and 6).⁴⁷
- *P.Mich. inv.* 1206 (third to fourth century CE),⁴⁸ a commentary on *Il.* 14.316–348. It shows an *obelos* before the lemma at line 3 to introduce the athetesis of *Il.* 14.317–327.⁴⁹ At line 9 there is probably a *diple* (if it is not a *diple obelismene*),⁵⁰ but the explanation (on *Il.* 14.338) is lost.

Compared with *P.Oxy.* 1086, these *hypommennata* on papyrus are later and much poorer in terms of critical signs. Nevertheless, they agree with the Aris-

40. As listed by Lunden 2011, 174–175 n. 85.

41. Edited by Carlini 1978, 89–93.

42. Abbreviated σ^α ὄρι at line 3 and fully written out at lines 13–14 (with an iotacistic mistake subsequently corrected): σμηειον [ὄρι].

43. No Aristonicus scholium to those lines is preserved, so it is impossible to know if the commentary used Aristarchean material.

44. Edited by Daris 1975 and also by Erbse 1969–1988, VII 284–286 (pap. IIa).

45. The entry discusses the gender of the noun ἴλιος, which is feminine in Homer, and derives from Aristarchus (*Sch. Il.* 4.164d); see Chapter 4 § 1.5.1.

46. Edited by Waddell 1934, 148–151, and also by Erbse 1969–1988, II 124–128 (pap. V).

47. All the *diploiai* in the papyrus go back to Aristarchus, as proven by the corresponding Aristonicus scholia: *Sch. Il.* 6.257; 6.277; 6.278.

48. Edited by Luppe 1992.

49. The athetesis goes back to Aristarchus; see *Sch. Il.* 14.317a, discussed in Chapter 3.6.B § 6.

50. That is, a *diple* combined with an *obelos* on the right: >—. On the *diple obelismene*, see Barbs 1988.

tonicus scholia's mention of specific signs and confirm that the Aristarchean *hypommennata* had *semeia* before the lemmata to introduce the explanations and to link them with an edition of reference.

4. Homeric *Ekdoseis* on Papyrus and Critical Signs

Ancient *ekdoseis* of Homer provide richer evidence than *hypommennata* on papyrus since quite a few of them have critical signs, though they are a minority compared with all the Homeric papyri found in Egypt. McNamee counted a total of thirty-one papyri⁵¹ that present the critical signs of Aristarchus.⁵² While *obeloi* and *diploiai* are fairly frequent, the other signs are far less numerous; only five of these papyri, for example, have the other common Aristarchean signs (*asteriskos* and *diple periestigmene*) in addition to the usual *obeloi* and *diploiai*, and one has an *asteriskos* but no *obelos* or *diple*:

- *P.Tebt.* 1.4 (second century BCE): *diple periestigmene*, *obelos*, *asteriskos* with *obelos*, *antistigma*, but no *diple*.⁵³
- *P.Lond Lit.* 27 (first half of the first century CE): *diple* and *asteriskos*.⁵⁴
- PSI 1.8 (first to second century CE): *obelos*, *asteriskos* with *obelos*, but no *diple*.⁵⁵
- *P.Hawara* (second half of the second century CE): *diple*, *obelos*, *diple periestigmene*.⁵⁶
- *P.Oxy.* 445 = *P.Lond Lit.* 14 (second to third century CE): *diple*, *asteriskos*, but no *obelos*.⁵⁷

51. Originally, McNamee 1981, 247 n. 2, had a list with only seventeen papyri, but McNamee 1992, 28–29, has a more complete list (among the papyri in her table I have excluded *P.Cairo JE* 60566, as it is a *hypommenna*, not an *ekdosis*).

52. Papyri provide a wider array of critical signs but, as McNamee 1992 has demonstrated, it is impossible to trace most of them back to Alexandrian scholarship, much less to give them a specific meaning.

53. Cf. also Turner and Parsons 1987, 38–39 (no. 12); Bonati 2011.

54. McNamee 1992, 28, lists also the *obelos* in this papyrus, but Kenyon 1891, 101, Kenyon 1893, 297, and Erbse 1969, xlii, do not mention any *obelos*. Indeed, from the transcription in Kenyon 1893, all the dashes seem *paraglyphoi* rather than *obeloi*, as they are placed in the interlinear space, not in the margin next to the line (I have not, however, inspected the manuscript myself).

55. Cf. also Manfredi 1979, 47–51 (no. 6).

56. Cf. Sayce 1889, 24–28; Erbse 1969, xxxiv–xxxv; Turner and Parsons 1987, 38–39 (no. 13); McNamee 2007, 269–271.

57. Cf. also Erbse 1969, xxxvii–xxxviii; McNamee 2007, 272–273. The papyrus also has an *antistigma* at *Il.* 6.174, but the sign does not go back to Aristarchus since in *Sch. Il.* 6.174a Aristonicus says that there was a *diple* (which is absent in the Papyrus); see Schironi 2017, 626.

- *P.Mich. inv.* 6653 (second to third century CE): *asteriskos*, but no *obelos* or *diple*.⁵⁸

Among these six papyri, the most ancient text preserving Aristarchean critical signs is *P.Tebt.* 1.4, dating back to the second century BCE. According to its first editors,⁵⁹ the papyrus included fragments of five columns covering ll. 2.95–210 and provided an *obelos* at ll. 2.124, 133, and 197, a *diple peristigma* at ll. 2.156, and an *antisigma* at ll. 2.204.⁶⁰ Lastly, there was an *asteriskos* with *obelos* on the right margin of ll. 2.141; these two signs in all likelihood referred to the line in the next column, which was lost (probably to ll. 2.164).⁶¹ When I inspected the papyrus in Berkeley in September 2015, I was only able to see the *obeloi* at lines 124 and 197 and the *antisigma* at line 204, while the other signs are lost together with fragments of the original manuscript. Yet if we trust the first edition, most of these lines match the Aristonicus scholia reporting Aristarchus' choices,⁶² suggesting that this text might have indeed been an (abridged) copy of Aristarchus' *ekdosis*.

PHawara, a luxury edition of Book 2 of the *Iliad*, dated to the second half of the second century CE, has quite a few critical signs,⁶³ and is certainly the richest among these six Homeric papyri. Moreover, *PHawara* partly overlaps with the portion of *Iliad* 2 discussed by *P.Oxy.* 1086, and thus it allows for a comparison between an 'ancient' *ekdosis* and an 'ancient' *hypomnema*, as well as for a comparison with the critical signs in the *Venetius A*. The following table lists the critical signs reported by the *Hawara* Homer, the *Venetius A*, and *P.Oxy.* 1086 for ll. 2.751–827 (the range of lines commented upon by *P.Oxy.* 1086); blank spaces indicate where the lines (or the lemmata in the case of the *hypomnema*) are fully preserved, but no sign is in evidence.⁶⁴

58. Edited by Merkelbach 1974; cf. also Priest 1979.

59. Grenfell, Hunt, and Smyly 1902, 12–17.

60. Other Homeric papyri have an *antisigma* (see McNamee 1992, 28–29), because of its uncertain meaning I am not counting them in this brief survey, but I have discussed them in Schironi 2017, 621–628.

61. See Aristonicus in *Sch. Il.* 2.164a¹.

62. *Sch. Il.* 2.124a (*obelos* at ll. 2.124); 2.130–3 (*obelos* at ll. 2.133); 2.156–69 (*diple peristigma* at ll. 2.156); 2.193a¹² (*obelos* at ll. 2.197); 2.203a (*antisigma* at ll. 2.204; this should probably be a *stigma* as the scholium suggests; see Schironi 2017, 626–628). On this papyrus and its relationship with Aristarchus' signs, see Schironi 2019d.

63. As reported by McNamee 2007, 269: *obelos* at ll. 2.737, 794, 860–861, 875–876, *diple* at ll. 2.481, 659, 701, 722, 727, 730, 741 (followed by a single dot), 742, 802, 807, 809, 827, 830, 838, 839, 856, 858, 863, 872, *diple peristigma* at ll. 2.484, 634, 658, 674–675, 697, 724, 746, 801. On the *antisigma* in this papyrus, see Schironi 2017, 623–624.

64. The data and the table are taken from Lundon 2002a, 25–26. McNamee 2007, 269, deals only with *PHawara*, and her data have some discrepancies with those reported by Lundon for this papyrus (see footnote 63 above).

Critical signs reported by *P. Oxy.* 1086, *P. Hawara*, and the *Venetius A* for ll. 2.762–827

<i>Iliad</i> 2 (line numbers)	<i>P.Oxy.</i> 1086 (1 st cent. BCE)	<i>PHawara</i> (2 nd half of the cent. CE)	<i>Venetius A</i> (10 th cent. CE)
763	Lemma in lacuna; <i>diple</i> restored by Lundon		<i>Diple</i>
767	<i>Diple</i> in the lacuna		
782	Mention of a <i>οἰκτιρῶν</i> in the explanation, but no <i>diple</i> in the fully preserved lemma		<i>Diple</i>
785	<i>Diple</i>		
791	No <i>obelos</i> in the fully preserved lemma	<i>Diple</i>	<i>Obelos</i>
792	<i>Obelos</i>		<i>Obelos</i>
793	<i>Obelos</i>		<i>Obelos</i>
794	Line omitted from the lemma (ll. 2.791–795)	<i>Obelos</i>	<i>Obelos</i>
795	<i>Obelos</i>		<i>Obelos</i>
801	Lemma partly in lacuna; <i>diple</i> restored by Lundon; in the lacuna, mention of a <i>οἰκτιρῶν</i> in the explanation	<i>Diple</i>	<i>Diple</i>
802			
807		<i>Diple</i>	<i>Diple</i>
809	<i>Diple</i>	<i>Diple</i>	<i>Diple</i>
816	Lemma partly in lacuna; <i>diple</i> restored by Lundon in the lacuna; mention of a <i>οἰκτιρῶν</i> in the explanation	<i>Diple</i>	<i>Diple</i>
819	<i>Diple</i>		
820	Line omitted from the commentary	Line in lacuna	<i>Diple</i>
827		<i>Diple</i>	<i>Diple</i>

PHawara has fewer signs than the *Venetius A* and the *hypomnema* in *P.Oxy.* 1086. This is probably because it is not a scholarly product like the other two texts. As McNamee has rightly pointed out,⁶⁵ the signs might have been added in *PHawara* specifically because it was a luxury copy with intellectual ambitions. Perhaps, in such 'display' editions, a scribe did not copy every sign from the original as they were not essential to the text itself; he might have limited himself to copying enough critical signs to make the text look more scholarly. In fact, the critical signs preserved in papyri often are those dealing with very basic linguistic or content-related explanations, while those addressing more difficult and philologically oriented questions were often omitted.⁶⁶

65. McNamee 1981, 253.

66. See McNamee 1981, 248–251.

5. Conclusions

Despite all the problems and the scarcity of evidence, papyri bearing critical signs (σημεία) allow us to draw at least some important conclusions. Even in the absence of a fully preserved set of a corresponding *hypommēna* and *ekdosis* on papyrus, fragments of both *ekdosis* and *hypommēnata* showing *semeia* provide enough evidence for the existence of the system which Aristarchus used and probably even invented. In particular, papyrus fragments from *hypommēnata* which refer to critical signs when introducing an explanation (especially with the formula⁶⁷ σημεῖον ὅτι) prove that the *ekdosis-hypommēna* system was indeed centered around the Aristarchean signs, exactly as suggested by Pfeiffer. The *semeia* were thus like signposts for Aristarchus' critical activity, marking his comments and exegesis on Homer. This is why Aristonicus, who focused on the meaning of these signs, is such an important source for understanding Aristarchus' work on Homer.

2.2

Aristarchus and Manuscript Evidence

1. Evidence from Didymus
2. Evidence from Aristonicus
3. Conclusions

One of the questions concerning Aristarchus' activity that has worried scholars most is whether he used manuscript evidence in his *diorthosis*. While Marchinus van der Valk held the extreme view that all Aristarchus' readings and philological solutions were conjectures and that he paid no attention to manuscript evidence,¹ most scholars, starting from Friedrich August Wolf up to most recent studies, tend to think that Aristarchus and his colleagues also selected readings attested in manuscripts which they had inspected. Yet the same scholars often differ in the relative weight they give to conjectures and attention to manuscript evidence in Alexandrian practice.² Martin West has partially come back to van der Valk's view, however, and suggested: "it is time to challenge this assumption, inherited from Wolf, that collation of different copies was a normal and essential part of what Aristarchus and his predecessors did . . . there is no evidence that they actively sought out a plurality of different manuscripts for comparative purposes".³

1. Van der Valk 1963–1964, II 84–263 (passim); in particular, 86: "I take the view that Aristarchus' readings are nearly always subjective and personal conjectures"; or 90: "we can say that he [Aristarchus] was not less prolific than Zen. in offering conjectures. Since, however, his emendations are less arbitrary, more scholarly and cautious, they have been less easily unmasked".

2. See Wolf 1795/1985, 158–162, 195–196; La Roche 1866, 21; Lehrs 1882, 353–354; Ludwich 1884–1885, I 3–8; Momro 1901, 430–435; Roemer 1912, 121; Erbse 1959, 280; Pfeiffer 1968, 94; Janko 1994, 26; Janko 2002, 659; Rengakos 2002a; Montanari 2002, 127–135; Montanari 2004; Montanari 2015, 660–671; Nagy 2004, 87–109; and Nagy 2009a, 9–21.

3. West 2001, 36. Especially for scholars such as West, Janko, and Nagy, these opposing views are often connected to their (very different) views about the Homeric Question. Cf. Montanari 2002, 132–133; Montanari 2004, 132–136.

67. For the sake of clarity, in this book I will use the English formula/formulas to mean those 'fixed phrases' found in scholia to express a certain concept. I will use the Latin *formula/formulae* to indicate the typical phenomenon of oral poetry, that is "a group of words which is regularly employed under the same metrical conditions to express a given essential idea" (Parry 1971, 272); for a concise survey of the different theories developed after Parry to explain and define Homeric *formulae*, see Russo 2011.