

Preface to the Scholia Edition at EuripidesScholia.org¹

Donald J. Mastronarde

Abstract This contribution is an interim version of the preface materials that will appear with the online release (expected in 2020) of an edition of a large mass of scholia on Euripides' *Orestes* 1–500. It includes condensed versions of the sections on previous editions and the manuscripts used and more complete sections on the categorization of the scholia (by date of first attestation, and by type of content), the principles applied in treating scholia as separate or “the same”, the XML structure (or information architecture) of what is reported, and other conventions of the edition.

Zusammenfassung Dieser Beitrag ist ein Zwischenstandsbericht zur Einleitung für die wohl 2020 erscheinende Edition der Scholien zu Euripides' *Orestes* 1–500. Er beinhaltet kürzere Beiträge zu früheren Editionen und zu den verwendeten Handschriften sowie längere Beiträge über die Kategorisierung und wesentliche Leitlinien bei der Einteilung der Scholien, über die XML-Struktur und über andere Grundsätze der Edition.

Keywords Euripides, organisation and representation of texts, digital editions, print editions, manuscripts, linkage of data

This edition of the scholia on the plays of Euripides is conceived as an open-ended repository of the ancient and medieval annotations in Greek² found in the papyri and medieval manuscripts. It aims for a comprehensiveness that is impossible in orthodox printed editions of scholia, and is meant to serve purposes beyond giving classicists access to the material that is believed to be most reflective of ancient commentaries in the Hellenistic and early Roman imperial period. This more complete inventory of annotation aims, in addition, to serve the study of scholarship up the 16th century, the study of late antique and Byzantine education, and the analysis of the relations

- 1 Disclaimer: this Preface is a work-in-progress. It also suffers from the awkwardness that it is designed for the second release of *Orestes* scholia, covering lines 1–500, which, it is hoped, will appear in 2020. Thus, some of what it says does not match up exactly with what is now (17.02.2019) visible at *Euripides Scholia*.
- 2 There are also annotations in Latin and in Italian in some of the manuscripts of Euripides, and at some future date these could also be added to the repository.

of manuscripts (including those not used in critical editions of Euripides). It takes advantage of the digital format to include details that are ignored or suppressed in traditional editions, but may have uses, unforeseen at present, that will emerge when greater quantities of similar data become available in digital form.³

At this stage of development, the project's principal goal is data acquisition. An accurate inventory of the annotations, as complete as is permitted by the various degrees of legibility manifested in the manuscripts, is, of course, a prerequisite to any more traditional form of selective editing. But the inaccuracy and incompleteness of the previous print editions have made it difficult for their users to analyze adequately the context and the interrelation of individual notes. In the future, that context will become increasingly clear, as new and more comprehensive editions are prepared for other scholia (especially tragic scholia, but also those on, e.g., Oppian), as more texts reflecting the teaching and commentating of Byzantine scholars are published, and as more libraries provide online access to large collections of Greek manuscripts.

The first stage of this project concentrates on the triad plays, *Hecuba*, *Orestes*, and *Phoenissae*, because these have the richest and most complicated traditions both of textual transmission and of annotation and because the gap between what has previously been published and what exists is the greatest. For the other select plays, *Medea*, *Hippolytus*, *Andromache*, *Alcestis*, *Troades*, and *Rhesus*, the traditions are less rich and the gap smaller, but still significant.⁴ Within the triad, the most abundant collations have been carried out for *Orestes* 1–500, which is therefore the portion to be presented in the expanded sample online edition in 2020. Nevertheless, less abundant collations have been completed for the remainder of *Orestes* and the other two triad plays. Moreover, in order to make the best use of visits to libraries for autopsy checking and of the skills acquired in becoming familiar with the quirks of the scribe(s) of a particular manuscript, the scholia to the other select

3 This edition thus goes in the opposite direction from that envisioned by Wilamowitz in his 1887 review of Schwartz's first volume, reprinted in Wilamowitz-Moellendorff (1971) 173–175. There he praised the edition of the scholia on the triad for containing much less than the edition of Wilhelm Dindorf (1863). On the principle that a classical scholar would be truly interested only in annotations that had some chance of reflecting the work of high-level ancient scholarship produced in Hellenistic times and in the 1st century CE, he even expressed the hope that when the Euripidean scholia were next edited, the published corpus would be even more selective and thus smaller again than in Schwartz's edition, presumably by the elimination of paraphrasing scholia and other notes deemed to be aimed at a less learned audience.

4 The sparse but often learned scholia on *Rhesus* have been published (with commentary) by Merro (2008) (reviewed by me in *Classical Review* 62 (2012) 311–312), while those on *Hippolytus* have recently been published by Cavarzeran (2016) (reviewed by me in *Gnomon* 90 (2018) 196–200).

plays have already been collated in two important manuscripts (M, V) and complete collation of another (B) is in progress. For *Orestes* the initial goal is to acquire data from most of the manuscripts written before 1350 as well as a few written after 1350 that have featured in previous discussions for one reason or another.

A project of this kind would not have been practical without modern digital imagery. Many scholia are written in amazingly tiny script and cannot be read accurately on older microfilms or photos. The ability to magnify digital images (provided that scholars are given access to ones in sufficiently high resolution) makes it practical to collate scholia that would have been illegible on older images and are often very difficult to decipher by autopsy of the original. Sometimes damaged or faded script can be read by autopsy under ultraviolet light, or is more legible on a high-resolution digital scan or photo than to the naked eye. Multispectral imaging has been applied to the Jerusalem palimpsest by the Palamedes project, and when the results and the new images are published, there should be improvements and additions to the knowledge of this manuscript's scholia, beyond what is known from the pioneering work of Stephen Daitz.⁵

1 Previous Editions

The standard edition of older scholia used by classicists for over a century is that of Eduard Schwartz (1887–1891). For the triad he relied almost entirely on the manuscripts we now call *MBV* (*MBA* in his apparatus), as well as *C* (*T* in Schwartz) for *Orestes* and *Phoenissae* only. Yet his edition, despite its high quality in many regards, gives a misleading impression of these witnesses. Some scholia in *M* that represent abridgements are not reported. Some longer or revised versions in *B* are omitted or recorded only in the apparatus (thus escaping inclusion in the *TLG* database). Glosses are reported very partially, that is, some are not reported at all, and some are reported from one or two of his manuscripts but are actually shared by others. The collation of *C* was not carried out with the same care and to the same level of detail as for the other witnesses, so that Schwartz's apparatus contains both incorrect reports and errors of omission.

The other reference edition for Euripidean scholia is that of Wilhelm Dindorf (1863), which combines material from his own (often hasty) collations with all the

5 See *Palamedes. Palimpsestorum aetatis mediae editiones et studia* (<http://palamedes.uni-goettingen.de>), and a preliminary report by Albrecht (2012). The important Venice manuscript *M* (*Marc. gr. 471*), which has suffered considerably in the marginal scholia areas on some pages from abrasion and water-damage, would probably also yield some additional words and notes if it were subjected to multispectral imaging.

annotations previously published in editions from Arsenius (*editio princeps*, 1534) to August Matthiae (in vols. 4–5 of his edition of Euripides, 1817–1818) and those who subsequently edited the scholia on *Troades* and *Rhesus* after the discovery of V.⁶

2 The Manuscripts

On the web site for the edition (euripidesscholia.org/EurSchMSSnew.html) I provide an in-progress survey of the manuscripts being studied, with bibliography and details about dating and scribes, and there I explain what sorts of annotation are present and how I designate different hands that worked on a manuscript. Instead of repeating that information here, I will summarize briefly the chief manuscript sources for the scholia on the triad.

Four manuscripts survive from the period before the Venetian sack of Constantinople in 1204. Three seem to have been produced within a few generations: *H* (*Hierosolymitanus Tάφου* 36, late 10th or early 11th century), *M* (*Marcianus graecus* 471, (middle of?) 11th century),⁷ *B* (*Parisinus graecus* 2713, early 11th century, or possibly late 10th?). *H* is a palimpsest, difficult to read, and the surviving portions cover portions of the triad plays and of *Andromache*, *Hippolytus*, *Medea* (the survivals vary from only about 100 lines of *Hecuba* to over 600 of *Orestes*). *O* (Laurentianus plut. 31.10), which has only a few scholia on *Hecuba*, *Orestes*, and *Medea*, was written by a known scholar-scribe, Ioannikios, probably 1150–1175.

Of the manuscripts written after 1204 (in fact, 1250) the most important for the older scholia in the triad are *V* (*Vaticanus graecus* 909, ca. 1250–1280)⁸ and *C* (*Taurinensis B.IV.13*, first half of 14th century; contains *Orestes* and *Phoenissae* only). Several of the group of manuscripts known as the *recentiores* of Euripides contain

6 The first publication of scholia in V for these two plays was the plain transcription of Hieronymus Amatus (Girolamo Amati, 1768–1834) printed on pp. 581–610 of vol. 5 of the Glasgow edition of Euripides in 1821. Then Ludwig Dindorf reprinted them along with a few notes suggesting emendations on pp. 445–483 of vol. 1 of his 1825 edition of Euripides. In 1837 C. F. Kappmann edited these scholia in the index volume (vol. 10) that he supplied for August Matthiae’s edition of Euripides, and in the same year Friedrich Vater edited those on *Rhesus* in his edition of that play. A selection of scholia on these plays and others were edited by C. G. Cobet in an appendix to C. Geel’s 1846 edition of *Phoenissae*. Note that V was in poor condition when first collated and has been restored and cleaned at least once since the 1820s. Thus, the early transcription is now known to be incorrect in many places, and a number of emendations or restorations based on that faulty transcription have become obsolete.

7 *M* is discussed in more detail in Mastronarde (2017) chapter 4.

8 *V* is discussed in more detail in Mastronarde (2017) chapter 5.

a selection of older scholia or abbreviated versions of them and additional scholia first attested in the *recentiores*. The most important manuscripts in this group are *Mn* (*Monacensis graecus* 560, (early?) 14th century), *Pr* (*Remensis* 1306, ca. 1290–1300), *R* (*Vaticanus graecus* 1135, very late 13th century), *Rf* (*Laurentianus plut.* 32.33, ca. 1290–1300), *Rv* (*Vaticanus graecus* 1332, 14th century), *Rw* (*Vindobonensis phil. gr.* 119, ca. 1300), *S* (*Salamanticensis* 31, dated by the scribe to 1326), *Sa* (*Vaticanus graecus* 1345, ca. 1300).

The Moschopulean annotation, probably created shortly before or after 1300, became highly popular in the 14th and 15th centuries and is carried in a great number of manuscripts, partially explored by Günther.⁹ At this point the edition is concentrating on the witnesses that are considered key because of their early date, completeness, or practice of distinguishing the Moschopulean notes from others. These include *X* (*Bodleianus Auct. F.3.25*, ca. 1330–1340), *Xa* (*Bodleianus Barocci* 20, ca. 1320–1330), *Xb* (*Laurentianus Conv. Soppr.* 71, ca. 1310–1320), *Xo* (*Bodleianus Laud gr.* 54, 14th century, perhaps ca. 1330), *T* (*Angelicus graecus* 14, 1300–1325), *Gr* (*Guelferbytanus Gudianus graecus* 15, ca. 1320–1330), *Y* (*Neapolitanus II.F.9*, ca. 1320–1330, with additions in the following decade or decades). Of these Triclinius explicitly states in *T* that he marks Moschopulean annotation with a cross. In fact, he places a cross in front of discursive scholia and in front of glosses that are purely Moschopulean (these are marked with the siglum *T*⁺ in the edition). For some glosses, the Moschopulean overlaps entirely or partly with a Thoman gloss that had been entered earlier, and in this case Triclinius places the cross above the first word of the overlap (these glosses are marked with *T*^{*} in the edition). For much of the triad, most of the scholia and glosses by *Gr*, the first hand on *Gudianus gr.* 15, are Moschopulean, while those added at a subsequent stage, under the siglum *Gu*, are mostly Thoman. There are, however, especially in *Hecuba*, exceptions to this practice, where the situation is reversed. *Y* also has mostly Moschopulean scholia entered by the first hand, and it has other scholia from various sources added subsequently. Some scholia by the first hand in *Y* are labeled explicitly as Moschopulean, because they are adjacent to scholia that are labeled as Planudean.¹⁰

The annotation originating in the circle of Thomas Magister has fewer witnesses. The important ones used in this edition so far are *Z* (first half of composite codex *Cantabrigensis N.3.14*, probably 1320–1330, according to the most recent studies), *Za* (*Londiniensis Arundelianus* 540, ca. 1450–1475), *Zb* (*Vaticanus graecus* 51, ca. 1320–1330), *Zm* (*Ambrosianus I 47 sup.*, 14th century, perhaps ca. 1310–1320 according to Günther), *T* (*Angelicus graecus* 14, 1300–1325), and *Gu* (*Guelferbytanus*

⁹ Günther (1995).

¹⁰ For discussion of these labels in *Y* see Mastronarde (2017) chapter 3.

Gudianus graecus 15, ca. 1320–1330; the additions made by *Gu* may be a couple of decades later or nearly contemporary with the original hand). *Zm* contains a statement that the exegeses are by Thomas. In *T* Triclinius explicitly states that the discursive scholia with an enlarged initial are by Thomas; the glosses not marked with a cross before them are also mostly Thoman. As stated above, most of the *Gu* scholia are Thoman, but a few Thoman items were written by *Gr*.

The Triclinian annotation on the triad is extant in Triclinius' own hand in *T* (*Angelicus graecus* 14, 1300–1325). Cleaning and new digital images make it much easier to read *T* than in past generations, but at various places scholia are illegible because of damage, and one needs to rely on *Ta* (*Vaticanus Urbinas graecus* 142, 2nd quarter of the 14th century), a very faithful copy (or copy of a copy) of *T*.

3 Classification of the Scholia

A digital edition of scholia can include tagging to mark classes of annotation, and some form of classification is necessary for the filtering that is one chief potential benefit of a digital format. An extremely comprehensive collection of scholia will be difficult to use in print format (as well as expensive and hard to correct or expand). Two different examples of the disadvantages of print for scholia are the edition of scholia on Aeschylus' *Septem* of O. L. Smith, where the discursive scholia that are of interest to most users are almost lost in a sea of short glosses, and the editions of scholia on Aristophanes, where scholia on the same play may be published in two or three separate fascicles, and in separate sections of the same fascicle.

It has been traditional to speak of *scholia vetera* and *scholia recentiora* in connection with the corpora of notes on various Greek authors. These terms are not precisely or consistently defined from one author to another, but usually “old” indicates the annotations that probably existed in the 9th or 10th century or earlier, while “younger” may refer to those that are known or conjectured to have arisen later than the 10th century, including the scholia of Ioannes Tzetzes (12th century) and those of Planudes, Moschopoulos, Thomas Magister, and Demetrius Triclinius (late 13th and early 14th century) as well as anonymous annotations.

Perhaps for the Homeric scholia and some other corpora, it is relatively straightforward to label different items according to their probable origin. For the Euripidean scholia, however, classification cannot be so tidy. Because of the use of Euripides in ancient and Byzantine education at various levels, all the way from the first steps of literacy and the student's introduction to the ancient form of the language up to advanced rhetorical training, the commentary tradition has undergone filtering through many hands and accumulated notes aimed at different levels of

users. As I have argued elsewhere,¹¹ what Schwartz tended to regard as a chronological distinction, when he marked some scholia in his edition with an obelus to tell his reader they were somehow more recent than others, is often rather a distinction of intended audience. Notes intended to assist the reader (e.g., by identifying the addressee of a phrase) can be just as “old” as notes of a more erudite nature.

In the XML structure adopted for this edition,¹² each scholion is provided with classification in two ways, with type attribute (suggestive of chronological distinctions and/or authorship) and a subtype attribute (indicative of the content or purpose of the note). It is necessary to define these terms with some care, because of some unavoidable uncertainties. The types are as follows:

vet We can normally establish only a *terminus ante quem* for an annotation (the date of the earliest surviving witness of that note), and it is usually difficult or impossible to establish exactly how much earlier the note was formulated in the form that we have it and how much earlier the essential idea of the note was expressed (in somewhat different terms). Therefore, when using the label “vet” I am not claiming to know (or to inform the user) what material is possibly Hellenistic in origin, or from the first two centuries of the Roman Empire, or from later antiquity or early Byzantium or the revival of learning of the 9th century. “Vet” is used when there is a high probability that the note existed before about 1000. In the earlier sample edition, “vet” was defined as “attested before 1200, or after 1200 in the original hand in *V* or in *C*,” which amounts to the same thing, because in my opinion the notes so defined have a high probability of having arisen before 1000. Thus “vet” applies automatically to scholia by the original hands in *HMB*, all created in the decades from the late 10th century to the first half of the 11th (and to second or third hands if those seem to be nearly contemporary with the creation of the manuscript). For the triad plays, *V* (ca. 1250–1280) and *C* (14th century) are closely enough related to one or another of *HMB* in almost all their scholia that they are justifiably taken as regular witnesses of notes to be marked as “vet.” The only other witness earlier than 1200 is *O*, which also carries sporadic old scholia.

rec This label is applied to notes that are first attested in the late 13th century and early 14th century in the manuscripts known as the *recentiores* of Euripides (in particular, *MnPrRRfRvRwSSa*). Again, the witnesses give us a *terminus ante quem*, and notes labeled as “rec” could indeed be earlier (just as early as some notes labeled as “vet”), but cannot be proved to be. The number of variants and the degree of corruption in these scholia suggest that the *recentiores* reflect a tradition that goes back at least to the 12th (or even 11th) century. In fact, the *recentiores* share some old scholia with the earlier manuscripts. In many

11 Mastronarde (2017) chapter 1.

12 The structure of display is discussed in a later section of this preface. See also euripidesscholia.org/EurSchStructure.html (but the previous version of the structure lacks some types or subtypes mentioned here).

cases, however, their notes, though closely related to old scholia, represent a rephrasing and/or an abridgement. We know from the evidence of *HMB* that already around 1000 there existed longer and shorter versions of the “same” scholion, so shorter versions found in *O* (second half of 12th century) and in the *recentiores*, are not necessarily younger. The policy adopted in this edition is that scholia found only in the *recentiores* are treated as “rec,” and substantially modified versions of old scholia are also so treated. If, on the other hand, the note in the *recentiores* is simply an abridgement (with insignificant verbal variation, such a presence or absence of an article) it is treated as “vet” and normally amalgamated with the longer scholion.

plan This label indicates that a note is labeled as Planudean (that is, ascribed to the great Palaeologan scholar Maximus Planudes) or is established as very probably Planudean by some external evidence. Turyn suggested criteria for identifying more anonymous scholia as Planudean, but these are unreliable.¹³ More carefully, Günther suggested that some other scholia may be Planudean. This fact is noted in the comment, but the note itself is labeled otherwise (“mosch” if transmitted in the usual Moschopulean witnesses, otherwise “plgn”).

mosch This label designates the elements to be ascribed to the commentating and glossing carried out by Manuel Moschopulus. It is applied to annotations attested by several of the manuscripts *XXaXbXo* (and the main hand in *Y*), and the identification is usually confirmed by the marking (with a cross) of the same note as Moschopulean in Triclinius’ autograph manuscript *T*, and secondarily by the fact that it is written in *Gudianus gr. 15* by the first hand *Gr* rather than the second hand *Gu* (see above). Some scholia tagged as “mosch” may in fact carry Planudean doctrine or even his exact words, but the “mosch” label is used unless there is evidence to apply “plan” as explained above.

thom This label designates annotation that appears to have arisen in the circle of Thomas Magister and Demetrius Triclinius.¹⁴ The notes of this type are collated mainly from *ZZaZbZm* and *T* (where Triclinius distinguishes Thoman discursive scholia by an enlarged initial), and the corpus is partly confirmed by the fact that such notes are written in *Gudianus gr. 15* by the second hand *Gu* rather than the first hand *Gr* (see above). Note that *Gu* has written a few notes that he has derived from another source or composed himself, since they are attested in none of the other witnesses for Thoman annotation; these I mark as “plgn”.

13 See Mastronarde (2017) chapter 2.

14 The Thoman or Thomano-Triclinian material is not transmitted with the degree of consistency and coherence found in the Moschopulean commentary as defined above. There are often alternative versions of Thoman notes, and many notes appear in a couple of witnesses but not in others, and in a few places it is clear that Triclinius or someone else has toned down Thomas’ language criticizing champions of rejected views.

tri This label designates the annotations of Demetrius Triclinius, known for the triad plays from his autograph manuscript *T*. When he comments discursively analyzing the cola of a passage of lyrics, or notes a preference of reading, he labels the note with ἡμέτερον to distinguish it from the Thoman and Moschopulean material he has written. Triclinius also labels strophes and antistrophes with colon-count, contributes markings and symbols of various kinds (macron over vowels, his own koine short and koine long symbols over vowels, paragraphos, diple, and coronis), and adds some rhetorical labels of passages in the trimeters, all of which are also reported as “tri”.

pllgn This label (formed from “Palaeologan”) is applied to anonymous notes found in manuscripts dating from the early 14th century onward that are not attested in witnesses carrying scholia classified as “vet” or “rec” or as the work of the four named scholars just mentioned. Again, some of these may in fact be copied from earlier sources, but there is greater probability that they reflect the teaching and commentating of the generations of Moschopulus and Triclinius and of the following generations.

There are also composite type names used mainly for glosses to indicate that the gloss adopted in the Moschopulean and/or Thoman annotation is carried by different kinds of witnesses. Glosses may coincide because a glossator felt free to take over an existing gloss or because the gloss is a standard equivalence that different glossators could easily arrive at independently. The type names for such shared glosses simply concatenate two or three terms so that each component can be matched in processing in order to filter the corpus. The types are: “vetMosch”, “vetThom”, “vetMoschThom”, “recMosch”, “recThom”, “recMoschThom”, “moschThom”. As an example, “vetMoschThom” means that a gloss attested already in the oldest witnesses was also adopted by both Moschopulus and Thomas, while “recThom” means that a gloss is shared by one or more of the *recentiores* and also Thomas witnesses.

The subtype associated with each scholion provides a rough classification of the content, and the following ten subtypes are used.

exeg This label indicates an exegetic scholion, that is, one that explains some matter of textual interpretation, mythography, genealogy, customs, staging, or the like. The capaciousness of this term is meant to match the variegated nature of commentary on ancient texts (both in antiquity and in the modern period). Rather than create separate subtypes for categories like genealogy and customs, thus edition will use such terms in the keywords element of the XML in order to facilitate searching or filtering.

paraphr This label marks a paraphrase of more than a few words. Paraphrasing is, of course, a technique of many scholia that are classified as “exeg”, but the “paraphr” subtype

is used when the paraphrase is relatively simple and not accompanied by the elaboration or extra explanation to be found in scholia marked with “exeg”.

wdord This label (short for word order) marks an annotation that takes the form of numbers α , β , γ , etc. placed above the words in a syntactically complex phrase to instruct the reader how to rearrange the words in order to produce a sentence that is easier to follow. This practice is closely related to paraphrase, since some paraphrases simply reorder the words in the text without substituting synonyms for any of them.

gloss This label indicates an annotation of only one or two words (not counting an introductory word like ἤγουν, ἦτοι, ἦ, καί, or an optional δηλονότι), giving a synonym or supplying an understood term or otherwise clarifying a point in a shorthand fashion (like ὥστε above an exegetical infinitive, or εἶθε above an optative of wish).

gram This label marks a grammatical note or teacher’s note,¹⁵ that is, a note that uses the occurrence of a word in the text as the occasion for a digression to offer information deemed useful to the learner, without a specific application to the passage at hand. Such notes frequently deal with etymology, distinctions between words or related meaning, or distinct meanings of a single term.

rhet This designates a note contributing to rhetorical training, mostly labels identifying rhetorical schemata or divisions of argument or narrative.

metr This subtype indicates metrical annotations, which include technical descriptions of cola and notations about synizesis, resolution, vowel length. This subtype has also been used for the signs that Triclinius uses to mark structural divisions (paragraphos, diplo, and coronis), even when these are applied to sections of iambic trimeters.

diagr This label is applied to a diagram. Some diagrams show genealogical trees, while others show semantic διαρέσεις of various kinds.

artGloss This label designates a gloss that consists only of the article agreeing with the glossed word.

etaGloss This label indicates that an eta is placed over a Doric alpha in a lyric passage to indicate the normal form (or the abbreviation for ην over Doric αν, or the like). The gloss itself is printed as the whole word, although it is very rare that a scribe writes out the full Attic/koine form.

15 For more on teachers’ notes see Mastronarde (2017) chapters 2 and 3.

The above list indicates the range of the annotation being collated. I have not so far been collating the presence of the γνωμικόν label or the ὠραῖον label, which some scribes apply sporadically to passages considered worthy of quoting. Nor do I include the labels that later hands, often much later hands, have sometimes supplied to indicate the basic content of a long scholion (for instance, in *B* on 45r–v beside the mythographic notes on *Orestes* 987 and 990, later hands add in the margin at intervals the labels πέλοψ, μυρτίλος (sic), οινόμαος, γερεστός (sic), ἀερόπη, and others).

4 Dividing or Unifying Scholia

Already in antiquity there existed different modes of conveying commentary to readers. A discursive commentary separate from the text might discuss the lemmata in sequence, typically with transitions like τὸ δέ [lemma]; or a short extract might be quoted or identified by opening and closing words (using the phrase ἕως τοῦ) and the lemmata within that extract might be discussed in sequence. But short elements of commentary could also be extracted and entered in the margins of the text being commentated. At a certain point, mixed commentaries included notes on the same passage from earlier commentaries, sometimes maintained as separate items and sometimes amalgamated into one note.

There is therefore considerable variation and confusion in the manuscript tradition about which notes are run together and which are separate. In addition, it is characteristic of scholia that minor variations easily arise, such as presence or absence of an article or a particle, or addition or omission of semantically optional clarifications like ἦγουν or δηλονότι, and substitution of synonymous words. So, it is necessary to formulate a policy about when to consider annotations in different witnesses to be “the same” and when to report them as separate items. At one extreme one could produce a repository of literal transcriptions of the annotation in each manuscript. But it serves the convenience of users and is truer to the nature of the genre of annotation to consolidate items that are essentially the same. That is, if a particular instance of αὐτόν is glossed in different witnesses with τὸν ὀρέστην, ὀρέστην, τὸν ὀρέστην δηλονότι, καὶ τὸν ὀρέστην, ἦγουν τὸν ὀρέστην, ἦτοι τὸν ὀρέστην, τὸν ὀρέστην λέγει, or the like, these may suitably be amalgamated into one gloss τὸν ὀρέστην, with the variations reported in the apparatus. The situation is, however, not always so clearcut with other forms of verbal variation. In various places *B* has a version of a scholion that represents a different recension. Because of Schwartz’s deliberate selectivity and his mistaken notion of the date of *B* (as of the 13th century rather than 11th or even late 10th), he adopted the policy of reporting some major discrepancies of wording in *B* only in the apparatus rather

than presenting *B*'s whole note as a separate scholion. In the present edition such different versions in *B* are granted the status of separate scholia (the status that many of them had in Dindorf's edition; in fact, many of these notes had already been in the *editio princeps*). Given the purpose of this edition and its digital nature, this separation is an obvious choice. More problematic are the cases where there are less drastic variations, such as one or two substitutions of synonymous alternatives for words in the note, or minor transpositions of word order that do not alter the sense or logic. Here a more subjective editorial judgment is involved in deciding how many such variations and which kinds of variations should prompt reporting something as a separate version of a scholion rather than leaving the variations in the apparatus of a "main" version.

A separate question involves the instances where a scholion is transmitted in our extant witnesses as a single text, with one lemma and one scholion-ending mark at its end, but seems to be a combination of originally separate notes. Schwartz printed such a scholion under a single (indented) line number and lemma, but left an extra gap in typography between what he judged to be one part and the next (sometimes this gap is hardly evident when it occurs at a line-break in the typesetting). Some editors of scholia will assign separate numbers to the conjectured parts (such as 134b1, 134b2, 134b3). I have normally opted to leave such a note under a single number, but if I agree with Schwartz's subdivision or believe in some other probable subdivision, the parts are divided by the symbol || (indicating conjectural division of a scholion transmitted as unitary).

5 The Structure of Presentation

Technical specifications of the XML structure adopted in the edition are discussed in more detail at Mastronarde (2010, euripidesscholia.org/EurSchStructure.html). Here I want to explain the rationale for the elements of information that are assembled in this edition and mention policies adopted in connection with them. Some of the items described are concealed if the user selects a more limited form of display.

The data is arranged by individual scholion and is most easily transformed for display into a text in which each scholion is followed by its own explanatory elements and apparatuses. This is the format used in print in, e.g., C. J. Herington's edition of the old scholia on *Prometheus Bound*, Xenis' recent editions of old scholia of Sophocles, and Merro's edition of *Rhesus* scholia. It avoids the complexity of typesetting text and apparatuses for fixed pagination and fixed lineation, and may make the apparatuses easier to navigate than in a print edition with large blocks of small print.

Line numbers The line numbering of Euripides' plays has been more or less stable and consistent since the time of Nauck's Teubner editions (which closely followed the numeration in Matthiae's edition), but since printed editions normally display a line number only every five lines, the variable colon divisions in lyric passages have caused uncertainty and variation in the way the numbering of lyric passages has been understood or referenced. Sometimes a colon as now printed includes two line numbers, or two cola as now printed have the same line number. An effort has been made to verify the historical basis of the numbering and adhere to that numeration.

A separate issue arises when it is not clear exactly to what line a scholion applies, because it lacks a lemma or reference symbol or for some other reason. One may not always agree with Schwartz's assignment of a note to a line number (and in a few places I judge that his line number is a typographic error, or that a number has been accidentally omitted). Problems of this sort are made explicit in the position entry (discussed below) and/or the comment section.

In the display as currently formatted, each scholion is preceded by an abbreviated play title and a line number corresponding to the standard numeration of the poetic text. Scholia on the same line are distinguished by the two digits that follow the decimal point after the line number. The order of the scholia on the same line is determined as follows: ranges beginning with a number precede the number by itself, and a longer range precedes a shorter range (hence sch. on 1–139 before sch. on 1–5 before sch. on 1–2 before sch. on 1); scholia applying to a whole line precede those on phrases or words within the line; scholia on phrases or words are ordered by the position of the first or only word of the lemma in the poetic text, again with notes on a range of words beginning with a certain word preceding notes on that single word. Older scholia precede younger scholia, and Planudean, Moschopulean, Thoman, Triclinian, and Palaeologan appear in that order. The scholion number is always based on the first line, but if the note applies to a range of lines, this range is displayed in parentheses.

Type and subtype The six types and ten subtypes have been described above. These are displayed within parentheses after the line number.

Lemma If a lemma is present in any witness, it appears in bold and is divided from the annotation itself by a dicolon. If no lemma is present in any witness but the note clearly refers to a single word or short phrase, that word or phrase is supplied as lemma (between angle brackets, as an editorial supplement) and is divided from the annotation itself by a dicolon. A note is printed without a lemma if there is no lemma in any witness and the note applies to a whole line or passage (e.g., a paraphrase of a line or sentence).

Text of the scholion The text of the individual scholion follows the lemma, if any. Since a digital edition of prose contains no fixed lineation, longer scholia are divided into units (mainly sentences, but sometimes shorter syntactic units if sentences are long) to facilitate reference in the apparatus and comments to subunits and words.

Witnesses The witnesses are listed at the end of the scholion, in bold. The superscripts following sigla normally indicate different hands or other distinctions described in the list of manuscripts for a particular witness. In a few instances, superscript a and b (and c) are used to identify multiple instances of the same annotation in a single witness: this phenomenon is recorded in the position element, where the placement of the two (or three) versions is described.¹⁶

Translation This is an optional element. Translations are being supplied for more substantial notes, and more translations will be added over time.

The apparatus elements are recorded in three separate div4 elements in the XML structure and are displayed in separate sections after the translation (or after the scholion, if no translation is present). The first section presents in three subunits information about the lemma, reference symbol, and position.

Lemma If there is a lemma in any witness, then the lemma entry tells which witnesses have the lemma (or in some cases which do not) and records any textual variations in the lemma. The informality and inconsistency regarding punctuation of some scribes make it doubtful at times whether the scribe understood or intended a particular word or phrase to be read as a lemma or as the opening words of the note itself. (This occurs especially in the most informally written *recentiores* and later manuscripts and is uncommon in *MBV*.) Some lemmata appear to be not the most appropriate ones because they start with the first word of the line in which the lemma occurs rather than the beginning of the phrase or the precise word to which the note is actually addressed. Unlike Schwartz, who always gave precedence (in the scholia on the triad plays) to the form of the lemma in *M*, I select among the attested lemmata the one that is most precise.

Reference symbol Scribes may indicate the word or line in the text to which a note applies by placing corresponding reference symbols (1) at the word or at the line and (2) either in the margin at the first line of the scholion or before the lemma within the scholia block itself. *MBV* are most consistent in using reference symbols: the marginal position is normal in *MB*, the position before each lemma in *V*. The symbol may be a graphical one or a Greek letter serving as a numeral. My policy is to record the presence of a reference symbol even if it can

16 Note that my practice differs from that of Schwartz: in his edition, when there are two versions in, say, *M*, he will report the first version as *M* (my *M^a*) and the second as *M^b* (my *M^β*).

now be detected at only one of the two expected positions, which may occur either because of damage, faded ink, or an oversight by the scribe.

Position The position segment has two kinds of information. First, for items that are not written in a recognizable marginal block dedicated to scholia, it records whether they are above the line, in a margin, or intermarginal. Note that by my policy the term intermarginal is applied only when the scholion is between the text column and marginal column of scholia, while I designate as marginal notes that are (1) in the inner margin between the text and the binding or (2) in the outer margin between the scholia column and the edge of the page or (3) on either side of the text when there is no defined marginal region for scholia. There is a gray area when a manuscript has few discursive scholia and no marginal region for scholia is clearly defined: my practice has been to treat as marginal those notes that are located very close to the margin of the text and show no consistency as to where the left side of the note begins (since a consistent left margin is characteristic of a page layout conceived with a marginal column for scholia). Second, the position element tells about variations in the ordering of scholia with respect to each other, records when a scholion is continued from a previous item without apparent separation, or declares the existence and position of multiple versions of the same scholion in one witness.

Apparatus criticus This is the second apparatus block. Because there are so many witnesses and so many variants and because the audience of serious users of scholiastic material is small, I have declined to use the TEI mechanisms for encoding manuscripts and variants. To do so would make it possible to add more bells and whistles in display (such as displaying variants by hovering over a word, or swapping readings in a dynamic text). But the overhead in time and effort is too great for me, and I prefer to devote my efforts to gathering accurate and abundant data and making it available for future scholarly use. Therefore, in this edition the information familiar to those who know how to read the apparatus criticus of a classical text is provided in textual segments. For greater accessibility I have chosen to use English rather than Latin (for the most part: traditional abbreviations such as “s.l.,” “a.c.,” “p.c.” are still used). Since the apparatus does use many abbreviations, understanding it still requires some learning of conventions and standard abbreviations. I adopt a mixed apparatus style: it includes a lemma when that is needed for clarity or ease of interpretation, and omits the lemma when clarity is not sacrificed; it sometimes accounts for every witness explicitly, and sometimes leaves it to the user to infer which witnesses agree with the reading printed in the text.

Secondary apparatus In a separate block, orthographic variants (itacism, double vs. single consonants), variations in the diacritics, presence or absence of elision, and some other minor peculiarities of reading are recorded, for the benefit of those interested in such details. These details may be important if one wants to obtain a firm sense of a scribe’s habits, may be relevant when additional witnesses are collated, and may give evidence of the educational

level or cultural milieu in which the manuscript was created and used. I do not record omission of iota subscript or adscript (unless there is another reason to record a word). I am not certain that I have recorded consistently the treatment of the abbreviation φη (or φα); in general, I treat the forms without accent as φησι or φησιν (φασι or φασιν), and those that add an accent above or beside the suspended vowel as φησὶ or φησῖν (φασὶ or φασῖν). When the enclitic form occurs in the edited text but a manuscript has the accented form (as happens very often), I may not have been totally consistent in indicating explicitly that the preceding word (if its ultima has an added acute, or an acute rather than a grave) is written without the additional acute or with the grave.

Previous editions This element is intended only for the fullest display and has been added recently for my own purposes, to help keep track of which scholia are newly published and which ones are differently presented in Schwartz (for instance, a *B*-variant recorded only in his apparatus). The intention of this edition is not to lose or suppress any scholia present in Dindorf or Schwartz, unless their report is erroneous.¹⁷

Comment and similia Although it is desirable for an edition of scholia to provide an apparatus of possible sources and parallel passages, the provision of this can become an obstacle to the appearance of the edition. This updatable online edition can provide new information about the actual scholia without waiting for the completion of the collection of *fontes et similia*. Likewise, comments on some scholia could end up being expansive, but need not be so from the outset. For the moment, comments are confined to details that strike me as particularly puzzling or problematic, and possible sources identified likewise when a detail seems especially striking. One will eventually want to know all the parallels between glosses and Hesychius, Photios, Suda, etc., but since glosses and brief explanations have moved back and forth between commentaries and lexicographic works since ancient times, such parallels often do not really reveal the ultimate origin of an explanation. At a much more mature stage of the project, the *fontes et similia* will probably be given their own section in the structure, separate from the section for comments.

Collation notes This element is mainly for internal use, to record ambiguities or difficulties about readings, damage, reminders to check readings by autopsy or from higher-quality images, and the like.

Keywords This section allows for finer discriminations between types of content of the exegetic scholia and for other keywords that will assist searching for various topics (compare the extensive Index Analyticus in Schwartz).

17 It is possible that some scholia in the *editio princeps* (I. in Dindorf) are Arsenius' own formulations and might justifiably be omitted from this edition, but that fact will be apparent only after annotations have been compiled from as many extant sources as possible.

6 Unrealized Digital Features

As stated previously, the major effort of the project so far has been data acquisition and testing and refinement of the XML structure. Thus, a number of digital enhancements have been only imperfectly realized or not yet addressed. Among these are:

1. An efficient display interface for users to select which features of the edition they wish to be shown. The filtering used in the initial sample edition is not efficient.
2. A search function that can (eventually) work over multiple XML files (on the assumption that it will not be efficient to maintain the edition in a single XML file, even though the TEI structure adopted would allow this).
3. Automated links from the line number of each scholia in the edition to an online version (or versions) of the text of Euripides at that passage. The programming for this within the XSLT that converts XML to HTML has been done, exploiting the *Classical Works Knowledge Base* (<http://cwkb.org/>).
4. Automated links from references to ancient works within the scholia to an online version (or versions) of the text of that work. This has so far proved more problematic to program in the XSLT. Perhaps using javascript would be easier.
5. A collaborative environment for the addition of comments, discussions, additional *fontes et similia* by users.

7 Conventions of the Edition

Punctuation has been adjusted to modern conventions. The scribes are generally extremely inconsistent and unsystematic about punctuation. Nevertheless, differences in punctuation are sometimes mentioned in the apparatus (or in the lemma section) when they indicate that the scribe understood a passage quite differently from modern editors.

Variants involving iota adscript and subscript and their absence are not normally recorded. *HMB* use iota adscript and *MB* are fairly consistent in representing it, but there are certainly also cases where the iota is omitted in line (when the ending is suspended or in abbreviated form (tilde-shaped omega) it is rare for the iota to be expressed). The edition uses a subscript even when the only witnesses use adscript. If a form is reported in the apparatus, the iota is included only if at least one of the witnesses listed has it, and no inference should be made that all the listed witnesses have it.

The edition includes damaged and undeciphered words and other indications of uncertainty or ambiguity. It has been proved by experience that as more witnesses are collated, one may come upon a legible note in one witness that provides the needed clue to understand a reading in another witness that was uncertain or undeciphered previously. Uncertainty may be expressed by “app.” (for “apparently,” equivalent to *ut videtur*) or by placing (?) at the beginning or end or both ends of a word. The extent of lost or undeciphered letters is mentioned in terms of probable number of letters (ltrs) or of words (wds). A few undecipherable letters within a word may also be expressed by use of the appropriate number of question marks: e.g. ἐπει??ν would indicate that ἐπειθον, ἐπειθεν, ἐπεισαν, ἐπεισεν, and ἐπεισιν are possible. An erased letter may be represented by “*”.

8 Abbreviations

abbrev.	abbreviation, abbreviated
a.c.	before correction (Latin <i>ante correctionem</i>)
acc.	according
add.	added (by), add(s) [unless a different hand or an adverb like ‘later’ is included, this means ‘has in addition’ by comparison to other versions; if a specific location is not mentioned, this implies an addition at the end of a scholion or phrase (or lemma) in comparison with other versions]
app.	apparently (equivalent to Latin <i>ut videtur</i> , attached to readings somehow obscure or ambiguous)
arg.	argument (any item of prefatory material accompanying the play)
Arsen.	Arsenius in the <i>editio princeps</i>
conj.	conjecture made by
corr.	corrected by, correct(s)
Dind.	Gulielmus [Wilhelm] Dindorf (in his edition of the scholia, <i>Scholia graeca in Euripides tragoedias</i> , 4 vols. Oxford 1863)
dram. pers.	dramatis personae
edd.	editors
fol.	folio
intermarg.	intermarginal (scholion position is described as intermarg. when the note is written in a space between the block of text and the main block of scholia)
marg.	margin (scholion position is described as marg. when the note is adjacent to the beginning or end of the line to which it applies and is not part of a block or orderly sequence of marginal scholia, or when it is in outer margin beyond the usual areas dedicated to columns of writing)

Mast.	D. J. Mastronarde
Matt.	August Matthiae (in his edition of the scholia as vols. 4–5, 1817–1818, of his 10-vol. edition of Euripides, <i>Euripidis Tragoediae et Fragmenta</i> , Leipzig 1813–1837)
mss	manuscripts
not. pers.	nota personae (the abbreviated indication of the speaker’s name positioned in the margin, or occasionally within a line, when it is split between speakers)
om.	omitted (by), omit(s) [may simply mean “does not attest, does not include, does not have” and need not imply longer form is original]
p.c.	after correction (Latin <i>post correctionem</i>) [unless otherwise stated, the correction is to be understood as having been made by the same scribe who wrote the a. c. reading]
prep.	proposed (by), propose(s) [unless some other indication is given, this term applies to additional matter at the beginning of a scholion in comparison with other versions]
punct.	punctuation, punctuated
sch.	scholion
Schw.	Eduard Schwartz (in his edition of the scholia vetera, <i>Scholia in Euripidem</i> , 2 vols., Berlin 1887–1891)
s.l.	above the line (Latin <i>supra lineam</i>)
transp.	transposed, transpose(s) [indicates only that in comparison to another attested word order the words are in a different order; need not imply that the other order is original]
*	erased or illegible letter
(?)	before or after a word (or in both places), indicates an uncertain decipherment of unclear writing or unclear image
???	in series, indicates approximate number of undeciphered letters in a section that is unclear

Parentheses and brackets

- () when surrounding Greek characters, enclose the expansion of an abbreviation (for example, γρ(ἀφεται)) or enclose parts of a word left implicit (for example, (μ)ῆ(τερ) represents an η over the α of μᾶτερ in the text)
- () at the end of a Greek word indicate that the word is not written in full (often there is an abbreviation stroke) and that the inflectional ending was left to be inferred (therefore, when there are variants as to the ending, a reading so abbreviated fails to tell us what ending the scribe thought he was conveying); the same may appear less commonly within a word when the scribe uses a form of truncation that also omits internal letters

- [] enclose any part of the text that is unknown because of damage to the writing (abrasion, stain, overwriting, fading of ink) or loss of the writing surface (re-cut margins, damage to papyri)
- <> enclose words or letters that have been omitted by the scribe(s) but are restored by editor(s)
- { } enclose words transmitted by the witnesses but judged by editors to be incorrect intrusions in the text.