

# Missing Links in the Development of Scholia

*Kathleen McNamee*

SCHOLIA, understood as extensive commentaries on Greek or Latin literary texts, are typically compilations of earlier commentaries with long, scholarly pedigrees. For Greek authors, the best scholiastic sources date from the Alexandrian period. Scholia themselves appear in their most familiar form in manuscripts of the ninth century and later, when professional scribes copied them neatly into margins that had been left wide to accommodate written commentary above, below, or beside the subject text. The question whether they first assumed this form in the ninth century or earlier, however, is unresolved, despite much discussion in the last thirty years. Gunther Zuntz opted strongly for a ninth-century genesis. Nigel Wilson found reasons to push the first appearance, for some texts at least, back to late antiquity.<sup>1</sup>

Meanwhile, however, it escaped attention that a good two dozen annotated papyrus codices of the fourth century and later display, for the first time, a correlation between large format and heavy, planned annotation (see the Table, 413 *infra*).<sup>2</sup> Their marginalia are longer, more frequent, and more carefully written than was ever the case in book rolls or in codices of conventional design, and their margins are distinctly wider than in

<sup>1</sup> G. ZUNTZ, *Die Aristophanes-Scholien der Papyri* (Berlin 1975; hereafter 'Zuntz, *Aristophanes-Scholien*') Nachwort, with the argument enlarged at *An Inquiry into the Transmission of the Plays of Euripides* [Cambridge 1965: 'Zuntz, *Inquiry*') 272-75; N. G. WILSON, "A Chapter in the History of Annotation," *CQ* n.s. 17 (1967: 'Wilson, "Chapter"') 244-56; with L. D. Reynolds, *Scribes and Scholars*<sup>3</sup> (Oxford 1991) 46; *Scholars of Byzantium* (Baltimore 1983: 'Scholars') 33. See also J. Zetzel, "On the History of the Latin Scholia," *HSCP* 79 (1975) 335-54.

<sup>2</sup> Where possible, I refer to papyri by the numbers assigned them in the catalogues of Pack and Uebel: R. A. Pack, *The Greek and Latin Literary Texts from Graeco-Roman Egypt*<sup>2</sup> (Ann Arbor 1965); F. Uebel, *APF* 21 (1971) 167ff.

typical codices that lack marginalia.<sup>3</sup> More than three-quarters of all heavily annotated papyrus codices are in this group. By contrast, only about a third of all heavily annotated book rolls have wide margins. Book rolls with broad margins survive in good numbers, to be sure; but here a lavish margin was the mark of a deluxe production: it was not intended to receive copious marginalia, and normally it did not.<sup>4</sup> Parchment codices, whatever the provenance, have dimensions and layout that differ from those typical among papyrus codices.<sup>5</sup> Yet among annotated parchment codices also, a correlation between marginal breadth and the density of annotation seems to develop in the fourth century.<sup>6</sup> Taken altogether, the evidence of the Greek and Latin codices of late antiquity suggests that it is time to revisit the question of how scholia developed.

I should say at once that most annotations in the literary texts of the group were aimed at a scholastic, not a scholarly readership. The learned elements of ancient commentaries, detectable often enough in scholia, are missing here: we find predominantly paraphrases, glosses, and elementary mythological information.<sup>7</sup> This would seem to direct the search for the 'invention' of

<sup>3</sup> I consider a marginal note 'long' if it is at least eight words long; notes are 'frequent' if three or more have been added beside a passage of text extending for at least fifteen lines; a 5-cm. margin in a papyrus codex is 'wide'. These are the admittedly arbitrary standards I have used, with slight modification, in dealing with rolls: "Annotations in Book Rolls of Greek Literature," to appear in the proceedings of a conference on the Ancient Book held at the University of Minnesota, August, September 1992.

<sup>4</sup> W. Johnson, *The Literary Papyrus Roll: Formats and Conventions. An Analysis of the Evidence from Oxyrhynchus* (diss. Yale 1992). Exceptional cases are *P. Oxy.* V 841 (Pindar, *Paeans*, Pack<sup>2</sup> 1361) and *P. Schub.* 10 (*Jamb. Eleg. Gr.* I Hippon. 148b, Pack<sup>2</sup> 1840), papyrus rolls in which the margins, incolumnia, and interlineations were deliberately left broad so that annotations could be added.

<sup>5</sup> E. G. Turner, *The Typology of the Early Codex* (Philadelphia 1976) 30–33.

<sup>6</sup> Among the twenty-two annotated parchment codices listed in the catalogues of Pack and Uebel or published subsequently, six have margins noticeably broader than usual in parchment books (they measure 4 cm. or more); and eight have markedly long or frequent annotations.

<sup>7</sup> In the Vienna fragment of Pind. *Pyth.* 2 (Pack<sup>2</sup> 1365), for example, substantive material that appears in the scholia and treats history, biography, and geography is altogether missing. The annotator restricts himself to myth: K. McNamee, "School Notes," *Proceedings of the XX International Congress of Papyrology* (Copenhagen 1993) 177–84. Annotations in the Antinoe Theocritus (A. S. Hunt and J. Johnson, *Two Theocritus Papyri* [London 1930], Pack<sup>2</sup> 1487), though abundant, are also intermittent and fall short of the rela-

scholia away from late antiquity and back again, with Zuntz, to the ninth century, when marginal commentary becomes suddenly dense and often learned. Two exceptional papyri of earlier centuries, however, demonstrate that the scantiness of the papyrus evidence and its haphazard preservation are deceptive. The first of these is the Oxyrhynchus Callimachus, *P. Oxy.* XX 2258, which even Zuntz acknowledged as a “missing link” between books of ancient format and scholiastic manuscripts.<sup>8</sup> Its marginalia are uniquely long, varied, thorough, and learned. The scribe’s objective, to judge from the suffocating quantity of notes he added, was to squeeze in as much material as the margins would hold. Most of the manuscript contains fragments of lost poems, so comparison is possible only for the meager scholia on Callimachus’ *Hymns*. Yet the papyrus’ comments on the *Hymns* outnumber scholiastic comments on the same lines by a factor of four to one, an atypical proportion.<sup>9</sup> Indeed, the notes of the papyrus (in the left column below) occasionally provide information that is more specific or more expansive than that offered by the scholia (on the right):

3.84 μονιὸν δάκος:

οἱ κάπ[ρ]οι ἰδικ[ῶς νεμόμενοι· |  
ἀπαγελάζοντ]αι γὰρ ἀλλή[λων].

μονιὸν τὸ κατὰ μόνας νεμό-  
μενον. δάκος δὲ τὸ θηρίον.

6.15 τρις δ’ ἐπὶ Καλλιχόρφ χαμάδις ἐκαθίσσαο φρητί:

]ρ ε [ | Θεσμο]φ[ο]ρία ο [ |  
Καλ]λίχορον φ[ρέαρ] | ?παῖδ]α  
ζητοῦσα[.]

Καλλιχόρον φρέαρ ἐκαλεῖτο ἐν  
Ἐλευσίνι (ἔστι δὲ καὶ δῆμος  
Ἀττικῆς).

tively high standard of Theocritean scholia. The comments in the Berlin Aratus (*P. Berol.* inv. 5865, M. Maehler, *APF* 27 [1980] 19–32, Pack<sup>2</sup> 119) are a somewhat better match for scholia in coverage and content. The annotator was selective in what he recorded, however, and his notes would have served well in the classroom. The twenty comments that survive omit astronomical points covered in the scholia, except those dealing with the myths of constellations. Even the scholia’s occasional vague invocations of literary parallels to popular authors (e.g. ὡς Εὐριπίδης, ὡς Εὐριπίδης φησὶν) are missing. Zuntz’s conclusions about the notes in Aristophanes papyri—that they derive from commentaries developed for the schoolroom—hold good for the notes in each of these three papyri.

<sup>8</sup> Zuntz, *Inquiry* 272; cf. E. Lobel, *P. Oxy.* XX 2258; R. Pfeiffer, ed., *Callimachus* II (Oxford 1953) xxvii; Wilson, “Chapter” 248.

<sup>9</sup> Five passages are treated in both scholia and the marginalia of the papyrus; twenty-two additional passages are discussed only in the papyrus notes.

The other aberrant text is *P.Ryl.* III 477, a codex of Cicero's *Divinatio in Q. Caecilium*. It contains a marginal note on the term *indicium* that lacks the learned plenitude of the Callimachean notes but is vastly longer than any other ancient marginal comment. That *indicium* is a legal term is perhaps no coincidence. Legal scriptoria of the fifth century appear to have played a part in the development of large-format books with heavy annotation, as the accompanying Table of papyri suggests. So it is tempting to speculate that the owner of this Cicero had more than a literary interest in this legalistic passage of the speech:

§34 *qu[a] pr[op]te[r si t]ibi in dicitu[m pos]tulas fie[ri]:*

*nam legibus vetitum erat | senatorem ferre indic[ium] | νόμος ἦν  
παρὰ Ῥωμαί[οις] | ὡς ὅτε δύο ἡμαρτον περὶ | τι ιδιωται μέ[ν]οντες |  
οἷον φόνον πο[ιη]σ[ά]ντων, εἰ ὁ εἷς καταμηνύσῃ τὸ ἀμάρτημα  
(λέγων) ὅτι | τὸδε μετὰ τοῦδε ἡμαρτον' τὸν μὲν καταμηνύσαντα  
μὴ τι[μω]ρεῖσθαι ἀλλὰ μισθὸν ἔχειν | τῆς καταμηνύσεως | τὴν  
συγγνώμην. τὸν | μέντοι καταγγελέντα κολάζεσθαι· εἰ μέντοι  
δύο ἡμαρτον συγκλητικοί, καὶ ὁ καταμηνύσας τιμω[ρεῖ]ται ὑπο |  
μενε τιμ [ ] | [ ] | καταμηνυθῆναι τούτῳ | οὐδ' ... πολλο[ί] |  
κοινωνήσαντα τούτῳ ἀμ[α]ρτημάτων, ὅτι | [ἔ]χρη καταμηνύσαι·  
βούλει π ὦμαν ε[ ] | πραγματεύεσθαι; ἐγὼ μὲν τ[ὸ] σὸν εἰκέναι  
ἔσομαι ἔκων σὺ κωλύει δὲ σε τυχεῖν συγγνωμῆς ὁ νόμος | ὡς  
συγκλητικόν· συγκλητικὸς γὰρ ὢν οὐκ ὀφείλες | ἀμαρτάνειν μεν·  
περὶ τοῦτο ἀλλὰ ὡς αὐτό[ς] | τοῖς Σικελοῖς συνηγόρων βούλει  
κατηγορεῖν | [ἢ μᾶ]λλον τῆς συνηγορίας παραχωρῆσαι | τῷ  
δυναμένῳ καλῶς καὶ μετὰ πα(ρ)ρησίας | κατ[η]γορεῖν καθαρὸν  
γὰρ ἔχω τὸ συνειδὸς | οὐ δύνασαι σὺ γὰρ κοινωνὸς αὐτῷ τῶν  
ἀδικημάτων.*

This Cicero is no schoolmaster's 'desk copy', equipped with notes to prompt him as he presented explanations of the text to a class. On the other hand, the annotations in the text as a whole do not quite qualify as scholia as defined above. Apart from the remarkable comment on *indicium*, most of the notes in this book are as terse, undeveloped, and occasional as typical marginalia in earlier book rolls, and they show no trace of having been compiled from various sources, as scholia commonly do. Still, if the owner of this codex saw fit to copy, or have copied, so comprehensive a comment in so orderly a fashion into the margin of a text of Cicero, it is not impossible that other books of late antiquity were similarly improved. At the very least, the codex represents, with the Oxyrhynchus Callimachus, an inter-

mediate stage between the ancient practice of transmitting commentaries as independent books and the Byzantine practice of transcribing them as marginal scholia.

Where and why did scriptorial custom change to accommodate so drastically different a fashion in book design as is represented by the remains of codices from late antiquity? The answer may lie, as suggested above, in a dozen texts of Roman law, which make up fully half the group of large-format papyrus codices with which we are concerned. These codices constitute the largest uniform body of primary evidence for the existence, in late antiquity, of manuscripts designed to accommodate long, planned marginal commentary suggestive of latter-day scholia. Indeed, the premier palaeographers of this century—Bischoff, Lowe, Seider—recognized these particular legal texts and certain others as representatives of a codicological innovation traceable to the scriptoria associated with a prominent law school of the Greek East in the fourth or fifth century. Beirut and Constantinople are the chief contenders. Beirut seems the likelier source. Its greater proximity to Egypt (the source of our material), the certainty that students traveled there from Egypt to study law,<sup>10</sup> the city's longer tradition as a center of legal studies, and its pre-eminence as such in the fourth and fifth centuries all point to it as the likelier source of the new style in books. But even if the new design arose in Constantinople, it could have found its way quickly to Egypt, where, as the Table shows, literary texts in the same format also begin to appear in this period.<sup>11</sup>

Why law books suddenly assumed, in late antiquity, so radically new a form is not clear, but a driving force must have been the changeover from Latin to Greek as the language of instruction in Eastern law schools. This will have created a new need for translations and for commentaries, in Greek, on the Latin text of Roman law.<sup>12</sup> Another impulse for the new format may have come from Latin scriptoria of the West, where extensive annotation in literary texts may have been more acceptable in the fourth century than it was in the Greek East. The Bembine Terence and the Verona Vergil are spectacular examples of

<sup>10</sup> P. Collinet, *Histoire de l'école de droit de Beyrouth* (Paris 1925) 114f.

<sup>11</sup> K. McNamee, "An Innovation in Annotated Codices," *Proceedings of the XXI International Congress of Papyrology* (Berlin 1995) forthcoming.

<sup>12</sup> H. J. Scheltema, *L'enseignement de droit des antécédents* (Leiden 1970) 11f; Collinet (*supra* n.10) ch. 5.

heavily annotated parchment codices produced, in the West, in just the period when the large-format, heavily annotated Greek texts with which we are concerned first appeared.<sup>13</sup> Given the limitations of the surviving materials, however, one cannot be certain how the new scriptorial fashion spread, for though longer portions of western manuscripts on parchment tend to survive, the surviving examples of heavily annotated Greek codices on papyrus are more numerous: twenty-seven fragments in all. If influence moved from West to East, we may guess the course it followed: the scriptoria of eastern schools of Roman law—particularly at Beirut—would have been a natural conduit for western, Roman practices. Beirut's Roman character is well-known. In 239, Gregory Thaumaturgus, describing his preparations to study law there, called Beirut πόλις Ῥωμαϊκότερα πως καὶ τῶν νόμων τούτων ... παιδευτήριον.<sup>14</sup> It will have been a natural way station through which a new style in book design might have reached the East.

Whether or not western book design influenced that of the East, it is worth remembering that two of the most significant scriptorial innovations of the fifth century, as the great palaeographers knew, were peculiarly Eastern and Greek. These were a new script and the layout and dimensions of text and marginal space in the new books themselves. 'Juristic uncial', the commonest script among the legal texts of our sample, first appears in the Greek East in the fourth century, as do codices in the formats represented in the Table (413 *infra*). As the Table shows, the widest surviving margins of the codices under consideration—all papyrus—average 6.6 cm. in breadth. Heavily annotated manuscripts on parchment, on the other hand (again, we may refer to the Bembine Terence and Verona Vergil), have bottom margins—normally the broadest of all—that are only half so broad. Where the original size of the pages in our sample of papyrus codices can be ascertained, they fit the various groupings by format established by Eric Turner. These characteristic groupings, as he showed, are specific *only* to books made of papyrus.

At the very least, then, we can safely say that papyrus codices found in Egypt constitute the earliest evidence for books of

<sup>13</sup> Bembine Terence: Cod.Vat.Lat. 3226 (Seider 2.1.26); Verona Vergil: E. A. Lowe, *CLA* 4.498.

<sup>14</sup> Greg. Thaum. *Paneg. ad Orig.* 5.58f, ed. H. Couzel, *Remerciement à Origène, suivi de la lettre d'Origène à Grégoire* (Paris 1969).

extra-large format with extra-wide margins and copious marginalia. Is it also possible, then, that contemporary commentaries of a scholiastic *character* can be found in their margins? Were any of the long marginalia in these late papyrus codices, that is, the product of methodical compilation from two or more commentaries? Of course every ancient commentary still circulating in the fifth century was a compilation of a sort, for such secondary materials as commentaries had no fixed text. Once such a commentary came into existence it was liable to excerpting, condensation, and amalgamation in any subsequent transcription. The anonymous and dilute results produced by this process over time are visible in the fragments that survive. A third-century hypomnema attributed to Aristarchus on Herodotus is spotty and in the main unscholarly. That by Theon on Pindar is also incomplete, and in fact has been augmented by marginal additions, as has a Florentine hypomnema on Aristophanes.<sup>15</sup> In works of this kind, earlier sources gradually lose their identity. Opinions and facts tend to be attributed to ἄλλοι or to τινες rather than to named authorities. Anonymity typically persisted when excerpts of these hypomnemata were copied into the margins of book rolls.

This, however, is not the sort of compilation that characterizes scholia. There, instead, the typical sign that multiple commentaries have been conflated is a subscription that identifies the compiler's sources.<sup>16</sup> Further, in the margins themselves, material from divergent sources may also be labeled to indicate those sources, with multiple comments on a single point of text sometimes introduced by ἄλλως. This marks a change from the ancient practice of piecing together information anonymously and more or less seamlessly into 'variorum' commentaries, and the introduction of verbatim (and so, usually, less thoughtful and more mechanical) transcription from clearly differentiated sources (Wilson "Chapter" 253). The labelling of supplements is a chief point of difference between the new, scholiastic form of

<sup>15</sup> Abridged hypomnemata: *P.Amb.* II 112, Pack<sup>2</sup> 483, 3<sup>rd</sup> c. (Aristarchus on Herodotus), *P.Oxy.* XXXI 2536, Uebel 1375, 2<sup>nd</sup> c. (Theon on Pindar); *P.Flor.* II 112, Pack<sup>2</sup> 157, 2<sup>nd</sup>/3<sup>rd</sup> c. (commentary on a lost comedy of Aristophanes). Other examples: *P.Oxy.* VIII 1086, Pack<sup>2</sup> 1186, 1<sup>st</sup> c. (on Homer, *IL*), though detailed and learned, is not a full treatment of the text; likewise *BKT* I, Pack<sup>2</sup> 339, 2<sup>nd</sup> c. (Didymus on Demosthenes). On the Latin side, see Zetzel's analysis (*supra* n.1) of the text tradition of the scholia in the Bembin Terence.

<sup>16</sup> On subscriptions see Zuntz, *Inquiry* 272-75.

commentary and conventional hypomnemata and marginalia in antiquity.

Deliberate and clearly labeled compilation is also a feature of Biblical catenae, which were introduced into the discussion of the origin of scholia by both Zuntz and Wilson.<sup>17</sup> Tradition attributes their invention to Procopius of Gaza in the late fifth and early sixth centuries, the very period when heavily annotated papyrus codices of the new format begin to appear in significant numbers. Like the fullest scholia, catenae are compilations that provide the reader with extensive commentary on a text. As in scholia, their individual components tend to be labelled by source or demarcated by the heading ἄλλως. A characteristic way of presenting catenae, moreover, is in the form well known from later scholiastic manuscripts of classical pagan literature: in compact, dense blocks of text written in small, often formal script that fill the broad margins around a subject text.<sup>18</sup> Catenae are thus parallel to scholia in purpose, construction, placement, and appearance. A connection between the two is highly likely, although its precise nature is obscure. We cannot even be certain which might have come first, for although catenae supposedly emerged in the late fifth or early sixth century, Wilson, as we shall see, has shown that the practice of systematically compiling commentaries on literature may actually predate Procopius. But whether primacy rests in sacred or profane scriptoria, the near-simultaneous appearance of catenae and of large-format papyrus codices with dense marginalia neatly written by professional scribes is presumably no coincidence.

In late annotated codices on papyrus, neither subscriptions nor the term ἄλλως survives. The internal evidence of two texts does reflect, however, a kind of compilation in the scholiastic sense. The first is a legal text of the fifth century, *P.Ant.* III

<sup>17</sup> Zuntz, *Inquiry* 274ff; Wilson, "Chapter" 252ff.

<sup>18</sup> This is the form of the earliest examples, which are uncial manuscripts of uncertain date (the sixth to the eighth or ninth centuries have been proposed: Wilson, "Chapter" 253). Other examples of this arrangement may be found in N. G. Wilson, *Mediaeval Greek Bookhands* (Cambridge [Mass.] 1973: hereafter 'Wilson, *MGB*') pl. 29 (Christ Church Ms. Wake 2, saec. X, Catena on St John) and P. Franchi de' Cavalieri and J. Lietzmann, *Specimina Codicum Graecorum Vaticanorum* (Bonn 1910) pl. 8 (Cod. Vat. gr. 749, saec. IX, Catena on Job). Format, however, was not fixed. Some catenae are independent of the subject text (an example appears in Wilson, *MGB* pl. 16), and some compilers dispensed with identification of sources (Wilson, "Chapter" 253).

153, in which the physical layout of the notes suggests that they may have been copied methodically by a single scribe from multiple sources.<sup>19</sup> The published plate shows, at the top left of one side of the page, a small, regularly written block of marginal text. Surrounding it, both at the left and below, is a second, longer passage of marginal commentary. Both are seemingly written by the same scribe. The arrangement is not altogether unique. Secondary annotators on both rolls and codices occasionally corrected or augmented the notes of predecessors.<sup>20</sup> We can say at best, then, that the notes in this legal codex *may* have been copied from more than one source, although absolute proof is lacking and arrangement of the notes could have other explanations. The scribe, for example, may have found in his exemplar the note that he copied first, presumably in the course of transcribing the main text. Later, separately, he might have added the rest of the marginal commentary. On the assumption that the notes had different sources, this will, technically, have been a compilation of a kind. It is not the kind of compilation characteristic of later scholia, however, and such overt signs of compilation as ἄλλως are absent or lost.

A more compelling case is, again, that of the Oxyrhynchus Callimachus.<sup>21</sup> For each of five passages, a single annotator has supplied two different notes. Wherever he introduced his notes with a lemma, it is reproduced below in boldface type:

Pf. 110.65–67 (*Coma Berenices*):

**α πρόσθε μὲν ἔρχομεν.** .[.] .οπω ... κοινῆ [I... [εἴρηται ἐπί] τε  
 τῆς ἀν[α]τολῆς κ(αί) τῆς δύσεως. ἀνατέλλ[ει] μὲν γάρ φ(ησιν)  
 ὁ Πλόκαμ(ος) πρὸ τῆς χειμερινῆς τροπῆς, δύνει δὲ μετὰ [τῆ]ν  
 ἑαρινὴν ἰσημερινόν.

<sup>19</sup> R. Seider, *Paläographie der lateinischen Papyri* (Stuttgart 1981) 2.2.19; E. A. Lowe, *CLA Suppl.* 1789.

<sup>20</sup> Augmented notes appear, for example in the papyrus roll *P.Oxy.* V 841, Pack<sup>2</sup> 1361, 2<sup>nd</sup> c. (Pindar, *Paean*), and in the parchment codex *P. Ant. sine numero*, *JEA* 21 (1935) 199–209, ca. 500 (*Juv. Sat.* 7), texts exceptional not only for broad margins and intercolumnia (the Pindar) but also for the density of their annotation (both texts).

<sup>21</sup> R. Pfeiffer, ed., *Callimachus* II xxvii (quoted by Wilson, "Chapter" 248): Qui ea scholia ... in Aegypto composuit, ex ὑπομνημάτων voluminibus variam doctrinam collegit, complures ad eundem locum explicationes necnon aliorum scriptorum testimonia diligenter attulit.

b. πρόσθε μὲν ἐρχ(ομένφ) . . . [ | ν ε [τῆ μὲν | χει]μερινῆ (leg. μετ]οπωρινῆ) ἰσ(η)μερία | ἔωθεν ἀνατελλοντ . . . [ τροπῆ δὲ τῆ | θερινῆ ἔωθεν δυνοντ[ | ] 'Ἡσιόδος ἀντ( ), κατ' εὐθειά[ν | δὲ δυνοντ. |

Pf. 384.4 (*Sosibion Nike*):

a. φ̄· ὄτινι· τῷ | Σωσιβίφ.

b. φ̄ τὸ μὲν ἐξ 'Ε]φύρης· ὄτινι· τῷ Σωσιβίφ· 'Εφύρα δὲ ἡ Κόρινθ(ος)· σελινοφ[ό]ρον δὲ ἔφη τὸ ἄρ[μα | διὰ τὸν σ]τέφανον. οἱ γὰρ νικῶντες τὰ 'Ισθμια σελίνφ στέφονται.

Pf. 384.22 (*Sosibion Nike*):

a. τοῖς ἀπὸ Πειρήνης ἤγαγ(εν) 'Α[ργο]λικ(ά) : ἀπὸ Κορίνθου καὶ 'Ισθμ[ο]ῦ. ἡ γ[ὰ]ρ Πειρήνη κρήνη ἐν Κορίνθφ [ | ] . . . ν κ . . . ον ἀγῶνά φ(ησιν) ἐπακολουθηκ[έ]ναι τὰ Ν[ε]μέα, εἰς ἃ καὶ ὁ [έ]πίνικος γέγραπται [ | τὸν Νεμεακὸν ἀγῶνα δηλοῖ.

b. τοῖς 'Ι(σ)θμιονίκοις (sc. σελίνοις) | ἐπήγαγε τὰ Νεμεακά.

Pf. 384.23–24 (*Sosibion Nike*):

a. ὄφρα κε Σωσίβιον τις : ἵνα κ(αὶ) τῆς τοῦ Σωσιβίου νίκης ἀκούσωσιν οἱ (suppl. Lobel) | πόρρω οἰκοῦντες ἐπὶ τῷ Κίνυφι μὴ μόνον οἱ ἐν 'Αλεξανδρεία. Κίν[υ]ψ | νος τῆς αρ . . . εως ὀρίζων τὴν Καρχη[δ]ονίων χώραν. ἔστι δὲ κ(αὶ) πόλις . [ διστεφεά δὲ διὰ τὸ δις νικῆσαι τὸν Σωσίβιον.

b. Κίν(υ)ψ ποταμὸς τῆς Λιβύ(η)[ς. | ] ἵνα οὖν αὐτ[ὸ]ν | καὶ 'Αλεξανδρεῖς καὶ Λίβυες ἀκούσωσιν διστεφεά.

Pf. 384.25 (*Sosibion Nike*):

a. ἀμφοτέρφ παρὰ | παιδ(ι)· τὸν Μελικέρτην λέγ(ει) καὶ τὸν 'Αρχέμοιρον. ἐπὶ μὲν γὰρ τῷ Μελικέρτῃ τίθεται τὰ | 'Ισθμια, ἐπὶ δὲ τῷ 'Αρχεμόρφ τὰ Νέμεα.

b. τῷ Μελ[ι]κέρτη.

That the scribe included near-identical lemmata in each of the first two pairs of notes proves nothing in particular. One element of each pair is written in a side margin, one at the bottom of the page. If the annotator got these notes from a single commentary he might understandably have copied twice, for the sake of clarity, all or part of a single introductory tag in his source. Alternatively, his source may have provided him these four distinct notes. These he dutifully copied out in their entirety, omitting nothing that he found under his nose, as scribes

often did—even though this meant duplicating all or part of a lemma. (This automatic behavior has been characterized as a “scribal act,” as distinguished from “creative acts,” which involve conscious thought on the part of the scribe.)<sup>22</sup> Significant in this papyrus, however, is not the repetition of lemmata, but certain duplicate information provided in the notes.

In lines 65ff of the *Coma*, each of two surviving notes conveys roughly the same information—the time of year when the constellation is visible in the sky—but they do so in astronomically different terms. The Lock rises, according to the first comment, before the winter solstice and it sets after the spring equinox. The second note, more precisely worded, extends the period at each end: it reports that the constellation rises at the fall equinox and sets at the summer solstice. In pairs of notes on the *Victory of Sosibius* we also find differently worded but essentially congruent statements about the relative timing of the Isthmian and the Nemean games (Pf. 384.22). The two notes on 384.23–24, further, each identify the location of the Kinyps River. Both are essentially in agreement, although one is more precise and ample. It reports that the Kinyps bounds the land of the Carthaginians and is also the name of a city. The second makes the simple statement that the Kinyps is a river of Libya. Degree of amplification also distinguishes the notes on Pf. 384.4 and 384.25. In each case one element of the pair of notes is a simple gloss, the other the gloss with further explanation. In each of the five cases, the likelihood that the annotator compiled his material from divergent sources is strong, given the repetitive nature of the comments. Wording varies here more than content. Ancient hypomnemata have their organizational deficiencies, to be sure, but so much redundancy in so little space is not typical of their faults. Even in the absence of an obvious source-marker like ἄλλως, the substantive repetitions of information in these five pairs of notes must mean that they were compiled from at least two sources.

Beyond papyri, evidence accumulates for the practice in late antiquity of preserving excerpts of multiple commentaries in the margins of the texts they explain. This is the import, as Alan Cameron has shown, of certain observations by the early sixth-

<sup>22</sup> C. E. Murgia, quoted by Zetzel (*supra* n.1) n.32. The phenomenon is observable, for example, in the scholia in the Bembine Terence, where the second annotator took no steps to avoid repeating information entered by the first.

century mathematician Eutocius on the nature of his own work.<sup>23</sup> Eutocius' preface describes the accessibility of explanatory material accompanying his edition of Book 4 of the *Conica* of Apollonius of Perga. In Cameron's translation: "Book IV, my dear friend Anthemius ... is particularly elegant and clear for readers, thanks to my edition with its commentary: the notes make up for anything left unsaid."<sup>24</sup> The "commentary" to which he refers are σχόλια, a word used apparently interchangeably by Eutocius with αἱ παραγραφαί, the "notes." These notes appear, from context and from the term used, to have been written in margins beside the text. In putting together this work, moreover, Eutocius says that he worked from multiple sources, chose the best text where he had a choice, and put alternatives "outside" the text, in what he seems to describe as "concatenated" scholia: ἔξωθεν ἐν τοῖς συντεταγμένοις σχολίοις. ἔξωθεν is admittedly ambiguous, but it seems likely that it denotes the marginal area outside the space occupied by the main text.

From beyond Egypt, furthermore, as we saw above, come examples of parchment texts prepared to receive, and receiving, large quantities of scholia compiled from multiple sources. The margins of the fifth-century Verona Vergil contain voluminous scholia by two different hands, both dated to the fifth century. The Bembine Terence of the fourth century has copious annotations in two different sixth-century hands. The famous Vienna manuscript of Dioscorides, probably copied in Constantinople in the early sixth century, is another. Carefully labelled excerpts from Galen and Crateuas in the vast empty spaces at the bottom of its oversize pages come very close to the definition of scholia that governs this discussion: they are comprehensive, learned, and compiled from multiple sources. They do not surround the text in the manner of many later scholia. Yet they constitute another missing link in their history.<sup>25</sup> Wilson found evidence for compilation in yet another source, the Latin scholia to Vergil's *Eclogues* by one Philargyrius, who may have

<sup>23</sup> A. Cameron, "Isidore of Miletus and Hypatia: On the Editing of Mathematical Texts," *GRBS* 31 (1990) 103–27.

<sup>24</sup> ἔστι δὲ χαρίεν καὶ σαφὲς τοῖς ἐντυγχάνουσι καὶ μάλιστα ἀπὸ τῆς ἡμετέρας ἐκδόσεως, καὶ οὐδὲ σχολίων δεῖται· τὸ γὰρ ἐνδέον αἱ παραγραφαὶ πληροῦσιν.

<sup>25</sup> Dioscorides, Vienna, Med. Gr. 1: *Dioscorides. Codex Aniciae Iulianae picturis illustratus, nunc Vindobonensis Med. Gr. 1. Phototypice editus*, I. Karabacek et al. (Leiden 1906).

lived in the fifth century in Milan. Philargyrius used *aliter*, the Latin equivalent of ἄλλως, to introduce material taken from divergent sources, just as compilers of scholia and catenae used ἄλλως in later centuries. Philargyrius, Wilson assumed, did not invent the practice but was imitating a Greek model. If so, his Greek model probably antedated the catenae attributed to Procopius. This would make the model for catenae Greek and probably literary, and would place it earlier rather than later in the fifth century (Wilson, "Chapter" 249ff).

We have found evidence, then, for a revolution in book format, perhaps originating in the law schools of the East, and for the increasing popularity of codices of large format with extraordinarily wide margins. Some special reason must be sought for their size and shape, for they will have been awkward to handle. Wilson, commenting on the Vergil from Antinoopolis and the Berlin Nonnus, remarked on the scope that books of the new format provided for marginal notes.<sup>26</sup> He looked for "advances in papyrology that may help ... to determine within fairly close limits the time at which a large format became fashionable." Sufficient evidence was perhaps already available, in the form of papyrus codices sporadically published since the beginning of this century. Cumulatively, they suggest that by the fifth century something quite like the compilations of mediaeval scholia could be found in large-format codices of Greek and Latin literary and subliterary works found in Egypt.

Zuntz, unaware of most of this evidence, held tenaciously to the view that scholia were first constructed in the ninth century by "humanistically minded ecclesiastics on the model of the theological *catenae marginales* with which they were familiar." It is probably asking too much, as he evidently required, that late antiquity produce something absolutely identical in format to an ideal scholiastic manuscript in order to justify a claim that scholia of the mediaeval form developed before the ninth century. In any case, Zuntz' view rests on two difficult assumptions: first, that independent scholarly commentaries were preserved until the ninth century; and second, that dense marginalia were not feasible until the invention, in the early

<sup>26</sup> Wilson, "Chapter" 249. Vergil: *P.Ant.* I 29, Pack<sup>2</sup> 2937; Nonnus: *P.Berol.* inv. 10567, *BKT* V.I 94-106, Pack<sup>2</sup> 1329. Both are papyrus codices of huge format but have, in fact, little or no annotation.

Byzantine period, of the minuscule script that made it possible to fit large amounts of text into small spaces.<sup>27</sup>

On the first point: certainly a great deal more material than we sometimes realize survived to the ninth century. Photius had access to a tremendous amount of literature now lost. Independent hypomnemata of fairly high scholarly caliber, moreover, survive from sixth-century Egypt.<sup>28</sup> In theory, independent commentaries could have survived until the ninth century. Undoubtedly some were converted to scholia for the first time then. But all?

On the second point, Zuntz accurately described the bulky scripts of the Oxyrhynchus Callimachus as lacking the "classical balance" of the much later samples in his plates, in which scholia in minuscule hands frame subject text. The hitherto unnoticed Cicero also lacks this balance. Previously unavailable or disregarded palaeographical evidence, however, supplies examples of appropriately small scripts from late antiquity. All happen to be fragments of parchment books. They include, for example, a text of law (the Florentine Gaius), a religious work (the Cologne Mani codex), and a copy of Aristophanes.<sup>29</sup>

The circumstances of book production in the fifth century were indeed right for the development of scholia of characteristically "Byzantine" appearance. Contemporary manuscripts (on parchment, the Dioscorides, the Terence, the Vergil; on papyrus, the Callimachus and perhaps a text of law) contain moreover a rudimentary kind of marginal compilation. There is also evidence that deliberate compilation of Latin commentaries on Vergil may have been practiced in fifth-century Milan. Further, according to tradition, the fifth century saw the invention of scholia-like Biblical catenae. Wilson's latest assessment of the sit-

<sup>27</sup> Zuntz, *Aristophanes-Scholien*, Nachwort, enlarged at *Inquiry* 272-75.

<sup>28</sup> Late and detailed commentaries preserving signs of learning: Pack<sup>2</sup> 419 (comm. *ad Eur. Phoen.*, papyrus codex, 6<sup>th</sup> c.), Pack<sup>2</sup> 429 (comm. *ad Eur. Tr.*, citing, with extraordinary precision for a hypomnema of such late date, Philochorus; written on the verso of a papyrus with a blank recto; 5<sup>th</sup> c.). Lexica to Demosthenes of fair quality also survive from late antiquity: Pack<sup>2</sup> 308 (on *In Midiam*, papyrus codex, 4<sup>th</sup>-5<sup>th</sup> c.); Pack<sup>2</sup> 317 (on *In Aristocr.*, papyrus codex, 4<sup>th</sup>-5<sup>th</sup> c.).

<sup>29</sup> Wilson (*Scholars* 35) provides several examples of texts from late antiquity with notes or text written in extremely small script. The Florentine Gaius: *P.S.I.* XI 1182 (Pack<sup>2</sup> 2953, A.D. 500?); the Mani codex: *P.Colon.* inv. 4780 (A. Henrichs and L. Koenen, *ZPE* 5 [1970] 97ff; 5<sup>th</sup> c.); *Ar. Eq.*: *P.Berol.* 21105+13929 (Pack<sup>2</sup> 142+Uebel 1524, 4<sup>th</sup> c.).

Table: Papyrus Codices of New Format  
(By Size of Largest Margin)

Contents	Century	Bilingual?	Maximum marginal width	Turner Group No.	Pack/Uebel Number	Publication
<b>A. LITERATURE</b>						
Arat. Phaenom.		*Byzantine*	10.8 top		119	P.Berol. inv. 5865, APF 27 (1980) 19-32
Ar. Nub.	5		10 outer	2	145	P.Oxy. 11.1371, Zuntz 47-55
Pind. P. 1	6		[8.5] outer		1356	MPER N.S. 1.23
Verg. Georgics 2, 3	4	(Latin notes)	9.2 lower	1	2937	P.Ant. 1.29; Seider 2.1.51
Callim. varia	6 - 7		8.5 outer	1	186	P.Oxy. 20.2258
Theocr.	5 - 6		7 outer	4	1487	EES, Two Theocritus Papyri (London 1930)
Hippocr. Aph. 3-4	6		[6.6] outer		u1442	P.Ant. 3.183
Marginalia on an oration?	6		6.3 side		2866	MPER N.S. 3.37
Cic. Divinatio in Q. Caecilius	5	*	6 lower		2919	P.Ryl. 3.477; Seider 2.1.48
Ar. Eq. (marg. only)	5		[5.2] side		1630	P.Oxy. 11.1402, Zuntz 57-60
Ter. Andria	4?	*	5.2 lower	3	2934	P.Oxy. 24.2401; Seider 2.1.41
Marginalia on a poetic text?	5		5 top		2867	MPER N.S. 3.39
Poetry?	3		4.2 side			P.Oxy. 53.3709
<b>B. LAW</b>						
Imperial constitutiones	4 - 5	*	[10.5] side		2282	P.Ryl. 3.476; CLA 2.225
Law	5 - 6	*	10 side		u1544	P.Ant. 3.152; Seider 2.2.39
Rubrics on criminal law	4 - 5	(Latin notes)	[9] side		2984	P.Vindob. Lat. 110 ined., Seider 2.2.38
Digest	6	*	8.7 outer		2966	P.Heid. Lat. 4, olim 1272; Seider 2.2.40
Legal definitions	4 - 5	*	7.1 lower		2982	P.S.I. 13.1348 (mgia appear to be supplements to text)
Legal catechism	5	*	7 outer		2277	P.Berol.inv. 11866a, Aegyptus 13 (1933) 621-43
Justinian Codex	6	*	6.6 lower	3	2970	PSI 13.1347; CLA 2.293
Law (on longi temporis praescriptio)	5?	*	[6.1] outer		2281	P.Berol.inv. 16976 + 16977; Seider 2.2.20
Juridical fr.	5	*	[5] outer		2280	P.Ryl. 3.475
Law	5	*	5 inner		u1545	P.Ant. 3.153; Seider 2.2.19
Juridical fr.	5	*	[4] outer		2286	MPER N.S. 3.38
Stephanus, Index to Digest	6	*	4 lower	1	2965	P.S.I. 1 55
Digest	6	*	3.5 top		2971	P.Reinach 2173; Seider 2.2.18
Ulpian Ad Edictum	5	*	2 side		2974	P.Ryl. 3.474; Seider 2.2.16; CLA Suppl. 1722

uation is correct (*Scholars* 36.): "When all the facts are taken into account, the balance of evidence entitles us to revert to the view that scholia began to be amalgamated from the earlier monographs and to take on their mediaeval shape during the late Roman empire. It is possible that the process had started by the end of the fifth century and that Procopius was taking note of it when he invented the catena." Indeed, if the evidence and date of Philargyrius are reliable, or if two of the legal codices in question are accurately dated to the turn of the fourth century, then the process may have begun even earlier, possibly as early as 400.<sup>30</sup>

The question of the origin of scholia comes to this: is it reasonable to imagine that some readers of late antiquity conceived of filling the broad margins of their books with extensive exegetic material compiled from more than one source? The evidence of the very heavily annotated Oxyrhynchus Callimachus in particular evokes an affirmative answer. Given the limitations of this evidence, however, one wishes all the more to know what scriptoria in contemporary Constantinople and Rome and Gaul (the possible provenance of the Verona Vergil) were producing. For the drastic changes in the form of books and in the quantity and form of their annotation in late antiquity suggests strongly that if we had a window on the past through which we might view scribes at work in major centers of culture in the fifth century, we would indeed find some engaged in transcribing full commentaries, and possibly compilations of commentaries, into wide margins: in a word, producing scholia.<sup>31</sup>

WAYNE STATE UNIVERSITY

July, 1996

<sup>30</sup> Legal papyri dated to the 4<sup>th</sup>/5<sup>th</sup> c.: *P.Ryl.* III 476 (*CLA* 2.225, Pack<sup>2</sup> 2282); *P.Vindob.Lat.* 110 *ined.* (Pack<sup>2</sup> 2984, Seider 2.2.38); *P.S.I.* XIII 1348 (Pack<sup>2</sup> 2982).

<sup>31</sup> A version of this paper was first read at the 1995 Byzantine Studies Conference. I am grateful to members of that audience, particularly Alan Cameron, for their comments.