## Cataloguing Scientific Miscellanies: the Case of *Parisinus Graecus* 2494

Anne Weddigen

anuscript *Parisinus Graecus* 2494 is a mid fifteenth-century manuscript containing various excerpts and compilations of scientific texts (mainly astronomy) besides some literary and hagiographical components. The first detailed description of its contents can be found in the *Catalogus codicum astrologorum graecorum* among the Parisian manuscripts. The author of the catalogue chose not to publish any extract as such of this manuscript in the appendix.

In terms of structure, *Paris. gr.* 2494 is a composite volume containing various codicological units,<sup>2</sup> some of them in turn themselves miscellanies. The codex is written on paper, and shows a great variety of hands, qualities and watermarks. Nothing makes the task of describing it easy: the watermarks are placed in the gutter margin, and some of the leaves have undergone a process of restoration dating back to the last binding.<sup>3</sup> Most of these watermarks are not found in Piccard's or Briquet's repertoires. Copyists remain anonymous, and the contents of some of the sections are unidentified and/or unpublished texts.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> P. Boudreaux, *Catalogus Codicum Astrologorum Graecorum: Codices Parisienses*, *CCAG* 8.3. Bruxelles, Lamertin, 1912, pp. 63-72.

<sup>&</sup>lt;sup>2</sup> Mid-15<sup>th</sup> c. 140x204 mm. 260 ff. It came into the collection of King Francis I before 1547.

<sup>&</sup>lt;sup>3</sup> The binding can be dated to the years 1546-1547. It is very close to the one of *Paris*. *gr. 1250*: see M.-P. Laffitte and F. Le Bar, *Reliures royales de la Renaissance*, Bibliothèque Nationale de France, 1999, pp. 87-90.

<sup>&</sup>lt;sup>4</sup> A detailed description of the content has been published in the online catalogue of the Bibliothèque nationale de France (http://archivesetmanuscrits.bnf.fr/ark:/12148/cc1031085).

This type of manuscript is a quite common case when it comes to the fifteenth century, as it is a reflection of a common scholarly practice. Scholars and students, who usually remain unknown to us, used to collect excerpts of different authors related to the same topic, for personal use or teaching. Some of those compilations, however, seem to have been passed on and were copied, maybe as a kind of Syllabus. As they were meant for ordinary, daily use, these manuscripts do not usually exhibit any remarkable features such as decoration, colophons, or a careful layout. For a cataloger, on the other hand, such miscellanies do not map onto the usual description-form, as they defy one of its most basic categories, that of authorship. The multiple layers of writing include the authors of the various excerpted texts together with the scholar excerpting them – since the compiler is in some way another kind of author –, thus making it impossible to classify the resulting text under the simple formula Author, Title, Date. How can one provide, in this context, an identification of the written object that would enable modern scholars to identify, connect, and compare these various layers?

The variety of contents shows that this codex is in every sense a collection of miscellanies: several fragments are bound together, of which most are in themselves miscellaneous collections. These contents can be briefly summarized as follows:

Content	Quires
ff. 1-66 Astronomy/Astrology	ff. 1-66: 8 quaternions
ff. 67-83 PsAristotle, De Mundo	ff. 67-83: 2 quaternions + 1 f
ff. 84-95 Astronomy (Anonymus Heiberg)	ff. 84-97: 1 quaternion + 1 ternion
f. 96 Exorcism	
ff. 96-97 Astrology	
ff. 98-115 Aesop ff. 116-118 Progymnasmata	ff. 98-118 : 1 ternion + 2 quaternions
ff. 119-197r Astronomy/Astrology, Physics	ff. 119-127: 1 quaternion + 1 f
f. 197v Christian Prayer	ff. 128-139: 1 senion.
ff. 198-200 Multiple Fragments, related to Ar-	ff. 140-181: 5 quaternions + 1 f
temidorus' Oneirocriticon (201-203: blank)	ff. 182-203: 2 quaternions + 1 ternion.
ff. 204-229 "Persian" Calendar	ff. 204-211 : 1 quaternion ff. 212-230: 3 ternions + 1f

ff. 229-231 <i>Life</i> of St Andrew the Fool	ff. 231-234: 1 binion
ff. 231-232 Botanical Glossary	
ff. 233r-236v Canon for the Orthodox	
morning service	ff. 235-242: 1 quaternion
ff. 236v-242r <i>Life</i> of St Andrew the Fool	
ff. 242-257 Scientific and magical texts	
ff. 258r Fragment under the name of Basil	243-255: 1 sexternion + 1f after res-
of Cesarea (11 lines)	toration (originally 1f +2 ternions ac-
	cording to the quire marks)
ff. 258-260 medical texts (Galen and	
pseudo-Hippocrates)	ff. 256-261: 1 ternion

This short table of contents shows that Astronomy and Astrology are not here distinguished. The main focus is on Astronomy and Physics, which was reason enough to order this manuscript into the 24\*\* of the Greek manuscripts in the BnF classification system, a section reserved for scientific and mathematical manuscripts. Besides Astronomy and Physics, two other 'scientific' sections are to be found, namely Botany and Medicine, as well as a literary part (Aesop and Rhetoric), and some fragments of religious content.

The table also shows, at first glance, that it is only at the beginning of the codex that some coincidence between the thematic and codicological units is to be found. By closely examining the quire marks, one can establish that the original codex contained ff. 1-127 and 204-254, with three more quires before f. 1. After those three quires went missing (whether lost or deliberately separated from the rest), the folios were renumbered. This renumbering happened before the adding of ff. 128-203, that did not originally form a single unit, but three.<sup>5</sup>

Everything is intermingled, not only as a result of collecting various papers to constitute one codex, but also because of the original method

<sup>&</sup>lt;sup>5</sup> Ff. 128-139 (one senion) do not show any quire marks, whereas ff. 140-181 are numbered with Greek letters starting with α. Ff. 182-203 do not have any quire marks either. It is impossible to tell if they were part of the unit starting on f. 140, or if they form a third unit within this group.

of copying such miscellaneous codices. For example, one could think that the Vita of St Andrew the Fool has been split into two parts by the interposition of some leaves in the course of a rebinding process. As a matter of fact, the botanical glossary starts on the same page where the first part of the hagiographic text ends, and the Vita starts again in the middle of f. 236v, continuing right after the end of the *Canon* for matins (partly dedicated to St Andrew the Fool). The dedication of the Canon bears a possible link to the Vita, whereas there is absolutely no connexion between the Vita and the botanical glossary. I can see no reason for assuming that the scribe would have copied the *Vita* leaving few pages blank, and only later added the glossary and the Canon. The layout of the pages, the continuity between the different fragments and the fact that one single hand copied all three texts, suggest that the scribe was copying from an exemplar already containing a disarrangement of units. The simplest explanation would be that a binding error, placing a quire or a few pages in-between two quires of the Vita, affected the antigraphon. The scribe was not aware of this problem in the first place, and only later added the two notes in red ink indicating where the other part of the Vita could be read.<sup>6</sup> Unfortunately, Rydén makes no comment about this codex that would allow us to identify its model. His conspectus codicum does not mention any form of confusion or alteration of folios in other manuscripts, so that the hypothetical scrambled antigraphon is probably lost, if it ever existed.

The other problem raised by the *Vita* is the reason for its presence. Hagiography is not commonly found together with science, and as Rydén notes in his description of *Paris. gr.* 2494,<sup>7</sup> this is the only codex in the whole tradition of the *Vita* where "the number of highbrow authors is high. (...) The copyist seems to have regarded VA [the *Vita*] as an important source of information".<sup>8</sup> In fact, this codex does not transmit the entire *Vita*, but only one specific excerpt that Rydén labeled the "Apocalypse". It contains several descriptions of earthquakes, light-

<sup>&</sup>lt;sup>6</sup> These two notes were duly noted by Boudreaux in his description: see CCAG 8.3, p. 71.

<sup>&</sup>lt;sup>7</sup> L. Rydén, *The Life of St Andrew the Fool*, Uppsala (Acta Universitatis Upsaliensis, Studia Byzantina Upsaliensia, 4.1 and 4.2), 1995.

<sup>&</sup>lt;sup>8</sup> Rydén, *Life of St Andrew*, vol. 1 : *Conspectus codicum*, ms 27, p. 152, note 73 p. 166.

ning, floods and other meteorological phenomena, which would in fact more appropriately fit in the context of an astronomical-astrological compendium.

Finally, the variety of hands (cursorily distinguished by Boudreau as *earlier* or *later*) shows that not only several units were bound together that did not originally belong to a single codex, but also that some small fragments (extending over a few lines) have probably been added later on blank pages or in blank spaces between two units of text.

I will focus my case study on one page only, namely, folio 121r (see reproduction p.63). It belongs to the end of the first codicological unit. It is part of a quire of 9 folios (ff. 119-127) originally numbered  $I\Theta$ . Folio 127v shows traces of the renumbering that happened after the first three quires were lost, and this number could be a  $\zeta$ . This quire was originally followed by f. 204, the beginning of a "Persian" calendar. Since f. 121 is not the additional folio to its quire, the text it bears is no specific addition. It is part of a thematic unit where various extracts from astrological calendars are put together.

At the top of folio 121r, there is the conclusion of an astronomical calculation that started on the preceding page. Then follows a new title in red ink: *About the winds*. The following text covers 25 lines and a very short 26th, of which the 8 last lines (ll. 19-26) seem to be written by the same hand, but in a smaller module. From the layout of the page, we may infer that it is a single chapter about the winds, taken from one author. The first attempt to identify the text and its author failed completely, because I was not aware at first that this small extract was in itself already a rewritten collection of different quotations, as the following table shows:

Par. gr. 2494, f. 121r, περὶ ἀνέμων	Extracts on winds
ll. 1-9 Inc. περὶ τῶν προσηγορίων, Expl. τῆ γεωργία μαλλ(ον) τῶν ἄλλων.	Geoponica, Book 1, chapter 11, section 21.
II. 9-12 inc. αἴδε ταράχαι αὐτῶν, Expl. πάντες ἄνεμοι εἰσι ιβ'.	John the Lydian, De ostentis <sup>2</sup> ?
ll. 12-18 Inc. Ἰστέον ὅτι πάντες ἄνεμοι, Expl. Κασπία θάλασσα καὶ Σάκ <u>αι</u> :-	John of Damascus, <i>Expositio fidei</i> , Section 24b line 31-36 <sup>3</sup> .
II. 19-21 Inc. Κωλυ'ο'νται δὲ καὶ τιναι'ε'ς ἄνεμοι, Expl. ἐν τῷ κοσμολογικῷ διαλέγεται :-	John the Lydian, <i>De mensibus</i> , Book 4 section 119 line 20-22 <sup>4</sup> .
II. 22-26 Inc. δη εἰδέναι ὅτι, Expl. ήμερών η δ' δεὶ ἐκδέχεσθαι :-	Frg Cod. 37 = Matr. 4681, <sup>5</sup> f. 163r.

<sup>&</sup>lt;sup>1</sup> Edition: H. Beckh, *Geoponica*, Leipzig, Teubner, 1895.

In order to analyze what the scribe is actually doing, I have tried to match, in the facing texts, the exact parallels between sources. This makes clear that *Paris. gr.* 2494 is not a simple collage of extracts and quotations. The sources have been partially modified, abridged, and sometimes misinterpreted. It seems that someone aimed at creating a new chapter about winds containing all he could find that seemed noteworthy on the topic. There is a double process at work: that of epitomizing collected extracts and that of organizing their succession.

<sup>&</sup>lt;sup>2</sup> Edition: C. Wachsmuth, Johannis Laurentii Lydi, *Liber de ostentiis*, Leipzig, Teubner, 1863.

<sup>&</sup>lt;sup>3</sup> Edition: B. Kotter, *Die Schriften von Johannes von Damaskos. Band 2 : Expositio fidei*, Patristische Texte und Studien, De Gruyter, Berlin, 1973.

<sup>&</sup>lt;sup>4</sup> Edition: R. Wuensch, *Joannis Laurentii Lydi Liber de mensibus*, Leipzig, Teubner, 1898.

<sup>&</sup>lt;sup>5</sup> This part of the ms. Matritensis 4681, f. 163, was published by K. O. Zuretti in the *Catalogus Codicum Astrologorum Graecorum: Codices Hispanienses, CCAG* 11.2. Bruxelles, Lamertin, 1934, p. 174.

## Part 1: Extract from the Geoponica

περὶ ἀνέμων6

περὶ τῶν προσηγορίων ἀνέμων καὶ ποσῶν εἰσὶ πόθεν ἔκαστος πνεῖ,

ἀπὸ τῶν δ΄ κλημάτων τέσσαροις αὐθεντικοῖ πνέουσιν ἄνεμοι

ό ἐκ τοῦ ἀνατολικοῦ κέντρου φερόμενος καλῆται ἀπηλιώτος · ἔχει δὲ παραπνέοντας καὶ μεσάζοντας τὸν εὖρον καὶ τὸν κεκίαν.

όδε ἐκ τοῦ δϋτικοῦ <u>ἄστρου</u> πνέων, ὁ Ζέφυρος. ἔχει μεσάζοντας αὐτὸν **τὸν** ἱάπϋγα καὶ **τὸν** λίβαν.

όδε ἐκ τοῦ ἄρκτου <u>ἄστρου</u> πνέων βοράς. ἔχει μεσάζοντας αὐτὸν, τὸν θρασκέα καὶ τὸν ἀπαρκταία.

ὄδε ἀπὸ τῆς μεσεμβρίας φερόμενος, νότος. ἔχει μεσάζοντας αὐτὸν τὸν λιβόνοτον καὶ τὸν εὐρόνοτον.

ώς πάντας αὐτῶν τὸν ἀριθμῶν εἶναι ΙΒ'

τὸν δε ζέφυρον <u>ἐνεργὸν</u> εἶναι **λέγουσι** τῆ γεωρία μαλλ(ον) τῶν ἄλλων.

Περὶ τῆς προσηγορίας τῶν ἀνέμων, καὶ πόσοι εἰσί, καὶ πόθεν ἕκαστος πνέει. Διονυσίου.

Απὸ τῶν τεσσάρων κλιμάτων τέσσαρες αὐθεντικοὶ πνέουσιν ἄνεμοι.

ὁ ἀπηλιώτης καὶ ὁ ζέφυρος καὶ ὁ βορέας καὶ ὁ νότος.

ό μεν οὖν ἀπηλιώτης ἀπό τοῦ ἀνατολικοῦ κέντρου φερόμενος, ἔχει παραπνέοντας καὶ μεσάζοντας **αὐτὸν** τὸν εὖρον καὶ τὸν καικίαν

ό δὲ ζέφυρος ἐκ τοῦ δυτικοῦ <u>κέντρου</u> πνέων,

ἔχει μεσάζοντας αὐτὸν ἰάπυγα καὶ λίβα.

ό δὲ βορέας ἐκ τοῦ ἀρκτικοῦ <u>κέντρου</u> καταπνέων, ἔχει μεσάζοντας αὐτὸν θρασκίαν καὶ τὸν ἀπαρκτίαν.

ό δὲ νότος ἀπὸ τῆς μεσημβρίας φερόμενος, ἔχει μεσάζοντας αὐτόν, τὸν λιβόνοτον καὶ εὐρόνοτον,

ώς εἶναι τοὺς πάντας ἀνέμους ιβ΄.

τὸν δὲ ζέφυρον <u>συνεργὸν</u> εἶναι τῆ γεωργία μᾶλλον τῶν ἄλλων **πάντων ἀνέμων**,

This first part is the longest excerpt that can be singled out on this page. The first striking feature is the question of the title, and the related problem of authorship. As the scribe entitled his chapter *On the winds* (in what appears to be a title of his own, but might be taken from John of

<sup>&</sup>lt;sup>6</sup> This transcription does not correct grammatical or spelling mistakes (confusion of long and short vowels, iotacism, etc...). These are very common mistakes for a fifteenth-century scribe, and they might or might not be of interest. Likewise, the transcription tries to show how the scribe corrected his own spelling by adding or replacing letters above the word.

Damascus, see below), it makes sense that he chose not to copy the full title from the *Geoponica* in his epitome. Strikingly, instead of leaving it out completely, he shortened it, thus transforming τῆς προσηγορίας τῶν ἀνέμων into τῶν προσηγορίων ἀνέμων, a formula only slightly shorter and maybe less precise, and leaving out  $\pi$ óσοι εἰσί and Διονυσίου. The leaving out of  $\pi$ óσοι εἰσί corresponds to the omission in the text of the list of four winds, although the excerptor still writes that the winds are four in number. With this small change, the focus shifts a little, because, as we will see, our scribe is not interested so much in their number as in their geographical origin (and its meaning?). The author 'Dionysus', on the other hand, is unknown to us. As A. Dalby puts it, commenting on the Geoponica, "no one believes that these attributions are literally accurate". 9 There is in fact a debate as to whether all of these attributions are false and arbitrary, or "not in general wholly false", but correspond to differences of style, specialism, scientific approach and/or geographical references. <sup>10</sup> In this case, *Dionysus* is an unknown reference. I cannot rule out that the scribe omitted it in order to keep his extract short. Nevertheless, he also stops his quote immediately before the *Geoponica* mentions the name of one Florentios. Thus, the scribe seems intent on avoiding the mention of any kind of source, rather composing his epitome as a new independent work.

The omission of the primary list of the four main winds makes sense, given that they are all listed afterwards together with the secondary winds. It seems that all the modifications we observe in the passage result from this omission: the epitomizer rearranged the syntax, so that it would be more fluent and coherent. The omission of  $\alpha \dot{\nu} \tau \dot{\nu} v$  may be due to a later copyist or to a mistake that was not repeated in the next sentence.

The systematic substitution of the word  $\alpha\sigma\tau\rho\sigma\nu$  for  $\kappa\epsilon\nu\tau\rho\sigma\nu$  is somewhat strange, as it relates the direction of winds to stars, whereas the

<sup>&</sup>lt;sup>9</sup> A. Dalby, *Medioevo greco*, 14, 2014, pp. 407, review on *Géoponiques*, traduction J.-P. Grélois et J. Lefort, Paris, Association des Amis du Centre d'Histoire et Civilisation de Byzance, 2012.

<sup>10</sup> Ibid.

"center" is, in the Rose of Winds, the central line out of three, meaning the main wind in the middle flanked by two secondary winds.

The addition of the word  $\underline{\alpha}$ ριθμῶν (ὡς πάντας αὐτῶν τὸν ἀριθμῶν εἶναι IB΄) is probably due to language habits of the epitomizer, a way of marking beforehand that the letters IB΄ are actually a number.

The most interesting addition is that of λέγουσι. The translation of the original text in the Geoponica is: Zephyr is, for agriculture, the most helpful of all winds, which becomes Zephyr is, as they say, more productive in agriculture than the others. λέγουσι expresses at the same time that this is a quotation, and adds some distance between the epitomizer and his sources. On the other hand, a reader who would not know the original of the Geoponica could understand this λέγουσι as a reference to some widespread common opinion. This change in the quotation also clearly indicates that agriculture is not the main focus here. Geoponica is a treatise of agronomy that was used by the epitomizer to find the list of the 12 winds and their disposition on the Rose of Winds, but his primary interest is not in the practical indications that these winds convey for the farmer. Exactly at the moment where the text of Geoponica moves to practical applications in agriculture, the quote breaks off, and the epitomizer slides from meteorology to geography (and ethnography), back to meteorology and finally astronomy.

## Part 2: An unidentified extract

αἴδε ταράχαι αὐτῶν τοῦ χρονικοῦ κυρίου ἱανουαριου ἡμερα(ι?) δ΄ καὶ κε΄. φευρουαρίου θ΄ μαρτίου θ΄ καὶ κε΄ ἀπριλλ<ι>οῦ ε΄ καὶ ιθ΄ μαίου α΄ καὶ ιβ΄ ἱουνίου η΄ καὶ κβ΄ ἰουλλίου ε΄ καὶ ιθ΄ αὐγούστου α΄ καὶ ιδ΄ σεπτεβρίου ζ΄ καὶ κβ΄ ὀκτο[υ]<β>ρ(ίου) ε΄ καὶ ιζ΄ νοεμβρίου α΄ καὶ ιβ΄ δεκεμβρίου θ΄ καὶ ιδ΄:-

For these lines, I was so far unable to find any satisfying parallel. In K. O. Zuretti's volume<sup>11</sup> is edited a calendar that lists all astronomical

<sup>&</sup>lt;sup>11</sup> *Ibid.*, pp. 168-173.

events over the year (rising and falling of constellations for example), and, amongst those events, storms or changes of winds. This calendar has very few correspondences to the extract copied on f. 121r, but the underlying idea of fixed changes of winds during the year seems to be a common feature. These few unidentified lines of Par. gr. 2494 might be a partial transcription of such a calendar, focused on wind changes. A very similar calendar is to be found in John the Lydian's *De ostentiis*, <sup>12</sup> where it is said to be taken from Claudius Thuscus (ἐκ τῶν Κλαυδίου τοῦ Θούσκου), for which some days are a match: April 29th, September 23<sup>rd</sup> (instead of 22<sup>nd</sup>). Given the high potential for copying mistakes when it comes to numbers, it is very difficult to rule out that this passage could have been taken from John the Lydian on this basis only. In regard to the fact that II. 19-21 of f. 121r are taken from the De mensibus by the same author, it seems at least plausible. Should it be so, it would give us further insight into our epitomizer's method: he chose two different passages from one author that he reorganized together with some other fragments, but even in the long list that constitutes Claudius' calendar, he picks out only what concerns the ταραχαὶ ἀνέμων.

<sup>12</sup> Ibid., sect. 59-70.

Part 3: John of Damascus

Ίστέον ὅτι πάντες ἄνεμοι εἰσι		
ιβ΄.		
εὖρον, Ἰνδικοὶ κατὰ Φοίνηκα, Ἐὖρο Ἐρμθρὰ θάλασσα, καὶ Αἰθιοπία. Ἐρυθ κατὰ λιβόνοτον, οἱ ὑπερ κατὰ λίβοπες καὶ δυσμικοὶ Ὑπέρμαυροι, κατὰ ζέφυρὸν καὶ Εὐρόπης, κατὰ ἀρχαὶ Λυβίοις καὶ Εὐρόπης, κατὰ ἀργέστην Ἰβηρία ἀργέ κελταί(οί ss.) καὶ ἄπαρτίας οἱ ὑπὲρ τὴν Θράκην Σκύνθαι, κατὰ βορρᾶν Πόντοι Μαιώτης καὶ βορρ Σαρμάται, κατὰ καικίαν Κασπία Σαρμ	λιώτην Βακτριανοί, κατ' ον Ίνδοί, κατὰ Φοίνικα θρὰ θάλασσα καὶ Αἰθιοπία, α λευκόνοτον οἱ ὑπὲρ τιν Γεράμαντες, κατὰ λίβα οπες	Ίνδικοὶ  λυκόνοτον  Σύρτην  Γερμαντες  Σπανία τὰ  ὑπὲρ τὴν

As an introduction to the next quotation is a sentence that should probably be ascribed to the epitomizer himself. The punctuation marks make clear that it is not supposed to be part of the previous fragment. This quotation of John of Damascus' *Expositio fidei* is very close to the original text. Neither cuts nor rearrangements of the syntax were made. The *Expositio fidei* is one of the links between several pages of our miscellanea. Immediately after the text we are focusing on, f. 121v starts with a quite long quotation of the *Expositio*, but taken from another, more 'astronomical' chapter.

It appears that this quote is not just any taken from John of Damascus. It is in turn itself a quotation from Agathemeros, <sup>13</sup> which we only know thanks to John of Damascus. Moreover, this paragraph is one of the few that are not well established in the manuscript tradition of the *Expositio*. This uncertainty is also reflected in the various translations of the text. As an example, the Reverend S.D.F. Salmond notes, in his 1899 English translation<sup>14</sup> (of the Latin translation) that it is missing in most of the manuscripts. Therefore, he places it at the end of II, 8 (which is Chapter 22 in our latest edition), with no further comment. In the other translation, based on a different branch of the tradition, as in the French translation of Ponsoye, <sup>15</sup> the paragraph is simply omitted.

The very careful edition of Bonifatius Kotter<sup>16</sup> provides a complete *apparatus criticus* that allows us to reconstruct the transmission of this paragraph. It is to be found in only two manuscripts of Kotter's stemma, named E and H. Both of these manuscripts belong to the tradition Kotter calls "ordered" (*expositio ordinata*) as opposed to the second tradition, the unordered one. Nevertheless, they are to be found in two different branches of the stemma. Manuscript E is the *Synod. bibl. gr.* 201, from the Historical Museum of Moscow, and dates back to the 9<sup>th</sup> century. H is the *Sinaiticus gr.* 383 from St Catherine's monastery, and dates back to the 11<sup>th</sup> century. The paragraph is missing in all the other manuscripts known to Kotter, which means that it was lost at a very early stage, for reasons we cannot trace.

There is the further complication that in the manuscripts where it occurs, namely, E and H, this paragraph is found in two different places.<sup>17</sup> H transmits it between chapter 22b and chapter 24, whereas E places it at the end of chapter 24, before chapter 25.

<sup>&</sup>lt;sup>13</sup> GGM 94, 101, 1-10 = Diller 34.

<sup>&</sup>lt;sup>14</sup> John of Damascus. Exposition of the Orthodox Faith, translated by the Rev. S.D.F. Salmond, Aberdeen, 1899.

<sup>&</sup>lt;sup>15</sup> E. Ponsoye, *La foi orthodoxe : suivie de Défense des icones*, Publication de l'Institut Orthodoxe Français de Théologie de Paris, Paris, 1966.

<sup>&</sup>lt;sup>16</sup> B. Kotter, *Die Schriften von Johannes von Damaskos*. Vol. 2: *Expositio fidei*, Patristische Texte und Studien, De Gruyter, Berlin, 1973.

<sup>&</sup>lt;sup>17</sup> References to chapters are given accordingly to Kotter's edition.

Chapter 22b is an alternative version of chapter 22, that is found in some manuscripts belonging to the same family as H. In this line of transmission, chapter 23 is missing, replaced by the quotation of Agathemeros, right before chapter 24. Kotter's printed text follows more closely the tradition of E, so that our paragraph appears at the end of chapter 24, with a note that links it to chapter 22b. This is also where its translation is to be found in Salmond's translation. Therefore, his Latin version must go back to the family of E.

The parallel-text comparison given above, showing the manuscript variations in the third column, makes clear that the variations of H are all found in the Parisian manuscript. Our quotation therefore belongs to the family of H, rather than E. I may add here that the title of chapter 22b is  $\pi\epsilon\rho i$  ἀνέμων, which is probably one of the reasons the compiler looked it up and selected this piece from it for his own compilation.

There is only one word that shows some variations in the three manuscripts:  $\lambda$ ιβόνοτον –  $\lambda$ ευκόνοτον –  $\lambda$ υκόνοτον. Both names *libonotos* and *leukonotos* are attested for the same wind. As  $\lambda$ ιβόνοτον cannot be derived from the lesson  $\lambda$ υκόνοτον found in H, it could be an argument to refute the belonging of *Paris. gr.* 2494 to the H family. Nonetheless, since the difference between these names could be the simple effect of a misreading of the names written in early Greek minuscule.  $-\epsilon$ υ– could be a misreading for  $-\epsilon$ β–, the mistake is not probing. H, compared to E, is just omitting an epsilon. If the difference of names for this wind matters, the Parisian quotation could be a witness of a lost branch in the H-tradition, a parallel line that would go back to a common ancestor to H and *Paris. gr.* 2494, nowhere recorded in Kotter's stemma.

This small and isolated fragment is too limited to provide any further information on a very hypothetical new branch to Kotter's stemma. On the other hand, it could be an element to take into account while trying to tie the Parisian collation to some other manuscripts, and it could be worth investigating whether *Paris. gr.* 2494 shows other links to Kotter's H family, a research beyond the scope of this study.

Part 4: A fragment from John the Lydian

Κωλυ'ο'νται δὲ καὶ τιν<del>αι</del>'ε'ς ἄνεμοι αὕραι καὶ ρυσ(εις) **ἀνέμων** τϋγχάνουσι,

όταν ἢ ἀπὸ λιμῶν ἢ ἀπὸ ποταμῶν φέρονται. ὅμοιοι τούτων εἰσὶ καὶ οἰ ἀπόγειοι, ὅθεν εὐλόγ(ως) ἀέρος εἰρεμοῦντ(ος) τὸ κατάστημα καλῆται νεη'νε'μία.

οὕτως ἀπολόγ[ι]ος ἐν τῷ κοσμολογικῷ διαλέγεται :-

αὖραι <u>γὰρ αὖται</u> καὶ ῥύσεις **ἀέρων** τυγχάνουσιν <u>οὖσαι, καὶ οὐκ ἀλόγως ἄνεμοι</u> καλοῦνται,

ότε ἢ ἀπὸ λιμνῶν ἢ ποταμῶν φέρονται· ὅμοιοι δὲ τούτων εἰσὶ καὶ οὶ ἀπόγειοι, ὅθεν εὐλόγως ἀέρος ἠρεμοῦντος τὸ κατάστημα καλεῖται νηνεμία.

It is impossible to ascribe the first sentence to any author – it might have even been added by the anonymous compiler himself. The quotation taken from John the Lydian is quite heavily abridged, and the syntax is changed, thus creating an ambiguous sentence.

The original first sentence was: Breezes themselves and streams of air happen to occur, and they are rightly called "winds", when they are brought coming from lakes or rivers... The compiler decides that there is no point in keeping the expression "rightly (lit.: not unreasonably) called winds" (καὶ οὐκ ἀλόγως ἄνεμοι καλοῦνται), as he is putting together a chapter about winds anyway – his reader perfectly knows what this is all about. Furthermore, he simplifies the expression 'breezes themselves and streams of air called winds' (αὖραι γὰρ αὖται καὶ ῥύσεις ἀέρων) into simple 'breezes and streams of wind' (αὔραι καὶ ρυσ(εις) ἀνέμων). The only problem is that he also omits the participle οὖσαι. This syntax would certainly not fit the classical grammatical standards, but still be acceptable. But then, it is not clear anymore if the genitive "of winds" is complement to the noun "streams" or object to the verb τυγχάνουσιν. Another translation could be breezes and streams meet winds. Only the original text can lead us to the correct translation, unless we admit that our epitomizer deliberately chose to give the passage a different meaning.

The rest of the passage shows confusion between ὅτε and ὅταν that would normally require a subjunctive, and some spelling mistakes that are usual for a fifteenth-century copy.

The last sentence is more puzzling. It is not taken from the *De ostentiis*, nor from any other known text. As it stands, one must admit that it is a

personal comment added by the epitomizer. It links what has been just said to "the Cosmologicos", or "the cosmological <work>".

There is but scarce evidence for the adjective κοσμολογικός in Classical or Byzantine works, even if it exists in Modern Greek. It is possible that the word, understandable in itself, might refer to some "work" or "book", thus the translation would be: this is how a story is narrated in the cosmological book. In this case, we must admit that the author of the sentence knows precisely which single cosmological book is meant, whether it has been mentioned beforehand, or the reference speaks for itself. In fact, the word νηνεμία appears three times in Aristotle's Meteorologica<sup>18</sup> and twice in Ptolomaeus's Phaseis, 19 two authors likely to be well known to any scholar. But none of these attributions would fit our context, since neither Aristotle nor Ptolomaeus write anything close to an ἀπολόγ[ι]ος in these passages. If the reading ἐν τῷ κοσμολογικῷ <βιβλίφ> is correct, it must refer to some work unknown to us, but still be an obvious reference for the epitomizer.

On the other hand, there is but one thing that we know about by that name: it is a work by Ion of Chios, mentioned in a scholion<sup>20</sup> to Aristophanes' Pax. Unfortunately, we have no idea what this work was about, and even Aristophanes' pun is hard to understand. It is also unclear, in this passage, what  $\dot{\alpha}\pi o\lambda \dot{\alpha}\gamma[\iota]o\varsigma$  exactly is said to be found in the Cosmologicos. Maybe Ion's work told a story about the etymology of the word  $\nu\eta\nu\epsilon\mu\dot{\alpha}$ , or the origin of ceasing of all winds on sea.

This scholion has not attracted much attention so far. It could be an early Byzantine scholion, as the editions of Jacoby and Diels-Kranz

<sup>18</sup> Bekker page 361b line 23 : διὸ περὶ Ὠρίωνος ἀνατολὴν μάλιστα γίγνεται νηνεμία ; Bekker page 367b line 18 ὅπερ οὖν ἡ θάλαττα ποιεῖ περὶ τὴν γῆν, τοῦτο τὸ πνεῦμα περὶ τὴν ἐν τῷ ἀέρι ἀχλύν, ὥσθ' ὅταν γένηται νηνεμία, πάμπαν εὐθεῖαν καὶ λεπτὴν καταλείπεσθαι ὥσπερ ἡηγμῖνα οὖσαν ἀέρος τὴν νεφέλην ; Bekker page 367b line 23 νηνεμία γίγνεται ἀντιμεθισταμένου τοῦ πνεύματος εἰς τὴν γῆν...

<sup>19</sup> Heiberg, Claudii Ptolemaei opera quae exstant omnia, Leipzig, Teubner 1907, vol. 2, page 48 line 10: ώρῶν ιε· τὸ αὐτό. Αἰγυπτίοις νηνεμία ἢ νότος καὶ ὑετία. Καίσαρι χειμών. line 14: ώρῶν ιε· ὁ λαμπρὸς τῆς νοτίου Χηλῆς ἑῷος δύνει. Αἰγυπτίοις ἐπισημαίνει. Εὐκτήμονι καὶ Φιλίππω νηνεμία ἢ νότος, ψακάς.

 $<sup>^{\</sup>rm 20}$  Jacoby, Ion, Testimonia, FGrH n. 392 = Diels-Kranz, Fragmente der Vorsokratiker,

include the scholia by Tztetzes (12<sup>th</sup> cent.). It is puzzling that our epitomizer, mainly interested in Physics and Astronomy, would include a link to a classical piece of poetry, probably lost long before Byzantine times. But the question of air-stillness is definitely part of a chapter about winds. Should the reference be correct, then he most probably drew this reference from an earlier work of collected quotations about winds that included also literary ones. This might explain why we suddenly find a reference to a pre-Socratic poet following an extract from the sixth-century writer, John the Lydian.

Part 5: *Matrit. gr.* 4681

Part 5: <i>Matrit. gr.</i> 4681		
	Frg Cod 37 = <i>Matr. gr.</i> 4681, f. 163r.	
δὴ εἰδέναι ὅτι τὰ σημια τῶν χειμόνων	<b>Δεῖ γινώσκειν</b> ὅτι τὰ σημεῖα τὧν	
καὶ τῶν ἀνέμων οὐ κατὰ πάσαν	χειμόνων καὶ τῶν ἀνέμων οὐ κατὰ	
ήμέραν ἀποτελοῦνται,	πάσαν ἡμέραν ἀποτελοῦνται,	
άλλ' ὅσα μὲν περὶ τῆς τρίτης τῆς	άλλ' ὅσα μὲν περὶ τὴν τρίτην τῆς	
σελήνης ἢ τὴν δ΄ σημία γίνεται,	σελήνης ἢ τὴν δ΄ σημεῖα γίν <b>ον</b> ται,	
ταύτ(α) μέχρι τῆς διχοτομίας <b>οἴον</b> ζ΄	ταῦτα μέχρι τῆς διχοτομίας ἤγουν	
ποσδοκὰν δεῖ. ὅσα δὲ γίνεται	τῆς ζ΄ τῆς σελήνης	
διχοτόμου σελήνη(ς ?) ταῦτα δεῖ ἐκ	ποσδοκὰν χρῆ. ὅσα δὲ γίν <b>ον</b> ται	
δέχεσθαι μέχρι ιε΄	διχοτόμου <u>τῆς</u> σελήνης <u>οὔσης</u> ταῦτα	
	<b>δέον</b> ἐκ δέχεσθαι μέχρι <u>τῆς</u> ιε΄ <u>ἡμέρας</u>	
	αὐτῆς, ἤγουν τῆς ἀποχύσεως.	
όσα δὲ γίνεται πανσελλην(ου) οὔσης	ὄσα δὲ γίν <b>ον</b> ται πανσελήνου οὔσης	
ταῦτα <u>μέχρι</u> κβ	ήγουν τεσσαρεσκαιδεκαταίας, ταῦτα	
	δεῖ ἀναμένειν ιη΄ ἢ κβ΄ ἡμερῶν	
	γινομένης.	
ὄσα δὲ γίνεται λυγούσης αὐτῆς μέχρι	ὄσα δὲ γίν <b>ον</b> ται ληγούσης αὐτῆς <u>ταῦτα</u>	
γον ήμερών	μέχρι <b>τριῶν</b> ἢ δ΄ δεῖ ἐκδέχεσθαι :-	
ἢ δ΄ δεῖ ἐκδέχεσθαι :-		
	Ed.: τριῶν ἢ δ΄ : lege τρίτης ἢ	
	τετάρτης.	

Ion, Frg 2, 1. 15 : φέρεται δὲ αὐτοῦ καὶ <Xίου> κτίσις (F 1/3) καὶ Κοσμολογικὸς (F 24/6) καὶ Υπομνήματα (F 4/7) καὶ ἄλλα τινά.

This manuscript from the National Library in Madrid, the *Matrit. gr.* 4681, contains many small treatises by Psellos. B. Crostini studied this manuscript on microfilm, making the following comment on the astronomical section edited earlier by K. O. Zuretti:

The following long section of the Matritensis, ff. 129r-163v, appears contemporary to the preceding one, despite its codicological independence and the difficulty of clearly establishing the continuity of the hand on the basis of microfilm print-outs. It contains astronomical and calendrical treatises. De Andrès refers to Zuretti's detailed description dating back to the 1930s, but it remains substantially unstudied. De Andrès also suggests that fol. 163 is now displaced; it belongs after fol. 154.<sup>21</sup>

The manuscript appears to be in a very poor state of conservation, so that I was unable to study it directly. Comparison though of the text published by Zuretti with that in *Paris. gr.* 2494 is possible, so that all information given here is taken from Zuretti's description and partial publication.

I cannot rule out, based on the layout of f. 121r, that this paragraph may have been added later on the page, together with the previous excerpt. On f. 121v, the same hand that wrote the beginning of this chapter *On the Winds* continues with another extract taken from John of Damascus. The last 8 lines are writing in a smaller module, but still by the same hand, as if the scribe had wanted to make sure it would fit on the page. The last lines of the page might therefore have been added later, or omitted in the first place but then reinserted according to the model.

In the Madrid codex, even if we put f. 163 back in its original place (according to Zuretti) after f. 154, there is no doubt that the beginning of our passage is also the beginning of a new section. This raises a first question: why would an opening paragraph in another manuscript of astronomical miscellanies become the closing paragraph here? It would have been neat to establish that what precedes in *Paris. gr.* 2494 were

<sup>&</sup>lt;sup>21</sup> B. Crostini, « The Teubner Edition of Psellos in the Light of a New Find in MS Trinity College Dublin 373 », *Textual Transmission in Byzantium: between Textual Criticism and Quellenforschung*, ed. by J. S. Codoñer and I. Pérez Martín, Brepols, 2014, p. 277.

the missing part in *Matrit*. 4681, but this hypothesis can be ruled out. There is no direct link between the two manuscripts, so the aim is to identify the common source for this paragraph.

The comparison of these two texts shows how much the Paris version is abridged. The later version looks like personal notes taken from an extant work. But even in the text edited by Zuretti – that we must consider the closest to the "original", as it is longer – we find a somewhat erratic grammar, and signs of missing parts.  $\tau \alpha \delta \epsilon i \dot{\alpha} \nu \alpha \mu \dot{\epsilon} \nu \epsilon \nu \nu \dot{\eta} \dot{\eta} \kappa \beta \dot{\eta} \mu \epsilon \rho \delta \nu \gamma \nu \nu \mu \dot{\epsilon} \nu \eta \dot{\zeta}$  is a strange turn of phrase, in which we do not know to what the feminine genitive  $\gamma \nu \nu \nu \mu \dot{\epsilon} \nu \eta \zeta$  refers. Here again, the compiler shows his attention to syntax (as we saw in its epitome of *Geoponica*) by putting all the verbs back into a singular form (which is correct, given that the subjects are all neutral plurals) and avoiding this part of the sentence.

Obviously, it is possible that the compiler was using a different version of this text. So far, we only know about these two fragments, and only the identification of this very same content in another fragment or even in a still unedited extant work could lift the veil. Crostini's analysis of the Psellos part of the Matritensis manuscript establishes that it probably dates back to the end of the twelfth century, which would therefore be a *terminus ante quem* for this passage. Should the fragment be contemporary to the *Matrit. gr.* 4681, it would also be contemporary to the scholion on Ion of Chios, attributable to Tzetzes. A complete study of the contents of *Paris. gr.* 2494 might establish whether more clues can be found to link the composition of some of its miscellanies to the twelfth century.

This case-study does not discuss all 260 folios of the complete manuscript. By examining closely one single page, it was possible to identify five different sections within just 26 lines. A complete investigation of these specific miscellaneous texts, excluding all passages explicitly ascribed or ascribable to one single author, would still need to account for at least a hundred folios

This page shows an extreme case of the difficulties encountered in the specific task of cataloguing miscellanies. The simple aim of providing any scholar with a description of the manuscript that would be complete and precise enough for them to decide if this item is relevant for their research cannot be pursued that far.

When facing numerous layers of quotations of quotations, and collages of epitomes, it is questionable whether the notion of 'author' or even 'original text' can be of much help. Who is to be considered the author: the earliest writer we can ascribe a succession of at least ten words in a row to, or the unknown scholar who produces a chapter about one topic (here, winds) by using all the sources that were available to him? In both cases, authorship might still be meaningful, if we can identify people by name.

The very extreme example is the quotation of Agathemeros, quoted by John of Damascus, quoted in turn by this compiler. The context makes clear that the *Expositio* was the source for the epitomizer, and not a lost manuscript of Agathemeros. It does not make any sense, therefore, to catalogue this paragraph under the name of Agathemeros rather than of John of Damascus. But does it make sense to describe every paragraph, every five lines of text, as was done for this article, in a catalogue?

As the epitomizer provided subdivisions into chapters with headlines, this composite work may also be considered a new work, whose sources are to be studied as such. It appears from this single page that the unknown scholar re-composed an entirely new chapter, at the same time erasing any trace of its sources <u>and</u> keeping each quotation as a distinct section. This process of assembling must have been originally very clear, as the punctuation is kept in the fifteenth-century copy of *Paris*. gr. 2494. I think it unlikely to assume that the last copyist introduced these marks in order to separate different quotations, because he would then have at probably also identified their authors in the margins.

This raises in turn the question of authorship: the authorship of miscellanies is far more difficult to trace than the authorship of the original texts, usually both well known and mostly edited. It seems to me that, when it comes to astronomical texts, the question is even more difficult to approach. How can we make a satisfactory inventory of different calculations, how can we describe these manuscripts so as to enable cross references, and to give scholars the opportunity to take manuscript tradition into account when it comes to picturing the state of common astronomical knowledge during medieval times, for example, or editing some treatises?

So far, the choice made by the publishers of the CCAG series is to reproduce (one cannot speak of editing) larger unknown passages and chapters, and whenever possible, link manuscripts with others already described. In the case of  $Paris.\ gr.\ 2494$  (= Cod. Parisiensis 47 in the CCAG), there is a link to Cod. Germ. 25 (=  $Berol.\ Phillipp.\ 1574$ ), ff. 140-228, pointing out that they are thematically close, as they both contain calendars and treatises on winds. Such a solution is feasible in a thematic catalogue not limited to one single library. Moreover, all excerpts and fragments published in the CCAG are part of the TLG corpus, which makes them automatically available for cross-references.

Generally speaking, all the contents of *Paris. gr.* 2494 reflect common astro-nomical, -physical, -logical knowledge. These texts seem to be widespread in Byzantine times: some traditions quite strictly separate Astronomy and Astrology, but some others do not operate such clear distinction. The latter type is represented here. An extensive study of sources used, compared to dates of copy and dates of composition (should they be different) might set a frame in which to order astronomical textbooks, school material, personal compilations, etc... Such an undertaking is largely beyond the task of a simple catalogue description, but is strongly dependent on the way we formulate such descriptions, and could benefit from a systematical integration of fragments into a database such as the TLG.

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