

***Translating at the Court***

***Bartholomew of Messina and Cultural Life at the Court of Manfred, King of Sicily***

Edited by: Pieter De Leemans

With contributions from: Pieter Beullens (KU Leuven), Charles Burnett (Warburg Institute, London), Valérie Cordonier (CNRS – KU Leuven), Pieter De Leemans (KU Leuven), Fulvio Delle Donne (Università della Basilicata), Elisabeth Dévière (KU Leuven), Michael Dunne (National University of Ireland, Maynooth), Dimitri Gutas (Yale University), †Kotzia Paraskevi (Aristotle University, Thessaloniki), Alessandra Perriccioli Saggese (Seconda Università di Napoli), Giacinta Spinosa (Università di Cassino), Gudrun Vuillemin-Diem (Thomas-Institut, Köln), Steven J. Williams (New Mexico Highlands University), Mauro Zonta (Sapienza Università di Roma)

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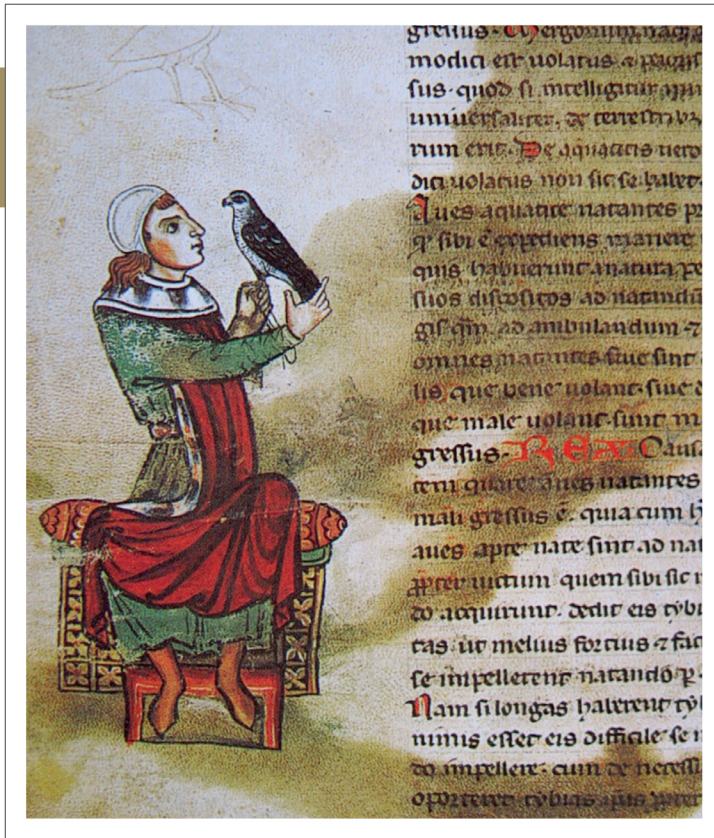
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and Cultural Life at the Court  
of Manfred, King of Sicily

Pieter De Leemans (ed.)

LEUVEN UNIVERSITY PRESS

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## TRANSLATING AT THE COURT





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INSTITUTE FOR MEDIEVAL AND RENAISSANCE STUDIES  
LEUVEN (BELGIUM)





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BARTHOLOMEW OF MESSINA  
AND CULTURAL LIFE  
AT THE COURT OF MANFRED, KING OF SICILY

Edited by

Pieter DE LEEMANS

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PIETER BEULLENS

**FACILIUS SIT NILI CAPUT INVENIRE:  
TOWARDS AN ATTRIBUTION AND RECONSTRUCTION  
OF THE ARISTOTELIAN TREATISE  
DE INUNDATIONE NILI**

*... inquiramus quamobrem fiat ut quo tempore pleraque  
temperatae et frigidae zonae flumina maxime deficiant,  
illo ipso Nilus exundet, et contra maxime deficiat,  
quando alia flumina ripas et naturales transcendunt alveos.<sup>1</sup>*

*La traduction latine médiévale du traité aristotélicien connu sous le nom de De inundatione Nili ou De Nilo, dont le modèle grec n'a pas été conservé, était considérée depuis un siècle et demi comme le travail de Barthélemy de Messine. Le jugement général sur la qualité de la traduction était plutôt défavorable, quoique les éditeurs du texte ne semblent pas toujours avoir exploité à fond les 83 manuscrits conservés. Grâce à l'examen de quelques témoins supplémentaires bien choisis, la qualité du texte a pu être améliorée pour plusieurs dizaines de passages, ce qui en accroît considérablement l'intelligibilité. De plus, une analyse stylistique poussée a mené à l'identification de Guillaume de Moerbeke comme traducteur de ce texte. Les leçons particulières, présentes dans le ms. Florence, Bibl. Laurenziana, Santa Croce, Plut. 13 Sin. 6 (Fz), semblent en grande partie remonter à l'autographe du traducteur. En ce qui concerne le texte grec, de nouveaux éléments semblent renforcer l'hypothèse qui attribue l'œuvre originale à Aristote même.*

## 1. Content

When in the 17th century Isaac Vossius formulated the problem concerning the swelling of the Nile, it had been the object of scholarly attention in the Western world for over two millennia. Rehm's 20-column article 'Nilschwelle' in *Paulys Realencyclopädie der classischen Altertumswissenschaft* bears witness to the numerous treatments of the same question throughout Antiquity.<sup>2</sup> Arguably the most comprehensive and influential ancient study of the topic is provided by an Aristotelian

1. I. VOSSIUS, *De Nili et aliorum fluminum origine*, Hagae Comitum: Ex Typographia Adriani Vlacq, 1666, p. 21.

2. Volume XVII,1, Stuttgart: Metzler, 1936, col. 571-590.

treatise under the title *De inundatione Nili* or *De Nilo*. It has the form of an Aristotelian problem, starting with the question to be solved. Then follows a list in doxographic style of previously formulated hypotheses, each accompanied by the dismissal of the proposed solution, and the reasons for doing so. The work ends with the author's own explanation of the query on hand. The question whether the text is genuinely Aristotelian, or just a summary version of a full-length book, or a product from the age of Theophrastus will be addressed in the final section of this article. Whatever the verdict, the treatise certainly displays the characteristics of scientific research at the Lyceum.

## 2. Editions

The most conspicuous feature of the text's transmission is that the original Greek was lost, and that our knowledge is all but completely based on a 13th-century Latin translation. This loss may have motivated I. Bekker to leave it out from the 1831 Berlin Academy edition. In the collections of Aristotelian fragments, however, it was published twice in two distinct contexts by V. Rose, albeit in slightly different forms,<sup>3</sup> and it also found a place in E. Heitz' edition.<sup>4</sup>

Apart from a study by J. Partsch,<sup>5</sup> the text received little scholarly attention in the early 20th century. Then, in the space of ten years, it was published by F. Jacoby<sup>6</sup> and a new edition was announced in an article by J. Balty-Fontaine<sup>7</sup> – a project which seems to have been aborted after the completion of an article by D. Bonneau.<sup>8</sup> The study

3. V. ROSE, *Aristoteles pseudepigraphus*, Lipsiae: Teubner, 1863, p. 633-639. Id., *Aristotelis qui ferebantur librorum fragmenta*, Lipsiae: Teubner, 1886, p. 191-197, fr. 248.

4. Æ. HEITZ, *Fragmenta Aristotelis*, Parisiis: Didot, 1869, p. 213-215, fr. 360.

5. J. PARTSCH, 'Des Aristoteles Buch "Über das Steigen des Nil". Eine Studie zur Geschichte der Erdkunde im Altertum', in: *Abhandlungen der philologisch-historischen Klasse der Königl. Sächsischen Gesellschaft der Wissenschaften* 27/16, Leipzig: Teubner, 1909, p. 553-600.

6. F. JACOBY, *Die Fragmente der griechischen Historiker*, III, 1, Leiden: Brill, 1958, p. 194-199, fr. 646.

7. J. BALT-Y-FONTAINE, 'Pour une édition nouvelle du *Liber Aristotelis de Inundatione Nili*', *Chronique d'Égypte* 34 (1959), p. 95-102.

8. D. BONNEAU, 'Liber Aristotelis de Inundatione Nili. Texte – traduction – étude', *Études de Papyrologie* 9 (1971), p. 1-33 + Pl. I. Although the article was published in the 1971 issue of this periodical, it is dated 1960. Volume 8 of *Études de Papyrologie* came out in 1957! Until recently, Bonneau's French translation was the only available in any modern language. See now also the Dutch version in P. BEULLENS, 'De overstrooming van de Nijl. Een vergeten traktaat van Aristoteles?', *Tijdschrift voor Filosofie* 73 (2011), p. 513-534.

of an Admont manuscript includes yet another transcription of the text.<sup>9</sup>

Recently the interest in the medieval translation was revived by the publication of Pap. Oxy. 4458, which was shown to contain a short quotation from the original Greek text of *De Nilo* within the framework of an unknown work by Posidonius.<sup>10</sup> Furthermore, the medieval commentary by Bartholomew of Bruges was edited together with a shorter *expositio*.<sup>11</sup>

### 3. Quality assessment

All scholars agree in their unfavourable assessment of the translator's abilities. His 'barbarous Latin' makes 'some passages virtually incomprehensible'.<sup>12</sup> R. Jacobi and W. Luppe label his result as 'literal and clumsy'.<sup>13</sup> Accordingly, they concentrate their effort on the concoction of conjectures to bring the Latin text in accord with the (probable) readings of the papyrus, as does T. Gärtner in another article in the same periodical.<sup>14</sup> Only R. L. Fowler acknowledges the possibility that the Greek text as recovered from the papyrus might not have been identical with the version that the translator had in front of him.<sup>15</sup>

Yet, scholars should have been aware of the fact that they were walking on thin ice, as the existing editions were based on a limited number of manuscripts. V. Rose merely used four manuscripts and an incunabulum

9. G. FOWLER, 'Manuscript Admont 608 and Engelbert of Admont (c. 1250-1331). Part II. Appendices 6-13', *Archives d'histoire doctrinale et littéraire du Moyen Age* 45 (1975), p. 225-306, esp. p. 228-232.

10. The quotation from Aristotle's *De inundatione Nili* was identified on the basis of its resemblance with the extant Latin translation by R. JACOBI – W. LUPPE, 'P. Oxy. 4458 Col. I: Aristoteles redivivus', *Zeitschrift für Papyrologie und Epigraphik* 131 (2000), p. 15-18. The surrounding text was subsequently attributed to a lost work of Posidonius by R. L. FOWLER, 'P. Oxy. 4458: Poseidonios', *Zeitschrift für Papyrologie und Epigraphik* 132 (2000), p. 133-142.

11. P. BLAŽEK, 'Il commento di Bartolomeo di Bruges al *De inundatione Nili*. Edizione del testo', *Medioevo* 33 (2008), p. 221-264. The article contains a useful account of the text's modern reception.

12. BALTŸ-FONTAINE, 'Pour une édition nouvelle', p. 97: 'Cette traduction ... dans un latin si barbare que certains passages sont presque incompréhensibles.'

13. JACOBI – LUPPE, 'Aristoteles redivivus', p. 18: 'wortgetreu und unbeholfen'.

14. T. GÄRTNER, 'Zum mittellateinischen Übersetzung des neuen Fragments aus Aristoteles(?) *De inundatione Nili*', *Zeitschrift für Papyrologie und Epigraphik* 133 (2000), p. 31-33. His aim is 'die Emendation der (wie sich zeigt) von Korruptelen keineswegs freien lateinischen Übersetzung'.

15. FOWLER, 'Poseidonios', p. 136: 'The syntax has somewhat defeated our 13th-century translator, unless his copy was corrupt.'

for his edition; the collation of more manuscripts – he thought – would have been an utter waste of time.<sup>16</sup> As for D. Bonneau, she consulted all fifteen manuscripts preserved in Paris libraries. Yet, even this larger sample must be considered as a meagre starting point in comparison with the 82 manuscripts of *De Nilo* that were already known through the *Aristoteles Latinus* catalogue. The results of her collations were without doubt also influenced by the fact that *De Nilo* circulated by means of the system of *exemplar* and *peciae*, as is already documented. The overall similarity of all manuscripts that she examined must unquestionably result from their sharing the university *exemplar* as a common ancestor.<sup>17</sup> In sum, none of the existing editions of *De Nilo* fully explores and exploits the manuscript material.

#### 4. Text improvement

Even if a study of the entire tradition surpasses the scope of this article, a judicious choice of manuscripts might considerably enhance our knowledge of the text. F. Bossier and J. Brams had already hinted at the possible inadequacy of the existing editions. In their description of ms. Madrid, Bibl. nacional, 10053, which contains *De Nilo* but is absent from the *Aristoteles Latinus* catalogues, they listed a number of potentially useful variants for the constitution of the text.<sup>18</sup> In fact, their wording is too modest. Even without the assistance of the Greek text to confirm the exact words of the Latin, it is obvious that several variants from their list can significantly improve the coherence and the meaning of the text. The following variants are likely corrections to Rose's text and to the readings of the manuscripts he used (as in the left column of the list below).<sup>19</sup> The list

16. ROSE, *Aristoteles pseudepigraphus*, p. 632: '... quorum numerum (sc. of collated manuscripts) quum postea et in Gallia et in Italia aliorum multorum inutili comparatione possem augere, tempori parcere malui.'

17. P. BEULLENS – P. DE LEEMANS, 'Aristote à Paris. Le système des *peciae* et les traductions de Guillaume de Moerbeke', *Recherches de Théologie et Philosophie médiévales* 75 (2008), p. 87-135. About the *exemplar* that contained *De Nilo*, see also *De progressu animalium. De motu animalium. Translatio Guillelmi de Morbeka*, ed. P. DE LEEMANS (Aristoteles Latinus XVII 2.II-III), Turnhout: Brepols, 2011. p. LXII-LXXIX; G. MURANO, *Opere diffuse per exemplar e pecia* (Textes et études du moyen âge 29), Turnhout: Brepols, 2005, p. 258.

18. F. BOSSIER – J. BRAMS, 'Quelques additions au catalogue de l'*Aristoteles Latinus*', *Bulletin de philosophie médiévale* 26 (1983), p. 85-96, esp. p. 88, n. 6.

19. References are to the text as published in ROSE, *Aristotelis qui ferebantur*.

incorporates readings from the mss. Madrid, Bibl. nacional, 10053 (*MI*), Firenze, Bibl. Laurenziana, Santa Croce, Plut. 13 Sin. 6 (*Fz*; A.L. 1367) and Vaticano, BAV, Pal. lat. 1033 (*Dt*; A.L. 1787). The agreement between mss. Heiligenkreuz, Stiftsbibl., 40 (*Hq*; A.L. 75) and Chantilly, Bibl. du musée Condé, 280 (*Dv*; A.L. 462) is indicated by a bold face **x**.<sup>20</sup> In cases where the 1482 Venice edition ‘per Philipum Venetum’ (**V**<sub>2</sub>) and Bonneau’s text (**B**) disagree with Rose, their sigla are added to the reading in the right column.

	<i>Rose 1886</i>	<i>variant reading</i>
191.22	apponunt	apponuntur <i>Dt x</i>
191.23	talia	+ sunt <i>MIFzDt B</i> (+ fiunt <b>x</b> )
192.9	apponantur	apponentur <b>x</b>
192.12	prius a	a prius <i>MIFzDt x</i>
192.18	deorsum	desursum <i>MIFzDt x</i>
192.25	quod <sup>1</sup>	quia <i>MIFzDt</i>
193.5	et	ex <i>MIFzDt x</i>
193.9	ipsum fluere	fluere ipsum <i>MIFzDt</i>
193.11	Sythonis	Syrbonis <i>MIFzDt x B</i>
193.23	fluit	defluit <i>MIFzDt</i> (diffluit <b>x</b> )
193.30	destruit	destrueret <b>x</b> (destruerit <i>MI</i> )
194.1	accipit	acciperet <i>MIDt x</i> (accipere <i>Fz</i> )
194.6	totum	tantum <i>MIFzDz</i> ( <i>om. x</i> )
194.7	quam	que <i>MIFzDt x</i>
194.10	eciam	autem <i>MIFzDt x B</i> (enim <b>V</b> <sub>2</sub> )
194.12	atque	et <i>MIFzDt x B V<sub>2</sub></i>
194.15	autem	<i>om. MIFzDt x</i>
194.17	consumens	consumans <i>MIFzDt x V<sub>2</sub></i>
194.24	nunc	nivem <i>MIFzDt x</i>
194.26	fluere	+ ipsum. Sunt enim ipsorum qui aiunt (qui aiunt ipsum <i>Fz</i> ) ab Eracleis columpnis fluere <i>MIFz x</i>
194.26	enim	autem <i>MIFzDt x B V<sub>2</sub></i>
195.1	reliquum	reliquorum <i>MIFzDt x</i>
195.5	superfluere	superfervere <i>Dt<sup>ac</sup> B</i> (superfervent <i>Fz</i> ; super fervore <b>x</b> )
195.6	fluere	fervere <i>MIFz B</i> (fervore <b>x</b> : <i>om. Dt</i> )
195.7	mediocri	mediocriori <i>MIFzDt</i>
195.8	qui	quod <i>MIFzDt x</i>
195.10	qui	quod <i>MIFzDt x</i>
195.11	aque	aqua <i>MIFzDt x V<sub>2</sub></i>

20. For the reason behind the choice of these two manuscripts, see n. 23.

195.12	fluere	fervere <i>MIFzDt x B</i>
195.13	secundum	sed <i>MIFz x</i>
195.21	pars hec	hec pars <i>MIFzDt x B</i>
196.2	tam	tamen <i>MIFzDt x</i>
196.5	autem	<i>om. MIFzDt x</i>
196.5	tres adhuc	adhuc tres <i>MIFzDt x</i> <sup>21</sup>
196.12	solum hoc	hoc solum <i>MIFzDt x</i>
196.13	Libia tota	tota Libia <i>MIFzDt x</i> <sup>22</sup>
196.13	idem	+ ipse <i>MIFzDt x</i>
196.15	ubique	+ enim <i>MIFzDt x V<sub>2</sub></i>
196.17	Libiam	Libiamque <i>MIFzDt x</i>
196.23	sunt	fiunt <i>MIFzDt x</i>
196.26	dirimimus	demonstravimus <i>MI</i> (divinamus <i>FzDt x</i> )
197.1	relinquetur	relinquitur <i>FzDt x</i>
197.5	habundanter	superhabundanter <i>MIFzDt x</i>
197.6	fluctus	fructus <i>MIFzDt x V<sub>2</sub></i>
197.6	cum	et <i>MIFzDt x</i>
197.13	etenim	et eius <i>MI</i>
197.15	cum	et <i>MIFzDt x</i>
197.16	quam	+ quando <i>MIFzDt x B V<sub>2</sub></i>

Some striking parallels with the text tradition of William of Moerbeke's *Meteorologica* emerge from this probe. Mss. *Hq* and *Dv* appear to be closely related for their texts of *De Nilo*. Likewise, they both belong to the so-called **a** group in the tradition of the *Meteorologica*, which preserves traces of an early stage in the development of Moerbeke's autograph.<sup>23</sup> For other texts as well, the value of mss. *Hq* and *Dv* is established beyond doubt. It is clear that they cannot be ignored for the constitution of the text of *De Nilo*.

As for ms. *Dt*, if this manuscript's role in the tradition of *De Nilo* is to be extrapolated from G. Vuillemin-Diem's assessment for the *Meteorologica*, most of its individual readings must be discarded, e.g.:

21. Ms. *Dv* has *adhuc et*, where the copyist must have misread his model and interpreted the Arabic numeral 3 (which is found in the Heiligenkreuz ms.) as a compendium for *et*.

22. Confirmed by the word order in P. Oxy. 4458.

23. *Meteorologica. Translatio Guillelmi de Morbeka*, ed. G. VUILLEMIN-DIEM (Aristoteles Latinus X 2.1-2), Turnhout: Brepols, 2009, vol. 1, p. 217-220. The three manuscripts *Hq*, *Dv* and *Dt* belong to the independent (Italian) tradition of *De progressu animalium* and *De motu animalium* as well, see: *De progressu animalium. De motu animalium*, ed. DE LEEMANS, p. CXV-CXXVII.

	<i>Rose 1886</i>	<i>Dt</i>
192.4	fiet	+ ablatio <i>Dt</i>
192.24	propinquo	+ enim <i>Dt</i>
193.5	enim	+ nive <i>Dt</i>
194.15	desinente	deficiente <i>Dt</i>
196.11	arctum	arcticum <i>Dt</i>

There are, however, no indications that the corrector of this manuscript (labelled *Dt*<sup>2</sup> by Vuillemin-Diem) had a Greek copy of *De Nilo* at his disposal, as was the case for the *Meteorologica*.<sup>24</sup>

Finally, it is obvious that the importance of ms. Madrid, Bibl. nacional, 10053 cannot be overestimated, as its value also appears from the so-called *Fragmentum Toletanum*, an early and incomplete translation by William of Moerbeke of Simplicius' commentary on Aristotle's *De caelo*.<sup>25</sup>

It would be unjustified to claim that the collation of these manuscripts produces solutions for all textual problems in *De Nilo*. Most of the variants presented in the above list can nevertheless provide useful improvements to the text as previously published and may even render some of Rose's conjectures superfluous. However, even after this operation several passages still present textual problems that seem to necessitate emendation. In particular, Heitz' suggestion to change Rose's *quoniam* (193.29) into *quos iam* may offer an interesting alternative for an obviously incorrect sentence.<sup>26</sup> At 196.6, it may be worth considering the emendation of the incomprehensible *annuis* (probably intended to function as the ablative of cause of a non-existing word for the yearly rains, with the subject of 'contingit', viz. 'Nilus', implied) to *amnis*, which results in a perfectly consistent phrase, although the word only once appears in the *Aristoteles Latinus*: Henricus Aristippus introduces it as an alternative for *aqua* to translate the Greek ὕδωρ in his version of the fourth book of the *Meteorologica*.<sup>27</sup>

24. *Meteorologica*, ed. VUILLEMIN-DIEM, vol. 1, p. 81; 198-199. Also in *De motu animalium*, the corrector used a Greek manuscript: see *De progressu animalium. De motu animalium*, ed. DE LEEMANS, p. CXXXV.

25. For the history of this fragmentary version, see Simplicius, *Commentaire sur le traité Du ciel d'Aristote. Traduction de Guillaume de Moerbeke*. Volume 1, ed. F. BOSSIER – CHR. VANDE VEIRE – G. GULDENTOPS (Corpus Latinum Commentariorum in Aristotelem Graecorum VIII,1), Leuven: University Press, 2004, p. XXVII-L.

26. HEITZ, *Fragmenta Aristotelis*, p. 213b.

27. Cf. *Meteorologica. Liber IV. Translatio Henrici Aristippi*, ed. E. RUBINO (Aristoteles Latinus X 1), p. 34, l. 601 (388a22).



Even in those cases where the Latin text is correctly established, its meaning must be interpreted by assessing the Greek reading that is hidden behind it. The solution for the puzzling *qualibet die* at 192.20 may be reached by correcting the Greek retroversion *ἐκάστη ἡμέρα* to *ἐκατοστή ἡμέρα*, which is consistent with Herodotus' statement (II,19,2) that the flood starts its retreat after one hundred days. Yet, it can also be understood that the flood comes gradually, 'day by day', as the reading *καθ' ἡμέραν* in Diodorus of Sicily (I,36,7) suggests. The latter solution must probably be favoured, as it complies with the position of the conjunction *et* in the same sentence and it does not necessitate any conjectural intervention either in the Latin text or in its hypothetical Greek model.

While studying these enigmatic passages, one cannot help remembering the words by Patsch about the difficulties arising 'from the barbaric form of the Latin text, which confronts its reader with small puzzles, and even more so from the inaccuracy of the Greek model, which the translator had to cope with'.<sup>28</sup>

## 5. Authorship

As so often in similar cases, the name of the translator has not been passed on in the manuscripts. Already in the introduction to his first edition of the text, Rose hypothetically launched the attribution of the translation to Bartholomew of Messina.<sup>29</sup> His suggestion has been repeated in various degrees of certainty by all later scholars. Rose's hypothesis was based on the fact that *De Nilo* is one of the texts preserved in ms. Padova, Bibl. Antoniana, Scaff. XVII 370 (*Ap*), where it immediately follows several translations with Bartholomew's name in their incipits or colophons. This manuscript certainly is a privileged witness for many of Bartholomew's Aristotelian translations, yet it also contains important – in some cases even unique – copies of various anonymous versions, as well as peculiar recensions of William of Moerbeke's translations.

Along Rose's line of thought – that is, to base the identification of the translator on the presence of the text in certain manuscripts that have

28. PARTSCH, 'Des Aristoteles Buch', p. 556: 'durch die barbarische Form des lateinischen Textes, die dem Leser kleine Rätsel aufgibt, mehr noch durch die Unvollkommenheit der griechischen Vorlage, die der Übersetzer zu bewältigen hatte'. Patsch then refers to the chapter on Herodotus' opinion as particularly difficult. Ironically, the find of an Egyptian papyrus which Patsch (p. 600) so desperately longed for has not lead to a satisfactory understanding of this extremely difficult passage.

29. ROSE, *Aristoteles pseudepigraphus*, p. 631.



a special link with this particular translator –, the case for the attribution of *De Nilo* to William of Moerbeke turns out to be considerably stronger. In particular, the presence of *De Nilo* alongside the *Fragmentum Toletanum* of Simplicius' commentary on *De caelo* in ms. Madrid, bibl. nacional, 10053 strongly points to William's authorship. If supported by other pieces of evidence, the value of this indication by far outweighs the importance that used to be attached to the presence of *De Nilo* in *Ap.*

Traditionally, the identification of a translator primarily relies on the analysis of his style. In the case of *De Nilo* the fact that the Greek original is no longer extant makes the challenge difficult, though not quite impossible.

The customary study of particles already leads to a significant indication: *autem* (58 occurrences) and *enim* (39 instances) are frequently used, while there is not a single instance of *vero* or *nam(que)*, the variants that come on the second place in Bartholomew's hierarchy of translations for δέ and γάρ.<sup>30</sup>

In turn, the inquiry into the use of conjunctions provides far less conclusive evidence. The conjunctions introducing clauses of comparison (Greek ὡσπερ, καθάπερ and οἷον) correspond with the usual vocabulary of both William and Bartholomew. Among them, *quemadmodum* (5) has the highest frequency, although variation is created by the use of *sicut* (1), *puta* (2) and *velut* (2). As for the temporal conjunction *quando*, it is found seven times in all in the treatise, against not a single occurrence of *cum*. It is worth noticing that *cum* is almost totally absent from Bartholomew's translations, while in most of Moerbeke's works the number of both conjunctions is evenly balanced. In two cases the unusual combination of *quando* and *utique* is used to introduce a subordinate temporal clause (192.27; 197.16). Though this practice matches Bartholomew's idiosyncratic translation of ὅταν in the *Magna moralia*, it is also found once in Moerbeke's works as the rendering of ἤνιχ' ἔν.<sup>31</sup>

Even if the conventional lexical comparison between Greek terms and their Latin equivalents is less decisive than in traditional cases, the study of the Latin syntactical structure in those places where the original Greek transpires, proves to be particularly rewarding. Several unidiomatic Latin expressions obviously render certain Greek phrases in a somewhat awkward way. Thus the conspicuous construction combining *utique* with the future indicative clearly renders the Greek potential optative with ἔν.

30. For the analysis of Bartholomew's style, see the article 'True Colours' in this volume.

31. *De historia animalium*, 627a31.

It occurs five times in all in the short text, viz. *fiet* (192.4 and 192.8), *apponentur* (192.9, if the correction to Rose's text is accepted), *crescet* (192.11), and *erit* (196.7). This construction coincides with Moerbeke's usual practice, while Bartholomew is less systematic in his rendering of the same phrase.<sup>32</sup>

Another significant feature is the presence of expressions combining a preposition with a verb in the infinitive. In three cases the preposition is *propter* (with *arefieri*, 192.23; *liquefieri*, 193.1; *fervere*, 195.12), once *per* is used (with *facere*, 196.17). As is well known from other works, this is Moerbeke's favoured – or at least very common – equivalent for the Greek combination of *διὰ* or another preposition with the neuter article and an infinitive. Moerbeke less often turns to subordinate clauses, which is Bartholomew's stock translation. His Latin seems to be less flexible in this matter.<sup>33</sup>

A similar flexibility in moulding the Latin syntax to match the Greek model is found in Moerbeke's rendering of the attributively used Greek article. He usually translates this type of article with a form of the demonstrative pronoun *is* and a relative pronoun, although quite often without completing the relative clause if no verbal component is available in the Greek expression. Bartholomew has various alternatives, including the relative clause, which is never left incomplete, as he often adds a form of the copula *esse*.<sup>34</sup> As for *De Nilo*, several passages seem to be consistent with Moerbeke's practice. This is notably the case for phrases as *per eam ... que in hyeme ablationem* (192.3-4); *fluvios eos qui in Libia* (192.28); *ad id quod extra* (193.14); *ad id quod extra Eracleas columpnas* (193.17-18); *mare quod rubrum et quod extra Eracleas columpnas* (194.4-5); *reliquorum ... modorum eos qui non habent rationes verisimiles* (195.1-2); *eo quod extra mari* (195.4). All seven passages clearly point to Moerbeke's usual treatment of similar Greek constructions, while there is no trace of Bartholomew's customary copula or of his inclination to variation.

32. For the sake of illustration: in Bartholomew's version of *De mundo* the word *utique* is used 8 times to render the Greek *ἄν* in a potential construction. In five cases the future indicative renders the optative (392b31; 397a5; 11; 398a10-11; b27-28), as opposed to three instances of the present indicative (397a8; 398a22-23; 399b24).

33. See the treatment of this subject in 'True Colours'.

34. See for comparison Bartholomew's translation of *De signis*, 'ea que sunt ab hiis ... signa' for τὰ σημεῖα τὰ ἀπὸ τούτων (44.4) and 'ea que sunt circa conversiones' for τὰ περὶ τὰς τροπὰς (44.7-8). References are to the pages and line numbers in the edition by W. KLEY, *Theophrasts Metaphysisches Bruchstück und die Schrift περὶ σημείων in der lateinischen Übersetzung des Bartholomaeus von Messina*, Würzburg: Dissertationsdruckerei und Verlag Konrad Triltsch, 1936.

At this point we may conclude that it seems safe to say – with due reserve – that there is substantial evidence pointing towards William of Moerbeke as the translator of *De Nilo*. Rose’s attribution to Bartholomew of Messina on the basis of the presence of the text in *Ap* does not stand the test of the stylistic analysis, imperfect though it may be because of the unavailability of the complete Greek original.

Obviously, the fragment in the Oxyrhynchus papyrus 4458 gives a limited glimpse of the Greek text. Jacobi/Luppe and Fowler<sup>35</sup> already produced some useful suggestions for the understanding of the text. However, they did not venture any guesses as to the method or the identity of the translator. There certainly is more to be gained from the short available portion of Greek text put side by side with the Latin translation.

... Ἡρόδοτος δὲ ὁ μὴ	... quemadmodum dicit Erodotos fabularum
[θογορ]άφος ἐν τῷ χειμῶνί	scriptor. Non enim ait in hyeme
[φησι] τὸν ἥλιον κατὰ τὴν	solem per
[Λιβύ]ην ποιεῖσθαι τὴν πο	Libiam facere habundantiam,
[ρεία]ν ἢ δ. . . [ ] τύχη<ι> φερό-	nisi si contingat latum
[μεν]ος ἐντεῦθεν ἀνάγειν	hinc ducere
[τὸ ὑγρό]ν, περὶ δὲ τὰς θερι-	humorem, circa versiones autem
[νάς τρ]οπὰς πρὸς τὴν ἄρ-	estivales ad arctum
[κτον]ίεναι. ἦμισα δὲ ταῦ-	venire. Nequaquam autem
[τα λέγ]εται μεμελημέ-	dicitur exquisite.
[νωσ· ο]ὔτε γὰρ τὸν Ν<ε>ἴλον	Neque enim Nilum
[c. 3 τ]οῦτο ποιεῖν μόνον,	oportebat facere hoc solum.
[ὁμοίω]ς γὰρ ἐξ ἀπάσης	Similiter enim ex tota
[τῆς Λι]βύης αὐτὸς λέγει τὸν	Libia idem ipse dicit solem trahere humorem,
[ἥλιον] ἔλκειν τὸ ὑγρόν, τό τε	putareque supervenire habitabili
νομίζειν ὑπερ	solem secundum
[c. 6] καὶ ὅτι οὐν μέρος	quancumque partem, stultum.

Most of the vocabulary in this passage leaves little room for variation in a strictly literal translation. R. Kassel – as mentioned in Jacobi and Luppe’s article – had already suggested that the translator may have read εὐπορίαν instead of πορ(ε)ίαν, which accounts for the awkward *habundantiam*. The following *nisi si* remains a mystery to the commentators, although it seems reasonably obvious that the translator read πλήν εἰ in his model. The papyrus fragment has a hole in this place, but there is no doubt that the first letter of the missing word(s) is η.<sup>36</sup> In any case, the sen-

35. See references in n. 10.

36. High definition images of the papyrus can be downloaded from <http://www.papyrology.ox.ac.uk/POxy> (May 11, 2010).

tence remains notoriously difficult to understand, and Jakobi and Luppe's suggested emendation of *nisi* to *ubi* surely does not solve the problem.

One particular lexical correspondence deserves further attention. Most medieval translators tend to translate the Greek term ἥμισα with its Latin equivalent *minime*. By consequence, the word *nequaquam* here is somewhat surprising at first glance. Yet, *nequaquam* is often used in William of Moerbeke's vocabulary, not only to render Greek words like οὐδαμῶς, οὐδαμοῦ, οὐδέποτε, and their counterpart compounds with μη-; it also frequently functions for ἥμισα. It is found with this meaning in his version of *De caelo* (290b5; 306b34), in *De partibus animalium* (651b32; 685b24) and in the *Politica imperfecta* (1261b33). Even if this correlation does not constitute an irrefutable piece of evidence, it at least shows that the only extant scrap of the Greek text does not provide elements that are inconsistent with Moerbeke's normal translation practice.

Surprisingly, there is another source of knowledge for the Greek text, which so far seems to have been overlooked. In his description of Callisthenes' solution for the problem, the so-called *Anonymus Florentinus*, an anonymous doxography, almost literally follows the wording of *De Nilo*.<sup>37</sup> Some small variations between the two passages are probably due to the use of indirect speech in the Greek text (φησι), yet it is clear that the same source lies at the origin of both fragments. In this respect the correspondence between the relative pronouns ὧν and *quibus* is extremely significant.

τούτους γάρ φησι τοὺς ἀνέμους  
μάλιστα τὰ νέφη φέρειν πρὸς τὴν  
Αἰθιοπίαν·  
ὧν καὶ προσπιπόντων πρὸς  
τὰ ὄρη καταρρήγνυσθαι πολὺ  
πλήθος ὕδατος, ἀφ' οὗ τὸν Νεῖλον  
ἀναβαίνειν.

Isti enim nebulas maxime ferunt ad  
regionem et quicumque alii venti fiunt  
estivales ante hos.

Quibus offendentibus ad montes deflu-  
unt aque ad stagna per que Nilus fluit.

37. F. JACOBY, *Die Fragmente der griechischen Historiker*, II B, Berlin: Weidmannsche Buchhandlung, 1927, p. 644, fr. 124F12, and III 1, Leiden: Brill, 1958, p. 199-201, fr. 647F1, whose text is based on Meineke's edition of the *Deipnosophistai* by Athenaeus. A slightly different version as found in ms. Firenze, Bibl. Laurenziana, Plut. 56.1 is printed by S. PELLAUX, *Anonymus florentinus et autres Eklogai sur le Nil. Trois doxographies pour expliquer la crue d'un fleuve à contre-courant*, Mémoire de master sous la direction de J.-J. Aubert, Université de Neuchâtel, 2010, p. 21.

This parallel text provides us with another particularly useful lexical pairing. As it is clear that the genitive absolute and the Latin ablative absolute form each other's counterparts, the Greek verb προσπίπτω apparently was translated by the slightly surprising Latin *offendo*. There can be no doubt that the same verb was used in the original text of *De Nilo*, as it is confirmed by the indirect reports of John Philoponus and Photius.<sup>38</sup> As it turns out, *offendere* is one of Moerbeke's stock translations for this Greek verb. He uses it three times in Aristotle's *Meteorologica*, where the more obvious *incidere* occurs eleven times. In his version of Alexander of Aphrodisias' commentary on the same text, *offendere* is four times the equivalent (187,72; 190,24-25; 202,95), *incido* three times (20,71; 190,27 and 38), while *sentio* is found once (189,17).<sup>39</sup> Besides, *offendere* for προσπίπτω can also be traced in *De partibus animalium* (657a33; 37; 658b17; 683a28) and in *De progressu animalium* (710a9; b1). More significantly still, the word is not once found in the translations by Bartholomew of Messina. At its only occurrence in *De signis* (54.11 Kley), προσπίπτω is translated by *venire*. It is also found once in *De mirabilibus auscultationibus* (843a19), where the participle προσπεσόν is rendered as *illatus*.<sup>40</sup> The verb is much more frequently used in the *Problemata Physica*. There, 16 instances of *cadere* are counted, six of *incidere*, once *occidere* and *antecadere*, twice *advenire* and once *venire*, three times it is translated as *occurrere*, and there are single occurrences of *obviare*, *exire* and *terminari*. The complete absence of *offendere* in the works of Bartholomew, in combination with the fact that it is a common equivalent for προσπίπτω in the translations by William of Moerbeke tips the balance: we can now conclusively establish the authorship of the latter for the medieval version of *De Nilo*.

38. ROSE, *Aristotelis qui ferebantur*, p. 188-191.

39. References are to the edition Alexandre d'Aphrodisias, *Commentaire sur les Météores d'Aristote. Traduction de Guillaume de Moerbeke*, ed. A. J. SMET (Corpus Latinum Commentariorum in Aristotelem Graecorum IV), Louvain – Paris: Publications universitaires de Louvain, 1968.

40. Valérie CORDONIER, who generously provided practical information and useful suggestions for this section of the article, notes that the editor Livius-Arnold mistakenly links προσπίπτω and *cadere* in her index, see *Aristotelis quae feruntur De mirabilibus auscultationibus. Translatio Bartholomaei de Messana. Accedit translatio anonyma basileensis*, ed. G. C. J. LIVIUS-ARNOLD, unedited Ph.D. dissertation, Amsterdam, 1978, p. 82 and 150.

## 6. Revision?

While most manuscripts of *De Nilo* contain a more or less uniform text, ms. Firenze, Bibl. Laurenziana, Santa Croce, Plut. 13 Sin. 6 (*Fz*) presents several unique characteristics. The manuscript is a privileged witness for the transmission of another work by Moerbeke, as it is the only (fragmentary) copy of his version of *De coloribus*.<sup>41</sup> Since *De Nilo* was written immediately after *De coloribus* and by the same scribe, who in both treatises added some remarkable marginal notes, it has every chance to form an important link in the transmission of *De Nilo* as well. The comparison of *Fz* with Rose's text yielded a number of variants that clearly go beyond simple copyist's mistakes, as the following limited list reveals.

	<i>Rose 1886</i>	<i>Fz</i>
191.22	verumptamen	sed
192.9	adsupernatante (ad -em <i>mss.</i> )	adfluentem
192.14	annualibus	etesii
192.15	si	quando
192.21	annuales	etesie
192.27	fuerit	sit
192.27	quia	+ et
193.3	sed	at
193.8	puta	ut
193.11	apud	secus
193.20	militare	exercitum producere
193.20	avertere	devertere ( <i>ante corr.</i> )
193.24	conatu	conamine
194.22	tabescunt	liquescunt
194.26	argenti	argenteo
195.3-4	propter annuales	propter per etesias
195.8	annuales	etesias
196.2	latitudinem	longitudinem
196.5	restant	reliquum
196.16	meridiem	aquilonem
197.7	annualibus	ethesii

Although some of the variants in *Fz* may be fortuitous or based on deliberate interventions by the copyist, others are very likely remains from the translator's working copy. Even the alternatives for particles, conjunc-

41. See the contributions by Pieter BEULLENS and Gudrun VUILLEMIN-DIEM on the same subject in this volume.

tions and prepositions are in line with Moerbeke's usual vocabulary and allow for the reconstruction of the Greek he had before his eyes. From the list above, *sed* and *verumptamen* are both used by Moerbeke as potential equivalents for *πλήν*, the variation between *si* and *quando* possibly reflects an original *ἐάν*, while *puta* and *ut* (*οἶον*), *secus* and *apud* (*παρά*), and *propter* and *per* (*διά*) are recurring alternatives in Moerbeke's vocabulary. Only in the case of *at* some doubt is appropriate, as Moerbeke usually combines this particle in *at vero* or *attamen*. However, it also occurs as a translation of *ἀλλά* in Proclus' commentary *In Parmenidem* (twice) and in his *Elementatio theologica*.

The same line goes for the semantic correspondences. The four instances of *annuales*, replaced by *et(h)esie* in *Fz* form a case in point. The word, with its striking feminine ending, could only be added by someone who had the Greek text in front of him. Moerbeke used the same term for *οἱ ἐτησῖαι* as his stock rendering in his *Meteorologica* (8 occurrences) and his translation of the commentary by Alexander of Aphrodisias on the same treatise (19 occurrences). In the latter text, the group of manuscripts that the editor A. J. Smet labels as *x* and which apparently forms the 'Parisian' tradition, add the note *id est annalibus* when the word is first used, after which the Greek transcription apparently was coined as a *terminus technicus*.<sup>42</sup> Considering his habit of sticking to Greek transcriptions, even in those cases where he had a Latin equivalent at hand, these correspondences of *annuales* and *etesie* form another strong pointer towards the authorship of William of Moerbeke. Incidentally, Moerbeke linked other Greek words with the root *ἔτος* as well. In Alexander's commentary on the *Meteorologica*, *annualis* is used as the translation of *ἐπέτειος* (94,57)<sup>43</sup> and *annuales* also appears in *De longitudine* as a variant reading for *epeteia*.<sup>44</sup>

As for Bartholomew of Messina, he equally used *annuales* as the translation for *ἐτησῖαι*, in particular in the *Problemata Physica* (946a16), but he also has *annuales boree* (946a10), *boreas annuales* (941a1) and *boree temporales* (*De signis* 53.14 Kley) – quite a sensible translation to de-

42. Alexandre d'Aphrodisias, *Commentaire sur les Météores*, ed. SMET, 85,58.

43. Smet printed *annalis* as he corrected the manuscript reading *animalibus* to *annalibus*. However, *annualibus* seems more appropriate: in a 13th-century script, the equal number of vertical strokes of the latter must form the decisive factor, since it often is difficult to discern the individual characters in words containing n, m, u and i.

44. See P. DE LEEMANS, 'Remarks on the Text Tradition of Aristotle's *De longitudine et brevitate vitae*, tr. Guillelmi', in: *Greek into Latin*, ed. C. BURNETT – J. GLUCKER (Warburg Institute Colloquia 18), London: Warburg, 2012, p. 145-169. The author kindly informed me on this parallel use of *annuales*.



scribe these seasonal winds from northern regions – and never turns to the transcription of the Greek.

Two other combined variants have parallels in the works of Moerbeke. The verb *tabescere* as such seems absent from his extant texts, but it is clear that he linked the root of the verb with τήκω: *contabescere* appears in *De generatione animalium* (725a27) and *De historia animalium* for συντήχομαι (607b29), and in the latter text *contabescitivus* is the translation for συντηκτικός (622a15). In *De generatione animalium* the noun *tabes* is the usual rendering for σύντηγμα (9 occurrences in all). However, the more frequent translation for τήχομαι is *liquescere*, which appears in *De partibus animalium* (649a29, for τήκειν), *De generatione animalium* (743a16), *De historia animalium* (571a32), *De caelo* (289a24), and the *Meteorologica* (7 instances). In the latter works, several alternative renderings (*liquefieri*, *solvi*, *liquari*) show that Moerbeke allowed for some variation for this Greek verb.

Finally, a striking confirmation that Moerbeke is responsible for at least some of the variants present in *Fz* is found in the variation of *restant* and *reliquum*. The latter is the normal Latin word for λοιπόν, but in some cases Moerbeke preferred the verbal alternative *resta(n)t*. It is found in *De caelo* (271b23; 303b9) and the *Rhetorica* (1368a28; 1419b28).

In some instances, individual readings of *Fz* are not mere variants, but most probably must be preferred for the constitution of the text: at 196.2, the reading *longitudinem* of *Fz* seems to make better sense in the context than *latitudinem* in the other manuscripts, and at 194.26, *argenteo* is confirmed by a parallel passage in the *Meteorologica* (350b14).

The reading *aquilonem* as a variant for *meridiem* at 196.16 may seem somewhat problematic. Obviously, both words indicate opposite directions and thus give a different meaning to the text altogether. In addition, *aquilo* seems to be absent from Moerbeke's works, although in Alexander's commentary on the *Meteorologica* he uses the adjective *aquilonaris* as the equivalent for ἀρκτικός and ἀρκτικός.<sup>45</sup> Yet the meaning of the passage – and consequently the correct reading – becomes apparent if one compares the text with a similarly difficult section in the *Meteorologica* (362b5-8): only the zones between the arctic and the tropic circles are inhabitable; beyond the tropics life is not possible due to the heat, as the shade of the sun there (sometimes) falls to the south. Since

45. In his index, SMET lists the two instances of ἀρκτικός under the lemma *aquilonarius* (147,3; 156,9). However, as in both cases the neuter plural *aquilonaria* appears in the text, there is no reason to suppose that Moerbeke actually distinguished these two Greek adjectives.



the text of *De Nilo* deals with the inhabitable zone, it is clear that shadows must point to the north (*ad aquilonem*). The circumstances under which both variants entered the tradition, and whether they both originated from the translator's activity, remain unclear.

In general, the situation created by the variants in *Fz* as opposed to the text in the other manuscripts leads to a situation that is very close to the transmission of *De historia animalium* and the peculiar position of ms. Toledo, Bib. cab., 47.10 (*Tz*). The copyists of both *Fz* and *Tz* seem to have preserved variants that are not indisputably superior to the text of the other manuscripts, but clearly also originate from the translator's autograph. That autograph must have been a real working copy, that preserved an important number of possible alternatives, pending the translator's final decision. Thus the situation does not necessarily require that Moerbeke worked on this text in at least two spells. If Moerbeke waited for another Greek copy of the text to surface in order to make a final review of his text, his hope must no doubt have been in vain.

As for an assessment of the time when Moerbeke could have made this translation, it seems that there are few elements available. It might well be that the contents of both *De Nilo* and *De coloribus* were judged to form useful complements to the *Meteorologica*, and that the translations were made in the same period, rather early in Moerbeke's career. The predominance of *quemadmodum* over *sicut* at a rate of five to one points to a similar chronological ordering, although its statistical value within such a short text is not beyond doubt.<sup>46</sup>

## 7. Marginal notes

Apart from the peculiar variant readings in *Fz*, this copy of *De Nilo* also contains three interesting marginal notes positioned in the lower margin of the folio. They are written by the same hand that wrote the text. There is no clearly visible reference to the passage which they are meant to comment upon. The appearance of the notes is quite similar to the ones that accompany the text of Moerbeke's *De coloribus* in the same manu-

46. For the chronology of Moerbeke's works, see F. BOSSIER, 'Méthode de traduction et problèmes de chronologie', in: J. BRAMS – W. VANHAMEL (ed.), *Guillaume de Moerbeke. Recueil d'études à l'occasion du 700e anniversaire de sa mort (1286)* (De Wulf-Mansion Centre. Ancient and medieval philosophy. Series 1, 7), Leuven: Leuven University Press, 1989, p. 257-294.

script.<sup>47</sup> Their contents, however, show no uniformity at all, as can be recognized from a detailed discussion.

The first note is found in the lower margin of fol. 239r. Its text reads: ‘Quesitum fuit a Dyogene quare in tam brevi tempore factus fuisset ita sapiens. Qui respondit: quia plus consumpsi de oleo quam de vino.’ The gloss, at first glance, seems not to be unlike the notes that some translators found in their Greek models and translated in the margins of their Latin version. However, this comment clearly has a Latin pedigree. The use of the (lamp)oil as an image of hard work was originally linked to the Attic orator Demosthenes by Plutarch.<sup>48</sup> It seems to have entered the Latin world in the course of the fourth century in the works of Diomedes the grammarian<sup>49</sup> and Saint Jerome.<sup>50</sup> It is unclear whether others have made the same reference to Diogenes, although some medieval sources use the quotation in a wording very close to our ‘Diogenes’-note as referring to Plato.<sup>51</sup>

The notes in the lower margin on the verso of fol. 239 are of a different nature altogether. The first reads: ‘Panselinis, id est plenilunis; pan totum selinis id est luna.’ This particular type of gloss, explaining a transliterated Greek term by translating its components, is not uncommon to the *Aristoteles Latinus*. Quite often this form of explanation is introduced by expressions such as *id est*. The genuine character of this particular note is apparently stressed by the fact that it seems to take the inflected form into account, rendering the Greek neuter *pan* by *totum*. Yet, the possible value of this analogy is all but wiped out by the following correspondence,

47. Only the last two treatises of the manuscript are accompanied by this type of notes. In the first text, the *Metaphysica*, the scribe used the manuscript’s extremely wide margins to introduce corrections and missing text. A later, smaller hand occasionally added commentary sections and summaries throughout the first part of the manuscript, but seems to have stopped his work in the second half. Images of all pages of the manuscript can be downloaded free of charge from the digital library of the Biblioteca Laurenziana, <http://teca.bmlonline.it> (February 21, 2012).

48. Plutarchus, *Demosthenes*, 8, 3-4.

49. ‘Demosthenes Atheniensis interrogatus quo modo orator factus sit respondit “plus vino inpendens olei”.’ (Diomedes, *Ars grammatica*, vol. I, p. 310, l. 21-22: ed. H. KEIL, *Grammatici Latini*, vol. I, Lipsiae: Teubner, 1857).

50. ‘Demosthenes plus olei quam vini expendisse se dicit.’ (Hieronymus, *Apologia adversus libros Rufini*, 1, 17).

51. Iohannes de Procida: ‘Et quesitus qualiter ad tantam scienciam pervenisset, respondit: plus olei in crutibulo quam vini in cypho consumpsi’ (E. FRANCESCHINI, ‘Il “Liber philosophorum moralium antiquorum”’, *Atti del Reale Istituto Veneto di scienze, lettere ed arti* 91 [1931-32], p. 398-588, quotation on p. 465). – Dionysius Cartusianus, ‘Unde quum quidam interrogasset Platonem, Unde tibi sapientia tanta? respondit: Quia plus consumpsi de oleo in lampade, quam de vino in calice’ (*D. Dionysii Cartusiani Opera Omnia*, Tomus VII, Monstrolii: Typis Cartusiae Sanctae Mariae de Pratis, 1898, p. 131b).

which links the plural dative *selinis* to the singular *luna*. The orthography *plenilunis* also raises some suspicion, as one would rather expect *pleniluniis* in view of *plenilunio* in the following line. Although it is clear that the author of the gloss had some notion of Greek, the position of the word in the text itself (194.21) is instructing as well. The fact that the translator uses the standard rendering *plenilunio* in the following line shows that he certainly was not in need of a suitable translation. There might be a similar case in Moerbeke's translation of Alexander's commentary on the *Meteorologica* (222,49), where as a variant for the reading *panselino* of all other manuscripts *plenilunio* is found in V (= ms. Vaticano, Bibl. Apostolica, Chis. E.VIII.253).<sup>52</sup>

Finally, directly below the previous note follows a second one: 'Opposit contra dicentes Nilum fluere ab Eracleis columpnis.' One would rather expect the label-like content of this gloss in the margin next to the beginning of the relevant passage. As it is, there seems to be hardly any use for this text at the bottom of the page.

In general, there is little evidence to support an attribution of these notes to the translator of the text. This conclusion may form an important element in the assessment of the similar notes that accompany *De coloribus* in the same manuscript.<sup>53</sup> There also some seemingly sensible interpretations of the Greek vocabulary go side by side with rather odd statements. In particular, the phrase 'quem vocamus flor de veza' strikes as unusual, since it surely must be a reference in Spanish to the purple flower of the common vetch (*Vicia sativa*). It is quite inconceivable that Moerbeke would have combined this Spanish term with the first person 'vocamus'. However, did not many manuscripts that have a privileged position in the transmission of Moerbeke's works pass through the hands of Spaniards who temporarily stayed in Italy? As *Fz* from now on clearly belongs to that cluster of exceptional manuscripts, it may be useful to undertake a general study of the works it contains in order to clarify the circumstances of its production and its circulation before it arrived at Santa Croce in Florence, where it belongs to the oldest core of the former Franciscan convent's library.<sup>54</sup>

52. I followed Pieter DE LEEEMANS' lead and checked the lexicon of Papias. It seems that an eager user of that dictionary could have come to a similar solution, combining 'pan graece omne' (s.v. pan) and 'selene enim luna' (s.v. selemites) as found in the edition Venetiis, Andreas de Bonetis, 1485.

53. G. VUILLEMIN-DIEM independently came to different conclusions on the same subject, see her contribution in this volume (p. 237-239).

54. C. T. DAVIS, 'The Early Collection of Books of S. Croce in Florence', *Proceedings of the American Philosophical Society* 107 (1963), p. 399-414.

## 8. Authenticity

So far, this article has focused on the Latin text of the treatise. Yet, the question remains whether there are new insights to be gained concerning the origin of the Greek text as well. It seems that the answer to this question must be affirmative. In particular, the close resemblance between the text of *De Nilo* and of the anonymous byzantine doxography by the *Anonymus Florentinus* seems to have escaped the scholars' attention.<sup>55</sup> However, the similarity may lead to significant conclusions.

Obviously, the link between Callisthenes and Aristotle on the topic of the Nile floodings is no new element in the discussion. Strabo's account of the subject states that Callisthenes got his solution from Aristotle, who himself based his theory on information received from Thrasyalces.<sup>56</sup>

This order of events seems to be confirmed by the text of Pap. Oxy. 4458. However, R. L. Fowler refuses to accept the link between Callisthenes and Aristotle (and, by consequence, to acknowledge *De Nilo* as genuinely Aristotelian), which results in rather unevenly balanced conclusions. First, he challenges the supplement [Ἀριςτο]τέλει by Jacobi and Luppe on line 2 of column i, stating that 'many other words have that ending and the supplement seems less than certain, however probable in view of γράφει in line 4'.<sup>57</sup> Yet, in line 21 of column ii he prefers [Καλλι]ζθενους to [Ἐραθο]ζθενους, since the latter choice would imply that he had 'to give up the compelling link with the sequence of sources in Strabo'.<sup>58</sup> As a consequence of his skepticism on the supplement of Aristotle's name early on in the papyrus fragment, he all too readily dismisses the interpretation of the imperfect ἐβουλόμην (col. ii line 21) that Posidonius had already cited the sources he mentions. The implication might be that Posidonius 'thought the *Liber de inundatione Nili* was indeed by Aristotle'.<sup>59</sup> As he acknowledges the early date of *De Nilo*, Fowler in the end concludes that Theophrastus is a strong contender for the authorship of the treatise.<sup>60</sup>

55. P. CORSSSEN, 'Das angebliche Werk des Olynthiers Kallisthenes über Alexander den Grossen', *Philologus. Zeitschrift für das klassische Altertum und sein Nachleben* 74 (1917), p. 1-57, esp. p. 35-36, draws the attention to the similarity between the *Anonymus Florentinus* and the phrasing of Theophrastus' views in the indirect tradition, but misses the link with the Latin of *De Nilo*. See also n. 37.

56. Strabo, *Geographica*, XVII, 1, 5.

57. FOWLER, 'P. Oxy. 4458: Poseidonios', p. 136.

58. FOWLER, 'P. Oxy. 4458: Poseidonios', p. 140, n. 27.

59. FOWLER, 'P. Oxy. 4458: Poseidonios', p. 138.

60. FOWLER, 'P. Oxy. 4458: Poseidonios', p. 141.

Fowler's reluctance to accept Aristotle as the source for Callisthenes and, by consequence, as the author of *De Nilo*, may partly lie in the difficulty to bring the other sources on the same subject into accord. The 6th-century author John Lydus writes that Callisthenes on his campaign with Alexander went to Ethiopia and found out (εὐρεῖν) that the Nile floodings are caused by the heavy rains there.<sup>61</sup> John mentions book IV of Callisthenes' *Hellenica* (published in 340) as his source, which is incompatible with the date of Alexander's expedition to Egypt, unless Callisthenes prepared a second edition of his work before his death *en route* in 327, as J. Partsch suggests.<sup>62</sup> Moreover, this scenario would reverse the order of transmission as Strabo reports it: he says that Callisthenes got his information from Aristotle.

It is noteworthy that John Lydus does not claim that Callisthenes was an eyewitness of the Ethiopian rains. The *Anonymous Florentinus* likewise speaks of Callisthenes' opinion (γνώμη), as opposed to Photius, another late source, who asserts that Aristotle had observers sent by Alexander to witness the facts by view (ᾧψει) on the spot.<sup>63</sup>

Photius' statement seems to get confirmation from another sentence of Strabo's. He writes that the older generations came to conclusions based on conjecture (στοχασμῶ), while the later discovered the reason for the floodings in the rain by autopsy.<sup>64</sup> Although there is no explicit reference to Aristotle or Callisthenes, the wording αὐτόπται γενηθέντες ἤσθοντο seems to perfectly reflect the Latin of *De Nilo*: 'In sensum enim venit quemadmodum per se videntes facti a visis'.

A closer reading of this sentence, however, reveals some small but significant divergences. The Greek phrase misses an equivalent for the Latin *quemadmodum*, which is the usual translation of ὅσπερ or καθάπερ. Obviously, the Latin text seems to imply that the conclusion regarding the cause of the flooding came on the basis of elements that were *as good as* empirical observation. The complement *a visis* does not suggest that visual examination was involved: *visa* is Moerbeke's equivalent for τὰ φαινόμενα, the observable events. This does not necessarily mean that the actual causes were observed, but that a reliable conclusion could be made on the basis of the subsequent events as they were observed. This inference on the basis of observation solved the problem: Photius

61. Johannes Lydus, *Liber de mensibus*, IV, 107, ed. WUENSCH, p. 146, l. 20-24 (= JACOBY, *Fragmente* II B, fr. 124F12).

62. PARTSCH, 'Des Aristoteles Buch', p. 584, n. 3.

63. ROSE, *Aristotelis qui ferebantur*, p. 188-189, fr. 246.

64. Strabo, *Geographica*, XVII, 1, 5.

preserves the triumphant phrase τούτο οὐκέτι πρόβλημα ἐστίν.<sup>65</sup> However, in this case the Latin wording is equally slightly different: ‘iam non problema videtur esse’, there no longer *appears* to be a problem.

Obviously, this interpretation is in itself not sufficient to prove the authenticity of *De Nilo*. It only indicates that it is conceivable that a conclusion about the cause of the flooding could be reached by Aristotle prior to Alexander’s conquest of Egypt, and that Callisthenes could have used his writings on the subject as his source.

At this point, the resemblance of *De Nilo* with the report of Callisthenes’ opinion by the *Anonymus Florentinus* comes into play. If we accept Strabo’s testimony, which was probably based on Eratosthenes,<sup>66</sup> that Aristotle was the source for Callisthenes’ text, it is not improbable that the latter closely followed the wording that Aristotle had used, which accounts for the resemblance of both texts.

Evidently, it cannot be excluded that the mutual influence came from the opposite direction, namely, that Aristotle copied the sentence from Callisthenes’ *Hellenica*. The fact that *De Nilo* does not mention either the author of its source nor the title of his work is not necessarily a sufficient argument against this hypothesis: Aristotle only tends to mention those authorities with whom he disagrees. There is, however, the possibility to assess the general method of the author of *De Nilo* by comparing his report of Herodotus’ solution with the extant work by the historian. It clearly shows that, however garbled the chapter on this author may be, there clearly are no verbal correspondences with the original text. By consequence, it is very unlikely that he would have acted otherwise in the case of Callisthenes.

This observation leads to the conclusion that the original wording of *De Nilo* was virtually literally reproduced by Callisthenes, and accurately transmitted by the *Anonymus Florentinus*. In that case – *pace* Fowler – not only Eratosthenes considered *De Nilo* as the work of Aristotle, but also Callisthenes. The literal correspondences between *De Nilo* and the words attributed to Callisthenes by the *Anonymus Florentinus* are conveniently explained by accepting that *De Nilo* is a work by Aristotle, or at least contains some portions of an original work by the philosopher.

KU Leuven

65. ROSE, *Aristotelis qui ferebantur*, p. 188-189, fr. 246.

66. He names Eratosthenes as his source in *Geographica*, XVII, 1, 2.

## Appendix

An improved transcription of the text of *De Nilo* on the basis of the manuscripts used in this article:

Madrid, Bibl. nacional, 10053 (*MI*)  
 Firenze, Bibl. Laurenziana, Santa Croce, Plut. 13 Sin. 6 (*Fz*)  
 Vaticano, BAV, Pal. lat. 1033 (*Dt*)  
 Heiligenkreuz, Stiftsbibl., 40 (*Hq*)  
 Chantilly, Bibl. du musée Condé, 280 (*Dv*)  
 [Consensus codicum *Hq* et *Dv* (**x**)]

References to pages and line numbers are to V. ROSE, *Aristotelis qui ferebantur librorum fragmenta*, Lipsiae: Teubner, 1886. Chapter divisions are taken from Bonneau's edition. The apparatus only indicates those instances where a conjecture was accepted or where a reading from *Fz* was preferred to the unanimous variant in all other manuscripts.<sup>67</sup>

[1] [191.15] Propter quid aliis fluminibus in hyeme quidem augmentatis, in estate autem multo factis minoribus, solus eorum qui in mare fluunt, multum estate excedit fitque tantus ut civitates sole supersint velut insule? Crescit autem a versionibus [20] estivalibus qualibet die et rursum abscedit. Exundat autem per labia fluminis aqua et non sicut quidam aiunt super terram, verumptamen iuxta ipsum fluvium putei apponuntur. Circa ipsum quidem igitur accidentia talia sunt.

[2] Causam autem sumat quis sic querens. Necesse enim aut estate [192.1] ipsi advenire aliunde aquam, aut hyeme auferri, videlicet desursum a sole attractam (hic enim manifeste hoc facit), aut in terra desiccata. Per eam quidem igitur que in hyeme ablationem sic utique in estate fiet maior, per appositionem [5] autem hoc modo. Aut enim propria supernatante propter obstructionem, velut etiam accidit canalibus (si enim aliquis intercipiat, fluens congregatum excrescit ad alta), aut aliena superveniente. Hoc autem utique fiet, si fontes plenissimi fiant, alicunde adsupernatante aqua; apponentur autem [10] utique aut liquescente aliquo aut pluyente.

67. Some elements from this article were used before its publication in J.-J. AUBERT, 'Aristoteles (646)', I. WORTHINGTON (ed.), *Brill's New Jacoby*, Brill Online, 2013 (April 4, 2013).



[3] Modi quidem igitur tales et tanti, per quos utique crescit fluvius solus. Horum autem qui quidem existunt dicti a prius dubitantibus de ipso, hos nos dicemus. Thales quidem qui de Ameo Milesius a ventis annualibus [15] repulsum inquit fluvium inundare. Crescit enim si illi flant et e regione fluit ipsorum. Accidit autem contrarium. Supernatat enim ad modicum desubtus, principium autem repletionis videtur desursum. Adhuc idem alios oportebat pati magis fluvios, qui ex opposito fluunt ipsis magis, et minores [20] existentes faciles sunt cogi a ventis. Frequenter autem et annuales non flant, fluvius autem videtur idem faciens.

[4] Diogenes autem Nakithemius Apolloniates fontibus ait addi aquam attrahente terra propter arefieri a sole in estate, natum esse enim indigens trahere ex propinquo. Accidit [25] autem et huic, unum quidem quia frigidissimum estate quod secundum terram est – trahit autem omne calidum existens et quando utique maxime fuerit calidum –, adhuc autem quia alios oportebat fluvios eos qui in Libia idem facere. Non enim singulariter solum illius desiccant fontes.

[5] [193.1] Anaxagoras autem Egisiboli Clasomenius propter liquefieri nivem estate repleri fluvium ait. Contingit quidem enim sic augeri, quemadmodum diximus, sed multitudo improporcionata facta in excrescentia fluvii. Multum enim superexcedit [5] quam ut verisimile a nive liquefacta. Ex multa enim modica fit aqua, Nilus autem multam superinfundit regionem, et profundum iam aliquando etiam super triginta cubitos fuit. Adhuc autem neque locus existens videtur talis, puta unde possibile sit fluere ipsum a nive. Etyhopia enim et [10] Libia inhabitabiles propter estum, ex Asia autem non contingit ipsum fluere. Syrbonis enim lacus apud mare est illud quod est iuxta Syriam, huius autem et rubri quod intermedium mille stadia sunt. Rubrum quidem mare aiunt quidam coniungi ad id quod extra. Ab hoc quidem non [15] videtur fluens, ab hoc autem immanifestum si possibile. Nullum enim audivimus dignum fide nondum de rubro mari, utrum ipsum per se ipsum est aut coniungitur ad id quod extra Eracleas columpnas.

[6] Deceptus est autem et rex Arthaxarxes Okhos cognominatus, quando super Egyptum [20] debebat militare. Conatus est enim avertere Indorum fluvium tamquam existentem eundem, audiens quia cocodrillos habet quemadmodum Nilus. Mittens autem ad vocatos Onifalos<sup>68</sup> audivit quia defluit fluvius in rubrum mare, et cessavit a conatu. Iterum persuasum est dicentibus Indis quia fluvius [25] alter esset ad illas partes Indie,

68. Onifalos : Cino[ce]falos *proposuit Partsch : an legendum Κωνιαχός, cf. Strabo, Geographica, XV,1,11?*



fluens ex monte vocato Aieto, ex quo quidem Indus. Hunc autem dicebant habere cocodrillos et circumfluere exterius rubrum mare, sive veraces sint hoc dicentes sive mentientes. Verumptamen rex debebat conari hunc avertere, sed ipsum prohibuerunt quos iam<sup>69</sup> ad [30] curam hanc miserat, dicentes quia maiorem destrueret regionem [194.1] quam acciperet dominans Egyptiis.

[7] De principio quidem unde existat fluens Nilus et de rubro mari hoc modo, aut secundum quem Athinagoras dicebat Arimnisti. Ille enim inquit unum esse mare quod rubrum et quod extra Eracleas columpnas, [5] nichil dignum ad confirmandum ad regem dicentes. Tantum autem manifestum quod si quidem ex hoc monte fluit liquefacta nive, subcontraria multa fierent hiis que nunc accidunt circa ipsum. Mons enim iste intermedius Ethiopum et Indorum distat itinere quinque mensium, ut aiunt. Differt [10] autem quantum differt fluxus longus aut brevis. Fluentium enim de prope primum pervenit fluxus plurimus, in fine autem minor et deficiens. Eorum autem que a longe, primo quidem minus, in fine autem copiosissimum, quemadmodum et in ventis. Propter quod proverbialiter loquentes [15] dicimus ‘inchoante austro et desinente borea’. Qui quidem enim auster quia a longe pervenit ad nos, primo debilis flat, magnus autem fit consumans, boreas autem contrarium propter habitatum locum supponi ad boream. Nilus autem venit primo maximus, postremo autem minoratus et [20] deficiens. Adhuc autem conventibus mensium magis fluit et deficiente luna magis quam stante et panselinis. Oportebat autem contrarium, plenilunio enim congelata tabescunt, et ventorum quando boree optinent sed non quando nothi, quamvis liquefaciat quidem borea nivem magis nothus. Eadem [25] autem dicere congruit et ad dicentes ab Eracleis columpnis fluere ipsum. Sunt enim ipsorum qui aiunt ab Eracleis columpnis fluere. Promathus autem Samius ex Argenteo<sup>70</sup> monte, unde et Cremetis, liquefacta nive. Adhuc enim per amplius spatium fieri fluxum, per totam enim Libiam ipsum fluere inquit.

[8] De causa quidem igitur propter quam Anaxagoras ait [195.1] effluere Nilum, tanta dicta sunt. Reliquorum autem modorum eos qui non habent rationes verisimiles posterius dicemus. Sunt autem quidam qui aiunt augeri fluvium propter annuales, fontibus incidente eo quod extra mari. Hii autem, [5] calidiores existentes fontes per estatem superfervere accedente sole ad ursam; magis enim fervere aquam quam frigore. Quorum utrumque mediocriori dignum est consideratione. Quod quidem

69. quos iam *proposuit Heitz* : qui *MIFz x* : quoniam *Dt*

70. Argenteo *Fz* : Argenti *cett.*

enim propter annuales, videtur solvi eisdem rationibus quas quidem et prius diximus, et quod [10] per totam Libiam fluens idem facere consuevit fluuius. Quod autem tantam sumat additionem aqua propter fervorem, irrationabile totaliter, quia non plus facit propter fervere sed tumorem maiorem eiusdem multitudinis.

[9] Nicagoras autem Ciprius ait ipsum fluere amplius [15] estate eo quod fontes habeat ex terra ad illam partem in qua hyems est quando fuerit apud nos estas. Non plane autem hoc determinat. Videtur enim nichil negotiatius esse circa hoc quod dicitur. Simul enim nobis estas fit et hyems in altera zona habitantibus, intermedium autem inhabitabile [20] est quod tropici incidunt de terra. Est enim una quidem hec pars, altera autem quam semper manifestus circulus et quam semper immanifestus determinant. Media autem horum et tropicorum habitari contingit in circuitu terre. Sola autem que intermedia est, solis transitus existens, duarum zonarum [25] magnitudo. Due enim decisiones sunt, que autem habitatur una. Accidit igitur pertransire fluentem duplo tantam regionem latitudinis habitate et per inhabitabilem propter excessum [196.1] ardoris. Itaque si neque stet in circuitu maris Libie, sed continuus progressus, tamen interminatam pertransit longitudinem<sup>71</sup>, propter quod quidem et a nive dicentibus fluere accidit, et sic dicentibus impossibile.

[10] [5] Restant adhuc tres modi dictorum secundum quos contingit annis<sup>72</sup> augeri. In hyeme enim ablata que inerat aqua. Hoc autem utique erit sole desiccante, quemadmodum dicit Erodotos fabularum scriptor. Non enim ait in hyeme solem per Libiam facere habundantiam, nisi [10] si contingat latum hinc ducere humorem, circa versiones autem estivales ad arctum venire. Nequaquam autem dicitur exquisite. Neque enim Nilum oportebat facere hoc solum. Similiter enim ex tota Libia idem ipse dicit solem trahere humorem, putareque supervenire habitabili solem secundum [15] quamcumque partem, stultum. Ubique enim gnomones umbram ad aquilonem<sup>73</sup> faciunt et non hoc differunt, sed per maiorem aut minorem facere umbram. Libiamque totam amfithalassam esse aiunt, tamquam iste modus quidem cause impossibilis.

[11] Reliquum autem duarum utramque dicere est. Est enim [20] una quidem causa, quia terra superfervens existens hyeme eo quod in tali fundo fontes sint Nili, desiccatur aqua. Quod quidem et aliis accidit, puta in Frigia sunt putei qui in hyeme quidem fiunt sicci, in estate autem re-

71. longitudinem *Fz* : latitudinem *cett*.

72. annis *scripsi* : annis *MI* : annus *Fz* : anus *Dt* : ampnis *x*

73. aquilonem *Fz* : meridiem *cett*.



plentur; et in Olinthia Calcidonie quidam putei plenissimi sunt estate. [25] Hanc quidem igitur causam ut rationabiliorum existentem illa quam predicti assignant, demonstravimus prius.

[12] [197.1] Nunc autem relinquitur sola causa dictorum. Hanc causam dicendum, propter quod iam non problema videtur esse. In sensum enim venit quemadmodum per se videntes facti a visis. Videntur enim aque facte in Ethiopia per [5] tempora hec a cane usque ad arcturum multe et superhabundanter, hyeme autem nulle. Et fructus nutriuntur et crescunt in ipsis. Et propter hoc simul annualibus advenit fluvius. Isti enim nebulas maxime ferunt ad regionem et quicumque alii venti fiunt estivales ante hos. Quibus offendentibus [10] ad montes defluunt aque ad stagna per que Nilus fluit. Adhuc autem et que a nive dicentibus fluere subcontrarietates testificantur huic rationi, quod in concursibus mensium magis crescere fluvium et eius aque consueverunt fieri tunc magis, et quod non similiter copiosum [15] inchoans et postremo. Adhuc autem quando nothi flant minus quam quando utique boree; boreas enim nubes fert ad locum, ex quibus aqua facta impletur Nilus. De Nilo quidem igitur hec dicta sint.

