

Theodore Gaza's Translation of Aristotle's *De Animalibus*: Content, Influence, and Date

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RECENT YEARS have seen important studies of Gaza's translation of the compilation of Aristotle's biological treatises *Historia Animalium*, *De Partibus Animalium*, and *De Generatione Animalium*, known under the name of *De Animalibus*.¹ Although the translation has received some mixed criticism,² arguably no other Latin Renaissance Aristotle text had nearly as great an impact on the tradition. After the *editio princeps* in 1476,³ more than forty other editions were published before the

¹ The Latin title "De Animalibus" originated with Michael Scotus whose 13th-century translation of the Arabic *Kitāb al-Hayawān* ("Book of Animals") also contained *HA*, *Part.An.*, and *Gen.An.*. Recent studies of Gaza's translation include S. Perfetti, "Cultius atque integrius? Teodoro Gaza, traduttore umanistico del *De partibus animalium*," *Rinascimento* SER. II 35 (1995) 253–286; J. Monfasani, "The Pseudo-Aristotelian *Problemata* and Aristotle's *De Animalibus* in the Renaissance," in A. Grafton and N. Siraisi (eds.), *Natural Particulars. Nature and the Disciplines in Renaissance Europe* (Cambridge [Mass.]/London 1999) 205–247. Most of Monfasani's articles about Gaza cited here are now conveniently collected (with corrigenda and addenda) in J. Monfasani, *Greeks and Latins in Renaissance Italy. Studies on Humanism and Philosophy in the 15th Century* (Aldershot 2004).

The following will be cited by authors' names: H. and J. Baudrier, *Bibliographie lyonnaise. Recherches sur les imprimeurs, libraires, relieurs et fondateurs de lettres de Lyon au XVI^e siècle I–XII* (Lyon/Paris 1895–1921); F. R. Goff, *Incunabula in American Libraries. A Third Census of Fifteenth-Century Books in North American Collections* (New York 1973). Also, *CS* = F. E. Cranz, *A Bibliography of Aristotle Editions 1501–1600*² with addenda and revisions by C. B. Schmitt (Baden-Baden 1984); *GW* = *Gesamtkatalog der Wiegendrucke*² I– (Stuttgart/New York 1968–).

² See Perfetti, *Rinascimento* II 35 (1995) 256–258.

³ Venice, Iohannes de Colonia and Iohannes Manthen, 1476 (*GW* 2350). An electronic copy is available in *Gallica*, the digital library of the Biblio-

end of the next century.⁴ The commentary movement that followed in the Italian 16th century was also sparked by the availability of Gaza's text.⁵

Gaza, in fact, had a "virtual monopoly" on the biological works of Aristotle,⁶ his translation completely overshadowing the only other 15th-century translation, by his rival George of Trebizond, which had only a limited manuscript circulation.⁷ In addition, he significantly influenced the arrangement of the text in the Greek editions, beginning with the Aldine *editio princeps* of 1497 (GW 2334).

This vast influence calls for a fuller study of Gaza's *De Animalibus* than has appeared to date, and in this paper we begin that task. Part I critically reviews some of the changes and omissions that Gaza made in the text of *HA*. Part II traces the traditional chapter divisions of *HA* to its origin in editions of Gaza's translation. Part III considers the two different dedications to be found in the many editions of Gaza's translation, and the implications of these for the date(s) of completion of the translation, and indeed for the number of manuscript editions Gaza himself produced. Appendix 1 offers an overview of Book I's chapter divisions within the manuscript tradition and the different stages of the printed text; Appendix 2 lists the editions of Gaza's translation published before 1600.⁸

thèque nationale de France (<http://gallica.bnf.fr>).

⁴ See Monfasani, in *Natural Particulars* 246–247 n.95, and Appendix 2 below.

⁵ S. Perfetti, *Aristotle's Zoology and its Renaissance Commentators (1521–1602)* (Leuven 2000).

⁶ Monfasani, in *Natural Particulars* 205.

⁷ J. Monfasani, *Collectanea Trapezuntiana: Texts, Documents, and Bibliographies of George of Trebizond* (Binghamton 1984) 705–707, lists eight complete manuscripts and one fragment of this translation.

⁸ This paper originated with short presentations on the reordering of the books in *HA*, the chapter divisions, and the dedications, by Gotthelf to the 1996 Leuven workshop "The Tradition of Aristotle's *De historia animalium*." More recent work, mostly by Beullens, substantially expanded those discussions, and added an early version of the appendices. Starting from a draft of the whole by Beullens, we have worked together extensively to produce the single study presented here. We have received generous assistance from many individuals, most of whom are acknowledged in the notes. We would like to thank especially Albio Cassio, Dieter Harlfinger, Jill Kraye, John

I. Reordering the Text

Gaza's Aristotle translations are marked by drastic changes in the order of the Greek texts, and the condemnation of passages and even entire books. Changes on this scale in Gaza's initial *Problemata* translation prompted a violent reaction from George of Trebizond in his pamphlet *In Perversionem Problematum Aristotelis* and ultimately led Gaza to produce a revision of that translation.⁹ Nonetheless, his interventions in *De Animalibus* were nearly as major as those in his version of the *Problemata*.

Gaza thought there was good reason for such interventions. Aristotle's works, he said, have their present form in part by historical coincidence, viz. the circumstances that resulted in the edition by Apellicon, as reported by Strabo, and in part because of the incompetence of the scribes who worsened, in transmission, that already bad edition. Therefore, Gaza concluded, a translator of Aristotle must first do his best to restore the text to the form the philosopher had originally given it, and to do so he will have to make substantial changes *ad mentem Aristotelis*. In the case of *HA*, for example, Gaza moved one whole book, excluded another, and within a third rearranged large blocks at several places.

Gaza's entire preface (which we date below post-1470) to his translation of *De Animalibus* is worth reading for evidence of his view of his proper editorial function, as is his preface to his

Monfasani, Nigel Wilson, and the librarians and other scholars on both sides of the ocean who autopsied 16th-c. editions for us for Appendix 2 and are cited there. In addition, we would like to thank Paul Botley and the editor of *GRBS* for valuable comments on the penultimate draft. References to the books of *HA* are by their numbers in the manuscript tradition, i.e. in the same order as they appear in D. M. Balme's Loeb and Cambridge editions (n.13 below). Because Gotthelf began his initial work at Balme's request back in the 1980s, Balme may be considered a sort of posthumous godfather of this paper, and we dedicate it to his memory.

⁹ See Monfasani, in *Natural Particulars*, and *Collectanea Trapezuntiana* 90 and 411–421. Text of the pamphlet: L. Mohler, *Kardinal Bessarion als Theologe, Humanist und Staatsmann* (Paderborn 1923–1942) III *Aus Bessarions Gelehrtenkreis* 274–342. John Monfasani is preparing a critical edition of the same text: see “George of Trebizond's Critique of Theodore Gaza's Translation of the Aristotelian *Problemata*,” in P. De Leemans and M. Goyens (eds.), *Aristotle's Problemata in Different Times and Tongues* (Leuven 2006) 275–294.

1451 translation of Theophrastus' *De Plantis* (*Hist.Pl.* + *Caus.Pl.*), and Nicholas Gupalatinus' preface to the 1475 edition of Gaza's translation of the *Problemata*. For instance, in the *De Animalibus* preface Gaza writes:

Another cause of my labor was that the Greek manuscripts we have of the books called "On Animals" are very seriously flawed, owing either to the scribes or to that accident about which we read in Strabo the geographer. For no doubt a translator must take pains to correct them, in order not to give the impression that he himself got it wrong when he translated them ... still I have placed the book that is ninth in the Greek manuscript seventh, and I consider that it was done with good reason ... And so ... there can be no doubt that he [*sc.* Aristotle] placed it seventh.¹⁰

We may compare that passage with this excerpt from the *De Plantis* preface, written twenty years earlier:

But the hardest thing of all is surely this: that the text for the proposed task was so seriously flawed that there was almost no part of the manuscript (which was the only one available) that wasn't so corrupted—either by the ignorance of the scribes or by some other mishap—that it could only be corrected with great difficulty and that it was necessary that a lot of it be omitted which could not be understood coherently—especially in those books which are called the "History of Plants."¹¹

¹⁰ "Accedit ad hæc altera causa laboris quod exemplaria græca, libros hos de animalibus dico, mendosa admodum habemus vel librariorum culpa vel eo casu quem apud Strabonem geographum legimus; in his enim emendandis elaborare interpret sine dubio debet, ne ipse errasse in convertendo videatur ... tamen qui nonus in exemplari græco continetur hunc ego septimum collocavi nec id temere factum existimo ... Itaque ... nulli dubio esse debet quin ille (*sc.* Aristoteles) septimum hunc collocarit" (*ed. pr.* [above, n.3] sig. a 3^or–a 4^or). For recent critical assessments of Strabo's story see H. J. Drossaart Lulofs, "Neleus of Scepsis and the Fate of the Library of the Peripatos," in R. Beyers et al. (eds.), *Tradition et traduction. Les textes philosophiques et scientifiques grecs au moyen âge latin* (Leuven 1999) 9–24; H. Lindsay, "Strabo on Apellicon's Library," *RhM* 140 (1997) 290–298; J. Barnes, "Roman Aristotle," in J. Barnes and M. Griffin (eds.), *Philosophia Togata II: Plato and Aristotle at Rome* (Oxford 1997) 1–69.

¹¹ "Sed omnium durissimum illud certe accidit, quod textus propositi operis mendosus adeo est, ut nulla fere pars sit exemplaris, quod unum tantum habere possumus, quæ vel librariorum inscitia, vel alia temporum offen-

And note Gupalatinus's vivid description of Gaza's editorial practice:

... recently, under the present Pope Sixtus IV, he emended the textual errors. I myself, who used to write at his dictation, am a witness to the amount of labor expended by this very learned old man, who spent a solid year without interruption in correcting the manifold scribal errors. All the Greek codices were certainly corrupt. But he applied that nicety of judgment which befits a great translator, aided on the one hand by his consummate skill in his own Greek tongue and in Latin elegance, and on the other by his profound knowledge of the Peripatetics. As a result, he did with the *Problemata* what he has done in all his translations: namely, out of many corruptions and distortions he made a reliable and superior text.¹²

In what follows we focus only on the re-ordering of books in *HA*, and support the view that Gaza was probably wrong to do so.¹³

sa non tam depravata sit, ut et summa cum difficultate sit emendandum, et nonnulla intermitti necesse sit, quae vix congrue intellegi possint, praesertim in iis libris, qui de plantarum historia describuntur" (Venice 1513, ed. Aldus Manutius, fol. 110^r [see Appendix 2 no. 7; Ransom Humanities Research Center copy, folio number kindly supplied by Margaret Tenney of the Library]. Our thanks to Stephen A. White for valuable advice on the translation of this elaborate sentence.)

¹² "... emendavit nuper sub Sixto Pontifice IIII Pon. Max. Testis ego sum qui eo dictante scribebam quantum laboris insumpserit senex doctissimus annum continuum in emendandis plurimis librariorum erroribus. Depravati erant certe Greci codices omnes. Ipse tamen exactissimo iudicio ut optimum interpretem decet, tum (*sic*: cum) ob linguae Grece sibi vernacule atque Latine elegantie peritiam summam, tum quia paripatetice (*sic*) secte studiosissimus semper extitit, id in problematis fecit, quod in aliis quoque rebus fieri solet, ut ex multis corruptis ac perversis quoddam integrum atque optimum factum sit": *Nicol' Gupalatini Veneti Phisici p̄fatio in Problemata Aristo.*, Rome, Johannes Reinhardi, 1475 (*GW* 2453). See M. A. and R. H. Rouse, "Nicolaus Gupalatinus and the Arrival of Print in Italy," *La Bibliofilia* 88 (1986) 221–251 (translation on 234); and further on this passage, 497 below.

¹³ For the full list of Gaza's changes, see *Aristotle Historia Animalium* I, ed. D. M. Balme, prepared for publication by A. Gotthelf (Cambridge 2002) 47. The reordering within Book VIII is examined in the Loeb *Aristotle. History of Animals. Books VII–X*, ed. D. M. Balme, prepared for publication by A. Gotthelf (Cambridge [Mass.]/London 1991) 542. The authorship of *HA X* is discussed by D. M. Balme, "Aristotle *Historia Animalium* Book Ten," in J. Wiesner (ed.), *Aristoteles, Werk und Wirkung: Paul Moraux gewidmet* I

Excluding Book X, every full Greek manuscript of *HA* has nine books, divided at the same places give or take a phrase or sentence—except *Laurentianus* 87,4 (**C**^a). This manuscript divides Book II at 504b13, starting Book III there, ending it at the same place the others end Book II, and numbering each succeeding book accordingly, so that **C**^a alone has ten books where the others have nine. In all manuscripts of the Arabic translation, in Michael Scotus' Arabic-Latin translation, and in the Greco-Latin ones by Moerbeke, Trebizond, and Gaza, there are uniformly nine books divided more or less at the same places as the Greek manuscripts.¹⁴

Every Greek manuscript and every translation prior to Gaza's orders the books the same way, placing the discussion of human generation ninth (tenth in **C**^a). Indeed, references in ancient authors to the content of the book on nutrition, habitat, etc., and the book on "characters," when they refer to these with the numbers VII, VIII, or IX, almost always seem to refer to them as VII and VIII respectively: Düring cites one occasion in Athenaeus,¹⁵ Keaney cites two places in *P.Oxy.* 1802 (fr.3 col. ii 49–50, 57), one uncertain,¹⁶ and two in Harpocration. The one exception is in Aelian, in a late manuscript, and Keaney infers that "it must be a late insertion by a scribe who was aware of the order of the *H.A.* introduced by Theodorus of Gaza" (though he does not confirm that the date of the Aelian manuscript allows for this hypothesis).¹⁷ Keaney here refers to the fact that Gaza, as he explains in his Preface, moved the

Aristoteles und seine Schule (Berlin/New York 1985) 191–206, and in *Aristotle* (Loeb) 26–30; and by Ph. van der Eijk, "On Sterility ('*HA X*'), a Medical Work by Aristotle," *CQ* 49 (1999) 490–502 (repr. Ph. van der Eijk, *Medicine and Philosophy in Classical Antiquity* [Cambridge 2005] 259–275).

¹⁴ There is a slight shift in Albert the Great's commentary *Liber de Animalibus*: he starts his third book at 511b1 instead of 509a26 (= p.277 Stadler). It is unclear whether he introduced this change on his own initiative or found this variant in the manuscript of the Scotus translation he used.

¹⁵ I. Düring, "Notes on the History of the Transmission of Aristotle's Writings," *Symbolae Philologicae Gotoburgenses* 56 (1950) 37–70.

¹⁶ See *Corpus dei papiri filosofici greci e latini* I.1 (Florence 1989) 335–336, for a recent critical edition of the papyrus.

¹⁷ J. J. Keaney, "Two Notes on the Tradition of Aristotle's Writings," *AJP* 84 (1963) 52–63, esp. 52–58.

book on human generation to 7th place, and the other manuscripts which agree in that ordering all appear to be later than Gaza's translation and suggest his influence.

David Balme, in both his *editio maior* of *HA* and his *editio minor* of books VII–X, returned to the pre-Gaza manuscript ordering.¹⁸ He in fact thought that Gaza was probably wrong to believe that Aristotle had intended the book on human generation to follow immediately upon Book VI. The issue here is interpretative, and has to do with one's sense of what Balme called in his Loeb introduction "The Plan of *HA*."

Under that heading in the Introduction, after discussing at some length the philosophical context and consequent content of the first six chapters of Book I (including their identification of the primary task of the treatise as the laying out of the *differentiae*, *HA* 1.6, 491a7), Balme writes:¹⁹

The rest of book I with II–IV deals with bodily parts, extended to include sense organs, voice, sleep, sex differences. V–IX deal with activities, lives, characters, but these are not strictly delimited. V and VI are occupied with generation and brood care, extended naturally to include sexual behaviour and nesting; all of this is stated in VII(VIII) to be a part of "activity and life," but inevitably some of the data are also relevant to "characters" and are reported again in VIII(IX) where "character" is the focus of attention. IX(VII) concerns human generation; it is placed as book IX in all manuscripts before Gaza, but he removed it to its modern position in his Latin translation on the grounds that the books on generation belong together. The introduction to V says that in regard to generation man will be considered last because it is the largest subject: while this might imply that IX(VII) should follow VI, the introductions to VII(VIII) and VIII(IX) do not suggest that man has already been discussed; moreover IX(VII) is evidently incomplete; so that the manuscript order is probably correct, putting first the other animals' activities (not only generation) and then proceeding to man ...

¹⁸ Balme had always intended the *editio maior* to follow the pre-Gaza manuscript ordering. He had originally intended the Loeb *editio minor* to follow the modern ordering, but was leaning increasingly toward harmonizing it with the then-planned *editio maior*, and Gotthelf prepared Balme's posthumous Loeb *editio minor* accordingly.

¹⁹ *Aristotle* (Loeb) 18–19.

On reflection, we find ourselves in agreement with Balme that the manuscript order was probably the original order. He is certainly right that IX is incomplete (cf. μέχρη γήρωσ, 581a10),²⁰ and that, as he remarks, neither its beginning nor its end refers forward or back; and he is right that the introductions to VII and VIII give no indication that generation in man has been discussed.²¹ Gaza is certainly right that IX *could* follow right upon the end of VI, since VI has been identifying *differentiae* pertaining to generation among the four-footed live-bearing animals. But IX has an unusually grand opening, which suggests that it is not a continuation of the discussion at the end of VI: περὶ δ' ἀνθρώπου γενέσεως τῆς τε πρώτης τῆς ἐν τῷ θήλει καὶ τῆς ὑστερον μέχρη γήρωσ, ὅσα συμβαίνει διὰ τὴν φύσιν τὴν οἰκείαν, τόνδ' ἔχει τὸν τρόπον ("With regard to man's development, both initially within the female and subsequently until old age, the attributes due to his proper nature are as follows").²²

²⁰ As has been thought at least as far back as Gesner, cf. *Michaelis Ephesii Scholia in Aristotelis libros aliquot* (Basel [1541]) 5–6: "Non dissimilis commissus est error in Historia animalium ubi decimus factus est liber ab imperitis ex avulsa parte quæ septimo libro continua esse debebat. Quod constat ex argumenti similitudine et quod idem septimi finis sit, qui principium decimi, qui Latine nondum habetur." The argument was expanded by Scaliger, who found a further clue for the hypothesis in the omission of the final words of IX(VII) by Gaza, as they are repeated at the beginning of X, thus forming a token for their connection: P. J. Mausaccus, *Aristotelis De animalibus historia Julio Caesare Scaligero interprete* (Toulouse 1619) 850: "Theodorus omisit προῖούσης δὴ τῆς ἡλικίας. Itaque cum proposuerit se dicturum μέχρη γήρωσ ὅσα συμβαίνει, neque his explevit. Necesse est huic libro subdi eum quem decimum vocant: qui sic item incipit tamquam a tessera προῖούσης δὴ τῆς ἡλικίας. Sed quia sententia de semine muliebri contra Aristotelis opinionem est, sustulere illum atque reiecere in locum decimum" (cf. also p.1186). Gesner and Scaliger apparently thought our Book X is the second half of IX(VII), but that is certainly not possible, as Balme makes clear in *Aristoteles* and his Loeb *Aristotle* (n.13 above).

²¹ The introductions are, we suppose, consistent with there having already been a discussion of human generation, but as we will go on to argue, the burden of proof is with Gaza, and so the absence of clear indication of a preceding discussion is significant.

²² 581a1–9, transl. Balme. Note, by contrast, the smooth transition from the end of Book V through the beginning of VI. Friederike Berger, who claims that Book IX must be considered as the complement of Books V and

One additional (though somewhat speculative) matter worth considering is this. The *differentiae* that are discussed in VII and VIII—nutrition, habitat, disease, etc., and “character” and intelligence—are almost entirely *differentiae of the other animals*, and not of man. (A check of the index to the Loeb *HA*, s.v. *man*, confirms this.) Human food-gathering and habitat, so far as they are discussed anywhere in the Aristotelian corpus, are discussed in *Politica*, Book I—and this is perhaps no surprise given the opening of *HA* VII, which points out that the more σύνεσις (“understanding”) and μνήμη (“memory”) an animal kind has, the more complex will be its ἦθη as well as its βίοι καὶ πράξεις—including generation, where it will have a πολιτικώτερον (“more social”) relationship with its young (588a16–31, b26–589a2). In particular, given the full extent of man’s cognitive abilities, as a result of the possession of λόγος, all humans, adults as well as children, live naturally and best in cities. So, the education which is central to the rearing of human youth is discussed in ... *Politica* VII and VIII. The study of *man’s* πράξεις and βίοι (and indeed ἦθη), then, might well have seemed to Aristotle, when finishing *HA* Book VI (or earlier), to be a complex mix of theoretical and practical philosophy, much of which should be set aside for special treatment.

Finally, there is a matter here of where the burden of proof lies. Surely it belongs with those who would change the manuscript ordering (especially where such numbering as is used by later ancient scholars is in agreement with that ordering). Although Gaza’s argument is not implausible, we do not see that it meets that burden. Thus, with Balme, we view Gaza’s re-ordering as an intrusion.

II. Chapter Divisions

The chapter divisions in all recent editions of *HA* derive from Bekker who Balme understood had taken them from the 1550 3rd Basel edition (*CS* 108.174).²³ Neither the Greek manuscripts

VI, considers the opening lines as “secondary”: *Die Textgeschichte der Historia animalium des Aristoteles* (Wiesbaden 2005) 10.

²³ In a message dated 31 May 2006 Prof. Dr. Dieter Harlfinger kindly informed us that he had located for us Bekker’s copy of the Basel 1550 edition in the Staatsbibliothek zu Berlin. It “has countless collation notes in Bekker’s hand in the margins.” Bekker’s extended use of a copy of this edition in the

nor the Aldine *editio princeps*, nor the 1527 Juntine edition (*CS* 107.899) which was derived from the Aldine,²⁴ contain any divisions of the content within books, nor does the first Basel edition of 1531 edited by Grynaeus (*CS* 107.928). Many manuscripts of the mediaeval Latin translations do have divisions indicated by larger initials,²⁵ though at places altogether different from the chapter divisions in the 1550 Basel.

Balme initially assumed that the modern divisions originated in the mid-16th century, with the 1550 Basel edition. But he was wrong by some 58 years, at least, and arguably even 74.

A closer look at the Greek printed tradition confirmed his observations about the 1497 Aldine vol. III and the 1527 Juntine (a beautiful volume, sadly quite rare), and the 1531 first Basel edition, and showed in the 1550 3rd Basel edition not only chapter divisions, but chapter headings (in Greek). Surprisingly, however, the 1539 *second* Basel edition turned out to contain numbers in the margin largely corresponding to the 3rd edition numbering, although without headings. Probably the 2nd edition was corrected by Grynaeus himself, who was still alive in 1539, although he died only a few years later; the 3rd edition which added the headings was corrected and prepared by the printer, Isingrinus.²⁶

As was said above, the *editio princeps* of Gaza's translation was published in Venice in 1476, some 20 years before the Greek Aldine. Subsequent editions appeared also in Venice in 1492,

preparation of his own edition makes it all the more plausible that he derived the chapter divisions from the 1550 Basel, given our finding that Bekker's chapter divisions in Book I are identical with those in Basel 1550 (see Appendix 1; Bekker's Book I also makes its last division at 496a4).

²⁴ Balme, *Aristotle Historia Animalium* 48.

²⁵ See P. Beullens and F. Bossier, *Aristotelis De historia animalium libri I–V. Translatio Guillelmi de Morbeka (Aristoteles Latinus XVII.2.1.1 [Leiden/Boston/Cologne 2000])* lxxxvi–lxxxvii.

²⁶ For the 1527 Juntine edition we used the copy at New Haven, Beinecke Rare Book and Manuscript Library, Yale University, Gfa84 a527; for the 1531 Basel edition the copy from Cambridge, University Library, Bury.1.11; for the 1539 edition the copies Cambridge, University Library, Bury.1.12, and Ghent, University Library, Cl.74; information about the 1550 edition comes from Leuven, Institute of Philosophy, Res. 503, and a copy owned by Allan Gotthelf.

1495, 1498 (*GW* 2351–2353), 1504 by Aldus (copied in a Lyons edition probably a year later), and again by Aldus in 1513, after which several editions appeared in Paris, and then elsewhere; it was the standard translation for several hundred years thereafter (see Appendix 2). In the course of examining the dedications in these editions, about which more below, we could not help noticing that editions well before Grynaeus' 1539 Basel had not only chapter divisions but also chapter headings.²⁷ We compared the divisions in the 1504 and 1513 Aldine with the Basel divisions and found them virtually the same. We did not check them all, but compared Books I–III and Book VIII (and also Book I of *Part.An.*), and compared the number of divisions in each book. With some slight variations in Book I, they were identical; perhaps the numbering scheme helped to preserve them. Interestingly, in the 1539 edition Book X, which was missing in the edition of Gaza's translation, has no divisions whatsoever; the 1550 edition divides this book into four chapters, which Bekker later extended to seven. It seems also probable that the headings in the Latin inspired those in the Greek in the 1550 Basel edition, and certainly the divisions themselves are so nearly identical as to make it unquestionable that the Basel editor took them from an edition of the Gaza translation.²⁸

The comparison with the Gaza editions showed that the divisions in the Aldine 1504 are virtually identical to those in the 1498, 1495, and 1492. In the colophon of the 1492 edition, we are told that the chapters were divided and the headings

²⁷ Others had noticed the difference much earlier: Pietro Pomponazzi (d. 1525), in his commentary on *Part.An.*, observed that the chapter divisions cannot be genuine, as he found different ones in two Latin editions of Gaza's text (see Perfetti, *Aristotle's Zoology* 47 n.30). As Perfetti suggests, Pomponazzi must have looked at the 1476 *editio princeps* and one subsequent edition. Franciscus Patricius in his *Discussionum peripateticarum* (Basel 1581) claimed that Theodore Gaza divided Aristotle's books in chapters, which he had compared with the running text in the Aldine and first Basel editions; and in the early 17th century, Maussac, the editor of Scaliger's translation of *HA*, echoed Patricius's report. See *PG* 161.975–978.

²⁸ See Appendix 1 for information about Book I of *HA*.

developed by Sebastianus Manilius Romanus.²⁹ Manilius was quite a busy man in the Italian editorial world of the 1490s: he translated Seneca's letters to Lucilius³⁰ and the *Compendium Medicinæ* by Johannes de Ketham³¹ into "Toscan volgare," and prepared an edition of Petrarch's letters,³² all for Venetian presses. (He is not to be identified with the "Manilius Rhallus Romanus" who edited Festus' *De verborum significatu*.)³³

In the preface to his Petrarch edition Manilius explains in detail how he intervened in the text he found in his manuscript:

We first modified the titles of books and letters, which were not done in a consistent manner. They almost all had this formula: "Ad Socratem suum," "Ad barbatum," and so on in that style. We, however, imitated Cicero and the other learned men: we provided the titles as the law of epistolography demands (as you can see). Those that did not have the name of the person to whom they were sent, we marked with the sign of the two letters T.M. We added one thing contrary to custom so that they could be read with less trouble: in the title itself we indicated the content of the letter in a few words. Moreover, we included at the beginning of the work indices of books and letters, providing their page numbers so that every letter would be easier to find. We marked in the margins of the books some points that seemed interesting. Finally, at many places throughout the whole of this seriously flawed work we restored the true reading.³⁴

²⁹ Venice, Johannes and Gregorius de Gregoriis, 1492 (*GW* 2351): "Iohannes et Gregorius de Gregoriis fratres eorum opera et impensa Venetiis impresserunt: Sebastianus Manilius Romanus recognovit et per capita disposuit quartodecimo Kalendas decembris. Incarnationis Dominice anno 1492. Augustino Barbadico Serenissimo Venetiarum principe rem publicam tenente" (p.106^r). Copy Ghent, University Library, R.309.

³⁰ Venice, Stefano and Bernardino Dinali, 1494 (Goff S-382).

³¹ Venice, Giovanni and Gregorio Di Gregorii, 1494 (Goff K-17). There is a recent study and facsimile edition of this volume: T. Pesenti, *Il "Fasciculus medicinae" ovvero le metamorfosi del libro umanistico I-II* (Treviso 2001).

³² Venice, Johannes and Gregorius de Gregoriis, 1492 (Goff P-399).

³³ Rome, Johannes Reinhardus, 1475 (*GW* 9862).

³⁴ "Aptavimus in primis et librorum et epistolarum titulos nullo quadrantes ordine; quorum fere omnium hæc erat formula. Ad Socratem suum. Ad barbatum. et cætera id genus. Nos vero Ciceronem cæterosque doctissimos viros imitati, eo quem epistolæ lex exposcebat, ita titulos exposuimus (ut intueri fas est). Eas autem quæ sine illius ad quem mitterentur nomine lege-

Apparently, Manilius put some of these principles in practice while editing the Aristotle text: he added titles to the chapters of the text and provided the edition with an index of books and chapters.

But the 1492 is the *second* printed edition of Gaza's translation. What do we find in the *editio princeps*, published some sixteen years earlier (also a beautifully printed volume)? A check again of Books I–III and VIII (and Book I of *Part.An.*) showed something very interesting. There were no headings—Signor Manilio seems indeed to have been their author—but there are clear divisions of the subject matter, although by the indication of an initial (which in some copies was added in color but is missing in others),³⁵ and not by number. These divisions correspond quite closely to those in Manilius' 1492 edition, although in places Manilius has combined into one chapter the contents of two or three consecutive divisions in the 1476, or subdivided a 1476 chapter into two or more chapters. So it seems that Manilius largely took over the divisions from the 1476 edition but subdivided them in places, and occasionally added some of his own.

Who, then, was responsible for the 1476 divisions? It is uncertain whether Gaza was still alive in 1476, but in any case the colophon tells us that the edition was seen through the press by Ludovicus Podocatharus, who was at the time the Rector of the University of Padua, and had been a friend of Gaza's.³⁶ And the colophon claims that it was printed "ex archetypo ipsius

bantur, harum duarum litterarum T.M. indice munivimus. Unum præter morem addidimus quo minori fastidio legerentur, ut scilicet epistolæ summam paucis verbis in ipso titulo perstringeremus. Indices præterea et librorum et epistolarum in principio operis annotavimus, numerisque cartarum accommodavimus, ut quæque inventu facilius esset. Nonnulla autem quæ recordatione digna visa sunt in librorum marginibus signavimus. Multa tandem passim in toto opere mendose apposita veræ lectioni restituimus."

³⁵ L. Pinon, *Livres de zoologie de la Renaissance, une anthologie (1450–1700)* (Paris 1995) 42 and 56–57, reproduces some pages from a nicely colored copy of this edition from the Paris Bibliothèque Sainte-Geneviève.

³⁶ M. E. Cosenza, *Biographical and Bibliographical Dictionary of the Italian Humanists and of the World of Classical Scholarship in Italy, 1300–1800* (Boston 1962) IV 2855–56.

Theodori fideliter et diligenter.”³⁷ Does this mean that Gaza himself was responsible for the divisions in the *editio princeps*? That would depend on whether at that time “fidelity” to a manuscript included fidelity to its divisions. Or is it just a standard formula for editions not prepared by the author himself, as one might surmise by comparing the colophon of a contemporaneous edition?³⁸

Before deciding, there is one more piece of the puzzle: the beautifully written and illustrated copy of Gaza's translation, dedicated to Sixtus IV, the *Vaticanus* (*Vat.lat.* 2094), which has been dated to the early 1470s. This was surely the presentation copy, and the sheer quality of the manuscript and its state of conservation exclude the possibility that it ever entered a printer's shop.³⁹ Thus it certainly represents another branch of the tradition. And if it too was copied with “fidelity” and fidelity included the divisions, then it too incorporated any divisions Gaza might have marked in the draft he supplied to the copyist. However, Dr. Albio Cassio, who was so kind as to check the manuscript for Gotthelf in the Vatican Library in 1987, reported that the divisions in the manuscript in the books that were checked, indicated by extension of the line leftwards into the margin (the inverse of our own method of indentation),

³⁷ “Finiunt libri de animalibus Aristotelis interprete Theodoro Gaze V(iro) clarissimo, quos Ludovicus Podocatharus Cyprius ex Archetypo ipsius Theodori fideliter et diligenter auscultavit, et formulis imprimi curavit Venetiis per Iohannem de Colonia sociumque eius Iohannem manthen de Gherretzem. Anno domini M.CCCC.LXXXVI.”

³⁸ *Themistii Euphradae ... paraphrasis in posteriora analitica Aristotelis interprete Hermolao Barbaro*: “Finiunt libri Paraphraseos Themistii in posteriora Aristotelis, in physica, in libros de anima, in commentarios de memoria et reminiscentia, de somno et vigilia, de insomniis, de divinatione per somnum, interprete Hermolao Barbaro, viro clarissimo, quos C. Ponticus Facinus ex archetypo Hermolai studiose auscultavit et formulis imprimi curavit Tarvisii per B. Confolonerium et Morellum Gerardinum de Salodio. Anno Salutis. M.CCCC.LXXXI. XV FEBRVARI” (Goff T-129; copy from the Antwerp City Library, B 471).

³⁹ *Vat.lat.* 2094 was borrowed from the Vatican Library on 10th July 1475, which constitutes a *terminus ante quem*; see M. Bertòla, *I due primi registri di prestito della biblioteca apostolica vaticana. Codici Vaticani Latini 3964, 3966* (Vatican City 1942) 3 and 121. The manuscript's frontispiece may be seen at <http://www.loc.gov/exhibits/vatican/medicine.html>.

have absolutely no connection with those of the printed editions; indeed in Book I there were in total only four divisions in common (see Appendix 1).

Now, if we assume that Gaza was responsible for the content of the presentation copy and Podocatharus for the copy that went to the printer, the only question that remains is whether Gaza changed the chapter divisions in the copy that Podocatharus secured from him (getting it either while Gaza was still alive, or after Gaza's death). And while Gaza conceivably *could* have, it is hard to imagine that this is a real possibility, given Gaza's age and health, and the circumstances of his life during the time following the presentation to Sixtus IV (on all of which see briefly below). So, we must conclude that the responsibility for the chapter divisions that have reached us—via the choices of Sebastianus Manilius Romanus and Immanuel Bekker (and all the other editors in between and after, who accepted their decisions)—resides ultimately with Ludovicus Podocatharus.

III. Date and Transmission

a. *Genesis of the translation*

The early history of Gaza's *De Animalibus* translation is well known. It is closely connected with his arrival in Rome in 1449. He there met George of Trebizond, for whom he immediately felt a profound aversion. Trebizond apparently had a natural talent for attracting conflicts, which ultimately led to his expulsion from the papal court in 1452. It seems that Gaza took the vacant space in the circle of Bessarion and was favored by Pope Nicholas V. He first translated into Latin two treatises on botany by Theophrastus. Shortly after, he revealed his intention to newly translate all the Aristotelian texts that Trebizond had done.⁴⁰ By 1454 he had already published the first version of his *Problemata* translation, which sparked the second phase of his hostilities with George of Trebizond.

Although Trebizond translated seven Aristotelian texts in all, only one other followed from Gaza's pen, viz. *De Animalibus*. Oddly, there are a number of somewhat divergent views about

⁴⁰ Three letters from November 1454 by George's son Andreas, two to Gaza and one to Pope Nicholas V, in which he defends his father's works and violently condemns this intention, are edited in Monfasani, *Collectanea Trapezuntiana* 778–786, doc. 2–4.

the date of completion of this work. Monfasani writes that Gaza immediately started on *De Animalibus* after finishing the *Problemata* in 1454, one year before the death of Pope Nicholas V, but only finished it in the 1470s, early in the pontificate of Pope Sixtus IV.⁴¹ In Leonardi's view the translation was completed in 1473–74, simultaneously with the execution of the famous dedication copy of the translation for Sixtus IV.⁴² Bianca states that the translation must have been ready in 1454; she may have based her conclusion on a dubious interpretation of Andreas' letters from the same year, but below she adds that Gaza returned to working on the translation during the pontificate of Sixtus IV.⁴³ Perfetti initially took a similar position by signalling the existence of two different dedicatees, viz. Nicholas V and Sixtus IV.⁴⁴ He thus perpetuated the version that Dittmeyer canonized for more than a century, drawing on the stories of 18th-century pioneers Fabricius and Camus: Fabricius claims that the translation was dedicated to Nicholas V, while Camus expressly corrects Fabricius's report and mentions the dedication to Sixtus IV.⁴⁵

In an attempt to reconcile these views, Dittmeyer alleged that there were two versions of *De Animalibus*, one dedicated to Nicholas V and completed before his death in 1455, and

⁴¹ Monfasani, in *Natural Particulars* 211.

⁴² C. Leonardi, *Codices Vaticani Latini. Codices 2060–2117* (Rome 1987) 145–148.

⁴³ C. Bianca, "Gaza, Teodoro," in *Dizionario biografico degli Italiani* 52 (Rome 1999) 737–746.

⁴⁴ Perfetti, *Rinascimento* II 35 (1995) 255 n.7. Later he somewhat changed his position, endorsing the views now presented here, referring to "such authoritative scholars as Allan Gotthelf and John Monfasani": see Perfetti, *Aristotle's Zoology* 14–15 n.13.

⁴⁵ L. Dittmeyer, "Untersuchungen über einige Handschriften und lateinische Übersetzungen der aristotelischen Tiergeschichte," in *Programm des k. neuen Gymnasiums zu Würzburg für das Studienjahr 1901/1902* (Würzburg 1902) 31–33, referring to J. A. Fabricius, *Bibliothecae Graecae Liber III* (Hamburg 1707) 134: "Translatio librorum novem per Theodorum Gazam qui Nicolao V illam dicaverat, prodiit Venet. 1476 fol. Basil. 1533 fol.;" and A.-G. Camus, *Histoire des Animaux d'Aristote, avec la traduction française* (Paris 1783) I xxiii n.3: "Il la dédia à Sixte IV, et non à Nicolas V, comme le dit Fabricius. Or Sixte IV ne fut élevé sur le siège de Rome qu'en 1471, et Gaza mourut en 1475."

another, later one dedicated to Sixtus IV and completed during his pontificate, which began in 1471.⁴⁶ He thus makes the situation almost mirror that of Gaza's translation of the *Problemata*.⁴⁷

Later Labowsky published a letter which positively refutes this thesis: in 1458, three years after the death of Nicholas V, Gaza wrote to his patron Bessarion that he had so far completed, in Naples, only a draft translation of *De Animalibus*. However, read carefully the letter provides evidence as well regarding the condition of the 1458 draft, the extent of its circulation in Bessarion's circles and its influence on the *HA* manuscript tradition, and the date of its completion:

As to the translation of Aristotle's zoological works, I had completed the translation before the king, with whom I was staying, departed his life.⁴⁸ However, it has not been edited yet, for the war being about to break out in these parts forced me to go back to this place where I am now. I have left the manuscripts behind in Naples, and they lie there unbound, having been neither corrected nor copied. They must certainly not be sent to you in this state. It would be most difficult for me to take up this work now and to finish it, for neither my hand nor my eyes are fit enough, and I have for the present no copyist either. That is how it is. As soon as I can, I will try and carry out your wishes. But if I do not succeed, forgive me!⁴⁹

⁴⁶ The same position is taken by C. Bevegni, "Teodoro Gaza fra la cultura greca e la cultura latina," *Studi umanistici Piceni* 12 (1992) 47–55.

⁴⁷ See 495–496 below.

⁴⁸ King Alfonso V died in Naples on June 27, 1458. Pope Calixtus III refused to recognize his illegitimate son Ferdinand as successor, in favor of the claims of the house of Anjou, but the Pope died two months after the king's death. In the war that followed, the new Pope, Pius II, supported Ferdinand.

⁴⁹ "Τὰ δὲ περὶ ζῴων Ἀριστοτέλους μεθειρημένοντα μὲν μοι εἰς τὴν Λατίνων φωνὴν πρὶν ἢ βασιλεὺς ᾧ συνήμενον τὸν βίον μετήλλαξεν, οὐκ ἐκδέδοται δὲ πω. Ὁ γὰρ τῆδε ἐνστάς πόλεμος ἡμᾶς ἐβιάσατο δεῦρο, ἐν ἣ χώρᾳ νυνὶ ἔσμεν, καταλιπόντες ἐν Νέᾳ Πόλει τὰ βιβλία. Καὶ νῦν ἔτι ἀνεπανόρθωτα καὶ ἀναντίγραφα κείται ἐν τοῖς σχεδίοις, ὥστε καὶ πέμπειν σοι οὕτω ταῦτα ὡς ἔχει ἥκιστα δεῖ, ἐπαναλαμβάνοντα δ' ἐπιτελειῶν χαλεπὸν σφοδρὰ μοι συμβαίνει, μήτε χεῖρα μήτε ὀφθαλμοὺς ἔχοντι ἔτι ἀρκοῦντας διὰ τὴν νόσον. Ἔστι μὲν οὕτως. Οὐ μὴν ἀλλὰ ὡς ἂν οἶός τε ᾧ πειράσομαι ἐφικνεῖσθαι ὧν σὺ προστάτεις. Μὴ ἐφικνουμένῳ δὲ ἔχε συγγνώμην." L. Labowsky, "An Unknown Treatise by Theodorus Gaza," *MedRen* 6 (1968) 193 (translation) and 197;

Although Gaza clearly writes that he has completed the translation (μεθειρομήνευται), the remainder of the letter reads like a long and wordy excuse for not sending a version of the text to Bessarion: the text is unedited, inaccessible in Naples, unbound, neither corrected nor copied; he is too unhealthy to do the work presently and there is no copyist available. Gaza's odd overload of reasons for not giving his patron a glance at his work is worth more consideration, but whatever the explanation, the fact raises severe doubt that he would have allowed this draft translation to come into circulation at the time of, or soon after, this letter. Trebizond's continued complaining about Gaza's threat to redo all Aristotelian translations helps us to extend the period during which Gaza's translation was not likely to have been in circulation.

In a later "postface" to his translation of the *Problemata*, probably added in 1456 or 1457, Trebizond bitterly repeated his complaints about Gaza's continued efforts to find glory in the humiliation of his work and his own need to take continued steps to prevent it. Gaza had already started working on *De Animalibus* before Trebizond wrote his *In Perversionem*, but Trebizond reckoned that Gaza, rather than translating the text, copied from his (Trebizond's) own earlier works—as appeared from some books that had reached him.⁵⁰ One wonders what this last phrase means, considering that according to his 1458 letter Gaza had not yet circulated his version: is Trebizond referring to the few quires of the *Problemata* translation on which he could lay hands,⁵¹ or is he simply inventing arguments to

we take Labowsky's translation of οὐκ ἐκδέδοται as "not edited" to refer to a careful pre-circulation editing.

⁵⁰ "Sed hanc et alias nostras traductiones Theodorus quidem Cages, ut ex depressione nostrorum sicuti putat famam sibi compararet atque hoc pacto de nobis cresceret, pervertendo que nos vertimus conatus est prevenire. Idque ipsum in omnibus que transtulimus litteris suis ad Andream filium meum datis facturum se minatus iam diu est. Imo vero facere aggressus fuit. Iam enim vel antea quam scribere quicquam in defensionem meam et veritatis cepissem, libros de animalibus et quidem ab editis pridem libris nostris transcribebat prius quam vertebat, quod aperte libris suis (iam enim aliqui ad nos pervenerunt) ostenditur." Monfasani, *Collectanea Trapezuntiana* 132–133, doc. XIX.8.

⁵¹ Monfasani, in *Aristotle's Problemata* 284 n.46.

strengthen his claims? Almost a decade later he is still saying the same thing. In a letter dated 21st January 1465 he mentions in similar terms the threat of redoing all his translations and refers to Gaza's letter to his son Andreas, but his single point of concrete criticism is directed at Gaza's rendering of *usia* in the *Problemata*.⁵² There is no mention of a completed *De Animalibus*, although one can imagine that if Trebizond had known about Gaza's reshuffling of the books, he would have had something to say about it. There are good reasons, then, to think that he had not seen Gaza's translation even by this time.

As for Gaza's preface, he there explicitly states that the book is yet unknown and nowhere available,⁵³ and some elements in it indeed prove that he did not write it before the early 1470s. The text suggests that the Pope's election was fairly recent,⁵⁴ and Gaza acknowledges the help he got from the recent edition of Pliny's *Historia Naturalis* by Giovanni Andrea Bussi.⁵⁵ The availability of this edition, which was printed in Rome by Conrad Sweynheim and Arnold Pannartz in 1470 (Goff P-787), forms a definite *terminus post quem* for the completion of the preface.⁵⁶

So, Gaza did not write the *De Animalibus* preface for Pope Nicholas V. Why then do some 16th-century editions of the translation contain a preface identical to the one in the *editio*

⁵² "Litteris enim suis ad Andream filium datis omnia que interpretati sumus minatur se traducturum": Monfasani, *Collectanea Trapezuntiana* 107, doc. IX.11 and the criticism in 10. Compare the relevant passage in his *In Persionem Problematum Aristotelis*: "Nunc vero non problemata solum, sed libros etiam de animalibus multis iam annis interpretatos mihi ac editos minatur se latinos facturum, quasi non latini, sed barbari a nobis facti sint" (ed. Mohler 279.27–30). Although Trebizond probably wrote this pamphlet in 1456, he kept on changing it at least until 1465; still he apparently left this particular passage untouched (cf. Monfasani, *Collectanea Trapezuntiana* 412–414).

⁵³ "hunc codicem nondum cognitum aut ullam in sedem receptum" (*ed. pr.*, sig. [a 7^{ov}]).

⁵⁴ "nunc factus princeps" (*ed. pr.*, sig. a 3^{or}).

⁵⁵ "Caruerunt certe diu Latini homines magno fructu eorum librorum (*viz.* Pliny's), quamquam nunc doctrina insigni singularique industria Ioannis Andreae presulis Haleriensis facilis facta est et lectio eorum librorum et imitatio" (*ed. pr.*, sig. a 3^{ov}).

⁵⁶ See also Perfetti, *Aristotle's Zoology* 14–15 n.13.

princeps, except for the substitution of Nicholas V as dedicatee? In what follows we address this question, and the related questions of the precise date of completion of Gaza's translation, and of his preface, and the legitimacy of the stories, some lurid, that arose after his death regarding Gaza's response to Sixtus' reception of the translation Gaza dedicated to him.

b. *Latin and Greek manuscript tradition*

Apart from the "wonderously deluxe manuscript" *Vat.lat.* 2094, the dedication copy to Pope Sixtus IV, the manuscript tradition of Gaza's *De Animalibus* is very slender: manuscripts Paris, Bibliothèque Nationale, Lat. 6793 (in two volumes) and Seville, Biblioteca de la Universidad, 332.155 are the two other copies of the translation.⁵⁷ Both are posterior to the *editio princeps* (the Paris manuscript was written in 1489, Seville shortly before 1491)⁵⁸ and both have a dedication to Sixtus IV. The suspicion that the manuscripts could be copies of the *editio princeps* was confirmed for the Seville manuscript by comparing the chapter divisions of Book I, which proved to be identical to those in the *editio princeps*.⁵⁹ If ever there existed manuscripts of a prior version prepared for Nicholas V, they have left no traces in the Latin tradition.

There is also agreement between Gaza's version and some Greek manuscripts, both in the re-ordering of the text and in particular readings.⁶⁰ The manuscripts *Riccardianus* 13 (**O**^c; written around 1470),⁶¹ *Laurentianus* 87,1 (**T**^c; copied from the latter

⁵⁷ Monfasani, in *Natural Particulars* 240 n.48.

⁵⁸ *Catalogus codicum manuscriptorum bibliothecae regiae* III.4.1 (Paris 1744) 279. A. Derolez, *The Library of Raphael de Marcatellis, Abbot of St. Bavon's, Ghent 1437–1508* (Ghent 1979) 186–188; a photograph of the first page of the manuscript can be seen in the on-line catalogue of the exposition on the occasion of 500th anniversary of the Seville University: <http://www.quintocentenario.us.es/historia/1505-2005/CatalogoExpo/catalogo93.jsp>.

⁵⁹ This information was kindly provided by Eduardo Peñalver, librarian of the Seville University Library. Many Marcatellis manuscripts were copied from printed books, although it is not always easy to identify the precise edition that was used, see Derolez, *Library* 24–25.

⁶⁰ The Greek text tradition and all Greek manuscripts are described in Berger, *Die Textgeschichte*.

⁶¹ P. Moraux et al., *Aristoteles Graecus. Die griechischen Manuskripte des Aristoteles I* (Berlin/New York 1976) 353–354.

around 1500),⁶² *Utinensis*, Bibl. Archiep. 254 / VI,1 (**R**^c; around 1479), and *Ambrosianus* I 56 sup. (**L**^c; written by Andronicus Callistus)⁶³ each have at least some of Gaza's new orderings. All of these manuscripts are dated to the 15th century, and their dating strongly suggests that they got information from Gaza's work after 1470, except for **L**^c, dated by Harlfinger to the mid-fifteenth century.⁶⁴ **L**^c, writes Balme,

contains *PA* and *HA* I–X. The books are in the traditional order, but within 631–633 there are the same transpositions as in Gaza ...; there are no transpositions in X ... *L*^c *pr.* ... has numerous readings peculiar to itself, which appear to be neither mistakes nor contaminations but conjectures made *ad sensum*; ... It has others shared only with Gaza, ... or shared only with Gaza and *n*.⁶⁵

Berger supposes, as Balme had, that Callistus used Gaza's translation to make emendations in his Greek copy.⁶⁶ Though, given our argument, there would not have been a draft translation in circulation, Callistus' use of Gaza's thoughts about the

⁶² Moraux, *Aristoteles Graecus* I 288–289.

⁶³ D. Harlfinger, *Die Textgeschichte der pseudo-aristotelischen Schrift Περί ἀτόμων γράμμων* (Amsterdam 1971) 413.

⁶⁴ It does not seem possible, from the resources at our disposal, to date **L**^c with sufficient precision to establish, on that basis alone, its temporal relation to Gaza's translation. Callistus was in Italy well before 1450, and at least until 1475, when he stopped teaching in Florence. (He probably died in England, between 1476 and 1484.) Nigel Wilson suggested in personal correspondence (March–April 2007) that the manuscript watermarks might provide some evidence and, through the good offices of Prof. C. M. Mazzucchi in Milan, secured for us a report from Dr. Stefano Serventi of the Ambrosiana regarding the watermarks on the paper used for **L**^c. The chief watermark has been found also in a 1461 manuscript. Different watermarks have a different likely "life-span"; this particular one, unfortunately, could have been in use, we understand, anytime from at least the early 1450s to the early 1470s. It is difficult to infer anything from the other watermarks; just possibly one of them might suggest a date in the middle third of the 1460s. The watermark evidence is therefore compatible with **L**^c also having been written around 1470, though it perhaps leans towards a date in the 1460s. (Our argument for the priority of Gaza's translation to **L**^c is, of course, compatible even with a relatively early date for **L**^c.)

⁶⁵ Balme, *Aristotle Historia Animalium* I 30–31.

⁶⁶ Berger, *Die Textgeschichte* 155; Balme, *Aristotle Historia Animalium* I 46.

text would not have been impossible. Callistus was a cousin of his. They were sufficiently close, at least some years later, that Gaza could confide his difficulties and pains to him.⁶⁷ One could certainly imagine Callistus being given access to his cousin's otherwise unavailable draft translation, or learning in conversation with him of Gaza's ideas for changes in text ordering or the preferred reading in certain passages.⁶⁸ This being so, there is no good reason to think that the similarities between our manuscript **L**^c and Gaza's translation require that Gaza's translation was in general circulation in any form before the late 1460s.

c. *Provisional conclusions*

We can in fact go further: not only does there seem to be no good evidence that a version of Gaza's *De Animalibus* circulated before his final text was dedicated to Pope Sixtus IV; there are

⁶⁷ See 501 below.

⁶⁸ Since Callistus was an excellent and innovative Greek scholar himself, we suppose it is *possible* that Gaza took over from **L**^c, and thus from Callistus, the readings and textual rearrangement **L**^c shares with his translation; but we think this far less likely, given Gaza's seniority and the evidence discussed above of a several decades long editorial program on Gaza's part to combat the distortions in Aristotle's text and meaning that came down to him. For Callistus as a teacher and a copyist, see N. G. Wilson, *From Byzantium to Italy. Greek Studies in the Italian Renaissance* (London 1992) 116–118, and F. Donadi, "Esplorazioni alla tradizione manoscritta dell' Encomio di Elena gorgiano," *Bollettino dell' istituto di filologia greca* 3 (1976) 225–250. Callistus most probably was also the author of the Greek retroversion of William of Moerbeke's Latin translation of Simplicius' commentary on Aristotle's *De caelo*: see F. Bossier et al., *Simplicius. Commentaire sur le traité Du ciel d'Aristote. Traduction de Guillaume de Moerbeke I* (Corpus Latinum Com. in Aristotelem Graecorum VIII.1 [Leuven 2004]) XCI–XCIX.

It is striking that another Greek manuscript copied by Callistus, *Paris.gr.* 2069 (**P**) of Theophrastus' botanical works, contains many marginal notes by a second hand that correspond to the reading of Gaza's Latin renderings. Suzanne Amigues unconvincingly suggests that these Greek notes preserve fragments of the text tradition that was translated by Gaza: S. Amigues, *Théophraste. Recherches sur les plantes I* (Paris 1988) XLVI–XLIX. This ignores both the significance of Gaza's editorial program, which applied to the works of Theophrastus as much as to those of Aristotle, and his complaint in the preface regarding the poor quality of the one Greek manuscript he had at his disposal (472 above). Here, as with *HA*, understanding Gaza's editorial program is crucial to appreciating the extent of his textual innovativeness.

reasons to believe that after the work described (accurately or not) to Bessarion in the 1458 letter, Gaza may have at least temporarily abandoned the project, which was probably more demanding than he had first thought. Certainly his original ambition to rework seven Aristotelian translations was restricted to two, although he continued to translate other texts.

It is quite probable that the collaboration with Bussi for the preparation of the edition of Pliny the Elder's *Historia Naturalis* revived his interest in Aristotle's zoology. In any case, the influence of Pliny on the way Gaza rendered Aristotle's Greek is undeniable, as Perfetti has demonstrated.⁶⁹ Moreover, Gaza's contribution to Bussi's edition must have been substantial.⁷⁰ In the colophons of both preserved working copies of the Pliny text, dated 15th December 1469 and 8th April 1470, Bussi in his own hand expressly acknowledges Gaza's help, and stresses the difficulty of the work.⁷¹ A similar, but more rhetorical, formula is found in the edition itself that appeared before 30th August

⁶⁹ Perfetti, *Rinascimento* II 35 (1995) 278–280. See also Monfasani, in *Natural Particulars* 208.

⁷⁰ Gaza was also in another way involved with Pliny's text. His Greek translation snippet of Pliny is repeated in Demetrios Raoul Kavakes' notes, preserved in two manuscripts, about the role of the sun in the universe, viz. *Vat.gr.* 2185, see *Codices Vaticani Graeci. Codices 2162–2254* (Rome 1985) 94–101, and *Mutinensis* 144, see V. Puntoni, "Indice dei codici greci della Biblioteca Estense di Modena," *StIt* 4 (1896) 475–478. The text of the fragment is transcribed from the Modena manuscript by A. Keller, "Two Byzantine Scholars and Their Reception in Italy," *JWarb* 20 (1957) 363–370 (text at 368 n.46).

⁷¹ "Auxilio gratiae omnipotentis Dei et adiutore Theodoro Gaza Io. An. episcopus Aleriensis Plinium maximo labore recognovit XV die mensis decembris 1469 Romae. Lector ora Dominum pro eo," see P. Casciano, "Il ms. Angelicano 1097, fase preparatoria per l'edizione del Plinio di Sweynheim e Pannartz (Hain 13088)," in C. Bianca et al. (eds.), *Scrittura, biblioteche e stampa a Roma nel Quattrocento* (Vatican City 1980) 383–394 (quotation from fol. 482^r on p.384); and "Ad aeternitatis memoriam difficillima plynii absoluta recognitio est die VIII Aprilis 1470. Romae auxilio Theodori Gazæ phi. Graeci a Io. an. episcopo Alerien. [*two words cancelled*] dictus in secula. Amen," see A. Marucchi, "Note sul manoscritto di cui si è servito Giovanni Andrea Bussi per l'edizione di Plinio del 1470," *BIRT* 15 (1967/8) 175–182 (quotation from fol. 358 on p.180).

1470.⁷²

It is quite reasonable to suspect that Gaza last put his hand to his *De Animalibus* translation shortly after the completion of the Pliny edition, which apparently inspired him profoundly. And there is another work in Gaza's bibliography that may form a corroboration of this hypothesis. In 1470 Gaza completed a treatise in Greek, entitled *De Mensibus*.⁷³ Gaza wrote it in reply to Pletho's *Nomoi*,⁷⁴ a work destroyed—except for a few pages—by George Scholarius, who had it burned because of Pletho's alleged paganism.⁷⁵ Gaza mentions Pletho's name in the first page of the text, but his objections against Pletho are rather weak: Gaza claims that in other matters Pletho followed the Attic usage very closely, but that he is wanting as to the names of the months of his calendar, which he simply labels "first," "second," and so on.⁷⁶ It seems a bit awkward at any rate that

⁷² "Iuuit sane ac mirifice iuuit conatus meos (quod minime dissimulandum arbitror) vir summae eruditionis et sapientiae, Theodorus meus Gazae . . .," see G. A. Bussi, *Prefazioni alle edizioni di Sweeneyheim e Pannartz prototipografi romani*, ed. M. Miglio (Milan 1978) 44–46 (quotation on p.44). The history of the first Pliny editions is treated by M. Davies, "Making Sense of Pliny in the Quattrocento," *Renaissance Studies* 9 (1995) 240–257. About Perotti's criticism of Bussi's edition and his esteem for Gaza's contribution, see J. Monfasani, "The First Call for Press Censorship: Niccolò Perotti, Giovanni Andrea Bussi, Antonio Moreto, and the Editing of Pliny's *Natural History*," *Renaissance Quarterly* 41 (1988) 1–31. A gorgeous copy of Bussi's edition was auctioned by Sotheby's in London as lot 1647 at their October 25th 2005 sale L05409; see the catalogue *The Library of the Earls of Macclesfield* part 6 for an extensive description of the edition.

⁷³ *Editio princeps* together with Gaza's *Grammatica Graeca*, Venice, Aldus Manutius, 1495 (*GW* 10562); *PG* 19.1167–1218 with Latin translation by Joannes Perrellus (first edition Parisiis, apud S. Colinaeum, 1533).

⁷⁴ See also M. V. Anastos, "Pletho's Calendar and Liturgy," *DOP* 4 (1948) 183–269, esp. 188–190; Prof. Monfasani kindly drew our attention to this article. The remains of Pletho's text were edited by C. Alexandre, *Pléthon. Traité des Lois* (Paris 1858).

⁷⁵ The traditional date of 1456/7 for this event has been corrected to 1460 by J. Monfasani, "Pletho's Date of Death and the Burning of his Laws," *ByzZeit* 98 (2005) 459–463. This change, however, does not fundamentally interfere with our line of argument.

⁷⁶ *PG* 19.1168B, "Καὶ Πλήθων δ' ἐφ' ἡμῶν ἀνὴρ τῶν ἐπιφανῶν, χαλεπὸν ἡγούμενος εὐρεῖν τὸ ἀνάλογον τούτοις, εἶα ἐπιζητεῖν· κὰν τοῖς περὶ νομοθεσίας δὴ λόγοις, περὶ ἡμερῶν καὶ μηνῶν, καὶ ἐνιαυτοῦ ὑφηγοῦμενος, οὐκ

Gaza would aim an entire work at a treatise that had been almost totally lost for nearly fifteen years, and it is quite probable “that after the years which had elapsed between 1456 and 1470 he could not remember very much to supplement the extant text.”⁷⁷ Yet, a look at the list of sources he used partly explains why he needed all this time to complete his reply. There is a place for Pliny (Πλίνιος ῥωμαῖος), probably the result of Gaza’s recent involvement with the author, but a much higher rank is reserved for Aristotle. Many arguments of Gaza’s concerning the identification of the Attic months are drawn from Aristotle’s account of animals’ migrations and breeding times, which he would have encountered while translating *De Animalibus*.⁷⁸ It may well be that this translation and the *De Mensibus* had their first draft in the mid-1450s, and saw their completion after a period of intense work on Pliny in 1470 or 1471, the first year of the pontificate of Sixtus IV.

An addition to this hypothesis may tie together other loose ends as well, in particular regarding Gaza’s feud with George of Trebizond. When Trebizond published his translation of *De Animalibus* in the early 1450s and dedicated it to Nicholas V, his preface—as was usual among Renaissance translators—emphasized the tremendous effort that had gone into the work, and in this case especially regarding the correct rendition of the names of the Attic months.⁷⁹ He singled out the month

ὀνομάζει ὡς Ἀπτικοὶ ἤγον τοὺς μῆνας (καίτοι τᾶλλα τὰ περὶ τὴν φωνὴν ἔπεσθαι προθυμούμενος Ἀπτικοῖς, καὶ σφόδρα περὶ τοῦτο σπουδάζων), ἀλλ’ ὅπερ ἂν ὁ τυχὼν εἴποι, ἀπλῶς οὕτως ἐκ τοῦ συμβεβηκότος καλεῖ, τὸν μὲν πρῶτον, τὸν δὲ δεύτερον, καὶ τοὺς ἄλλους ὁμοίως, ὡς ἕκαστος ἔχει τάξεως πρὸς τὸν πρῶτον.”

⁷⁷ Anastos, *DOP* 4 (1948) 190.

⁷⁸ The link between the understanding of the Greek months and Aristotle’s biology is explicitly made by Pierre Haguelon (Petrus Haguelonus) in his preface “Ad lectorem” to the treatise *Calendarium trilingue, seu de Mensibus Hebraeorum, Graecorum et Romanorum dialogus* (first edition Parisiis, apud M. Juvenem, 1557): “Facilius intellegis ex Aristotelis mente, quo tempore Salpa, Sargus, Torpedo et Squatina pariant.” Quoted from the edition by J. Gronovius, *Thesaurus Graecarum antiquitatum* I–XII (Leiden 1697–1702) IX 1021–22, where it immediately follows the Latin translation of Gaza’s *De Mensibus* by Joannes Perrellus.

⁷⁹ “In temporum vero distinctione quantum invigilavimus atque sudavimus dici non potest. Nam cum Aristoteles actus animalium non nullos hoc

“Possideon,” which according to some must be understood as September or August, while he was convinced from Aristotle’s account in *HA* V that it must be November.⁸⁰ At the two other occurrences of the same name, Trebizond carefully used the Latin equivalent (*HA* 543b15, 570a32). Unfortunately, he does not apply the same consistency to the other months’ names. Out of 19 other cases, Trebizond surrenders 12 times, leaving an open space in *Laurentianus* 84,9, the Pope’s presentation copy he personally corrected. And even when he hazards a guess, the choice sometimes looks questionable. The month *Θαργηλιών*, which Aristotle cites three times with some interval, is rendered as *Maiio*, an open space, and *circa mensem Marcii* (*HA* 543b7, 575b15, 611b9). Considering this poor record and Trebizond’s confident stance regarding the matter in his preface, Gaza’s treatise about the misunderstanding of the Attic months may have also been directed at Trebizond’s effort. Admittedly the effect must have been limited, since it would only have reached the small circle of Greek scholars in Italy—it is noticeable that Gaza never challenged Trebizond in Latin⁸¹—but Trebizond must have felt it as just another dagger in his back.⁸²

aut illo fieri mense affirmet, ac nomina mensium que ponit iam olim ab usu Grecorum evanuerint, quippe qui, postea quam imperium Romanum in Thraciam translatum fuit, Romanis usi sunt mensibus, relinquebatur historiam de animalibus mancam fore si eisdem mensium nominibus usi essemus.” The preface is edited by Dittmeyer, “Untersuchungen” 16–18 (quotation at 17), and by Monfasani, *Collectanea Trapezuntiana* 298–300, doc. XCIII (quotation at 299).

⁸⁰ “Sed Aristoteles ipse me docuit omnes mendosas esse. Nam cum Possideona mensem alii Septembrem, alii Augustum dicant, ipse in tertio quinti libri capitulo eundem mensem ante brumale solstitium esse dicit. Ita Possideon November, non alius est”: Dittmeyer, “Untersuchungen” 17, and Monfasani, *Collectanea Trapezuntiana* 300. The reference is to *HA* 543a11.

⁸¹ J. Monfasani, “Theodore Gaza as a Philosopher: a Preliminary Survey,” in R. Maisano and A. Rollo (eds.), *Manuele Crisolora e il ritorno del greco in occidente* (Naples 2002) 269–281, at 274.

⁸² Angelo Poliziano noticed the relation between George’s preface and Gaza’s treatise and he blamed Gaza for borrowing the information from his enemy, in *Miscellaneorum Centuria prima* 90: “Sed et hoc ad se trahere Theodorus conatur, ut item quæ de mensibus græce prodidit, ex huius potissimum de qua loquimur interpretationis proœmio subleguntur.” Quoted from *Omnium Angeli Politiani operum* I, [Parrhisiis], In edibus Ascensianis et Ioannis

d. *A phantom dedication*

All four incunable editions of Gaza's *De Animalibus*, published from 1476 to 1498, contain a dedication to Pope Sixtus ("Xystus") IV. The first Aldine edition from 1504, containing Gaza's translation of the Aristotelian zoological works, the Theophrastean botanical works, and the two *Problemata* of Aristotle and Alexander of Aphrodisias, leaves out this dedication altogether.⁸³ However, it adds a dedicatory letter to Matthäus Lang, a councillor of Emperor Maximilian,⁸⁴ and a long quotation from the preface by Ermolao Barbaro to his translation of Themistius' paraphrase of Aristotle's *Posterior Analytics*, written in 1480 and dedicated to none other than Sixtus IV, in which he includes an elaborate appraisal of Gaza's translating abilities:

Not long ago, Your Holiness, we suffered a great and incomparable loss in the person of Theodore Gaza. That Greek man outdid all Latins in the task of writing and translating. If he had lived longer, he would have enriched the Latin language in this field as well. He did that indeed in those most perfect books of Aristotle's *On Animals* and Theophrastus' *On Plants*. In my view, he is the only one to challenge antiquity itself. I have set myself to honor and imitate this man. I admit and I confess that I was helped by his writings. I read him with no less curiosity than I read M. Tullius, Pliny, Columella, Varro, Seneca, Apuleius, and the others that one needs to examine in this kind of study.⁸⁵

Parui, 1512, fol. cXLV. The history of the study of the Attic calendar is treated by A. Grafton, "The Attic Calendar from Theodore Gaza to Joseph Scaliger," *StIt* 10 (1992) 879–891, and by P. Botley, "Renaissance Scholarship and the Athenian Calendar," *GRBS* 46 (2006) 395–431.

⁸³ The edition is described, with a photograph of the frontispiece, in L. Bigliuzzi et al., *Aldo Manuzio tipografo, 1494–1515* (Florence 1994) 127–128, no. 83.

⁸⁴ G. Orlandi, *Aldo Manuzio Editore. Dediche. Prefazioni. Note ai testi* (Milan s.d.) I 76–77 (text), II 251–252 (transl.).

⁸⁵ "Magnam incomparabilemque iacturam non pridem fecimus, pontifex maxime, in Theodoro Gaza; qui vir græcus latinus omnes in hoc munere scribendi interpretandique superavit. Is si diutius vixisset, linguam latinam hac quoque parte locupletasset. Quod et fecit in libris illis absolutissimis de animalibus Aristotelis et Theophrasti de stirpibus. Hic unus mihi certare cum vetustate ipsa visus est; hunc mihi quem colerem, quem imitarer proposui; ab huius scriptis adiutum me et fateor et prædico; hunc ego non

Obviously, Barbaro makes an explicit and even literal reference to Gaza's preface of *De Animalibus*, which is missing from this edition.⁸⁶ Apart from some minor changes, the 1513 Aldine is a copy of the 1504 edition, although at the beginning of the volume, a preface by Gaza to Pope Nicholas V is added.⁸⁷

On careful comparison the two dedicatory essays prove to be identical, with any changes in the later edition clearly due to the printer and not to Gaza. And as Gaza's own letter to Bessarion of 1458 showed, there never was a presentation to Nicholas V, nor any dedication thereto, since a dedication is addressed to a living person.

How then did the dedication to Nicholas originate? One possibility is this. We know that Aldus was working to realize his ambitious plan of founding an Academy at the Court of Emperor Maximilian. Dedicating the 1504 Gaza edition to Matthäus Lang would help this plan along, and one might imagine Aldus removing the original dedication to Sixtus to make room for it. By 1513, however, all Academic prospects had vanished and the original dedication was to be restored. The other works in the edition—the Theophrastean botanical works and the *Problemata* of Aristotle and of Alexander of Aphrodisias—were indeed made for, and dedicated to, Nicholas V and possibly the dedication to Nicholas was incorrectly taken over for *De Animalibus* as well.

The situation is a bit more complicated in the case of the Aristotelian *Problemata*, and the complication may have had a bearing on the choice of dedicatee for *De Animalibus*. Actually, there are two versions of Aristotle's *Problemata*, a first from 1454 and a second that may have originated from the criticism of the

magnopere incuriosus legi quam M. Tullium, Plinium, Columellam, Varronem, Senecam, Apulegium (*sic*) et ceteros quos in hoc genere commentandi diligenter evolvere necessarium est": *Themistii Euphradae* (n.38 above).

⁸⁶ Compare with Gaza's text: "Me plurimum elaborasse in his libris interpretandis fateor. Cum nihil a primis interpretibus illis iuari possem, sed omnia ex codicibus veterum autorum petere necesse haberem lectione longa notationeque varia: Plinium, Cornelium, Columellam, Varronem, Catonem, M. Tullium, Apuleium, Gel^lium, Senecam, complures alios lingue latine autores evolvere diligentius oportuit" (*ed. pr.*, sig. a 3^o).

⁸⁷ See Bigliuzzi, *Aldo Manuzio tipografo* 156–157, no. 112.

first by George of Trebizond.⁸⁸ Both were printed: the original version was printed around 1473 in Mantua by Johannes Vurster and Johannes Baumeister and only carries a dedication to Pope Nicholas V (*GW* 2452); the second had its *editio princeps* in 1475 in Rome by Johannes Reinhard (*GW* 2453), and all subsequent editions follow this version.⁸⁹ The 1475 edition, dedicated to Pope Sixtus IV, has a preface in which the editor, Nicholas Gupalatinus, testifies that Gaza originally had made the translation for Pope Nicholas V. But

recently, under the present Pope Sixtus IV, he emended the textual errors. I myself, who used to write at his dictation, am a witness to the amount of labor expended by this very learned old man, who spent a solid year without interruption in correcting the manifold scribal errors. All the Greek codices were certainly corrupt. But he applied that nicety of judgment which befits a great translator, aided on the one hand by his consummate skill in his own Greek tongue and in Latin elegance, and on the other by his profound knowledge of the Peripatetics. As a result, he did with the *Problemata* what he has done in all his translations: namely, out of many corruptions and distortions he made a reliable and superior text.⁹⁰

This may have contributed to the confusion in regard to *De Animalibus*. Perhaps Aldus' editor, or Aldus himself, knew of this situation and presumed that, as with the *Problemata* (and of course the Theophrastus *De Plantis*), the *De Animalibus*' first, and proper, dedicatee was Nicholas V. Indeed, whether or not the individual responsible for restoring the dedication and the preface to the *De Animalibus* knew of the problem with the *Problemata*, the most likely hypothesis in our view is that the dedicatee correctly identified for the other items in the volume was transferred, incorrectly, to the first item in the edition. The printed dedication of the *De Animalibus* to Nicholas V is then a complete mistake, one not reflecting any actual choice or in-

⁸⁸ Gaza seems to have reworked another translation of his as well, see G. Salanitro, "Il codice zurighese e la versione greca di Teodoro Gaza del *De Senectute* ciceroniano," *Helikon* 15–16 (1975–76) 319–350.

⁸⁹ Monfasani, in *Natural Particulars* 232 n.1.

⁹⁰ We repeat the passage, quoted 473 above with the original Latin and the source for the translation.

tention of Gaza's in regard to this translation. In regrettable support of this conclusion is the fact, reported to us by John Monfasani, in a letter expressing no surprise at this conclusion, that such "phantom dedications," as he called them, are unfortunately all too common in this period.

e. *Papal revenge?*

Apart from the printing history of the translation's preface, there was still another reason for Dittmeyer to believe in two different dedications of *De Animalibus*, although in the end he expressed his doubts about the genuineness of the following story. According to several sources, Sixtus IV was vexed when Gaza presented him the translation he allegedly had already dedicated to Nicholas V, and gave him so small a fee that it only covered the expenses for the parchment and the binding. Gaza angrily threw the coins into the Tiber and left Rome. The story is also reported by Legrand⁹¹ who cites the oldest witnesses for it, unfortunately not at length. Pierio Valeriano (Johannes Pierius Valerianus, 1477–1558) has the most dramatic version:

But it was quite different (*viz. in comparison with Fabius Calvus, treated in the preceding paragraph*) in the case of Theodore of Gaza, who destroyed a good part of his literary offspring with a malevolent harshness. This man, whose learning had no peer for many years in any of the Greeks (or in the Latins either, I dare say), had dedicated to Pope Sixtus IV his nearly divine labors on Aristotle's *HA*, which he had translated for reading in Latin, evidently hoping to win from the kindness of that prince the generous stipend he had earned through such great effort. But he brought back no more than fifty gold pieces (as if it were a great sum) from the man by whom he hoped to be covered completely with gold. Scorning his studies because he had been paid such a niggardly return for his long nights of toil, first he threw the coins into the Tiber, and then, inflamed by the injustice of the thing, he wasted away with inconsolable grief.⁹²

⁹¹ E. Legrand, *Bibliographie hellénique des XV^e et XVI^e siècles* I (Paris 1894) xxxviii.

⁹² "Quod in Theodoro Gaza longe diversum fuit, qui saturnina quadam iniquitate bonam suorum fetuum partem absumpsit. Tanta enim ille eruditionis vir, quanta multis abhinc annis nemo Graecorum, dicere ausim etiam et Latinorum fuit, cum divinas propemodum elucubrations in Ari-

Obviously, Valerianus had a point to make in accordance with the title of his work. His near contemporary Paolo Giovio (Paulus Jovius, 1483–1552) has a similar account of what happened, though with very different details:

When he finally offered to Pope Sixtus the splendid results of his studies carefully written on parchment, and received a sum that would not have been a fitting recompense even for the copyist, indignant at the Pope's uncultivated taste, he exclaimed, "I will flee from this place, now that the best grain is flat to the nostrils of gross asses!"⁹³

Giovio's account is far less detailed than Valeriano's: no mention of the work's title nor the exact amount of money paid, only the Pope's name stands. In fact, neither source mentions the reason for the Pope's stingy behavior: was he dissatisfied with the work itself, or was he vexed by the dedication of a translation started for one of his predecessors?

stotelis animalia, quam historiam Latine legendam repraesentarat, Xisto Quarto Pont. Max. nuncupasset, sperans scilicet principis eius beneficentia quaesitum per tot labores vitae subsidium non deparcum se consecuturum, neque tamen plures quam aureos quinquaginta quasi magnum ab eo, a quo se totum inauratum iri speraverat, retulisset, studiis indignatus suis, quod tamen parca sibi laborum et vigiliarum suarum merces tributa esset, nummos eos primum in Tyberim abiecit, mox ipse huius indignitate rei exulceratus insolabili contabuit aegritudine": J. Haig Gaisser, *Pierio Valeriano on the Ill Fortune of Learned Men. A Renaissance Humanist and His World* (Ann Arbor 1999) 212 and 213 (transl.). Also compared with *Joannis Pierii Valeriani Bellunensis De literatorum infelicitate Libri Duo*. Amstelodami, Apud Cornelium Joannis, 1647, 134–135 (copy from the Antwerp City Library, A 10879). The posthumous *editio princeps* was printed in 1620.

⁹³ "Novissime quum nobilissimas lucubrationes in membranis accurate perscriptas Xysto Pontifici detulisset, nec pecunia vel ipsius librarii premio digna redderetur, indignatus subagreste iudicium: 'effugere hinc lubet', inquit, 'postquam optimae segestes in olfactu praepinguibus asinis sorde-scunt'": Paolo Giovio, *Gli elogi degli uomini illustri (letterati–artisti–uomini d'arme)*, ed. R. Merzaggi (*Pauli Iovii Opera VIII* [Rome 1972]) 60. Also compared with *Elogia doctorum virorum ab avorum memoria publicatis ingenii monumentis illustrium. Authore Paulo Iovio Novocomense, Episcopo Nucerino*, Antverpiae, Apud Ioan. Bellerum sub insigni Falconis, 1557, p.58 (copy from the Antwerp City Library, A 259767). The *editio princeps* was printed in Venice, 1546. Transl. F. A. Graff, *An Italian Portrait Gallery* (Boston 1935) 56, as consulted at <http://www.elfinspell.com/PaoloStartStyle.html>.

Both authors were born after Gaza's death, so their testimony may be less reliable than the third mentioned, but not quoted, by Legrand. Raffaele Maffei (Raphael Volaterranus, 1455–1522) must have known Gaza: he even states that as a young boy he attended the lessons of his rival George of Trebizond. In his wonderful encyclopedic work *Commentariorum Urbanorum Libri*, he has a long passage about Gaza:

Theodore Gaza, from Thessalonica, was also (*viz. as was Trebizond, who was treated in the preceding paragraph*) famous in both languages, for in the studies of rhetoric and philosophy as well as medicine he could easily be considered the leading figure of his time; he was fully a match for Trebizond. He translated into Latin *On Plants* by Theophrastus and Aristotle's *Books on Animals* and *Problems*; and very elegantly into Greek Cicero's books *On Old Age* and *On Friendship*. So his fortune was not at all equal to his qualities. For as much as in the old days the city of Rome celebrated the talents and qualities of men, so it afterwards despised them, owing to the luxuriance and the idleness of its later rulers. I also remember that often many men excellent in culture and character came here with great expectations, but left after a short time forced by hunger. So Theodore himself was driven by poverty to leave the city; he went to Apulia where after a few years he died in old age without children, for he was a priest.⁹⁴

In this early biographical note there are no juicy details, no concrete references, not even an identification of the “later

⁹⁴ “Theodorus Gaza patria Thessalonicensis utroque eloquio et ipse clarissimus. Nam et in eloquentiæ philosophiæ ac medicinæ studiis huius facile seculi princeps habebatur, æmulus omnino Trapezuntii. Convertit in latinum sermonem Theophrastum de plantis et Aristotelis libros de animalibus et problematum, preterea libros Ciceronis de senectute et amicitia in græcam elegantissime linguam. Huius igitur virtuti nequaquam par fortuna fuit. Nam urbs Roma quantum antiquitus hominum extulit ingenia et virtutes, tanto postea ob posterorum qui in ea dominantur luxuriam atque desidiam contemnit. Viros quoque multos ego sepe memini, et litteris et moribus claros magna huc expectatione venisse, paulopost fame coactos discedere. Igitur Theodorus compulsus et ipse ob inopiam urbem deserere, in Apuliam se contulit, ubi paucis post annis iam senex excessit sine liberis cum esset Sacerdos”: *Commentariorum Urbanorum Raphaelis Volaterrani octo & triginta libri cum duplici eorundem indice secundum Tomos collecto. Item Oeconomicus Xenophontis, ab eodem latine donatus*, Parrhisiis, in Officina Ascensiana, 1526, fol. 222^v (copy from the Antwerp City Library, C 996). The *editio princeps* was printed in Rome, 1506.

rulers.” The story about the fifty coins, then, looks like a later invention, and there is no argument in the texts for the claim that the Pope’s anger was caused by Gaza’s presentation of a “recycled” translation. In fact, during the reign of Sixtus IV several translations that had circulated before were presented to him, either after a revision or in an unchanged form.⁹⁵

What were the reasons, then, for the biographers to stress Gaza’s disturbed relationship to Sixtus IV? In his correspondence from the last years of his life, there are hints that he originally had “great expectations”⁹⁶ for the newly elected Pope, who ultimately did not fulfill them. Gaza repeats this point in several of his letters. In a letter to Andronicus Callistus in Florence (9th August 1472) his irritation finds its first expression:

The situation in Rome turns out favorably for many others, but for me it does not get more favorable than before. You know how the situation is. It is clearly similar to those treated by the doctors, who neither restore health to the sick, nor allow them to die. Thus the hopes in Sixtus pass in vain without our noticing it. And those who seemed to be friends prove to be no friends at all, but they are playing a role. The court swells, so to speak, because it is full of luxuriousness and insolence, and it becomes clear to everyone in these matters, that without virtue it is not easy to bear successes harmoniously.⁹⁷

⁹⁵ L. Martinoli Santini, “Le traduzioni dal greco,” in M. Miglio et al. (eds.), *Un pontificato ed una città. Sisto IV (1471–1484)* (Rome 1986) 81–101, esp. 100–101 n.57.

⁹⁶ For his enthusiastic praise of Pope Sixtus in the dedicatory letter of an unpublished Plutarch translation see C. Beveggi, “Teodoro Gaza traduttore del *Maxime cum principibus philosopho esse disserendum* di Plutarco,” in S. Feraboli (ed.), *Mosaico. Studi in onore di Umberto Albini* (Genoa 1993) 33–42.

⁹⁷ “Τὰ δ’ ἐν Ῥώμῃ εὐτυχῶς μὲν ἄλλοις πολλοῖς ἀπαντᾷ, ἐμοὶ δὲ οὐδὲν εὐτυχέστερον τῶν προτέρων. Ταῦτα δὲ οἶά ἐστιν, οἶδας. Ὅμοια δηλαδὴ τοῖς διαιτωμένοις ὑπὸ τῶν ἰατρῶν, ἃ οὔτε ἰσχὺν ἐντίθησι τῷ νοσοῦντι οὔτ’ ἀποθνήσκειν ἔα. Ὡστε αἱ παρὰ Ἐύστου ἐλπίδες ἐλάνθανον διάγουσαι τὴν ἄλλως ἡμᾶς. Καὶ οἱ δόξαντες φίλοι ἐλέγχονται μὴ φίλοι ὑπάρξαντες, ἀλλ’ ἐκ σκηνῆς προσωπεῖα. Ὅργα δὲ, ὡς εἰπεῖν, ἡ αὐτὴ τρυφῆς οὔσα μεστὴ καὶ ὕβρεως φάνερὸν τε ἐκάστω γίνεται ἐν τούτοις, ὡς ἄνευ ἀρετῆς οὐ ῥάδιον φέρειν ἐμμελῶς τὰ εὐτυχήματα”: *Theodori Gazae Epistolae*, ed. P. A. M. Leone (Naples 1990) 72–73 (*ep.* 14). Also edited by Möhler, *Kardinal Bessarion III* 576–577.

The same theme recurs in an undated Latin letter to Christophorus Persona, in which he encourages him to make a translation of Origen's *Adversus Celsum*. Gaza adds that Nicholas V had someone buy the text in Constantinople on his advice and that it was left untouched because of another difficult translation that Gaza had in hand by that time. Moreover, the Pope had promised a large reward for its translator:

But you will say that now those rewards that according to your story Pope Nicholas had offered are not available, and that now there are no such princes that follow in his footsteps. "Why, then, should I undertake such a work? And why should you not involve yourself with it?" Since I have learned it by experience, I would dare confirm that now there are neither such princes as before, nor those rewards for toils and talents. But what prince would be so niggardly or ungrateful that, when you present this book that was translated for him as a gift, he would not bestow on you gifts worthy of a prince and great honors?⁹⁸

In two letters from the spring of 1474 he calls himself a beggar and homeless, who cannot expect anything from the rulers in Rome and is forced to leave.⁹⁹

It is clear that Gaza experienced unhappy times in Rome and was dissatisfied with the response he received from the powerful and in particular the Pope. It appears, though, that these frictions never culminated in an overt outrage, as the spurning of a

⁹⁸ "At dices non esse illa nunc exposita praemia quae Nicolaum pontificem narras proposuisse, nec tales nunc principes qui eius vestigia consecutentur. Cur ergo tantum laboris insumam? Nec ipse quidem inficias eo, quidni? Qui experimentia doctus id ausim confirmare, nec principes tales nunc esse quales antehac extitere, nec ea laborum virtutumque praemia. Sed quis adeo fuerit sive illiberalis sive ingrattissimus princeps, qui, ubi librum hunc illi traductum dono detuleris, non te muneribus principe dignis et magnis honoribus prosequatur?": *Theodori Gazae Epistolae*, ed. Leone 79–80 (*ep.* 20). The letter was also printed in the edition of Persona's translation, which was published in Rome in 1481 (Goff O-95), see Martinoli Santini, in *Un pontificato* 95 n.44.

⁹⁹ "Εγὼ δὲ τὸν βίον μετανάστης, εἰ μήτις, ὡς οἴσθα, πτωχὸς ὢν καὶ ἀνέστιος, καὶ μάλιστα νῦν, ὅτε μηδενὸς τυγχάνω παρὰ τῶν ἐν Ῥώμῃ ἀρχόντων, ἀναγκάζομαι ἀποχωρεῖν": *Theodori Gazae Epistolae*, ed. Leone 91–93 (*ep.* 23); also published by Mohler, *Kardinal Bessarion III* 582–583. "Ἀλλὰ δεῖ με ἀποχωρεῖν τῆς Ῥώμης καὶ τῶν ἐνθάδε ἀρχόντων": *Theodori Gazae Epistolae*, ed. Leone 93–96 (*ep.* 24).

papal reward surely would have been. Although it is claimed that “there is no way of judging the truth of this story,”¹⁰⁰ there is at least a strong hint that Gaza’s unhappiness with the Pope was not that public: Ermolao Barbaro’s elaborate praise of Gaza’s translating abilities, which later entered the 1504 Aldine and many other editions, would have been a particularly unwise move, if Gaza had effectively ended his Roman career after a conflict with the very Pope to whom Barbaro then dedicated his work.

More than two and a half centuries ago, Humphrey Hody used the same sources (without reference to the printing history of Gaza’s work and the origin of the “phantom dedication”) to reach very similar conclusions. He reckoned that the coins thrown into the Tiber smelled of the fabulous and concluded from Barbaro’s elaborate praise that the story was false.¹⁰¹ We are happy to join him in the conviction that a judgment can be reached on the basis of the available evidence.

IV. Conclusion

Immediately after its publication Gaza’s translation of *De Animalibus* achieved an authoritative status, totally eclipsing all previous translations. The 13th-century version by William of Moerbeke was occasionally copied until the 16th century, but even then Gaza’s influence was apparent in the changed order of the books and some *marginalia*.¹⁰² And although in 1582 Gian Vincenzo Pinelli wrote that he could make good use of his copy of Trebizond’s translation to better understand Aristotle’s text

¹⁰⁰ E. Lee, *Sixtus IV and Men of Letters* (Rome 1978) 174 n.88, who refers to the version of Sigismondo de’ Conti, *Le storie de’ suoi tempi dal 1475 al 1510* (Rome 1883) I 206. However, Sigismondo does not seem to mention the story, and there is only a footnote citing later evidence for the incident.

¹⁰¹ H. Hodus, *De Graecis illustribus linguae Graecae literarumque humaniorum instauratoribus* (London 1742) I 62–66 (there are two sets of pages with identical numberings; we refer to the second one): “Quod de tanta ejus indignatione, deque nummis ab eo in Tyberim abjectis fertur, mihi (fateor) fabulam redolere videtur,” and “Et falsum esse vel exinde colligi potest, quod Hermolaus Barbarus, praefatione in Paraphrasin Themistii ad eundem Sixtum scripta, tantis illum extollit praeconiis ...”

¹⁰² See Beullens and Bossier, *Aristotelis De historia animalium* xxv–xxvi n.54.

in view of Gaza's usual license,¹⁰³ scholars preferred to use Gaza's version and avoided the comparison with Trebizond.¹⁰⁴

When the first four volumes of the great five-volume Prussian Academy edition of Aristotle's works in Greek and Latin, with excerpts from the Greek commentators, were published in 1831, the translation used for *Part.An.* and *Gen.An.* was still Gaza's. For *HA* the editors chose the Scaliger translation as revised by Schneider. Gaza's translation of *HA* had last been issued in the Rome edition of 1668.¹⁰⁵ In the most recent critical edition of *HA*, by D. M. Balme, Gaza's conjectures were treated with respect, but not as an independent witness to the text; and the books were returned to their pre-Gaza manuscript order. Bekker had already restored the manuscript order of the text in Book VIII, and Balme followed him in that. With Bekker, Balme's edition retains the Podocatharus-Manilius chapter divisions, but it stresses their lack of ancient authority.

In its time, however, Gaza's text sometimes seems to have had a scholarly authority equal, in some respects, to the Greek

¹⁰³ P. de Nolhac, *La bibliothèque de Fulvio Orsini. Contributions à l'histoire des collections d'Italie et à l'étude de la Renaissance* (Paris 1887) 424–425.

¹⁰⁴ As could be expected from the student and admirer of Gaza's that Ermolao Barbaro was, he quotes Gaza in his *Corollarium* more than a hundred times, but never compares his text with Trebizond's version, although he could have used it to his favor in those cases where he blames Gaza's erroneous Greek model for the mistakes the translator had made. See G. Pozzi, "Appunti sul 'Corollarium' del Barbaro," in G. Bernardoni Trezzini et al. (eds.), *Tra latino e volgare per Carlo Dionisotti* (Padua 1974) 619–640. Still, other less biased writers never seem to make the move towards Trebizond's work either.

¹⁰⁵ *Aristotelis Opera, quae extant omnia, brevi paraphrasi, ac litterae perpetuo inherente explanatione illustrata a P. Sylvestro Mauro* I–VI, Romae, typis Angeli Bernabò, sumptibus Federici Franzini, 1668. Gaza's translation of *HA* is printed at the end of volume III, while both *Part.An.* and *Gen.An.* are found in IV, as was kindly verified for us by Matthieu Reijnders, librarian, in the copy of the Radboud University Nijmegen (shelfmark 647 c 1). This edition is missing from the list in Monfasani, in *Natural Particulars* 244 n.66. It was partially reprinted in four volumes by F. Ehrle (Paris, Lethielleux, 1885–86), but the zoological works are missing in it, as the main aim of the editors was to provide Aristotle's text in Latin to accompany the commentaries by Thomas Aquinas, who did not comment on the purely zoological works (copy Leuven, Library of Theology, call number F 193.33; information confirmed for us by Christina Kennedy, Looime Booksellers).

text itself, as one can infer from a copy of the Greek Aldine edition recently sold by Sotheby's in London, which has dense interlinear and marginal annotations from the 16th century. The author of the notes, writing in Latin, must have had a special linguistic interest, focusing as he does on the meaning of the Greek words. Among other things, he shows a thorough knowledge of the technical vocabulary of biology that Gaza had established.¹⁰⁶

As for the influence Gaza's vocabulary exercised on the choices made by the biologists of the Renaissance, this field of research remains virtually untouched.¹⁰⁷ Indeed, there is much about Gaza's influence, and his work, that is yet to be explored.

APPENDIX I

Aristotelis De Historia Animalium Liber Primus Theodoro Interprete

A. *Chapter divisions in the manuscript tradition*

	<i>Ed. pr. Ven. 1476</i>	<i>Vat. lat. 2094</i>
	<i>Ms. Seville, Bibl. Univ., 332.155</i>	
486a5	Animalium partes	Animalium partes
486b16		Pluris enim minorisque
487a11		Animalium vero differentias
487b29		Apparet apes omnibus
488a9		Civilis generis est homo apis
488a30		Genera enim quæcumque
488b29	Omnium autem partes	
489a10	Quæ modo animal gignere	
489a20	Humorem item genus	
489a34	Item alia animal gignunt	
490a26		Omnia quæ se movent
490b3		Omnia porro tam quadrupeda
490b7	Summa vero animalium	
491a14	Primum itaque partes	
491a19		Sed primum partes hominis

¹⁰⁶ Sotheby's London, Auction Date 3rd October 2002, sale L02311, lot 20.

¹⁰⁷ For a start, see P. Beullens, "Aristotle, his Translators, and the Formation of Ichthyologic Nomenclature," to be published in the proceedings of the congress "Science Translated. Latin and Vernacular Translations of Scientific Treatises in Medieval Europe," Leuven, May 26–29, 2004; and E. W. Gudger, "The Five Great Naturalists of the Sixteenth Century: Belon, Rondelet, Salviani, Gesner and Aldrovandi: a Chapter in the History of Ichthyology," *Isis* 22 (1934) 21–40.

491a27	Summe igitur partes	Summæ igitur partes
491b1		Calva ipsa sane tota
491b9	Faciem partem eam	
491b14	Supercilia sub fronte	
491b18		Oculi bis subiacent
491b34	Candidum oculi	
492a13	Auris pars capitis	Auris pars capitis
493a5	Collum quod inter pectus	
493a17	Venter infra pectus est	
493b2	Mulieris autem genitale	
493b12	Dorsum pone pectus est	
493b16		Habet sane homo suas partes
493b30		Inflexus vero tum brachii
494b21	At vero interiores	
494b31		Bipartitum omnium cerebrum
495a18		Gula intra collum
495b24		Ventriculus autem humanus
495b29		Omentum medio a ventre
495b31		Lactes super intestina
496a4	Cor sinum triplicem	Cor sinum triplicem
496b7		Cor unum ex reliquis
496b10		Sub pulmone
496b15	Iecur supra septum	Iecur supra sæptum
496b23		Rotundum iecur hominis
496b29		Iecur venæ maiori adnexum est
497a24	Genitale cervici	

B. Chapter divisions in the early printed editions

Book I			Latin editions					Greek editions	
			Ven. 1476	Ven. 1492	Ven. 1495	Ven. 1498	Ald. 1504	Basel 1539	Basel 1550
1	486a5	Animalium partes	X	X	X	X	X	X	X
2	488b29	Omnium autem partes	X	X	X	X	X	X	X
3	489a8	Τῶν δὲ λοιπῶν πολλοῖς	O	O	O	O	O	X	X
3a	489a10	Quæ modo animal gignere	X	X	X	X	X	O	O
4	489a20	Humorem item genus	X	X	X	X	X	X	X
5	489a34	Item alia animal gignunt	X	X	X	X	X	X	X

6	490b7	Summa vero animalium	X	X	X	X	X	X	X
6a	491a14	Primum itaque partes	X	O	O	O	O	O	O
7	491a27	Summe igitur partes	X	X	X	X	X	X	X
8	491b9	Faciem partem eam	X	X	X	X	X	X	X
9	491b14	Supercilia sub fronte	X	X	X	X	X	X	X
10	491b34	Candidum oculi	X	X	X	X	X	X	X
11	492a13	Auris pars capitis	X	X	X	X	X	X	X
12	493a5	Collum quod inter pectus	X	X	X	X	X	X	X
13	493a17	Venter infra pectus est	X	X	X	X	X	X	X
14	493b2	Mulieris autem genitale	X	X	X	X	X	X	X
15	493b12	Dorsum pone pectus est	X	X	X	X	X	X	X
16	494b19	Τὰ μὲν οὖν μόγια	O	O	O	O	O	X	X
16a	494b21	At vero interiores	X	X	X	X	X	O	O
17	496a4	Cor sinum triplicem	X	X	X	X	X	X	X
17a	496b15	Iecur supra septum	X	X	X	X	X	X	O
17b	497a24	Genitale cervici	X	X	X	X	X	X	O

C. *Chapter headings in the printed editions*

(Latin ed. Venice 1492 / Greek ed. Basel 1550)

1. In quibus animalia inter se differant quibusve convenient eorumdemque naturæ diversitas. / Ζώων διαίρεσις.
2. Quæ corporis partes animalibus communes quæ item propriæ sint. / Τίνα τῶν ζώων κοινὰ μόγια, τίνα δ' οὐ.
3. Πῶς διαφέρει τὰ ζῶα τῆ τοῦ σπέρματος ἀφίῃσει.
- 3a. Quomodo animalia alia ab aliis differant in emissione & admissione

- prolifici seminis.
4. Humorem quodque animal habere, aliter tamen vel huic vel illi inesse. /
Περὶ ζώων ὑγρότητος.
 5. Quæ animalia perfectum animal, quæ ova, quæ vermen gignant, quove
ritu quæque incedant. / Τίνα ζωοτόκα τῶν ζώων ἐστίν, ἢ ὠοτόκα, ἢ
σκοληροτόκα, καὶ πῶς βαδίζει.
 6. Quæ animalia habeant sanguinem quæve eodem careant. /
Γένη μέγιστα τῶν ζώων, εἰς ἃ διαφεύεται τὰλλα ζῶα.
 7. De summis in hominis corpore partibus, & quid caput, quid item thorax
sit. / Μέγιστα τῶν μερῶν ἀνθρωπίνου σώματος.
 8. Quid sit facies in homine. / Περὶ προσώπου.
 9. De superciliis, oculis, palpebris, ciliis, pupilla, nigro, candido, angulis, &
de hiis animalibus quæ oculis careant. / Περὶ ὀφθῶν, καὶ τῶν μερῶν
τῶν ὀφθαλμῶν.
 10. De oculorum varietate in quibusque animantibus. /
Ὄφθαλμῶν διαφοραί.
 11. De aure, naso, temporibus, maxillis, labris, gingivis, dentibus, lingua,
palato, columella eorumque in quibusque animantibus differentiis. /
Περὶ ὠτῶν, καὶ ῥινῶν, καὶ κροτάφων, καὶ σιαγόνων, καὶ χειλῶν, καὶ
στόματός τε, καὶ τῶν αὐτοῦ μερῶν.
 12. De collo & pectore eorumque partibus. /
Περὶ ἀχένος, καὶ θώρακος, καὶ τῶν τούτων μερῶν.
 13. De ventre inferioribusque ad genitale usque membrum. /
Περὶ γαστρῶν, καὶ αἰδοίου, καὶ τῶν μεταξὺ.
 14. De varietate seminalis membri viri & mulieris. /
Περὶ τοῦ τῆς γυναικὸς αἰδοίου.
 15. De dorso, cæterisque partibus posterioribus. /
Περὶ νώτου, καὶ βραχιόνων, καὶ σκελῶν, καὶ τῶν τούτων μερῶν.
 16. Τὰ περὶ τὸν ἐγκέφαλον, καὶ τὸν στόμαχον, καὶ τὴν ἀρτηρίαν, καὶ τὴν
κοιλίαν πῶς ἔχει.
 - 16a. Cum quibus animantibus hominis cerebrum, gula, arteria, & venter
convenient.
 17. De corde hominis cæterorumque animantium & eius sede. /
Περὶ καρδίας, καὶ πνεύμονος, καὶ ἥπατος, καὶ σπληνῶν, καὶ νεφρῶν, καὶ
κύστεως, καὶ αἰδοίων.
 - 17a. De iecinore, liene, felle, renibus, & vesica.
 - 17b. De genitali membro & testibus, quibusve corporis partibus mas cum
fœmina dissentiat.

APPENDIX 2

Complete or Partial Editions of Gaza's *De Animalibus* Translation
in the 15th and 16th Centuries

We list here the 15th- and 16th-century editions containing the full or partial text of Gaza's translation of *De Animalibus*. References are to *GW* and *CS*, and in some cases to the databases *Gallica* (<http://gallica.bnf.fr>) and *Dioscorides* (<http://www.ucm.es/BUCEM/foa/dioscorides.htm>). The copies cited were seen by at least one of the authors, unless stated otherwise. We identify

whether the preface, if present, is dedicated to Nicholas V (N5) or Sixtus (Xystus) IV (S4). “Barbaro” refers to the presence of the excerpt from Barbaro’s praise of Gaza that was first included in the 1504 Aldine edition. The presence of other introductory texts in several editions is not indicated here. For those editions that print the text of *GA* in a volume other than that containing the other zoological treatises, we refer to both volumes, at least when this information was available to us.

Sigla: *DA*, Gaza’s *De Animalibus*; *GA*, Gaza’s *De Animalibus* and *Problemata* and Theophrastus; *OO*, Aristotle’s Latin *Opera omnia* (and possibly Aristotelian zoological treatises by other translators and/or Theophrastus and/or commentaries); *OG*, Aristotle’s Greek and Latin *Opera omnia*; *ZO*, Gaza’s *De Animalibus* and Aristotelian zoological treatises by other translators; *ZT*, Gaza’s *De Animalibus* and Aristotelian zoological treatises by other translators and Theophrastus; *CO*, (partial) commentaries.

1. Venice, Ioannes de Colonia and Ioannes Manthen, 1476 (*GW* 2350) [*Cambridge, Wren Library, Trinity College, Grylls 2.139; New Haven, Beinecke Rare Book and Manuscript Library, Yale University, Z_i +4312; Gallica*] (*DA*) | S4
2. Venice, Ioannes and Gregorius de Gregoriis, 1492 (*GW* 2351) [*Ghent, University Library, R.309; New Haven, Beinecke Rare Book and Manuscript Library, Yale University, 2001 +136*] (*DA*) | S4
3. Venice, (Simon Bevilaqua), ca. 1495 (*GW* 2352) [*Philadelphia, College of Physicians Library, ZGG 2; Dioscorides*] (*DA*) | S4 – autopsy Laura Ann Guelle, Rare Book Librarian/Cataloguer
4. Venice, Bartholomaeus de Zanis, 1498 (*GW* 2353) [*New Haven, Beinecke Rare Book and Manuscript Library, Yale University, Z_i +5341; Gallica*] (*DA*) | S4
5. Venice, Aldus Manutius, 1504 (*CS* 107.720) [*New Haven, Beinecke Rare Book and Manuscript Library, Yale University, Gfa84 +Af504*] (*GA*) | no preface (Barbaro)
6. Lyons, Balthazard de Gabiano, ca. 1505 (*CS* 107.731) [*Austin, Harry Ransom Library, University of Texas, PA 3890 A6 1505; New Haven, Cushing/Whitney Medical Historical Library, Yale University, Classics*] (*GA*) | no preface
7. Venice, Aldus Manutius, 1513 (*CS* 107.809) [*Austin, Harry Ransom Library, University of Texas, PA 3890 A6 1513 HRC Aldine; Oxford, Bodleian Library, Auct. 1 R 4.10; Auct. 2 R 1.56*] (*GA*) | N5
8. Paris, Simon de Colines, 1524 (*CS* 107.891) [*Oxford, Magdalen College, D.18.01*] (*ZO*) | S4¹⁰⁸
9. Venice, Octavianus Scotus, 1525 (*CS* 107.893) [*copy owned by Allan Gotthelf*] (*GA*) | N5
10. Venice, Io. Antonius et Stephanus ac Fratres de Sabio, 1526 (*Gen.An.* only, with commentary by [ps.-]John Philoponus, tr. Nicolaus Petreius) (*CS* 107.898) [*Oxford, Bodleian Library, Auct. K 3.5 (2)*] (*CO*) | no preface¹⁰⁹

¹⁰⁸ See Ph. Renouard, *Bibliographie des éditions de Simon de Colines 1520–1546* (Paris 1894) 58–59; F. Schreiber, *Simon de Colines. An Annotated Catalogue of 230 Examples of His Press, 1520–1546* (Provo 1995) 17–19 and Plate 11.

¹⁰⁹ According to *CS*, p.XXI, this edition contains only the Greek text. However, it

11. Paris, Simon de Colines, 1533 (CS 107.938) [*copy owned by Allan Gotthelf; Antwerp, City Library, G 5445*] (ZO) | S4¹¹⁰
12. Basel, Andreas Cratander, 1534 (CS 107.939) [*Oxford, Bodleian Library, Antiq. d.GS.1534.1; Dioscorides*] (ZT) | N5
13. Basel, Oporinus (ed. Simon Grynaeus), 1538 (CS 107.968) [*Philadelphia, Annenberg Rare Book and Manuscript Library, University of Pennsylvania, fGrCAr466Efl 1538*] (OO) | S4 – autopsy Jason G. Rheins
14. Paris, Prigentius Calvarinus, 1542 (CS 108.046, but all three treatises each with its own title page, and a fourth volume, containing *De Incessu* and *De Motu*, tr. P. Alcyonio, with its title page, all bound as one) [*copy owned by Allan Gotthelf*] (DA) | no preface¹¹¹
15. Basel, Oporinus (ed. Hieronymus Gemusaeus), 1542, 3 vol. (CS 108.033) [*London, British Library, c.76.f.5*] (OO) | S4 – autopsy Linda Woodward
16. Basel, Oporinus (repr. ed. 1542), 1548, 3 vol. (CS 108.137) [*Philadelphia, Annenberg Rare Book and Manuscript Library, University of Pennsylvania, fGrCAr466Efl 1538*] (OO) | S4 – autopsy Jason G. Rheins
17. Venice, Hieronymus Scotus, 1545 (CS 108.110) [*Gallica*] (DA) | N5 (Barbaro)
18. Venice, Hieronymus Scotus, 1546 (with the commentary by Agostino Nifo) (not in CS) [*Gallica*] (CO) | no preface
19. Lyons, Io. Frellonius, 1549 (CS 108.160) (OO) | S4¹¹²
20. Basel, apud haeredes Andreae Cratandri, 1550 (CS 108.175) [*Oxford, McGowin Library, Pembroke College, 7.d.6*] (ZT) | N5 – autopsy Lucie Walker, Librarian
21. Venice, apud Iuntas (ed. Ioannes Baptista Bagolinus), (1550-)1552 (CS 108.193) [*Antwerp, City Library, D 2179*] (OO) | N5 (Barbaro)
22. Lyons, exc. Nicolaus Bacquenoius (G. Gazeius, G. Rouillius, Th. Paganus, haeredes Iacobi Iuntae), 1552 (CS 108.233 and 108.233A) [*Collection of Lawrence J. Schoenberg, ljs95a; Oxford, Bodleian Library, Douce A*]

seems that two similar folio editions were produced by the same press in the same year. The first, issued in February 1526, contained Aristotle's text with [ps.-]Philoponus' commentary in Greek ("per J. Antonium et fratres de Sabio"; 120 ff.), the second, published in October of the same year, combined Gaza's Latin text of Aristotle's treatise with the [ps.-]Philoponus translation by Nicolaus Petreius ("per Antonium et Stephanum ac fratres de Sabio"; 107 ff.). See *Catalogue général des livres imprimés de la bibliothèque nationale. Auteurs. IV Aristote–Aubrun* (Paris 1924) 23; same description in CXXXVI *Philippeau–Pierrat* (Paris 1936) 156.

¹¹⁰ See Renouard, *Bibliographie* 204; Schreiber, *Simon* 91.

¹¹¹ CS cites only *Part.An.* under number 108.046, with reference to the copy of the Bayerische Staatsbibliothek in Munich, but the "Catalogue collectif de France" (consulted at <http://ccfr.bnf.fr>) records another complete set in the library of the Musée National d'Histoire Naturelle in Paris, while there is a separate set of *Gen.An.* in Paris, Bibliothèque Nationale, fonds Arsenal (shelf mark 8-S-8419).

¹¹² See Baudrier V 214.

- 451; *Magdalen College, R.6.21; London, British Library, 982.a.1*] (*ζT*) | N5 – autopsy Lawrence J. Schoenberg (private copy) and Linda Woodward (London)¹¹³
23. Lyons, haeredes Iacobi Iuntae (typ. Theobaldi Pagani), 1560 (*CS* 108.400) [*London, British Library, 519.a.7; 519.a.6*] (*ζT*) | no preface – autopsy Linda Woodward¹¹⁴
24. Venice, Cominus de Tridino, 1560–1562, 11 vol. (*CS* 108.423) [*Oxford, Bodleian Library, Toynbee 688–698*] (*OO*) | no preface
25. Lyons, Io. Frellonius / Ant. Vincentius (typ. Symphorianus Barbierus, ed. Gemusaeus), 1561 (*CS* 108.429) (*OO*) | S4¹¹⁵
26. Lyons, haeredes Iacobi Iuntae (typ. Th. Paganus), [1561], vol. 4 of 7 + index (*CS* 108.430D) [*Leuven, Library of Theology, P193.33/Aris Libr*] (*OO*) | no preface
27. Venice, Giunta, 1562–1574, vol. 6 and 8 of 11 (*CS* 108.456, reprint Frankfurt am Main, 1962) (*OO*) | N5 (Barbaro)
28. Basel, Ioannes Hervagius, 1563 (*CS* 108.457) [*Antwerp, Library of the Plantin-Moretus Museum, B 727*] (*OO*) | S4
29. Lyons, Ant. Vincentius (*CS* 108.460) and Symphorianus Barbierus / Ioannes Frellonius, ed. Gemusaeus (*CS* 108.460A), 1563 [*Philadelphia, Annenberg Rare Book and Manuscript Library, University of Pennsylvania, fGrCAr466Efl 1563b*] (*OO*) | S4 – autopsy Jason G. Rheins
30. Venice, ad signum seminantis, 1572, vol. 4 of 7 (*CS* 108.579) [*Szeged, University Library, Old Book Collection, ANT 193*] (*OO*) | no preface – autopsy Emese Mogyoródi¹¹⁶

¹¹³ Apparently, the costs for this edition were split between four publishers. Accordingly, the edition was produced with four different title pages. The colophon of every variant names Nicolaus Bacquenoius as its printer. Baudrier VIII 6 and IX 194 cites only Gazeius and Rouillius as publishers. *CS* names four, but groups them in two different entries. Yet, of the two copies *CS* lists under 108.233A, only the copy of the Biblioteca Nacional in Madrid has the Iunta title page, see *Catalogo colectivo de obras impresas en los siglos XVI al XVIII existentes en las bibliotecas españolas*. Edicion provisional. Seccion I (Madrid 1972) n.2431; the copy of the British Library is attributed to Rouillius in the “Integrated Catalogue of the British Library” (consulted at <http://catalogue.bl.uk>). The confusion may be caused by the fact that some copies are bound in one, while others form two separate volumes. All copies are octavo; the copy of the Bibliothèque Municipale, Lille (call number 40324), is incorrectly described as 12° in the “Catalogue collectif de France” (consulted at <http://ccfr.bnf.fr>), as was kindly confirmed to us by Catherine De Boel, custodian.

¹¹⁴ The 1580 Iunta edition that *CS* lists under 108.646 surely must be identified as a mistaken copy of this edition. Both entries give the same size (octavo) and number of pages (842). Moreover, Theobaldus Paganus had been dead for ten years in 1580 (see Baudrier IV 206).

¹¹⁵ See Baudrier V 253–254.

¹¹⁶ The text of *De Generatione Animalium* in vol. 6 has no preface either, as checked by Beullens in the copy *Aosta, Archivio storico, Cinquecentini, M.D.150*.

31. Venice, Giunta, 1573–1575, 10 vol. (CS 108.599) [*Oxford, Bodleian Library, Savile S I–10*] (OO) | N5 (Barbaro)
32. Venice, Ioannes Baptista Somaschus, 1574 (*Part.An.* only, with the commentary by Daniel Furlanus) (not in CS) [*Oxford, Bodleian Library, P 18(2) Art.*] (CO) | no preface
33. Venice, ex officina Saliciana (ed. Gaspare Bindoni il vecchio), 1576, vol. 4 of 6 + index (CS 108.610) [*Empoli, Biblioteca comunale "Renato Fucini," 2-M-15-6844*] (OO) | no preface – autopsy Carlo Ghilli, Rare Books Librarian
34. Lyons, S. Michaelis (ed. A. I. Martinus), 1578–1579 (CS 108.629) [*Ghent, University Library, Cl.100*] (OO) | S4
35. Venice, (Francesco Portonari), 1578 (*Gen.An.* only, with commentary by [ps.-]John Philoponus, tr. Nicolaus Petreius) (not in CS) (CO) | no preface¹¹⁷
36. Lyons, Io. Iunta, 1579, vol. 4 of 6 + index (CS 108.636) [*London, British Library, 591. a. 10; Padua, Biblioteca del Seminario Vescovile, 500.ROSSA.SUP.E.3x.29/4*] (OO) | no preface – autopsy Linda Woodward and Riccardo Battocchio¹¹⁸
37. Lyons/Geneva, Iacobus Berjon, 1580, vol. 4 of 6 + index (CS 108.644) [*Oxford, Bodleian Library, Vet. D1.f.124–130*] (OO) | no preface
38. Lyons, Honoratus and Michaelis, 1581 (CS 108.652) [*Leuven, Aristoteles Latinus, s.n.*] (OO) | S4
39. Venice, apud Nicolaum Morettum (ed. Ioachim Bruniolus), 1584–1585, vol. 4 of 7 + index (CS 108.669) [*Padua, Biblioteca del Seminario Vescovile, 500.ROSSA.SUP.E.3x.8/4*] (OO) | no preface – autopsy Riccardo Battocchio

¹¹⁷ This edition is a reprint of the October 1526 edition of the same text (107 ff.). Only the title page was changed; even the colophon was reproduced from the earlier edition. We found a single copy of this edition in the Biblioteca Universitaria Alessandrina in Rome in “Edit 16. Censimento nazionale delle edizioni del XVI secolo” (see image at <http://edit16.iccu.sbn.it>).

¹¹⁸ The colophon of the fourth volume of this *Opera Omnia* edition has the text “Excudebat Stephanus Brignol, 1580”: see Baudrier VI 372 and X 289; and E. Soltész et al. (eds.), *Catalogus librorum sedecimo saeculo impressorum, qui in Bibliotheca nationali Hungariae Széchényiana asservantur* I (Budapest 1990) 125, A524. (This information was subsequently confirmed to us by Prof. Riccardo Battocchio, Director of the *Biblioteca del Seminario Vescovile di Padova*, which owns a copy of vol. 4.) The edition CS lists under 108.645 may be nothing more than a mistaken copy of the single vol. 4 of these *Opera Omnia*. Rostislav Krušínský, keeper of manuscripts and rare books at the Research library in Olomouc, kindly provided us with photographs of the first and the last pages of the only volume known to CS (shelfmark: 28.099). The volume is missing its title page and there is no dedication, but the translation is clearly attributed to Gaza. See Monfasani, in *Natural Particulars* 235 n.10 (“So my guess is that CS 108.645 is either a ghost or at most nothing more than a variant printing of CS 108.636”).

40. Lyons, Iacobus Bubonius and Guillelmus Laemarius (ed. Isaac Casaubon), 1590 (CS 108.708) [*Antwerp, Library of the Plantin-Moretus Museum, B709*] (OG) | S4
41. Frankfurt, apud Wecheli heredes, Claudium Marnium and Io. Aubrium, 1593, vol. 2 of 6 (CS 108.722) [*Mechlin, anonymous private copy*] (OO) | no preface
42. Geneva, Guillelmus Laemarius (ed. Iulius Pacius), 1597 (CS 108.755) [*Ghent, University Library, A.15105*] (OG) | no preface

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