

**On Theriac to Piso, Attributed to Galen**

A critical edition with translation and commentary  
Submitted by Robert Adam Leigh to the University of Exeter  
as a thesis for the degree of Doctor of Philosophy in Classics  
In July 2013.

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**ABSTRACT**

The treatise *On Theriac to Piso* has been attributed to Galen since ancient times; the attribution is however disputed. This thesis argues that although the content and style of the treatise is heavily influenced by Galen its author differs on a wide range of issues from the beliefs of Galen expressed in undoubtedly authentic works on matters of pharmacology, philosophical doctrine, the history of Pergamum and the interpretation of Hippocrates to the extent that it should no longer be attributed to him.

The thesis also attempts to establish the best possible text from the Greek, Latin and Arabic manuscript sources and to provide a clear English translation and a commentary on the text focussing in particular on matters relevant to the question of the authorship of the treatise.

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**TABLE OF CONTENTS**

Acknowledgements .....	4
BIBLIOGRAPHY .....	5
Conspectus siglorum .....	8
THE TEXT .....	9
The manuscripts .....	9
The Arabic text .....	12
The Latin translations .....	12
The Andromachus Poem .....	13
THE TREATISE .....	13
Date .....	14
Authenticity .....	19
a) Self-presentation .....	20
b) History .....	21
c) Africanus <i>Cesti</i> .....	22
d) Doctrine - Pharmacology .....	24
e) Doctrine - Hippocrates .....	31
f) Doctrine - Philosophy - Asclepiades .....	35
g) Doctrine - Philosophy - λόγος and πείρα .....	38
h) Style and Language .....	40
i) Stylistic Features .....	45
j) Word frequencies .....	46
Rare words .....	51
Conclusions on authenticity .....	53
TEXT AND TRANSLATION .....	54
COMMENTARY .....	152
APPENDICES .....	189

**ACKNOWLEDGEMENTS**

I would like to thank my supervisor John Wilkins, and colleagues in the Classics Department and Centre for Medical History at Exeter, and the Wellcome Trust for their sponsorship of this PhD. I would also like to thank Vivian Nutton for much excellent advice on all sorts of issues and for reading a late draft of the thesis; and Jim Hankinson for reading a draft. I am also grateful to Bink Hallum and Uwe Vagelpohl of the Warwick Epidemics project for advice on the Arabic translation of the commentary on the Epidemics, to Christophe Guignard for advice on the *Cesti* of Julius Africanus, to David Leith for making available his papers on Asclepiades of Bithynia and to Laurence Totelin for allowing me to give versions of parts of my introduction at the Approaches to Ancient Medicine conferences in 2010 and 2012. Finally I would like to thank my cousin Caroline Furze for her help and support throughout, including but not limited to constructive criticism and proof-reading. This thesis is dedicated to her and to my sons Adam and Jack.

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**CONSPECTVS SIGLORVM**

## I. Codices

L = Laurentianus 74.5 140-60 s. xii-xiii.

M = Marcianus 281 s. xv. (non vidi).

N = Parisinus suppl. grec. 35 s. xv-xvi.

O = Hauniensis ant fund reg 225 f 170. s. xvi [incomplete, ending at καὶ οὕτω λοιπὸν ἀκριβῶς = Kühn XIV 221.11, p. 64.12]

P = Parisinus 2195. s. xiii [excerpts only; see p. 10]

Q = Parisinus 2164 s. xvi

V = Vossianus VGF 58, Leiden. s. xiv [excerpts only; see p. 10]

W = VI Fc 37 Roudnice Lobkowicz Library, Czech Republic [excerpts only; see p. 10]

Y = Yale Medical Historical Library ms. 37 s.xvi

## II. Editiones

Ald. = Aldine Venice 1525

Crat. = Cratander Basle 1538

Chart. = Chartier Paris 1639

Kühn = Kühn Leipzig 1830

GDRK = Heitsch 1963 (Andromachi poema)

edd. = Ald. Crat. Kühn

Smith = Loeb Hippocrates, Vol. VII (Hipp. Epidemics).

## III. Editiones Latinae

Pinz. = Pinzi Venice 1490

Frob. = Froben Basle 1549

Giun. = Giunta Venice 1565

Iuv. = Iohannes Iuvenis (= Johann Neander) Antwerp 1574

Ch. = Chartier Paris 1639

## IV. Editio Arabica

Arab. Eine arabische version der pseudogalenischen Schrift de Theriaca ad Pisonem. Richter-Bernburg, Lutz. 1969.

## V. Annotationes

Clem. = Ald. with John Clement notes, Leiden.

Caius = Crat. with John Caius notes, Eton.



## THE TEXT

### The manuscripts

There are three manuscript traditions of the Greek text; only one of them (that descending from L = Laurentianus Plut. 74.5) gives the complete text.

#### 1. The L tradition

Laurentianus Plut. 74.5 (henceforth referred to as L) is a manuscript from the workshop of Johannikios in the hand of his Italian collaborator. The ms. is discussed by Nutton (Nutton 1999, 18 and n.1) and sources quoted there. N G Wilson (1983 168) dates the ms to c.1150 and places its origin in Constantinople.

From L are descended Marcianus gr. 281 (M), Parisinus suppl. gr. 35 (N), Yale Medical Historical Library ms. 37 s.xvi (Y) and Parisinus 2164 s. xvi (Q). M which I have not seen is an apograph of L and part of a set of eight volumes prepared for cardinal Bessarion between 1468 and 1472: (Nutton 1999, 18 and n.2 and sources quoted there), (Boudon-Millot 2007, CXCI). It is variously attributed to the scribe Giovanni Rhosos (Boudon-Millot 2007, CXCI) and to George Alexandrou (Nutton 1987 35 n.31). N is a paper ms. of the late fifteenth or early sixteenth century (Nutton 1999, 19). Y is Yale Medical Historical Library Ms. 37, Call Number: R126 G4 M58 L67 1519+ Oversize; <http://hdl.handle.net/10079/bibid/4453519>. Mss. of *Ther.Pis.* and *Ant.* dated c. 1500 are bound in the same volume as a printed text of Linacre's translation of *MM*, Linacre (1519); the ms. closely follows L. Q (Parisinus 2164) is a s. xvi. ms. from the workshop of Zanetti of Venice written by Nicolas Pachys and Constantin Mesobotes. (Boudon-Millot 2007, CCXIV). It consists of a complete text of a somewhat inaccurate copy or descendant of L plus corrections in the margin and above the line in more than one other hand. This is the printer's copy used for the Aldine edition of 1525 (Sicherl (1993), 15); N G Wilson (personal communication); all or virtually all of the corrections are incorporated into the Aldine text. Some of these are corrections of copying errors where the scribe of Q diverges from L; the rest appear to be conjectures and are often of high value. Q is not descended from N or Y since it has readings agreeing with L against N and Y: e.g. αὐτῶν p. 60.15.

There are occasional divergences between Q and the Aldine where the readings in the Aldine are clearly conscious emendations of the text rather than typographical errors: e.g. εαυτῶν p. 58.21 τοσοῦτῳ p.60.11 γένειτο p. 60.16 and n.

A further peculiarity of L is that its scribe apparently regards the main body of *Ther.Pis.* as ending at p. 142.18 where it has the heading: τέλος Γαληνοῦ προς Πισώνα τῆς θηριακῆς ἀντιδότου: - τοῦ αὐτοῦ περὶ ἀλῶν - in other words, treating the final section on theriac salts as a separate treatise, also by Galen. The heading is crossed out in the ms. and not reproduced in N and Y. In this L agrees with the Arabic text which ends at the same place; for further discussion see note ad loc.

Y appears to have been copied from, or to descend from a ms. copied from, L at a later time than the ms. from which N and Q descend since Y has a space left by the copyist corresponding to a blot in L at ὀπτήση p.120 l.1 where N and Q have ὀπτήση. Q does not depend directly or solely on N because Q has five words συγκείμενος ταχέως

τῶν προσπιπτόντων αἰσθήσεται; which N omits at p.108 l.20; they are however closely related enough to share an error at p.110 l.11 where Q has ἀτηνῆς prior to correction and N ἀτηνῆς, both errors for ἄτεν-.

## 2. The P V W tradition

Parisinus Gr. 2195 (P) is a ms on bombycianus paper dated by Diels to s. xiii. It contains short excerpts from the beginning of *Ther.Pis.* sandwiched between Aetius Amidenus I-VIII and IX-XIV. The Aetius Amidenus seems to be largely complete but with some discrepancies from the published editions – see the *Catalogue des manuscrits grecs de Tchecoslovaquie* (Olivier and Monegier du Sorbier 1983, 110–11). The excerpts from *Ther.Pis.* are brief and disjointed and consist of Kühn XIV 210.3-211.14, 215.5-216.8, 216.13-217.4, 219.9-16, 220.6-8, 11-14 [p. 54.5 - p. 54.18; p. 58.6 - p. 58.20; p. 58.23 - p. 60.6; p. 62.7 - p. 62.13; p. 62.21 - p. 62.23; p. 64.1 - p. 64.3]. From P are descended V Vossianus VGF 58, Leiden and W, = VI Fc 37 Roudnice Lobkowitz Library, Czech Republic (both of which have exactly the same excerpts as P) and also according to the catalogue entry for W (Olivier and Monegier du Sorbier 1983, above) Vindob. Med. gr. 6 f.152 r-v which I have not seen.

The rationale behind the excerpting of the text in the PVW tradition is puzzling. Note in particular the alteration to the sense caused by excerpting at p.62.21 ff. : **καὶ γὰρ ἔστιν [sc. ἡ θηριακῆ], ὡς οἶδας, ποικιλίαν ἔχουσα τοῖς μίγμασι καὶ πολυειδῆ τὴν χρήσιν ἐν τοῖς ἔργοις.** τεθαύμακα γοῦν ἐγὼ τὸν πρῶτον ποιησάμενον αὐτῆς τὴν σκευασίαν. καὶ μοι δοκεῖ μὴτ' ἀλόγως, ἀλλ' ἀκριβεῖ τιμι λογισμῶ, καὶ βεβασανισμένη πάνυ τῇ φροντίδι πεποιῆσθαι αὐτῆς τὴν σύνθεσιν. οὐ γὰρ ὥσπερ οἱ ἀπὸ τῆς ἐμπειρίας ἰατροὶ ἄνευ λόγου τοῦ κατὰ τὰς φύσεις ἕκαστον ἀτέχνως ἰατροῦντες αἰσχροῦς τὰ μὲν ἐξ ὄνειράτων, τὰ δὲ καὶ παρ' αὐτῆς τῆς τύχης λαβεῖν φασιν εἰς τὴν τέχνην τὰ φάρμακα, οὕτω καὶ ἡμεῖς περὶ τὴν ἰατρικὴν σπουδάζομεν, ἀλλ' ὅσα μὲν ὁ λόγος αὐτὸς πρῶτος καὶ μόνος ἐξευρίσκειν δύναται, ταῦτα ἀκριβῶς παντὶ τῷ λογισμῶ ζητοῦντες φιλοπόνως εὐρίσκομεν, ὅσα δὲ εὐρεῖν ἀδυνατεῖ, ταῦτα διὰ τῶν αἰσθήσεων τῇ πείρᾳ κρίνομεν, πολλάκις μὴδ' αὐτῇ μόνῃ καὶ μιᾷ τῇ αἰσθήσει πιστεύοντες αὐτῶν ποιεῖσθαι τὴν κρίσιν·

The text in bold is all that is retained by P V W; insofar as the text continues to make sense at all it reverses, by omitting οὐ γὰρ immediately before the second passage printed in bold, the sense of the original by apparently approving the invention of the drug by unskillful (ἀτέχνως) Empiricist practices.

P V W begin with the following heading:

Γαληνοῦ πρὸς Πισῶνα περὶ τῆς θηριακῆς : - Ὅτι ἡ θηριακῆ τῶν ἄλλων ἀπάντων φαρμάκων περισπούδαστός ἐστι διὰ τῆν δύναμιν τῆς ἐνεργείας. Ὅτι καὶ τοῖς ὑγιαίνουσιν εἰς τὰ πολλὰ χρήσιμος γίνετα λαμβανομένη ἡ θηριακῆ.

This suggests a familiarity with parts of the work outside the excerpts in P V W: *περισπούδαστός*, rare in Galen, echoes p. 74.6. The heading does not reflect the contents of the actual excerpts closely, since they do not compare theriac with other drugs but do focus largely on the testing of the drug.

## 3. O

Hauniensis ant fund reg 225 f 170. s. xvi [incomplete, ending at καὶ οὕτω λοιπὸν ἀκριβῶς = Kühn XIV 221.11, p. 64.12]: s xvi. Diels notes the ms. as “Expl. mutil. καὶ οὕτω λοιπὸν ἀκριβῶς” but the suggestion of mutilation is incorrect; the ms. simply breaks off in mid-sentence half way down a clean and undamaged page.

**Relationships between the Greek manuscripts**

In the Greek tradition therefore the complete treatise survives only in the L tradition. Of the descendants of L, Y and N and M seem to be mere apographs, more or less accurate but not offering new readings by way of conjecture or from other sources. The text of Q (that is the main body, excluding for the moment the marginal and interlineal amendments) equally seems to be an apograph of the L tradition and a rather poor one. Consider for instance the following passage p.136.11 ff.:

ἐφάνη δὲ ἡμῖν ἡ ἀντίδοτος αὕτη καὶ ἐν ταῖς λοιμικαῖς καταστάσεσι μόνη τοῖς ἀλισκομένοις βοηθεῖν δυναμένη, μηδενὸς ἄλλου βοηθήματος τῷ μεγέθει τοῦ κακοῦ ἀντιστῆναι οὕτως πεφυκότος. ὥσπερ γάρ τι θηρίον καὶ αὐτὸς ὁ λοιμὸς οὐκ ὀλίγους τινὰς, ἀλλὰ καὶ πόλεις ὅλας ἐπινεμόμενος διαφθεῖρει κακῶς

and the associated apparatus

λοιμικαῖς L λογικαῖς *ante corr.* Q 16 ὀλίγους τινὰς Q ὀλίγας τινὰς L, *ante corr.* Q 16 πόλεις L πόδας *ante corr.* Q 16 ἐπινεμόμενος L ἐπινεμμένης *ante corr.* Q

The mistakes in Q are striking – ἐπινεμμένης is vox nihili and πόδας for πόλεις is remarkable. In addition the text of Q has a large number of comparatively trivial alterations of word order, particle and so on which I have ignored on the basis that they are more likely the result of careless copying than evidence of a critical decision. Q’s emendations are a different matter entirely: they are in the majority of cases improvements on what he has in front of him. So in the lines set out above he corrects the copyist’s three errors and restores the text to conform to L and corrects L’s erroneous ὀλίγας. Where the text he has conforms to L in the first place and he emends it the emendation is usually an improvement. There is in my view no evidence that he has access either to a better text in the L tradition to correct mistakes or to another tradition altogether: all his emendations could in my view be arrived at by conjecture. The exception to this is in the recipe for theriac (p. 114.25 ff. and n.) where arbitrary changes are made to lists of ingredients with no obvious justification; in the extreme case the position of a specific ingredient is simply moved within the list with no consequent change to the actual formulation of the drug. In the absence of another explanation I take it in these cases that he has access to an alternative text of the recipe.

The value of the PVW tradition is severely limited by the fact that it covers only about five per cent of the text. It contains major errors such as τὴν θηριακὴν for τὰ θηρία p.58.10.

O is of limited value in that it covers only about ten per cent of the text. It contains one valuable reading, p.56.2 ἱερούργια for ἱερούργος (see note ad loc. and introduction

"Dating") and many gross errors: for example θεῶν τῶν ὑπὸ Ῥωμαίων for ὑπὲρ Ῥωμαίων (giving the nonsensical meaning that the festival is held by, not on behalf of, the gods); χορεύοντας (vox nihili) for χορεύοντας ( p.56.2).

### The Arabic text

The Arabic text of *Ther.Pis.* was edited by Richter-Bernburg as a PhD. thesis. He believes this translation to be the one mentioned in the Risala of Hunayn ibn Ishaq (809-873). According to the Risala the text was translated into Syriac by Ayyub ar-Ruhawi and into Arabic by Yahya bin al-Bitriq. (Richter-Bernburg 1969 16, 19). The translation differs from the Greek text in that the Andromachus poem is moved to the end as a kind of appendix and that the final two chapters of the Greek text dealing with theriac salts are entirely omitted so that the treatise ends at p.142.18. The Arabic text is highly valuable in that it undoubtedly sometimes solely transmits and sometimes confirms good readings. For sole transmission cf. p.114.12 and n. (confirming γιζί where the Greek sources all have ζιγγίβερ) p.90.21 and n. (supplying the link between being bitten by a διψάς, and bursting - the link being excessive water-drinking to assuage thirst). For confirmation of good readings cf. p.54.13 (authorship of book from which Piso is reading in the opening scene). In this latter instance it should be noted that Richter-Bernburg according to Nutton (1995 34) "merely took over the opinion [sc. that Galen is not the author of *Ther.Pis.*] of a friend, Friedrich Holtiegel, who was editing the Greek text for his Göttingen dissertation, a dissertation, as far as I am aware, never completed or published". Because of or perhaps in spite of this friendship, in at least one crucial passage Richter-Bernburg more or less tacitly emends his text to agree with what is in the Greek text printed by Kühn. (See p.54.13 ff. and n. and cf. p.118.21 ff. and n.) In the Arabic text Richter-Bernburg has رجل سمى أندروماخس with the following note in the apparatus: "211.7 Ἀνδρομάχου معنس: أندروماخس". (211.7 here means Kühn XIV 211.7). Richter-Bernburg's endnote to the German translation devotes a whole page to other appearances of Andromachus the elder in the Arabic literature but remarkably is altogether silent on the existence of the variant reading in the Arabic.

### The Latin translations

#### Niccolò da Reggio

The Works (*Omnia Opera*) of Galen edited by Diomedes Bonardus and published in two volumes by Pinzi in 1490 contains (vol.1 folio 107 verso - 110 recto) Latin translations of two works on theriac. The first of these called "de tyriaca ad Pamphilum" is a translation of *On theriac to Pamphilianus* agreeing closely with the Greek text as printed by Kühn (except that the last three sentences are omitted). The second (108 verso - 110 recto) is called "de comoditatibus tyriace"; it is in fact a translation of part of *Ther.Pis.* XIV 259.1 - 287.10 = p.114.18 - p.142.18 omitting 261.2-262.15 = p. 116.19 - p. 118.19 and abbreviating elsewhere. (Durling (1961) 472-3). the introductory note (Prohemium translatoris (107 verso)) reads as follows:

"Prooemium translatoris

Viro circumspetto et physicali ac medicinali scientia redunito magistro Mar. de mantua Nicolaus de regio di Calabria medicus semp. bonum agerum et se ad grata paratum. Quia petistis a me ut libellum Gal.' de tiriaca quo hucusquam caret lingua latina

vobis transferrem de greco idiomate. Tum ut mentem ipsius Galie. de ipsa tiriaca et eius dationibus et comoditatibus haberetis tum etiam ut per nos aliquis liber. Galieni de magis utilibus nondum hucusquam habitis adiceretur lingue latine. Ego vobis in hoc complacere volens tanquam amico intimo et tanquam viro habenti affectum et animum erga bona. Quia Galienus ipse duos libellos fecit de tiriaca unum videlicet ad Pamphilum principem asie et libie. Et alium ad Cesarem virum edoctum et suum amicum. Ipsos ambos libellos nostro nomine transtuli et vobis mitto ad praesens ut nihil vobis de mente ipsius Galeni de hac materia desit. Donum igitur amici grato animo ut pote vir providus et edoctus accipiendo. Non parvitatem sed utilitatem provenientem exinde prout decet consideretis."

This note ascribes these two translations to Niccolò of Reggio and states that "Galienus ipse duos libellos fecit de tiriace unum videlicet ad pamphilum principem asie et libie et alium ad cesarem virum edoctum et suum amicum". The attribution of the rank of "princeps Asiae et Libyae" to Pamphil[ian]us is perhaps derived from the status implied for him in the text itself. (XIV 296.4-15). (The Latin text here departs slightly from the Greek). The second piece beginning on folio 108 v is headed "Incipit liber galieni ad cesarem de comoditatibus tyriace" and has the explicit "Explicit libellus de comoditatibus tyriace: Galieni translatus a magistro nicolao de regio de calabria et capitulatus etiam ab ipso" (f 110 v.). The statement that *Ther.Pis.* is dedicated to a "virum edoctum et suum [sc. Galen's] amicum" agrees with the first chapter of *Ther.Pis.* but cannot be deduced from the excerpts actually translated, suggesting a knowledge (whether first-hand or not) of the contents of the whole treatise and not just of the passage translated.

The text preserves good readings e.g. μαστίχης (masticis) p.118.21 (agreeing with the Arabic against the impossible ἄσιας of the Greek sources), freneticis at p.128.1 agreeing with the Arabic and confirming Chartier's correction from νεφριτικῶν in the Greek.

#### **Other Latin versions**

Rota (1565) makes it clear that in translating the treatise into Latin he is working from a combination of a printed text and what he calls the vetustissimus codex (which I take to be L) - see p. 54.13 and note. None of his successors shows any sign of access to any ms. or other source unknown to us. I have occasionally referred to these translations as possible sources of useful interpretations of the Greek. Coturri (1959) is a translation into Italian of Rota's text (Coturri (1959) 15).

#### **The Andromachus poem**

The poem appears both in *Ther.pis.* and in *On Antidotes*. Not having collated the mss. of *On Antidotes* in which the poem appears I have printed the text of Heitsch (1963).

#### **THE TREATISE**

The treatise consists of a monograph on the antidote known as γαλήνη or θηριακή also referred to elsewhere by Galen as τὸ διὰ τῶν ἐχιδνῶν φάρμακον (e.g. *MM* V: X 372.17-18). Like *On Antidotes* it is structured round the 170-line poem in elegiac couplets by

Andromachus the Elder to Nero praising, and giving the recipe for, theriac.

### Date

The treatise contains evidence as to the date of its composition. If it is not by Galen and is a deliberate imposture (as to which see below under "authenticity") this evidence may be intentionally misleading.

Nutton (1995) 33 states that "As Anton von Premerstein proved almost a century ago, the account of the accident to the son of Piso during a performance of the ceremonial *Lusus Troiae*, XIV 212 K, can refer only to the Secular Games of 204"; the reference is to von Premerstein (1898). In fact von Premerstein does not explicitly mention the Secular Games. He refers with approval to Friedländer in Marquardt (1881) iii. 505 as establishing that the reference is to the *Lusus Troiae*. Friedlander himself in the passage referred to states in a footnote in his chapter on "Die circensischen Spiele" that the reference is to the *Lusus Troiae*: "Goebel p 3 hat sämmtliche Stellen verzeichnet, in denen der ludus Troiae überhaupt erwähnt, ausser der folgenden, die wol nur hierauf bezogen werden kann". Nothing should necessarily be read into the chapter heading about Friedlander's opinion on the context in which the incident in *Ther.Pis.* occurred. This is simply a good place to rectify the omission in Goebel's catalogue. Friedlander does however state in a slightly earlier passage, and as a speculation only, that the (annual) *ludi Romani* may have included a performance of the *Lusus Troiae* (Friedländer in Marquardt (1881) iii. 478). I shall come back to the reasons for thinking that there must have been at least one annual recurring performance of the *Lusus Troiae* in around 200. The *ludi Romani* with Piso senior (that is the dedicatee of the treatise rather than his son) as *curule aedile* would be an attractive explanation of the expression *θηρσκειαν, τὴν ὑπὲρ Ῥωμαίων θεῶν ἀναγκαιῶς ἀγομένην τότε* (p. 56.2) if we accept Rota's conjecture of ἤς for ἦν (which I do not - see note *ad loc.*)

The fact that the passage refers to the *Lusus Troiae* was incidentally noted long before 1881: the comparatively little known Latin translation by Iohannes Iuvenis (= Johann Neander) published in Antwerp in 1574 states in the notes to chapter 1 that the accident to Piso's son happened "cum in Ludis Circensibus, ex modo Troiam luderet": Iuvenis (1574) 7.

In any event von Premerstein does not on my reading of him take the further step required by the argument of showing or indeed claiming that this performance of the *Lusus* must have taken place at the Secular Games. On the contrary he concludes that the performance of the *Lusus* referred to by Galen is an annual event taking place at the *lustrum* of 19 March: "Als mit dem Aussterben des julisch-claudischen Hauses die Troia als Schaustück bei den Circusspielen in Abnahe kam, blieb sie und damit auch die sacrale Function der tribuni celerum, wie das angeblich galenische Zeugniß aus dem Ende des 2. Jahrhunderts und die tres equitum turmae des Ausonius (um 368) zeigen, bis in das 4. Jahrhundert hinein als rituelles Bestandtheil der jährlich am 19. März wiederkehrenden Lustration erhalten, wahrscheinlich ebensolange wie das Priesterthum der Salier, welches noch in einer stadtrömischen Inschrift vom Jahre 382 (C. VI, 2158) vorkommt.": von Premerstein (1898) 266.

So von Premerstein does not in my view advance an argument to the effect that the

reference in *Ther.Pis.* is a reference to the Secular Games. Does Nutton's theory that there is a reference to those games have any merit in the absence of von Premerstein's supposed support for it? This question depends on two further questions: is the activity described by Galen the *Lusus Troiae*; if so (or indeed if it is something else) can it be said that on the balance of probabilities a reference to the *Lusus Troiae* in or around the year 200 is likely to be a reference to the performance of the *Lusus* at the Secular Games?

Before proceeding further we should consider the state of the text. von Premerstein and subsequent discussions of the passage have relied on the Kühn text (which coincides with the Aldine). von Premerstein makes or reports two conjectures, both of which I accept: he prints angle brackets in the fourth line thus: <ὥσπερ> τοῖς ἴπποις and he reports Friedlander as proposing ἱερουργία for ἱερουργός, a reading also found in O. This latter reading is of profound importance to the discussion of von Premerstein and subsequent scholars, in particular Ross Taylor (1924) and Fuchs (1990) who focus on the question, What kind of priesthood did the young Piso hold? e.g. Ross Taylor (1924) 164: "The very probable suggestion has been made by von Premerstein that the semi-priestly office mentioned, δημοτελής μυστηρίων ἱερουργός is identical with the *tribunus celerum*." If Friedlander and O are correct that question no longer arises. Even if the conjecture ἱερουργία for ἱερουργός is wrong there is no reason to suppose that ἱερουργός is right - L (followed by N and Y) has ἱερουργῶς, ἱερουργός appears in the main body of Q and is therefore almost certainly a mere scribal error. ἱερουργῶς, a hapax if correct, is difficult to make sense of and would appear to require that we treat δημοτελής as a noun referring to Piso's son. The meaning of δημοτελής is "at the public expense": it usually qualifies ἑορτή, ἱερά or πανάγυρις (see note *ad loc.* and LSJ *s.v.* and there is no evidence for its use as a noun in any sense, or as an adjective qualifying a noun denoting a human being.

The emendation ἱερουργία for ἱερουργός removes the difficulty which is the focus of Ross Taylor (1924) and Fuchs (1990) – the difficulty of finding a priestly role for the young Piso whose age is such that he is ἀπαλοῦ ... πάνυ and is not yet an ἀνὴρ although he acts as if he were (καὶ ὁ μὲν παῖς, ὥσπερ τις ἀνὴρ ἤδη, τλημόνως ἀπάντων ἀνεχόμενος p. 56.7). To von Premerstein (1898) 261 the priesthood is that of *Tribunus celerum* and an attempt by Otto Gilbert to identify the *tribuni celerum* with the *seviri* of the six *turmae* of Roman cavalry is rejected (1898) 262 on the grounds that these have nothing to do with "der nur von vornehmen Knaben gerittenen Troia". Ross Taylor (1924) adopts a number of von Premerstein's assumptions, in particular the assumption that the reference in *Ther.Pis.* is to an annually recurring festival. The basis of this assumption is not expressed. Both Ross Taylor and von Premerstein refer to Andromache's lament for Astyanax at Seneca *Troades* 777-9:

nec stato lustrī die  
sollemne referens Troici Lusum sacrum  
puer citatas nobilis turmas ages

and both infer that this reference must be to an annual event and that that event is the *armilustrium* of 19 March. Ross Taylor explicitly states these assumptions as follows (1924) 164: "The *lustrum* referred to as a time at which the Troia was regularly exhibited

must be the spring or autumn armilustrum (March 19th or October 19th), and, as we have seen from the Fasti Praenestini, equestrian exercises probably identical with the Lusua Troiae were performed on March 19th.” The evidence of Seneca must of course be treated with caution given the nature of his relationship with Nero. For instance this passage which seems on the face of it to be evidence for the Lusua being an annual rite of passage could in theory be propaganda in support of an hypothetical attempt by Nero to make it a rite of passage, given Nero’s passion for the Lusua (Suet. *Nero* 7) and Augustus’ possible attempt to do the same thing (Suet. *Aug.* 43). But this is speculation without evidence to support it; the more natural conclusion to draw from the passage is that there was indeed an annual performance of the Troia. The attempt by Fuchs (1990) 59 to make lustrum here refer to the 100 or 110 period of the Secular Games is impossibly contrived: Andromache is lamenting that Astyanax will not grow up doing the things his father and grandfather did. Fuchs’ argument implies generation gaps of precisely 100 or 110 years between Priam, Hector and Astyanax.

There is however no direct evidence that Galen must be referring to an annually recurring event when he describes the performance of the Troia. We have good evidence for the Troia being performed at one off celebrations such as Caesar’s triumph of 45 BC, Augustus’ dedication of the theatre of Marcellus (Dio 54.26.1) and temple of Mars (Dio 55.10.6). The description of the game in *Aeneid* 5.545-603 is set in the context of the funeral games of Anchises. Herodian’s description of the funeral and apotheosis of Septimius Severus in 211 describes mounted manoeuvres which sound strikingly similar to what is described by Galen save that there is no suggestion that the participants are youths:

ἱππασία περὶ τὸ κατασκευάσμα ἐκεῖνο γίνεται, πᾶν τε τὸ ἱππικὸν τάγμα περιθεῖ κύκλω μετὰ τινος εὐταξίας καὶ ἀνακυκλώσεως πυρριχίῳ δρόμῳ καὶ ῥυθμῷ (4.2.9).

and so does Dio’s description of the funeral arranged by Septimius for Pertinax:

οἱ δὲ ἄρχοντες καὶ ἡ ἱππὰς τὸ τέλος προσφόρως σφίσιν ἐσκευασμένοι, οἳ τε ἱππεῖς οἱ στρατιῶται καὶ οἱ πεζοὶ περὶ τὴν πυρὰν πολιτικὰς τε ἅμα καὶ ποιητικὰς διεξόδους διελίττοντες διεξῆλθον (Dio 74.5.5)

Both passages should be read in light of Dio 59.11 where we are told that the Troia was played around the tomb of Caligula’s sister Drusilla:

τῇ δὲ Δρουσίλλῃ συνώκει μὲν Μᾶρκος Λέπιδος, παιδικὰ τε ἅμα αὐτοῦ καὶ ἐραστῆς ὄν, συνῆν δὲ καὶ ὁ Γάιος καὶ αὐτὴν ἀποθανοῦσαν τότε ἐπήνεσε μὲν ὁ ἀνὴρ, δημοσίας δὲ ταφῆς ὁ ἀδελφὸς ἤξιωσε καὶ οἳ τε δορυφόροι μετὰ τοῦ ἄρχοντός σφον καὶ χωρὶς οἱ ἱππῆς τὸ τέλος ..., οἳ τε εὐγενεῖς παῖδες τὴν Τροίαν περὶ τὸν τάφον αὐτῆς περιίππευσαν.

We have secure epigraphic evidence of the performance of the Troia at the Secular Games of 204: ut in Palat[i]o carm[e]n conte[x]is manibu[s] pue]ri puellaeque dix[erunt] ch]orosque hab(u)erunt quos perfe[cto] sacrificio Augg(usti) hon[oraverunt] / [3]n VIII lances arge[n]teas 3] reliquis [c]um Troiam lusissent item puell[i]s 3 v]ela s[e]rica et pra[emium] sollemnem acc[e]ptis dati]sque omnibus se receper[unt] i]nde Severus et Antoni[nus Augg(usti) 3] / [3 cum] pr(aefecto) p[r(aetorio) e]t o[3] process]erunt[t] ad ludos saeculares consummando[s] in thea[trum 3] (CIL 06 32326).



The assumption on the part of von Premerstein and Ross Taylor that Galen is referring to an annual occurrence is therefore open to question. It is in fact probably justified on purely statistical grounds if we assume that there is at least one annually recurring festival at which the Troia is performed since the special occasions of the kind we can identify at which the Troia is performed – triumphs, temple dedications and the Secular Games - are inherently quite rare. von Premerstein is confident of having identified one such annual festival, the Quinquatrus on 19 March, and confident also that this is performed annually until the 4th century (Fuchs 1990) 59). Note that the Galenic reference is one of three pieces of evidence on which von Premerstein relies for the survival of the festival so the argument is for our purposes partly (but only partly) circular.

There is probably another annual festival at which the Troia was performed, namely the Ludi Romani. Ullman (1914) 14 states on the authority of Mommsen that “It has been seen’ that the mounted boys at the head of the procession [sc. at the beginning of the Ludi Romani] were those who took part in the Ludus Troiae in the Circus.” The note of Mommsen which he cites however (Mommsen 1908, 294 and note) speaks of “The horsemanship-competition of patrician youths which belonged to the Circensian games, the so-called Troia” but without giving authority for this proposition. Similarly Rasch (1882, 11) states that “Troiam, cum esset pars ludorum circensium, plerumque in circo luserunt, cui nomen est Maximo (Suet. *Caes.* 39, *Claud.* 21) but without authority for the general proposition. He recognises the paucity of our evidence in this passage (Rasch 1882, 12):

"Quibus diebus festis quibusque sollemnibus extra ordinem celebratis praeterea Troia exhibita sit traditum non est. Aliquamdiu autem vix ullum fuisse sollemne paullo maioris momenti, quin inter alios ludos Troia ederetur, colligi potest ex iis, quae Suetonius dicit de Augusto: ‘Sed et Troiae lusum edidit frequentissime’ et de Nerone: ‘Tener adhuc necdum matura pueritia circensibus ludis Troiam constantissime favorabiliterque lusit’."

However the paucity of evidence may be explicable on the basis that the Julio Claudians had an inordinate passion for the Lusus Troiae and to have called for performances at the drop of a hat and it is these extra-curricular performances which the historians regard as noteworthy. We can add Suetonius *Aug.* 43, *Tiberius* 6, *Caligula* 18, *Nero* 7 to Rasch’s reference to *Caesar* 39 and *Claudius* 21. The absence of evidence for regular annual performances is perhaps explicable on this basis. The extra curricular performances are indeed good evidence of regular performances since the Lusus consisting of fast close-quarters performances by armed riders is plainly a skilful and dangerous business calling for trained riders and trained horses (the danger can be inferred both ἐκ τοῦ εἰκότοϛ and from the accidents to Gaius Nonius Asprenas and Aesernenus Asinius Pollio in Suet. *Aug.* 43, and to Piso’s son). Given the skill and training involved it may be a reasonable assumption that the Julio-Claudians were able to arrange ad hoc performances of the Lusus because there was a permanent supply of trained participants and that that supply was available because the Lusus was performed annually.

The passage from Suetonius *Aug.* 43 deserve further consideration. Suetonius writes that

“sed et Troiae lusum edidit frequentissime maiorum minorumque puerorum, prisci decorique moris existimans clarae stirpis indolem sic notescere. in hoc ludicro Nonium Asprenatem lapsu debilitatum aureo torque donavit passusque est ipsum posterosque Torquati ferre cognomen. mox finem fecit talia edendi Asinio Pollione oratore grauitur inuidioseque in curia questo Aesernini nepotis sui casum, qui et ipse crur frangerat.”  
 "Augustus gave very frequent performances of the Troy Game for both older and younger boys, thinking it was part of an ancestral and estimable tradition that the youths born of famous stock should become known in this way. When Nonius Asprenas had a fall in this game he gave him a gold torque and the right to bear the cognomen Torquatus. But soon he stopped giving such performances when the orator Asinius Pollio started complaining long and grievously in the senate about his grandson Aeserninus who also broke a leg”.

This is problematic: the implication is that Augustus introduced and then discontinued the Troy Game rather than that he introduced additional performances over and above a putative annual performance or performances as part of an existing festival.

A third candidate is the Ludi Apollinares referred to by Rasch (1882) 11 relying on Dio Cassius 48.20:

μαθῶν οὖν τοῦτο ὁ Σέξτος ἐτήρησε τὸν Ἀγρίππαν περὶ τὰ Ἀπολλώνια ἔχοντα· ἐστρατήγει γάρ, καὶ ἄλλα τε πολλὰ, ἅτε καὶ πάνυ φίλος ὦν τῷ Καίσαρι, ἐλαμπρύνετο, καὶ τὴν ἵπποδρομίαν ἐπὶ δύο ἡμέρας ἐποίησε, τῇ τε Τροίᾳ καλουμένῃ διὰ τῶν εὐγενῶν παιδῶν ἐγαυρώθη.

“For these reasons, and because Sextus was harbouring the exiles, cultivating the friendship of Antony, and plundering a great portion of Italy, Caesar desired to become reconciled with him; but when he failed of that, he ordered Marcus Vipsanius Agrippa to wage war against him, and himself set out for Gaul. However, when Sextus learned of this, he waited until Agrippa was busy with the Ludi Apollinares; for he was praetor at the time, and was not only giving himself airs in various other ways on the strength of his being an intimate friend of Caesar, but also in particular he gave two-days' celebration of the Circensian games and prided himself upon his production of the game called "Troy," which was performed by the boys of the nobility.” (Loeb edn. tr. Cary).

This is ambiguous as to whether the performance of the Troia is part of the games and Agrippa merely prides himself on the production of it or whether it is an innovation. Cary's translation of τὴν ἵπποδρομίαν as "the Circensian games" is questionable: the meaning is generally just "horse race" or "chariot race": LSJ *s.v.*, where it is also noted that Plutarch uses the word to describe the Lusus Troiae (*Cato Min.* 3.1.1-2 ἐπεὶ Σύλλας τὴν παιδικὴν καὶ ἱερὰν ἵπποδρομίαν ἦν καλοῦσι Τροίαν ἐπὶ θεᾷ διδάσκων). There is however no doubt that von Premerstein and Ross Taylor make the assumption that the reference is to an annually recurring event and that they cannot be produced as evidence to the effect that Galen is referring to the rather less frequently recurring Secular Games.

Fuchs (1990) is the only full study of the Lusus Troiae and is specifically cited by Nutton (1997, 138 n. 12) as confirming von Premerstein's putative view that the reference in

Galen must be to the Secular Games. Unlike von Premerstein she does refer expressly to the Secular Games. Her conclusions are that it is highly likely that Galen does indeed refer to the *Lusus Troiae* ("Mit grosser Wahrscheinlichkeit kann noch eine Stelle aus einer Galenische Schrift auf die Troia bezogen werden" (Fuchs (1990) 45) but that the possibility of the reference being to the Secular Games of 204 must remain "a guess" - ein Vermutung (Fuchs (1990) 63).

To summarise: there is ample ancient authority for performances of the *Lusus Troiae* in the time of Sulla and under the Julio-Claudians. After that period it vanished from the historical record entirely. The situation is well stated by Rasch when he writes:

"His expositis satis apparet, aetate imperatorum e gente Iulia saepissime summoque studio editum esse ludum Troiae neque minus, diligentissime scriptores memorasse, quantam et curam et diligentiam singuli imperatores huic ludo impertiverint. Quae cura ita sint, nonne mirum videtur, quod iidem scriptores, ubi ad vitas ceterorum imperatorum enarrandas transierunt, quamquam copiosissimi saepe sunt in enarrandis circensibus, Troiam ne verbo quidem commemorant, quasi cum decessu Iuliorum etiam Troiae ludus evanuerit?"

I do however believe the date of *Ther.Pis.* to be after 203 and before 211 for reasons which are not dependent on the identification of the games in which Piso's son injures himself with the Secular Games of 204 – an identification which I find attractive but unproven.

The author praises "our present glorious emperors", τῶν νῦν μεγίστων αὐτοκρατόρων, in chapter 2 of *Ther.Pis.* ( p. 60.7). The reign of Marcus Aurelius is in the past (p. 60.6) and this can only refer to Severus and Caracalla. The ten year old Caracalla was made co-emperor in January 198 at Ctesiphon on the Tigris, and both emperors were then in the East and in Africa until a "flying visit" to Rome (Birley 1999, 216) of around 30 days in spring 202 and then in Africa again until returning to Rome in about June 203. Galen's words about their generosity presuppose their having access to a large and varied stock of drugs and to the numerous grateful recipients, the passage of enough time for them to establish a track record of generosity, enough time for the cures of Antipater, Arria and Piso's son to take place, and Galen being present to witness all this. It is not strictly impossible that Arria and Antipater might have accompanied the emperors abroad – Septimius' wife did (Birley 1999, 201, 217) nor that Galen at the age of about 70 plus a travelling medicine chest were also there when they took ill, but it is unlikely. Note in particular Galen's distaste for campaigning outside Italy evidenced by his evasion of foreign service in 169 on the basis of a dream sent to him by Aesclepius (*Lib. Prop.* XIX 18.15-19.1 (and see Nutton 2005, 225), (Boudon-Millot 2007, LXVIII)). The games of chapter 1-2 are certainly set in Rome. All this has to happen after the return of the emperors in 203, and that in my view sets 204 as the earliest possible date for the composition of *Ther.Pis.*

### Authenticity

The authenticity of the work had apparently already been in question for a considerable time in 1565 when the translation by Rota (1565) had the heading: "Sunt qui negent hunc librum esse Galeni, nec sine causa. Aëtius tamen in capite de Sale Theriaco, citat

Galeni verba, ex hoc libro desumpta<sup>7</sup>. My view is that there are strong but not conclusive grounds for doubting the authenticity of the work arising partly from doctrinal and partly from stylistic matters, and partly from the author's self-presentation compared to that of Galen elsewhere in the corpus.

Nutton (1997, pp.133-9) and Swain (1998) review the debate in some detail including the views of Coturri (1959) Richter-Bernburg (1969) and those of Ackermann in the *Historia literaria* reproduced in Vol 1 of Kühn, reproducing the views of Labbé (1660) 22-35. Labbé's has remained throughout the most comprehensive statement of the case against authenticity: Nutton (1997) 137 n.9 "As far as I am aware, this is the last detailed examination of the question of authenticity, but its author rarely documents his assertions about style and content". Even Labbé does not in my view consider any of the strongest arguments against authenticity. Klass in Pauly RE 1950 Band 22 rejects in the strongest terms the argument against authenticity: "Der eigentliche Urheber der Unechtheitserklärung ist Philipp Labbé, der in seinem 1660 erschienenen Claudii Galeni chronologicum elogium drei Gründe für die Unechtheit anführt, die bis auf den heutigen Tag - anscheinend ohne erneute gründliche Prüfung - ständig wiederholt wurden. Die Beweiskraft sämtlicher vorgebrachten Gründe ist aber meines Erachtens so geringfügig, dass man die Schrift als echt gelten lassen sollte, bis die Unechtheit wirklich überzeugend nachgewiesen ist. Im folgenden nenne ich daher den Verfasser der Schrift mit dem überlieferten Name Galen. Aber selbst wenn die Unechtheit erwiesen ist, ist damit gegen die in der Widmung genannte Person nichts ausgesagt, da die Schrift spätestens zwölf Jahre nach Galens Tode geschrieben sein muss; der Verfasser der Schrift, sei es nun ein Fälscher oder mag die Schrift erst später dem Galen unterschoben sein, hatte jedenfalls sichere Kenntnis von der zwischen Galen und P. bestehenden Freundschaft." (1802 col b).

Klass is wrong as far as the chronology of the debate is concerned. Labbé is by no means the "eigentliche Urheber der Unechtheitserklärung": as noted above Rota refers to a widespread belief that the work is not by Galen a century before Labbé. Furthermore Klass does not himself re-examine the arguments based on Labbé which he rightly identifies as requiring re-examination, nor inquire whether there are other and better arguments on the subject; his position is therefore essentially about the state of the evidence available to him rather than about the substantive question itself.

#### **a) Self-presentation**

A weak version of the self-presentation argument against Galen's authorship is refuted by Swain (1998) 432: this weak version says that Galen states in *Opt.Med.* that he has no time for flattery; *Ther.Pis.* contains flattery; therefore Galen cannot be the author of *Ther.Pis.* This argument can be rejected on the general grounds that self-made character evidence is unsatisfactory as being liable to be tainted by bias and lack of insight. In the case of Galen it can be more specifically answered on the basis of evidence elsewhere that as a servant of the emperors he is prepared to compromise his beliefs in pursuit of good relations with his employers: when women of the imperial family or the emperors themselves (βασιλικαὶ γυναῖκες ἢ οἱ βασιλεῖς αὐτοὶ) demand of doctors services which are cosmetic and not medical, it is not practicable for the doctor to refuse them by telling them to learn the distinction between cosmetics per se and the cosmetic part of medicine

(οὐκ ἔνεστιν ἀρνεῖσθαι διδάσκοντας διαφέρειν τὴν κομμωτικὴν τοῦ κοσμητικοῦ μέρους τῆς ἰατρικῆς) (*CML* I: XII 435.1-5). The prudent doctor knuckles down and learns the rudiments of cosmetics. Therefore we should not question the authenticity of *Ther.Pis.* on the basis that it suggests a deviation by Galen from his core beliefs in pursuit of good relations with Severus and Caracalla.

## b) History

*Ther.Pis.* gives the following anecdote:

ἐμοὶ δὲ καὶ ἐξ ἱστορίας τις ἐμήνησε λόγος ὡς ἄρα πολεμεῖν Ῥωμαίοις τις ἐθέλων καὶ τὸ δυνατὸν ἐκ τῆς στρατιωτικῆς τάξεως οὐκ ἔχων, ἄνθρωπος δὲ, φησὶ, Καρχηδόσιος οὗτος, ἐμπλήσας πολλὰς χύτρας θηρίων τῶν ἀναιρεῖν ὀξέως δυναμένων, οὕτως αὐτὰ προσέβαλε πρὸς τοὺς πολεμίους. οἱ δὲ τὸ πεμπόμενον οὐ νοοῦντες καὶ διὰ τοῦτ' ἀφύλακτοι μένοντες, οὐ γὰρ ἦν τοιαῦτα εἰθισμένα ἐν τοῖς πολεμίοις πέμπεσθαι βέλη, ταχέως πίπτοντες ἀπέθνησκον· καὶ διὰ τοῦτο πολλάκις ὁ ἄνθρωπος οὗτος τῇ τοιαύτῃ πρὸς τὸ πολεμεῖν πανουργία, ὥσπερ τι καὶ αὐτὸς θηρίον ὑπάρχων, διέφυγε τῶν ἐναντίων τὰς χεῖρας. διόπερ οἶμαι, καὶ εἰς τὰς τοιαύτας χρείας ὑμῖν τοῖς ὑπερέχουσι καὶ τοῖς τῶν στρατοπέδων ἄρχουσιν, ἀναγκαῖον ἔχειν καὶ τοῦτο τὸ φάρμακον, διὰ τὴν τοῦ πολεμεῖν ἐνίοτε γινομένην ἀνάγκην.

"A certain story from history told me that someone wanted to go to war with Rome but did not have the troops to do it with and this man, a Carthaginian, the story goes, filled many jars with animals whose bite can kill instantaneously and shot them at the enemy. And they did not realise what was being shot at them and were off their guard, because these were not the kind of weapon usually shot in war, and quickly fell and died; and so on many occasions this man because of this disgraceful method of waging war as if he himself were some kind of wild beast escaped the hands of his enemies. So I think your rulers and the commanders of the infantry should have this drug because of the necessity, from time to time, of going to war."

We know this story from other sources and can identify the parties as Hannibal and Eumenes II of Pergamum: *Nepos Vitae: Hannibal* 10-11. What is striking is that the author of *Ther.Pis.* does not make this identification. Galen is proud of his Pergamene heritage. There is no mention of Eumenes elsewhere in the corpus but on the three occasions he refers to a king of Pergamum, (Attalus III in each case), he emphasises his link as a fellow Pergamene: he calls him ὁ γοῦν ἡμέτερος γενόμενός ποτε βασιλεὺς Ἄτταλος *SMT* X: XII 251.3-4; ὁ καθ' ἡμᾶς Ἄτταλος *Ant.* XIV 2.4; τοῦ βασιλεύσαντος ἡμῶν τῶν Περγαμηνῶν Ἀττάλου *CMG* II: XIII 416.11-12. There is no doubt that Eumenes II is an important figure in Pergamene history. One of the most conspicuous buildings on the acropolis is Eumenes' Altar of Zeus which has a magnificent frieze depicting the battle of the gods and giants. On the north frieze there is a female figure getting ready to throw a jar of serpents in what is presumably a reference to this incident (Stewart (2000) 54 cites disagreements with this "oft-repeated view"; but if it is oft-repeated now the same was presumably true in antiquity, and a native of Pergamum can be assumed to have been aware of it even if he disagreed with it). It is inconceivable that Galen would not know the identities of the parties in the anecdote: if he did know them why would he not supply them? The author of *Ther.Pis.* tells other historical anecdotes

and is scrupulous about supplying proper names even for the minor characters; he gives the names of Cleopatra's maidservants in the description of her death and the name of Mithridates' servant who had to kill him because of his immunity to poison. He is our sole source for this name. He is a writer who likes proper names.

It is not impossible to conceive of reasons for suppressing the names in the anecdote. Eumenes lost the battle, which makes the story embarrassing both for Pergamum and for Rome. But if the author is embarrassed, then omitting the story altogether would suppress it more effectively: it is not integral to the treatise. The other problem with that argument is that the treatise contains much material intended to curry favour with the Roman emperors. The anecdote does expressly identify the losing side with the Romans (with whom Eumenes was in alliance): if the author were sanitising it for reasons of tact he would presumably have omitted that identification too.

### c) Julius Africanus *Cesti*

The Thesaurus Linguae Graecae (<http://www.tlg.uci.edu/>) discloses the following parallel passages in Africanus *Cesti* and in *Ther.Pis.*: Ὁ δὲ δρυϊνῆς ὄφις ἐν ταῖς τῶν δρυῶν ρίζαις τὸν βίον ποιούμενος **καὶ πρὸς ἄλλοις δένδροις οὐκ ἀλινδοόμενος** [οὐκ ἀλινδοόμενος is my conjecture for καλινδοόμενος in mss. and edd. which yields the nonsensical the sense “spending its life in the roots of the oak and winding around other trees”] οὕτω καὶ πονηρός ἐστιν πρὸς τὸ διαφθεῖραι κακῶς, ὡς, εἴ τις αὐτῷ ἐπιβαίῃ, τοὺς πόδας ἀποδέρεσθαι καὶ οἰδήματα καθ’ ὅλων τῶν σκελῶν γίνεσθαι. Καὶ ἔτι θαυμασιώτερον· εἰ καὶ θεραπεύειν τις αὐτοὺς ἐθέλει, καὶ τούτου τὰς χεῖρας ἀποδέρεσθαι.

Sextus Julius Africanus *Cesti* 3.31.1 = Wallraff D56

ὁ δὲ δρυϊνός ὄφις ἐν ταῖς τῶν δρυῶν ρίζαις τὸν βίον ποιούμενος οὕτως πονηρός ἐστι πρὸς τὸ διαφθεῖραι κακῶς, ὥστε εἴ τις, φασίν, αὐτοῦ ἐπιβαίῃ, ἐκδέρεσθαι αὐτοῦ τοὺς πόδας, καὶ οἴδημα πολὺ γίνεσθαι καθ’ ὅλων τῶν σκελῶν. καὶ ἔτι τὸ θαυμασιώτερόν φασιν, ὅτι καὶ εἰ θεραπεύειν τις ἐθέλοι, τούτων τὰς χεῖρας ἐκδέρεσθαι.

*Ther.Pis.* K XIV 234-8 = p.90 l.12

The oak snake lives its whole life in the roots of the oak tree **not frequenting other trees** and is such a threat of a horrible death that if anyone treads on it, *they say*, his feet are flayed and his legs swell up all over. Still more amazingly *they say that* if someone tries to treat the victim his hands are flayed.

The parallel was first noted by Hoppe (1928) 1.

These passages are clearly very closely related. The only differences between them except the trivial are that the *Cesti* contains the words in bold “and not frequenting other trees” which *Ther.Pis.* omits and *Ther.Pis.* contains the words in italics “they say (that)” which the *Cesti* omits. The similarity is too close to be a coincidence. One passage is a borrowing from the other, or they have a common ancestor. Which precedes the other?

The *Cesti* of Africanus can be dated to within the reign of Severus Alexander (222-235) (Adler (2009), 1; Wallraff (2012) xix) to whom they were dedicated according to

Georgius Syncellus (*Ecloga chronographica* 439.17) and for whom Africanus himself claims in the *Cesti* to have done some work in the library of the Pantheon in Rome (P.Oxy. 3 412 36-41= tlg *Cesti* 5.1.52-4). Accordingly if the original of our passage is the *Cesti* and *Ther.Pis.* is the copy this requires Galen to write *Ther.Pis.* in his eighty third year at the earliest (if he lived to that age, which we have no reason to suppose he did). Conversely if *Ther.Pis.* is the origin of the passage no problem arises – Galen could have written the treatise by say 210 giving Africanus a dozen years to come across a copy of it.

So which is the original and which the borrowing? There are perhaps indications in the text that the *Cesti* may be the original. First the occurrence of φασιν (twice) in *Ther.Pis.* is an admission that the information is second hand. Secondly the omission from *Ther.Pis.* of καὶ πρὸς ἄλλοις δένδροις καλινδούμενος (“and winding around other trees”) is suggestive. In general terms one would expect the borrower if he added to the text at all to add explanatory glosses recognisable by being too easily understandable – e.g. in this passage a hypothetical clause saying “and that is why they are called oak snakes” would be evidence that the version containing it was the borrowing and not the original. Conversely one would expect the borrower to omit what he does not understand in the original. The reasoning is the same in both cases, that the borrower is more concerned with the comprehensibility of the text (which he can judge for himself) than with other matters such as accuracy which he cannot (because if he could he would not be relying on someone else’s text in the first place). In this case the missing text suffers from being too hard rather than too easy to understand, suggesting that the text which lacks it is the borrowing and not the original.

We cannot of course exclude a shared common source for the two texts. Equally, presented with just two texts the most parsimonious hypothesis is that we have one original and one borrowing rather than two separate borrowings from an otherwise unknown common source. There is also no certainty about who borrows from whom: it is conceivable that Africanus takes over the passage from *Ther.Pis.*, discards the words “they say (that)” for whatever reason and adds the gloss καὶ πρὸς ἄλλοις δένδροις οὐκ ἀλινδούμενος. If οὐκ ἀλινδούμενος is the correct reading it is so redundant that we should be justified in thinking it an unnecessarily obvious gloss added by a borrower rather than a difficult point omitted by him because he did not understand it. Africanus does sometimes borrow in the *Cesti* with and without attribution (Adler (2009), 11).

On the other hand the passage contains the expression διαφθεῖραι κακῶς which is a favourite of the author of *Ther.Pis.* though not of Galen generally (p.45 below) and rare elsewhere; its use constitutes an argument in favour of the passage in *Ther.Pis.* having priority and therefore of having been written and been in circulation (not necessarily attributed to Galen) before the *Cesti*.

If *Ther.Pis.* borrows from the *Cesti* it is unlikely that *Ther.Pis.* is the work of Galen since if it were he would have to have written it in extreme old age and we would have to explain why he gives it a dramatic date set in the past (the reference to present emperors (τῶν νῦν μεγίστων αὐτοκρατόρων ( p.60. 7) is not valid for any date after Geta’s death in 211). If *Ther.Pis.* borrows from the *Cesti* it must be a more or less fictional work

designed by a later author to give the appearance of being written by Galen or one of his contemporaries.

#### d) Doctrine - Pharmacology

There is a discrepancy between the treatment and taxonomy of the type of snake known as the διψάς, the thirst snake, in *Ther.Pis.* and in other Galenic works whose authorship is not in question.

The importance in Galen's thought of the flesh of the ἔχιδνα, the viper, as an ingredient of theriac is clear from the following passage:

Τὰς ἰωμένας τὰ πάθη δυνάμεις οὐκ ἔξωθεν ἐπιτιθεμένας, ἀλλ' εἴσω τοῦ σώματος λαμβανομένας ἀντιδότους ὀνομάζουσιν οἱ ἰατροί. τρεῖς δ' αὐτῶν εἰσιν αἱ πᾶσαι διαφοραί. τινὲς μὲν γὰρ ἔνεκα τῶν θανασίμων προσφέρονται φαρμάκων, τινὲς δὲ τῶν ἰοβόλων ὀνομαζομένων θηρίων, τινὲς δὲ τοῖς ἐκ φαύλης διαίτης γιγνομένοις πάθεσιν ἀρήγουσιν. ἔνια δὲ τὰς τρεῖς ἐπαγγέλλονται χρεῖας, ὥσπερ καὶ ἡ θηριακὴ καλουμένη, συντεθεῖσα μὲν ὑπὸ Ἀνδρομάχου τοῦ ἱατροῦ, παρωσαμένη δὲ τὴν Μιθριδάτειον ὀνομαζομένην, καὶ αὐτὴν ἀπὸ τοῦ συνθέντος αὐτὴν οὕτω κληθεῖσαν. ὁ γὰρ τοι Μιθριδάτης οὗτος, ὥσπερ καὶ ὁ καθ' ἡμᾶς Ἄτταλος, ἔσπευσεν ἐμπειρίαν ἔχειν ἀπάντων σχεδὸν τῶν ἀπλῶν φαρμάκων, ὅσα τοῖς ὀλεθρίοις ἀντιτέτακται, πειράζων αὐτῶν τὰς δυνάμεις ἐπὶ πονηρῶν ἀνθρώπων, ὧν θάνατος κατέγνωστο. τινὰ μὲν οὖν αὐτῶν ἀνεῦρεν ἐπὶ φαλαγγίων ἰδίως ἀρμόζοντα, τινὰ δὲ ἐπὶ σκορπίων, ὥσπερ ἐπὶ τῶν ἐχιδνῶν ἄλλα. καὶ ἐπὶ τῶν ἀναιρούντων φαρμάκων τὰ μὲν ἐπὶ ἀκονίτου, τὰ δὲ ἐπὶ λαγωῦ τοῦ θαλαττίου, τὰ δ' ἐπ' ἄλλου τινὸς ἢ ἄλλου. πάντα δ' οὖν αὐτὰ μίξας ὁ Μιθριδάτης ἐν ἐποίησε φάρμακον, ἐλπίσας ἔξειν ἀρωγὸν ἐπὶ πᾶσι τοῖς ὀλεθρίοις. ὕστερον δὲ Ἀνδρόμαχος ὁ Νέρωνος ἀρχιατρὸς, ἔνια μὲν προσθεῖς, ἔνια δὲ ἀφελὼν, ἐποίησε τὴν θηριακὴν ὀνομαζομένην ἀντίδοτον, οὐκ ὀλίγην ἐχιδνῶν σάρκα μίξας τοῖς ἄλλοις, ἣν οὐκ εἶχεν ἡ Μιθριδάτειος.

"Things which cure diseases which are not applied externally but taken inside the body are called antidotes by doctors. They all fall into one of three categories. Some are administered on account of lethal drugs, some on account of the poisonous animals known as beasts, and some alleviate disease arising from a defective lifestyle. Some lay claim to all three uses, like the one called theriac, formulated by Andromachus the doctor by modifying the drug called Mithridatium, after its inventor. For this Mithridates like Attalus our contemporary wanted to test the effect of pretty much every single simple drug which is used against poisons, trying their effects on criminals condemned to death. He found some of help against poisonous spiders, some against scorpions and others against vipers. In the case of poisonous drugs he found some effective against aconite, some against the sea hare, and others against other substances. So Mithridates mixed all these together and made one drug hoping to have a defence against all ills. Later on Andromachus Nero's chief doctor adding some ingredients and dispensing with others made the antidote called theriac, mixing a good deal of viper's flesh in the medicine, which Mithridatium did not have."

*Ant. I: XIV 1.8-2.17)*

Note that the crucial point is that Andromachus, Nero's doctor, is the inventor of theriac and that his key innovation is the addition of the flesh of the viper, ἐχιδνά, to the antidote devised by Mithridates VI of Pontus and called Mithridatium. The importance of viper's



flesh is apparent in this passage from the fact that it is the only change to the recipe which Galen specifically identifies. Elsewhere in Galen the term τὸ διὰ τῶν ἐχιδνῶν φάρμακον, the drug made from vipers, is used synonymously with θηριακή: e.g. *MM* XIV: X 986 5-6 τὸ τε διὰ τῶν ἐχιδνῶν (sc. φάρμακον), ὅπερ ὀνομάζουσι θηριακὴν ἀντίδοτον.

This view of the primacy of the viper's flesh in the recipe for theriac is clearly shared by the author of *Ther.Pis.* Of the nineteen chapters of the work 6 and 7 are given to a transcription of Andromachus' poem to Nero giving the recipe for theriac. Chapter 8 is about why he chose vipers above other kinds of snake, chapter 9 about why only certain parts of the viper are used and chapter 10 about how parts of the body of a poisonous animal can be beneficial rather than harmful. The διψάς features in chapter 8 which deals with the question why Andromachus chose viper flesh rather than that of other snakes. The answer to this question is that Andromachus does not explain his choice but the author of *Ther.Pis.* considers it to be because vipers "have less destructive power in them than other beasts" ἔμοι δὲ δοκοῦσι τῶν ἄλλων θηρίων αὐταὶ μὴ τοσαύτην ἐν τοῖς σώμασι τὴν φθοροποιὸν δύναμιν ἔχειν (p.90 l.7). (Note that in chapter 9 p.94 l.20 we are told that the female viper is the most dangerous of all; but the explanation why this is so has nothing to do with poison: see note *ad loc.*) The chapter then describes the destructive power of various snakes which are not vipers, including the διψάς, and concludes with a kind of Ringkomposition: "You see now how of necessity we do not mix the flesh of such beasts into the drug because they have so much destructive power in their bodies" - ὅρῳς οὖν ὅπως ἡμεῖς δεόντως οὐδὲν τῶν τοιούτων θηρίων ἐγκαταμίγνυμεν τῷ φαρμάκῳ, διὰ τὴν τοσαύτην ἐν τοῖς σώμασιν αὐτῶν φθοροποιὸν δύναμιν. ((p.94 l.7).

The first point to note is that to the author of *Ther.Pis.* the διψάς is not a viper. This is not a point which arises incidentally – the διψάς owes its appearance in the argument in chapter 8 to its being one of a number of paradigm cases of snakes which are not vipers and therefore not suitable as ingredients of theriac.

Secondly, consider what *Ther.Pis.* tells us about the διψάς:

ὥσπερ γε καὶ οἱ ἀπὸ τῆς διψάδος ὑπὸ τοῦ καύσου διαφθειρόμενοι κακῶς, καὶ γὰρ οὗτοι διψῶντες πάνυ καὶ διακαίόμενοι σφοδρῶς, ἐνίοτε καὶ διαρρηγνύμενοι, τελευτῶσιν. (p.90 l.21).

"Similarly those bitten by the snake die horribly of fever, for they die very thirsty and burning up completely, sometimes even bursting."

The sequence of thought in this passage in *Ther.Pis.* as transmitted in the Greek tradition is defective – neither thirst nor "burning up", especially metaphorical burning up, leads to bursting or breaking into pieces. The missing term in the argument is drinking: victims are so thirsty that they drink water till they burst. This is clear from Galen's statement of this belief about vipers in *SMT* XI: XII 316 1-4:

ἐπεὶ δ' ἔνιοι τῶν φαγόντων αὐτὴν ἐάλωσαν δίψει σφοδροτάτῳ καὶ διὰ τοῦτο προσαγορεύουσι τὰς ἐχίδνας διψάδας. εἰσὶ δ' οἱ καὶ τοὺς δηχθέντας ὑπ' αὐτῶν φασιν οὐκ ἐμπίπασθαι πίνοντας, ἀλλὰ διαρρήγνυσθαι πρότερον ἢ παύσασθαι διψῶντας.

"Since some who have eaten it (sc. the flesh of vipers) have been overcome by very great thirst, and for this reason they call vipers διψάδας. There are some who say that even those bitten by them drink but are not satisfied but burst before they can stop drinking."

The Arabic version of *Ther.Pis.* has a reading which agrees with *SMT* and is clearly superior to the Greek tradition of *Ther.Pis.*: "diese Schlange erregt Durst; wenn sie jemanden gebissen hat, entfacht sie in ihm übermüssige Hitze, sodass er heftigen Durst und glühendes Brennen verspürt; er trinkt solange Wasser, bis sein Leib platzt und er stirbt." (Richter-Bernburg 1969, 71).

So in *Ther.Pis.* the διψάς is a species of snake (but emphatically not a species of viper) whose only characteristic the author chooses to mention is that its bite causes the victim to die either of thirst or of bursting from drinking to quench the thirst. Thanks to the TLG we can exhaustively review other discussions of the διψάς in Galen. In *Caus. Symp.* I: VII 135.5-7 Galen refers in an aside to someone who dies of thirst after eating διψάς flesh:

ἀπαύστοις δὲ δίψει καταληφθεῖσιν, ἐξ ὧν περ καὶ ἀποθανόντας οἶδα τὸν τε καταφαγόντα τὴν ἔχιδναν (ἣν δὲ ἄρα διψάς) "... and to those who are overtaken by ceaseless thirst, which I have also known to kill a man who ate a viper (for it was a διψάς)".

So here the διψάς is a kind of ἔχιδνα, and kills by thirst those who eat it rather than are bitten by it.

In *SMT* there is extensive discussion of the διψάς beginning at *SMT* XI: XII 311.14

[α'. Περὶ σαρκὸς ἐχιδνῆς.] Οὐχ ἅψασαι τῶν ζώων αἱ σάρκες ἄνθρωπον τρέφουσιν, ἀλλ' ἐνίων εἰσὶ καὶ θανάσιμοι τῶν φαρμακῶδων οὐδὲν ἦττον, ἃ καλοῦσι δηλητήρια, καὶ τῶν τρέφουσῶν δὲ ἡμᾶς σαρκῶν ἔναι μὲν αὐτὸ τοῦτο μόνον εἰσὶ τροφαί, τινὲς δὲ πρὸς τῷ τρέφειν ἔχουσι καὶ τὴν ὡς φαρμάκου δύναμιν, ἐπειδὴ κατὰ τὸ ζηραίνειν ἢ ὑγραίνειν καὶ θερμαίνειν ἢ ψύχειν, ἀλλοιοῦσι τὸ σῶμα:

The relevant passage reads as follows:

ἄλλος δὲ τις ἀνὴρ πλούσιος οὐχ ἡμεδαπὸς οὗτός γε, ἀλλ' ἐκ μέσης Θράκης ἦκεν, ὄνειρατος προτρέψαντος αὐτὸν εἰς τὸ Πέργαμον, εἶτα τοῦ θεοῦ προστάξαντος ὄναρ αὐτῷ πίνειν τε τοῦ διὰ τῶν ἐχιδνῶν φαρμάκου καθ' ἐκάστην ἡμέραν καὶ χρίειν ἔξωθεν τὸ σῶμα, μετέπεσεν τὸ πάθος οὐ μετὰ πολλὰς ἡμέρας εἰς λέπραν, ἐθεραπεύθη τε πάλιν οἷς ὁ θεὸς ἐκέλευεν φαρμάκοις καὶ τοῦτο τὸ νόσημα. ἡ μὲν δὲ τῶν ἐχιδνῶν σὰρξ εἰς τοσοῦτον ἦκει τῆς ζηραντικῆς δυνάμεως· ἐπεὶ δ' ἔνιοι τῶν φαγόντων αὐτὴν ἐάλωσαν δίψει σφοδροτάτῳ καὶ διὰ τοῦτο προσαγορεύουσι τὰς ἐχιδνας διψάδας. εἰσὶ δ' οἱ καὶ τοὺς δηχθέντας ὑπ' αὐτῶν φασιν οὐκ ἐμπίπλασθαι πίνοντας, ἀλλὰ διαρρήγνυσθαι πρότερον ἢ παύσασθαι διψῶντας. διὰ τοῦτο τῶν ἐν Ῥώμῃ τὰς ἐχιδνας θηρευόντων, οὓς ὀνομάζουσι Μαρσοὺς, ἐπυθόμην εἴ τι σημεῖον ἔχοιεν με διδάξαι διακριτικὸν ἑκατέρου τοῦ γένους τῶν ἐχιδνῶν· οἱ δ' οὐδὲν ὄλως ἔφασαν εἶναι γένος ἐχιδνῶν διψάδων, ἀλλὰ τὰς παρὰ θαλάττη καὶ τόποις ἀλμυρίδα πολλὴν ἔχουσι διαιτωμένας ἀλμυρὰν ἴσχειν τὴν σάρκα, διὸ καὶ κατὰ Λιβύην πολλὰς γίνεσθαι τοιαύτας, ἐν Ἰταλίᾳ δ' οὐκ εἶναι διὰ τὴν ὑγρότητα τῆς χώρας. ταῦτα μὲν οὖν ἤκουσα τῶν Μαρσῶν λεγόντων, οὐ μὴν ἔχω βε-

βαίως εἰπεῖν εἴτ' ἀληθεύουσι τὸ σύμπαν εἴτε καὶ ψεύδονται κατὰ τι. τὸ μὲν γὰρ ἐν οἷς εἰρήκασι χωρίοις γίνεσθαι τινὰς ἐχίδνας ἀλυκὴν ἐχούσας τὴν σάρκα πιθανώτατον εἶναι μοι δοκεῖ. συμμεταβαλλούσας γὰρ οἶδα ταῖς τροφαῖς τὰς τῶν ζώων σάρκας, οὐ μὴν ὡς οὐδὲν ἐστὶ γένος ἐχιδνῶν διψάδων ἀποφήνασθαι δύναμαι. τὸ δ' οὖν ἀσφαλέςτατον ἐστὶ φυλάττεσθαι τὰς ἐν τοῖς τοιοῦτοις χωρίοις ἐχίδνας θηρεῦειν εἰς ἐδωδὴν ἢ φαρμάκου κατασκευῆν, ὁποῖόν ἐστι καὶ τουτὶ τὸ ἐνδοξόν, ὃ καλοῦσιν ἅπαντες σχεδὸν ἰατροὶ θηριακὴν.

“Another man, a rich one, not a native of Pergamum but from the middle of Thrace, came to Pergamum on the instructions of a dream; the god then sent him a dream telling him both to drink the medicine made from vipers (τοῦ διὰ τῶν ἐχιδνῶν φαρμάκου) every day and to rub it externally on his body. The disease changed after a few days to leprosy and this disease in turn was also cured by drugs ordained by the god. This shows what a great drying faculty the flesh of vipers has achieved since some who have eaten it have been overcome by very great thirst, and for this reason they call vipers διψάδας – thirst snakes. There are some who say that even those bitten by vipers drink but are not satisfied but burst before they can stop drinking. For this reason I asked the snake hunters of Rome whom they call Marsi whether they could tell me of any distinguishing feature by which to recognise the two types of viper. But they vehemently denied that there is a species of thirst inducing viper (οὐδὲν ὅλως ἔφασαν εἶναι γένος ἐχιδνῶν διψάδων); rather, those which live by the sea and in places with large areas of salt marsh have salty flesh, which is why there are many of them in Libya, but not in Italy because of the dampness of the country. This is what I heard from the Marsi, but I cannot say for sure whether they told the truth in all respects or were wrong in relation to something. For I find it very credible that there are vipers with salty flesh to be found in the kinds of places they mention, for I know that the flesh of animals is transformed by what they eat, but I cannot say for absolute certain that there is no such species of viper as the διψάς. So the safest thing is to avoid hunting vipers in this type of area either for food or the preparation of drugs such as the famous one which almost all doctors call theriac.” (SMT XI: XII 315.10-317.4).

Here again the διψάς is either a normal viper which acquires its salty characteristic from its environment, or a specific kind of viper (genetically distinct from the normal kind) - neither view being compatible with the contrast drawn in *Ther.Pis.* between the διψάς on the one hand and the viper on the other. Furthermore the principal danger it poses is to those who eat it - not, as in *Ther.Pis.* to those bitten by it. Note that although Galen mentions the theory that διψάς bites also cause death by thirst he does not record having canvassed it with the professional snake hunters, and if he did so does not think it worth recording their response.

In *Ant.* there are warnings about catching vipers in summer (*Ant.* I: XIV 45.5-7) and in coastal areas (XIV 46.9-12) because their flesh used as an ingredient in theriac will be διψώδης, thirst-inducing. So in both cases the issue is not being bitten by the viper but eating its flesh. The term διψάς itself is not used in either passage of *Ant.*

To summarise: in Galen's works except *Ther.Pis.*, either there is a species of viper (ἐχιδνα) called διψάς to eat whose flesh entails the risk of death by thirst, or there is no such separate species but the flesh of normal vipers can become dangerously thirst-

inducing if they live in salty environments, or it is the case both that the δῖψάς exists as a separate species and that other vipers may also have the same poisonous flesh as the δῖψάς if they live near salt water (*SMT* XI: XII 316.1-317.4). The maker of theriac should minimise the danger of incorporating dangerous flesh into the recipe by not catching vipers in salty environments (*SMT* XI: XII 317.1-4, *Ant.* I: XIV 46.9-12) or in the summer (*Ant.* I: XIV.45.5-8). *Caus. Symp.* I: VII 135.5-7 refers only in passing to the issue but confirms that the δῖψάς is an ἐχίδνα and that it kills those who eat its flesh. The question whether it also kills by thirst those it bites arises only in *SMT* XI: XII 316.3-5 where it is implied that this is secondary to its main quality of killing those who eat it, and that the belief is held by others but not by Galen: εἰσὶ δ' οἱ καὶ τοὺς δηχθέντας ὑπ' αὐτῶν φασιν οὐκ ἐμπίλασθαι πίνοντας, ἀλλὰ διαρρήγνυσθαι πρότερον ἢ παύσασθαι διψῶντας. The phrase εἰσὶ δ' οἱ καὶ / εἰσὶ δὲ καὶ οἱ followed by a verb denoting a certain belief or practice is frequent in Galen and routinely carries the implication that Galen does not subscribe to the belief or practice in question.

So in all these passages from sources other than *Ther.Pis.* Galen is consistent in the view that the δῖψάς is either identical to, or a separate but hard-to-distinguish subspecies of, ἐχίδνα and that the main threat it presents is to those who eat it. In *Ther.Pis.* there is no reference to the dangers of eating it, and it has its place in the argument precisely because it is not in the author's view a species of ἐχίδνα. Quite the reverse: chapter 8 of *Ther.Pis.* asks the question, of all the various species of snake, why do we use only the ἐχίδνα in theriac? The answer it gives is that other snakes are just too dangerous and venomous, and the δῖψάς is an example of a dangerous snake which is not an ἐχίδνα. Consistent with this discrepancy, the detailed instructions for catching vipers in *Ther.Pis.* (p.120 l.8 ff.) give no guidance on how to avoid catching vipers whose flesh can cause potentially lethal thirst. This is internally consistent – the author believes that the δῖψάς is not a viper and is apparently unaware of the claim that the flesh of vipers may be dangerous to eat as having the same consequence as he ascribes to the bite of the δῖψάς – but it is not consistent with the views on the matter expressed elsewhere by Galen.

Can the discrepancy be resolved? I do not see how it can be. One line of argument might be that Galen believes there to be two different types of snake which share the name δῖψάς because of the similar effects of eating the flesh of one and being bitten by the other. That is a perfectly conceivable state of affairs but *SMT* XI: XII 316.3-5 makes it clear that Galen does not believe that two separate species are involved – he attaches the power to kill by thirst by biting to the kind of ἐχίδνα which is called a δῖψάς, not to a different non-ἐχίδνα species. Another possible argument is that he has changed his mind between writing *SMT* and *Ther.Pis.* but this is unlikely for two reasons. First, there is nothing provisional about the views set out in *SMT* – Galen has made a point of investigating the relationship between ἐχίδνα and δῖψάς by interviewing the best qualified witnesses, the professional snake-catchers, and has critically considered (and partly rejected) their advice. Secondly there is more than one change of mind that must be posited: the author of *Ther.Pis.* believes both that there is a non-ἐχίδνα species of δῖψάς which kills by biting, and that there is no danger to those who eat the flesh of the ἐχίδνα that they may die of thirst because some or all ἐχίδναι are also δῖψάδες, at least at certain locations and/or at certain times of year. It is true that there is no express denial that the categories of ἐχίδναι and δῖψάδες overlap but the argument *e silentio*

is strong given that the existence of ἐχίδναι whose flesh sometimes or always has the property of being poisonous to those who consume renders it essential for the maker of theriac to know how to avoid incorporating the flesh of those ἐχίδναι into his product. Instructions on this point are indeed given in *SMT XI*: XII 317.1-4, *Ant. I*: XIV.45.5-8 and 46.9-12 but although *Ther.Pis.* deals at length with the proper time of year to catch ἐχίδναι and the mistakes made by the professional snake catchers it is entirely silent about how to avoid vipers with this poisonous flesh. The danger of poisoning is not remote or theoretical to Galen who as we have seen claimed direct knowledge of a case of a man dying after eating a διψάς (*Caus. Symp. I*: VII 135.5-7). In my view the most reasonable explanation for these discrepancies is that Galen is not the author of *Ther.Pis.*

Galen's view that the διψάς is a viper and that it is poisonous to those who eat its flesh is idiosyncratic. The majority view is that expressed in *Ther.Pis.* that it is not a viper and is a danger to those bitten by it, not those who eat it. Nicander *Theriaca* 334-6:

Ναὶ μὴν διψάδος εἶδος ὁμόσεται αἰὲν ἐχίδνη παυροτέρη, θανάτου δὲ θωώτερος ἴζεται αἴσα οἷσιν ἐνισκίμνη βλοσυρὸν δάκος·

- the διψάς resembles an ἐχίδνα and therefore by implication is not itself one, and kills by attacking.

In Lucian *Dipsades* the διψάς is ὄφις οὐ πάνυ μέγας, ἐχίδνη ὁμοίος, τὸ δῆγμα βίαιος, τὸν ἰὸν παχύς, ὀδύνας μὲν ἀλήκτους ἐπάγων εὐθύς· (*Dipsades* 4.2-4)

It resembles, and therefore by implication is not, a viper, and its bite and poison are the mechanisms by which it produces fatal thirst.

In the Andromachus poem incorporated into *Ther.Pis.* and *Ant.*, the man who has taken Andromachus' theriac

Οὐ ζοφερῆς ἔχιός τε καὶ ἀλγεινοῖο κεράστου Τύμματα, καὶ ξηρῆς διψάδος οὐκ ἀλέγοι (p.76.21)

-he does not fear the blows of the διψάς.

In Damocrates as quoted in *Ant.*

Δώσεις δὲ καὶ τοῖς ἐντυχοῦσιν ἐρπετοῖς, τῶν ἰοβόλων τε θηρίων τοῖς δῆγμασιν, ὕδρων, κεραστῶν, ἀσπίδων, καὶ διψάδων, καὶ τῶν ἐχιδνῶν, τῶν τε λυσσόντων κυνῶν. (*Ant. I*: XIV 90.14-16)

Damocrates' theriac is to be given both to those bitten by the διψάς and to those bitten by the ἐχίδνα, implying that these are two different kinds of snake.

Philumenus *de Ven. Anim.* 20 1-2:

20. (t.) διψάς τὸ θηρίον. (1.) ἡ δὲ διψάς καλεῖται ὑπ' ἐνίων θηριακῶν καύσων ὄφις. ἔστι δὲ κατὰ τὸ μέγεθος πήχεος ἐνόσ, ἐκ παχέος ἐπὶ λεπτὸν ἠγμένη· περιέρρανται δὲ καθ' ὅλον τὸ σῶμα μελαίναις στιγμαῖς καὶ κίρραῖς, ἔχει δὲ τὴν κεφαλὴν στενοτάτην. (2.) τοῖς δὲ δηχθεῖσιν ὑπ' αὐτῆς παρέπεται ἅμα τῇ δῆξει οἴδημα, φλεγμονὴ ἀντίτυπος. κοινὰ μὲν οὖν ταῦτα καὶ ἄλλοις ..... διὰ δὲ ταῦτα ὀρεκτικώτερος ὁ πάσχων γίνεται πολὺ καυσούμενος, πλείονος δὲ μεταλαμβάνων ποτοῦ, οὐδὲν ἐκκρίνει οὔτε δι' οὖρων

οὔτε δι' ἰδρώτων οὔτε δι' ἐμέτων. ἀπόλλονται οὖν κατὰ δύο αἰτίας, ἢ δίψη πολλῆ πιεζόμενοι, εἰ μὴ λαμβάνοιεν ποτόν, <ἢ λαμβάνοντες ποτόν> ἀπὸ πολλῆς πληρώσεως ἢ κατὰ τοὺς βουβῶνας κάτω ἢ πρὸς τῷ ἐπιγαστρίῳ ὡς ἐπὶ ὑδρωπικῶν τῶν καθ' ὑπέρχυσιν ῥηγνυμένων.

These sources all expressly or implicitly state that the διψάς is not a viper and that it presents the usual danger of poisonous snakes – i.e., that it bites. It is clear from the passages in *SMT*, *Caus. Symp.* and *Ant.* that Galen took the view that the διψάς is a viper and that it poisons those that eat it – a crucial point in a work describing how to make a drug incorporating viper flesh. *Ther.Pis.* sides with the traditional view against the Galenic view as it appears in all the discussions of the point in those of his works whose authenticity is not disputed. The natural conclusion is that this may constitute evidence that *Ther.Pis.* is not by Galen.

In the case of the διψάς the author may have wrongly assumed that Galen shares the standard view of the διψάς that it is not a viper and that it is primarily a danger to those it bites – not an unreasonable assumption given that in *Ant.* Galen quotes the poems of Andromachus and Damocrates which imply that view. In fact the warnings in *Ant.* I: XIV.45.5-8 and 46.9-12 against catching vipers at times and in places where their flesh may be διψώδης, read in the light of *SMT* XI: XII 317.1-4, clearly affirm Galen's own belief that the διψάς is an ἐχίδνα and that the danger it presents is that it induces thirst in those who eat it. This is not however obvious to anyone reading these warnings without being aware of the *SMT* passage because in *Ant.* Galen understates the case, in saying merely that the flesh of the ἐχίδνα induces thirst when he presumably means that it induces fatal thirst.

Similarly οἱ δὲ τοῦ κάστορος ὄρχεις ὁμοίως πινόμενοι σπασμοὺς ἰῶνται. p.98.6: *SMT* XI: XII 337.3-4 confirms that Ὀρχεῖς κάστορος ὀνομάζουσι καστόριον, that castoreum is synonymous with beaver's testicles. *SMT* XI: XII 338.10-339.2:

ἀγνοοῦσι δὲ οἱ πλεῖστοι τῶν ἰατρῶν, ἐν τῇ τοῦ καστορίου χρήσει προσέχοντες τὸν νοῦν αὐτῷ μόνῳ τῷ τρέμειν ἢ σπᾶσθαί τι μόριον, ἢ ἀναίσθητον ἢ ἀκίνητον εἶναι, ἢ δυσαίσθητον ἢ δυσκίνητον, μὴ γινώσκοντες ἐπόμενα τοιαῦτα συμπτώματα διαθέσει σώματος ἀνομοίαις, ἀλλὰ σύ γε παρ' Ἱπποκράτους μαθὼν ἐπὶ πληρώσει τε καὶ κενώσει γίνεσθαι σπασμὸν, ἔνθα μὲν χρή κενῶσαι τὰ παρὰ φύσιν ἐν τοῖς νεύροις περιεχόμενα, καὶ πίνειν δίδου καὶ κατὰ τοῦ δέρματος ἔξωθεν ἐπιτίθει καστόριον. ἔνθα δὲ δι' ὑπερβάλλουσιν ξηρότητα γίνεσθαι σπασμὸς, ἐναντιώτατον εἶναι γίγνωσκε τὸ φάρμακον τοῦτο.

"But most doctors in using castoreum pay attention only to the question whether a body part is trembling or going into spasm, not knowing whether the part is without feeling and immoveable or hard to perceive and to move, not knowing that such states of affairs arise from dissimilar dispositions of the body. But you, having learnt from Hippocrates that spasm arises both from emptiness and from fullness, should both give castoreum to drink and apply it externally to the skin when it is necessary to drain unnatural contents from the nerves. But when spasm results from an excess of dryness you should know that this drug has absolutely the opposite effect."

Now it could be argued in either case that the requirement of absolute consistency within Galen's pharmacology is unrealistically stringent but the standard is set very high by

Galen himself. If we apply his principles in both cases we can diagnose in *Ther.Pis.* the twin evils of ἄγνοια, ignorance, and failure to observe διορισμός, distinction between similar or related but different things, against which Galen warns repeatedly in his pharmacological writings: see von Staden (1997) and van der Eijk (1997) and in the case of the dipsas/echidna issue the inaccuracy entails a high risk of the patient dying. In the case of castoreum the consequences of misprescription are less clear cut but the effect of prescribing it in the wrong case is ἐναντιώτατον (*SMT* XI: XII 339.2) to the effect it has in appropriate cases. It follows that an argument based on giving Galen an element of leeway must be supported by a second-order argument explaining why the standards applied are inconsistent with the standards imposed by Galen himself.

#### e) Doctrine - Hippocrates

##### Hippocrates *Aph.* 4.5.

The next point where the author of *Ther.Pis.* apparently diverges from Galen involves the interpretation of Hippocrates. In advising on the appropriate time of year to take theriac the author of *Ther.Pis.* says:

“Observe both the time and the place where you are going to take the drug. For when it is summer I do not advise you to take the drug at all. For the weather is hot and the body is harmed by being made even hotter; knowing this the most wonderful Hippocrates says that medicines taken before or under the dog star are difficult. For this season mostly brings fever to men.” *Ther.Pis.*. XIV 285.10-16 = p. 140.19 ff. and n. quoting Hippocrates *Aph.* 4.5.

Leaving Galen on one side for the moment there is clear disagreement among translators as to what Hippocrates *Aph.* 4.5. actually means. Littré has “Pendant la canicule et avant la canicule les évacuations sont laborieuses.” Jones (1931) (Loeb) has “At and just before the dog-star purging is troublesome”. Chadwick and Mann in the Penguin translation (Lloyd (1983)) have “The administration of drugs is attended with difficulty at the rising of the Dog Star and shortly before”. LSJ gives the primary meaning of φαρμακεία as “the use of drugs, especially of purgatives”. The two competing translations cannot both be right: either Hippocrates is talking about drugs in general or he is talking about purgative drugs. In isolation the passage could have either meaning: LSJ admits either possibility though tilting the scales towards purgative drugs by use of the word “especially”. It is clear from a reading of the whole of *Aph.* 4 that it is about purgative drugs, not about drugs in general, and Littré's translation is to be preferred to that of Chadwick and Mann. The crucial question however for these purposes is not what it means but what Galen thought it meant and we can answer that very clearly by reference to his commentary on the passage in the *Commentary on Hipp.Aph.*:

Ἰπὸ κύνᾳ καὶ πρὸ κύνος ἐργώδες αἱ φαρμακεῖαι. — — — Ἐκπευρωμένη τε γὰρ ἡμῶν ἢ φύσις οὕσα τῆνικαῦτα τὴν ἀπὸ τῶν καθαρτικῶν οὐκ οἴσει δριμύτητα διὰ καὶ πυρέττουσι πολλοὶ τῶν ἐν τούτῳ τῷ καιρῷ καθαρθέντων, ἀσθενῆς τε οὕσα ἢ δύναμις διὰ τὸ καῦμα προσκαταλυθήσεται τῇ καθάρσει. *Hipp.Aph.* XVIIb 664.1

"Under and before the Dog star purgatives are a troublesome matter. For as our nature is much heated at that time it wil not tolerate the acidity from purgatives; for this reason

many of those purged at this time run a fever, and the power being weak because of the burning heat will be weakened further by the purging."

And in his explicit statement in commenting on *Hipp.Aph.* 7.25 that

12. Ἐκ φαρμακοποσίας σπασμὸς θανατῶδες. — — — Φαρμακοποσίας καὶ φαρμακείας ἰδίως εἴωθεν ὁ Ἱπποκράτης ὀνομάζειν τὰς τῶν καθαιρόντων φαρμακείας μόνον. *Hipp.Aph.* XVIIIa 124.5-8

"Hippocrates had the distinctive habit of using Φαρμακοποσίας and φαρμακείας to refer solely to drugs used to purge."

and again with the cognate verb φαρμακεύεσθαι he correctly says that Hippocrates uses it not for any drug but for purgatives only:

14. λζ'. Οἱ εὖ τὰ σώματα ἔχοντες φαρμακεύεσθαι ἐργώδες. — — — Οὐ τοὺς ὀτιοῦν φάρμακον προσφερομένους φαρμακεύεσθαι λέγειν εἴωθεν ὁ Ἱπποκράτης, ἀλλ' ἐπὶ μόνων τῶν καθαιρόντων τούτῳ χρῆται τῷ ῥήματι. *Hipp.Aph.* XVIIb 536.1-6.

Galen is not saying that Hippocrates only uses these words in this sense and would be wrong if he did say that, but that Hippocrates sometimes does this. Context provides the required definition. The point here is that the context is given in *Ther.Pis.* and in the commentaries on the Aphorisms and that the authors of *Ther.Pis.* on the one hand and the commentaries on the other interpret the word differently in an identical context.

So the passage of Hippocrates as understood by Galen and as intended by its author apparently fails to support the point which the author of *Ther.Pis.* wants it to support because it is about purgative drugs and theriac is not a purgative drug; on the contrary theriac is powerfully anti-purgative to the extent that the author of *Ther.Pis.* twice advises that the best test of theriac where it is suspected that it is adulterated or past its prime is to administer a purgative, and then theriac, to a test subject and see if purgation occurs. If it does not, the theriac is effective. ( p.58.13, p.126.2).

Perhaps with ingenuity this discrepancy can be explained away: the point is, it could be said, that the summer is hot and is therefore a bad time to take (a) purgative drugs because they are also heating and (b) theriac which is not a purgative drug but is heating for other reasons (cf. the warning against taking it in hot countries p.142 l.13 ff.) and the author of *Ther.Pis.* is merely generalising (in an extremely elliptical way) the point made by Hippocrates. This argument is difficult to sustain for three reasons. First, there is Galen's clear, emphatic and repeated assertion of the meaning of φαρμακεῖα in Hippocrates. Secondly Galen does not in *Hipp.Aph.* XVIIb 664.1 refer to a heating effect of αἱ φαρμακεῖαι but rather to their δριμύτητα: the patient who is purged under the Dogstar is weakened first by καῦμα and secondly by κάθαρσις, not by two different types of heating arising from the season and the purging respectively. Thirdly, in *Ther.Pis.* the fact that theriac is anti-purgative is so important that it provides on its own a conclusive test whether the drug is genuine, and still potent. We know the misunderstanding is seductively easy to commit because scholars as great as Chadwick and Mann have committed it, and we know from Galen's own commentaries that Galen has not. The author of *Ther.Pis.* seems to take the opposite view to Galen's.

**Hippocrates *Epid.* 2.3.2:**



It is possible that the author of *Ther.Pis.* makes the same mistake elsewhere of applying to drugs in general a passage of Hippocrates which applies, according to another work of Galen, to purgatives only; he quotes (p. 70.22 ff. and n.) a version of Hippocrates *Epid.* 2.3.2. Kühn prints the text as it appears in L :

φαρμάκων δὲ τρόπους ἴσμεν ἐξ ὧν γεγένηται ὀκοῖα ἄττα. οὐ γὰρ πάντες ὁμοίως, ἀλλ' ἄλλοι ἄλλως σύγκεινται, καὶ ἄλλα ὅσα πρωϊαίτερον, ἢ ὀψιαίτερον ληφθέντα, καὶ οἱ διαχειρισμοὶ, οἷον ξηρᾶναι, ἢ κόψαι, ἢ ἐψηῆσαι, καὶ τὰ τοιαῦτα, ἕως τὰ πλεῖστα μειώσῃ πλείω καὶ ὀκοῖα ἐκάστῳ καὶ ἐφ' οἷσι νοσήμασι, καὶ ἐφ' ἧ τε τοῦ νοσήματος ἡλικία, ἰδέα, καὶ διαίτη ὀκοῖα, ἢ ὄρη ἔτεος, ὀκοῖως ἄγωμεν, καὶ τὰ τοιαῦτα. (XIV 228.14 ff.)

Littre has

Φαρμάκων δὲ τρόπους ἴσμεν, ἐξ ὧν γίνεται ὀκοῖα ἄσσα · οὐ γὰρ πάντες ὁμοίως, ἀλλ' ἄλλοι ἄλλως εἶ κείνται · καὶ ἄλλα ὅσα πρωϊαίτερον ἢ ὀψιαίτερον ληφθέντα · καὶ οἱ διαχειρισμοὶ, οἷον ἢ ξηρᾶναι, ἢ κόψαι, ἢ ἐψηῆσαι · καὶ τὰ τοιαῦτα ἐῶ τὰ πλεῖστα, καὶ ὀκόσα ἐκάστῳ, καὶ ἐφ' οἷσι νοσήμασι, καὶ ὅποτε τοῦ νοσήματος, ἡλικίην, εἶδα, δίαταν, ὀκοῖη ὄρη ἔτεος, καὶ ἦτις καὶ ὀκοῖως ἀγομένη, καὶ τὰ τοιαῦτα. (Littre V 104)

ἕως τὰ πλεῖστα in L is clearly wrong ; ἐῶ τὰ πλεῖστα, "I pass over most things" as in Littre at least makes sense. μειώσῃ πλείω is hard to make any sense of; Rota in the Giuntine translation, followed by other translators, extracted the general meaning that most of the procedures listed reduce the bulk of the plant ("donec plurima plus minuant" Rota; "donec plerunque plurima minuantur" Chartier - "until most of them shrink more" (more than what being unexplained). Minuantur makes better sense than minuant but μειώω in the active is transitive (LSJ s.v.). μείω ἢ πλείω seems to me the obvious emendation (compare Ἐφ' οἷσι τε καὶ ὀκοῖα τὰ σημεῖα, καὶ πλείω ἢ μείω γινόμενα, χάσμη, βήξ, πταρμὸς, σκορδίνημα, ἔρευξις, φῦσα · πάντα τὰ τοιαῦτα διαφέρουσιν. (Hipp. Epid. 2.3.1.36-8)). My proposed reading in *Ther.Pis.* is therefore μείω ἢ πλείω for μειώσῃ πλείω. (p. 70.22 ff. and n.)

ἐῶ τὰ πλεῖστα if it is to stand must mean "I pass over most things" (Nutton 2005, 99). It is implicit elsewhere in the passage from the expression καὶ τὰ τοιαῦτα used twice and from the opening ἴσμεν – "we know" rather than "I am going to tell you" - that some detail is omitted but to say that most matters are not covered goes much further than that and is out of place in a work whose overall intention appears to be to convey the maximum amount of information in the most economical and unrhethorical style possible.

Given the "cryptic" (Nutton 2005, 99) nature of the passage and the overall similarity of shape between the expressions μείω ἢ πλείω/μειώσῃ πλείω on the one hand and ἐῶ/ἕως τὰ πλεῖστα on the other we should entertain the possibility that ἐῶ/ἕως τὰ πλεῖστα is an attempt to make sense of badly corrupt text (μειώσῃ πλείω vel sim.) which has in the *Ther.Pis.* tradition crept back from a marginal note into the text itself so that we get two corruptions of the one original, in which case ἕως τὰ πλεῖστα should be deleted. If so we could take the further step of emending the Hippocratic tradition to agree with that of *Ther.Pis.* by replacing ἐῶ τὰ πλεῖστα with μείω ἢ πλείω and reading ὀκοῖα for ὀκόσα on the basis that ἐῶ τὰ πλεῖστα is hard enough to explain in the first place and particularly so if a credible alternative reading is available. The argument depends on the strength of

the objection to ἐὼ τὰ πλεῖστα. In my view the objection is very strong – the words look like a half-hearted stab at a rhetorical praetermissio in a context where rhetoric is out of place. (The only other use of ἐὼ in this sense in the Hippocratic corpus *De Decente Habitu* 1. 7-8, IX 226 is to indicate that he is not going to discuss a topic because he is not interested in it: Ἐὼ δὲ τούτων τὰς μηδὲν ἐς χρέος πιπτούσας διαλέξιας · The author of Hipp. *Epidemics 2* apparently wants to omit a topic although he is interested in it.)

There is of course a counter argument to the effect that the whole passage from *Epidemics 2* is cryptic, starting with the introductory Φαρμάκων δὲ τρόπους ἴσμεν (where the text is not in dispute) and that ἐὼ τὰ πλεῖστα is in accordance with the spirit of the passage overall. This is really a matter of personal impression and my own view is that ἐὼ τὰ πλεῖστα is markedly more odd than the rest of the passage.

The Arabic text of *Ther.Pis.* gives a paraphrase of Hippocrates too loose to assist in elucidating the text. The Arabic text of *Commentary on Epidemics 2* is very close to the Littré and in particular contains words corresponding to ἐὼ τὰ πλεῖστα:

“(27) Hippocrates said: We know what these kinds of drugs consist of, how and what they are. For they are not all similar, but rather some of them are composed differently than others. This also constitutes a difference, whether someone takes them earlier or later, also their production, e.g. that they are dried, boiled, or crushed and the like. I will refrain from discussing any more than that, how much for each one, for which diseases, when during the illness, in accordance with age, appearance, regimen, which season it is and how it is progressing, and the like.” (personal communication from Dr Bink Hallum, Warwick Epidemics Project )

Galen’s commentary on Epid. 2.3.2

The *Commentary on Epid. II* in Kühn XVIIa is spurious, published in Venice in 1617 by Joannes Sozomenos and subsequently appearing in Chartier vol. 9 (Wenkebach CMG V 10.1 XXIII, Wenkebach (1917), Hankinson (2008) 395) but exists in Arabic of which there is a German translation by Pfaff in CMG V 10, 1 (unsatisfactory: Pormann (2008) 271 n. 70) and a forthcoming English translation from the Warwick Epidemics Project (above). In Pfaff’s translation the commentary states emphatically that the passage of Hippocrates refers not to drugs in general but to purgative drugs: CMG 10.1 266.12-15 “Für mich ist dies nur ein Beispiel für Purgativmittel, wie ja auch einige diesen Abschnitt mit dem vorhergehenden verbinden. Ich sage also, dass er mit den Worten “was sie sind” nur die einfachen Arzneien meint, aus denen die Zusammengesetzten hergestellt werden, um damit den Leib nach oben und nach unten zu entleeren.” This is however a mistranslation and the Warwick Project (forthcoming) has “I will illustrate this for you for purgative drugs since some people have joined this lemma with the previous one. I say that by his words “what they are”, he meant from which simple drugs a composite drug has to be compounded so that the bowels are emptied from above or below.” - in other words Galen admits as a possibility that the passage refers to purgative drugs only. Littré translates “Nous connaissons la nature variée des médicaments évacuants” but justifies this by reference in the apparatus to “Le Comm. de Galien” – that is the spurious commentary printed in Kühn (we know

that he refers to that commentary from e.g. Littré Vol 5 p. 100 = Epid. 2.3.1 where his note refers to the text at K XVIIa 388.10-16). For the importance, in Galen's eyes, of the distinction in Hippocrates between purgative and healing drugs see Hipp.Epid. XVIIb 336.9-12 = CMG V 10.2 344.19-22 και γὰρ καθ' ὅλην τὴν οὐσίαν ιδιότητες ἦτοι οἰκεῖται τοῖς σώμασιν ἡμῶν ἢ ἀλλότρια κατὰ τέτταρας ὕλας εἰσὶ καθαριστικὰ φάρμακα καὶ τροφαὶ καὶ τρίτα πρὸς αὐτοῖς ἃ νῦν Ἴπποκράτης ὠνόμασε κακοῦργα καὶ τέταρτα τὰ τούτων ἰατρικὰ. Note that purgative drugs have the same taxonomic status as food, poisons and antidotes to poisons. The passage continues: τεμνομένου δὲ τοῦ τρίτου γένους τῆς ὕλης εἷς τε τὰ δηλητήρια καλούμενα φάρμακα καὶ τοὺς ἰοὺς τῶν θηρίων, διττὴ καὶ τῶν ταῦτα θεραπευόντων ἐστὶν ἡ ὕλη. καλεῖται δὲ ἀλεξιφάρμακα μὲν, ὅσα τοῖς δηλητηρίοις ἀνθίσταται, θηριακὰ δὲ ὅσα τὰς τῶν θηρίων ἰᾶται δήξεις. ἴσως δὲ τις ἀξιώσει καὶ τὴν τῶν καθαιρόντων φαρμάκων ὕλην ἐν τοῖς δηλητηρίοις περιέχεσθαι, διαφθεῖρει γὰρ ἡμᾶς καὶ ταῦτα πλείω τοῦ συμμετρου δοθέντα. (Hipp.Epid. XVIIb 336.12-337.4 = CMG V 10.2 344.22-345.1) So having set up his quadripartite taxonomy he then suggests a possible merging of two heads, between purgatives and poisons, not between purgatives and antidotes. Cf. also *HVA* XV 540.4-541.8 - purgative drugs are in fact poisons and only the taking of very small doses prevents them from killing us. ἐναντία γὰρ ἡ φύσις ἐστὶν ἀπάντων τῶν καθαιρόντων φαρμάκων ταῖς τῶν καθαιρομένων | σωματίων καί, ὡς ἂν εἴποι τις, ὀλέθριός τε καὶ δηλητήριος αὐτῶν. *HVA* XV 540.11-541.2. The present passage in *Ther.Pis.* concerns curative drugs not purgative ones: the author of *Ther.Pis.* applies to curative drugs and to antidotes a saying of Hippocrates which on the view expressed elsewhere by Galen may apply to purgatives only. Unlike the passage discussed above ( p.31 ff.) Galen's commentary admits the possibility that the relevant saying of Hippocrates applies to drugs as a whole, not merely to purgatives.

#### f) Doctrine - Philosophy - Asclepiades

The most discussed passage in *Ther.Pis.* (with the possible exception of that relating to the accident to Piso's son at – putatively – the Secular Games of 204) is the brusque dismissal of Asclepiades' theory of ὄγκοι καὶ πόροι as being nothing more than Epicurus' and Democritus' atomic theory with the names changed: Εἰ μὲν γὰρ ἐξ ἀτόμου καὶ τοῦ κενοῦ κατὰ τὸν Ἐπικούρου τε καὶ Δημοκρίτου λόγον συνειστήκει τὰ πάντα, ἢ ἕκ τινων ὄγκων καὶ πόρων κατὰ τὸν ἰατρὸν Ἀσκληπιάδην · καὶ γὰρ οὗτος ἀλλάξας τὰ ὀνόματα μόνον καὶ ἀντὶ μὲν τῶν ἀτόμων τοὺς ὄγκους, ἀντὶ δὲ τοῦ κενοῦ τοὺς πόρους λέγων τὴν αὐτὴν ἐκείνοις τῶν ὄντων οὐσίαν εἶναι βουλόμενος · (p. 106.19 ff.) This is an extreme statement. Galen often elsewhere groups atomic and ὄγκοι καὶ πόροι theory (and as we shall see some other monist theories as well) as being functionally equivalent for the purposes of his argument, usually or invariably by virtue of their being monist. But he never elsewhere appears to go as far as to state that the belief systems are identical, and nor does any other source. Hence Vallance's statement (Vallance 1990, 37–8) that “Supporters of (p. 38 ) the thesis that Asclepiades was either an Epicurean, or at least heavily influenced by Epicurean atomism, invariably appeal to a chapter in the Galenic treatise *De theriaca ad Pisonem*”. My purpose here is not to investigate the theory of Asclepiades itself (as to which see most recently Leith 2009, 2012) but to consider how far the position stated in *Ther.Pis.* is inconsistent with what Galen says elsewhere in the corpus. Asclepiades' theory is characterised by a belief

in ὄγκοι καὶ πόροι, masses and voids: the ὄγκοι are sometimes called ἄναρμοι ὄγκοι or ἄναρμα. The meaning of ἄναρμοι – literally “unjointed” – is unclear. The other important quality of the ὄγκοι is that they are fragile, θραυστά, whereas Epicurean atoms are ἄθραυστα. For an example of Galen’s typical approach see *Hipp.Elem.* I: I 416 6-14: ἰδέα δὲ καὶ δυνάμει δύναιτ’ ἂν τις ἐν εἶναι λέγειν τὰ πάντα, καθάπερ οἱ περὶ τὸν Ἐπίκουρον τε καὶ Δημόκριτον τὰς ἀτόμους. ἐκ ταύτου δ’ εἰσὶν αὐτοῖς χοροῦ καὶ οἱ τὰ ἐλάχιστα καὶ ἄναρμα καὶ ἀμερῆ τιθέμενοι στοιχεῖα. πρὸς τοὺς τοιούτους οὖν ἅπαντας ὁ Ἱπποκράτης κοινήν τὴν ἀντιλογίαν ποιούμενος ἀποδείκνυσιν οὐχ ἔναι τὴν ἰδέαν τε καὶ τὴν δύναμιν τὸ στοιχεῖον οὐδὲ μνημονεύσας ἐκείνων, οἱ καὶ τῷ ἀριθμῷ τὸ ὄν ἐν εἶναί φασιν, ὡς ἐμπλήκτων τελέως.

Note that Galen is careful to portray the followers of Epicurus and Democritus on the one hand and the believers in other monist theories including ἄναρμα on the other as distinct but similar: they are “from the same chorus” - ἐκ ταύτου ... χοροῦ - before stating that Hippocrates’ argument refutes all of them equally.

This is a recurring pattern: In *HNH* XV 36.12-37.1 εἰ ἐν ἦν ὁ ἄνθρωπος, οὐδέποτε ἂν ἦλθεν. ὄντινα λόγον ἔφην [sc. Hippocrates] ἐξελέγγειν καὶ τοὺς ἄτομα καὶ ἄναρμα καὶ ἐλάχιστα στοιχεῖα τιθεμένους. ἐν γὰρ τῷ εἶδει καὶ κατὰ τούτους | ἐστὶ τὸ ὄντως ὄν.

*San.Tu.* I: VI 15.8-13;

συμμετρία γὰρ δὴ τις ἢ ὑγεία κατὰ πάσας ἐστὶ τὰς αἱρέσεις, ἀλλὰ καθ’ ἡμᾶς μὲν ὑγροῦ καὶ ξηροῦ καὶ θερμοῦ καὶ ψυχροῦ, κατ’ ἄλλους δὲ ὄγκων καὶ πόρων, κατ’ ἄλλους δὲ ἀτόμων ἢ ἀνάμων ἢ ἀμερῶν ἢ ὁμοιομερῶν ἢ ἀνομοιομερῶν ἢ ὅτου δὴ τῶν πρώτων στοιχείων, ἀλλὰ κατὰ πάντας γε διὰ τὴν συμμετρίαν αὐτῶν ἐνεργοῦμεν τοῖς μορίοις.

Compare Sextus Empiricus *Adversus mathematicos*. 10.318 for a similar survey of monist theories:

ἐξ ἀπειρῶν δ’ ἐδόξασαν τὴν τῶν πραγμάτων γένεσιν οἱ περὶ Ἀναξαγόραν τὸν Κλαζομένιον καὶ Δημόκριτον καὶ Ἐπίκουρον καὶ ἄλλοι παμπληθεῖς, ἀλλ’ ὁ μὲν Ἀναξαγόρας ἐξ ὁμοίων τοῖς γεννωμένοις, οἱ δὲ περὶ τὸν Δημόκριτον καὶ Ἐπίκουρον ἐξ ἀνομοίων τε καὶ ἀπαθῶν, τουτέστι τῶν ἀτόμων, οἱ δὲ περὶ τὸν Ποντικὸν Ἡρακλείδην καὶ Ἀσκληπιάδην ἐξ ἀνομοίων μὲν, παθητῶν δέ, καθάπερ τῶν ἀνάμων ὄγκων.

There are multitudes (παμπληθεῖς) of infinite particle theorists of whom the most notable are the followers of Anaxagoras and Democritus and Epicurus, but they are subdivided into distinguishable subsets, and the similarity and distinction between Epicurus (and others) and Asclepiades (and others) is expressly stated: both believe in infinite particles, but one says they are ἀπαθῶν, the other that they are παθητῶν.

And there are other examples of Galen following the same pattern of argument – i.e. the competing monist creeds are set out disjunctively and the present argument is then stated to apply to all of them (but by virtue of relevant similarities between the creeds, not of identity between them).

So Galen is scrupulous in these passages to avoid the assertion that monist theories are indistinguishable from one another. The assertion in *Ther.Pis.* of identity does make

that assertion. The question is then whether he ever positively states that Epicurean atomism differs from Asclepiadean theory. An extended passage in *Nat.Fac.* I: II 44.13-53.9 contrasts Epicurus' and Asclepiades' very different views on the question whether, and how, a lodestone attracts iron but this does not depend on any perceived difference between their underlying philosophies of matter – on the contrary these are very similar - Ἐπίκουρος μὲν οὖν καίτοι παραπλησίους Ἀσκληπιάδῃ στοιχείους πρὸς τὴν φυσιολογίαν χρώμενος ὁμῶς ὁμολογεῖ, πρὸς μὲν τῆς ἠρακλείας λίθου τὸν σίδηρον ἔλκεσθαι (*Nat.Fac.* I: II 45.4-7) - the difference, says Galen, lies in the way in which the principles are applied. Note that the tone of the attack on Asclepiades is viciously satirical and Galen's avoidance of saying the belief systems are identical in such a heated context, and when the claim would add bite to the satire, is strong evidence that he really believes them to be non-identical.

There is no passage as far as I am aware where Galen positively states a substantive difference between the two belief systems. We can find passages in separate works which taken together amount to positive assertions that the systems differ. Asclepiades' ὄγκοι are frangible things, θραυστά (Vallance 1990, 10–11). What this means and why the ὄγκοι if fragile have a better claim to be the primary constituents of matter than their fragments are extremely difficult questions; for present purposes however the issue is whether Galen recognised that ὄγκοι are fragile and recognised that Epicurean atoms are not. On the latter point we could if necessary take it as read that he accepted the infrangibility of atoms under Epicurus' system, given the fundamentality of this point to Epicurean physics (and of course given the etymology of ἄτομος). We do however have an unambiguous statement of the point concerning Epicurus in *Hipp.Elem.* I: I 418.15-17: ἀπαθῆ δ' ὑποτίθενται τὰ σώματα εἶναι τὰ πρῶτά τινες μὲν αὐτῶν ὑπὸ σκληρότητος ἄθραυστα, καθάπερ οἱ περὶ τὸν Ἐπίκουρον, and of the point concerning Asclepiadean ὄγκοι in *CAM*: I 249.11-15 ὅπῳ οὖν οὐδ' ἐν τοῖς παθητικοῖς ἐναργῶς σώμασιν οὐθ' ἢ σύνθετος, οὐθ' ἢ ἀφοδος ὀδύνην ἐργάζεται, σχολῆ γε ἂν ἐν τοῖς ἀπαθέσιν ἐργάσαιτο. οὐ μὴν οὐδὲ τὸ ἄναρμον τὸ Ἀσκληπιάδου θραυστὸν ὃν ὀδυνῆσεται θραυόμενον, ἀναίσθητον γὰρ ἐστίν.

The point in this case appears to be that combining and uncombining sensitive body parts (joining and separating one's fingers is the example given) is painless, and so *a fortiori* is combining and uncombining non-sensitive particles. That covers both atoms and ἄναρμα and the only case which remains to be covered is the breakage of ἄναρμα which apparently does not constitute the uncombining of separate particles. To exclude the possibility of this entailing pain an appeal must be made to the separate point that they are ἀναίσθητα. Compare *Morb.Diff.* VI 839.16-840.5 οὐκ οὖν ἐν ἐστὶ τὸ τῶν ζώων σῶμα, καθάπερ ἢ ἄτομος ἢ Ἐπικούρειος, ἢ τῶν ἀνάρμων τι τῶν Ἀσκληπιάδου · σύνθετον ἄρα πάντως. ἀλλ' εἰ μὲν ἐξ ἀτόμων, ἢ ἀνάρμων, ἢ ὅλως ἐξ ἀπαθῶν τινῶν σύγκειται, τὸ μᾶλλον τε καὶ ἥττον ἐν τῷ ποιῶ τῆς συνθέσεως ἕξει δίκην οἰκίας ἐξ ἀπαθῶν μὲν λίθων συγκειμένης, οὐ μὴν ἐν τῇ συνθέσει γε πάντη κατορθουμένης.

Atoms and ἄναρμα are here subsumed under ἀπαθῶν τινῶν – contrary to the statement of Sextus Empiricus *Adversus mathematicos.* 10.318 (above) that atoms are ἀπαθῆ while ἄναρμα are παθητά. But Galen clearly takes παθητά and ἀπαθῆ to refer to the capacity to feel sensation in *CAM*: I 249.11-15 because the *a fortiori* argument from

fingers makes much more sense if fingers are offered as an example of sensitive living flesh than if they are merely an example of something larger than an individual atom. The particles are clearly ἀπαθῆ in this sense. Galen is therefore not really contradicting the distinction made by SE between παθητά ἀνάγμα and ἀπαθῆ atoms. The distinction he does recognise is between frangible ἀνάγμα and infrangible atoms (which may in fact be the same distinction as that between παθητά and ἀπαθῆ in SE: (D Leith 2009, 297–9)). There is strong evidence that Galen himself believed in this equivalence: *Hipp.Elem.* I: I 418.15-419.2 ἀπαθῆ δ' ὑποτίθενται τὰ σώματ' εἶναι τὰ πρώτῃα τινες μὲν αὐτῶν ὑπὸ σκληρότητος ἄθραυστα, καθάπερ οἱ περὶ τὸν Ἐπίκουρον, ἐνιοὶ δ' ὑπὸ σμικρότητος ἀδιαίρετα, καθάπερ οἱ περὶ τὸν Λεύκιππον, ἀλλ' οὐδ' ἀλλοιοῦσθαι κατὰ τι δυνάμενα ταύτας δὴ τὰς ἀλλοιώσεις, - primary particles are ἀπαθῆ because they are hard and therefore infrangible (Epicurus) or small and therefore impossible to subdivide (Leucippus).

Clearly therefore the claim in *Ther.Pis.* that Asclepiades' and Epicurus' theories of matter are identical is not as it has been taken to be an express statement of a claim made implicitly elsewhere in Galen; it is inconsistent with Galen's usual approach of identifying the two theories as distinct even when, as is usually the case, they are for his purposes functionally identical, and it is contradicted by his recognition of the fact that atoms are ἄθραυστα while Asclepiadean particles are θραυστά. Compare Galen's approach to the nature of Asclepiades' system when he is discussing voids as opposed to particles. In the examples given by Leith (2012, 166–7) when Galen is talking about voids he is happy to talk about the doctrine of Asclepiades and Epicurus in terms implying that there is only one doctrine involved:

τὸ δὲ κενὰς εἶναι τινὰς χώρας ἢ κατὰ τὸ ὕδωρ ἢ κατὰ τὸν ἀέρα τῆ μὲν Ἐπικούρου τε καὶ Ἀσκληπιάδου δόξῃ περὶ τῶν στοιχείων ἀκόλουθόν ἐστι. *Hipp.Epid.* IV: XVIIIb 162.7-9

ἐπισταμένων ἡμῶν δηλονότι καὶ μεμνημένων αἰεὶ πῶς λέγεται χώρα κενὴ πρὸς τῶν ἠνωσθαι φασκόντων τὴν οὐσίαν, ὅτι μὴ καθάπερ Ἐπικούρῳ καὶ Ἀσκληπιάδῃ δοκεῖ, ἀλλ' ἔστιν ἀέρος πλήρης ἐν ἅπασιν τοῖς ἀραιοῖς σώμασιν ἢ κενὴ χώρα.

This is understandable because (to put it only slightly simplistically) there are more ways of being a particle than there are of being a void. These references to Epicurus' and Asclepiades void theory in the singular demonstrate that when Galen believes the theories of the two men to be indistinguishable he is prepared to say so. By contrast when he refers to particle theories he refers to them as if they were distinct even if the distinction is irrelevant because what he is focussing on is a shared characteristic of, for instance, monism. The extreme statement of the identity of Asclepiades' theory with that of Democritus and Epicurus in *Ther.Pis.* is therefore at odds with what we find elsewhere in Galen.

### **g) Doctrine - Philosophy - λόγος and πείρα**

The relative importance of λόγος on the one hand and πείρα on the other in pharmacology and in medicine and science generally is a recurring theme in Galen's work. In addition to the fundamental theoretical importance of the question in these contexts it also has importance for Galen because of his interest in defining and

distinguishing between current medical sects: as a rule of thumb, dogmatists are doctors who privilege *λόγος* over *πείρα*, and empiricists are doctors who privilege *πείρα* over *λόγος*. Galen's own position in the debate is complex. He represents the empiricists as even rejecting many forms of practical investigation as being too theoretical for their purposes – for instance anatomy is embraced by dogmatists and rejected by empiricists according to *Sect.Int.* I 77.3-7 on the grounds that it finds out nothing and if it did, what it found out would be unnecessary for the art of medicine: τῶν μὲν [sc. the rationalists] τὴν ἀνατομὴν καὶ τὴν ἐνδειξιν καὶ τὴν διαλεκτικὴν θεωρίαν ἐπαινοῦντων ὄργανα γὰρ αὐτοῖς ταῦτα τῶν ἀδήλων θηρατικά· τῶν δ' ἐμπειρικῶν μὴθ' εὐρίσκειν τι τὴν ἀνατομὴν συγχωροῦντων μῆτ', εἰ καὶ εὐρίσκοιτ', ἀναγκαῖον εἰς τὴν τέχνην εἶναι τοῦτο. This would appear to put Galen as an enthusiast for anatomy firmly in the dogmatist camp. On the other hand there is much in the Hippocratic corpus which takes a strongly empiricist approach: see the robust assertions in *De priscina medicina* 1.1-8, *De natura hominis* 1.1-25 of the irrelevance of theories of the fundamental nature of matter to the art of medicine. In addition to these express rejections of fundamental theories much of the corpus, in particular the *Epidemics* implicitly endorses the empiricist stance by rigidly excluding any element of theory from its content. Galen's approach is therefore even-handed: despite their differences members of both sects, he says at *Sect.Int.* I 79.5-8 if properly trained apply the same remedies to the same diseases: τοιαῦτα μυρία πρὸς ἀλλήλους ἀμφισβητοῦσιν ἐμπειρικοί τε καὶ δογματικοὶ τὴν αὐτὴν θεραπείαν ἐπὶ τῶν αὐτῶν παθῶν ποιούμενοι, ὅσοι γε νόμῳ καθ' ἑκατέραν τὴν αἴρεσιν ἤσκηται.

In the specific context of pharmacology Galen's general approach appears to be in line with that outlined above: that is, he steers a middle course between dogmatism and empiricism. For a statement apparently giving equal weight to both see *CMG VI: XIII* 886.17 -887.6:

Ἵτι τῶν βοηθημάτων ἕνια μὲν ὁ λόγος εὐρίσκει μόνος, ἕνια δὲ ἡ πείρα, καὶ αὐτὴ τοῦ λόγου μὴ χρῆζουσα, τινὰ δ' ἀμφοῖν ἀλλήλοις συνεργούντων δεῖται, πολλάκις ὁμῖν ἐπιδέδεικται, καὶ πρὸς γε τούτοις ὅτι τὰ διὰ λόγου καὶ πείρας εὐρισκόμενα στοχαστικῇ μὲν ὁδῷ χρῆται πρὸς τὴν τῶν ζητουμένων εὔρεσιν, ἐλπισθέντα δὲ τῷ λόγῳ βεβαιοῦται τῇ πείρᾳ.

However the passage then continues (887.6-12)

καὶ μέντοι καὶ ὡς τῆς στοχαστικῆς ἐλπίδος οὐκ ὀλίγη ἐστὶν ἐν τῷ μᾶλλον τε καὶ ἥττον ἢ διαφορὰ, καθάπερ καὶ καθ' ὅλον τὸν βίον. οὐ γὰρ ὁμοίως ἐλπίζομεν ὑετὸν ἔσεσθαι κατὰ γε τὰς χειμερινὰς τροπὰς καὶ τὴν τοῦ κυνὸς ἐπιτολήν. ἐν μὲν γὰρ ταῖς χειμεριναῖς τροπαῖς σπανιάκις οὐ γίνεται, κατὰ δὲ τὴν τοῦ κυνὸς ἐπιτολήν σπανιάκις γίνεται.

So the discoveries made by *λόγος* alone (ἕνια μὲν ὁ λόγος εὐρίσκει μόνος) have the status of expectations and as such are always subject to verification by *πείρα* because of the unpredictability inherent in life in general (καθ' ὅλον τὸν βίον). The converse is not stated here nor, so far as I can tell, elsewhere in Galen, that the discoveries of *πείρα* require further validation by *λόγος* to be fully reliable.

Other passages in Galen occasionally show him polemically on the side of *πείρα* against *λόγος*: *At.Bil.* V 144.7-9:

Περὶ δὲ μελαίνης χολῆς τὰ διὰ μακρᾶς πείρας μοι βεβαίως ἐγνωσμένα προσθήσω νῦν χρήσιμα ἐσόμενα ἐκείνοις, ὅσοι τῆς ἰατρικῆς τέχνης οὐ τοὺς σοφιστικoὺς λόγους, ἀλλὰ τὰ ἔργα σπουδάζουσι. This passage introduces an attack on the Asclepiadean view also attacked in *Ther.Pis.* that specific drugs do not have a specific δύναμις to draw one specific humour from the body (p.66.10 ff.)

In contrast to the measured approach to the competing claims of πείρα and λόγος, with a bias in favour of πείρα in a pharmacological context (*CMG VI: XIII 886.17 -887.6* above) *Ther.Pis.* prefers ὁ λόγος αὐτὸς πρῶτος καὶ μόνος (p.64 l.4) to πείρα to the extent that πείρα is not to be consulted at all except in the case of matters which λόγος "cannot discover". The passage goes on to specify aspects of drugs which must be discovered by πείρα rather than λόγος; nevertheless the privileging of λόγος is unusual in the context of Galen's pharmacological works.

#### **h) Style and Language**

The dedication of the work to Piso calls into question the place of dedications in Galen's work. This in turn raises the wider question of his motives for writing generally given his insistence in several passages that he writes for and at the request of friends and acquaintances.

There is a general statement in *Hipp.Epid.* to the effect that Galen's sole motive in writing is the request of friends or acquaintances, especially those who are about to spend some time abroad:

Ἐμοὶ μὲν οὐδ' ἄλλο τι βιβλίον ἐγράφη χωρὶς τοῦ δεηθῆναι τινος ἢ φίλους ἢ ἑταίρους καὶ μάλιστα τοὺς εἰς ἀποδημίαν μακροτέραν στελλομένους, ἀξιώσαντας ἔχειν ὑπόμνημα τῶν ὑπ' ἐμοῦ ρηθέντων αὐτοῖς ἢ δειχθέντων ἐν ταῖς τῶν ζώων ἀνατομαῖς καπὶ <ταῖς ἐπισκέψεσι> τῶν νοσοῦντων. (*Hipp.Epid.* III: XVIIa 576.1-5)

This is as we shall see an oversimplification but much in Galen's work is consistent with the statement. Of the explicitly dedicated works (by which I mean those in which Galen addresses in the vocative a named listener) the majority conform to this pattern. In nine cases out of thirteen the addressee is said to "desire" the treatise or information on the subject-matter, e.g. βουληθέντι σοι *Ven.Art.* II: 779.2, *Gloss.* XIX 62.2 (if *Gloss.* is by Galen); ὀρεγόμενος *CAM* I 224.2; or to ask for it e.g. ἠξίωσας *MMG* I: XI 1.9, ἀξιοῦτε *MM* VII: X 458.7, παρακαλοῦσι *MM* I: X 1.2. As a slight variation on this theme *Thras.* is presented as an answer to a problem propounded by the addressee - περὶ τοῦ προβληθέντος ὑπὸ σοῦ ζητήματος *Thras.* V 806.2. In another variation *Lib.Prop.* is written in response to some advice from the addressee: Ἔργω φανερὰ γέγονεν ἡ συμβουλή σου, κράτιστε Βάσσε, περὶ τῆς γραφῆς τῶν ὑπ' ἐμοῦ γεγονότων βιβλίων. (*Lib.Prop.* XIX 8.2-4) *MM* furnishes an interesting doublet in that it has a new dedication at the beginning of book VII. The first book is dedicated to Hieron at the request of him and some other companions of Galen and/or Hieron: Ἐπειδὴ καὶ σύ με πολλάκις, ὦ Ἱέρων φίλτατε, καὶ ἄλλοι τινὲς νῦν ἑταῖροι παρακαλοῦσι θεραπευτικὴν μέθοδον αὐτοῖς γράψαι (*MM* I: X1-3) But at the beginning of book VII there is a new dedication to Eugenianus: Τὴν θεραπευτικὴν μέθοδον, ὦ Εὐγενιανὲ φίλτατε, πάλαι μὲν ὑπερξάμην γράφειν Ἱέρωνι χαριζόμενος, ἐπεὶ δὲ ἐξαίφνης ἐκεῖνος ἀποδημίαν μακρὰν ἀναγκασθεὶς στεί- λασθαι, μετ' οὐ πολὺν χρόνον ἠγγέλθη τεθνεὼς, ἐγκατέλιπον κἀγὼ τὴν γραφὴν.



(*MM* VII 456.1-5)

Note that the ἀποδημία μακρὰ here brings writing to a temporary halt rather than catalysing it in the first place. Galen then goes on to explain that he writes not for glory but for one of two reasons only – to satisfy the requests of friends, and as an exercise for himself:

οἶσθα γὰρ ὡς οὔτε ταύτην οὔτε ἄλλην τινὰ πραγματείαν ἔγραψα τῆς παρὰ τοῖς πολλοῖς ἐφιέμενος δόξης, ἀλλ' ἦτοι φίλοις χαριζόμενος ἢ γυμνάζων ἑμαυτὸν (*MM* VII 456.5-7)

This adds another motive or Galen to write in addition to that put forward in the Epidemics.

Galen's work on his own books, *Lib.Prop.*, on the whole confirms in the books it describes this pattern of writing for friends – especially friends contemplating an ἀποδημία – and as an exercise for himself. So we learn that *PHP* books 1-6 and the first book of *UP* were written at the request of Boethus and taken by him on an ἀποδημία as proconsul of Palestine (*Lib.Prop.* XIX 15.18-16.2). It follows from this that we cannot tell from a work of Galen's whether it was written in response to a personal request or not because there is no dedication in *UP*; we do not know the situation for *PHP* because the first book is incomplete. *AA* tells us that a previous work on anatomy was also dedicated to Boethus on the same occasion:

Φλάβιος Βοηθὸς ἀνὴρ ὕπατος Ῥωμαίων, ἐξιὼν ἐκ Ῥώμης εἰς τὴν ἑαυτοῦ πατρίδα Πτολεμαΐδα, παρεκάλεσέ με τὰς ἐγχειρήσεις ἐκείνας αὐτῷ γράφειν (*AA* I: II 215.5-7)

There is some ambiguity in a passage in *Praen.* as to Galen's claimed motivation for writing. While Marcus Aurelius was away at the Germanic wars he wrote many treatises and gave them away:

παντὶ τοῦτῳ τῷ χρόνῳ πολλὰς πραγματείας ἔγραψα φιλοσόφους τε καὶ ἰατρικὰς, ἃς ὑποστρέψαντος τοῦ βασιλέως εἰς τὴν Ῥώμην αἰτήσασι τοῖς φίλοις ἔδωκα, παρὰ μόνους ἐκείνοις ἐλπίσας αὐτὰς ἔσεσθαι. (*Praen.* XIV 650.16-651.1)

The Kühn translation has "amicis petentibus exhibui;" Nutton translates "I gave to my friends who asked for them". "I gave to my friends who had asked for them" is probably a better translation – i.e. it is more consistent with what Galen says elsewhere that the writings were as it were "commissioned" in the first place by the friends referred to than that they were written first and then given to friends who had come to hear of their existence.

Another distinct type of "dedication" in Galen's work is the hostile addressing of a treatise to a named opponent. For example *Praen.* XIX 37.19 – 38.2

ἔστι δὲ καὶ τὰ περὶ Ἐρασιστράτου ἀνατομῆς τρία βιβλία καὶ περὶ φλεβοτομίας δύο, τὸ τε πρὸς Ἐρασίστρατον αὐτὸν γεγραμμένον καὶ τὸ πρὸς <τοῦς> ἐν Ῥώμῃ Ἐρασιστρατείους

Neither work contains a dedication or direct address to the addressee (though a direct address to a dead writer is possible in Galen; cf. for example Ἀριστότελες φίλτατε *Sem.*

I: IV 530.4 and elsewhere).

So the two basic patterns of “addressed” work in Galen are those written on request for friends and pupils, and - more rarely – those written “against” an opponent (contemporary or not). Works which are not explicitly dedicated are on Galen’s account nonetheless usually written on request unless they are “exercises” for Galen himself. Works written on request are geared to the precise needs and level of knowledge of the requesting party: γεγραμμένων οὖν, ὡς ἔφην, οὐ πρὸς ἕκδοσιν αὐτῶν ἀλλὰ κατὰ τὴν τῶν δεηθέντων ἕξιιν τε καὶ χρεῖαν εἰκὸς δῆπου τὰ μὲν ἐκτετάσθαι, τὰ δὲ συνεστάλθαι καὶ τὴν ἔρμηνείαν αὐτὴν τε τῶν θεωρημάτων τὴν διδασκαλίαν ἢ τελείαν ὑπάρχειν ἢ ἑλλιπῆ. *Lib.Prop.* XIX 10.15-11.1

One slight anomaly is in *Puls.* Ὅσα τοῖς εἰσαγομένοις, φίλτατε Τεῦθρα, χρήσιμον ἐπίστασθαι περὶ σφυγμῶν, ἐνταῦθα λεχθήσεται. τὴν δ’ ὅλην ὑπὲρ αὐτῶν τέχνην ἐτέρωθι γεγραμμένην ἔχεις *Puls.* VIII 453.1-3

where Teuthras, the dedicatee of *On Pulses for Beginners* apparently already has copies of Galen’s full works on the subject.

The works which do not completely fit the picture created in *Lib.Prop.* are first what might be called the autobiographical books - *Lib.Prop.*, *Ord. Lib.Prop.*, *Praen.*; secondly *Puer.Epil.* and thirdly *Ther.Pis.* *Lib.Prop.* and *Ord. Lib.Prop.* conform to pattern in that they are both addressed to a named dedicatee who in both cases has asked for the book to be written; Bassus has advised that *Lib.Prop.* should be written, Eugenianus has asked for (ἡξιωκένας *Ord. Lib.Prop.*, XIX 49.2) a book giving the correct order of Galen’s writings. *Puer.Epil.* is interesting in that it purports to respond to an unusually specific requirement. Galen has been asked by an Athenian, Caecilianus, to give him ὑποθήκαι, medical advice, about the management of his son’s epilepsy. Galen starts by stating his unwillingness to provide such advice because Dionysius, apparently another doctor retained by and traveling with Caecilianus and his son, is better placed to give such advice since he will be with them on the sea-voyage back to Athens and can give his own ὑποθήκαι when he parts with them. (*Puer.Epil.* XI 357.2-7). Galen has never actually seen the patient, does not know what he was like before the fits started or what he is like now and knows only that Caecilianus has told him that he suffers from fits. (*Puer.Epil.* XI 357.7-12). What changes Galen’s mind is an accusation by Caecilianus that he is “running away from” the request to write a treatise, because Caecilianus wrongly believes Galen is being self-deprecating (ὀλιγοροῦντά) rather than speaking the truth when he says he is ill-equipped to give the advice: ἐπεὶ δὲ ὀλιγοροῦντά με μᾶλλον ἢ ἀληθεύοντα νομίζεις ἀποδιδράσκειν τὴν γραφὴν, ὃ μηδέποτε πρότερον ἔπραξα, τοῦτο νῦν ὑπομένω πράξαι σοι χαριζόμενος ὑποθήκας τινὰς γράψαι θεραπείας ἐπιλήπτου παιδός, ἐν αἷς ἀνάγκη τι καὶ παρακοῦσαι τὸν ιδιώτην καὶ σφαλῆναι περὶ τὸ μέτρον ἢ τὸν καιρὸν τῆς χρήσεως. ἀποδέδεικται γὰρ ἡμῖν ἐτέροις ὡς οὐκ ἐνδέχεται χωρὶς τοῦ μέθοδόν τινα ἐκμαθεῖν θεραπευτικὴν ἰάσασθαι τι καλῶς οὐδὲ τῶν σμικροτάτων νοσημάτων μὴ τί γε τῶν οὕτω μεγάλων ἡλικῶν καὶ τὸ τῆς ἐπιληψίας ἐστὶ. (*Puer.Epil.* XI 358.2-13).

So Galen gives the advice in response to this challenge despite his objection that he has not seen the patient while another doctor has and despite the further objections that

Caecilianus is a layman and ill-equipped to understand the advice given to him. He will inevitably blunder over dosage and time of administration since (as Galen has shown elsewhere) it is necessary to learn thoroughly the whole therapeutic method in order to cure even a simple disease, let alone a complex one like epilepsy. Asking Galen to advise on epilepsy only is like asking Pheidias after he completed the statue of Athene to sculpt individually a finger, an arm, a foot, a nose, an ear and so on. Galen's therapeutic writings are explicitly equated to "a kind of statue", and are not likely to be of help to laymen or even to an average doctor:

ἐμοὶ γὰρ οἷον ἄγαλμά τι γεγράφθαι νομίζω τὴν θεραπευτικὴν μέθοδον ἐν ὑπομνήμασι πλείοσιν οὐχ ὅπως ἰδιώτας ὠφελεῖν δυναμένην ἀλλ' οὐδὲ τοὺς ἐπιτυχόντας τῶν ἰατρῶν. (*Puer.Epil.* XI 359.9-13).

The treatise then gives advice on diet, exercise, massage and medication for the epileptic boy, explicitly repeating in the final section (on medication) the point about the inadequacy of prescriptions given to a layman:

ὅθεν οὐδ' εἰ μυρίας τις ὑποθήκας γράφοι μήπω κατὰ τὴν θεραπευτικὴν μέθοδον ἡσκημένωι κάκειθεν τετεχνημένωι τὴν ψυχὴν, ἰκανὸν ἂν ἐργάσαιτο θεραπευτὴν τὸν τοιοῦτον οὐχ ὅπως οὐ μεγίστων νοσημάτων ἀλλ' οὐδὲ τῶν σμικροτάτων οὐδενός. ... καὶ μοι τετελεύτηκεν ὁ λόγος εἰς ταῦτόν, ὅθεν περ καὶ ἤρξατο, μηδὲ τοῦλάχιστον ἐπιδείξασθαι δύνασθαι καλῶς τὸν ἰδιώτην μεταχειρίζεσθαι ἀλλ' ἢ χρήζειν ἐπιστατοῦντος τοῦ τεχνίτου. (*Puer.Epil.* XI 376.4-8, 17-21).

Despite this warning Galen goes on to describe how to make "the medicine made of squills" (τ[ὸ]δὲ διὰ τῆς σκίλλης φάρμακ[ον] *Puer.Epil.* XI 374.8) because Caecilianus has requested it:

ἐπεὶ δὲ | οἱ πολλοὶ φαύλως τὸν χυλὸν τῆς σκίλλης ἐκλαμβάνουσιν, ἀξιώσαντί σοι [τοῦτο] μαθεῖν, ὅπως ἐγὼ τοῦτο πράττω, προσθήσω τῷ λόγῳ τὴν σκευασίαν αὐτοῦ. (*Puer.Epil.* XI 377.1-4)

We can see here some similarities with *Ther.Pis.*, notably the imaginative realisation of Galen's reason for addressing of the treatise the dedicatee which goes beyond the mere fact of the dedicatee having asked for it. In the case of *Puer.Epil.* the reason for writing the treatise is primarily therapeutic and practical (the need to treat Caecilianus' son). In *Ther.Pis.* the primary reason is Piso's interest in medicine: οὐδὲ περὶ τὸ φάρμακον τοῦτο τὴν θηριακὴν ἔσχευ ἀμελῶς, ἀλλ' ἐσπούδασας αὐτοῦ εἰδέναι τὴν τε δύναμιν καὶ τὴν κρᾶσιν, τὸν τε καιρὸν καὶ τὸ μέτρον τῆς χρήσεως ἀκριβῶς ἐκμαθεῖν. (p.56.23)

There are references to Piso's son's need for medical care but that has now been resolved. *Puer.Epil.* is unique in the respect of being written in the context of a specific medical case. Where the two treatises diverge most noticeably is in the matter of giving therapeutic advice to a layman. *Puer.Epil.* as noted above states Galen's very strong objection to this: a layman is bound to err as to dosage and time of administration (σφαλῆναι περὶ τὸ μέτρον ἢ τὸν καιρὸν τῆς χρήσεως *Puer.Epil.* XI 358.8-9); in *Ther.Pis.* Galen complies with an almost identically worded request to tell Piso about τὸν τε καιρὸν καὶ τὸ μέτρον τῆς χρήσεως [sc. of theriac] (XIV. 214.9-10). Cf. also *Ven.Sect.Er.Ven.Sect.Er.* XI 171.17-172.7 for an attack on the value of a prescription to laymen without detailed guidance on dosage and time of administration: θαυμαζέτω δέ

τις ἐκεῖνο, πῶς ἐν οἷς μὲν αὐτὸς εἴρηκεν, εἰ Χρυσίπειόν τι διδάσκει, τολμηρὸς ἰκανῶς ἐστὶ καὶ οὐδὲν ἄρα τηνικαῦτ' αὐτὸν, οὐκ ὀξύτης καιροῦ κατέπληξεν, οὐ τοῦ μέτρου τὸ δύσληπτον, οὐ τοῦ πάθους τὸ κινδυνῶδες, ἀλλ' οὕτως οἶεται σαφῶς τε ἅμα καὶ ἀκριβῶς αὐτὸ τε τὸ μέτρον καὶ τὸν καιρὸν ἐκιδάσκειν, ὥστ' οὐ μόνον ἰατροῖς, ἀλλ' ἤδη καὶ ἰδιώταις χρησίμους εἶναι τὰς ὑποθήκας νομίζει.

*Puer.Epil.* presents a credible scenario for Galen to overcome his objections and provide therapeutic advice, with express provisos, to a layman. The reason given in *Ther.Pis.* is as follows:

καὶ γὰρ εὐχρηστον νομίζω σκευάσαι σοι αὐτὴν τῷ λόγῳ, ἵνα ἦν ποτε καὶ μὴ παρόντος ἰατροῦ εὐφυῆς ὄν σκευάζειν αὐτὴν ἐθέλης, ὡς ἄριστα σκευάσης, διδάσκαλον τῆς σκευασίας ἔχων αὐτὸν τὸν λόγον.(p.118.12).

The reason given seems far-fetched: it is difficult to imagine a setting where the ingredients for theriac are all readily available (presumably Rome, Alexandria, perhaps Crete) but no doctor to make them up into theriac, and where it is not worth sending for existing theriac from elsewhere rather than make up a fresh batch and wait for the absolute minimum two months which must elapse for it to be useable (see *Ant.* I: XIV 65.14-65.3: καὶ ἡμίσεος, ἐν ᾧ δένδρον ὅλον ἦν κινναμώμου τοῦ πρώτου γένους, ἐξ αὐτοῦ σύνθεσιν τινα τῷ αὐτοκράτορι Μάρκῳ Αντωνίνῳ ποιησάμενος, ὄλην εὔρον τὴν ἀντίδοτον ἰκανῶς τῶν ἄλλων ὑπερέχουσαν, ὥστε γευσάμενον αὐτῆς τὸν αὐτοκράτορα μὴ περιμεῖναι χρόνον, ὥσπερ ἐπὶ τῶν ἄλλων, ἐν ᾧ πεφθῆσεται τὸ φάρμακον, ἀλλ' εὐθέως χρῆσθαι, μηδὲ δύο μηνῶν ὀλοκλήρων ἐν τῷ μεταξὺ γενομένων.) Such a setting would presumably constitute an ἀποδημία and to that extent the advice to Piso fits a Galenic pattern. However the ἀποδημία is not stated as the main motivation for the work and there is no indication in other treatises that the point of the dedicatee having the work on his ἀποδημία is as a practical medical manual.

The other dedicated treatise which is *sui generis* is *On Prognosis* dedicated to Ἐπιγένους who atypically is addressed throughout the piece, seven times by name and more frequently as συ or without a name, e.g. ὡς οἴσθα καὶ αὐτὸς (XIV 609.1), and who may or may not be the Ἐπιγένους to whom *On Exercise with the Small Ball* is also addressed.

*On Prognosis* starts with a rhetorical flourish -

Ὅσον μὲν ἐπὶ τοῖς πολλοῖς τῶν ἰατρῶν, ᾧ Ἐπίγενης, ἀδύνατόν ἐστι προγινώσκειν τὰ τοῖς κάμνουσιν ἐσόμενα καθ' ἐκάστην νόσον

and with no trace of the usual suggestion that the dedicatee has requested the work. Later addresses to Epigenes in the body of the work are essentially invocations of him as a witness to Galen's triumphs, e.g. συνηκολούθησαν δ' αὐτῷ καὶ οἱ κατὰ τὴν ὁδὸν ἀπαντῶντες, ἐν οἷς ἦσθα καὶ σύ (633.9-10), καὶ εἰπὼν τῷ Πειθολάῳ μετὰ τὸ πιεῖν ὡς ἰατρὸν ἔχων ἓνα καὶ τοῦτον ἐλεύθερον πάννυ διετέλει τε περὶ ἔμοῦ λέγων αἰεὶ, καθάπερ οἴσθα καὶ σύ, τῶν μὲν ἰατρῶν πρῶτον εἶναι, τῶν δὲ φιλοσόφων μόνον · (660.9-12) or to general statements of fact of the kind Φλάβιος Βοηθὸς ὑπατικὸς ἀνὴρ, ὅπως μὲν ἦν φιλόκαλός τε καὶ φιλομαθὴς οἴσθα καὶ σύ. (626.17-627.2).

We know of a 4th century BCE medical treatise identified in the title by reference to

a dedicatee from Galen's reference to Diocles of Carystus' Ὑγιεινὰ πρὸς Πλείσταρχον (*Alim.Fac.* I:VI 455.7). Six of Ptolemy of Alexandria's works contain a vocative address in the first sentence, ὦ Σύρε in each case. for example *Syntaxis mathematica* 1,1 4 6-9: α'. Προοίμιον. Πάνυ καλῶς οἱ γνησίως φιλοσοφήσαντες, ὦ Σύρε, δοκοῦσί μοι κεχωρικέναι τὸ θεωρητικὸν τῆς φιλοσοφίας ἀπὸ τοῦ πρακτικοῦ.

In no case is there even the barest hint that Syrus has requested the work.

*Ther.Pis.* therefore differs from Galen's (other) dedicated works in that those other works are addressed to laymen whose medical knowledge is admittedly inferior to Galen's. The emphasis on the extent of Piso's knowledge of and interest in the subject matter of *Ther.Pis.* is reminiscent not of Galen's other works but on technical treatises on military matters addressed to the emperor: e.g. Apollodorus *Poliorketika* 137.1-4:

Ἀνέγγων σου, δέσποτα, τὴν περὶ τῶν μηχανημάτων ἐπιστολὴν καὶ μακάριος ἐγενόμην, ὅτι με κοινωνῆσαι ταύτης σου τῆς φροντίδος ἄξιον ἔκρινας. Ποίησας οὖν ὑποδείγματα τινα πρὸς πολιορκίαν εὐχρηστα ἔπεμψα διαγράμας

Similarly the *mise-en-scene* at the beginning of the piece vividly describing the genesis of the work at a meeting between the author of the work and a fellow enthusiast has parallels not in Galen but in technical military treatises: Aelianus *Tactica* P 3 1-9:

Ἐπει δὲ ἐπὶ τοῦ θεοῦ πατρός σου Νέρουας παρὰ Φροντίῳ τῷ ἐπι- σήμῳ ὑπατικῷ ἐν Φορμίαις ἡμέρας τινὰς διέτριψα δόξαν ἀπενεγκάμενῳ περὶ τὴν ἐν τοῖς πολέμοις ἐμπειριαν, συμ- βαλῶν τ' ἀνδρὶ εὐρον οὐκ ἐλάττονα σπουδὴν ἔχοντα εἰς τὴν @1 (5) παρὰ τοῖς Ἑλλησι τεθεωρημένην μάθησιν, ἠρξάμην οὐκέτι περιφρονεῖν τῆς τῶν τακτικῶν συγγραφῆς, οὐκ ἂν ἐσπουδάσθαι παρὰ Φροντίῳ δοκῶν αὐτήν, εἴπερ τι χεῖρον ἐδόκει τῆς Ῥωμαϊκῆς διατάξεως περιέχειν.

### i) Stylistic features

Various stylistic features of *Ther.Pis.* stand out which are confirmed by the TLG to be unusual within the Galenic corpus. First the expression διαφθείρει κακῶς/ διαφθεῖραι κακῶς, to kill horribly, occurs on five occasions in the treatise:p. 70.14 (effect of hellebore on men) p. 90.14, p. 90.21 (effect of snakes on men) p. 94.21 (female viper killing male) p. 136.15 (effect of plague on "whole cities") and nowhere else in Galen. Leaving aside very late sources, outside Galen the phrase occurs only in Athenaeus *Deipn.* 7 86.28 (and in the epitome) where it describes how the Syracusans and the Italians ruin fish by cooking it with cheese, and twice in Josephus *Jewish Antiquities* 8.314.5 and 9.75.2 (destruction of men by war and famine respectively). The phrase is an odd one – the adverb does not add much force to the verb in the first place and that force diminishes with each repetition. Compare the expression "ἀναρπεῖν ὀξέως" which occurs three times in this treatise and once elsewhere in Galen.

## j) Word frequencies

### Methodological note

I have identified six cases in which a word is notable on a simple reading of the text by its frequency or its scarcity or absence : μήν, γοῦν, ἴνα, ὥσπερ, λοιπόν (used adverbially), μή used in preference to οὐ. I have verified these anomalies by word counts using the TLG (appendices 1-6). These six idiosyncrasies appear to me to represent real differences of style between *Ther.Pis.* and the rest of the corpus. I have also conducted the separate exercise of carrying out word frequency counts of the 20 commonest "function" words in Galen (identified by Signature software using a transcript of the corpus) and identifying the lowest and highest count for each of those words in the 47 treatises of over 10,000 words. On this test *Ther.Pis.* has the greatest number of lowest or highest counts of all the treatises except *Musc.Diss* and *Bon.Mal.Suc.* The authenticity of those texts is not in question (Helmreich (1923) CMG V 4,2 XLII, Debru (2005)) and the position of *Ther.Pis.* in the list is therefore not strong evidence as to authorship but does establish it as something of an outlier on an objective test.

### μήν

μήν is altogether absent, uniquely among Galen's works, unless my conjecture at p. 124.7 is correct (where however οὐ μὲν is also a possibility) in which case it is still four times lower than the count in any other treatise. (Appendix 1)

### γοῦν

Secondly the use of the particle γοῦν is anomalously high: it constitutes 0.2% of the word count. In the 47 Galen treatises in the TLG of over 10,000 words the next highest score is 0.1% or exactly half as high. (Appendix 2)

### ἴνα

Thirdly the word ἴνα occurs with a strikingly high frequency compared to other Galenic tracts. (Appendix 3). The word appears 33 times in the 13,556 words of the treatise, a frequency of 0.24% of the total word count. The next highest count among the treatises of over 10,000 words is 0.07%, or one third as high. The discrepancy is very striking. As will be seen from the frequency distribution graph (fig. 2) the data excluding *Ther.Pis.* are distributed in an approximately normal distribution with *Ther.Pis.* over six standard deviations away from the mean. Fig. 3 shows all the data including that from treatises of less than 10,000 words. The anomaly does not of itself prove anything about the authorship of the treatise unless it can be shown that it is not anomalous for other authors. This can in fact be clearly demonstrated: 0.24% is about the mean for Athanasius (0.29%) Origen (0.24%) Clement (0.28%) and Epiphanius (0.32%).

### ὥσπερ

The treatise has the highest rate of use of the word ὥσπερ of any of the treatises of over 10,000 words (Appendix 4).

λοιπόν

The treatise uses the word λοιπόν adverbially meaning "for the rest" (e.g. p.64.12 και οὕτω λοιπόν ἀκριβῶς ἐκάστου τῶν φαρμάκων τὴν δυνάμιν διὰ τῆς αὐτῆς αἰσθήσεως κρίνοντες εὐρίσκομεν) with unusual frequency for Galen - about nine times as frequently as in any other work (Appendix 5).

οὐ /μή

It is a striking feature of *Ther.Pis.* that the negative μή is found so often when according to the rules of classical Greek οὐ would be expected. So in the first sentence: σε κατεῖδον περὶ τὴν γνώσιν αὐτῆς μὴ παρέργως ἔχοντα ( p.54.6). This requires a negative οὐ according to the usual rules as an indirect statement and as a use of the participle which is neither conditional nor indefinite - (Abbott and Mansfield 1977, 197) (hereafter "A&M"). ἐντελῶς πεπαιδευμένου τὴν τέχνην, μὴ μόνον τῇ πείρᾳ τῶν ἔργων (p.54.14) ἡμεῖς μὲν ἐπ' ἀνθρώπων τὴν κρίσιν αὐτοῦ ποιῆσθαι μὴ δυνάμενοι (p. 58.7) are further examples of participles requiring the negative οὐ but getting μή. ἐπεὶ μὴ μόνον τῶ παραθεῶν ἔχειν τὸ βασιλεύειν ὑπερέχουσιν ἀπάντων (p. 60.9) is a causal clause requiring the negative οὐ but getting μή (A&M 197). ἐμοὶ δὲ δοκοῦσι τῶν ἄλλων θηρίων αὐταὶ μὴ τοσαύτην ἐν τοῖς σώμασι τὴν φθοροποιὸν δυνάμιν ἔχειν (p. 90.7) is an indirect statement with the infinitive construction with negative μή. χρὴ μὴ εὐθέως αὐτὰ λαμβάνειν (p. 120.16) would usually take οὐ and does so elsewhere in Galen e.g. καθαίρειν τήνκαυτα τοῖς τοῖς μέλανας χυμοὺς κενοῦσι φαρμάκοις χρὴ οὐχ ἅπαξ μόνον, ἀλλὰ καὶ πολλάκις, ἦν οὕτως δέη. (MMG I: XI 39.14-16). ὡς ἐπὶ γε τῶν ἄλλων παθῶν, ὅπου μὴ τηλικαύτη ἐστὶν ἢ τοῦ βλάπτειν αἰτία p.124.24 demands either negative οὐ or recasting as an indefinite construction.

φασὶ γὰρ καὶ τὸν Μιθριδάτην ἐκεῖνον τὸν μέγαν πολεμιστὴν, τὴν μὲν θηριακὴν μὴ λαμβάνοντα, οὐδέπω γὰρ ἦν... (p. 138.21) clearly demands οὐ but gets μή. The same applies to the indirect statement with infinitive construction concluding the same sentence διὰ τὴν ἐξ αὐτῆς κατεσκευασμένην τῶ σώματι δυσπάθειαν μὴ δυνηθῆναι λαβόντα τὸ φάρμακον ἀποθανεῖν and to μὴ ἀποθνήσκων ( p. 140.5).

Appendix 6 shows the relative frequency of μή to οὐ οὐκ οὐχ(ι) in the treatises on the TLG with a word count over 10,000. Note that *Ther.Pis.* is second on the list and that first and third to sixth are respectively are *Hipp. Fract. Hipp. Art. Hipp. Off. Med. HVA Hipp. Prog.* Not only are these all commentaries on Hippocrates, they largely coincide with a sub-group of commentaries identified by Galen as the earliest he produced in *Lib. Prop.* XIX 35. 4-8 and *Hipp.Epid.* XVIIa 577.11-17. In both places he lists *Hipp. Fract. Hipp. Art. Hipp. HVA Hipp. Prog.* plus lost works on wounds and head wounds and a commentary on the Aphorisms which may or may not be one of the surviving ones. This clustering of texts identified by Galen himself as closely related justifies a high degree of confidence in the μή to οὐ/οὐκ/οὐχ(ι) ratio as a valid diagnostic tool. (It also of course acts as a warning, if one were needed, that if a test suggests that a text is unusual in any way that may have nothing to do with inauthenticity). Note also that *CML* and *CMG* appear next to each other at 8 and 9.

As a separate exercise, in order to test word frequency in a way which excludes the possibility of bias, conscious or not, in the method of selection of those words towards

any theory about *Ther.Pis.* a count was carried out using AntConc 3.3.1w software on a transcript into the Latin alphabet of *Use of Parts*. *UP* is the longest Galen text on TLG; length of treatise was not important per se but was used because a purely arbitrary basis of choice was required. The resulting list of the most commonly used words was then purged of inflections of the definite article because these dominate the list if treated separately. Frequency counts were carried out on the 47 treatises of over 10,000 words of the twenty most frequently occurring words in *UP* using TLG. The results appears in Appendices 7-26. It will be seen that *Ther.Pis.* is at the extreme end of the distribution, i.e. has either the lowest or highest count, (in fact the lowest in each case) in 6 cases: ἄν, δέ, γε, κατά, οὖν, τε. As there are 40 extremes and 47 treatises one would expect on average each treatise to appear once at an extreme. *Ther.Pis.* occupies an extreme more frequently than any other treatise. This fact should be treated with caution: the treatise with the next most extremes (5) is *Musc.Diss.* whose authenticity is well established (Debru 2005 92-4). Nevertheless the exercise confirms that *Ther.Pis.* is stylistically an outlier from the corpus as a whole.

These results need treating with caution: the incidence of διαφθείρει κακῶς cannot be treated as a stylistic quirk independently of the subject matter of the treatise which naturally entails a high number of references to horrible deaths; similarly the frequency of γοῦν is partly dependent on the subject matter – it is used to introduce anecdotal illustrations and the treatise contains a high number of these. If the subject matter is unusual in either of these respects that in itself may be a valid argument about authenticity but we must take care not to “double count” stylistic points if and to the extent that they result only from atypical subject matter.

The treatise is anomalous in its use of οἶδαμεν instead of ἴσμεν as first person plural present indicative of οἶδα. οἶδαμεν occurs three times in *Ther.Pis.* and seven times elsewhere in Galen, as against 175 occurrences of ἴσμεν which occurs in *Ther.Pis.* only in a quotation from Hippocrates p. 72.3. Analysis of figures provided by the TLG shows that down to the time of Galen “mainstream” Greek prose writers either use “ἴσμεν” exclusively (Thucydides, Isocrates, Xenophon, Aeschines, Anaximenes, Polybius, Plutarch) or greatly prefer ἴσμεν to οἶδαμεν (Plato uses the words in the ratio 65:2, Aristotle 50:3, Demosthenes 10:4). The earliest exceptions to this rule are the Septuagint and the New Testament which contain respectively 11 and 43 instances of οἶδαμεν and no instances at all of ἴσμεν. There follows a marked increase in the use of οἶδαμεν among Christian writers and in some cases a preponderance– e.g. Origen has a ratio ἴσμεν: οἶδαμεν of 53:77, Athanasius 20:54. The figures for *Ther.Pis.* are not conclusive – the concentration of instances of οἶδαμεν may be mere chance – but nor are they to be dismissed out of hand.

The first instance of οἶδαμεν occurs in a context which gives a further indication of a possibly later author perhaps influenced by Christian sources:

ὥσπερ δὴ τὸν θεῖον Μάρκον καὶ ἡμεῖς οἶδαμεν ἐνθέσμως ποτὲ βασιλεύσαντα (p. 158.9) ἐνθέσμως here is a genuine ἄπαξ λεγόμενον if the treatise dates from Galen’s lifetime: the second recorded instance is in Eusebius *Historia ecclesiastica* Book 10 chapter 7 section 1 line 9, from the fourth century AD. For all words derived from the stem ἐνθέσμ- there are only three previous examples, Plutarch *Nicias* 6.6.4



and anon. *Periplus Maris Erythraei* 52.3 and 23.2. The meaning of the word is “in accordance with the law”, “as provided by law”; it does not have the laudatory moral overtones of δίκη, δίκαιος. It does become comparatively more common in the fourth and subsequent centuries almost exclusively in Christian writers in expressions such as Eusebius *Historia ecclesiastica* 10.6.1.5-6 τῆς ἐνθέσμου καὶ ἀγιωτάτης καθολικῆς θρησκείας, *Vita Constantini* 4.17.1.4 εὐχὰς ἐνθέσμου. The lukewarm nature of the praise of Marcus Aurelius is itself puzzling (it perhaps reflects the advice of Menander Rhetor *Περὶ ἐπιδεικτικῶν* 376.31-377.2 on praising the emperor’s predecessors in a βασιλικὸς λόγος in such a way that it is clear that they are outshone by the present incumbent - ἀντεξετάζων τὴν αὐτοῦ βασιλείαν πρὸς τὰς πρὸ αὐτοῦ βασιλείας, οὐ καθαιρῶν ἐκείνας (ἄτεχνον γάρ) ἀλλὰ θαυμάζων μὲν ἐκείνας, τὸ δὲ τέλειον ἀποδιδούς τῇ παρουσίῃ. For present purposes the point is that the usage may point to a date for composition later than Galen’s lifetime.

#### φιλοτιμία

*Ther.Pis.* contains fifteen out of the 69 instances in the Galenic corpus on TLG of words formed on the stem φιλοτιμ- φιλοτιμία, φιλότιμος, φιλοτιμέομαι (excluding the proper name Philotimus). This is a relatively high preponderance and worth pointing out in any event. What truly distinguishes *Ther.Pis.* from the rest of the corpus in respect of these words is the meaning attached to them by the *Ther.Pis.* author. Despite the anodyne etymology of the words (love of honour) all are capable of having negative as well as positive connotations in Greek generally: *LSJ* glosses φιλότιμος as “loving honour or distinction, ambitious, mostly in bad sense”; φιλοτιμία as “love of honour or distinction, ambition, freq. in bad sense in early writers”; φιλοτιμέομαι as “love or seek after honour, ... hence, to be ambitious, emulous”. In the context of Galen, Lloyd (1993 126-7 and n.8) has reviewed at length his use of φιλοτιμία (and φιλονεικία and ὕβρις): “although φιλοτιμία, φιλονεικία/φιλονικία and cognate terms do not invariably carry pejorative undertones, they are used by Galen very commonly in treatises of many different types to accuse his predecessors or contemporaries of contentious rivalry” (127 n.8).

Of the instances of the words in *Ther.Pis.* only one conveys any sense of contentious rivalry: φιλοτιμούντων p. 150.2 where the sense seems to be that of engaging in acrimonious debate. as discussed in the note *ad loc.* the very unusual use of φιλοτιμέω in the active voice casts doubt on the authorship of this passage. Of the other fourteen instances one (p. 100.5) uses the word to mean “surprising” or “wonderful”, of the claimed power of the mere sight of a scorpion to kill. Consider also the introduction of the anecdote about Piso ensuring that ointments are applied to his son’s body in the proper place, ἐγὼ δὲ τι καὶ φιλοτιμότερον θεώμενος, περιεργότερον τὸ ὑπὸ σοῦ γινόμενον ἔβλεπον (p. 56.12). Plainly this action is carried out neither contentiously, nor in a bid to win τιμή. The only other instance in the corpus which appears to approach these examples in divorcing φιλότιμος from its root meaning is *Inst.Od.* Π 868.13-15 φιλοτιμότερον δ’ εἰσπνεύσας τῇ τετάρτῃ τῶν ἡμερῶν ἰσχυρᾶς ἤσθετο δῆξεως ἐν τῷ βᾶθει τῆς κεφαλῆς. the Latin in Kühn has violentius for φιλοτιμότερον; Kollesch (CMG Suppl. V) has “zu heftig”. The sense of contentiousness is therefore perhaps preserved here. The other occurrences of φιλοτιμία and cognates in *Ther.Pis.*

are clearly and strongly laudatory: φιλοτιμία is ascribed to Piso (p. 94.1 and elsewhere); to the emperors (p. 60.23 and elsewhere); and to doctors who conduct themselves in accordance with the principles of the author as opposed to for instance the empiricists (p. 102.15 and elsewhere); and to the author himself (p. 116.17 and elsewhere). In the corpus outside *Ther.Pis.* the word can almost always be construed as having the underlying sense “love of honour”, usually in a bad sense (e.g. *At.Bil.* V 130.14-131.1 Ἴπποκράτης μὲν οὖν φαίνεται καλὸς τε καὶ ἀγαθὸς τις ἀνὴρ γεγονέναι, μὴ φιλοτιμίας ἢ φιλοδοξίας, ἀλλ’ ἀληθείας ἐραστής) though bad φιλοτιμία can be redirected to good ends as in the plea to the sceptics at *Dig.Puls.* I: VIII 785.4-6: εἰ σχολὴν ἄγετε, καὶ τὸν βίον οὐκ ἀνατρέπειν, ἀλλ’ ὠφελεῖν προήρησθε, καὶ τὴν τέχνην οὐ κωλύειν, ἀλλ’ αὔξειν ἐσπουδάσατε, τὴν φιλοτιμίαν ταύτην εἰς τὰ χρηστότερα τρέψατε. Elliptically, the verb comes to mean “to dispute with” or “vie with” e.g. *HNH* XV 105.2-4 πρὶν γὰρ τοὺς ἐν Ἀλεξανδρείᾳ τε καὶ Περγάμῳ γενέσθαι βασιλεῖς ἐπὶ κτήσει παλαιῶν βιβλίων φιλοτιμηθέντας, οὐδέπω ψευδῶς ἐπεγέγραπτο σύγγραμμα.

What is striking in *Ther.Pis.* is not the high incidence of the use of φιλοτιμία and cognates, which would in theory be explicable on the basis of the subject-matter of the treatise, but the fact that the words do not have in *Ther.Pis.* the meaning which they consistently have in the rest of the corpus. It is not just that the negative connotations are absent, but so too to some extent is the underlying concept of love of honour/ambition. The emperors are already emperors, and Piso has achieved τιμή in his public career (and is not seeking to do so in medicine). Attribution of φιλοτιμία in the sense of personal ambition to them is therefore out of place.

Turning to Galen’s near-contemporaries we find that in many authors φιλοτιμία has the primary meaning ambition, often with negative overtones, as it does in Galen. The word is very common in Plutarch’s *Lives* for instance and usually means political ambition, often in a bad sense e.g. *Sulla* 4.4.4-9 ἀπέδειξε τὸν Εὐρυπίδην σοφὸν ἄνδρα καὶ πολιτικῶν ἐπιστήμονα νοσημάτων, διακελευσάμενον φυλάττεσθαι τὴν φιλοτιμίαν ὡς ὀλεθριωτάτην καὶ κακίστην δαίμονα τοῖς χρωμένοις. There is often also the connotation of ambition leading to strife with a rival e.g. *Crassus* 6.5.1-3 ἀπ’ ἐκείνων δὲ τῶν πράξεων λέγουσιν αὐτῷ πρῶτον ἐγγενέσθαι τὴν πρὸς Πομπήιον ὑπὲρ δόξης ἀμίλλαν καὶ φιλοτιμίαν.

There is however an alternative tradition in which φιλοτιμία loses its connotations of strife and ambition for personal advancement and comes to mean as in *Ther.Pis.* mere benevolence. We find this commonly in Philo Judaeus. As in *Ther.Pis.* φιλοτιμία is often an attribute of a king: μετὰ δὲ ταῦτ’ εὐωχίαι ἦσαν καὶ πολυτελεῖς ἐστιάσεις καὶ ὅσα ἄλλα πρὸς ὑποδοχὴν ξένων ἔθος εὐτρεπίζεσθαι, φιλοτιμίαις βασιλικαῖς πάντα πρὸς τὸ μεγαλειότερον ἐπιδιδόντα καὶ σεμνότερον ὄγκον. Philo Judaeus *De vita Mosis* (lib. i-ii) 275.4-276.1; associated with the specifically regal act of founding a city ἐπειδὴν πόλις κτίζεται κατὰ πολλὴν φιλοτιμίαν βασιλέως ἢ τινος ἡγεμόνος αὐτοκρατοῦς ἐξουσίας μεταποιουμένου καὶ ἅμα τὸ φρόνημα λαμπροῦ τὴν εὐτυχίαν συνεπικοσμοῦντος, ... Philo Judaeus *De opificio mundi* 17.3-5. Similarly Flavius Josephus associates φιλοτιμία with kingly generosity: ἐνεφάνισε γὰρ τὴν ἀρετὴν αὐτοῦ καὶ τὴν τοῦ πλήθους πρὸς αὐτὸν εὐνοίαν τὸ πένθος, ὃ ἐπὶ πολὺν χρόνον ὁ λαὸς ἤγετο, καὶ ἡ περὶ τὴν ταφήν αὐτοῦ καὶ τὴν τῶν νομιζομένων ἀναπλήρωσιν φιλοτιμία τε καὶ σπουδή. *Antiquitates*

*Judaicae* 6 292.3-293.1 τὴν μέντοι γε τῶν ἀναθημάτων πολυτέλειαν καὶ κατασκευὴν, ἦν ἀπέστειλεν ὁ βασιλεὺς τῷ θεῷ, οὐκ ἀνεπιτήδειον ἡγησάμην διελθεῖν, ὅπως ἅπαντες ἢ τοῦ βασιλέως περὶ τὸν θεὸν φιλοτιμία φανερὰ γένηται• ἄφθονον γὰρ τὴν εἰς ταῦτα δαπάνην χορηγῶν ὁ βασιλεὺς καὶ παρῶν ἀεὶ τοῖς τεχνίταις καὶ τὰ ἔργα ἐπιβλέπων οὐδὲν ἀμελῶς οὐδὲ ραθύμως εἶα γίνεσθαι τῶν κατασκευασμάτων. *Antiquitates Judaicae* 12 58.1-7 (95.) Ταῦτα πάντα ὁ Σολόμων εἰς τὴν τοῦ θεοῦ τιμὴν πολυτελῶς καὶ μεγαλοπρεπῶς κατασκεύασε μηδενὸς φεισάμενος ἀλλὰ πάση φιλοτιμίᾳ περὶ τὸν τοῦ ναοῦ κόσμον χρῆσάμενος, *Antiquitates Judaicae* 8 95.1-3. For φιλοτιμία as public munificence as manifested in the actions of the χορηγός cf. Gregorius Nyssenens *De beneficentia* 9.100 13-15 ὡς γὰρ οἱ ἀγωνοθέται τῆς ματαιότητος ὑπὸ σάλπιγγι τὴν ἑαυτῶν φιλοτιμίαν σημαίνοντες πᾶσι τοῖς τῆς παλαιστράς τὴν τοῦ πλοῦτου διανομὴν ἐπαγγέλλονται and Gregorius Nyssenens *Contra usurarios* 9.199.20 ὁρᾷς τὴν φιλοτιμίαν; βλέπεις τὴν ἀγαθότητα; of Christ's promise to Peter Mark 10:28-31 – the attribution by a Christian writer to Christ of φιλοτιμία shows how far the meaning has shifted from that of ambition for personal advancement.

There is an argument that the difference in meaning between φιλοτιμία in Galen generally and in *Ther.Pis.* is determined by the subject-matter: the flattery of emperors requires a specialised vocabulary and φιλοτιμία is one of the qualities which the flatterer is obliged to ascribe to the emperors as an alternative to, say, εὐεργεσία or φιλανθρωπία. It is however striking that the author does not adopt one of those alternatives to φιλοτιμία given the different – indeed opposite – connotations of the word elsewhere in Galen. Furthermore the fact that φιλοτιμία has an established meaning as applied to the emperors does not explain the use of the word in other contexts in *Ther.Pis.*, in particular when applied to the qualities of the scorpion at p. 100.5, or when applied to Piso's "ἐν πᾶσι τοῖς λόγοις φιλοτιμίαν" (p. 94.1 or applied to the author's own writing in the words ταύτην τὴν θηριακὴν, περὶ ἧς ἡμῖν ὁ πᾶς οὗτος λόγος φιλοτίμως τετεχνολόγηται (p. 72.23 or τοῖς φιλοτίμοις λόγοις (p. 110.25. In all these instances the argument that there are special considerations related to the eulogising of the emperors do not apply, and there is a clear discrepancy with the rest of the Galenic corpus where the conjunction of φιλοτιμία with λόγος would usually imply in Lloyd's words "contentious rivalry".

#### Rare words

Labbé (1660 28) asks rhetorically "cur in eo (*sc. Ther.Pis.*) plurima verba, ab ipso alias non usurpata" as an argument for non-Galenic authorship. This is not a strong argument: there are fifteen words in the work which occur nowhere else in Galen (see below); a quick word-count for comparative purposes discloses that *Ant. I* (which is slightly longer than *Ther.Pis.* at 105 pages of Kühn as opposed to 84 for *Ther.Pis.*) contains six words which occur nowhere else in Galen:

- Ant. I: XIV.12 ἀλληλουχία;*
- Ant. I: XIV.15 δεκαετία;*
- Ant. I: XIV.15 συνάμιλλος;*
- Ant. I: XIV.49 κονιορτῶδες;*
- Ant. I: XIV.74 ἐκπλῦτος;*
- Ant. I: XIV.79 πεδιάς.*

*Praen.* on the other hand has seven on the first four pages alone:

*Praen.* XIV.599 θωπευτικῶς ; *Praen.* XIV.599 ἀξιοζήλωτοι;

*Praen.* XIV.602 διαβουλεύομενος;

*Praen.* XIV.602 φαγαδευθέντων;

*Praen.* XIV.603 ὑποπτήσσοντα;

*Praen.* XIV.603 συρφετοῦ;

*Praen.* XIV.603 ζάλη.

Unique words in *Ther.Pis.* are:

παιδαριωδῶς p. 66.24

σποδῶδες p. 148.21

σωτηριωδέστατον p. 104.22 X

ἐνθέσμως p. 158.9 X

ἐντελῶς p. 54.13 and ἐντελῆ p. 60.20

ἀξιέπεινος p. 60.22 ; previously only Xenophon 3 and 1 spurious Demosthenes

ἐντρεχία p. 56.16

ἀντιπαραλαμβάνω p. 64.11 προσπαραλαμβάνω p. 64.10

ἐκδικία p. 96.1 X

τετεχνολόγηται p. 72.23.

ἐπιγλυκαίνω p. 132.25 very rare 9 hits for stem but exists bc (Theophrastus)

ἔνδυμα p. 138.14 X (K 19.367 in LSJ is spurious def.med.)

ποτιμώτατος p. 144.12 X

ἐντέχνως p. 64.27 p. 72.22 ἐντέχνοις p. 106.27: ἐντέχνη not elsewhere in G

ἐπαγωνίζομαι p. 102.19

συναποκόπτεται p. 104.9

### Conclusions on authenticity

The matters discussed above cast serious doubt on the ascription of this treatise to Galen. There is much that is distinctively Galenic about the work: turns of phrase, doctrinal positions, lines of argument, beliefs about specific drugs, the author's purported relationship with the imperial household. There is also much that is at odds with him on fundamental questions such as the nature of the *διψάς* and its relation to the *ἔχιδνα* (p.24), the meaning to Hippocrates of the word *φαρμακεία* (p.31) and the apparent ignorance of the history of Pergamum. The differences seem to me to be more significant than the resemblances: the resemblances can be explained by saying that our author is not Galen but a Galenist and should therefore be expected to echo Galen to a greater or lesser extent; the differences are compatible with a Galenist author, but not with Galen himself.

So what has happened here? The possibilities are succinctly set out by Labbé (1660) 26: (followed by Ackermann and quoted by Swain (1998, 430)): “Alterum est, Galenum non videri eius libri auctorem, sed alium quemdam medicum, qui Galeno superstes fuerit, et sub imperatoribus Severo et Caracalla theriacam composuerit in usum imperatorum; aut certe ab aliquo nugatore, exercendi stili gratia, ex iis, quae apud Galenum in libris de antidotis legerat”. If *Ther.Pis.* is not the work of Galen then either it is a piece of deliberate mimicry or there is an otherwise unknown or little known doctor who shared many of Galen's views and habits of thought and writing and who was jointly with Galen doctor to Marcus Aurelius and subsequent emperors, and hits more or less independently on the idea of writing a treatise on theriac centred on the Andromachus poem which features in both *Ther.Pis.* and *Ant.* One possibility would be Statilius Attalus (suggested by Professor Vivian Nutton - personal communication). If it is a piece of mimicry it is probable that the author has access to a copy of *Ant.* since he adopts its use of the Andromachus poem as a centrepiece. The shared passage with Julius Africanus *Cesti* suggests a date before 235 if the argument that the passage originates in *Ther.Pis.* (p. 22 above) is correct. The purpose of the mimicry, if what we have is mimicry rather than the work of a Galenist can only be a matter of speculation.

### Note on editorial method

The text reported is that of L unless otherwise indicated. The apparatus states variants in the other mss. In addition I have sometimes given readings from the Arabic and Latin texts which tend to confirm the reading I have adopted (from L or elsewhere). In the commentary my intention, in addition to explaining what seems to me to need explanation, has been to point out respects in which the treatise either agrees with, or differs from, what is found elsewhere in Galen's works.

### Note on chapter headings

The chapter headings do not appear in the mss. (see note on heading of Chapter 1) and are retained as a matter of convenience.

## ΓΑΛΗΝΟΥ ΠΡΟΣ ΠΙΣΩΝΑ ΠΕΡΙ ΤΗΣ ΘΗΡΙΑΚΗΣ ΑΝΤΙΔΟΤΟΥ

[Πίσωνι τὸν λόγον ἀνατίθησιν, Ἀνδρόμαχον ἐπαινεῖ, καὶ τῆς γραφθησομένης πραγματείας τὸ αἴτιον ἐκδηλοῖ ὁ Γαληνός.]

XIV 210 K.

- 5 Καὶ τοῦτόν σοι τὸν περὶ τῆς θηριακῆς λόγον ἀκριβῶς ἐξετάσας ἅπαντα, ἄριστε Πίσων, σπουδαίως ἐποίησα, καὶ μάλιστα ἐπεὶ σε κατεῖδον περὶ τὴν γνῶσιν αὐτῆς μὴ παρέργως ἔχοντα. εἰσελθὼν γὰρ ποτε πρὸς σε κατὰ τὸ ἔθος, πολλὰ μὲν καὶ ἄλλα τῶν συνήθων σοι παρακείμενα βιβλία εὔρον. καὶ γὰρ καὶ ἄλλως ἔστι σοι φίλον, μετὰ τὰς δημοτικὰς τῶν πράξεων ἀσχολίας, τοῖς παλαιοῖς τῶν φιλοσόφων ἀνδρῶν ὀμιλεῖν. γενόμενον δέ τι σύγ- 211  
 10 γραμμα περὶ τῆς ἀντιδότου ταύτης οὐκ ἀηδῶς ἀνεγίνωσκες τότε, καὶ μοι παραστάντι σοι εὐθέως μὲν φιλικοῖς ἐνείδες τοῖς ὄμμασι, δεξιῶς δὲ καὶ προσηγόρευσας, καὶ μετὰ ταῦτα πάλιν ἀνεγίνωσκες τὸ βιβλίον, ἀκροατὴν ἔχων ἐμέ. ἤκουον δὲ καὶ αὐτὸς, οὐκ ἀμελῶς γὰρ ἦν τὸ σύγγραμμα συντεταγμένον ὑπὸ τινος ἀνδρὸς Μάγνου καλουμένου, ἐντελῶς πεπαιδευμένου τὴν τέχνην, καὶ μὴ μόνον τῆς πείρας τῶν ἔργων, ἀλλὰ καὶ τῷ  
 15 λόγῳ, τῶν ἐπ' αὐτοῖς λογισμῶν ἀκριβῶς ἠσκημένου. τὸ γοῦν ἄρχειν ἡμῶν, διὰ τὴν ἐν τούτοις ὑπεροχὴν, ὑπὸ τῶν κατ' ἐκεῖνον καιρὸν βασιλέων ἦν πεπιστευμένος, ὡς ἔμοι δοκεῖ, τάχα τι καὶ τῆς πατρίδος αὐτῶ εἰς τὸ ἀκριβῶς ἐκμαθεῖν τὴν ἰατρικὴν συναρα-  
 20 μένης. Κρής γὰρ τὸ γένος ἦν, καὶ εἰκὸς ἦν τὴν Κρήτην, ὡς ἄλλα πολλὰ τῶν βοτανῶν, οὕτω καὶ ὡς τι φάρμακον ἀγαθὸν τοῖς ἀνθρώποις ἐνεγκεῖν τὸν τοιοῦτον ἄνδρα. ἀναγι-  
 25 νώσκοντος δὲ σου τὰ γεγραμμένα, πάνυ γε ἐγὼ ἔχαιρον, ὅτι οὕτως ἀκριβῶς προσεῖχες τοῖς ὑπὸ τοῦ ἀνδρὸς λεγομένοις, καὶ ἀληθῶς μέγα με θαῦμα κατεῖχε, καὶ τῆ καθ' ἡμᾶς 212  
 τύχη πολλὴν τὴν χάριν εἶχον, ὅτι σε φιλοπόνως οὕτως ἔχοντα περὶ τὴν τέχνην ἔβλεπον. οἱ μὲν γὰρ πολλοὶ τῶν ἀνθρώπων μόνην τὴν ἀκοὴν ὑπὸ τῶν ταύτης λόγων εὐφραίνεσθαι θέλουσι. σὺ δὲ οὐ μόνον τῶν λεγομένων ἠδέως ἀκούεις, ἀλλὰ καὶ πολλὰ τῶν  
 25 μὴ λεγομένων ἐξ ἐμφύτου συνέσεως εὐρίσκεις εὐφυῶς. ἔνια δὲ καὶ τῶν ἔργων οὕτως ἀκριβῶς ἐπίστασαι καὶ βλέπεις, ὡς οἱ φιλοπόνως μαθόντες ἡμεῖς. ὅπερ ὡς ἀληθῶς ἐγὼ θεασάμενος ἐπὶ σοῦ καὶ πάνυ κατεπλάγην.

18 Ant. I: XIV 9.11-10.12, 30.14-16, 53.7-9 Ther.Pamph. XIV 296.11-297.1

1 ΑΝΤΙΔΟΤΟΥ L BIBLION *edd* 3--4 Πίσωνι...Γαληνός Chart. Γαληνοῦ πρὸς Πισῶνα περὶ τῆς θηριακῆς : - Ὅτι ἡ θηριακὴ τῶν ἄλλων ἀπάντων φαρμάκων περισπούδαστος ἔστι διὰ τὴν δύναμιν τῆς ἐνεργείας. Ὅτι καὶ τοῖς ὑγιαίνουσιν εἰς τὰ πολλὰ χρήσιμος γίνεταί λαμβανομένη ἡ θηριακὴ. P V W 5 τὸν L *om.* P V W 5 λόγον L τὸν λόγον V 5 ἀκριβῶς L ἀκριβῶς ἔχοντα καὶ P V W 7 ποτε πρὸς σε L πρὸς σε ποτε O P W 8 ἄλλως L ἄλλων O 9 φιλοσόφων L φιλολόγων P Philosophen (فلاسفة) Arab. 9 δὲ L *om.* P οὖν O 10 τότε L τὸ τι P W τουτί V 11 καὶ L *om.* O 13 ἦν L εἶεν P 13 ἀνδρὸς Μάγνου L Q Arab. (مغنى) Ἀνδρομάχου P *edd.* 14 ἐντελῶς L ἀκριβῶς P 14 πεπαιδευμένου L ἠσκημένου PVW 14 καὶ L O *Qom. al.* 14--15 τῷ λόγῳ, τῶν ἐπ' αὐτοῖς λογισμῶν L N Q τοῖς λόγοις, τῶν ἐπ' αὐτοῖς λογισμῶν O τοῖς λόγοις, τὸν ἐπ' αὐτοῖς λογισμῶν P *edd.* 15 ἀκριβῶς L ἀκρῶς P 16 κατ' ἐκεῖνον καιρὸν Kühn παρ' ἐκεῖνον καιρῶ L Q ἐκεῖνο καιροῦ O V κατ' ἐκεῖνο καιρῶν P κατ' ἐκεῖνο καιρῶν W κατ' ἐκεῖνον καιρῶ Ald. *Crat. Chart.* 16 ἦν L *om.* P V 16 ἔμοι L Q Y ἔμοιγε *edd.* 17 αὐτῷ L αὐτῶν P V W 17--18 συναραμμένης L συναραμένῳ P V W; *hic desinunt* P V W 18 τῶν L *om.* O 19 οὕτω L οὕτως Y 19 ὡς L εἰς *sup. lin. scribit* L εἰς Q *edd.* 20 γε L τὲ Y 20 L γε *post* οὕτως *transp.* O 23 ἀνθρώπων L ἄλλων ἀνθρώπων O *edd.* 23 μόνην L μόνον O 24 ἠδέως ἀκούεις L ἀκούεις ἠδέως O 24 καὶ πολλὰ L πολλὰ καὶ O 26 μαθόντες L μαθάνοντες O

[Chapter 1 Galen dedicates the treatise to Piso, praises Andromachus and explains the reason for writing the treatise].

In accurately researching for you this discourse on theriac, excellent Piso, I did so eagerly, especially because I saw that for you the knowledge of it was not of trivial importance. For I once came to your house as is my custom and found you with many of your accustomed books lying around you. for you do especially love, after the conclusion of the public duties arising from your affairs, to spend your time with the old philosophers. But on this occasion you had acquired a book about this antidote and were reading it with pleasure; and when I was standing next to you you immediately looked on me with the eyes of friendship and greeted me courteously and then took up the reading of the book again with me for audience. And I listened because the book was thoughtfully written by a certain man called Magnus, a man well versed in his art and practised not only in the experience of practical matters but also in theory, being well trained in accurately reasoning on the basis of the facts. At least he was thought to be the best of us doctors because of his excellence in these matters by the kings of those days, perhaps partly – it seems to me – because his nationality was ideally suited for him to learn the art of medicine. For he was of a Cretan family, and it seems likely that Crete just as it bears many kinds of herbs, should also bear a man of this kind to be as it were a useful drug for mankind. And as you read what he had written I was entirely glad that you were giving such close attention to his words and truly a great sense of wonder came over me and I was very grateful for our good luck, when I saw you so enthusiastic about the art. For most men just want to derive the pleasure of listening from writings on medicine: but you not only listen with pleasure to what is said, but also learn from your native intelligence understanding many of the things which are not said and also know and understand many of the practical aspects of medicine as well as we who have diligently learnt them. I truly saw this in your case and was completely amazed.

5 ὁπότε γάρ σου τῶν παίδων ὁ φίλτατος τὴν περὶ τὸ περιτόναιον διάθεσιν ἔσχεν ἕκ  
 τινος τοῦ ἵππευειν ἀνάγκης, ἐπειδὴ τις καὶ δημοτελής ἦν μυστηρίων ἱεουργία, διὰ  
 θρησκείαν, τὴν ὑπὲρ Ῥωμαίων θεῶν ἀναγκαίως ἀγομένην τότε, ἐφ' ᾧ δὴ καὶ τοὺς  
 εὐγενεστάτους παῖδας ἵππεύοντας εὐρύθμως καὶ χορεύοντας τοὺς ἵππους ἔδει τινὰ τῶν  
 10 μυστηρίων καὶ αὐτοὺς ἐπιτελεῖν. ὅτε δὴ καὶ τοῦ παιδὸς τοῦ σοῦ ἀπαλοῦ τυγχάνοντος  
 πάνυ ὁ τόπος οὗτος περιθλασθεῖς, βιαίως ἀπέστη τε τῶν ὑποκειμένων, καὶ μετ' αὐτὸ  
 πῦον συναγαγὼν, ἐδεήθη καὶ τομῆς, καὶ ὁ μὲν παῖς, ὥσπερ τις ἀνὴρ ἤδη, τλημόνως  
 ἀπάντων ἀνεχόμενος, ἐπιεικῶς ἐθεραπεύετο, καθάπερ ἕκ τινος φιλοσοφίας λόγου,  
 15 καρτερία τε καὶ ἀνδρεία πρὸς τὰ παρόντα εὐφυῶς συνησκημένος, σὺ δὲ ἐφεστῶς  
 ἀκριβῶς οὕτως ἔβλεπες, καὶ τοῖς γιγνομένοις ὑφ' ἡμῶν ἅπανσι προσεῖχες, ὡς εἰ ποτε  
 τι καὶ παρέργως ἐγίνετο, εὐθέως ἐφεστάναι, καὶ παραινεῖν κατὰ τὸν Ἴπποκράτην,  
 μηδὲν εἰκὴ ποιεῖν. ἐγὼ δὲ τι καὶ φιλοτιμότερον θεώμενος, περιεργότερον τὸ ὑπὸ σοῦ  
 γιγνόμενον ἔβλεπον. εἴ ποτε γάρ τι καὶ ἐπιτιθεμένων ὑπὸ τοῦ θεραπεύοντος  
 20 φαρμάκων ἀτόπως ἔκειτο, τοῦτο τοῖς σαντοῦ δακτύλοις μετετίθεις τε καὶ δεόντως  
 ἤρμωτες τῷ τραύματι, ὡς θαυμαστὸν εἶναι δοκεῖν, ἐκ τῆς περὶ τὸν υἱόν σου στοργῆς  
 καὶ τῆς φυσικῆς ἐντρεχειᾶς, αἰφνιδιὸν σοι οὕτω τῶν χειρῶν ἐνδεικνυμένων ἀκριβῆ  
 τέχνην, καὶ τοῦτ' ἄρ' ἦν ἐπὶ σοῦ φαινόμενον ἐκεῖνο, ὥσπερ δὴ καὶ ὁ σοφώτατος  
 Πλάτων, ὡς εἰκὸς ἐπὶ πολλῶν πολλάκις ἰδὼν, καὶ χαίρων τῇ τῆς ἀληθείας ἀνάγκῃ,  
 24 καὶ τὰς μαθήσεις ἀναμνήσεις εἶναι λέγει, καὶ τὴν ψυχὴν, πάντων τὰς ἐννοίας ἔχειν  
 20 δοκεῖν, ἐμφαίνεσθαι δὲ αὐτὰς τότε, ὅτε ἡ χρεῖα καλεῖ. ὥσπερ δὲ δὴ καὶ ἐπὶ σοῦ,  
 διὰ τὴν περὶ τὸν παῖδα φροντίδα, ἀπροσδόκητος ἡμῖν ἢ παροῦσά σοι τῆς τέχνης  
 ἐμπειρία κατεφαίνετο, καὶ εἰκότως φιλόκαλός τε ὢν, οὕτω καὶ εὐφυής. οὐδὲ περὶ τὸ  
 φάρμακον τοῦτο τὴν θηριακὴν ἔσχες ἀμελῶς, ἀλλ' ἐσπούδασας αὐτοῦ εἰδέναι τὴν  
 25 τε δύναμιν καὶ τὴν κρᾶσιν, τὸν τε καιρὸν καὶ τὸ μέτρον τῆς χρήσεως ἀκριβῶς ἐκμαθεῖν.

[2. Θηριακῆς ἔπαινος καὶ διάγνωσις, καὶ τῶν περὶ ταύτην ἀρχόντων Ῥωμαίων σπουδή.]

Καὶ γὰρ ἐστὶν ὡς ἀληθῶς παρὰ τοῖς ἀνθρώποις ἅπανσιν ἐνδοξότατον, διὰ τε τὸ ἄπταιστον  
 τῆς ἐπαγγελίας καὶ διὰ τὸ δυνατὸν τῆς ἐνεργείας·

11 Hipp. Epid. VI 2.12.1

1 σου L σοι Y 1 περὶ τὸ L om. O 1 περιτόναιον L Arab. (صفاق) περὶνάιον Frob. ("intercapedinis ani ac  
 scroti affectu laboraret") Rota ("valde tenero coxarum summitas a subiectis stragulis contusa inflammationem  
 contraxit") 2 ἦν post τις transp. O 2 ἦν L ἦς Rota 2 ἱεουργία O Friedlaender ἱεουργῶς L N Y  
 ἱεουργῶς Q Rota 3 τὴν ὑπὲρ Ῥωμαίων θεῶν L θεῶν τῶν ὑπὸ Ῥωμαίων O τῶν ὑπὲρ Ῥωμαίων θεῶν Y  
 4 χορεύοντας χωρεύοντας O 4 τοὺς ἵππους conieci ὥσπερ τοῖς ἵπποις L, edd.; ὥσπερ sechisit Friedlaender  
 6 πάνυ L πάνου vel πάγου Y 8 ἐπιεικῶς εὐπαθῶς Y 8 φιλοσοφίας scripsi τοῦ φιλοσοφίας codd. edd.  
 10 ἀκριβῶς οὕτως L οὕτως ἀκριβῶς O 10 ὡς L om. O 11 ἐγίνετο L ἐγίνετο O 12 τι L τε O  
 12 φιλοτιμότερον L φιλοτιμώτερον Y 12 θεώμενος L θεόμενος O 13 ἐπιτιθεμένων codd. edd. incl.  
 Chart. ἐπιθετιμένων Kühn 14 φαρμάκων L φαρμάκον O 14 ἀτόπως L om. Q 14 σαντοῦ L ἀντοῦ O  
 17 ἦν L ἦν εἰδεῖν O Ald. Crat. ἦν ἰδεῖν Kühn 17 φαινόμενον L τὸ φαινόμενον N 17 ὥσπερ L ὅπερ Y  
 21 περὶ L ἐπὶ Y 23 τοῦτο τὴν θηριακὴν L om. O 26 Θηριακῆς...σπουδῆ om. codd.



For <this occurred> when your son, the dearest of your children to you, had a condition of the peritoneum arising from some occasion when it was necessary for him to ride a horse, when there was a celebration of mysteries at the public expense because of the act of worship of the Roman gods which was compulsorily held then, on which occasion it was also necessary for the best born boys riding rhythmically, and their horses dancing, to perform certain of the mysteries themselves. And when this part of your tender young son was bruised and forcibly raised from the parts beneath it bringing pus after it, and surgery was needed, and your son bearing everything with fortitude as if he were already a grown man was given the appropriate medical attention, being nobly prepared as if from some philosophical principle with strength and bravery to face his situation, you standing by watched so carefully and paid close attention to everything we did and if something even trivial happened you immediately stood over us and advised us in Hippocrates' words to do nothing rashly. And I seeing something even more praiseworthy watched you doing something more painstaking: for whenever an ointment applied by the attendant was out of place you moved it with your own fingers and applied it to the wound so that it was wonderful to see, as a result of your love for your son and your natural skill, with your hands suddenly displaying such precise skill, and one could see in your case what Plato – who no doubt had often witnessed it in the case of many men – and rejoiced in the necessity of truth – says: that to learn things is really to remember them and that the soul seems to have knowledge of everything and produce it when necessity calls it forth. And so in your case because of your care for your son, your ability in the craft, unexpected by us, appeared – quite reasonably, being both virtuous and noble. And you were by no means lacking in interest in this drug, theriac, but were keen to know about its power and composition and to learn in detail about the right time of its usage and the dosage.

5R

10R

15R

20R

25R

[Chapter 2 Praise and description of theriac, and description of the Roman emperors' enthusiasm for it]

Indeed, it is truly most famous among all men both because of the infallibility of its stated properties and the power of its effect.

30R

οὔτε γάρ τις δηχθεῖς ποτε ὑπὸ τῶν ἀναιρεῖν εἰωθότων θηρίων εὐθύς πῶν τὴν ἀντίδοτον ἀποθανῶν ἰσθόρηται, οὔτ' ἂν προπιῶν τις, εἴτ' οὐ μετὰ πολὺ δηχθεῖς ἰσχυρότερον πρὸς τὸ ἀποκτεῖναι τὸν ἰὸν ἔσχε τοῦ θηρίου, ὅπερ πολλάκις καὶ τῶν ἀρχόντων τινές, 215 ἐξουσίαν θανάτου καὶ ζωῆς ἔχοντες, εἴτα κρίναι τὸ φάρμακον θέλοντες, εἰ τοῦθ' ὅπερ 5 ἐπαγγέλλεται, καὶ δρᾶν δύναται, ἐπὶ τῶν ἤδη διὰ τινὰς πονηρὰς καὶ παρανόμους πράξεις κατακριθέντων ἀποθανεῖν δοκιμάζουσιν αὐτὸ, ἡμεῖς μὲν ἐπ' ἀνθρώπων τὴν κρίσιν αὐτοῦ ποιεῖσθαι μὴ δυνάμενοι, ἐπὶ τινῶν ἄλλων ζώων τὸ αὐτὸ δρῶντες, τὴν ἀληθῆ τῶν φαρμάκου κρίσιν εὐρίσκουν πειρώμεθα. ἀλεκτρούνας γὰρ λαβόντες, τοὺς μὴ ὅσοι γέ 10 τινες οἰκοδίατοὶ τέ εἰσιν, καὶ ἡμῖν ὁμορρόφιοι, ἄγριοι δὲ μᾶλλον τυγχάνουσιν ὄντες, καὶ ξηρότερον κεκραμένον τὸ σῶμα, οὕτως αὐτοῖς προβάλλομεν τὰ θηρία, καὶ τὰ μὲν εὐθέως ἀποθνήσκει τὰ μὴ πῶντα, ὅσα δὲ πέπωκεν, ἰσχύει καὶ μετὰ τὸ δῆγμα τὴν ζωὴν 15 ἔχει. δοκιμάζειν δ' ἐνίοτε χρὴ τὸ φάρμακον, εἰ μὴ ἐστὶ δεδολωμένον, καὶ τοῦτω τῷ τρόπῳ. διδόντες γάρ τι τῶν διὰ γαστρὸς καθαίρειν δυναμένων φαρμάκων, προδίδομεν τῆς θηριακῆς, καὶ ὅταν δοθείσης αὐτῆς μὴ καθαίρηται ὁ λαβὼν τὸ καθαριστικὸν φάρμακον, αὐτῷ δοκιμάζομεν τὴν ἀντίδοτον ἀρίστην οὕσαν, ἐπειδὴ ἐκόλυσε τὴν κάθαρσιν 20 γενέσθαι τῷ λαβόντι τὸ καθαριστικὸν φάρμακον, ὡς διὰ τὴν τοιαύτην κρίσιν, μὴ ποτ' 216 ἂν ἡμᾶς σφαλῆται περὶ τὴν τοῦ ἀληθοῦς φαρμάκου εὔρεσιν. πολλὴ γάρ ἐστὶν ὑπὸ τῶν πανουργούντων καὶ ἡ περὶ αὐτοῦ γινομένη πανουργία, καὶ οἱ πολλοὶ τῆ δόξῃ μόνῃ τῆς ἀντιδότου ἀπατώμενοι, παρὰ τῶν κατηλικῶς χρωμένων τῆ τέχνῃ, πλείστου ἀργυρίου, καὶ μὴ καλῶς ἐσκευασμένον, ὠνοῦνται τὸ φάρμακον. εἰσὶ γὰρ καὶ τῶν ὑγαινότων τινές οἱ ἐν ὄλῳ καὶ παντὶ τῷ βίῳ ἀδιαλείπτως χρῶνται τῷ φαρμάκῳ, μάλιστα ὅσοι διὰ 20 τὸ σκαῖον, καὶ ἀνελεύθερον τοῦ τρόπου μὴ ζῶσιν ἀμερίμως, ἀλλ' ἀεὶ πρὸς τὸ ἐπιβουλεύεσθαι τὴν ὑποψίαν τοῦ ραδίως ὑπὸ τῶν ἐχθρῶν ἀποθανεῖν ἔχουσιν. ἐνίοι δὲ δι' ὠφέλειαν τοῦ σώματος καθ' ἑκάστην ἡμέραν προσφέρονται τοῦ φαρμάκου,

4 *Ant.* I: XIV 2.3-13

1 δηχθεῖς ποτε L ποτε δηχθεῖς O 3 ἰὸν L om. O 4 εἴτα L εἴτα τὸ Q *edd.* 4 εἰ L εἰς O 6 ἡμεῖς μὲν L *incipiunt* P V W; Περὶ τοῦ πῶς δεῖ δοκιμάζειν τὴν θηριακὴν : ἡμεῖς μὲν P V W Πῶς δεῖ δοκιμάζειν τὴν θηριακὴν O *in marg.* Πῶς δοκιμαστέον τὴν θηριακὴν L N Q Y *in marg.* 6 ἐπ' ἀνθρώπων L ἐπ' ἀνθρώπου ποτὲ P V W 7 τὸ αὐτὸ δρῶντες L τοῦτο δρᾶντες P W τοῦτο δρᾶσαντες V 8 εὐρίσκουν πειρώμεθα L εὐρεῖν ἐπειράθημεν P V 9 τέ εἰσιν L εἰσιν (τινες εἰσιν *ante ras.*) O 9 ὁμορρόφιοι L ὁμότροφοι P V W ὁμορόφοι O ὁμορόφιοι Y 9 μᾶλλον L om. O 9 ὄντες L om. P V W 10 ξηρότερον L ξηρότεροι P 10 προβάλλομεν L περιβάλλομεν Y προβαλλόμεθα P V W 10 τὰ θηρία L τὴν θηριακὴν P V W 11 ἀποθνήσκει τὰ μὴ L ἀποθνήσκειν μὴ P V W 11 ὅσα δὲ πέπωκεν L τα δὲ πεπώκοτα P V τα δὲ πεπώκοτα W 12 ἄλλη δοκιμασία τῆς θηριακῆς *in marg.* L N Q Y O ἄλλο *in marg.* P V W 12 δ' ἐνίοτε χρὴ L δὲ χρὴ ἐνίοτε O 12 εἰ μὴ ἐστὶ L εἰ δὲ μὴ ἐστὶ O 13--14 προδίδομεν τῆς θηριακῆς L τὴν θηριακὴν V W καὶ τὴν θηριακὴν P τῆς θηριακῆς *al.* 14 δοθείσης αὐτῆς L δοθείσει αὐτῆ P 15 αὐτῷ L οὕτω P V W 15--16 τὴν κάθαρσιν γενέσθαι L γενέσθαι τὴν κάθαρσιν O 16 φάρμακον om. P V W 17 περὶ τὴν L τὴν περὶ V 18 ἡ L om. P V W 18 αὐτοῦ Q αὐτῶν L, Q *ante corr.* αὐτὸ Ald. 18 γινομένη L γιγνομένη O 18 πανουργία L πανούργους O *ante corr.* 18 οἱ πολλοὶ L οἱ om. P V 18 δόξῃ L δόξει P 19 πλείστου ἀργυρίου L πλείστου ἀργυρίου -ω -ω *supra lineam* Q πλείστῳ ἀργυρίῳ *edd.* 20 καὶ μὴ καλῶς ἐσκευασμένον L καὶ καλῶς ἐσκευασμένον ἢ Ald. Crat. κᾶν μὴ καλῶς ἐσκευασμένον ἢ O Kühn κᾶν μὴ καλῶς ἐσκευασμένον P 20 εἰσὶ γὰρ Q εἰσὶ γὰρ οἱ L 21 οἱ *huc transp.* Q 21 ἐν ὄλῳ καὶ παντὶ τῷ βίῳ L ἐν ὄλῳ καὶ παντὶ τῷ ἑαυτῶν βίῳ O Ald. 23 ὑποψίαν L ἀποψίαν ὁ *supra lin.* Q 23 ἐνίοι δὲ L ἐνίοι δὲ καὶ O P W 24 προσφέρονται L μεταλαμβάνουσι V μεταλαμβάνειν P W

For there is no record either of someone dying from the bite of one of the wild beasts whose bite is usually fatal if he immediately drinks the antidote after being bitten, nor of anyone who drinks it in advance and then not long afterwards is bitten and gets a strong enough dose to kill; and many of our rulers having the power of life and death and therefore wishing to test the drug, to see if it can do as is claimed, try it out on people already condemned to death for wicked and illegal acts; we being unable to test it on men do the same on certain other living beings and try to arrive at a true verdict on the drug. So we take cocks – not those that live with us under the same roof, but rather wild ones, and with a rather dry constitution, and we put poisonous beasts among them, and those who have not drunk theriac die immediately, but those who have drunk it are strong and stay alive after being bitten. It is sometimes necessary to test the drug to see if it is adulterated, and we do this in this way: we administer one of the drugs which have the power of purging by way of the stomach, after previously administering theriac: and whenever the person taking it is not purged despite taking the purgative drug we judge the antidote he has taken to be of the best quality since it prevented purgation in the man who had taken the purgative; so through this test we are never deceived about identifying the genuine drug. For there is much trickery practised about the drug by tricksters and the majority are deceived by the mere appearance of the drug, getting it from those who practise the art for profit, and buy it at the highest price even though it is not properly prepared. For there are healthy men who take it without interruption throughout their whole life, especially those who because of the ill-omened and base nature of their life do not live free from care but always have the suspicion that they could easily die at the hands of those who plot against them. And some take the drug every day for the good of their body;

ὡσπερ δὴ τὸν θεῖον Μάρκον καὶ ἡμεῖς οἶδαμεν ἐνθέσμως τὲ βασιλεύσαντα, καὶ ἀκριβῶς  
 ἑαυτοῦ διὰ τὴν σύνεσιν τῇ συγκράσει τοῦ σώματος παρακολουθήσαντα, κατακόρως τε,  
 καὶ ὡς τινι τροφῇ χρησάμενον τῷ φαρμάκῳ. ἐξ ἐκείνου γὰρ καὶ μᾶλλον δεδόξασται τὸ  
 φάρμακον, καὶ εἰς τὸ φανερόν αὐτοῦ τοῖς ἀνθρώποις ἡ δύναμις τῆς ἐνεργείας ἐλήλυθε. 217  
 5 τῇ γὰρ περὶ τὸν βασιλέα γενομένη ὑγιεινῇ καταστάσει τὴν πίστιν τῆς ὠφελείας ἢ ἀντί-  
 δοτος μᾶλλον προσεῖληφεν. ἀλλ' ἐπὶ μὲν ἐκείνου τοῦ βασιλέως μόνον αὐτῆς τὸ ἔργον  
 εἰς τὴν γνώσιν τῶν εἰδότην κοινὸν ἦν, ἐπὶ δὲ τῶν νῦν μεγίστων αὐτοκρατόρων ἡ χρῆ-  
 σις εἰς τὸ κοινὸν ἐφθασε. πᾶσι γὰρ ἡμῖν ἔξεστι τοῖς παρ' αὐτῶν κεχρησθαι καλῶς καὶ  
 θεραπεύεσθαι ἀφθόνως, ἄλλου παρ' ἄλλου λαμβάνοντος τὸ φάρμακον, ἐπεὶ μὴ μόνον  
 10 τῷ παρὰ θεῶν ἔχειν τὸ βασιλεύειν ὑπερέχουσιν ἀπάντων, ἀλλὰ καὶ τῷ τῶν ἀγαθῶν  
 ἀπάντων ἅπασι μεταδιδόναι ἡδέως, ὡσπερ καὶ αὐτοὶ οἱ θεοὶ, ἐν τῷ ἴσῳ καὶ τοσοῦτον  
 τὴν εὐφοροσύνην ἔχοντες, ἐν ὅσῳ περ καὶ οἱ ἀπ' αὐτῶν διασωζόμενοι διατίθενται, καὶ  
 νομίζοντες τὸ μέγιστον εἶναι τῆς βασιλείας μέρος τὴν τοῦ κοινου σωτηρίαν, ὅπερ δὴ  
 καὶ μᾶλλον ἐπ' αὐτῶν τεθαύμακα. οὐ γὰρ περὶ τοῦτο τὸ φάρμακον μόνον τὴν σπουδὴν  
 15 ἔχουσιν, ἀλλ' οὕτως εἰσὶ περὶ πάντα φιλότιμοι, ὡς εἴ ποτέ τινι ἡμῶν τῶν φίλων αὐτῶν  
 χρεῖα γένηται, θαυμαστὸν ὅπως ἐξ ἐτοίμου, καὶ μετὰ πολλῆς τῆς προθυμίας κοινωνοῦσι 218  
 τῶν φαρμάκων. οὐ γὰρ περιμένοντες τὴν ἀνάγκην τῆς χρήσεως, τότε καὶ σκευάζουσιν  
 αὐτὰ, ἀλλὰ πρὸς τὸ τάχος τῆς τῶν καιρῶν ὀξυτήτος ἐτοίμη καὶ τὴν παρασκευὴν αὐτῶν  
 φιλοκάλως ἔχουσιν. ὁπότε γοῦν, καὶ διὰ τὸ σεμνὸν τοῦ ἤθους καὶ διὰ τὴν ἐν τοῖς ῥητο-  
 20 ρικοῖς λόγοις Αντίπατρος, ὁ τὰς Ἑλληνικὰς ἐπιστολάς αὐτῶν πράττειν πεπιστευμένος  
 ἐντελῆ παιδείαν μεγάλως ὑπ' αὐτῶν τιμώμενος, τῇ νεφριτικῇ διαθέσει περιπεσῶν, δεινὰ  
 καὶ ἀνήκεστα ὑπὸ τοῦ πάθους ἔπασχεν, ἀξιεπαίνον αὐτῶν εἶδον τὴν περὶ τοὺς φίλους  
 εἰς τὸ σώζεσθαι σπουδὴν, καὶ θαυμαστὴν τὴν περὶ τὴν ἰατρικὴν φιλοτιμίαν. οὕτω γὰρ  
 25 πρὸς τὸ ποικίλον καὶ διάφορον τῶν συμπτωμάτων ἐνιστάμενοι ἀντηγωνίζοντο τῷ πάθει  
 διὰ τῶν καλλίστων φαρμάκων, ὡς τῶν ἰατρῶν οἱ ἄριστοι, καὶ τὸν πάντα βίον περὶ τὴν  
 ἄσκησιν αὐτῆς ἡσχολημένοι.

5 *Ant.* I XIV 24 14-18

1 τὲ O P V W ποτέ L *edd.* 1 βασιλεύσαντα L βασιλεύοντα O P V 2 ἑαυτοῦ L αὐτὸς P 2 συγκράσει  
 L κράσει P 3 χρησάμενον L χρησάμενος P V W 3 γὰρ L *om.* P V W 4 αὐτοῦ αὐτῷ Y αὐτὸ P 5 περὶ  
 L ἐπὶ *edd.* 5 γενομένη L γιγνομένη O 7 τῶν νῦν L τῶν νῦν ἡμῶν O 8 κεχρησθαι L χρησθαι O μη  
 χρησθαι N 9 ἄλλου παρ' ἄλλου λαμβάνοντος L ἄλλον παρ' ἄλλου λαμβάνοντα Y 10 τῷ τὸ O 10 τῷ  
 L *om.* O 11 τοσοῦτον L N Q τοσοῦτω O *edd.* τοσοῦτων Y 13 τὸ L *om.* O 15 τινι L *post corr.* Q  
 τινος L 15 ἡμῶν *coniec.* ὑφ' ἡμῶν L *del.* Q ὑφ' ὑμῶν O 15 αὐτῶν L αὐτοῖς N Y αὐτοῦ Q *post corr.*  
*e autōn* 16 γένηται L N Q Y γένοιτο *edd.* 16 τῆς L *om.* O 17 καὶ L *om.* O 23 οὕτω οὕτως Y  
 24 ἀντηγωνίζοντο ἀντηγωνίζοντο Y

we know that the divine Marcus Aurelius who lately reigned righteously over us, because of the close and intelligent attention he paid to the constitution of his body used the drug greedily and as if it were a food. For because of him the drug became more widely known and the power of its action became clearer to men. For from the state of health which the emperor acquired the antidote gained increased faith in its power. But under that emperor only the fact of its use was known to the cognoscenti; 5R  
but under our present great emperors its use has become general. For we can all use what we generously receive from them and be ungrudgingly cured, one receiving the drug from another, since they excel above all others not only in having received kingship from the gods but also in the way they gladly give everyone a share in all 10R  
good things, like the gods themselves, getting as much joy themselves as those who are saved by them and thinking that the greatest part of kingship is the common safety – which I have admired even more in them. For not only do they set great store by this drug but they are all in things such lovers of honour that if ever one of us, their friends, develops a need for it they share their drugs with them with incredible alacrity and 15R  
enthusiasm. For they do not wait until the need for their use arises and then prepare them, but with a view to the speed with which an acute need for their use arises, for the love of virtue they have an adequate supply ready. So when Antipater their principal Greek Secretary who is greatly revered by them because of the dignity of his character and his great skill in rhetoric, fell ill with a condition of the kidneys and suffered 20R  
terribly and unbearably, I observed their praiseworthy love of saving their friends and their admirable love of honour in the art of medicine. For they resisted the variable and differing symptoms and fought the disease with the best drugs like the best doctors who have spent their whole lives practising the art.

219  
 τὴν δὲ πάντα μοι φιλάτην Ἀρρίαν, καὶ αὐτὴν ὑπ' αὐτῶν ἐξόχως ἐπαινουμένην, διὰ  
 τὸ φιλοσοφεῖν ἀκριβῶς, καὶ τοῖς Πλάτωνος μάλιστα χαίρειν λόγοις, ἀνέσωσάν ποτε  
 νοσήσασαν οὐ παρέργως καὶ τὸν στόμαχον ἐκλελυμένον ἔχουσαν, καὶ κειμένην οὕτως  
 5 ὑπίαν, ὡς μηδὲ τὰς τροφὰς δύνασθαι λαμβάνειν, καὶ διὰ τοῦτο εἰς τὸν τῆς ἀτροφίας  
 κίνδυνον ἐλθεῖν ὅτε δὴ καὶ ὡς οἱ ἐμπειρότατοι τῶν ἰατρῶν ἐθεράπευσαν τὴν γυναῖκα,  
 ὑποδείξαντος ἐμοῦ, τὸν ἀψινθίτην οἶνον παρασχόντες αὐτῇ πιεῖν· πιούσα γὰρ εὐθέως  
 ἀνερρώσθη τε τὸν στόμαχον, καὶ ταχέως ἀπέιληφε τῆς ὀρέξεως τὸ ἔργον. τὸ δ' ἐπὶ  
 τοῦ σοῦ παιδὸς γενόμενον εἰκὸς ὅτι καὶ μνημονεύεις ἔτι ὅποτε γὰρ γενομένης τῆς  
 ἀποστάσεως σὺ μὲν, ὡς χρηστὸς πατήρ, ὀκνηρότερον εἶχες πρὸς τὴν τομῆν, ἤπειγε  
 10 δὲ ὁ καιρὸς ἀποκριθῆναι τὸ ἐγκείμενον ὑγρὸν, δόντες αὐτοὶ τὸ φάρμακον ἀπήλλαξαν  
 ἡμᾶς τῆς μεγάλης ἐπ' αὐτῷ φροντίδος· ἐπιτεθεῖσα γὰρ ἡ ἔμπλαστρος διεῖλε μὲν τὸ  
 ἐπικείμενον σῶμα ὀξύτερον τῆς τομῆς, ἐκένωσε δὲ πᾶν τὸ ὑγρὸν τὸ ὑποκείμενον, ὡς  
 μηκέτ' ἔχειν διὰ τοῦτο τὸ παιδίον τὰς ἀλγηδόνας.

15 [Τίνος ἔνεκα ἐκ πολλῶν σύγκειται ἡ ἀντίδοτος· ἔμφυτον δὲ πᾶσιν δύναμιν ὑπάρχειν,  
 ἦν λόγῳ τε καὶ αἰσθήσει κρίνομεν.] 220

20 Ταύτην οὖν ἔχοντες περὶ πάντα τὰ φάρμακα, ὡς ὄρας, τὴν βασιλικὴν φιλοκαλίαν, εικό-  
 τως καὶ τὴν θηριακὴν σκευάζουσιν ἐπιμελῶς, καὶ ἐν ἑκάστῳ ὧν μιγνύουσιν ἀκριβῶς  
 δοκιμάζοντες αὐτοὶ, ὡς μηδὲν παρορᾶν, καὶ διὰ τοῦτο θαυμαστῶς τὴν ἀντίδοτον ἀπο-  
 τελεῖν τὰ ἔργα. καὶ γὰρ ἐστίν, ὡς οἶδας, ποικιλίαν ἔχουσα τοῖς μίγμασι καὶ πολυειδῆ  
 τὴν χρῆσιν ἐν τοῖς ἔργοις. τεθαύμακα γοῦν ἐγὼ τὸν πρῶτον ποιησάμενον αὐτῆς τὴν  
 σκευασίαν. καὶ μοι δοκεῖ μῆτ' ἀλόγως, ἀλλ' ἀκριβεῖ τινα λογισμῷ, καὶ βεβασιωμένη  
 πάντῃ φροντίδι πεποιθῆσθαι αὐτῆς τὴν σύνθεσιν.

1 αὐτῶν αὐτῆς Y 1 ἐξόχως *post* αὐτὴν *transp.* O 6 οἶνον οἶον Kühn 7 ἀπέιληφε L ἀπέιληφον O  
 7 τὸ L ὅτι P V W 8 τοῦ σοῦ παιδὸς L τοῦ παιδὸς τοῦ σοῦ P V W 9 σὺ μὲν οἶμαι P V W 10 δὲ *om.* O  
 10 ὁ καιρὸς *om.* Q 12 ἐκένωσε ἐκκένωσε Q 12 τὸ ὑγρὸν τὸ ὑποκείμενον L τὸ ὑποκείμενον πύον O  
 12 ὑγρὸν L πύον P V W 13 τὸ L *om.* Y 13 διὰ τοῦτο *post* παιδίον *transp.* O P V W; διὰ τοῦτου P V W  
 16 κρίνομεν *Chart.* ἰσχυρόμεν Kühn 18 πάντα L ταῦτα O *Ald.* 19 ὧν μιγνύουσιν L τῶν μιγνυμένων O  
 21 ἐστίν L *om.* P V W 21 ποικιλίαν ποικίλον O 21 ἔχουσα L ἔχουσι P V W 21 μίγμασι L μίγμιασι  
 P σμῆγμασι V W 22 χρῆσιν χρεῖαν P V W 22 γοῦν L γάρ O 23 καὶ L *om.* O

In the case of my dearest Arria, who is also greatly praised by them because of her accurate philosophy and the great pleasure she derives from the writings of Plato, they saved her once when she was terribly ill and had a loosened stomach and was lying so knocked flat that she could not even eat and was in danger of starvation and they like the most skilful doctors were treating the woman under my supervision, giving her wine made of wormwood to drink. For as soon as she had drunk it she was strengthened in the stomach and quickly recovered her appetite. And I expect you still remember in the case of your son; for then when the inflammation happened you like a good father were rather hesitant about the use of the knife, but the crisis forced us towards the draining of the fluid, and they by giving the drug relieved us of our concern about him. For when the plaster was applied it drew up the depressed part of the body quicker than the knife and drew off all the underlying fluid so that the boy no longer had any pain from it.

5R

10R

[Chapter 3. Why the drug is made of multiple ingredients; there is a natural power in everything, which we investigate by reasoning and through the senses].

15R

So because they have, as you see, this kingly love of excellence regarding all drugs, naturally they are careful in preparing theriac, and keep accurate account of each ingredient, so that nothing is overlooked, and because of this the antidote does its job admirably. For as you know the antidote has variety in its preparation and a multitude of uses and I for one have a deep admiration of the first man to prepare it. And I do not think he hit on it irrationally, but by close reasoning and a thoroughly well-tested plan he managed to achieve its composition.

20R

οὐ γὰρ ὡσπερ οἱ ἀπὸ τῆς ἐμπειρίας ἰατροὶ ἄνευ λόγου τοῦ τοῦ κατὰ τὰς φύσεις ἕκαστον  
 ἀτέχνως ἰατρεύοντες αἰσχροῦς τὰ μὲν ἐξ ὄνειράτων, τὰ δὲ καὶ παρ' αὐτῆς τῆς τύχης λα-  
 βεῖν φασιν εἰς τὴν τέχνην τὰ φάρμακα, οὕτω καὶ ἡμεῖς περὶ τὴν ἰατρικὴν σπουδάζομεν,  
 ἀλλ' ὅσα μὲν ὁ λόγος αὐτὸς πρῶτος καὶ μόνος ἐξευρίσκειν δύναται, ταῦτα ἀκριβῶς  
 5 παντὶ τῷ λογισμῷ ζητοῦντες φιλοπόνως εὐρίσκομεν, ὅσα δὲ εὐρεῖν ἀδυνατεῖ, ταῦτα  
 πιστευόντες αὐτῶν ποιείσθαι τὴν κρίσιν· οὔτε γὰρ τὴν τίτανον, ὅτι λευκὴ ἐστὶν ὡσπερ ἡ  
 221 χιῶν, τῇ ὄψει μόνον ὡς ψύχουσαν κρίνειν αὐταρκεῖς εἶναι νομίζομεν· οὔθ' ὅτι τὸ ῥόδον,  
 διὰ τὸ ἐρυθρὸν εἶναι, διὰ τοῦτο καὶ θερμαίνειν αὐτὸ εὐθέως πεπεισμεθα, ἀλλ' ἅμα τῇ  
 10 ὄψει καὶ τὴν αἴσθησιν τῆς ἀφῆς προσπαραλαμβάνοντες τὴν μὲν, ὅτι θερμαίνειν μέχρι  
 τοῦ καίειν ἀδιαψεύστως εὐρίσκομεν, τὸ δὲ ῥόδον ἀντιπαραλαμβανόμενοι τῆς ἐπ' αὐτοῦ  
 ψύξεως, ὅτι τῶν ἐμψυχόντων ἐστὶν, ἀκριβῶς ἐπιστεύσαμεν. καὶ οὕτω λοιπὸν ἀκριβῶς  
 ἐκάστου τῶν φαρμάκων τὴν δυνάμιν διὰ τῆς αὐτῆς αἰσθήσεως κρίνοντες εὐρίσκομεν,  
 15 τὸ μὲν ὅτι τόδε ἐστὶν ἄλμυρον, ἢ ὄξι, τὸ δ', ὅτι πικρὸν, ἢ γλυκὺ, τῇ γεύσει δοκιμάζοντες  
 αὐτά· τὸ δ' ὅτι τὸ μὲν θερμαίνει, τὸ δὲ ψύχει, καὶ ἄλλο ὑγραίνει, ἕτερον δὲ ξηραίνει, ἢ  
 222 διὰ τῆς ἀφῆς ἀντίληψις γνωρίζειν ἡμῖν παρέσχε. πολλὰ δ' αὐτῶν διὰ τῆς ὀσμῆς κρίνειν  
 ἐπινοοῦμεν, καὶ τὸ μὲν εὐτονον τῆς δυνάμεως ἐκ τοῦ πληκτικοῦ τῆς ἀποφορᾶς εὐρί-  
 σκομεν, τὸ δ' ἄτονον τῆς ἰσχύος διὰ τῆς ἐκλύσεως τοῦ ὄσφραντοῦ. γνωρίζομεν δ' εἰ  
 20 δόκιμόν τε καὶ μὴ, κριτήριον τῶν ἀπλῶν φαρμάκων τὰς ἐαυτῶν αἰσθήσεις ποιησάμενοι,  
 καὶ ταῦταις αὐτὰ πειράσαντες τὸ πρῶτον, καὶ διὰ τῆς χρήσεώς τε καὶ αἰσθήσεως τὸ πι-  
 στὸν αὐταῖς ἐργασάμενοι, οὕτω λοιπὸν προσάγοντες τῇ πείρᾳ τὸν λόγον, καὶ εἰς πάντα  
 ὀδηγῶ τούτῳ χρώμενοι, καὶ τοῖς ἀπλοῖς φαρμάκοις δεόντως χρώμεθα, καὶ τὴν σύνθεσιν  
 αὐτῶν τῇ τοῦ λόγου τέχνῃ ἀρίστην ποιούμεθα. ἐκμαθόντες γὰρ ἐκάστου τῶν παθῶν τὴν  
 φύσιν, καὶ τὸ πολὺ καὶ διάφορον τῆς τῶν ἀπλῶν κράσεως εἰδότες, οὕτω σκευάζομεν τὰ  
 25 σύνθετα τῶν φαρμάκων ἐκάστῳ τῶν νοσημάτων, τὸ συμφέρον διὰ τῆς ποικίλης αὐτῶν  
 σκευασίας ποιούμενοι, καὶ πρὸς ἕκαστον τῶν ἀνθρώπων, ὅπως αὐτῷ κατεσκευάσται  
 τὸ σῶμα, διὰ τοῦ τρόπου τῆς φαρμακείας ἐντέχνως ἀρμοσάμενοι·

2 CMG XIII 366.2-7 Adv. Jul. XVIII A 250.2-6. 7 SMT I: XI 382.1-384.8 SMT II: XI 465

1 τοῦ *om. Chart. Kühn* 1 τοῦ κατὰ τὰς φύσεις L τοῦ κατὰ φύσιν P V W 2 ἀτέχνως Q *post corr.* ἀτελῶς L O P V W 3 περὶ L *om.* O 4 ἐξευρίσκειν L εὐρίσκειν O 6 μηδ' L τι δ' Y 7 ὅτι L ὅτε O 8 μόνον L μόνη O 11 ἀντιπαραλαμβανόμενοι L ἀντιλαμβανόμενοι O 12 ἀκριβῶς *hic explicit* O 18 γνωρίζομεν L γνωρίζωμεν Kühn 22 τούτῳ L *om.* Q *edd.*



For we do not practise medicine like the Empiricist doctors who treat each patient without reasoning concerning nature and unskilfully, and disgracefully boast that they use drugs in their art sometimes as the result of dreams, sometimes as a result of pure chance; but for things which pure reason first and alone can find, these things we find by searching diligently with all our power of reason; those things which reason cannot find we judge through the senses and by experience, often not even trusting one single type of perception on its own to make a judgment about them. For in the case of quicklime, just because it is white like snow we do not think it satisfactory to judge it cold on the basis of sight alone; and just because a rose is red, we do not for that reason immediately conclude that it is also warm, but we use in addition the sense of touch as well and make the accurate finding that quicklime warms up to the point of burning, but comparing the coldness of the rose by contrast we correctly concluded that it belongs to the class of cold things. And so for the rest we judge and find the power of each of the drugs by the same perception, for instance: this is salty, or sharp-tasting, this is bitter or sweet, judging them by sense of taste; but it is understanding gained by the sense of touch which enables us to know that this is warm, that is cold, or one thing is wet, another dry. And we know how to distinguish many of them by smell and in one case we recognise the vigour of its power by the overpowering smell it gives off, in another case the feebleness of its potency by the loss of scent. We ascertain the satisfactory quality of each of the simple drugs making the criterion our perceptions of it, first testing the drugs by these perceptions and establishing a trust in them by use and perception, and so for the rest bringing reason to bear on experience and using it in all respects as our guide we use simple drugs appropriately and make the best combination of them by the skill of reason. For having learnt the nature of each of the diseases and knowing the number and variety of combinations of simples we prepare combinations of drugs for each of the diseases, doing what is helpful through the variety of preparations of simples, skilfully matching it to each individual and the constitution of his body by the method of the use of drugs.

Ἵτι τῶν ἀπλῶν φαρμάκων τὰ μὲν ἐξ ὅλης οὐσίας ἀπλῆν τὴν δύναμιν ἔχει τὰ δὲ μικτήν.  
πολλὴ γὰρ ἐστίν, ὡς οὐκ ἀγνοεῖς, παροῦσα ἡμῖν εἰς τὴν χρῆσιν ἢ τῶν φαρμάκων  
περιουσία, καὶ οὕτως διάφορος, ὡς μὴ μόνον αὐτῆς ἐν τῇ συνθέσει τὸ ποικίλον τῆς  
δυνάμεως ὀραῖσθαι δύνασθαι, ἀλλὰ καὶ τῶν ἀπλῶν φαρμάκων, τὰ μὲν ἐξ ὅλης αὐτῶν 223  
5 τῆς οὐσίας, μίαν τινὰ καὶ ἀπλῆν ἐπιδείκνυται τὴν δύναμιν, ὥσπερ ἢ σκαμμωνία ξανθὴν  
χολῆν ἔλκουσα φαίνεται, τὸ δὲ ἀπὸ τῆς Ἀττικῆς ἐπίθυμον, τὸν τῆς μελαίνης χυμὸν  
διὰ τῆς κοιλίας καθάϊρον ὀραῖται, καὶ ὁ κνίδιος κόκκος τοῦ φλέγματος, καὶ παντὸς  
τοῦ ὕδατώδους περιφανῶς ἄγωγός ἐστι. ταῦτα γὰρ τὰ φάρμακα ἐκ παντὸς αὐτῶν  
τοῦ μέρους καὶ ἐξ ὅλης ἑαυτῶν τῆς οὐσίας τὴν ὅλην τῶν χυμῶν τούτων ποιεῖσθαι  
10 φαίνεται. μὴ γὰρ πιστεύωμεν Ἀσκληπιάδῃ τῷ ἀπὸ τῆς Βιθυνίας ἰατρῷ, παρὰ τὸν  
καιρὸν ἐκείνον λέγοντι, ὅτε ἤδη καὶ ὁ ἄνθρωπος καθάϊρεται, τότε καὶ τοὺς χυμοὺς  
τούτους εὐθέως κατὰ τινὰ μεταβολὴν γίνεσθαι, λέγοντι τὴν γὰρ τῶν ὄγκων τε καὶ  
πόρων ἐξ ἀρχῆς αὐτῷ γενομένην τοῦ σώματος ὑπόθεσιν, τούτῳ ἀνάγκην ἔχοντι τῆς  
φύσεως ἀναιρεῖν τὰ ἔργα, ἀκόλουθον ἦν καὶ τοῦτον περὶ τῶν χυμῶν λέγειν τὸν λόγον,  
15 ὡς ἀλόγου καὶ παντάπασι ἀδυνάτου ὄντος τοῦ ὑπ' αὐτοῦ λεγομένου. τίς γὰρ ἂν  
πιστεύσειε νοῦν ἔχων ἐν τοσοῦτῳ τάχει ἅμα τῷ προσθίγειν τοῦ σώματος τὸ φάρμακον 224  
εὐθέως καὶ τοῦ μέλλοντος ἐκκρίνεσθαι χυμοῦ γίνεσθαι τὴν οὐσίαν; τίς δ' οὐκ ἂν  
πεισθεῖη ῥαδίως τοὺς χυμοὺς τούτους, καὶ πρότερον κατὰ φύσιν εἶναι τοῖς σώμασι,  
ὄρων τὸν μὲν ἰκτεριῶντα παρὰ τὸν καιρὸν τοῦ λαβεῖν τὸ χολαγωγὸν φάρμακον, ταχέως  
20 τε καθαιρόμενον τὴν τοσαύτην χολῆν, καὶ τοῦ πάθους εὐκόλως ἀπαλλασσόμενον;  
τὸν δὲ ὑδεριῶντα οὐδαμῶς τινι φαρμάκῳ, πᾶν τὸ ἐγκείμενον ὕδωρ τῇ γαστρὶ, ἅμα  
τῷ λαβεῖν αὐτίκα μάλα κενούμενον, καὶ ἐκ τῆς τοσαύτης παραχρῆμα κενώσεως,  
μηδ' ὅτιοῦν, ἢ ὀλίγιστόν γε πᾶν τὸ ὑγρὸν ἐγκείμενον τοῖς σώμασι ἔχοντα. ἀλλὰ  
ταῦτα ὁ μὲν Ἀσκληπιάδης παιδαριωδῶς τῇ ἀνάγκῃ τοῦ δόγματος δουλεύων, ὡς ἔφην,  
25 διὰ τὸ φιλόδοξον, οὐ προσποιεῖται βλέπειν, καὶ πάντα μᾶλλον πιθανῶς πλαττόμενος  
εὐρίσκειν βούλεται, ἢ περ ἐκάστου τῶν φαρμάκων τὸ οἰκεῖον τῆς δυνάμεως φιλαλήθως  
ὁμολογεῖν.

5 *Nat.Fac.* I: II 42.18-43.3. 6 *MM* XIV: X 977.7-8 7 *SMT* III: XI 612.10-11 *Nat. Fac.* I: II 42.5-11  
10 *El. Ex Hipp.* II: I 499.1-501.11

1 ὅτι τῶν ἀπλῶν...μικτήν. L *desunt in edd.; in marg. in Q* 1 ὅλης L ὅλης τῆς Y 3 διάφορος L διάφορη  
Y 10 πιστεύωμεν L πιστεύομεν *edd.; utrum o aut ω illeg. in Q* 12 λέγοντι L N, *del. Q* διὰ *add. in marg.*  
Q 12 *edd. om. L N Y; add. in marg. Q* 16 προσθίγειν L N Q Y Ald. προσάγειν Crat. Chart. Kühn  
23 γε L τε Y 23 ἔχοντα Chart. ἔχοντι L N Q Y Ald. Crat. (ie Ch. good reading)

Some of the simple drugs have a single power arising out of their complete nature, others a mixed power.

For as you know there is great abundance of drugs available for our use, and so different that one can see the variety of effect not only in complex drugs but also in the case of simples; some exhibit one single effect from their whole nature; for instance scammony obviously draws out yellow bile, and *Cuscuta Epithimum* from Attica is seen to purge the humour of black bile through the intestines, *Cnidus* berry very clearly purges phlegm and draws out any watery substance. These drugs visibly as a result of every part of themselves and by their whole nature bring about the drawing out of these humours. For let us not believe *Asclepiades* the doctor from Bithynia when he says that when the man is purged, at that instant these humours come into being according to some change; for because he started the hypothesis of masses and pores which make up a body, and therefore needed to destroy the works of nature, it was no surprise that he pronounced this theory of the humours, since what he says is irrational and altogether impossible. For what man who had any intelligence would believe that so suddenly, immediately on the drug coming into contact with the body the humour which was about to be secreted would spring into being? Who would not be easily persuaded that these humours exist in the body according to nature beforehand, seeing the jaundice sufferer at the time of taking a cholagogue quickly being purged of so much bile and being pleasantly relieved of his suffering? Or the man with dropsy who with no medication being administered has all that water lying in his stomach, but as soon as he takes some is immediately emptied of a large part of it, and from that great and immediate emptying has either no water at all or only the tiniest quantity left in his body? But *Asclepiades* childishly enthralled by the requirements of his theory and because of his love of glory pretends not to see these things and prefers to find everything as he has persuasively falsified it rather than admit honestly that each drug has its own specific power.

ἡμεῖς δὲ ταῦθ' ὀρῶντες, καὶ τῷ λόγῳ τῆς ἐκάστου φύσεως τῶν φαρμάκων, τὸ οἰκεῖον τῆς δυνάμεως φιλαλήθως ὁμολογεῖν τὸ δυνατὸν εἰδότες, κἀνταῦθ' ὅτι φάρμακα φυσικῆ τινὶ δυνάμει ἔλκειν τὰ οἰκεῖα πέφυκεν ἀκριβῶς ἐπιστάμεθα, ὥσπερ καὶ ἐν τῷ 225 τῆν Μαγνήτιν λίθον ἔλκειν τὸν σίδηρον εἰς ἑαυτὴν, δυνάμιν τινα ἑλκτικὴν εἶναι αὐτῆ, 5 τῆν ἔμφυτον δυνάμιν εὐλόγως ἑαυτοὺς ἐπέισαμεν. θεὸς γὰρ οὕσα ὥσπερ ἢ ἐν ἡμῖν φύσις, κατὰ τὸν Ὅμηρον, καὶ ἄγουσα τὰ ὅμοια πρὸς τὰ ὅμοια, οὕτω τὰς θείας δυνάμεις ἑαυτῆς ἐπιδείκνυται.

[δ' 4. Τὰ ἀπλᾶ τῶν φαρμάκων συνθέτους ὡς ἐπὶ τὸ πολὺ ἔχειν δυνάμεις καὶ διάφορα 10 τοῦ σώματος μόρια βλάπτειν τε καὶ ὠφελεῖν, καὶ διαφόροις διάφορα προσήκειν.]

Καὶ τῶν ἄλλων δὲ ἀπάντων τὴν φύσιν φιλοτίμως ἐξετάζομεν, ἵνα καὶ τὴν δυνάμιν αὐτῶν καθ' ἣν ἐνεργεῖ ἀκριβῶς ἐκμάθωμεν. εὐρίσκομεν γοῦν ἐν τῇ ἐξετάσει αὐτῶν γενόμενοι 15 τὰ μὲν, ὡς ἔφην, καθ' ὅλας ἑαυτῶν ἐνεργοῦντα τὰς οὐσίας, τὰ δὲ καὶ μικτὴν ἐν τῇ οὐσίᾳ τὴν δυνάμιν ἔχοντα καὶ διπλὴν ἀποτελοῦντα τὴν ἐνέργειαν οὕτω φανερώς πολλάκις, ὡς καὶ τὰ ἐναντιώτατα ὑπ' αὐτῶν ἐπὶ τοῦ σώματος γιγνόμενα ἡμᾶς βλέπειν, καὶ θαῦμα τοῖς 20 ὀρῶσι τὸ τοιοῦτον εἶναι δοκεῖν. λαπάθου γοῦν εἴ τις μὲν τὰ φύλλα φάγοι, τὴν κοιλίαν ἐκταράσσειται· εἰ δέ τις τὸ σπέρμα λάβοι, ἐπεχομένην αὐτὴν ἔχει. ὁμοίως δ' οὖν καὶ ὁ τῆς κράμβης χυλὸς καὶ τῶν γερόντων ἀλεκτρονίων ὁ ζωμὸς καὶ τῶν ἀπὸ τῆς θαλάττης 25 κοχλιῶν οἱ χυμοὶ ληφθέντες ἐκταράσσουσι τὰς κοιλίας. τὸ δὲ λάχανον αὐτὸ ἢ κράμβη, καὶ τούτων αἱ σάρκες ἐσθιόμεναι, ἐπέχουσιν αὐτάς. ἢ δὲ ἀλόη καὶ ἢ τοῦ χαλκοῦ λεπὶς στύφει τε τὰς ὑπὸ τῶν ἐλκῶν ὑπεραυξανόμενας σάρκας, καὶ ἐπιξηραίνει πολλάκις τὰ ὑπ' αὐτοῖς γιγνόμενα ρεύματα, ληφθέντα δὲ διὰ τοῦ στόματος καθαρτικὰ τοῦ ὄλου σώματος γίνονται. τὸ δὲ γάλα διαιρούμενον ὑφ' ἡμῶν ἐναντίας ἐν τῇ χρεῖᾳ δυνάμεις 25 ἐπιδείκνυται.

4 *Nat. Fac.* II 44.13 ff. 6 *Homer Od.* 17.217-8 17 *Alim. Fac.* II: VI 635.6-7 *SMT VII:* XII 56.15-17 19 *SMT III:* XI 575.6-576.1 *CML IV:* XII 800.15 *CML VII:* XIII 48. 3-4 20 *SMT III:* XI 576.7-17 25 *SMT III:* XI 575.3-5

4 Μαγνήτιν Kühn μαγνίτιν L N Q Ald. *Crat.* Μαγνίτιν Chart. 5 ἢ *om.* Q 6 φύσις φύσεως Y 13 ἐκμάθωμεν L ἐμάθωμεν (ἐμάθομεν *ante corr. in* ἐμάθωμεν) Q *Crat.* ἐμάθωμεν Ald. μάθωμεν Chart. Kühn (ie Chart. better than Ald/Crat) 14 μικτὴν Y μικτὸν L Q *edd.* 16 ἐπὶ L ὑπὸ *ante corr.* Q 16--17 καὶ θαῦμα τοῖς ὀρῶσι τὸ τοιοῦτον L καὶ θαῦμα τοῖς τὸ τοιοῦτον ὀρῶσι *ante transp.* Q 18 ἔχει L ἔχοι Y 20 τὰς κοιλίας L τὴν κοιλίαν *al.* 22 ὑπεραυξανόμενας ὑπεραυζομένης Y 23 ὑπ' ἐπ' Y

But we seeing these things and knowing by reasoning on the nature of each of the drugs how to give an account of the true potential of that drug, accurately understand that drugs by a certain natural power are naturally able to draw out what is proper for them, just as when the Magnetic stone draws iron to itself because it has a drawing power within it, and we reasonably persuade ourselves of its innate power. For our nature is like a kind of goddess in us, as Homer says, and draws like to like and so demonstrates its own divine powers. 5R

[Chapter 4. Simple drugs usually have multiple effects and harm and help different parts of the body, and different drugs suit different situations] 10R

And we ambitiously lay out the nature of all the other drugs so that we may learn accurately their powers according to which they take an effect. And we find as we go through them that some, as I have said, have effect according to their whole being, while others have a mixed power in their being and have a twofold effect, often so markedly that we see them having opposite effects on the body, which seems miraculous to those who observe it. For example: if someone eats monk's rhubarb [*Rumex Patientia*] it upsets his stomach; but if he eats the seed of this plant it binds his bowels up again. Similarly the juice of cabbage and soup made of old cocks and the juice of sea snails when taken upset the stomach. But the vegetable cabbage itself and the flesh of the others when eaten bind up the bowels. And aloe and copper flakes draw together the proud flesh that grows out of wounds and often dry up the fluid which seeps under them, but when taken by mouth they become purgatives of the whole body. And milk when separated by us exhibits opposite powers in its use. 15R 20R

ὁ μὲν γὰρ ὀρρὸς αὐτοῦ πινόμενος ἐκλύει τὴν γαστέρα, ἐσθιόμενος δὲ ὁ τυρὸς ἐπέχει αὐ-  
 τὴν ἀκριβῶς. ἔνια δὲ οὕτως τι παράδοξον ἐργάζεται ἐν τῇ μίξει τῶν ἐν αὐτῇ μιγνυμένων  
 δυνάμεων, ὡς καὶ ἀδύνατον εἶναι γενέσθαι τοῖς ἀκούουσι δοκεῖν, εἰ μὴ τὴν γινομένην  
 διὰ τῆς ὄψεως πίστιν παρὰ τοῦ γινομένου λάβωσι. τὸ γοῦν τρίφυλλον ἢ βοτάνη, ἣτις  
 5 ὑακίνθω ὁμοίωται, ὁπότεν τοῦ ἕαρος ἐγκύμων γένηται, καὶ τὸ σπέρμα ὁμοιον ἔχη τῇ 227  
 ἀγρία κνίκω, ὅταν τις ἀφειψήσῃ πάνυ, εἶτα τῷ δήγματι τοῦ φαλαγγίου ἢ καὶ τοῦ ἔχεως  
 τῷ ὕδατι ἐπαντλήσει, ἴσθαι αὐτὸ καὶ εὐθέως ἀνώδυνον ἐργάζεται. εἰ δὲ τις ἐπ' ἄλλου  
 μὴ δεδηγμένου τὸν ὑγιῆ τόπον τῷ αὐτῷ ἐπαντλήσει καταντλήματι, τὴν αὐτὴν αἴσθησιν  
 καὶ τὰς αὐτὰς ὀδύνας ὁμοίας τῷ δεδηγμένῳ πάσας ἀποτελεῖ, ὡς εἶναι τὸ γινόμενον ἀλη-  
 10 θῶς θαύματος ἄξιον, τὴν αὐτὴν βοτάνην καὶ ἴσθαι τὸ δήγμα καὶ ὁμοίως τοῖς θηρίοις  
 διατιθέναι τὸν ὑγιῆ τόπον πονηρῶς. τινὰ δὲ τῶν φαρμάκων τὴν ἀρχὴν οὐδὲ ὅλως ἐστὶ  
 τοῖς ἀνθρώποις σύντροφα. τὸ γοῦν κόνειον τοὺς μὲν ψάρους τρέφει καὶ τὴν θανατικὴν  
 δύναμιν ἐπ' αὐτῶν οὐκ ἔχει, ἡμᾶς δὲ, ὡς οὐκ ἀγνοεῖς, ἀναιρεῖ. καὶ ὁ ἐλλέβορος τῶν μὲν  
 ὀρτύγων ἐστὶ τροφή, τοὺς δὲ ἀνθρώπους διαφθείρει κακῶς. ἔνια δὲ εὐρίσκομεν καὶ με-  
 15 ρῶν τινῶν ἐν τῷ σώματι τὴν κάκωσιν ἰδίως ποιοῦμενα. ὁ γοῦν θαλάττιος λαγῶδς ἐλκοῖ  
 τὸν πνεύμονα καὶ ἡ κανθαρίς ἰδίως τὴν κύστιν κακοῖ. πολλὰ δὲ τῶν φαρμάκων πάλιν ἐξ- 228  
 αιρέτως τινὰ τῶν μερῶν τοῦ σώματος ὠφελεῖν πέφυκε. πάσχον γοῦν τὸ ἦπαρ πολλακίς  
 εὐπατόριος ἢ βοτάνη ἀγωνιστικῶς ὠφέλησε, καὶ ἡ μυροβάλανος τὸν σπλῆνα ὤνησε.  
 τὸ δὲ σαρξίφαγες καὶ ἡ βετονίκη τοὺς νεφροὺς διέθηκε καλῶς, καὶ ὁμοίως ἄλλα ἐστὶν  
 20 ἄλλων, ὡς τῇ πείρᾳ τετηρήκαμεν, οἰκεῖα φάρμακα, ἕπερ ἡμεῖς, ὡς ἔφην, ἀκριβῶς ἐξε-  
 τάζοντες οὕτως ἐκάστῳ τῶν παθῶν τὴν κατάλληλον προσφορὰν ποιοῦμεθα, διδασκάλῳ  
 καὶ τούτων, ὥσπερ καὶ τῶν ἄλλων ἀπάντων, Ἴπποκράτει τῷ ἀρίστῳ χρώμενοι.

4 Paulus Medicus 7.3.18 15 CMG I: XIII 364.1-5 Palladius *Comm. in Hipp. Epid. VI* 2.162.19

3 τὴν γινομένην *conieci* τὴν περὶ τῆς γινομένης L τὴν περὶ τῶν γινομένων N τὴν περὶ τῆν γινομένην Y τὴν  
 παρὰ (περὶ *ante corr.*) τὴν γινομένην Q 4 τρίφυλλον τρίφυλλα Y 5 ὁπότεν L ὁπότε Y 14 εὐρίσκομεν  
 εὐρίσκομεν Q 22 Ἴπποκράτει *rasura illeg., corr. in marg.* Q

For the whey when drunk loosens the stomach but when the curds are eaten they close it up completely. And some things have such an unexpected effect in the mixture of powers they contain that it seems impossible to people who hear about it unless they actually see it happening and acquire the belief which comes by way of sight. For example when the plant clover which resembles hyacinth sets seed in spring and has seed very like wild safflower, if someone cooks it completely down and applies it with water to the bite of a spider or snake, it heals it and immediately stops the pain; but if someone applies the same lotion to an uninjured place on another man who has not been bitten, it produces exactly the same sensation and all the same pains as in a man who has been bitten – a truly remarkable result, that the same plant both cures the bite, and has exactly the same bad effect on an uninjured area as poisonous beasts do. And some drugs are completely uncongenial to humans. For example hemlock is food for starlings and has no lethal power over them, but as you know it kills us. And hellebore is food for quails but destroys humans horribly. And we find some drugs which produce a deleterious effect on specific parts of the body. For example the sea hare wounds the lung and the blister-beetle specifically damages the bladder. Again, many drugs by their nature preferentially benefit certain parts of the body. Agrimony has often heroically benefited an ailing liver, and *Balanites aegyptiaca* has helped the spleen. Saxifrage and Paul's betony has had a beneficial effect on the kidneys, and similarly there are other drugs appropriate to other parts, as we have seen by experience, which as I have said we have put accurately in order allocating each one as appropriate to each disease, using the most excellent Hippocrates as our teacher in this as in other matters.

ὅτι γὰρ ἀκριβεστάτην τὴν περὶ τῶν φαρμάκων τέχνην πεποιήται καὶ ἐξ ἄλλων πλείστων ὑπ' αὐτοῦ λεγομένων ἔστιν ἰδεῖν, μάλιστα δὲ ἐξ ὧν φησιν ἐν τῷ β' τῶν ἐπιδημιῶν οὕτω: φαρμάκων δὲ τρόπους ἴσμεν ἐξ ὧν γεγένηται ὁκοῖα ἄττα. οὐ γὰρ πάντες ὁμοίως, ἀλλ' ἄλλοι ἄλλως σύγκεινται, καὶ ἄλλα ὅσα πρωϊαίτερον, ἢ ὀψιαίτερον ληφθέντα, καὶ οἱ διαχειρισμοὶ, οἷον ξηρᾶναι, ἢ κόψαι, ἢ ἐψηῆσαι, καὶ τὰ τοιαῦτα, ἕως τὰ πλείστα† μείω 5 ἢ πλείω καὶ ὁκοῖα ἐκάστω καὶ ἐφ' οἷσι νοσήμασι, καὶ ἐφ' ἣ τε τοῦ νοσήματος ἡλικία, 229 ἰδέα, καὶ διαίτη ὁκοῖα, ἢ ὥρη ἔτεος, ὁκοίως ἀγωμεν, καὶ τὰ τοιαῦτα. διὰ γὰρ τούτων, ὡς ὄρας, καθολικώτερον ἡμᾶς διδάσκει, παραινῶν καὶ τὰς φύσεις τῶν φαρμάκων εἰδέναι, καὶ τὸν καιρὸν ἐξετάζειν, ἐν ᾧ τις τὸ φάρμακον μέλλει λαμβάνειν, καὶ τὰς κράσεις τῶν 10 λαμβανόντων ἐπιβλέπειν. εἰσὶ γὰρ ὡς ἀληθῶς οἱ μὲν εὐκόλως λαμβάνειν δυνάμενοι, ὡς καὶ ἐπέτειν αὐτὰ πολλάκις, ἢ κατὰ μηδὲν ὑπ' αὐτῶν κακοῦσθαι, ἀλλ' ἐνίστε καὶ τροφήν αὐτοῖς γίνεσθαι αὐτὸ τὸ φάρμακον. ἔνιοι δὲ ἀφυῶς οὕτως ἔχουσι πρὸς τὰς φαρμακείας ὡς μηδὲ τὴν ἀρχὴν αὐταῖς χρῆσθαι δύνασθαι, ἀποστρέφεσθαι τε αὐτοῖς τὸν στόμαχον καὶ πρὸ τῆς χρήσεως ἐκλύεσθαι ῥαδίως.

15 [Τί ποτ' ἐπήγαγε τοὺς ἰατροὺς πρὸς τὴν σύγκρασιν πολλῶν ἀπλῶν. καὶ τίς ὁ πρῶτος ἐπιβαλὼν τῇ θηριακῇ τὰς ἐχίδνας.]

Ταῦτα γοῦν, ὡς ἔγωγε νομίζω, καὶ τῶν παλαιῶν ἰατρῶν οἱ ἄριστοι παρ' αὐτοῦ μαθόντες οὕτως ἀρίστας καὶ τὰς συνθέσεις ἐποιοῦντο τῶν φαρμάκων, ἐκ τῆς ἐκάστου 20 φύσεως αὐτῶν τὴν τέχνην τῆς συνθέσεως ποιοῦμενοι, καὶ τὰ μὲν ἐπιτεταμένα ταῖς 230 ποιότησιν αὐταῖς, τῇ τῶν ἄλλων μίξει καθαιροῦντες, ὁμοίως δὲ καὶ ἀμβλύνοντες τὰ δριμέα, καὶ ὅλως πρὸς τὴν ἐκάστου λοιπὸν τῶν παθῶν διαφορὰν καὶ τῶν ἀνθρώπων τὴν σύγκρισιν ἐντέχνως τοῖς φαρμάκοις χρώμενοι. διόπερ οἶμαι καὶ ταύτην τὴν θηριακὴν, περὶ ἧς ἡμῖν ὁ πᾶς οὗτος λόγος φιλοτίμως τετεχνολόγηται, ἐκ πλείστων καὶ τῶν καλλίστων φαρμάκων ἐσκεύασαν.

3 γεγένηται L γίνεται Smith 3 ἄττα L ἄσσα Smith 3 πάντες L πάντα Y 4 σύγκεινται L εὐ κέονται Smith 4 ἄλλα ὅσα L ἄλλοθι Smith 5 ξηρᾶναι L ἢ ξηρᾶναι Smith 5 ἕως τὰ πλείστα† L ἕως τὰ πλείστα ἐῶ τὰ πλείστα Smith *seclusi* 5--6 μείω ἢ πλείω *conieci* μειώσει πλείω L *abest in* Smith 6 ὁκοῖα L ὁκόσα Smith 6 νοσήμασι L νοσήμασι Smith 6--7 καὶ ἐφ' ἣ τε τοῦ νοσήματος ἡλικία, ἰδέα, καὶ διαίτη ὁκοῖα, ἢ ὥρη ἔτεος, ὁκοίως ἀγωμεν, καὶ τὰ τοιαῦτα. L καὶ ὅποτε τοῦ νοσήματος, ἡλικίην, εἶδα, διαίταν, ὁκοίη ὥρη ἔτεος, καὶ ἦτις καὶ ὁκοίως ἀγομένη, καὶ τὰ τοιαῦτα. Smith 15--16 [Τί ποτ' ἐπήγαγε τοὺς ἰατροὺς πρὸς τὴν σύγκρασιν πολλῶν ἀπλῶν. καὶ τίς ὁ πρῶτος ἐπιβαλὼν τῇ θηριακῇ τὰς ἐχίδνας.] *Ald. om. L see introduction.*



For it is clear from many of his writings that he developed the most accurate pharmacological skill and most of all from what he says in Epidemics book 2: “We know the methods of drugs, and how such things come into being. For they are not all made up in the same way, but different ones in different ways, some gathered early and some late, and the ways of preparing them such as drying, shredding, boiling and such things, and whether to give a smaller or larger dose to each patient and in which diseases, and at what stage and appearance of the disease, and lifestyle, and at what time of the year, and how we administer them, and so on.” With these words, as you see, he teaches us more generally advising us to know the natures of drugs and to examine the occasion for their use and the humours of those who take them. For in truth there are those who can take them easily and digest them frequently, and not be harmed by them at all, but sometimes the very drug becomes a food to them. But others are so unsuited to treatment with drugs that they cannot even begin to take them, and their stomach turns against them and is easily upset even before taking them.

5R

10R

15R

[Chapter 5. What led doctors to make a mixture of different simples, and who was first to add snakes to theriac]

So I think the best of the old doctors learnt all this from him and so developed the best combinations of drugs, developing the art of blending from the nature of each drug, rectifying the drugs which are most intense in their own nature by blending them with others, and in the same way blunting those which are sharp and in general for the rest skilfully using drugs with an eye to the different ailments and the composition of human beings. And so I think they created theriac, the subject of this whole ambitiously crafted treatise, from many drugs, and those the best.

20R

λογισάμενοι γὰρ τῶν πονηρῶν θηρίων τὰ δῆγματα ὅτι ἐστὶν ἄφουκτα, καὶ τῶν δηλητη-  
 ρίων φαρμάκων τὰ συμπτώματα ὅτι ἐστὶ θανατικά, προσεπιλογισάμενοι δὲ καὶ τὴν τῶν  
 ἀνθρώπων ἐν ταῖς φύσεσι πολλὴν οὖσαν διαφορὰν, καὶ ὅτι ἄλλο φάρμακον ἄλλῳ ἀρμό-  
 ζειν πέφυκεν, εἰκότως αὐτῆς ἀκριβῆ τε καὶ ποικίλην ἐποιήσαντο τὴν σκευασίαν, ὡς διὰ  
 5 τοῦτο καὶ ἀπταιστως αὐτὴν ἐπὶ τούτων ἀπάντων τυγχάνειν τοῦ τέλους, καὶ διὰ τὸ ἀναγ-  
 καῖον τῆς χρείας, καὶ περισπούδαστον πάνυ τοῖς ἀνθρώποις γενέσθαι. οὐδὲν γὰρ ἔμοι  
 τῶν ἐν τῷ βίῳ χαλεπώτερον εἶναι δοκεῖ τῶν δηλητηρίων φαρμάκων καὶ τῶν τούτων  
 231 δακετῶν θηρίων. τὰ μὲν γὰρ ἄλλα τῶν δεινοτάτων καὶ φυλακῆν ἔχει τὴν ἀπ' αὐτῶν φυ-  
 γῆν, ταῦτα δὲ τὴν μεγίστην τοῖς ἀνθρώποις ἐπιβουλήν ἐργάζεται. διὰ γὰρ τὸ ἀφύλακτον  
 10 τίς οὐκ εἰδὼς <εἶτε> ἑαυτῷ πολλάκις προσφέρει τὸ φάρμακον, καὶ ἄλλως ἀγνοῶν, εἴτε  
 δηχθεὶς ὑπὸ τινος θηρίου αἰφνίδιον τελευτᾷ. ἔμοι δὲ καὶ ἐξ ἱστορίας τίς ἐμήνυσε λόγος  
 ὡς ἄρα πολεμεῖν Ῥωμαίοις τίς ἐθέλων καὶ τὸ δυνατόν ἐκ τῆς στρατιωτικῆς τάξεως οὐκ  
 ἔχων, ἄνθρωπος δὲ, φησὶ, Καρχηδόσιος οὗτος, ἐμπλήσας πολλὰς χύτρας θηρίων τῶν  
 ἀναιρεῖν ὀξέως δυναμένων, οὕτως αὐτὰ προσέβαλε πρὸς τοὺς πολεμίους. οἱ δὲ τὸ πεμ-  
 15 πόμενον οὐ νοοῦντες καὶ διὰ τοῦτ' ἀφύλακτοι μένοντες, οὐ γὰρ ἦν τοιαῦτα εἰθισμένα  
 ἐν τοῖς πολεμίσις πέμπεσθαι βέλη, ταχέως πίπτοντες ἀπέθνησκον· καὶ διὰ τοῦτο πολ-  
 λάκις ὁ ἄνθρωπος οὗτος τῇ τοιαύτῃ πρὸς τὸ πολεμεῖν πανουργία, ὥσπερ τι καὶ αὐτὸς  
 232 θηρίον ὑπάρχων, διέφυγε τῶν ἐναντίων τὰς χεῖρας. διόπερ οἶμαι, καὶ εἰς τὰς τοιαύτας  
 χρείας ὑμῖν τοῖς ὑπερέχουσι καὶ τοῖς τῶν στρατοπέδων ἄρχουσιν, ἀναγκαῖον ἔχειν καὶ  
 20 τοῦτο τὸ φάρμακον, διὰ τὴν τοῦ πολεμεῖν ἐνίοτε γινομένην ἀνάγκην. πάλαι μὲν οὖν  
 καὶ ἄνευ τῆς τῶν θηρίων μίξεως σκευαζόμενον τὸ φάρμακον ὁμοίως ἐποίει πρὸς τὰ  
 τοιαῦτα καρτερῶς. αἰεὶ δὲ τῶν ἰατρῶν φιλοτίμως πρὸς τὴν κατασκευὴν αὐτῆς ἐχόντων  
 καὶ ἄλλο ἄλλῳ συμμίσγειν ἐπινοούντων, οὕτως τίς προσεπενόησε καὶ ἔμιξεν αὐτῇ τὰ  
 θηρία. Ἀνδρόμαχος δὲ, φασίν, οὗτος ἀνὴρ ἦν ἀξιόλογος ἰατρὸς, καὶ οὐ πολὺ πρὸ ἡμῶν  
 25 γεγεννημένος. συνῆν γὰρ τῷ Νέρωνι, ᾧ καὶ προσεφώνησε, γράψας αὐτὴν ἐν ἔπεσι, καὶ  
 τὴν ἐπαγγελίαν καὶ τὴν σκευασίαν.

7 χαλεπώτερον χαλεπώτατον L χαλεπώτατον ante corr: Q 7 τούτων L om. Q 8 τῶν om. Q 10 <εἶτε>  
 conieci 10 εἶτε conieci εἶτα L 14 αὐτὰ L αὐτὸς Y 14--15 τὸ πεμπόμενον Chart. Kühn τὸν πεμπόμενον  
 al. 18 θηρίων θηρίων Y 23 ἄλλο ἄλλῳ συμμίσγειν L ἄλλο συμμίσγειν Q edd. 25 ἐν ἔπεσι L ἐν om.  
 Q edd.

For reasoning that the bites of poisonous animals cannot be avoided and that the effects of poisonous drugs are lethal, and further reasoning that there is a wide variety in human constitutions and that one drug naturally suits one man and another another, it is reasonable to think that they made its recipe accurate and complex so that it should unerringly hit its mark in all cases and because of the necessity of its use should be extremely beneficial to men. For I think nothing in life more dangerous than poisonous drugs and these biting animals. We can save ourselves from other terrible things by fleeing from them but these two things present the greatest threat to mankind. For often someone either unwittingly takes poison or is bitten by some wild animal and suddenly dies. A certain story from history told me that someone wanted to go to war with Rome but did not have the troops to do it with and this man, a Carthaginian, the story goes, filled many jars with animals whose bite can kill instantaneously and shot them at the enemy. And they did not realise what was being shot at them and were off their guard, because these were not the kind of weapon usually shot in war, and quickly fell and died; and so on many occasions this man because of this disgraceful method of waging war as if he himself were some kind of wild beast escaped the hands of his enemies. So I think your rulers and the commanders of the infantry should have this drug because of the necessity, from time to time, of going to war. For a long time the drug was made without the admixture of wild beasts but still worked well against such things. But the doctors were always ambitiously working on its preparation and thinking of other things to add to it, and so someone thought about it and put wild beasts in the mix. They say this man was Andromachus, a distinguished doctor living not long before our time. He was a contemporary of Nero to whom he dedicated, in writing, both his claims for the medicine, and the recipe.

5R

10R

15R

20R

καὶ παραθήσομαί γέ σοι αὐτὰ τὰ ἔπη, ἵνα μηδὲ τούτων ἀνίστορος ἦς, οὕτω φιλόκαλος ὢν, ἐκεῖνο πρότερον εἰπὼν, ὅτι διὰ τοῦτον τὸν ἄνδρα ἐπινοήσαντα μῖζαι τῷ φαρμάκῳ τὰ θηρία εἰκότως, οὐχ ὅτι μόνον πρὸς τὰ ἀπ' αὐτῶν δῆγματα ἀρμόζει καλῶς, θηριακὴ ἂν λεχθεῖη πρὸς ἡμῶν, ἀλλ' ὅτι καὶ αὐτὰ τὰ θηρία λοιπὸν ἐν τῇ σκευασίᾳ μιγνύμενα ἔχει, προσηκόντως ἐξ ἀμφοτέρων τῶν σημαινομένων ἐτοιμῶς ἂν θηριακὴ λέγοιτο. ἔστι δὲ τὰ ἔπη ταῦτα.

233

[ στ' ζ' 6-7. Ἀνδρομάχου πρεσβυτέρου, Νέρωνος ἀρχιάτρου θηριακὴ δι' ἐχιδνῶν ἢ καλουμένη Γαλήνη.]

10 Κλυθὶ πολυθρονίου βριαρὸν σθένος ἀντιδότιο, (1)  
 Καῖσαρ, ἀδειμάντου δῶτορ ἐλευθερίας,  
 κλυθὶ Νέρων· ἰλαρὴν μιν ἐπικλείουσι Γαλήνην  
 εὐδῖον, ἢ κυανῶν οὐκ ὄθεται λιμένων,  
 15 οὐδ' εἴ τις μήκωνος ἀπεχθέα δράγματα θλίψας (5)  
 χανδὸν ὑπὲρ στυγνῆς χειλὸς ἔχει κύλικος,  
 οὐδ' εἰ κωνείου πλήσει γένυν· οὐκ ἀκονίτου  
 μέμψεται, οὐ ψυχροῦ χυλὸν ὑοσκυάμου,  
 οὐ θερμὴν θάψον τε καὶ ὠκύμορον πόμα Μήδης,  
 20 οὐδὲ μὲν αἰμηρῶν ἔλκεα καθαρίδων, (10)  
 οὐ ζοφερῆς ἔχιός τε καὶ ἀλγεινοῖο κεράστου  
 τύμματα, καὶ ξηρῆς διψάδος οὐκ ἀλέγοι.  
 σκορπίος οὐκ ἐπὶ τήνδε κορύσσεται, οὐδὲ μὲν αὐτὴ  
 ἀσπίς ἀδηρίτων ἰὸν ἔχουσα γόων.  
 25 οὐ μὲν †απεχθομενος καὶ δρυαζ† ἀντίασειε (15)  
 καὶ κατὰ φωλειὸν θερμὸς ἔνερθε μένοι  
 οὐκ ἀλέγοι δρυῖναιο, ἀναίμακτον δ' ἔχει ἰὸν  
 αἰμοροῖς τοῖφ δαμναμένη πόματι.

9 Andromachi poema seorsum edidit Heitsch (1963)

2 τοῦτον τὸν ἄνδρα ἐπινοήσαντα L τὸ τὸν ἐπινοήσαντα *Crat. Kühn* τοῦ τὸ ἐπινοήσαντα *ante corr.* Q τὸ τὸν ἐπινοήσαντα *post corr.* Q *Crat. Kühn* τοῦτο τὸν ἄνδρα ἐπινοήσαντα Y τοῦτο ἐπινοήσαντα *Ald.*

And I will write down for you his very words so that you who are such a lover of excellence should not be ignorant of this bit of history, first saying this, that because of the man who thought of mixing wild beasts with the drug, it is reasonable to think we call it theriac not only because it is applicable to their bites but also because it has actual wild animals as part of the recipe, and that either meaning would be good cause to call it theriac. These are his words: 5R

[Chapter 6-7. The theriac with vipers in it, called Galene, of Andromachus the elder, chief doctor of Nero]

Hear, Caesar, of the mighty strength of the antidote made of many herbs, O giver of adamantine freedom. Hear, Nero, they praise it as cheerful Calm, which takes no heed of dark harbours. Not even if one ground up hateful handfuls of poppy and held his gaping lip over the vile cup nor if he filled his mouth with hemlock or the juice of aconite or chilly henbane would he find fault with the antidote, nor warm rhus cotinus and the quick-killing drink of Medea nor the wounds of bloody blister beetles. The blows of the dark snake and the terrible horned snake do not worry him, and he has no care for the dry thirst-snake. Against this antidote the scorpion is not armed nor the asp whose venom causes unconquerable wailing. The hated dryad snake would not oppose him but stay warm within his cave. The blood snake which lives in the hollow oak whose poison destroys the blood would take no heed of him conquered by this drink. 10R  
15R  
20R

οὐ μὲν ἀπεχθήεντα φαλάγγια σίνεται οὕτως  
 ἀνέρα, φρικαλέον δ' ἄχθος ἔθηκε πόνων. (20)  
 οὐχ ὕδρος οὐδ' ἐπὶ χέρσον, ὄθ' ὕδατα καρκίνος αἶθει,  
 βοσκομένος, θερμῆς <τ'> ἤρξατο πρῶτον ἄλης,  
 5 χέρσουδρος θανάτῳ πεπαλαγμένα χεῖλεα σύρων  
 ἀντόμενος γλυκεροῦ τέρμα φέροι βιότου.  
 τῆ πίσυνος λειμῶσι θέρους ἐνί τέρπεο, Καῖσαρ, (25)  
 καὶ Λιβυκὴν στεῖχων οὐκ ἀλέγοις ἄμαθον  
 οὐδὲ μὲν ἀμφίσβαινα φέροι μόρον, οὐδέ τις ἤδη  
 10 φρυγὸς ἐνὶ ξηροῖς βοσκομένος πεδίοις.  
 ῥεῖα δὲ καὶ στομάχοιο φέροις ἄκος οἰδήναντος  
 καὶ θοὸν ἰῆσαι' ἄσθμα κυλινδόμενον (30)  
 ἢ ὀπότεν περὶ γαστρὶ κυκώμενον ἐνδοθὶ πνεῦμα  
 κυμαίνη κωφὸν κῦμα βιαζόμενον  
 15 ἢ ὄτ' ἐνὶ στροφάλλιγι ἀπηνέει κυμήνειεν  
 ἔντερον ἢ ταναοῦ σφυγμὸν ἔχωσι κόλου  
 ἢ ὀπότεν χολόεντες ὄλον δέμας, ἔξοχα δ' ὄσσε, (35)  
 καὶ μερόπων χροίην πάμπαν ἀνηνάμενοι  
 ἴκτερον ἰλάσκωνται ἀπηνέα, μηδ' ἐπὶ θοίνην,  
 20 εἰ καὶ σφιν μακρὸν Ζεὺς πετάσειε πέρας,  
 νεύοιεν, μούνον δὲ κατηφέα θυμὸν ἔχοντες  
 φεύγωσι σφετέρων ἤθεα κηδομένων. (40)  
 εἰ δέ που ἢ κακοεργὸν ἴδοις ἐπὶ σώμασιν ὄχρον,  
 25 ρύσαι' ὕδρηλὴν νοῦσον ἐπεσσυμένην,  
 καὶ φαέων ἀμβλεῖα ἄφαρ λάμπειεν ὀπωπὴ  
 τῷ καὶ ἀρχομένης οὐκ ἀλέγοι φθίσιος.

Hateful spiders do not harm such a man and put aside the dreadful pain of labour, nor the water snake nor, on dry land when the feeding crab burns the waters when he begins his warm wandering does the amphibious snake dragging its lips spattered with death meeting him bring an end of his sweet life. Trusting in this enjoy the summer meadows, Caesar, and going to Libya do not let the sand worry you. Nor does the amphisbaena bring fate nor the toad feeding in the dry plains. And you would easily bear the pain of a swelling stomach and quickly cure rolling asthma. Or when the wind stirring in your stomach seethes forcing a dumb wave. Or when your stomach tosses in a rough whirlpool or has a throbbing of the long intestine or when your whole body, especially your bones, is full of bile completely refusing the colour of men they appease harsh jaundice nor at the feast even if Zeus were to spread them a great limit and nod assent, they have only a downcast spirit and flee the customs of their own friends and family. But if ever you see evil pallor on their bodies guard against the onset of the moist disease; this shining drug will illuminate your dull sight. And do not fear an onset of phthisis.

5R

10R

15R

- οἷη καὶ τετάνοιο καὶ ἀρχομένοιο τενόντων (45)  
 σπάσματος ἦρε βυθοῦ ἄχθος ὀπισθοτόνου  
 ἢ τ' ἄρα καὶ θώρηκος, ὄσσην ὠτρύνατο χώραν  
 λοξὸς ἀναθλίβων πνεῦμονα κοῦφον ὑμήν,  
 5 ἢ ὅτε φρικαλέην τις ἔχει περὶ κύστιν ἀνίην  
 ἔλκεος ἢ καὶ που δαμναμένοιο πόρου (50)  
 οὖρον ἐπιφράσσοιτο, ὄτ' ἄσχετα πολλάκι καυλὸς  
 ὄρμαίνη κενεὴν σεύμενος ἐς Κυθήρην.  
 νεφρῶν δ' ἠνίκα φῶτα κατ' ἰξυὸς ἄλγος ἐπέιγοι,  
 10 θαρσήςσας ταύτην ἐξελάσεις ὀδύνην.  
 καὶ μογερῶν στέρνων ἀπολύσεται ἔμπυον ἰλύν (55)  
 πινομένη πολλοὺς μέχρις ἐπ' ἠελίους.  
 ἀλθήσει<ς> καὶ λοιμὸν ἀηδέα πᾶσαν ἐπ' ἠῶ  
 δύσπνοον ἐκ τοίης παρθέμενος πόσιος,  
 15 καὶ κυνὸς ὑδροφόβην γενύων λυσιῶσαν ἐρινὺν  
 φεύξει εὐδόμῳ γαῦρος ἐπ' ἀντιδότῳ. (60)  
 Τῆς δ' ἦτοι κῦάμοιο, τὸν εὐσκιον ἔτρεφεν ὕδωρ  
 τέλμασι καὶ πολλοῖς κρυπτόμενον πετάλοις,  
 Νειλώου κῦάμοιο δίδου βάρους ἄμμιγα χεύας  
 20 θερμὸν ὕδωρ τρισσῶν κιννάμενος κῦάθων.  
 πίνουεν δ' ὅτε κοῖτον ἄγοι κνέφας, ἄλλοτε δ' ἠοῦς, (65)  
 ἄλλοτε καὶ διπλῆν ἐς πόσιν ὀρνύμενοι  
 ἠοῦς μὲν κεράσαιο παρηγορέων κακοῦ ὀρμήν  
 ὄσσοις ἀλγεινὸς λάμπεται ἠέλιος  
 25 νυκτὶ δ' ὁμῶς ὄσσοις περ ἐπάδονος ἔσπεται ὄρφη  
 ἐνᾶστεϊραν ἔχοις τειρομένων πρόποσιν (70)



And if tetanus of the tendons sets in with the pain arising of a backwards-bending spasm or even of the thorax, so great an area has it affected, a slantwise membrane breaking down the tender lung. Or if someone has the horrible distress of a wounded bladder or his urine is blocked by damage to the passage when the impulse of the penis is often frustrated, or it rushes to an empty attempt at lovemaking. But when a swift pain of the kidneys oppresses a man around the loins you will boldly expel such pain and it will free him from festering muck in his suffering breast, drunk successively over the course of many days. It heals even a horrible plague with difficult breathing every morning administered in such a drink and he will escape the raving hydrophobic madness of a dog's jaws delighting in the sweet scented antidote. Take the weight of one bean which the well-shaded water has nourished in the water, hidden by many petals of the Nile bean, mixing it with three tablespoonfuls of warm water. Drink this when nightfall sends you to bed and again in the morning, sometimes rushing for a double draft. At dawn mix eagerly drugs to sooth pain for as many as a painful sun shines upon. At night for as many as the dark comes painfully upon have as a bedfellow for the exhausted a drink of Galene. And if someone is in pain from the jaws of a poisonous snake or takes a vile drink of dark death prepare an equal measure for him evening and morning setting the joyous cup before those who suffer.

- ἰοβόλων δ' εἰ καὶ τις ὑπὸ γναμπτήρι δαμείῃ  
 ἦ μογερὸν κυανοῦ πῶμα λάβοι θανάτου,  
 ἴσῃν ἐντόναιο κατ' ὀρφναίην τε καὶ ἠῶ  
 δαμναμένοις ἰλαρὴν παρθέμενος κύλικα.  
 5 καὶ κεν ἀπνεύοντας ἄγοις ἐπὶ κοῖτον ἐτοίμως (75)  
 γηθαλέους ταύτη, Καῖσαρ, ἀνωδυνίη.  
 Πρῶτα μὲν ἀγρεύσαιο κακῆθεας ἐμπέραμος φῶς  
 τολμηρῆ ἰλάριον χειρὶ θοοῦς ὄφιας,  
 τοὺς ἤδη κρυεροῦ ἀπὸ χείματος οὐκέτι γαίης  
 10 κρύπτουσι στεινοὶ πάμπαν ἔνερθε μυχοί, (80)  
 εἰαρινὴν δ' ἐφ' ἄλωα χυτὸν βόσκονται ἀν' ἄλσος  
 διζόμενοι γλοεροῦ σπέρμα λαβεῖν μαράθου,  
 ὀξυτέρην τὸ τίθησιν ἐφ' ἐρπηστῆρσιν ὀπωπὴν  
 παιῖνον δειλοῖς ἄλγεα βουπελάταις.  
 15 τῶν δ' αὐτῶν οὐράς τε καὶ ἰοβόλους ἀπὸ κόρσας (85)  
 τάμνοις καὶ κενεῶς γαστέρας ἐξερύοις  
 οὐλα γὰρ ἀμφοτέρωθε φέρει ἐπὶ τύμμασιν ἄχθη  
 λυγρὸν ὑπ' οὐραίην ἰὸν ἔχων φολῖδα  
 τούνεκά οἱ τμήσαιο κατ' ἀχένας ἠδὲ κατ' ἄκρα  
 20 ὅσσον πυγμαίης χειρὸς ἔνερθε βάθος (90)  
 λοίγια δὲ σταλάουσι σὺν αἵματι, τῶν ἀπὸ πέζαν  
 ἐκτὸς ἔχων ἰλαρὴν δέ<ρ>ξαι ἀντολίην.  
 ὀπότε δὴ τὰ γένοιτο, τότε ἔν κεραμηίδι χύτρη  
 κατθέμενος πυρσῶ σάρκας ἐπιφλεγέτω  
 25 ὕδατος ἐγγεῦας ὅσον ἄρκιον ἠδέ τ' ἀνήθου (95)  
 κλῶνας, ἐχιδναίη σαρκὶ συνεψόμενος

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And if someone is in pain from the jaws of a poisonous snake or takes a vile drink of dark death prepare an equal measure for him evening and morning setting the joyous cup before those who suffer. So Caesar you might lead them still breathing and rejoicing to their beds with this anodyne. First let a skilled man hunt the evil creatures touching with daring hand the swift snakes. Just after chilly winter the narrow crevices of the earth no longer completely conceal them, on a spring threshing floor they feed on the heaped up holy ground seeking the seed of the green fennel. They give a keener sight to the crawling things, fattening griefs for miserable herdsmen. Cut off from them the tails and the poison-shooting heads and draw out their empty bellies. For it carries destructive pains in its bite at both ends, having grievous poison under the scales of the tail. So cut its throat and its extremities as deep as a hand's breadth formed into a fist. Pestilential poisons drip with the blood; he who holds it out away from his feet will see a happy sunrise. Then put it in a ceramic pot and heat its flesh on a fire pouring on water as required and branches of dill boiled up with the snake flesh.

5R

10R

- ἡνίκα δὲ σκολιαὶ μὲν ἀπορρείωσιν ἄκανθαι  
 καὶ κακὸν οἰδήνη νῶτον ὑπερθεν ἔχῃς,  
 ἐκτὸς ἔλοι ζείοντα καταψύχων κυκεῶνα,  
 ὄφρ' ἐκάς ἐντύναι σάρκας ἀπεχθομένας (100)
- 5 ἔρπηστῶν τ' ἰόντας ἀπορρίψειεν ἀκάνθας  
 πάμπαν ὑπ' εὐδίφου χειρὸς ἐλεγχόμενας.  
 αὐαλέου δ' ἐπὶ τῆσι βαλῶν εὐεργέος ἄρτου  
 ὅσσον τερσήναι σάρκα δύναίτο, τροχούς  
 πλάσασσθ', ὅπποτε μίγδα κύτει περιηγέος ὄλμου (105)
- 10 θλασθῆ, καὶ σκιεροῦ κάτθες ὑπὲρ διαπέδου.  
 αὐτίκα δὲ σκύλλην τριχοειδέσιν ἄμμιγα φλοιοῖς  
 σταίτι περιπλάσσας θάλπε κατὰ φλογιῆς,  
 ὄφρα κεν ὀπταλέην τε καὶ οὐ σκληρὴν περὶ κόρσιν  
 ἐντύναις σποδιῆς ἡρέμα δαιομένης. (110)
- 15 καὶ ρ' ὅτε θαλπομένη<v> ῥήξῃ σέλας, ἔκτοθι πυρσοῦ  
 κάτθεο καὶ τρισσὴν σαρκὸς ἔλοις μερίδα  
 ὀλκῆς καὶ στρυφνοῖο βάλοις δοιῶ ὀρόβοιο  
 εὐ δ' ὑπέρω μίξας συνδονέων μυχόθεν  
 αἴνυσο καὶ δινήεντας ἀνάπλασσε τροχίσκους (115)
- 20 τοὺς δ' ἐκάς ἡελίου ψύχεο τερσομένους.  
 τῶν δ' ἦτοι δραχμὰς μὲν ὑπὸ πλάστιγγος ἀφέλκοις  
 δοιάς τὴν πέμπτην παρθέμενος δεκάδα,  
 ἥμισυ θηρείοιο βαλῶν τροχοειδέος ἄρτου,  
 καὶ δολιχὸν σταθμῶ τόσσον ἔχοι πέπερι (120)
- 25 ἴσα δ' ὀποῦ μήκωνος ἔλοι<ς> καὶ μάγματος αὐτῶς  
 μάγματος ἠδυχρόου τόσσον ἐφέλκομένου.

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When the crooked bones fall away and the snake heaves his evil back out cool down the bubbling mixture until you take the hated flesh far away and throw away the poisonous spine bones all picked out by a carefully exploring hand. Add to these enough well-made dry to dry up the flesh and make round biscuits after you have broken up the mixture in the hollow of a round mortar putting it on a shaded level surface. Then 5R  
warm a squill mixed with hairlike bark and moulded with spelt flour over the fire until it is cooked and not hard around the head and you can gently stretch it out while the ashes burn; and when it is warm remove it from the fire and put on one side and you will have a threefold portion of flesh; put this in a mortar with two parts of bitter vetch and finish off by mixing with a pestle from the innermost part and make whirling round 10R  
cakes and cool them as they dry out of the sun. Of these take two drachms weighed on the scales adding the fifth decade and add half of the round wild beast bread and the same amount of long stemmed pepper and the same amount of poppy juice and sweet sediment.

- δώδεκα δὲ ξηροῖο ῥόδου δραγμαῖσιν ἰσάζοις  
 φύλλα καὶ Ἰλλυρίην Ἴριδα κατθέμενος  
 κυανέης μίξαιο μελιπτόρθου γλυκυρίζης (125)  
 τόσσον καὶ γλυκερῆς σπέρματα βουνιάδος,  
 5 σκόρδ<ε>ιον καὶ κλεινὸν ὀπὸν μίσγοιο θυώδη  
 βαλσάμου Συρίας ἔνδοθεν αἰνύμενος  
 τοῖς δ' ἔπι καὶ κινάμωμον ἰσάζεο, μηδέ σε λήθη  
 ἀγαρικὸν τούτοις ἰσοβαρὲς θέμεναι. (130)  
 ἢ ἔτι καὶ σμύρνης καὶ εὐδόμου κόστοιο  
 10 καὶ κρόκου, ὄν τ' ἄντρον θρέψατο Κωρύκιον,  
 καὶ κασίην Ἰνδὴν τε βάλοις εὐώδεα νάρδον  
 καὶ σχοῖνον νομάδων θαῦμα φέροις Ἀράβων  
 καὶ λιβάνου μίσγοιο καὶ ἀγλαΐην στήσαιο (135)  
 ἄμμιγα κυανέω κατθέμενος πεπέρει  
 15 δικτάμνου τε κλῶνας ἰδὲ γλοεροῦ πρασίοιο  
 καὶ ῥῆον, στοιχὰς δ' οὐκ ἀπάνευθε μένοι,  
 οὐδέ νυ πετροσέλινον ἰδ' εὐώδης καλαμίνθη  
 δριμύ τε τερμίνθου δάκρυ Λιβυστιάδος, (140)  
 θερμὸν ζιγγίβερι κεῦκλωνον πενταπέτηλον  
 20 τὰς δοιὰς δραχμῶν πάντα φέροι τριάδας.  
 αὐτίκα καὶ πολίου πίσυρας ὀλκὰς βαρυέσσας  
 ἠδὲ χαμαιζήλου πτόρθος ἄγοι πίτυος  
 καὶ στύρακος μήου τ' ἰδὲ βοτρυόεντος ἀμώμου (145)  
 καὶ νάρδου, Γαλάτης ἦν ἐκόμισσεν ἀνὴρ,  
 25 Λημνιάδος μίλτοιο καὶ ἐκ Πόντου παράλοιο  
 φοῦ καὶ ἐρημαίης πρέμνα χαμαιδρυάδος,  
 μαλαβάθρου καλὰ φύλλα καὶ ὀπαλέην χαλκίτιν  
 μίσγεσθαι ρίζης οὐ δίχα γεντιάδος, (150)

Weigh out rose petals equal to 12 drachms and add Illyrian iris and mix in an equal amount of sweet-boughed black liquorice and the seeds of sweet French turnip. Add the juice of fragrant garlic germander, taking Assyrian balsam from within. Put in the same amount of cinnamon by weight and do not forget to add an equal amount of agaric and myrrh and sweet scented Saussurea Lappa and crocus grown in the Corycian cave; and add cassia and sweet scented Indian nard and camel-hay the wonder of the nomad Arabs and incense and black pepper and shoots of dittany and green horehound and rhubarb. Do not let cassidony be omitted, nor parsley. And let sweet scented mint and the piercing tear of Libyan terebinth warm ginger and well branched cinquefoil two thirds of a drachma each be added and four drachma weights of hulwort. And bring boughs of dwarf pine and storax and bald money and grape bearing cinnamon and nard brought by a man of Galatia. Bring Lemnian red earth and spikenard from the Black Sea and seed of Cretan ground oak and the fine leaves of malabathron and cooked copper ore and gentian root

5R

10R

- ἄνησον χυλόν θ' ὑποκιστίδος ἠδέ νυ καρπόν  
 βαλσάμου λιπαρὸν κόμμι διηνάμενος  
 καὶ μαράθοιο σπέρμα καὶ Ἴδαϊον κραδάμωμον  
 ἠδ' ἄκορον στήσαις παρθέμενος σέσελι,  
 5 δάκρυον εὖ μίσγιοι βαλὼν κυανωπὸν ἀκάνθης (155)  
 θλάσπι τε σὺν τούτοις ἰσοβαρές τελέθει,  
 τόσσον δ' ὑπερικοῦ, τόσσον δ' ἐπιμίσγεο ἄμμι,  
 καὶ σαγαπηγὸν ἄγοι τετράδα τοσσατῆν.  
 δοιάς δ' εἰσάξεις τά περ Ἴστριος ἔκβαλε κάστωρ  
 10 μῆδεα καὶ λεπτὴν ρίζαν ἀριστολόχου (160)  
 δαυκείου τε σπέρμα καὶ αὐαλέην ἄσφαλτον  
 ἰοβόλων κοίταις ἀντία δαιομένην,  
 ἴσα δ' ὀποῦ πάνακος συμμίσγεο κενταυρείῳ  
 χαλβανίδος λιπαρῆς ἰσόμορον θέμενος.  
 15 καὶ τὰ μὲν ἐν θυίῃ πολὺ μαλθάσσειο οἴνω (165)  
 ὅσσα περ ὑγροτέροις δάκρυσιν ἐμφέρεται  
 κόψας δ' εὖ λείαινε, τὰ κεν ξυλοειδέα πάντα  
 Ἀκταίῳ μίσγοις συγκεράσας μέλιτι.  
 Ἰλήκοις ὅς τήνδε μάκαρ τεκτῆναο, Παιῶν,  
 20 εἴτε σε Τρικκαῖοι, δαῖμον, ἔχουσι λόφοι (170)  
 ἢ Ῥόδος ἢ Βούρινα καὶ ἀγχιάλῃ Ἐπίδαυρος,  
 ἰλήκοις, ἰλαρὴν δ' αἰὲν ἄνακτι δίδου  
 παῖδα τειν Πανάκειαν ὃ δ' εὐαγέεσσι θυηλαῖς  
 ἰλάσεται τὴν σὴν αἰὲν ἀνωδυνίην.



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and anise and the juice of hypocist and the fruit of balsam adding shining gum and fennel seed and cardamom from Ida. And add powdery cicely. And add and mix well in the dark sap of the milk thistle and an equal amount of shepherds purse and as much hypericum, and ajowan and one fourth as much of ferula persica and twice as much of the secretions of the Istrian beaver and a thin root of birthwort and seed of Athamanta 5R  
Cretensis and dry asphalt which burns against the lairs of serpents. And mix an equal amount of all-heal juice with centaury adding an equal part of shining all-heal. Soften these in a mortar with a lot of wine as much as comes in liquid tears. Cut up small and mix up all the woody bits with Attic honey. Paean who first made this for us be gracious whether the peaks of Tricea hold you or Rhodes or Burrina or Epidaurus by the sea. Be 10R  
gracious and always send your daughter Panacea gracious to our King. He will always propitiate you with blessed sacrifices for the freedom from pain you send.

[η' 8. Διὰ τί ὁ Ἀνδρόμαχος τὴν ἔχιδναν μᾶλλον ἢ ἄλλον τινὰ ὄφιν τῆ θηριακῆ ἐπέμιξε; καὶ περὶ Κλεοπάτρας θανάτου ἀκριβῆς ἱστορία.]

Τούτων οὖν τῶν ἐπῶν ὑπὸ τοῦ ἀνδρὸς οὐκ ἀφυῶς γενομένων σκέψασθαι ἀναγκαῖον  
 5 ἔμοιγε δοκεῖ, τί δὴ ποτε πολλῶν ὄντων τῶν τοιούτων θηρίων οὐχὶ τῶν ἄλλων τινὸς,  
 ἀλλὰ τῶν ἐχιδνῶν τὰς σάρκας ἐπιτηδεῖους εἰς τὴν μίξιν εἶναι νομίζομεν. αὐτὸς μὲν γὰρ,  
 ὡς ὄρας, περὶ τούτων οὐδὲν ἔγραψεν· ἐμοὶ δὲ δοκοῦσι τῶν ἄλλων θηρίων αὐτὰ μὴ το-  
 σαύτην ἐν τοῖς σώμασι τὴν φθοροποιὸν δύναμιν ἔχειν. ὁ μὲν γὰρ βασιλίσκος, ἔστι γὰρ  
 τὸ θηρίον ὑπόξανθον, καὶ ἐπὶ τῆ κεφαλῇ τρεῖς ὑπεροχὰς ἔχον, ὡς φασιν, ὅτι καὶ ὄραθεῖς  
 10 μόνον καὶ συρίττων ἀκουσθεῖς ἀναιρεῖ τοὺς ἀκούσαντας καὶ τοὺς ἰδόντας αὐτόν· καὶ  
 ὅτι τῶν ἄλλων ζώων, εἴ τι καὶ ἄψαιτο τοῦ ζώου ἀνηρημένου, καὶ αὐτὸ τελευτᾷ εὐθέως, 234  
 καὶ διὰ τοῦτο πᾶν αὐτοῦ τὸ γένος τῶν ἄλλων θηρίων ἐγγὺς εἶναι φυλάττεται. ὁ δὲ  
 δρυῖνος ὄφιν ἐν ταῖς τῶν δρυῶν ρίζαις τὸν βίον ποιούμενος οὕτως πονηρὸς ἔστι πρὸς  
 τὸ διαφθεῖραι κακῶς, ὥστε εἴ τις, φασὶν, αὐτοῦ ἐπιβαίη, ἐκδέρεσθαι αὐτοῦ τοὺς πόδας,  
 15 καὶ οἰδημα πολὺ γίνεσθαι καθ' ὅλων τῶν σκελῶν. καὶ ἔτι τὸ θαυμασιώτερόν φασιν,  
 ὅτι καὶ εἰ θεραπεύειν τις ἐθέλοι, τούτου τὰς χεῖρας ἐκδέρεσθαι. εἰ δὲ τις καὶ ἀμυνό-  
 μενος αὐτὸ ἀποκτεῖναι βούλοιο τὸ θηρίον, λέγουσιν αὐτὸν μοχθηρὸν νομίζειν εἶναι  
 πᾶν τὸ εὐφραντὸν καὶ μηδενὸς ἄλλου ὀσφραίνεσθαι δυνάσθαι. ὁ δὲ αἰμόρρους καὶ ἡ  
 αἰμορροῖς τοῖς ἑαυτῶν ὀνόμασιν ὁμοίαν ποιοῦνται τῶν ἀνθρώπων τὴν διαφθοράν. αἰ-  
 20 μορραγοῦντες γὰρ διὰ τοῦ στόματος καὶ τῶν μυκτήρων καὶ τοῦ παντὸς σώματος οὕτως  
 ἀπόλλυνται. ὥσπερ γε καὶ οἱ ἀπὸ τῆς διψάδος ὑπὸ τοῦ καύσου διαφθειρόμενοι κακῶς,  
 καὶ γὰρ οὗτοι διψῶντες πάνυ καὶ διακαίόμενοι σφοδρῶς, ἐνίοτε καὶ διαρρηγνύμενοι,  
 τελευτῶσιν. ὁ δὲ ἀκοντίας ἐκτείνας ἑαυτὸν πάνυ καὶ ὥσπερ τι ἀκόντιον ἐφαλλόμενος  
 25 τοῖς σώμασιν οὕτως ἀναιρεῖ. καὶ τῶν ἀσπίδων ἡ λεγομένη πτυὰς ἐπανατείνασα τὸν 235  
 τράχηλον καὶ συμμετρησαμένη τὸ τοῦ διαστήματος μήκος, ὥσπερ τότε λογικὸν γιγνό-  
 μενον τὸ θηρίον εὐστόχως ἐμπτύει τοῖς σώμασι τὸν ἰόν.

12 Sextus Julius Africanus *Cesti* 3.31.1 = Wallraff D56 21 Africanus *Cesti* 3.30 = Wallraff F55a

4 ὑπὸ τοῦ ἀνδρὸς οὐκ ἀφυῶς L οὐκ ἀφυῶς ὑπὸ τοῦ ἀνδρὸς Q 8 βασιλίσκος L βασιλικὸς *ante corr.* Q  
 8 γὰρ L δὲ Y 9 ὡς δὲ Q 11 εἴ τι L ἔτι *ante corr.* Q 16 τούτου L τούτων Q *edd.* 16--17 ἀμυνόμενος  
 L ἀμβλυόμενος *ante ras.* ἀμιλλόμενος *in marg.* Q ἀμιλλόμενος *edd.* 19 αἰμορροῖς L αἰμόρρους Y  
 20 σώματος L σώματα Y 22 οὗτοι L οὕτω Y 25 τὸ L τὲ Y

[Chapter 8. Why Andromachus mixed viper rather than any other sort of snake with his theriac; and an accurate account of the death of Cleopatra]

So I think it necessary in view of the elegant verses of this man to ask why when there are so many beasts of this kind we think the flesh of vipers as opposed to the other kinds of snake is suitable for the mixture. For he, as you can see, wrote nothing on these matters; now, I think vipers have less destructive power in them than other beasts. For the basilisk is a yellowish beast with three bumps on its head, and they say that if you once see it or hear its hiss it kills the seer or the hearer. And they say that if any other beast touches the dead body of the victim it too dies immediately, and for that reason every other kind of wild animal avoids being near it. The oak snake lives in the roots of the oak tree and is such a threat of a horrible death that if anyone treads on it his feet are flayed and his legs swell up all over. Still more amazingly they say that if someone tries to treat the victim his hands are flayed. And if anyone tries in self-defence to kill this beast, they say that everything pleasant seems to him to smell foul, and he cannot smell anything else. The blood-snakes, both male and female, kill men in a way which reflects their name; for the victim dies haemorrhaging from mouth and nostrils and the whole body. Likewise victims of the thirst snake die horribly of a heat fever; they die in thirst and burning up, and sometimes even burst apart. The javelin snake stretches itself right out and leaps at the body like a little javelin and kills that way. Of the asps, the one called spitter stretches out its neck and measures out the length of the gap and as its name suggests accurately spits its poison at the body.

τούτων γοῦν φασι τῶν θηρίων τινί, τριπλοῦν γάρ ἐστι τὸ εἶδος τῶν ἀσπίδων, ταύτης τε  
καὶ τῆς μὲν χερσαίας λεγομένης, τῆς τε χελιδονίας καλουμένης, τὴν βασιλίδα Κλεο-  
πάτραν βουληθεῖσαν λαθεῖν τοὺς φυλάττοντας, ταχέως τε καὶ ἀνυπόπτως ἀποθανεῖν.  
ἐπεὶ γὰρ αὐτὴν ὁ Αὔγουστος νικήσας τὸν Ἀντώνιον ζῶσαν λαβεῖν ἠβούλετο, καὶ δὴ  
5 καὶ διὰ σπουδῆς φυλάττειν ὡς εἰκὸς, ἵνα δείξῃ Ῥωμαίοις ἐν τῷ θριάμβῳ τὴν οὕτω  
διάσημον γυναῖκα. ἡ δὲ συνείσα, φασὶ, τοῦτο, καὶ ἐλομένη μᾶλλον ἐτι βασιλίσσα οὔσα  
ἐξ ἀνθρώπων γενέσθαι ἥπερ ἰδιώτης Ῥωμαίοις φανῆναι, τότε ἐμηχανήσατο τῷ θηρίῳ  
τούτῳ τὸν θάνατον αὐτῆς γενέσθαι καὶ φασὶν αὐτὴν καλέσαι τὰς πιστοτάτας δύο γυ-  
ναῖκας, αὗται δὲ ἦσαν αἱ πρὸς τὸ κάλλος αὐτῆς εἰς τὸν κόσμον τοῦ σώματος ὑπηρετεῖν  
10 ἡρμοσμέναι καὶ τοῖς ὀνόμασι λεγόμεναι Νάειρα καὶ Χαρμιόνη. ἡ μὲν ἀναπλέκουσα 236  
τὰς τρίχας εὐπρεπῶς, ἡ δὲ ἀποτέμνουσα τὰς ὑπεροχὰς τῶν ὀνύχων εὐφυῶς, εἶτα κελεύ-  
σασα σταφυλαῖς τε καὶ σύκοις κεκρυμμένον εἰσκομισθῆναι τὸ θηρίον, ἵνα, ὡς ἔφην,  
τοὺς φυλάττοντας λάθῃ, προπειρασαμένη αὐτὸ πρότερον ἐπὶ τούτων τῶν γυναικῶν, εἰ  
ὀξέως ἀναιρεῖν δύναται, καὶ μετὰ τὸ ταύτας ταχέως ἀνελεῖν λοιπὸν αὐτῇ, ἐφ' ᾧ δὴ καὶ  
15 τὸν Αὔγουστον πάνυ καταπλαγῆναι λέγουσι, τῶν μὲν μέχρι τοῦ συναποθανεῖν αὐτῇ  
τοσαύτην φιλοστοργίαν, τῆς δὲ τὸ μὴ βουληθῆναι ζῆν δουλικῶς, ἀλλ' ἐλέσθαι μᾶλλον  
ἀποθανεῖν εὐγενῶς. καὶ γὰρ λέγουσιν αὐτῆς εὐρεθῆναι τὴν χεῖρα τὴν δεξιὰν κειμένην  
ἐπὶ τὴν κεφαλὴν καὶ κρατοῦσαν τὸ διάδημα, ὡς εἰκὸς, ἵνα καὶ μέχρι τότε τοῖς ὀρῶσι  
βασιλίσσα οὔσα βλέπεται ὥσπερ καὶ ὁ τραγικὸς ποιητὴς ἡμῖν λέγει τὴν Πολυξένην, ὅτι  
20

καὶ αὕτη ἀποθνήσκουσα ὄμως  
πολλὴν πρόνοιαν εἶχεν εὐσχημόνως πεσεῖν.

οἱ δὲ τὸ μὲν τῆς γυναικὸς πρὸς τὸ λαθεῖν εὐμήχανον, τοῦ δὲ θηρίου πρὸς τὸ ἀπο-  
κτεῖναι τάχος βουλόμενοι ἡμῖν δείξαι τῷ λόγῳ, λέγουσιν αὐτὴν ἐνδακεῖν τὸν ἑαυτῆς 237  
25 βραχίονα μεγάλῳ πάνυ καὶ βαθεῖ τῷ δήγματι, ἐργασασμένην δὲ εἰς τι σκευὸς εἰσκομι-  
σθῆναι αὐτῇ τὸν ἰὸν τοῦ θηρίου καὶ ἐγγέαι τῷ τραύματι, καὶ οὕτω διαδοθέντος αὐτοῦ  
μετ' οὐ πολὺ λαθοῦσαν τοὺς φυλάσσοντας εὐκόλως ἀποθανεῖν.

3 Philumenus *de venenatis animalibus eorumque remediis* 16. 1-2 Aëtius *Iatricorum* XIII 22.1-9 Paulus  
Med. 5.19.1 19 Euripides *Hecuba* 568-70

2 τε δὲ Y 2--3 Κλεοπάτραν Κλεοπάτραν *Crat. Chart. Kühn* 4 Ἀντώνιον L Ἀντωνῖνον Y 4 καὶ  
δὴ *coniec* καὶ ζῆν L *codd. edd.* 8 αὐτῆς *Chart. Kühn* αὐτῆς L *al.* 8 γενέσθαι L *om. Crat. Kühn*  
10 Χαρμιόνη Y Καρμιόνη L *al.* 12 σταφυλαῖς L σταφυλοῖς Y 13 προπειρασαμένη L προπειρασαμέν  
Y 24 αὐτὴν ἐνδακεῖν L μὲν *post* αὐτὴν *inseritur in marg. in Q* 25 μεγάλῳ L μεγάλως Y 26 καὶ ἐγγέαι  
L καὶ *om. Q edd.*

They say that it was with one of these sorts of beast (for there are three sorts of asp, this one and the one called the land snake and the one called the swallow snake) that Queen Cleopatra, wanting to escape the notice of her guards, died quickly and in a way which avoided suspicion. For when Augustus had beaten Antony and wanted to take her alive and to guard her carefully, as you would expect, so as to display such a famous woman to the Romans in a triumph. But they say she realised this and chose to leave the world of the living while still a queen rather than appear at Rome as a nobody, and so contrived her own death by the agency of one of these creatures. And they say she called her two most trusted women whose job was to tend to the attire of her body so as to display her beauty, called Naeira and Charmione. Naeira did her hair in a fitting manner and Charmione cut her fingernails and she then ordered the snake to be brought in hidden in some grapes and figs so that, as I have said, it would escape the notice of the guards. She then tried out the snake on these women to see if it could kill swiftly, and after it did she killed herself with the rest and they say that Augustus was completely amazed at this, both that they loved her to the extent of dying with her and that she was unwilling to live like a slave and chose rather to die nobly. And they say she was found with her right hand on her head grasping the diadem, as is likely, so that even up to that point it should be obvious to onlookers that she was the queen. Similarly the tragedian tells us about Polyxena that she also "when she died gave much forethought to falling in a noble manner". And those who want to demonstrate by this story both the cleverness of the woman in evading attention and the speed of the asp in killing, say that she bit her own arm wide and deep, and after doing this got the asp poison brought to her in some vessel and poured it into the wound and so after it had been given to her without the guards noticing she peacefully died.

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ἀλλὰ τοῦτο μὲν οὐκ ἀτερπῶς ἱστορεῖσθω, διὰ τὴν σὴν ἐν πᾶσι τοῖς λόγοις φιλοτιμίαν, καὶ ἵνα διὰ τούτου τὴν δξύτητα πρὸς τὸ ἀποκτεῖναι τούτων τῶν θηρίων ὦμεν εἰδότες. ὀξέα γὰρ ἐστὶν ἀληθῶς πρὸς τὸ ἀναιρεῖν ταῦτα τὰ θηρία. καὶ πολλάκις γὰρ ἐθεασάμην ἐγὼ ἐν τῇ μεγάλῃ Ἀλεξανδρείᾳ τὸ τάχος τοῦ ὑπ' αὐτῶν γιγνομένου θανάτου. ὅταν γὰρ 5 τὴν τούτῳ τῷ νόμῳ τῆς κολάσεως κατακριθέντα φιλανθρώπως καὶ ταχέως ἀποκτεῖναι θέλωσι, προσβάλλοντες αὐτῶν τοῖς στέρνοις τὸ θηρίον καὶ ποιήσαντες ὀλίγον περιπατήσαι, οὕτω ταχέως ἀναιροῦσι τὸν ἄνθρωπον. ὄρᾳς οὖν ὅπως ἡμεῖς δεόντως οὐδὲν τῶν τοιοῦτων θηρίων ἐγκαταμίγνυμεν τῷ φαρμάκῳ, διὰ τὴν τοσαύτην ἐν τοῖς σώμασιν αὐτῶν φθοροποιὸν δύναμιν.

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[θ' 9. Τί δὴ ποτε τῇ θηριακῇ ὀλόκληρος ἡ ἔχιδνα οὐκ ἐπιτίθεται· πολλάς τε ἐκ τῶν ζώων ἡμᾶς λαμβάνειν τὰς θεραπείας.] 238

Καὶ αὐτῶν δὲ τῶν ἐχιδνῶν οὐχ ὅλα τὰ ζῶα εἰς ἀντίδοτον πέμπομεν, ἀλλ' ἀποτεμόντες 15 τὰς κεφαλὰς καὶ τὰς οὐράς οὕτω τοῖς ἄλλοις αὐτῶν σώμασιν εἰς τὴν μίξιν χρώμεθα, καὶ τοῦτο οὐ παρέργως οὐδ' ἄνευ λόγου τινὸς ποιούμενοι, ἀλλ' ἐπειδὴ αἱ κεφαλαὶ τὸν κάκιστον τῶν χυμῶν, αὐτὸν τὸν ἰόν, ἐν αὐταῖς ἔχουσι, διὰ ταῦτ' ἀποκόπτειν αὐτὰς πειρώμεθα, ἵν' ὀλιγότερον τῆς ἀπ' αὐτῶν δυνάμεως ἔχη τὸ φάρμακον, τῆς τούτων φύσεως μεταβλητικὴν τινὰ δύναμιν εἰς τὸν ἰὸν ἐχούσης· ὡσπερ δὴ καὶ ἐν τοῖς παραστάταις τὸ 20 σπέρμα καὶ ἐν τοῖς μαζοῖς τὸ γάλα μεταβαλλόμενον γίνεται. ἡ δὲ ἔχιδνα τοῦτο τὸ ζῶον τῶν ἄλλων ἀπάντων τὴν κεφαλὴν πρὸς τὸ διαφθεῖραι κακῶς ἐπιτηδειότεραν ἔχει. φασὶ γὰρ αὐτὴν ἀνοίγουσαν τὸ στόμα πρὸς τὸ δέξασθαι τοῦ ἄρρενος τὸν θορὸν μετὰ τὸ λαβεῖν ἀποκόπτειν αὐτοῦ τὴν κεφαλὴν· καὶ τοῦτον αὐταῖς εἶναι τῆς πονηρᾶς συμπλοκῆς τὸν τρόπον. εἶτα ἀπὸ τοῦ σπέρματος τὰ ζῶα γενόμενα κατὰ τινὰ φυσικὴν ἄμυναν ἀνα- 25 βιβρώσκειν μὲν τῆς μητρὸς τὴν γαστέρα, ἐκθρώσκειν δὲ εἰς τὰ ἔξω·

4 τοῦ L om. Y 6 αὐτῶν L αὐτοῦ Chart. 16 οὐδ' L οὐτ' Y 18 ὀλιγότερον L ὀλιγότερον Y 20 τοῦτο τὸ ζῶον L del. Q

I hope you enjoy this story both because of your love of writing of all kinds and so that the story should inform us of the speed with which the poison of these beasts acts. For in truth these beasts kill swiftly; I have often seen in Alexandria the speed with which they induce death. For when they want to kill swiftly and humanely someone condemned to punishment by this law, they stick an asp on his chest and make him walk around a bit, and so swiftly despatch him. So you see how necessary it is that we mix no part of such snakes in the drug, because of their great destructive power in the body. 5R

[Chapter 9. Why the whole snake is not put in theriac; how we get many cures from animals]. 10R

We do not put the whole body of the viper into theriac but cut off the heads and tails and use the rest of the body in the mixture. We do not do this capriciously nor without reason but because the head contains the worst fluid in the body, the poison itself, and so we try to cut them off so that the drug should have less of their power, since the nature of these heads has a certain power of turning things to poison just as sperm is created in the testicles and milk in the breast. The female viper has a head more suited for destruction than any other creature. For they say it opens its mouth to receive the male's semen and then when it has got it to cut off his head; and this is the method of their foul intercourse. Then the creatures born from the sperm by a sort of natural revenge eat through the mother's stomach and emerge into the open 15R 20R

καὶ οὕτως αὐτὰ εἰς ἐκδικίαν τοῦ πατρὸς ἀναιρεῖν τὴν μητέρα. ἄπερ ἡμῖν ὁ καλὸς 239  
Νίκανδρος ἐν τοῖς ἔπεσιν αὐτοῦ οὐκ ἀφυῶς γράφει, καὶ ἔστι τὰ ἔπη ταῦτα:

- Μὴ σὺ γ' ἐνὶ τριόδοισι τύχης ὅτε δῆγμα πεφυζῶς  
5 Περκνὸς ἔχισ θύησι, τυπῆ χολόεσσας ἐχίδνης.  
Ἦνικά θορνυμένου ἔχιος θολερῶ κυνόδοντι,  
Θουράς δὸδᾶξ ἐμφῦσα κάρην ἀπέκοψεν ὀμεύνου·  
Οἱ δὲ πατρὸς λώβην μετεκίαθον αὐτίκα τυτθοὶ  
Γεινόμενοι ἐχιῆες, ἐπεὶ διὰ μητρὸς ἀραιὴν  
10 Γαστέρ' ἀναρρήξαντες ἀμήτορες ἐξεγένοντο.

- Τὰς δὲ οὐράς καὶ αὐτὰ ἀφαιροῦμεν τὰ ἔσχατα τοῦ σώματος, ὥσπερ οὐρᾶς ὄντα μέρη  
καὶ, ὡς οἶμαι, τὸ ῥυπαρώτερον τῆς οὐσίας ἔλκοντα μᾶλλον, καὶ πλείονά γε τὴν ὀλκὴν  
διὰ τὴν κίνησιν ποιούμενα, ὥσπερ τὰ πρὸς ταῖς οὐραῖς τῶν ἰχθύων μέρη διὰ τὴν πολλὴν  
15 κίνησιν τροφιμώτερα εἶναι λέγουσι. μὴ θαυμάζης δὲ, εἰ μετὰ τὴν τούτων ἀποκοπὴν τὰ  
λοιπὰ σώματα τῶν ζώων ἰσχυρότερον ποιεῖ τὸ φάρμακον τῆς ἐμφύτου πρὸς τὸ σώζειν  
δυνάμεως καὶ ἐν αὐταῖς ταῖς σαρκῖν αὐτῶν καταμειγμένης. ὥσπερ δὴ καὶ ἐπ' ἄλλων 240  
ζώων πολλὰ τῶν μερῶν οὐκ ὀλίγα τῶν παθῶν ἀγωνιστικῶς θεραπεύεσθαι οἶδαμεν. ἐνί-  
οις γοῦν βοηθοῦσιν αἱ κεφαλαὶ τῶν μυῶν, καυθεῖσαι γὰρ καὶ μετὰ μέλιτος χριόμεναι,  
20 τὰς ἀλωπεκίας ἰᾶσθαι δύνανται. καὶ τοῦ ἰκτίνου τὴν κεφαλὴν, φασίν, ὁμοίως τοὺς πο-  
δαργιῶντας ὠφελεῖν, εἴ τις αὐτῆς ξηρανθείσης ἄνευ τῶν πτερῶν ὅσον τοῖς  
τρισὶ δακτύλοις ἐπιπάσας ὕδατι πίνειν ἐθέλοι. καὶ τῶν μερῶν δὲ πολλὰκις αὐτὰ μόνα τὰ  
μόρια τινὰ τῶν παθῶν ἰᾶσθαι δύνανται. ὁ γοῦν τῆς καμήλου ἐγκέφαλος ξηρανθεὶς καὶ  
μετ' ὄξους πινόμενος ἐπιληπτικούς ἰᾶται καὶ ὁ τῆς γαλῆς ὁμοίως. ὁ δὲ τῆς χελιδόνος  
25 μετὰ μέλιτος πρὸς ὑποχύσεις ποιεῖ. καὶ ὁ τῶν προβάτων σκευασθεὶς ὁμοίως ταῖς τῶν  
παιδῶν ὀδοντοφυαῖς ἄκρας βοηθεῖ. τοῦ δὲ ταυρείου κέρατος τὸ ζύσμα μεθ' ὕδατος  
πινόμενον αἰμορραγίας ἐπέχει.

20 CML I: XII 404.10-11 *Cyranides* 3.19 24 SMT XI: XII 359.321.13-16 25 SMT XI: XII  
359.14-17

4 τριόδοισι περιόδοισι? *ante corr.* Q 4 τύχης ὅτε δῆγμα τύχοις ὅτε δάγμα Nicander *ed.* Jacques Paris  
2002 4 πεφυζῶς *codd.* Nicander *ed.* Jacques Paris 2002 πεφυγῶς *Crat. Chart. Kühn* 5 τυπῆ Nicander  
*ed.* Jacques Paris 2002 τυπὴν *codd. edd.* 5 χολόεσσας *Chart.* τῆς χολόεσεως L N Y *Ald.* *Crat.* χολόεσσαν  
*Kühn* πολόεντος Nicander *ed.* Jacques Paris 2002 6 θορνυμένου *Crat. Chart. Kühn* θ' ὀρνυμένου L N Q  
*Ald.* 6 θολερῶ θολερῶ Nicander *ed.* Jacques Paris 2002 τυπὴν *codd. edd.* 7 ὀδᾶξ ἀμύξ Nicander *ed.*  
Jacques Paris 2002 9 ἐχιῆες *Crat. Kühn* ἔχης L N ἔχιεσ Q Y *Ald.* 21 ὅσον τοῖς L πρὸς τοῖς *ante ras.*  
Q ὅσον ὑπὸ τοῖς Q *edd.* 23 δύνανται L δύνανται Y



and so kill the mother to avenge the father. So the great Nicander writes elegantly, and these are his words: "Do not be at the crossroads when the dusky viper comes rushing escaping the bite of the bileful viper when, with the vicious tooth of a rushing snake, fixing her furious bite in him she cuts off her husband's head. But the little snakes which are born follow up the outrage against their father when they orphan themselves by breaking out of their mother's slender body. " We remove the tails and the extreme parts of body because they are part of the tail and, in my view, because they drag the more foul part of the body and get more of a dragging because they provide the motion of the snake just as the parts of a fish towards the tail are said to be more nourishing because of the amount of moving they do. Do not be amazed if after cutting off these parts the rest of the body of the creatures makes the drug stronger when its inherent power to save is mixed in with their very flesh. In the case of other animals we know that many of their body parts heroically treat many conditions. For example many are helped by the heads of mice, for when burnt and anointed with honey they can cure alopecia. And they say that the head of a kite likewise is a treatment for gout if one dries it without its feathers and sprinkles it in three fingers of water. And sometimes even single subdivisions of parts can cure some diseases. For example a camel's brain dried and drunk with vinegar cures epileptics; likewise that of a weasel. That of a swallow with milk works against cataracts. That of a sheep prepared the same way is a great help against the teething pains of children. The shavings of the horn of a bull drunk with water stop haemorrhage,

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καὶ οἱ μῆροὶ δὲ καιόμενοι ἐπέχουσι τὸ αἷμα. πολλάκις δὲ καὶ τὴν γαστέρα λελυμένην τὸ αὐτὸ τοῦτο ἴστησι. τὸ δὲ τοῦ ἐλάφου κέρατος ρίνημα καιόμενον καὶ μετ' οἴνου λειούμενον, εἶτα περιπλασσόμενον, τοὺς σειομένους ὀδόντας πήγνυσιν, ὡσπερ δὴ καὶ τὸν ἀστράγαλον τῆς βοῦς τοῦτο ποιεῖν δύνασθαι λέγουσιν· ἐξάγει δὲ καὶ στρογγύλην ἔλμινθα μετὰ μέλιτος πινόμενος, καὶ μετ' ὄξυμέλιτος σπλήνα τήκει, καὶ τὰς λεύκας καταχρίόμενος, συμμέτρως δὲ ἀφροδισιαστικός ἐστίν. οἱ δὲ τοῦ κάστορος ὄρχεις ὁμοίως πινόμενοι σπασμούς ἰώνται. πολλὰ δὲ τῶν ζώων καὶ τὰς χολὰς ἐαυτῶν ἔχει βοηθεῖν τῷ ἀνθρώπῳ δυναμένας, καὶ τὰ στέατα, καὶ τοὺς μυελούς, καὶ τὸ γάλα, καὶ τὸ δέρμα, καὶ τὸ αἷμα αὐτὸ, καὶ τῶν ὄφρων τὸ γῆρας. ἤδη δὲ καὶ τὰς ἀφόδους αὐτῶν ὠφελούσας τινὰς εἶδομεν. ἡ γοῦν τῆς βοῦς ἀφοδος ξηρὰ κεκαυμένη καὶ διδομένη τρισὶ κοχλιαρίοις ὑδροπικῶ βοηθεῖ. καὶ ἡ τῶν μυῶν ἀφοδος λεία μετ' ὄξους ἀλωπεκίας θεραπεύει· ἐν ποτῶ δὲ λαμβανομένη τοὺς ἐν κύστει θρύπτει λίθους· τὸ δὲ τοῦ χηνὸς στέαρ τὰς φλεγμονὰς μετὰ ροδίνου ἰᾶται· καὶ ὁ τοῦ ἐλάφου μυελὸς παρηγορικώτατός ἐστι φάρμακον. τὸ δὲ τῆς βοῦς γάλα πινόμενον δυσεντερικοῖς βοηθεῖ. τῆς δὲ ὑαίνης ἡ χολὴ μετὰ μέλιτος πρὸς ὄξυδερκίαν ποιεῖ, καὶ τὰς ὑποχύσεις διαφορεῖ ἐγχιρισμένη. τοῦ δ' ἵπποποτάμου τὸ δέρμα καιόμενον, καὶ μετὰ ὕδατος λεῖον ἐπιτιθέμενον, φυμάτων σκορπιστικὸν γίνεται, ὡσπερ δὴ καὶ τὸ ἔχως δέρμα, λεῖον ἐπιτιθέμενον ταῖς ἀλωπεκίαις, θαυμαστῶς ἀναφύει τὰς τρίχας. τὸ δὲ τῆς ἀσπίδος γῆρας τριφθὲν μετὰ μέλιτος καὶ ὑπαλειφόμενον ὄξυδερκέστατόν ἐστιν. καὶ ὅλως πολλὴ τίς ἐστίν ἡ τῶν τοιούτων ὕλη, ἣν οὐκ εὐκαιρὸν εἶναι νομίζω νῦν ἀναγράφειν, ἵνα μὴ μακρὸς ἡμῖν ὁ λόγος γένηται, ἀρκοῦντων εἰς τὴν ἀπόδειξιν τοῦ λεγομένου καὶ μόνων μοι τῶν προειρημένων. ἐκεῖνο δὲ ἀναγκαῖόν ἐστιν εἰδέναι, ὅτι τῶν ζώων αὐτῶν ὅλα τὰ σώματα πολλάκις τοῖς ἀνθρώποις βοηθεῖ. καρκίνος γοῦν ὁ ἀπὸ τῶν ποταμῶν λειωθεὶς καὶ καταπλασθεὶς ἀνεκβάλλει τοὺς σκόλοπας καὶ τὰς ἀκίδας. καὶ ἡ καρίς ὁμοίως λειωθεῖσα μετὰ βρυωνίας ρίζης πινόμενη ἔλμινθας ἐξάγει. ὁ δὲ σκορπιὸς σὺν ἄρτῳ ἐσθιόμενος ὀπτὸς θρύπτει τοὺς ἐν τῇ κύστει λίθους. ὁμοίως δὲ καὶ τὸ γῆς ἔντερον μετ' οἴνου πινόμενον τὸ αὐτὸ ποιεῖ. εἰ δὲ τις αὐτὰ τρίβων ἐν μελικράτῳ λάβοι ἰκτεριῶν εὐθέως καθαρθεὶς ἀπαλλάσσεται.

10 *SMT* X: XII 290-309 11 *CML* I: XII 392.4, 404.11-12 12 *CML* IX: XIII 310.17, 311.4, 18 13 *MMG* II: XI 105.4 14 *Alim. Fac.* III: VI 683.1-4, *SMT* X: XII 266.18-267.6, 292.3-7, *CML* VIII: XIII 171.10-12 15 *SMT* X: XII 279.1-9 16 *CML* X: XII 409.4

10 καὶ διδομένη *L om. Q, edd.* 13 παρηγορικώτατόν *L παρηγορικότατόν Y* 16 μετὰ ὕδατος *L μεθ' ὕδατος Chart. Kühn* 20 ἡμῖν *conieci ὑμῖν L codd. edd.* 24 καρίς *L Arab. (ربيبان) καθαρίς coniecit Crat.* 26 τρίβων *Q τρίτον L, Q ante corr.*

and the burnt thighbones also hold up the blood. The same thing also often stops an upset stomach. The filings of the horn of a deer, when burnt, and ground up with wine, then applied as a plaster, fix loosened teeth; they say the vertebra of an ox can do this too. And drunk with honey it expels roundworm, with vinegar and honey it softens the spleen, and when smeared on to leprosy it softens them, and it is equally aphrodisiac; and the beaver's testicles drunk in the same way cure spasms. And many animals can help men by their bile, their fat, their marrow, their milk, their skin, their very blood, and in the case of snakes their shed skin. We have even known men helped by their excrement. For example cow dung dried and burnt with three snails helps dropsy; mouse dung mixed with vinegar cures alopecia; and taken in a drink it breaks down bladder stones; goose fat with rose water heals the lungs; and deer marrow is a very soothing drug. Drinking cow's milk helps those with bad stomachs. Hyena bile with honey helps to induce sharp-sightedness, and when rubbed on cataracts removes them. Hippopotamus skin, burnt and made into a smooth paste with water, dissipates tumours, just as a smooth paste of snakeskin applied to bald patches wonderfully encourages hair growth. An asp's shed skin rubbed into honey and applied as an ointment gives very sharp sight. There is so much material of this kind that I think now not a good time to write it all down for fear this treatise becomes too long for us, and just as much as I have already written is enough to give you proof of what I say. And you should know this, that the whole bodies of animals are often good for people. For example river crab beaten smooth and applied as a plaster drives out thorns and splinters; similarly shrimp beaten small with bryony root and drunk expels worms. Scorpion roasted and eaten with bread breaks up bladder stones. Again, earth worms drunk in wine do the same thing. And if someone with jaundice beats them up in honey and wine and drinks them he will immediately be purged and relieved of it.

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- πολλάκις δὲ καὶ σὺν ῥοδίνῃ κηρωτῇ ἐπιτιθέντα τῶν ποδαγρῶν ταῖς φλεγμοναῖς ἤρμοσαν, ὁ δὲ ἰέραξ ἐψηθεῖς μετὰ μύρου σουσίνου ἀμβλωπίας ἰᾶται. καὶ ὁ κάνθαρος δὲ 243. θεραπεύει τὰς ὠταλγίας ἀποζεσθεῖς ἐλαίῳ καὶ ἐνσταζόμενος εἰς τὸ οὖς. ὁ δὲ κορυδαλὸς ὁπτὸς τρωγόμενος θαυμασίως τοὺς κωλικοὺς πολλάκις ὠφέλησε, καὶ ἵνα μᾶλλον τὴν
- 5 ἐν τοῖς σώμασιν αὐτῶν δύναμιν θαυμάσης, ἐκεῖνό σοι φιλοτιμότερον διηγῆσομαι. πολλὰ γὰρ καὶ ὀραθέντα μόνον τὴν ἑαυτῶν ἰσχὺν ἐπιδείκνυνται. ὁ οὖν ἀσκαλαβώτης ὀραθεῖς ὑπὸ τῶν σκορπίων ὑποπήγνυσιν αὐτοῦς, καὶ οὕτως ἀναιρεῖ. ἢ δὲ ἀμφίσβαινα, ἔστι δὲ τὸ ζῶον ἀμφικέφαλον, ὥσπερ δὴ καὶ τῶν πλοίων τὰ ἀμφίπρωρα, τῆς φύσεως τῷ περιττῷ τῆς οὐσίας δύο κεφαλὰς ἔχειν αὐτῇ χαρισσαμένης, τοῦτο δὴ φασι τὸ ζῶον
- 10 εἰ ὑπερβάλῃ γυνὴ κατὰ γαστρὸς ἔχουσα, ἐκτιτρώσκει τὸ παιδίον κακῶς, ὥστε οὐδὲν θαυμαστὸν, εἰ καὶ τὰ τῶν ἐχιδνῶν σώματα ἀποκοπέντων αὐτοῖς τῶν μερῶν ἐκείνων ὁμοίως ἔτι πρὸς τὸ βοηθεῖν τὴν ἰσχὺν ἔχει. ἐπέδειξα γὰρ, ὡς οἶμαι, φιλοπόνως ὅτι καὶ ὅλα μὲν τὰ ζῶα τοῖς ἀνθρώποις βοηθεῖ ποτε, ἔσθ' ὅτε δὲ καὶ αὐτὰ μόνα τὰ μέρη. ἐνίστε δὲ καὶ τῶν μερῶν αὐτῶν τὰ οὕτω μικρὰ μόρια.
- 15 [Πῶς τὰ βλαβερὰ ἐνίστε ἔχουσιν ὠφελεῖν· μίαν τε ἐκ πολλῶν γίνεσθαι ποιότητα 244 ἐν τοῖς μικτοῖς φαρμάκοις.]
- Ἐκεῖνο δὲ ἀναζητῆσαι τῷ λόγῳ μᾶλλον ἐστὶν ἀναγκαῖον, ὅπερ καὶ τοῖς πολλοῖς θαυμασίας ἄξιον εἶναι δοκεῖ. αὐτὰ γὰρ τὰ θηρία ὄντα τοῖς σώμασι πολέμια καὶ οὕτω τὸν ἄνθρωπον ἀναιροῦντα ὀξέως, πῶς πάλιν αὐτὰ τοῖς ὑπ' αὐτῶν γενομένοις δῆγμασι
- 20 βοηθεῖν δύναται, καὶ μόνον διασώζειν ἐκ τοῦ τοιοῦτου κακοῦ τὸν ἄνθρωπον; καὶ φησὶ τις ἀρχαῖος λόγος ὅτι τινὰ τῶν ζῶων ὁμίλησαντα μὲν ἐν τῷ δάκνειν τῷ ἐκ τοῦ δῆγματος ἀποκρινομένῳ ἀνθρωπεῖῳ αἵματι ἀναιρεῖ τοὺς δακνομένους. μὴ γευσάμενα δὲ τοῦ αἵματος, ἀλλ' οὕτως ἐσθιόμενα, τοὺς δηχθέντας διασώζειν πέφυκεν. ὥσπερ καὶ ἐπὶ τοῦ ἑλενίου μὲν ὑπὸ τῶν Ἑλλήνων, ὑπὸ δὲ τῶν ἐπιχωρίων νίνου καλουμένου, τὸ αὐτὸ
- 25 ἱστορεῖσθαι λέγουσι.

7 Pliny *Nat. Hist.* XXX 128.1-61 κηρωτῇ L κηροτῇ Y 3 ὠταλγίας L ὀταλγίας Q Ald. 4 θαυμασίως L θαυμασίας *ante corr.* Q 8 ἀμφίπρωρα L ἀμφίπλωρα Y 11 αὐτοῖς L τοῖς Q 17 τῷ L τὸ Y 18 θαυμασίας L θαυμασίως Q θαυμαστῶς Y 24 νίνου L Y Ald. *Crat.* L N Q Paulus *Med.* 6.88.4.19 νίκου ἢ νίνου Chart. Kühn

They have often healed the lungs of the gouty when applied with rose salve, and falcon cooked up with lily perfume cures weakness of sight. Dung beetle cures ear ache when boiled up with oil and dripped into the ear. Eating roast lark has often wonderfully helped those suffering from colic. And so that you may wonder more at the power in the bodies of living creatures I will explain something even more remarkable. Many creatures exhibit their power just by being looked at. The gecko fixes scorpions to the spot when they see it and so kills them. The amphisbaena is a two headed animal like double-ended ships, since nature has done her the unusual favour of giving her two heads, and they say that if a pregnant woman encounters this creature she miscarries, and no wonder if the bodies of these snakes, cut up, still have power to help. For I have diligently shown I think that both the whole bodies sometimes help men, and sometimes just parts of them, and sometimes small parts of the parts themselves.

5R

10R

[Chapter 10. How harmful things can sometimes help; and how there can be one quality arising out of many in mixed drugs]

15R

There is one thing we must seek out in our reasoning, which many people find bewildering. For the animals themselves are hostile and disposed to kill men very easily, so how can they be beneficial for bites they themselves inflict, and be the one thing which saves men from such an evil? There is an old story which says that certain animals kill the people they bite if in biting they come into contact with human blood dripping from the bite; but if they do not taste blood but are eaten, their nature is to save those they have bitten. So in the case of what the Greeks call helenium, but the natives ninos, they say the same story is told;

20R

φασί γάρ τοὺς Δάκας καὶ τοὺς Δαλμάτας περιπάττειν αὐτὸ ταῖς ἀκίστι τῶν βελῶν, καὶ οὐ-  
 τως ὁμιλήσαν μὲν τῷ αἵματι τῶν τιτρωσκομένων ἀναιρεῖν δύνασθαι, ἐσθιόμενον δὲ ὑπ'  
 αὐτῶν ἀβλαβὲς εἶναι, καὶ μηδὲ κακὸν αὐτοὺς ἐργάζεσθαι, καὶ τὰς ὑπ' αὐτῶν γε ἀναιρου- 245  
 μένας ἐλάφους ἐν τῷ κατατοξεύεσθαι μηδ' αὐτὰς ἐσθιομένας κακὸν τι τοὺς ἐσθιόντας  
 5 διατιθέναι λέγουσιν. ἀλλ' οὗτος ὁ λόγος οὐ δοκεῖ μοι αὐτάρκης εἶναι πρὸς τὴν εὐρε-  
 σιν τοῦ ὑφ' ἡμῶν ζητουμένου, ἐμπειρικός τις ὢν καὶ μόνον τὸ γενόμενον διηγούμενος.  
 καὶ γὰρ αὐτοὺς τοὺς ἐμπειρικοὺς οὐκ ἀποδέχομαι, ὅτι καὶ αὐτοὶ, ὥσπερ ἰδιῶται μόνον  
 ὁρῶντες τὸ βλεπόμενον, θαυμάζουσι μὲν τὸ γιγνόμενον, τοῦ δὲ γιγνομένου τὴν αἰτίαν  
 ἀγνοοῦσιν. οἱ μὲν μηδὲ τὴν ἀρχὴν ἐπιζητοῦντες μαθεῖν, ἀλλ' ἀποκνοοῦντες αὐτὴν εὐρεῖν  
 10 τῷ λόγῳ, καὶ μόνον τῶν γιγνομένων ἀποπειρώμενοι, καὶ τὴν τῶν πολλὰκις ὀρωμένων  
 ἐμπειρίαν ἀρκεῖν αὐτοῖς εἰς τὸ ἰατρεῦειν λέγοντες, τὸν αὐτὸν ἔχουσιν, ὡς ὄρας, τοῖς  
 ἰδιώταις τοῦ θαύματος τρόπον. οἱ δὲ τούτων φιλοτιμώτεροι ὁμολογοῦσι μὲν ὅτι χρή τι  
 ἐπιστημονικώτερον τῶν ἰδιωτῶν εἰς τὰ τοιαῦτα ἔχειν τοὺς ἰατροὺς, εὐρεῖν δὲ ἀδυνα-  
 τοῦντες, καὶ τὸ ζητεῖν περιττὸν εἶναι νομίζουσιν. ἀλλ' ἡμεῖς πλέον ἴσθαι ἢ τούτων τὸ 246  
 15 φιλότιμον εἰς τὴν τέχνην ἔχοντες, καὶ τὰ γιγνόμενα μόνον βλέπειν ἰδιωτικῶς μὴ θέλον-  
 τες, οὔτε τὴν ἐμπειρίαν ἐκβάλλομεν καὶ συναρμόζοντες αὐτῇ τὸν λόγον ὅταν ἐνδέχεται,  
 τελείαν οὕτω καὶ λογικὴν ἀναγκαίως ἔχομεν τὴν τέχνην, οὐχ ἵνα μόνον εὐρωμεν, ὅπως  
 γίνεται φιλοπονοῦντες εὐρεῖν, ἀλλ' ἵνα τι καὶ εἰς τὴν θεραπείαν εὐχρηστον ἐκ τοῦ εὐρε-  
 θέντος μάθωμεν. κἀνταῦθα οὖν ἐπαγωνισώμεθα τῷ λόγῳ, ἵνα εὐρωμεν τοῦ γιγνομένου  
 20 τὴν αἰτίαν. θαυμαστὸν γὰρ ὡς εἴ γε ἐκ τῆς περὶ τὸ ζητεῖν αὐτὸ φιλοτιμίας, ἐξ ἐτοιμοῦ  
 καὶ αὐτὸ, ὥσπερ ἀμειβόμενον, ταχέως εὐρίσκεται· καὶ ἵνα σοι πιστότερον ποιήσω τὸν  
 λόγον, ἀπ' ἄλλων τινῶν ἐν τοῖς ἔργοις σαφῶς ὀρωμένων τὴν ἀπόδειξιν ποιήσομαι καὶ  
 25 ἐξωθέν γε ἐπιτιθεμένων μόνον καὶ διὰ τοῦ στόματος λαμβανομένων. τοὺς γὰρ ὑπὸ τῶν  
 κροκοδείλων βρωθέντας ὑπ' αὐτοῦ τοῦ στέατος ἐπιτιθεμένου τοῖς τραύμασιν ἄκρω-  
 βοηθουμένους οἶδαμεν· καὶ τῆς μυγαλῆς τὰ δῆγματα καὶ αὐτὰ ἀναιροῦντα ὑπ' αὐτῆς  
 πάλιν τῆς μυγαλῆς τριβομένης καὶ ἐπιτιθεμένης ἀνωδύνως θεραπεύεται.

They say the Dacians and the Dalmatians spread it on the tips of their missiles, and so when it gets into the blood of the wounded, it can kill, but when they themselves eat it it is harmless, and does not even do them any ill, and that deer they have shot with bows do no harm to those who eat them. But this story seems to me inadequate for the discovery of what we are seeking, because it is in a sense empirical and only recounts what has happened. For I do not accept the empiricists since they like laymen pay attention only to what they see and marvel at what happens but know nothing of the cause of what happens. For they do not even seek to learn the cause, but shrink from finding it by reason, and only have experience of events, and say that experience of what they have often seen is enough for them to practise medicine, and as you see have the same attitude of wonder as laymen. Those with a greater love of honour than these admit that that doctors should have a more scientific attitude to such things than laymen but since they cannot find it they think that even looking for it is superfluous. But we having more ambition in relation to the art of medicine than they, and not wishing to look only at actual events like laymen, do not throw out experience, and fitting reason to it whenever possible, and so we necessarily have a perfect and rational skill being ambitious of making discoveries not just for their own sake, but also so that we may learn from what we find things useful to the art of healing. So let us engage in argument so that we may find the cause of what happens. For it is wonderful how because of our love of honour in seeking it it is readily found, as if responding to us. And so I can make the argument more convincing to you I will demonstrate to you from certain other instances, clearly seen in reality, both of things only applied externally to the body and of things taken through the mouth. For we know that people bitten by crocodiles are greatly helped by the fat of the crocodile itself placed on the wounds; and the bites of the field mouse which are also lethal are painlessly healed by the actual mouse ground up and placed on the bite.

5 ὁμοίως δὲ καὶ αὐτοὶ οἱ ἐχιόδηκτοι ἀπαλλάττονται τοῦ κινδύνου, εἴ τις αὐτῶν λειώσας  
 τὰ σώματα ἐπιθεῖη αὐτοῖς τοῖς τραύμασιν, οὐκ ἀλόγως καθ' ἡμᾶς, ὡς ἔφην, καὶ τῶν 247  
 τοιούτων γιγνομένων, μήτε τοσαύτην δύναμιν ἐχόντων, ὡς καὶ ἀποκτεῖναι δύνασθαι,  
 κατὰ διάδοσιν τε τῆς δυνάμεως χωρούσης εἰς τὸ βάθος τῶν σωμάτων. ὥσπερ δὴ καὶ  
 10 ἐπὶ τῶν καταπλασμάτων τὸ αὐτὸ γιγνόμενον ὀρώμεν, τῆς ἐν τοῖς σώμασιν αὐτῶν δυ-  
 νάμεως συμμέτρου γιγνομένης καὶ θεραπεύειν λοιπὸν, ἀλλ' οὐκ ἀναιρεῖν δυναμένης.  
 τὸ δὲ ἐπὶ τῆς θηριακῆς γιγνόμενον φανερώτερον ἔχει τὸν λογισμὸν. φημί γάρ ὅτι διὰ  
 αὐτῶν ταῦτα ἀναιροῦντα τὰ θηρία βοηθεῖ τοῖς ὑπ' αὐτῶν δακνομένοις, ἐπειδὴ πλείω  
 αὐταῖς ἐνοῦσα ἢ φθοροποιὸς δύναμις, ταῖς κεφαλαῖς ἀφαιρουμένης συναποκόπτεται.  
 15 καὶ ἐπεὶ τὴν ἐν τοῖς ἄλλοις σώμασιν αὐτῶν ὑπολειπομένην δύναμιν ταῖς σκευασίαις  
 ἡμεῖς ἀπαμβλύνομεν ἔψοντες αὐτάς, καὶ τῶν ἄλῶν καὶ τοῦ ἀνήθου οὐκ ὀλίγα τῶ ὕδατι  
 μιγνύντες, οὐχ ἡδύσματος μόνου χάριν τὴν μίξιν τῶν τοιούτων ποιούμενοι, ἀλλ' ἵνα  
 ἐκτῆξωμεν τὰ σώματα, καὶ οὕτως αὐτὰ ὀλίγον τὸν ἰὸν, ἢ μὴδ' ὄλως ἔχειν ἐργασώμεθα.  
 τὸ δὲ πλεῖστον αὐτῆ τῆς δυνάμεως εἰς τὸ βοηθεῖν ἢ σκευασία παρέχεται τοσοῦτοις καὶ 248  
 20 τοιοῦτοις μιγνύμενα φαρμάκοις τὰ θηρία, πῶς ἂν ἔτι καὶ ἀναιρεῖν δύναιτο, ἐκλυομένης  
 τῆς οὔσης ἐν αὐτοῖς πρὸς τὸ διαφθεῖραι πονηρίας; ἔτι δ' ἀληθέστερος ὁ λόγος φανή-  
 σεται, εἰ καὶ ἐπὶ τινῶν ὁμοίων τὴν ἀπόδειξιν αὐτοῦ ποιησώμεθα. ἢ γάρ τοι κανθαρίς  
 μόνη μὲν διδομένη τὴν κύστιν ἔλκοι, καὶ πολέμιον αὐτῆς ἐστὶ τὸ φάρμακον, καὶ ἀναιρεῖ  
 25 τῇ ἰσχυρᾷ δυνάμει τὸν ἄνθρωπον πολλάκις. μιχθεῖσα δ' ἄλλοις τισὶ πάλιν αὐτῆς τῆς  
 κύστεως βοήθημα γίνεται, καὶ ἐστὶ διουρητικὴ πάνυ. ὁ δὲ ὁπὸς τῆς μήκωνος ὅτι μὲν  
 ἐστὶν ἀναιρετικὸς ποθεῖς μόνος οὐδεὶς ἀγνοεῖν μοι δοκεῖ. οὗτος δὲ μετ' ἄλλων τινῶν  
 σκευασθεὶς τοῖς νοσοῦσι βοηθεῖ πολλάκις, ὡς σωτηριωδέστατον αὐτοῖς εἶναι φάρμα-  
 κον. τὰς γοῦν τῶν νεφριτικῶν παρακοπὰς οὐκ ὀλιγάκις ἀγωνιστικῶς ἴασατο, καὶ τοὺς  
 25 ἐξ ἀγρυπνιῶν τὴν δύναμιν ἀφρηρημένους, ὑπνον ἐργασάμενον, θαυμασίως ἀνεκτήσατο.  
 τοῖς δὲ φαλαγγοδῆκτοις αὐτὰ τὰ φαλάγγια λειωθέντα καὶ μετ' οἴνου πινόμενα ἀπαλ-  
 λακτικὰ τοῦ κακοῦ γίνεται, ὡς ἐκ τούτου μάλιστα σε πιστεύειν δύνασθαι τῶ ὑπ' ἐμοῦ  
 λεγομένῳ.

20 CML X: XIII 327.9-15 CML VII: XIII 45.10-11

1 καὶ L *om.* Q 1 ἐχιόδηκτοι L ἐχεόδηκτοι Y 4 τὸ *om.* Chart. Kühn 5 τὸ αὐτὸ L καὶ αὐτὸ Q *edd.*  
 8--9 πλείων αὐταῖς *coniecti* πλείων ἐν τούτοις *edd.* πλείων αὐτοῖς L N Y πλείων τούτοις (πλείων αὐτοῖς  
*ante corr.:*) Q 10 σώμασιν L μέρεσιν (σώμασιν *ante corr.:*) Q μέρεσιν *edd.* 12 οὐχ ἡδύσματος Q ἀλλ'  
 ἡδύσματος L N Y ἀλλ' ἡδύσματος *ante corr.:* Q 12 ἵνα L ἵνα αὐτῶν Y 14 τοσοῦτοις L οὖν *post* τοσοῦτοις  
*add. in marg.* Q 16 δ' L δὲ καὶ Q 19 τῇ ἰσχυρᾷ Q τῇ ἰσχυρίᾳ L 20 βοήθημα γίνεται L γίνεται βοήθημα  
 Q *edd.* 21 ποθεῖς μόνος L N ποθεῖς μόνον Y μόνος ποθεῖς Q *edd.* 21 οὗτος L οὕτω Y 26 ὡς ἐκ τούτου  
 Q (ὡς *add. in marg.*), *edd.* ἐκ τούτου L N Y 27 λεγομένῳ λεγομένου Y



And in the same way those bitten by snakes are also freed of danger if someone grinds their bodies up and applies them to the very wounds; and it is not unreasonable in my view, as I said, that such things happen, nor that they have such power as to be able to kill, when one considers the distribution of the power penetrating to the depth of the body. And in the case of plasters we see the same thing happening, their power in the body becoming moderated and able from then on to heal but not to kill. What happens in the case of theriac has a clearer explanation. For I say that the reason these lethal beasts help those bitten by them is that the majority of the destructive power in them is cut off with the heads when they are removed; and when we blunt the remaining power in the other parts by our preparation, boiling them, mixing a lot of salt and dill in the water, we add these to the mix not just to make the taste more pleasant but to soften the bodies and so cause them to have very little poison or none at all. The preparation gives it most of its curative power. The beasts are mixed with so many and such kinds of drugs, how could they still be able to kill when its destructive vice has been dissolved out of it? And the argument will be even more true if we make a demonstration of it in other similar cases. For the blister beetle administered alone wounds the bladder and is a drug hostile to it and often kills a man by its great power. But mixed with certain other drugs it becomes a help to the very same bladder and is entirely diuretic. I think everyone knows that poppy juice drunk on its own is poisonous. But prepared with certain other ingredients it often helps the sick so as to be a great life-saving drug to them. For example it has often heroically healed acute attacks of kidney disease and has wonderfully helped those weak from insomnia by bringing them sleep. For those bitten by spiders the same spiders ground up and drunk with wine become able to stop the harm, and from this you can easily believe what I have often said.

249  
 εἰ γὰρ καὶ μόνος ὁ οἶνος μιχθεὶς τοῖς θηρίοις τὸν ἀπ' αὐτῶν τῶν θηρίων κίνδυνον  
 ἐκφεύγειν ποιεῖ, δηλονότι καὶ ἡ θηριακὴ ἐκ τοσούτων καὶ τοιοῦτων τὴν σκευασίαν  
 ἔχουσα παιωνίον τι φάρμακον μᾶλλον, ἀλλ' οὐκ ἀναιρετικὸν τῶν ἀνθρώπων γίνεται.  
 5 ἐκεῖνο γὰρ ἐν ταῖς μίξεσι τῶν φαρμάκων γιγνόμενον εἰδέναι χρῆ, ὅτι μηκέτι ἀποσώ-  
 ζεται ἢ ἐκάστου τῶν μιγνυμένων δύναμις, ἢ αὐτὴ μένουσα καὶ ἄτρεπτος, εἰς τὸ μηδὲν  
 ἀλλοιομένη, ἀλλ' ἔνωσίς τις ἀποτελεῖται τῶν ἀπάντων, ὅλης δι' ὅλων τῆς κράσεως  
 αὐτῶν μιγνυμένης καὶ μίας τινος δυνάμεως ἄλλης ἐξ αὐτῶν γινομένης, ὄνπερ τρόπον  
 10 ἐστὶν ἰδεῖν καὶ ἐπὶ τοῦ οἰνομέλιτος γιγνόμενον. ὅταν γὰρ ἡ κρᾶσις ἀμφοῖν ἀκριβῆς  
 γένηται, οὔτε τὴν τοῦ μέλιτος γεῦσιν τὸ μέλι μιχθὲν ὅλως ἔχει καὶ ὁ οἶνος οὐκέτ'  
 ὦν οἶνος ἐν τῇ μίξει φαίνεται, ἀλλὰ παρ' ἐκάτερον τῶν συνελθόντων ἄλλο τι, αὐτὸ  
 δὴ τοῦτο οἰνόμελι, γιγνόμενον ἐκ τῆς κράσεως ἀποτελεῖται. τὸ αὐτὸ δὴ μοι νόμιζε  
 γίνεσθαι καὶ ἐπὶ τῶν ἄλλων μὲν ἀπάντων φαρμάκων, καὶ ἐπὶ τῆς θηριακῆς δὲ αὐτῆς  
 15 μάλιστα, μηκέτι τὴν ἐνὸς ἐκάστου τῶν μιγνυμένων δυνάμιν τε καὶ ποιότητα αὐτὴν  
 μὲν καὶ λοιπὴν ἄλλην ἐξ ἀπάντων τῶν μιγνυμένων τοῦ φαρμάκου γίνεσθαι τὴν φύσιν. 250

[Ἀσκληπιάδου τε καὶ Ἐπικούρου ἀντίρρησις, τῶν τὴν ἀλλοίωσιν ἀποφασκόντων καὶ τὰ τῆς φύσεως ἔργα πρὸς τοὺς ἀτόμους τε καὶ ὄγκους ἀναφερόντων.]

20 Εἰ μὲν γὰρ ἐξ ἀτόμου καὶ τοῦ κενοῦ κατὰ τὸν Ἐπικούρου τε καὶ Δημοκρίτου λόγον  
 συνειστήκει τὰ πάντα, ἢ ἕκ τινων ὄγκων καὶ πόρων κατὰ τὸν ἱατρὸν Ἀσκληπιάδην·  
 καὶ γὰρ οὗτος ἀλλάξας τὰ ὀνόματα μόνον καὶ ἀντὶ μὲν τῶν ἀτόμων τοὺς ὄγκους, ἀντὶ  
 δὲ τοῦ κενοῦ τοὺς πόρους λέγων τὴν αὐτὴν ἐκείνοις τῶν ὄντων οὐσίαν εἶναι βουλό-  
 25 μενος· εἰκότως ἂν ἔμενεν ἀναλλοίωτα τὰ φάρμακα, κατὰ μηδὲν τρέπεσθαι μηδ' ὅλως  
 ἐξίστασθαι τῆς αὐτῶν ποιότητος δυνάμενα. ἐπεὶ δ' οὐκ ἔστιν ἀληθὴς ὁ λόγος οὗτος,  
 ὡς δεῖξομεν, ἀλλ' ἀλλοιοῦται, ὡς ἔφην, τὰ πάντα καὶ τρέπεται ῥαδίως καὶ εἰς ἄλληλα  
 τὴν κρᾶσιν λαμβάνει, ἀνάγκη τῆς κράσεως δι' ὅλων τῶν κινναμένων γιγνομένης τὸ  
 25 ἰσχυρότερον τοῦ ἥττονος κρατεῖν, καὶ διὰ τοῦτο ἡμεῖς ταῖς ἐντέχνους μίξεσι πρὸς τὴν  
 χρείαν τῆς ἐνεργείας τὰς ποιότητας τῶν φαρμάκων ἐναλλάσσομεν, οὐκ ἂν δυναμένου  
 τούτου γενέσθαι, εἰ μικρά τινα ἦν καὶ ἀπαθῆ καὶ ἄτρεπτα τῆς οὐσίας τὰ σώματα. 251

20 UP XI:III 873.17-18; UP VI:III 474.16-19

3 ἀνθρώπων L ἄλλων Q 8 γιγνόμενον L γιγνομένου Q 12 καὶ ἐπὶ L ἐπὶ Q *edd.* 12--13 αὐτῆς μάλιστα L μάλιστα αὐτῆς Q 21 οὔτως L οὔτως *edd.*

For if just wine mixed with wild beasts produces a means of escape from the danger from those wild beasts it is clear that theriac also made up of so many and such ingredients becomes a healing drug and not one destructive of men. For you should know that when drugs are mixed the power of each ingredient is not preserved unchanged and the same and in no way altered, but there is a kind of unification of all the parts, the whole thing being mixed and a single new effect arising out of those others, just as we can see happening in the case of honeyed wine. For if the two are accurately blended the honey in the mixture no longer tastes completely of honey and the wine in the mix no longer seems to be wine but as both come together with each other some third thing, honeyed wine, arises out of the mixture. So please believe as I do that the same thing happens in the case of all other drugs, especially theriac itself, and that the power and quality of each individual one of the ingredients of the mixture no longer remains, but they are all mixed up with each other and achieve a kind of natural union and another single residual nature of the drug arises from the mixture of all.

5R

10R

15R

[Chapter 11. A refutation of Asclepiades and Epicurus, who deny the existence of transformation and ascribe the works of nature to atoms and molecules].

For if everything were made up of atom and void as in the theories of Epicurus and Democritus or of molecules and pores as the doctor Asclepiades contends (for he just changes the names and says molecules instead of atoms and pores instead of voids, and wants the nature of reality to be the same as they do) it would be reasonable to think that the drugs would remain unaltered, not having the ability to be changed on any account or wholly altered from their previous quality. But as this theory is untrue, as I will show, and they are all changed and transformed, as I have said, and take each other into combination, it inevitably follows that as the mixture is made up of all its constituents the stronger elements will overpower the weaker, and therefore by skilfully mixing with a view to exploiting their effect as we require we change the qualities of the drugs, which could not happen if the constituent parts of reality were small and unalterable and unchangeable.

20R

25R

30R

διόπερ δὴ καὶ πολλάκις ἐγὼ τεθαύμακα πῶς ὀρῶντες ἐπὶ τοῦ παντὸς οὕτω γενομένας  
 ταχειάς τροπὰς καὶ τὴν τοσαύτην ἐν ταῖς κράσεσι μεταβολὴν, εἴθ' ὑπομένουσιν ἀρχὰς  
 τῶν ὄλων τὰς τοιαύτας τίθεσθαι, καὶ μάλισθ' ὁ ἰατρὸς Ἀσκληπιάδης· πρὸς τοῦτον γὰρ  
 οἰκείως μᾶλλον ποιήσομαι τὸν λόγον, ἐπεὶ καὶ φανερωτέρας ἐν τῷ σώματι τροπὰς τε καὶ  
 5 μεταβολὰς οὐκ ἀποδέχεται. τί γὰρ ἐστὶν εἰπεῖν, ὅταν μόνου τοῦ δακτύλου εἰς ψυχρὸν  
 ὕδωρ κατατεθέντος ὄλου τοῦ σώματος ἐν τάχει ἢ τροπῇ γίνηται; ἢ ὅταν ταῖς τῶν ἀνέ-  
 μων μεταβολαῖς συμμεταβάλληται ἡμῶν τὰ σώματα; ἔγωγ' οὖν οἶδα τῶν μὲν εἰσὶν  
 τινὰ ἐπὶ τοῦ σκίμπος ἐτι κατακείμενον ἐκ τῆς περὶ τὴν κεφαλὴν ἑαυτοῦ συναισθή-  
 10 σεως διαγιγνώσκοντα τοῦ ἀνέμου τὴν πνοήν. εἴ ποτε γὰρ ἐκαρηβάρει, εὐθέως ἐγίνωσκεν  
 ὅτι νότος ὁ πνέων ἄνεμος ἦν. καὶ ἀκούσασα μόνον βροντῆς γυνὴ ἐγκύμων καὶ θεασα- 252  
 μένη φοβερὸν τι θέαμα, ἐξέβαλε τὸ παιδίον. ἔσθ' ὅτε δὲ καὶ βοηθεῖν ὀξέως θέλοντες  
 καὶ ταχεῖαν τῷ νοσοῦντι τοῦ βοηθήματος τὴν αἴσθησιν γενέσθαι, ταχίστην ὀρῶμεν γι-  
 γνομένην τῶν σωμάτων τὴν τροπὴν. ἐπὶ γοῦν τινῶν ἐκλελυμένων σφόδρα ὀξυθυμῖαν  
 15 τινὰ τῷ ἀρρώστῳ ὁ θαυμάσιος Ἱπποκράτης γίνεσθαι συμβουλεῦει, ἵνα τῷ εὐτόνῳ τῆς  
 ὀρμῆς τὸ ἄτονον τῆς ἐκλύσεως ἰασώμεθα. πολλάκις δὲ καὶ ὀλίγη τις αὐτοῖς προσεν-  
 εχθεῖσα τροφή εὐθέως ἀνέρωσε καὶ τὴν δύναμιν αὐτῶν εὐτόνωσε, τῆς τροφῆς τοῦ  
 σώματος, ὡς οἶμαι, ταχέως ἐπὶ τὸ κρεῖττον γιγνομένης, ἀλλ' οὐχὶ τῶν ὄγκων ἀπαθῶν  
 20 ὑπαρχόντων, καὶ διὰ τοῦτο τὴν αἴσθησιν ἡμῖν τῶν τοιούτων παρέχειν μὴ δυναμένων.  
 τίς γὰρ ἐν τοσοῦτῳ τάχει τοὺς ὄγκους συντιθέναί δυνησεται; ἢ τίς οὕτως ἐξ ἀπαθῶν  
 τῶν ὄγκων συγκείμενος ταχέως τῶν προσπιπτόντων αἰσθήσεται; ἢ γὰρ ποιά τῶν ὄγκων 253  
 μετατιθεμένων σύνθεσις τοῦ μὲν σχήματος ἀλλαγὴν μόνην ἐργάζεται, ἀλλοίωσιν δὲ  
 καὶ ποιότητα ἄλλην ἐξ ἄλλης γεννήσαι ἀδυνατεῖ. καὶ διὰ τοῦτο ἐδόκει μοι τὸν ἄνδρα  
 μὴ μόνον τὸ ἐπὶ τῶν φαρμάκων γιγνόμενον ἀκολούθως ἀναιρεῖν διὰ τὴν ἀκολουθίαν  
 τοῦ δόγματος, ἀλλὰ καὶ τὴν φύσιν αὐτὴν τὴν διοικοῦσαν ἐν ἡμῖν τὰ πάντα μηδὲν εἶ-  
 25 ναι οἶεσθαι. ἕκαστα γὰρ τῶν γιγνομένων ἐκ τῆς τῶν ὄγκων συνθέσεως καὶ συμπλοκῆς  
 γίγνεσθαι βούλεται.

10 *Hipp. Epid. III II: XVIIa 635.8-10*

2 ταχειάς Q τραχειάς L, Q ante corr. 3 ὁ L νῦν εἰρημένος (εἰρημένος add. in marg.) Q, edd. ὁ νῦν Y  
 ὁ μείων N 5 οὐκ ἀποδέχεται coniecti οὐχ ἐνδείκνυται Q οὐκ ἐνδείκνυται edd. ἔχων δείκνυται L N Y, Q  
 ante corr. 6 γίνηται Kühn recte γίγνεται L N γίνετα Q Ald. Crat. 7 συμμεταβάλληται L N Y Kühn  
 συμμεταβάλλεται Q Ald. Crat. Chart. 13 ὀξυθυμῖαν L ὀξυθύμου θύ sup.lin. Y ὀξυθυ- μίαν sup.lin. Q  
 19--20 ἢ τίς...ὄγκων underlined in N 20 συγκείμενος...αἰσθήσεται; om. N 23 διὰ L διὰ δὲ Y 24 ἀλλὰ  
 add. in marg. Q abest in L N Y 24--25 εἶναί Q εἰδέναι L N Y ante corr. Q

So I have often been amazed at how, seeing in every case such rapid alterations happening and so great a change in mixtures, they can stand their ground in positing such things as the basic constituents of everything; and especially at Asclepiades the doctor just mentioned. I will address my discourse to him specifically since he does not accept the existence of even the more obvious changes and alterations in the body. For what explanation can be given of the fact that when just a finger is put into cold water a change of the whole body quickly occurs? Or that our bodies change in sympathy with changes in the wind? I know someone, one of my friends, who while he is still lying in bed can tell the direction of the wind from a feeling in his head. For if ever he was heavy in the head he immediately knew there was a south wind blowing. And a pregnant woman just hearing thunder and seeing some fearful sight has been known to miscarry her child. And sometimes when we keenly wish to help a patient and want him quickly to perceive the help, we see a very quick bodily change happen. For example in certain cases of weakness the great Hippocrates advises that a certain excitability should be induced in the patient so that we can cure the slackness of enfeeblement by the intensity of the onslaught. Often if a bit of food is brought to them it immediately strengthens them and tones up their constitution, because, I think, the food quickly comes to increase the strength of the body, not of some underlying particles which are insensible and therefore cannot produce in us the perception of such things. For who will be able to arrange the particles with such speed? Or who being made of insensible particles in this way will be able to perceive rapid events? For any sort of arrangement of added particles only produces a change of shape but cannot produce a transformation or generate one quality from another. And I used to think this man not only does away with what happens in the case of drugs by following his dogma, but also thought the very nature which is in us amounted to nothing. For he wants each thing that happens to arise from the aggregation and interweaving of particles.

διόπερ καὶ θαυμάζειν ἐπέρχεται μοι, ὅταν αὐτὸν ὀρῶ τὰ οὕτω θαυμαστά τῆς φύσεως ἔργα μὴ βλέποντα, καὶ μάλιστα τὰς ἐξ ἀρχῆς ἐν αὐτῇ τῇ γενέσει τοῦ ἀνθρώπου γιγνο-  
 μένας τέχνας, ὅπως μὲν διαπλάττεται τὸ ἔμβρυον ἐν τῷ τῆς μήτρας τόπῳ, ὅπως δ' ἂν  
 5 καὶ διαπλασθὲν εὐμηχάνως τρέφει, ὅσοις δὲ καὶ οἷοις αὐτὸ τοῖς ἀπαλωτάτοις δεσμοῖς  
 ἄχρι τοῦ ὠραίου τόκου ἔνδον κρατεῖ, οἷα δὲ τινι θεία τέχνη καὶ ὁμοιότητα τύπων ἐν  
 τοῖς γεννωμένοις ἐργάζεται, ἐφ' οὗ μάλιστα καὶ ἡ τῶν ὄγκων ὑπόθεσις αὐτοῦ ἀσχη-  
 μόνως ἐλέγχεται. οὐ γὰρ μόνοις τοῖς γεννώσιν, ἀλλὰ καὶ προγόνους τισὶ τὰ τικτόμενα  
 ὁμοία γίνεται. ἔμοι δὲ καὶ λόγος τις ἀρχαῖος ἐμήνυσεν ὅτι τῶν ἀμύρφων τὰ δυνατῶν  
 10 εὐμορφον θέλων γεννῆσαι παῖδα, ἐποίησε γράψας ἐν πλατεῖ ξύλῳ εὐειδὲς ἄλλο παι-  
 διον, καὶ ἔλεγε τῇ γυναικὶ συμπλεκόμενος ἐκείνῳ τῷ τύπῳ τῆς γραφῆς ἐμβλέπειν. ἡ δὲ  
 ἀτενῶς βλέπουσα καὶ ὡς ἔστιν εἰπεῖν ὅλον τὸν νοῦν ἔχουσα οὐχὶ τῷ γεννήσαντι, ἀλλὰ  
 τῷ γεγραμμένῳ ὁμοιον ἀπέτεκε τὸ παιδίον, τῆς ὄψεως, οἶμαι, διαπεμπούσης τῇ φύσει,  
 15 ἀλλ' οὐκ ὄγκοις τισὶ τοῦ γεγραμμένου τοὺς τύπους. ἐπεὶ δὲ ἀμύρτος τῶν τοιοῦτων τῆς  
 φύσεως μυστηρίων ὁ ἀνὴρ εἶναι διὰ τοὺς ὄγκους ὑπομένει καὶ διὰ τὸ ἀφανὲς τε καὶ  
 ἄδηλον τῆς ὄψεως τοὺς ἑαυτοῦ μαθητὰς πιστεῦειν τοῖς οὕτω θαυμασίοις ἔργοις οὐκ  
 20 ἔῤ, ἐπὶ τὰ ἐξῶθεν αὐτὸν καὶ παντάπασι φαινόμενα μεταβάλλειν βούλομαι. τίς γὰρ τὰς  
 ὑπὸ τοῦ ζώου τῆς ἀράχνης γιγνομένης τέχνας βλέπων ἀπιστεῖ καὶ τὴν διὰ τῶν οὕτω  
 διαφανῶν τε καὶ λεπτῶν νημάτων γιγνομένην ὑπ' αὐτῆς ὑφήν, ὡς καὶ τινὰς λέγειν τὴν  
 ὑφαντικὴν τοὺς ἀνθρώπους λαβόντας τὸ πρῶτον παρ' αὐτῆς ἔχειν; τίνα δ' οὐ πείθει  
 25 λέγειν θαυμασίον τι χρῆμα τὴν φύσιν ὑπάρχειν ὀρῶντα τὸ ὑπὸ τῆς ἄρκτου γιγνόμενον  
 ἔργον; ἀποτίκει μὲν ἡ ἄρκτος ἅπασιν τοῖς γεννωμένοις ὁμοίως ζώοις. ἔστι δὲ σὰρξ μόνη  
 γεννωμένη ἄπλαστός τε καὶ ἀδιάρθρωτος, μορφὴν μὲν οὐδεμίαν ἔχουσα, εὐθὺς δὲ ὑπὸ  
 τῆς γεννώσης τῇ φυσικῇ τέχνῃ διατυπούμενη. τῇ γὰρ γλώττῃ ὥσπερ χειρὶ τινι χρωμένη  
 25 ἡ τεκοῦσα οὕτω μεμορφωμένον ζῶον τὸ τεχθὲν ἀποτελεῖν. ἀλλὰ πρὸς μὲν τούτους παύ-  
 σομαι λέγων. καὶ γὰρ εἴωθα ἐν τοῖς φιλοτίμοις λόγοις ὥσπερ τινὶ χαλινῷ, καθάπερ τῷ  
 μέτρῳ ἵππου τινὸς γαύρου τρέχοντος, τοῦ λόγου αὐτοῦ εὐτόνως κρατεῖν.

8 Soranus *Gyn.* I.39 (1) 3-6 Heliodorus *Aethiopica* 4.8.5 16 *UP* I: III 7.14-18 20 *CML*  
 XII 425.16-426.1; Pliny *NH* VIII.126 4-6; Ovid *Metamorphoses* 15.379-80; Gellius *Noctes Atticae*  
 17.10.3.1-2

4 τρέφει *conieci* τρέψει L N Y, Q *ante corr.* τρέφεται Q 5 ὁμοιότητα *conieci* ὁμοιότητι *codd.edd.*  
 5 τύπων L, Q *ante corr.* τύπον Q τύπων, ο *supra lin.* Y 6 γεννωμένοις L γεννωμένους *ante corr.* Q  
 8 δυνατῶν L δυνατὸς Q *post corr., edd.* 9 γράψας γράψαι Kühn 11 ἀτενῶς L ἀτενὲς Y, ἀτενὲς  
*post corr.* e ἀτηνὲς Q ἀτηνῆς N 12 ὁμοιον L ὁμοίως Q *edd.* 18 γιγνομένην Q γιγνομένων L N Y  
 γιγνομένων Q *ante corr.* 21 μὲν L γὰρ *post* μὲν *add. in marg.* Q 22 ὑπὸ L ὑπὲρ Y 24 μεμορφωμένον  
 L μεμορφομένον Y 24 τούτους Q Y τούτοις L N, Q *ante corr.* Q EMEND TO Y 25 φιλοτίμοις *Crat.*  
 φιλοτίμοις (φυλοτίμοις *ante corr.*) Q φυλοτίμοις *Ald.* φυλοτίμοις L Y φυλοτίμοις (φυλοτίμοις *in marg.*) N  
 25--26 τῷ μέτρῳ L; *post* τρέχοντος *transp.* Q

And so it is a wonder to me whenever I see him failing to see such wonderful works of nature, and especially the clever contrivances arising from the very beginning in the creation of a human being, the way in which the embryo is moulded in the mother's womb, and once moulded how cleverly nature feeds it, and the number and kinds of soft fetters with which she holds it in place till the time of birth, and with what divine skill and resemblance she strikes an impression on the new born, a case where his theory of particles is put to the test and does especially badly. For babies resemble not just their parents but sometimes their ancestors. And I have heard an old story that an ugly man wanted to breed a good looking child and had a picture of a good looking baby inscribed on a flat piece of wood and while he was making love to his wife told her to keep looking at that image in the drawing. And she kept intently looking and kept pretty much all her mind not on her husband but on the child in the drawing and gave birth to a child like it; and in my opinion the power of sight sent the impression of the likeness through in accordance with nature but not by means of any particles. And when this man not initiated into such mysteries of nature maintains that these things happen by virtue of particles and because of his dimness and uncertainty of vision does not allow his students to believe in such wonderful works of nature I want to turn his attention towards external facts which are obvious to absolutely everyone. For who does not believe in the power of nature seeing the skills of that animal, the spider and how she makes a web from such diaphanous and slender threads, so that some even say that mankind first got the art of weaving from her? And who is not persuaded to say that nature is a wonderful thing when seeing the work of the she-bear? For the bear gives birth to young just as all living creatures which propagate by breeding do. But just one lump of flesh is born, unmoulded and not articulated, and without any sort of shape, but is immediately given shape by the mother by her the skill provided to her by nature. For using her tongue like a sort of hand the mother produces a formed cub. But I will say no more on this subject. For in my honour-loving discourses I am used to using as it were a bridle, like a bit for a spirited horse at the gallop, to keep a firm hold on the discourse itself.

[Ἐκαστα τὰ τὴν θηριακὴν συντιθέμενα ἀκριβῶς ἐξεταστέον. καὶ τὴν Ἀνδρομάχου γραφὴν προκριτέον.]

Ἐπιδείξας δὲ, ὡς οἶμαι, σαφῶς μηκέτι εἶναι σοὶ θαυμαστὸν τὰ θηρία αὐτὰ καὶ ἀναιρεῖν  
 5 καὶ βοηθεῖν δύνασθαι, διὰ τὴν ποικίληνσκευασίαν τε καὶ μίξιν τῶν συμμιγνυμένων  
 αὐτοῖς φαρμάκων, μετὰ τοῦτο λοιπὸν τὴν ἀντίδοτονσκευάζειν ἄρξομαι. οὐ γάρ ἐστιν  
 ὀλίγη καὶ ἢ ἐν τῇσκευασίᾳ αὐτῆς γιγνομένη ὑφ' ἡμῶν τέχνη. ἢ τε γὰρ ἐν τοῖς θηρίοις  
 10 πολλάκις ὑπὸ τῶν θηρευόντων αὐτὰ γιγνομένη πανουργία καὶ ἢ ἐν τοῖς ἄλλοις μίγμασι  
 τῶνσκευαζόντων ἀπειρία ἄχρηστονπολλάκις ἐποίησε τὸ φάρμακον. πολλοὶ γὰρ αὐτῶν  
 15 τὴν περὶ τὸ θηρεύειν τέχνην ἐπιδείκνυσθαι βουλόμενοι, καὶ μάλισθ' ὅσοι καὶ φάρμακα  
 τινα πρὸς τὰ τοιαῦτα εὐρίσκουσιν ἐπαγγέλλονται, τὸ μὲν ἔχειν τὰ φάρμακα ψεύδονται. οὐ  
 γὰρ εὐρομέν ποτε ἡμεῖς αὐτοὺς ἔχοντας, διὰ δὲ τοῦ πανουργεῖν τὰ θηρία τοὺς ὀρώντας  
 πλανῶσι, πρῶτον μὲν αὐτὰ θηρεύοντες οὐ τῷ δέοντι καιρῷ, ἀλλὰ μετὰ πολὺν τῆς φω-  
 20 λειᾶς τὸν χρόνον, ὅτε μηκέτ' ἐστὶν ἀκμαῖα. λαβόντες δὲ αὐτὰ καὶ προεθίζουσιν ἑαυτοῖς  
 15 πολλάκις καὶ τρέφουσιν οὐ ταῖς εἰθισμέναις τροφαῖς, ἀλλὰ σάρκας αὐτοῖς ἐπιδιδόντες  
 καὶ συνεχῶς ἐνδάκνειν ἀναγκάζοντες, οὕτως ἐκ τοῦ στόματος αὐτῶν κενουῖσθαι ποι-  
 οῦσι τὸν ἰδὸν καὶ δὴ καὶ μάζας τινὰς ἐπιδιδόντες αὐτοῖς ἐμφραττούσας τῶν ὀδόντων τὰ  
 25 τρήματα καὶ οὕτω τούτων ἀσθενῆ γίνεται τὰ δῆγματα, ὡς θαυμάζειν πάνυ τοὺς ὀρών-  
 τας τὴν τοιαύτην αὐτῶν εἰς τὸ πανουργεῖν τέχνην οὐκ εἰδότας· ὁμοίως δ' αὖ καὶ ἢ περὶ  
 20 τὰ φάρμακα τῶν μιγνυμένων, ὡς ἔφην, ἀπειρία οὐκ ἐστὶν ὀλίγη. αὐτίκα γέ τοι περὶ  
 τὰ κάλλιστα τῶν ἐμβαλλομένων, κασσίαν λέγω καὶ τὸ κιννάμωμον αὐτὸ, οὐκ ὀλίγη  
 25 τίς οὔσα διαφορά, πολλοὺς τῶνσκευαζόντων εἴωθε πλανᾶν. τὸ τε γὰρ καλούμενον  
 ψευδοκιννάμωμον ὁμοίον ἐστὶ τῷ ἀληθεῖ, κατὰ δὲ τὴν γεῦσιν καὶ τὴν ὁσμὴν πολὺ ἐν-  
 δεέστερον εὐρίσκεται. τὸ δὲ ξυλοκιννάμωμον διαφέρει τῷ ξυλῶδες εἶναι καὶ ἰσχυρὰς  
 τὰς ῥάβδους ἔχειν καὶ οὐχ ὁμοίαν τὴν εὐωδίαν. καὶ αὐτοῦ δὲ τοῦ ἀληθινοῦ κινναμώμου  
 τὸ μὲν ἐν τοῖς ὄρεσι γιγνόμενον, οὐκ ὄν λεπτὸν οὐδὲ μακρὸν, μᾶλλον κερρὸν ἐστὶ τῇ  
 30 χροιά. ἕτερον δὲ ἐστὶ ποσῶς μέλαν καὶ ὡσπερ ἴνας ἔχον τινὰς.

13--14 φωλειᾶς φολειᾶς Y 14 τὸν χρόνον Q τῶν χρόνων *vel* χρονίων L τῶν χρονίων N τῶν χρόνων Y, Q  
*ante corr.* 17 ἐπιδιδόντες αὐτοῖς L αὐτοῖς ἐπιδιδόντες Q 22 οὔσα L ἐστὶ Q



[Chapter 12. The need to set out in order all the ingredients of theriac, and to prefer the recipe of Andromachus]

Having shown, I think, clearly that there is nothing for you to wonder at in the fact that the same wild beasts can both kill and heal, because of the subtle preparation and blending of drugs mixed with them, I will move on to the subject of preparation of the antidote. For we have developed considerable skill in the preparation of it. For fraud on the part of the hunters as to the identity of the beasts and inexperience on the part of those preparing the drug by mixing in the other ingredients have often rendered the drug useless. For many of them want to show off their skill in hunting and particularly those who claim that they have drugs which help them in snake-catching, lie about having the drugs. For we never find they actually have them, but because of their roguery in the matter of wild beasts they mislead the onlookers, first by hunting them not at the right season, but after a long hibernation, when they are no longer in peak condition. They often take them and tame them and feed them on unaccustomed foods and freely give them meat and force them to bite repeatedly, making them empty their mouths of poison and also freely giving them barley cakes which block up the holes in their teeth so that their bite becomes weak, which makes onlookers marvel, not knowing of their skill in knavery. Likewise again there is as I have said a great deal of inexperience about the drugs which go into theriac. For example in relation to the finest of the ingredients, I mean cassia and the true cinnamon, there is a substantial difference, and this deceives many blenders. For what is called false cinnamon is similar to the real thing, but in taste and smell is found to be much inferior. Wood-cinnamon differs in being woody and having strong stems and not having the same sweet smell. And of the real cinnamon that which grows in the mountain and is neither small nor big, is rather yellow in colour. Another sort is rather black and has something like sinews.

ἄλλο τι λευκὸν εὐρίσκεται ἀκριβῶς καὶ οὐ σκληρὸν, ῥαδίως θραυόμενον καὶ μικρὰν  
 ἔχον τὴν ῥίζαν. ἔστι δὲ τι καὶ τῆ κίρρᾳ κασσία ὁμοιον ἕτερον λεῖον καὶ εὐῶδες. τὸ δὲ  
 πάντων κάλλιστόν ἐστι τὸ μόσσυλον ὑπὸ τῶν ἐγχωρίων οὕτω καλούμενον, τεφρώδες  
 τῆ χροιά καὶ λεπτὰ ἔχον τὰ ῥαβδία καὶ τοὺς ὄζους πυκνοὺς, σφόδρα εὐῶδες, ὃ καὶ μά-  
 5 λιστα προκρίνειν ἡμεῖς εἰώθαμεν. ἔστι γὰρ πάνυ τῆ ὁδμῆ κάλλιστόν τε καὶ ἥδιον καὶ  
 τῆ γεύσει δριμύ ἡμῖν κατα φαίνεται καὶ δηκτικὸν λίαν, καὶ διαμασώμενον πηγανίζειν 258  
 δοκεῖ. ἔστι δὲ καὶ λεῖον καὶ ῥαδίως θραύεσθαι δυνάμενον. ἢ δὲ κασσία καὶ αὐτῆ, εἰ μὴ  
 τις ἔμπειρος εἴη περὶ τὴν κρίσιν, πλανᾶν εἴθε πολλάκις. ἔστι γὰρ τις καὶ ψευδοκασ-  
 σία πάνυ μὲν ἐμφορῆς τῆ ἀληθινῆ κασσία, οὐκ ἔχουσα δὲ τὴν τοιαύτην εὐωδίαν, ἀλλὰ  
 10 καὶ ὁ φλοιὸς αὐτῆς συνηνωμένος τῆ ἐντεριώνη εὐρίσκεται, ὡς ἢ γε καλλίστη κίρρᾳ τε  
 καὶ ῥοδίζουσα, ὥσπερ καὶ ἡδὺ τὸ γευστικὸν ἐν τῆ γεύσει ποιουμένη, συριγγώδης τε  
 οὖσα καὶ οἰνίζουσα καὶ πολὺ τὸ ἀρωματίζον ἔχουσα, γίξι ὑπὸ τῶν ἐπιχωρίων οὕτω λε-  
 γομένη. εἰκὸς δὲ σε καὶ τὴν περὶ τὸ μακρὸν πέπερι γιγνομένην πανουργίαν μὴ ἀγνοεῖν.  
 ἀναπλάσσοντες γὰρ τινες αὐτὸ ἴσον τῷ ἀληθεῖ ἔχον τὸ μῆκος καὶ ἐνθέντες αὐτῷ τοῦ  
 15 πυρέθρου ἢ τοῦ νάπυος ὀλίγον, οὕτω τῷ δηκτικῷ τῆς γεύσεως πλανῶσι τὸν γευόμενον.  
 ἀλλ' ὁ περὶ ταῦτα τριβακὸς ὢν καὶ τὸ ἥδιον τε καὶ δριμύ ἐν τῆ γεύσει μὴ ἀγνοῶν, ἔτι  
 τε καὶ τὴν ἀπὸ τοῦ δένδρου ῥίζαν προσκειμένην αὐτῷ περιεργότερον βλέπων, ῥαδίως 259  
 εὐρίσκει τὸ ἀληθινὸν πέπερι καὶ πλανᾶσθαι ὑπ' αὐτῶν οὐ δύναται. πολλῆς δ' οὔσης καὶ  
 ἐν τοῖς ἄλλοις ἅπασιν ἀκριβείας, ὥσπερ καὶ ἐν τούτοις ἱστορήσά σοι, ἐγὼ μὲν καὶ ταῦτα  
 20 πρὸς τὴν τοῦ λόγου ὑπόμνησιν ἀρκεῖν νομίζω, ἵνα μὴ μακρὸν ἡμῖν τὸ βιβλίον γένηται.  
 συμβουλευὼ δὲ, ἕκαστον αὐτῶν ἀκριβῶς δοκιμάζοντα οὕτω σκευάζειν τὸ φάρμακον. ἢ  
 γὰρ ἐνός τινος κακία πολλάκις διαφθεῖρει τὰ πάντα. ἔστι δὲ αὐτοῦ καὶ γραφή, ἵνα μηδὲ  
 τοῦτο ἀγνοῆς, διαφόρως ὑπὸ τῶν ἱατρῶν γινομένη. ὁ μὲν γὰρ Ἀνδρόμαχος, ἀκριβῆς  
 25 περὶ τὰ φάρμακα γενόμενος, οὕπερ καὶ πρότερον ἐμνημόνευσα, κατὰ ταύτην τὴν γρα-  
 φὴν ἐσκεύαζε τὸ φάρμακον. Ἄρτισκων θηριακῶν δραχμᾶς κδ'. ἄρτισκων σκιλλητικῶν  
 δραχμᾶς μη'.

3 Dsc. de Materia Medica I 14 (1)-(2) 11 CML VIII: XIII 185.16 CMG VII: XIII 1030.14 12 Ant.  
 I: XIV 72.14-73.2 13 San. Tu. IV: VI 268.13-270.7

3 κάλλιστόν κάλλιόν Y 3 μόσσυλον edd μο...λον L N μο...χον Y 8 κρίσιν κρᾶσιν L N Y, Q ante  
 corr. 11 καὶ ἔστι Y 12 γίξι Arab. (غزى, gīzī) ζιγγίβερ codd. edd. 12--13 λεγομένη Q λυομένη L  
 Y καλουμένη N 13 πέπερι πεπέ (πεπέρι ante corr.) Y πεπέπε μακροῦ in marg. L Y 13 πανουργίαν L  
 πανούργως Y 17 ῥαδίως om. Q edd. 18 πέπερι πεπέ Y 19 ἱστορήσά L ἱστορίσά Y 20 ἡμῖν τὸ  
 βιβλίον L τὸ βιβλίον ἡμῖν Q edd. 22 γραφή L γρά Y 25 ἐσκεύαζε ἐσκεύασε L N Y

Another sort is pure white and not hard, easily wounded and with a small root. And there is another one which is like yellow cassia and is smooth and sweetly scented. But best of all is what the locals call mosullon with ash coloured bark and slender stems and thick roots, very sweet scented, which we prefer over all others. For it has much the finest and sweetest scent and is sharp tasting and very pungent and when chewed seems to resemble rue. It is also smooth and easily wounded. Cassia itself often misleads those without experience in distinguishing it. For there is a false cassia very like true cassia but without such a sweet scent and its bark is stuck to the heartwood, and the best cassia is yellow and rose-like and produces a sweet taste for the sense of taste and is like a reed and resembles wine and is strongly scented, called gizi by the locals. And it is suitable for you also to know the trickery which goes on around the long pepper. For some reshape it making it the same size as the true pepper and adding a bit of pellitory or mustard and so deceive the taster with the sharp taste. But the man with experience in these matters who recognises the sweetness and sharpness in the taste and who takes a careful look at the tree root attached to it recognises true pepper and is not deceived by them. And there is as much need for accurate knowledge in all other cases as what I have told you in this one; but I think what I have told you raises the subject adequately for our argument, so that our book does not become too long. But I advise that you test each ingredient carefully when making the drug; for a defect in one ingredient often spoils the whole thing. The recipe for theriac, so that you should know this, varies between doctors. For Andromachus, an expert on drugs, whom I have mentioned before, prepared the drug like this: theriac pastilles – 24; squill pastilles – 48;

πεπέρεως μακροῦ δραχμᾶς κδ´. ὀποῦ μήκωνος δραχμᾶς κδ´. ἡδυχρόου μάγματος δρα-  
 χμᾶς κδ´. ῥόδων ξηρῶν δραχμᾶς ιβ´. Ἴρεως Ἰλλυρικῆς, <γλυκυρρίζης> βουνιάδος ἀγρίας  
 σπέρματος, σκορδίου, ὀποβαλσάμου, κινναμώμου, ἀγαρικοῦ ἀνά δραχμᾶς ιβ´, πεπέ-  
 5 ρεως λευκοῦ, ῥήου, σμύρνης, κόστου, κασίας, ναρδοστάχου, σχοίνου ἄνθους, λι- 260  
 βάνου, δικτάμνου, πρασίου, στοιχάδος, πετροσελίνου Μακεδονικοῦ, καλαμίνθης, τερ-  
 μινθίνης, ζιγγιβέρεως, πενταφύλλου ῥίζης, πολίου ἀνά δραχμᾶς στ´. πεπέρεως μέλανος  
 δραχμᾶς κδ´. χαμαιπίτυος δραχμᾶς δ´. στύρακος δραχμᾶς δ´. ἀμώμου βότρυος δρα-  
 χμᾶς δ´, νάρδου Κελτικῆς, Λημνίας σφραγίδος, φοῦ, χαμαίδρυος, φύλλων μαλαβάθρου,  
 χαλκίτεως ὀπτῆς, γεντιανῆς, ἀνίσου, ὑποκιστίδος χυλοῦ, βαλσάμου καρποῦ, κόμμεως,  
 10 μαράθρου σπέρματος, καρδαμώμου, σεσέλεως, ἄκορου, κρόκου, ἀκακίας, θλάσπεως,  
 ὑπερικοῦ, ἄμμεως, σαγαπηνοῦ, ἀνά δραχμᾶς δ´. καστορίου, ἀριστολογίας λεπτῆς, δαύ-  
 κου σπέρματος, ἀσφάλτου Ἰουδαϊκῆς, ὀποπάνακος, κενταυρίου λεπτοῦ, χαλβάνου, ἀνά  
 δραχμᾶς β´. μέλιτος λίτρας ι´. οἴνου Φαλερίνου τὸ ἄρκοῦν. Ξενοκράτης δὲ καὶ αὐτὸς  
 σπουδῆν οὐκ ὀλίγην περὶ τὰ τοιαῦτα ποιησάμενος ὁμοίως μὲν τὰ ἄλλα τῷ Ἀνδρομάχῳ  
 15 ἐσκεύαζε τὴν ἀντίδοτον, μόνον δὲ ἀντὶ τῶν δραχμῶν δ´. τοῦ σαγαπηνοῦ αὐτὸς δραχμᾶς  
 β´. ἔμισγε τῷ φαρμάκῳ. ὁ δὲ Δαμοκράτης, ἄριστος ἰατρὸς καὶ αὐτὸς γενόμενος καὶ ὄλον  
 βιβλίον φιλοτίμως συντάξας καὶ αὐτὸς ἔπεσι περὶ τῆς τῶν ἀντιδότωνσκευασίας, πάντα 261  
 μὲν τὰ μίγματα τούτοις ὁμοίως μίγνυσι τῇσκευασίᾳ τοῦ φαρμάκου, διαφωνεῖ δὲ αὐ-  
 τοῖς ἐν τοῖς τῶν μεμιγμένων μέτροις. τινὰ γὰρ ὧν ἐκεῖνοι πέμπουσι τῷ φαρμάκῳ, ἀνά  
 20 δραχμᾶς δ´. ἔχοντα, οὕτως ἀνά δραχμᾶς β´. μίγνυσι τῷ φαρμάκῳ, καὶ πάλιν τῶν ἀνά  
 δραχμᾶς β´. τὴν συσταθμίαν ἔχόντων, αὐτὸς ταῦθ' ἴστησιν ἀνά δραχμᾶς α´. ἔχοντα.  
 Μάγνος δὲ, ὁ καθ' ἡμᾶς ἀρχίατρος γενόμενος, τὰ ἄλλα πάντα ὁμοίως τοῖς ἀνδράσι  
 τούτοις ἐν τῇσκευασίᾳ φυλάττων, ἐν τῷ κινναμώμῳ μόνον αὐτοῖς διαφωνεῖ. τὸ γὰρ  
 25 διπλοῦν τῆς περὶ τούτων συσταθμίας μίγνυσιν αὐτὸς τῷ φαρμάκῳ, οὕτως δὲ καὶ περὶ  
 τῆς χαλκίτεως, οὕτως δὲ καὶ περὶ τοῦ σαγαπηνοῦ καὶ τῷ Ἀνδρομάχῳ διαφωνεῖ.

19 *Ant.* I: XIV 99.14-100.3

1 πεπέρεως πεπέ Y 2 <γλυκυρρίζης> Q *add. in marg. post* Ἴρεως Ἰλλυρικῆς 4 ῥήου Q *del.* 4 κό-  
 στου, κασίας, L κόστου, κρόκου, κασίας Q (κρόκου *add. in marg.*), *edd.* 4 ναρδοστάχου *vel* νάρδου  
 στάχου *vel* στάχου νάρδου *sunbul hindī Arab.* στάχου L N Y νάρδου Q *sup. lin.*, *edd.* 4--5 λιβάνου L πε-  
 6--7 πεπέρεως μέλανος δραχμᾶς κδ´ L, *del.* Q 7 ἀμώμου βότρυος ] μήου Q *add. in marg. post* βότρυος  
 8 φοῦ ] Ποντικοῦ Q *add. in marg. post* φοῦ 8 χαμαίδρυος L Κρητικῆς Q *add. sup. lin. post* χαμαίδρυος  
 8 φύλλων L, Q (*corr. sup. lin.* -ου *in* -ων), φύλλα N φυ + λλ *sup. lin.* Y 10 ἄκορου, κρόκου, ἀκακίας L  
 ; Q ἄκορου, ἀκακίας, κρόκου *sed del.* ἄκορου, κρόκου 11 ἄμμεως, σαγαπηνοῦ L σαγαπηνοῦ, ἄμμεως Q  
 (ἄμμεως, σαγαπηνοῦ *ante corr.*) 18 μίγνυσι L ἐν *post* μίγνυσι *add. in marg.* Q 25 περὶ τοῦ σαγαπηνοῦ  
 καὶ L, Q *del.* καὶ

long pepper – 24; poppy juice – 24; sweet scented sediment – 24; dried roses –  
 12; Illyrian iris (orris root), liquorice, French turnip seed, garlic germander, balsam  
 tree, cinnamon, agaric - 12 drachms each; myrrh, Saussurea Lappa, crocus, cassia,  
 nard, reed flower, frankincense, white and black pepper, dittany, horehound, rhubarb,  
 cassidony (*Lavandula Stoechas*), Macedonian parsley, [260] mint, terebinth, ginger, 5R  
 cinquefoil root - 6 each; hulwort (*Teucrium Polium*) – 4; ground pine – 4; storax – 4;  
 cardamom, grapes, bald money (spignel, *Meum athamanticum*), Celtic nard, Lemnian  
 sealed earth, Pontic spikenard, Cretan germander (*Teucrium Chamaedrys*), leaf of  
 Cinnamomum Tamala or albiflorum, roasted copper ore, gentian, anise, hypocist ( 10R  
*Cytinus Hypocisthis*) juice, balsam fruit, acacia gum, fennel seed, cardamom, hartwort  
 (*Tordylium officinale*), acacia, shepherd's purse (*Capsella bursapastoris*), hypericum,  
*Ferula persica*, ajowan (*Carum copticum*), 4 drachms each, castor, lesser birthwort,  
*Athamanta Cretensis*, asphalt from Judea, gum of *Opopanax hispidus* (Hercules'  
 woundwort), lesser centaury, the resinous juice of all-heal (*Ferula galbaniflua*), 2  
 each; honey, 10 litres; Falernian wine as needed. Xenocrates himself also devoted a 15R  
 good deal of effort to such matters and made up the antidote the same as Andromachus  
 except that instead of 4 drachms of *ferula persica* he put 2 in the drug. And Damocrates,  
 who became an excellent doctor himself and one who put together a whole book in  
 verse about the preparation of antidotes mixes all these same components himself in 20R  
 the composition of the drug but differs from them in the quantities of the ingredients.  
 For of certain components of which they put 4 drachms each into the drug he puts 2,  
 and again where they put in a weight of 2 drachms, he puts in 1 drachm. Magnus, who  
 became physician to the emperor in our time, observes all the same ingredients as these  
 men in the preparation and differs from them only in the matter of cinnamon; for he  
 puts in twice as much as these others do and similarly with copper ore, and similarly 25R  
 with *ferula persica* he differs from Andromachus,

τὰς γὰρ δραχμὰς β'. ὁμοίως τῷ Ξενοκράτει μίγνυσιν εἰς τὸ φάρμακον, τοῦ Ἀνδρομά-  
 χου δραχμὰς δ'. βάλλοντος· κατὰ δὲ τὸ σαγαπητὸν καὶ τῷ Δαμοκράτει. μίαν μὲν γὰρ  
 δραχμὴν ὁ Δαμοκράτης μίγνυσιν τῷ φαρμάκῳ, ὁ δὲ Μάγνος β'. προστίθησι δὲ καὶ τῷ  
 5 μίγνυμένῳ οἴνῳ ὁ Μάγνος τὸ μέτρον. δύο γὰρ ξέστας τοῦ βαλλομένου εἶναι βούλεται,  
 τῶν ἄλλων, ὡς εἰκὸς πρὸς τὴν χρεῖαν, ὁπόσῳ μέτρῳ τοῦ οἴνου χρωμένον διαφωνεῖ.  
 Δημήτριος δὲ, καὶ αὐτὸς καθ' ἡμᾶς ἀρχιατρὸς γενόμενος, τῷ μὲν Ἀνδρομάχῳ ὁμοίως  
 10 κατὰ πάντα τὰ ἄλλα συμφώνως σκευάζει τὸ φάρμακον, μόνῃ δὲ τῇ τῶν σκιλλητικῶν  
 ἀρτίσκων συσταθμῖα τῷ Ἀνδρομάχῳ διαφωνεῖ καὶ τοῖς ἄλλοις πᾶσιν. ἐκείνου μὴ.  
 δραχμὰς βάλλοντος μέτρον, οὗτος μόνος μστ'. δραχμὰς μόνας μίγνυσιν τῇ ἀντιδότῳ.  
 15 τοσαύτης γὰρ οὔσης τῆς περὶ τὰς γραφὰς διαφορᾶς, ἡμεῖς τῇ τοῦ Ἀνδρομάχου ὡς  
 ἀρίστη χρώμεθα, καὶ εἰς γε τὰς βασιλικὰς χρεῖας οὕτως σκευάζομεν. γίνεται δὲ καὶ  
 αὐτῆς [καί] ἡ σκευασία τὸν τρόπον τοῦτον. καὶ γὰρ εὐχρηστον νομίζω σκευάσαι σοι  
 αὐτὴν τῷ λόγῳ, ἵνα ἦν ποτε καὶ μὴ παρόντος ἰατροῦ εὐφυῶς ἂν σκευάζειν αὐτὴν  
 ἐθέλης, ὡς ἄριστα σκευάσης, διδάσκαλον τῆς σκευασίας ἔχων αὐτὸν τὸν λόγον.

[Πῶς κατασκευαστέοι οἱ τε ἡδύχροοι, σκιλλητικοὶ καὶ θηριακοὶ ἀρτίσκοι.]

Πρὸ δὲ τῆς κατασκευῆς αὐτῆς ἐχρῆν σε καὶ τὴν ἐμβαλλομένου εἰς αὐτὴν ἡδυχροῦ  
 μάγματος γραφὴν εἰδέναι. ἔστιν οὖν ἡ ἀρίστη σκευασία ἢ παρὰ Μάγνῳ, ἢ ἡ γραφὴ  
 20 αὕτη. Ἀσπαλάθου ρίζης φλοιοῦ, καλάμου ἀρωματικοῦ, σχοίνου ἄνθου, φοῦ, κόστου,  
 ἀσάρου, ξυλοβαλσάμου, ἀνά δραχμὰς στ'. κινναμώμου δραχμὰς κδ'. ἀμόμου δρα-  
 χμὰς κδ'. ἀμαράκου δραχμὰς κ'. νάρδου Ἰνδικῆς δραχμὰς ιστ'. μαλαβάθρου φύλλων  
 25 δραχμὰς στ'. σμύρνης δραχμὰς κδ'. κασσίας δραχμὰς στ'. κρόκου δραχμὰς ιθ'. οἴνῳ  
 Φαλερίνῳ ἀναλάμβανε, ὀποβαλσάμου παραπτόμενος ἐν τῷ ἀναλαμβάνειν, καὶ ψυχε  
 τοὺς τροχίσκους ἐν σκιᾷ. ὁμοίως δὲ καὶ τοὺς σκιλλητικοὺς ἀρτίσκους σκευάζε οὕτως.  
 λαβόντα χρῆ σκύλαν νεαράν καὶ μὴ πάνυ μεγάλην περιπλάττειν, μὴ ὡς τινες πηλῶ,  
 ῥυπαρὸν γὰρ εἶναι μοι δοκεῖ, ἀλλὰ ζύμη, ὁπτᾶται γὰρ ῥαδίως, τῇ ἀπαλωτάτῃ, ἵνα ἐν τῇ  
 ὀπτήσῃ καὶ αὐτῆς τι μεταλαμβάνῃ.

6 *Ant. I: XIV 4.11-5.2* 25 *Ant. I: XIV 49.14-51.7* 26 *P Ant. I: XIV 50.1-51.6* *Ant. I: XIV 94.17-95.10*  
*Ant. I: XIV 103.17-104.9*

2 βάλλοντος *add. in marg. Q* 5 διαφωνεῖ *L N Y, Q ante ras.* 8 ἐκείνου μὴ'. *L Q ante corr.* ἐκείνων γὰρ  
 μὴ' *Q* 9 βάλλοντος *L, Q ante corr.* βαλλόντων *Q* 9 μόνος μόνου *Q ante corr.* μόνον *Y* 9 μόνας μόνῃ  
*L Y, Q ante corr.* μόνῳ *N* 9 τῇ τῷ *N, Q ante corr.* 10 τοῦ *om. Crat. Kühn* 11 δὲ καὶ *L δὲ Q edd.* καὶ *Y*  
 καὶ *post* αὐτῆς *transp. N* 12 [καί] *N* 13 ἦν ποτε μὴ ποτε *L* μήποτε *N Y* μὴ ποτε *Q ante corr.* 13 εὐφυῶς  
 ἂν *Q* εὐφυῆς ἂν *L N Y edd.* 18 κατασκευῆς αὐτῆς ἐχρῆν σε *Q* κατασκευῆς καὶ ἔχειν σε *L N Y, Q ante*  
*corr.* 21 *Nicc. Arab.* ἀσίας *codd. edd.* 22 μαλαβάθρου φύλλων *Frob. Chart.* φύλλα *Ald. Crat. L N Q*  
*Y* 23 κασσίας *conieci* μαστίχης *codd. edd.* 25 ἀρτίσκους *om. sed add. in marg. Q* 27 τῇ ἀπαλωτάτῃ  
*Q* τῷ ἀπαλωτάτῳ *L N, Q ante corr.* τῷ ἀπαλωτάτῳ *Y* 27 τῇ *L om. Y* 28 αὐτῆς *correx* αὐτοῦ *codd. edd.*  
 28 μεταλαμβάνῃ *Kühn recte* μεταλαμβάνοι *al.;* *Q* μεταλαμβάνει *ante corr.* *in* μεταλαμβάνοι

for he puts 2 drachms in like Xenocrates where Andromachus puts 4. And concerning ferula persica he differs from Damocrates. For Damocrates mixes one drachm in the drug, but Magnus 2. And Magnus increases the quantity of wine in the mixture. For he wants two pints to be added, while the others use just as much as is necessary. Demetrius, another leading doctor of our day, makes the drug in all respects as Andromachus does with the one exception that he differs from Andromachus and the others on the weight of squill pastilles. For they put in 48 drachms, he alone puts 46 in the antidote. There being so much difference over the recipe we use that of Andromachus as being the best and that is how we prepare it for the imperial family. and it is made as follows (for I think it useful to describe its preparation to you so that if ever there is no doctor around and you with your natural ability want to prepare it yourself, you can prepare it as well as possible, with this treatise as your instructor.)

5R

10R

[Chapter 13. Instructions for preparing perfume, squill and theriac pastilles]

Before getting on to the preparation itself you must also know the recipe for the perfume solids which are part of it. The best way of making it is Magnus', and here is his recipe: camel's thorn (*Alhagi maurorum*) root bark, aromatic reed, reed flower, wild nard, *Saussurea Lappa*, hazelwort, balsamwood, asia, 6 drachms each; cinnamon, 24 drachms; cardamom, 24 drachms; marjoram, 20 drachms; Indian nard, 16 drachms; malabathron (*Cinnamomum Tamala* or *albiflorum*) leaves, 6 drachms; myrrh, 24 drachms; mastic, 6 drachms; crocus, 19 drachms; make up with Falernian wine adding a little balsam juice while making up, and dry the pastilles in the shade. Similarly make up the squill pastilles as follows: take a young squill, not too big, and knead it not as some do with mud, which I think is filthy, but with the softest yeast, for the squill then roasts easily, and takes up some of the yeast.

15R

20R

25R

εἶτα ὅταν ὀπτήση καλῶς ἐν τῷ καλουμένῳ ἰπνῶ, ἢ ἐν τοῖς κακκάβοις, ἐν οἷς οἱ ἄρτοι  
 ὀπτῶνται γινομένης τῆς ὀπτησέως, ἵνα ὁμαλῆ ἢ ὀπτησις γένηται, λαβόντα χρῆ τὰ ἔνδον  
 αὐτῆς μέρη τὰ ἀπαλώτατα λειοῦν ἐπιμελῶς, μίσγοντα καὶ ὀροβίνου ἀλεύρου καλλί-  
 5 στου καὶ νεαρωτάτου τὸ ἴσον, ὡς ὁ Δαμοκράτης βούλεται. ὁ γὰρ Μάγνος τὸ ἡμισυ  
 πέμπειν ὀλίγον μοι μιγνύναι δοκεῖ, καὶ ὁ Ἀνδρόμαχος δὲ δύο πέμπων μέρη πολὺ μοι  
 πέμπειν δοκεῖ. τὸ δ' ἴσον ἐστὶ τὸ πρὸς ἀνάπλασιν σύμμετρον, καὶ οὕτως συλλειώσαντα  
 αὐτῷ τοσοῦτον, ἀναπλάττειν τροχίσκους συμμετέτρον χρῆ, καὶ ἐν σκιᾷ ἀποτιθεμένους 264  
 εἶτα μετὰ ταῦτα χρῆ λαμβάνειν  
 εἰς τὴν χρῆσιν φυλάττειν. [-περὶ τῶν ἐχίδνων:-] εἶτα μετὰ ταῦτα χρῆ λαμβάνειν  
 αὐτὰς τὰς ἐχίδνας πρὸς τὸ πλῆθος τῆς ὄλης σκευασίας ἀνάρκεις, μὴ ἐν παντὶ καιρῷ  
 10 τεθηραμένας, ἀλλὰ μάλιστα περὶ τὴν ἀρχὴν τοῦ θέρους, ὅταν τῆς μὲν φωλείας παύρηται  
 προέρχεται δὲ λοιπὸν ἔξω εἰς τοὺς ὑπαίθρους τόπους, καὶ οὐκέθ' οὕτως ἔχει πονηρὸν  
 τὸν ἴον. ἔνδον γὰρ φωλεύοντα, καὶ κατὰ μηδὲν διαφοροῦμενα πονηροτέρην συνάγει  
 καὶ τὴν ἐν αὐτοῖς φθοροποιὸν δύναμιν, ὅτε καὶ τὸ καλούμενον γῆρας συλλέγειν εἴωθε  
 πᾶς ὄφεις, ὅπερ ἐστὶν ἐπίπαγός τις παχύτατος, συναγόμενος ἐν τῷ τῆς φωλείας χρόνῳ,  
 15 καὶ τῷ χρόνῳ τῆς φωλείας μᾶλλον ἢ περὶ τῆς ἡλικίας τοῦ ζώου γῆρας τυγχάνων. διόπερ  
 χρῆ μὴ εὐθέως αὐτὰ λαμβάνειν, ἀλλὰ εἴαν τινα χρόνον ἀπολαῦσαι τε τοῦ ἀέρος καὶ  
 τραφῆναι τὴν συνήθη νομήν. νέμεται δὲ ταῦτα τὰ θηρία καὶ βοτάνας μὲν τινὰς καὶ ζῶα  
 δὴ τὰ συνήθως αὐτὰ τρέφειν δυνάμενα, ὥσπερ τὰς βουπρήσεις καὶ κανθαρίδας καὶ  
 τὰς καλουμένας πιτυοκάμπας. αὐταὶ γὰρ αὐτῶν εἰσιν αἱ κατάλληλοι τροφαί. ἔστω δὲ  
 20 καὶ ὑπόξανθα τὰ ζῶα καὶ εὐκίνητα σφόδρα, καὶ μάλιστα ἐπανατείνοντα τὸν τράχηλον,  
 καὶ τοὺς ὀφθαλμοὺς ὑπερύθρους ἔχοντα, καὶ ἀναιδεῖς καὶ θηριῶδες βλέποντα, καὶ τὰς  
 κεφαλὰς πλατυτέρας καὶ τὸ πᾶν σῶμα, καὶ τὴν γαστέρα προκολλώτερον, καὶ τὸν πόρον  
 πρὸς ἄκρα μᾶλλον τῆ οὐρᾶ ἔχοντα, καὶ τὴν οὐρὰν μὴ περιειλημένην, ἀλλὰ μᾶλλον  
 25 συστρέφοντα, καὶ ἡρεμαῖον τὸν περίπατον ποιούμενα. τούτοις γὰρ τοῦ ἄρρενος ἢ  
 ἐχίδνα διήνεγκε καὶ τῷ πλέονας τῶν δύο κυνοδόντων ἔχειν, ὥσπερ δὴ καὶ Νικανδρὸς  
 διὰ τῶν ἐπῶν τούτων λέγει

Τοῦ μὲν ὑπὲρ κυνόδοντε δύο χροῖ τεκμαίρονται,  
 ἰὸν ἐρευγόμενοι, πλεῦνες δὲ τοι αἰὲν ἐχίδνης.

30

8 *Ant. I: XIV 45.4-49.13 Ant. I: XIV 103.6-14* 17 Aristotle *Historia Animalium* 594a 4-6 19 Aëtius  
*Iatricorum XIII 23.1-23 Pausanias VIII 4 7.1-8.1* 26 *Nic. Ther.* 231-2

1 ὀπτήση N Q ὀπτή [*litura*] L ὀπτή [ ] Y 1 κακκάβοις L N Q *Ald.* κακάμοις Y κλιβάνοις ἢ κακάβοις  
*Chart. Kühn* κακάβοις *Crat. ubi et κλιβάνοις imprimatur in marg.* 2 γινομένης τῆς ὀπτησέως L N Y, Q *ante*  
*ras.* 7 αὐτῷ αὐτὸ L N Y, Q *ante corr.* 7 ἀποτιθεμένους L ἀποτιθεμένας Y 8 [-περὶ τῶν ἐχίδνων:-]  
 L N, Y *in marg.* 10 θέρους *coniecī spatium unius verbi in* L N Y ἔαρος *inscriptum simili in spatio altera*  
*manu* Q; في أول ربيع (at the beginning of spring) Arab. circa principium veris Nicc. 10 παύρηται L, Q  
*ante corr.* παύονται Q 11 προέρχεται Q *ante corr.* προέρχεται L N Y προέρχονται *post corr.* Q 11 ἔχει  
*coniecī ἔχη* L N Y, Q *ante corr.* ἔχουσι Q 15 τυγχάνων L τυγχάνων *Chart. Kühn* 16 εἴαν Q εἴαν L N Y, Q  
*ante corr.* εἴαν *Chart. Kühn* 16 ἀπολαῦσαι τε ἀπολαύση τε L N Y ἀπολαῦσαι τε (ἀπολαύση τε *ante corr.*)  
 Q 17 τραφῆναι Q τραφῆν L N Y, Q *ante corr.* 17 βοτάνας βοτάνης *Kühn* 18 δὴ L N καὶ Q δὲ Y  
 19 πιτυοκάμπας πιτυοκάμπας L Y <πι>τυοκάμπας (πι *sup. lin.*) N π<ι>τυοκάμπας (ιτ *sup. lin.*) Q 22 καὶ  
 τὸ *rasura 3 vel 4 verborum inter* καὶ ἐτὸ *in* L 22 προκολλώτερον προκολλώτερον Y 24 τούτοις Q  
 (τούτῳ, -οις *sup. lin.*) τούτο -οι *sup. lin.* L N τούτο Y τούτῳ *edd.* 29 πλεῦνες πλέονες *Crat. Kühn* 29 αἰὲν  
 ἄρρενος Y



And when you have thoroughly roasted it in what they call an oven or in a brazier or in the pots they use to bake bread in, so that the cooking is even, take the most tender pieces out of the pot and carefully pound them small mixing in also an equal quantity of bitter vetch flour, the finest and freshest, as Damocrates stipulates. For Magnus uses half as much flour and I think makes too little, and Andromachus uses twice the quantity and I think makes too much. An equal quantity is best for kneading so pound it up with that quantity and make up equal sized pastilles, put them in the shade and keep them till you need them. [Concerning vipers:] Then you need to take your vipers enough for the whole batch you are preparing, not caught at any old time but especially around the beginning of summer when they are ending their hibernation and come out a little into the open air and no longer have such poisonous venom. For when they are hibernating inside and not going out anywhere they concentrate the destructive power within them and make it stronger, at the time when every snake is usually forming what they call the slough which is a very thick outer layer developed in the time of hibernation, and which although its name is synonymous with "old age" is dependent on the time of the snake's hibernation cycle, not its entire life cycle. So you should not take them immediately but allow them some time to enjoy the air and be nourished by their usual food. These beasts feed on various plants and on the animals which usually supply their food such as cow beetles and blister beetles and what they call stinging caterpillars. These are the foods appropriate to them. And let the beasts be yellowish and very agile and the ones that stretch out their necks most and have reddish eyes and a bold and beastly look and rather flat heads and bodies and rather distended bellies and move from the end of the tail which should not be twisted but rather tightly coiled, and are quiet in moving about. For the female differs from the male in this respect and in having two more canine teeth; so Nicander in his verse says this: Two canine teeth can be seen on the male's skin dripping poison, but the female always has more.

5R

10R

15R

20R

25R

καὶ δὴ λαβόντα αὐτὰ τῷ καιρῷ τούτῳ πρῶτον μὲν αὐτῶν χρηὴ ἀποκόπτειν τὰς κεφαλὰς  
 τε καὶ τὰς οὐράς, τοσοῦτον ἀποκόπτοντας, ὥς εἶναι τὸ μέτρον τῆς ἀποκοπῆς τεσσάρων  
 δακτύλων. ἐπιβλέπειν δὲ καὶ ἐν τῷ ἀποκόπτειν τὰ μέρη ταῦτα ἀκριβῶς παραινῶ, εἰ μετὰ  
 τὴν ἀποκοπὴν ἄναιμά τε εὐθέως καὶ ἀκίνητα καὶ πάντη νεκρὰ τὰ ζῶα εἶναι φαίνοιτο. 266  
 5 εἰ γὰρ τοιαῦτα εὐρίσκοιτο τὰ θηρία, ἄχρηστα αὐτὰ πρὸς τὴν τοῦ φαρμάκου μίξιν εἶναι  
 νόμιζε. εἰ δὲ βλέποις ἐν αὐτοῖς ἀποκοπέντων τῶν μερῶν ὑπολειπομένην κίνησιν τινα  
 καὶ τὸ ἔναιμον ἐπὶ τινα χρόνον ἀποσώζειν δυνάμενα, ταῦτα ὡς ἄριστα ὄντα, μιγνύ-  
 ναι τῇ σκευασίᾳ τῆς ἀντιδότου, οὐ γὰρ ἐξίτηλον, ἀλλὰ ἰσχυρὰν πρὸς τὸ σῶζειν ἔχοντα  
 δυνάμιν φαίνεται. εἴτα μετὰ τοῦτο ἀποδέρειν αὐτῶν ὅλον ἀκριβῶς τὸ δέρμα, ἐξαίρειν  
 10 δὲ καὶ τὸ στέαρ ὡς ἄχρηστον καὶ τὰ ἐντόσθια ἅπαντα, ἔστι γὰρ τῶν περιττωμάτων  
 δοχεῖα. καὶ μετὰ τοῦτο ἐμβάλλειν αὐτὰ λοιπὸν εἰς τι κεραμοῦν ἀγγεῖον, ὡς κάλλιστα  
 κατασκευασθὲν, ἢ εἰς λέβητα γεγανωμένον καλῶς, καὶ τοῖς ἀνθραξίν ἀνακεκαυμένοις  
 ἐπικείμενον, ἵνα ἀκνίσως ἢ ἐψησις αὐτῶν γένηται. ἐψησθῶσαν δὲ ἐν ὕδατι πηγαίῳ καὶ  
 15 ἐψηθῶσιν αἱ σάρκες καλῶς, τὸ μέτρον δὲ τῆς ἐψησεως ἔστω σοι, ὅταν αἱ ἄκανθα χω-  
 ρισθῶσι τῆς σαρκὸς τῶν θηρίων, τότε ἀνελόμενος τὸν λέβητα ἀπὸ τοῦ πυρὸς ἀκριβῶς  
 χώριζε τὰς σάρκας τῶν ἀκανθῶν, καὶ λειώσας αὐτάς, ἄρτου ὡς μάλιστα τοῦ καθαρῶ- 267  
 τάτου καὶ ἀπὸ σεμιδάλεως τῆς καθαρωτάτης γενομένου μίσγε τὸ σύμμετρον πρὸς τὴν  
 ἀνάπλασιν, ὥσπερ καὶ ὁ Ἀνδρόμαχος βούλεται. ὁ γὰρ Μάγνος, καὶ ὁ Δαμοκράτης καὶ  
 20 μέτρον τι ὀρισμένον αὐτοῖς μίγνυσθαι θέλουσιν· ἴσον γὰρ τοῦ ἄρτου πρὸς ἴσον τῶν  
 σαρκῶν ἀποστήσαντες, οὕτως αὐτάς συλλειοῦσι τῷ ἄρτι· εἴτα παραχέας τὸ αὐταρκες  
 τοῦ ζωμοῦ, οὕτως ἀνάπλασσε συμμέτρους τροχίσκους, παραπτόμενος ἐν τῇ ἀναπλάσει,  
 ὀποβαλσάμου ὀλίγου, καὶ ἐν σκιᾷ ἀποτιθέμενος εἰς τὴν τοῦ ὄλου φαρμάκου σκευασίαν  
 φύλαττε.

3 MMG II: XI 143.15-144.2 Ant. I: XIV 45.18-46.1

4 ἄναιμά τε εὐθέως εὐθέως ἄναιμά τε L N εὐθέως ἔναιμά τε Y 8 ἀλλὰ ἀλλ' L N Y ἀλλὰ om. sed add. in marg. Q 13 ἀκνίσως L N Y, LSJ sv ἀκνίσος; ἀκνίστως (vox nihili) Q qui ἀκνίσως in ἀκνίστως corr., edd. 14 ἱμήτ' Q (add. in marg.) Arab. abest in L 15 δὲ Q (add. in marg.) abest in L

Now when you catch them at this season you must cut off their heads and tails, cutting off the length of four fingers. And I advise you when you cut off these parts to look closely to see if immediately after the cutting off the creatures immediately seem bloodless and motionless and altogether dead. If you find them to be like this, consider them useless for mixing in the drug. But if you were to see in them after the cutting off of these parts some residual movement and able to preserve the blood in themselves for some time then I advise you to put these in the mix in preparing the antidote for they are the best; for they are not past their prime but clearly show their saving power. Next, carefully remove the whole skin, remove the fat which is useless and all the innards which are just a reservoir of faecal matter. Then put what is left over in a ceramic pot, prepared as carefully as possible, or into a cauldron nicely polished set on burning coals so that they will boil without burning. Boil them in spring water and add fresh salt and an equal quantity of shoots of fresh (not dry) dill. Then when the flesh is well cooked (your test for this is that the vertebrae come away from the flesh) take the cauldron off the heat and carefully separate the flesh from the spine and grind it fine, and mix it with an equal quantity of the finest bread made from the finest wheat flour in order to mould it, as Andromachus recommends. For Magnus and Damocrates recommend the addition of a defined quantity; they weigh out one part bread to one part flesh, and so grind it up with bread. Then you should pour on enough of the cooking juice and shape into even-sized pastilles, adding a little balsam juice as you shape and put on one side in the shade until you come to make up the whole drug.

5R

10R

15R

20R

[Θηριακῆς σκευασία, ἀποθήκη, ἡλικία, κρίσις, δόσις.]

Καὶ λοιπὸν τῶν ἄλλων ὅσα μὲν κόπτεσθαι καὶ σήθεσθαι χρῆ, κοσκινεῦειν κοσκίνω, ὡς ἐνὶ μάλιστα λεπτοτρήτῳ γενομένῳ. πάνυ γὰρ τὸ λεῖον πρὸς τὴν ὠφέλειαν εἶναι μοι  
 5 δοκεῖ χρήσιμον, διὰ τὸ μᾶλλον εὐπρόσθετον εἶναι τοῖς σώμασιν. ὅσα δὲ διαβρέχειν τε καὶ λειοῦν χρῆ, καὶ ταῦτα λείου καὶ τῷ οἴνῳ βρέχει. ἔστω δὲ ὁ οἶνος κάλλιτος, οἶος ὁ Φαλερινὸς γλυκὺς, †οὐ μὴν Φαυστιανὸς, ἀλλ' ὁ δριμύς Καυκῖνος καλούμενος ἄκρος. † εἴθ' οὕτως πάντα λειώσας πρόσβαλε τὸ αὐταρκες μέλι· ἔστω δὲ τὸ αὐταρκες, ὡσπερ αἱ γραφαὶ ἔχουσι, λίτραι δέκα ἀφηγημέναι μετρίως, ὥστε ἐν τῇ ἐψηῆσει πᾶν αὐτοῦ τὸ  
 10 κηρῶδες καὶ πνευματώδες χωρισθῆναι. ἔστω δὲ καὶ τὸ μέλι τὸ καλούμενον Ὑμήτιον. τὸν γὰρ θύμον τὸν ἐναυτῷ τῷ ὄρει τῷ καλούμενῳ Ὑμηττῷ γινόμενον νέμονον αἱ μέλισσαι, καὶ οὕτω κάλλιστον ποιούσι τὸ μέλι. πειρῶ δὲ καὶ τὴν ῥητίνην τερμινθίνην καὶ τὴν χαλβάνην προαποτήξας ἰδίᾳ, οὕτω πρὸς τὴν θυεῖαν ἐπιβάλλειν τῷ φαρμάκῳ, καὶ λοιπὸν ἐνώσας τὰ πάντα καὶ λειώσας ἐπιμελῶς, πάλιν παραπτόμενος τοῦ ὀποβαλσάμου  
 15 συμμέτρως, οὕτως ἀποτίθεσο τὴν ἀντίδοτον εἰς ὑάλινα ἢ ἀργυρὰ σκεύη, μὴ πάνυ πληρῶν αὐτὰ, ἀλλὰ καταλιπὼν τινα τόπον εἰς διαπνοὴν τῷ φαρμάκῳ, καὶ συνεχῶς γε ἀποπωμάτιζε αὐτὰ, ἵνα μᾶλλον διαπνήεται, καὶ ταχύτερα σοι αὐτῆς ἡ χρῆσις γενήσεται. χρόνου γὰρ εἰς πέψιν οὐκ ὀλίγου χρεῖαν ἔχει, ἵνα πρὸς τὴν χρῆσιν ἡ ἀντίδοτος πεφθῇ  
 20 καλῶς. πέσσειται δὲ ὡς ἐπὶ τὸ πλεῖστον τῷ τῶν ἰβ'. ἐτῶν χρόνῳ. οἱ δὲ ἀκμαιοτέρῳ τε 269 αὐτῇ καὶ ἰσχυροτέρῳ χρῆσθαι θέλοντες, καὶ ἐτῶν που πέντε καὶ ἐπτὰ τὸν χρόνον ἐχούσῃ, οὕτως ἐχρήσαντο, καὶ μάλιστα ἐπὶ τῶν θηριοδῆκτων τε καὶ λυσοδοῆκτων καὶ τῶν φαρμάκων τῶν δηλητηρίων. ἰσχυρὰν γὰρ οὗτοι τὴν ἀπὸ τῶν τοιούτων βλάβην ἔχοντες, δυνατωτέρας καὶ τῆς ἀπὸ τοῦ φαρμάκου βοηθείας χρεῖαν ἔχουσιν. ἔστι δὲ δυνατὸν τὸ φάρμακον ἕως ἐτῶν τριάκοντα. ὡς ἐπὶ γε τῶν ἄλλων παθῶν, ὅπου μὴ τηλικαύτη ἐστὶν  
 25 ἢ τοῦ βλάπτειν αἰτία, αὐτάρκης εἶναι δοκεῖ καὶ ἐτῶν ἐξήκοντα χρόνος εἰς τὴν χρῆσιν τοῦ φαρμάκου.

6 Pliny NH 14.63.1-5 10 Ant. I: XIV 20.16-23.1 15 Ant. I: XIV 48.13-49.3, 99.4-6

3 ὅσα μὲν L ὅσα καὶ (ὅσα μὴ ante corr.) Q ὅσα καὶ edd. 3 κοσκινεῦειν *correxī* κοσκινεῦειν (*vox nihili*) L, Q ante corr: in κοσκινουε (?) (*vox nihili*) κοσκινέειν *vox nihili* edd. 7--8 †οὐ μὴν Φαυστιανὸς, ἀλλ' ὁ δριμύς Καυκῖνος καλούμενος ἄκρος. † *conieci* ὁ μὴ Φαυστιανὸν, ἀλλ' ὁ δριμύς τε καὶ πᾶσι [καὶ] καλούμενος ἄκρος L N Y Q (Q *om.* καὶ *alterum*, *secl.* μὴ ... ἄκτος) der wein sei Falerner, süsßer, alter, nicht Faustianer Arab. Sit autem vinum falerinum antiquum Nicc. οὐ *correxit* Caius 9 ἀφηγημέναι ἀφηγημένον L N, Q ante corr: ἀφηγημένον Y 10 μέλι Q μέλαν L N Y, Q ante corr. 11 αὐτῷ L τούτῳ *sed* αὐτῷ *scribit in marg.* Q 12 τερμινθίνην Arab. *صمغ البطم om. al.* 12--13 καὶ τὴν χαλβάνην L *om. sed add. in marg.* Q καὶ χαλβάνην edd. 19 τῷ τῶν Q τούτων L τῷ μὲν Chart. 20 τὸν χρόνον τῶν χρόνων L N Y, Q ante corr. 23 δυνατωτέρας δυνατωτέραν N Y ?L 25 ἐτῶν Q ὁ τῶν L

[Chapter 14. Preparation, storage, ageing, assessment and administration of theriac]

As for the other things which need cutting and winnowing, sift them in the finest sieve available, for everything which is fine ground seems to me to be very useful because it is rather easily assimilated by the body. As for things which need soaking and pounding, pound them and soak them in wine. Let the wine be the best, such as sweet Falernian; not Faustian, but the sharp tasting wine called Caucian, from the summit of the mountain. Then when you have ground everything fine add the right quantity of honey: the right quantity should be ten pints, as the recipes say, carefully boiled down so that in the cooking all the waxy stuff and air are driven out. The honey should be the sort called Hymettian. For the bees feed on the thyme which grows on the mountain called Hymettus and therefore make the finest honey. Try to melt the resin and all-heal (*Ferula galbaniflua*) juice separately and then add them to the drug in the mortar and pound diligently, then add a suitable amount of balsam juice and bottle up the antidote in silver or glass containers, not filling them to the top, but leaving a space for the drug to breathe, and remove the lid frequently so that the antidote can breathe better and so it will be ready for your use sooner. For it needs a long time to mature until the antidote is well enough aged for use. It will usually be ready after twelve years. But those who wish to use it closer to its peak and stronger use it when it is five or seven years old, especially for bites from reptiles or mad dogs, and for poisoning; for they suffer powerful damage from these sources, and so they also need stronger help from the drug. The drug is potent for thirty years. But as for other illnesses where the cause of damage is not so great the drug appears to be useable even at sixty years.

πάνου γάρ τὸ πέρας τοῦ τοσοῦτου διαστήματος ἐξίτηλόν τε καὶ ἄτονον πρὸς τὸ βοηθῆσαι ποιεῖ τὸ φάρμακον. πολλοὶ γοῦν τινες αὐτῆς τὴν δύναμιν κρῖναι θέλοντες πρῶτον δίδόντες τὶ τῶν καθαρτικῶν φαρμάκων, εἶτα ἐπιδιδόντες τὶ τῆς ἀντιδότου πιεῖν, οὕτως αὐτῆς ποιοῦνται τὴν κρίσιν. εἰ μὲν γάρ εὐτονος καὶ ἀκμαία εἴη, οὐδ' ὄλως ἀφήσει 5 τὴν κάθαρσιν γενέσθαι, ἐκνικῶσα τῷ ἑαυτῆς δυνατῷ τοῦ καθαρτικοῦ φαρμάκου τὴν ἰσχύν. εἰ δὲ οὕτως καθαρθεῖη, ὡς μηδὲ τὴν ἀντίδοτον λαβὼν, κατάδηλον γίγνεται ὅτι 270 ἄτονός τε καὶ ἐξίτηλός ἐστιν ἢ ἰσχύς, ὡς μὴ κρατῆσαι τῆς τοῦ φαρμάκου δυνάμεως. ἔστι δὲ καὶ αὐτῆς καὶ τὸ μέτρον τῆς πόσεως οὐκ ἐπὶ πάντων τὸ αὐτὸ, ὥσπερ οὐδὲ τὸ ὑγρὸν, ᾧ διαλύοντες αὐτὴν δίδομεν. αὐτὸ, ὥσπερ οὐδὲ τὸ ὑγρὸν, ᾧ διαλύοντες αὐτὴν 10 δίδομεν. ἐπὶ μὲν γάρ τῶν προειρημένων Ποντικοῦ καρύου τὸ μέγεθος ἀνέντες μετ' οἴνου κυάθων τριῶν οὕτως αὐτὴν δίδοναι πίνειν τοῖς λαμβάνουσιν εἰώθαμεν. ἐπὶ δὲ τῶν ἄλλων παθῶν καὶ τῷ μέτρῳ καὶ τῷ ὑγρῷ διαφόρως χρῶμεθα. πρὸς γάρ τὴν τῶν παθῶν διαφορὰν ἀρμοζόμενοι καὶ τὴν ποσότητα τοῦ φαρμάκου μετροῦμεν καὶ τὸ κατάλληλον ὑγρὸν τῆς μίξεως κρίνομεν. οὐ γάρ μόνον πρὸς τὰ τῶν θηρίων δῆγματα 15 καὶ τὰ δηλητήρια φάρμακα βοηθεῖν ἢ ἀντίδοτος πέφυκεν, ἀλλὰ καὶ πρὸς τὰ μέγιστα τῶν ἄλλων παθῶν ἀλεξιτήριον φάρμακον ἐκ τῆς ἐν πείρᾳ χρήσεως ὑφ' ἡμῶν οὔσα εὐρέθη.

[Πρὸς πόσας νόσους βοηθεῖν πέφυκεν ἢ θηριακή.]

20 Γαλήνην γοῦν αὐτὴν ἐν τοῖς προκειμένοις ἔπεσιν ὁ Ἄνδρόμαχος διὰ τοῦτο, οἶμαι, κέκληκεν, ἐπειδὴ ὥσπερ ἐκ τινος τοῦ κατὰ τὰ πάθη χειμῶνος καθάπερ τινὰ γαλήνην τὴν 271 ὑγίαν τοῖς σώμασιν ἐργάζεται. κεφαλαίας γοῦν τὰς χρονίας καὶ τὰ σκοτώματα ἰᾶσθαι πέφυκε καὶ δυσηκοίας καὶ ἀμβλωπίας παύειν. ἐνίοτε δὲ καὶ τὸ τῆς γεύσεως ὄργανον 25 ἀσθενοῦν καθίστησι.

6 κατάδηλον L N Q κατάδηλος Y *edd.* 7 μὴ L μηδὲ Q 8 καὶ αὐτῆς καὶ L αὐτῆς καὶ N 10 ἀνέντες L Q *Ald.* ἀνέντες *Crat. Chart. Kühn* ἐνέντες Y 14 κρίνομεν κρίνωμεν Y 14 οὐ Q ὡς L, Q *ante corr.* 16 ἀλεξιτήριον L ἀλεξιτήριον *Crat.* 16 ἡμῶν *codd.* ὑμῶν *Ald., edd.* Sed "nobis" *trans Chart.* 23 σκοτώματα Q σκοτόματα L N Y σκοτομματα Q *ante corr.* 24 γεύσεως κινεσέως Q *ante corr.* 24 ὄργανον ὄρφανον Q *ante corr.*

Beyond this limit the drug is always past the limit and unable to help. Many wishing to test its efficacy first administer a purgative and then the antidote and test it that way. For if it is effective and in its prime it completely prevents purgation from taking place, entirely beating the power of the purgative drug by its own strength. But if the man is purged completely as if he had never taken the antidote it is made clear that its strength is gone and it is useless and so cannot overcome the power of the purgative drug. The dose of antidote is not the same in all cases and nor is the quantity of liquid in which we dilute it when administering it. For in the cases just mentioned we dissolve a piece the size of a Pontic walnut in three tablespoonfuls of wine and give it to patients to drink in that way. But for other conditions we alter both the dosage and the solvent; for we adapt to the difference between conditions in our measurement of the quantity of the drug and the appropriate solvent. For not only is the antidote of assistance in cases of reptile bites and poisoning, it has also been found by us in practice to be a protective drug in the most serious of the other conditions.

5R

10R

15R

[Chapter 15. How many diseases is theriac effective against?]

I think Andromachus called theriac “Galene” in the verses set out above because out of the storm caused by illness it produces the calm, so to speak, of health in the body. For example it cures chronic headaches and vertigo and hardness of hearing and weakness of vision, and sometimes it strengthens the organ of taste.

20R

πολλάκις δὲ καὶ τὰς ἐπὶ τῶν φρενιτικῶν παρακοπὰς γενναίως ἔπαυσεν, ὕπνον ἐπιφέρουσα· ἀπ' αὐτοῦ δὲ καὶ τὰς τῆς γνώμης ταραχὰς τε καὶ τὰς περιπλοκάς φαντασίας παύουσα καὶ ταῖς ἐπιληψίαις δὲ αὐταῖς ἀγωνιστικῶς εἶωθε βοηθεῖν, ἀναπίνουσα τὴν πολλὴν ἐκ τῆς κεφαλῆς ὑγρασίαν καὶ ἀνεμπόδιστον ποιῶσα τὴν ὁδὸν τῷ πνεύματι.

5 βοθηεῖ δὲ καὶ τοῖς δυσπνοοῦσιν, ὅταν ἐγκείμενά τινα παχέα φλέγματα εἰς τὰς σήραγγας ἢ τοῦ πνεύμονος, ἀναπνεῖν κωλύοντα τὸν ἄνθρωπον, εὐκόλως τέμνουσα καὶ εὐανάγωγα ποιῶσα καὶ λεπτύνουσα τὰ συνεστῶτα, καὶ γλίσχρα τῶν ὑγρῶν. καὶ τοὺς αἷμα δὲ ἀνάγωγας πάνυ ὠφελεῖ, εἴ τις αὐτὴν σύμφυτον ἀφεψήσας καὶ ἀνιείς τῷ ὕδατι οὕτως ἐπιδόψῃ. πολλάκις δὲ καὶ τὰς περὶ τὸν στόμαχον κακώσεις θεραπεύειν εἶωθε καὶ ἀνό-

10 ρεκτον αὐτὸν ὄντα καὶ τὰς τροφὰς λαμβάνειν μὴ δυνάμενον εἰς τὸ προσίεσθαι αὐτὰς ἠδέως κατέστησεν. ἐνίοτε δὲ καὶ τὴν ἐπιτεταμένην ἀλόγως ὄρεξιν ἐκ τινος παρακειμένης αὐτῷ δριμυτέρας καὶ δακνῶδους οὐσίας ἀγωνιστικῶς ἔπαυσε, καὶ ἐλμίνθων τοῖς ἐντέροις ἐγκειμένων, καὶ διὰ τοῦτο αὐτοῦ τοῦ στομάχου ἀπλήστως τῆς τροφῆς ὄρεγομένου πνίγον τὰ θηρία τὸ φάρμακον τῆς πολλῆς πείνης γενναίως ἀπήλλαξεν. ἔτι καὶ

15 τὴν μεγίστην, καὶ πλατεῖαν ἔλμινθα γενομένην καὶ πᾶσαν τὴν εἰσφερομένην τροφὴν ἐκνεμομένην, καὶ διὰ τοῦτ' ἐκτίκουσιν τὸ ἄλλο πᾶν σῶμα, θαυμασίως ἐξάγει τῶν ἐντέρων. καὶ τὰς ἥπατικὰς διαθέσεις ἰᾶται πολλάκις, ἐκλύουσα τὰς ἐμφράξεις καὶ τὰς περὶ τὸ ἥπαρ διαθέσεις ἰωμένη. καὶ τὸν ἴκτερον διὰ τινα παρὰ τὸ ἥπαρ διάθεσιν γιγνόμενον γενναίως θεραπεύει, ἀποκαθαίρουσα τὴν χολὴν καὶ ὥσπερ ἀπομάττουσα καὶ ποιῶσα

20 τὸ ἥπαρ διακρίνειν αὐτὴν καὶ ὥσπερ ἀπομάττουσα καὶ ποιῶσα τὸ ἥπαρ διακρίνειν αὐτὴν ἀκριβῶς ἀπὸ τοῦ σώματος. τήκει δὲ ἐνίοτε καὶ τοὺς σπληνας τοῖς ἐσκιρρωμένους, κατ' ὀλίγον ἀναλίσκουσα τὴν ἐν αὐτοῖς ρυπαρίαν καὶ περιττὴν οὐσίαν. θρύπτει δὲ καὶ

25 τοὺς ἐν νεφροῖς λίθους, καὶ πᾶν τὸ γεῶδες ἐν αὐτοῖς καὶ ρυπαρὸν ἀποκαθαίρει ῥαδίως, καὶ τὰς τῆς κύστεως δυσουρίας παύει, καὶ τὰς ἐν αὐτῇ ἐλκώσεις ἰᾶται πολλάκις, καὶ τὰς περὶ τὴν κοιλίαν δυσπεψίας τε καὶ ἀτονίας θεραπεύει, θερμαίνουσα καὶ τονοῦσα τῆς γαστρὸς τὸ σῶμα, καὶ τῶν ἐντέρων τὰς ἐλκώσεις καὶ τὰς δυσεντερίας αὐτὰς καὶ τὰς λειεντερίας ἀπαλλάττειν εἶωθε.

## 4 CML II: XII 582.18-583.8

1 φρενιτικῶν Chart. freneticis Nicc. νεφριτικῶν codd. Ald. Crat. 2--3 ἀπ' αὐτοῦ...παύουσα Q secl. τοῖς ὕπνοις post παύουσα codd. edd., delevi 5 σήραγγας L sirangas pulmonis Nicc. σὺριγγας post corr. e σήραγγας Q 6 ἢ τοῦ πνεύμονος L N Y, ἢ Q ante del. 6 κωλύοντα L κωλύονται Q κωλύονται Chart. 8 ἀφεψήσας L ἐφεψήσας edd. ?Q post corr. e ἀφεψήσας 12 καὶ ἢ L N Y 13--14 καὶ διὰ τοῦτο...ὄρεγομένου καὶ διὰ τοῦτο αὐτὸν ἀπλήστως τῆς τροφῆς ὄρεγομένου L N Y, Q ante corr. 14 ἔτι ὅτε L N Y, Q ante corr. 17 ἥπατικὰς L; Q add. in marg. καὶ σπληνικὰς post ἥπατικὰς 18 ἥπαρ L; Q add. in marg. καὶ σπληνα post ἥπαρ 21 σώματος Arab. ἥπατος L N Y, Q ante corr. αἵματος Q



And it has often nobly stopped the frenzy of the phrenetic by inducing sleep; and it has caused disturbances of the mind and the entanglements of the imagination to cease by sleep. And it brings heroic relief even to cases of epilepsy, drinking up the large quantity of fluid in the brain and clearing the airways. And it helps those with trouble breathing when thick phlegm builds up in the hollows of the lungs and prevents a man from breathing, cutting and thinning and rendering removable the build-up of sticky fluid. 5R  
And it greatly helps those bringing up blood if boiled up with comfrey and dissolved in water and so administered. And it often cures ill of the stomach and makes the man who has lost his appetite and cannot take food turn to it with relish. And sometimes it has heroically put an end to an unreasonably intensified appetite arising from some sharp and biting substance in him, and when worms are infesting his innards and his stomach is therefore insatiably yearning for food the drug has choked the beasts and given noble relief from his great hunger. 10R  
It does a wonderful job of expelling from the innards even the very biggest flatworm which eats all the food which reaches the stomach and therefore causes the whole of the rest of the body to melt away. It often heals ailments of the liver, clearing blockages and healing conditions of the liver. 15R  
And it nobly cures jaundice arising from a condition related to the liver, clearing away the bile and as it were wiping it away and making the liver neatly clear it from the blood. And it sometimes softens sclerotic spleens, gradually consuming the foulness and excess matter from them. 20R  
And it breaks down kidney stones and easily clears away the earthy and foul matter in them, and causes the cessation of difficulty in urinating in the bladder, and heals wounds in the bladder and cures dyspepsia and weakness in the guts and warms and strengthens the body of the stomach, and puts a stop to wounds and illnesses of the innards, and the passing of food undigested.

ὠφελεῖ δὲ καὶ τοὺς εἰλεωδῶς τὰ ἔντερα διατιθεμένους καὶ τοὺς χρονίως τῇ κωλικῇ δι-  
 αθέσει περιπεπωκότας, μάλιστα ὅταν ἀφλέγμαντα ἢ τὰ ἔντερα, ἐξαναλίσκουσα τὰς ἐν  
 αὐτοῖς δριμύτητας τῶν ὑγρῶν καὶ διατιμίζουσα τὰς πνευματώσεις τῶν ἐντέρων. ἐνίοτε  
 δὲ καὶ τοῖς χολεριώσι γενναίως βοηθεῖ, τονοῦσα τὴν σύγκρισιν καὶ ἐπέχουσα τὰ πολλὰ  
 5 τῶν ρευμάτων. τὸ μέγιστον δ' αὐτῆς ἔργον πολλάκις ἐπὶ τῶν καρδιακῶν φαίνεται. ρεο-  
 μένου γὰρ τοῖς πολλοῖς καὶ συνεχέσιν ἰδρῶσι τοῦ σώματος καὶ τῶν τόνων λελυμένων,  
 μηδὲ τοῦ οἴνου πολλάκις κρατεῖν τοῦ πάθους δυναμένου, ἢ ἀντίδοτος πινομένη καὶ τοὺς  
 ἰδρῶτας ἴστησι καὶ τὴν δύναμιν πίπτουσαν ὡσπερ ἀνίστησι καὶ ἰσχυρὰν ἀπεργάζεται. 274  
 ἔστι δὲ ἐπὶ τῶν γυναικῶν καὶ τῶν καταμηνίων αἱμάτων ἀγωγὸς καὶ τὰς ἐν τῇ μήτρᾳ καὶ  
 10 ἔδρᾳ γινομένης αἱμορροΐδας ἐπισχεθείσας πολλάκις ἀναστομοῖ. θαυμασίως δὲ καὶ τὰς ἐν  
 ἀμέτρους τῶν αἱμάτων ἀποκρίσεις εἴωθεν ἐπέχειν. μέμνηται γὰρ ὅτι μικτὴν καὶ ποικί-  
 λην τὴν δύναμιν αὐτῆς ἐν τοῖς ἔμπροσθεν εἵπομεν καὶ διὰ τοῦτο τὰ μὲν διαχέουσα καὶ  
 λεπτίνουσα ἐκκρίνεσθαι ποιεῖ, τὰ δὲ δι' ἀτονίαν τῆς ἐμφύτου δυνάμεως ἀποκρινόμενα  
 περιττῶς, ταῦτα τονοῦσα τὴν δύναμιν τῶν σωμάτων εἴωθεν ἐπέχειν. καὶ τοὺς ποδαγρι-  
 15 ῶντας δὲ καὶ τοὺς πάντα τὰ ἄρθρα ρευματιζομένους ὠφελεῖ μάλιστα τότε, ὅταν ὁ τῆς  
 ἐπιδόσεως καιρὸς παρέλθῃ καὶ ἡ στάσις τῆς ἀκμῆς γένηται. παραμυθούμενον γὰρ τὰ  
 ἀλγήματα τοῖς παρηγορεῖν δυναμένοις ἐπιθέμασι διδόναι πίνειν χρὴ τοῦ φαρμάκου, ἵνα  
 ἐπέχῃται τὰ ρεύματα. ἐξαναλίσκει γὰρ αὐτὰ ἢ ἀντίδοτος τὰ ἤδη ἐπενεχθέντα καὶ ἄλλα  
 κωλύει φέρεσθαι. μάλιστα δὲ ὀνίνησιν ὅταν τις αὐτὴν καὶ ὑγιαίνων συνεχῶς λαμβάνῃ,  
 20 ἐκδαπανᾶται γὰρ τὰ περιττὰ τῶν ὑγρῶν καὶ τὴν ὄλην ἀλλοιοῖ σύγκρισιν. τὰ μὲν γὰρ  
 ἄλλα τῶν φαρμάκων, ὅσα εἰς ἀπαλλαγὴν τοῦ νοσήματος οἱ ποδαγριῶντες πίνουσι, τὴν  
 25 μὲν ἐπὶ τοὺς πόδας τοῦ ρεύματος φορὰν κωλύει γίνεσθαι, οὐκ ἐξαναλίσκοντα δὲ τὴν  
 περιττὴν τούτων ὑγρασίαν ἄλλου τινὸς μείζονος νοσήματος γένεσιν ἐργάζεται. πλανω-  
 μένου γὰρ ἐν τῷ σώματι τοῦ ρεύματος ὁ πνεύμων ἀεὶ κινούμενος διὰ τὴν τῆς ἀναπνοῆς  
 ἀνάγκην, καὶ διὰ τὸ μανὸν τοῦ σώματος δέξασθαι τὸ ρεῦμα ῥαδίως δυνάμενος, τὸ πᾶν  
 αὐτὸς ἐφ' ἑαυτὸν ἔλκων, οὕτω πνίγει τὸν ἄνθρωπον, ὅπερ ἱστορικῶς ἐπὶ πολλῶν ἐγὼ  
 τῇ πείρᾳ κατέμαθον, καὶ διὰ τοῦτο ἀποσυμβουλεύω μηδ' ὅλως πίνειν ταῦτα τὰ φάρ-  
 μακα. τῇ δὲ θηριακῇ ἐν τοῖς τοιοῦτοις χρῆσθαι καὶ πάνυ παραινῶ· καὶ γὰρ ξηραίνουσα  
 τὰ περιττὰ τῶν ὑγρῶν ὠφελεῖ καὶ ἕτερα συλλέγεσθαι οὐκ ἔῃ.

3 πνευματώσεις Q Arab. ἔμπτώσεις L N Y, Q *ante corr.* 5 δ' Q *abest in L* 5--6 ρεομένου ραινο-  
 μένου L N Y, Q *ante corr.* 6 τοῦ σώματος καὶ τῶν τόνων λελυμένων Q τὸ σῶμα καὶ τοῖς τόνους λε-  
 λυμένου L, τὸ σῶμα καὶ τοῖς τόνους λελυμένου N Y, τοῦ σώματος καὶ τῶν τόνων λελυμένου Q *ante corr.*  
 MISREADING L NOT N follows 8 πίπτουσαν πίνουσαν L, Q *ante corr.* 8 ἀνίστησι L N Y, ἐξάνιστησι  
 Q *post corr.* 15 ρευματιζομένους L ρευματιζομένης Y 18 αὐτὰ L *om.* Q 28 γὰρ L *om.* N *om. sed*  
*add. in marg.*

And it helps those with an obstructive disorder of the innards and those ill with chronic colic, especially when there is no phlegm in the innards, clearing away what is sharp in the fluid in them and causing gases to evaporate. And it often gives noble help to the choleric, strengthening the constitution and keeping in check most of their flux. But its greatest work often appears in the case of heart patients. For when the body is continually sweating in great quantity with its power undone, often when not even wine can master the disease, drinking the antidote stops the sweating and shores up as it were the failing strength and fortifies it. And in the case of women it causes the menses to flow and opens up blocked haemorrhoids in the womb and the anus. And it is wonderfully effective in stopping the unrestrained secretion of blood. For remember that we said above that its effect is mixed and complex and therefore that in some cases it can dissolve and reduce and cause secretions, but in other cases, where there is excessive secretion because of weakness of the natural power of the body, it tones up that power and stems the secretion. And it very much helps the gouty and those with a flux in all their joints particularly at that time when the time of the disease's increase is past and it stabilises at its peak. For you should reduce the pain with soothing ointments and give the patient a drink of the drug to stop the flux. For the antidote expels what has already been brought in and prevents others from entering. And it greatly helps when a healthy man takes it continuously for it removes excess fluids and alters the whole constitution. For other drugs which the gouty take to cure the disease prevent the flow of liquid to the feet, but by not removing the excess of fluid they cause the onset of another and graver illness. For the fluid wanders about in the body and the lungs, always in motion because of the need to breathe, and easily able to accept fluid because of their open texture, draw all the fluid into themselves and so stifle their owner. I myself have seen this in the past in many cases and so I always advise strongly against taking such medicines, and very much recommend the taking of theriac in these circumstances; for it greatly helps in drying out excessive moisture and does not allow more moisture to be collected.

πολλοὶ γοῦν ἐν ἀρχῇ συνεχῶς πίνειν ἀρξάμενοι ἀπηλλάγησαν τελέως τοῦ πάθους, καὶ  
τούτῳ γε οἶμαι τῷ λόγῳ καὶ τοὺς ὑδεριῶντας πολλάκις μεγάλως ὠφέλησεν, ἐκδπα-  
νῶσα τὸ ἐν αὐτοῖς ὑγρὸν ἀκὶ κατεψυγμένον, τὸ ἔμφυτον θερμὸν ἀναθερμαίνειν δυ-  
ναμένη, καὶ μάλιστα τοὺς ἀνασάρκας καὶ λευκοφλεγματίας λεγομένους ὑδρωπας γεν-  
5 ναίως εἴωθεν ὠφελεῖν, εἰς ὅλον τὸ σῶμα ἀναδιδομένη καὶ πολλαχόθι ἐκθλίβουσα τῶν  
σαρκῶν τὴν ὑγρασίαν. διόπερ καὶ τῆς καχεξίας λεγομένης ἄριστόν ἐστι φάρμακον, με-  
τασυκρίνουσα τὴν ἐξιν τοῦ σώματος, καὶ τὰ μὲν περιττὰ διαφοροῦσα, τὴν δὲ φύσιν  
ἐνεργεῖν εὐτόνως τὰς φυσικὰς ἐνεργείας παρασκευάζειν δυνάμενη. τούτῳ δὲ τῷ τρόπῳ  
τῆς βοηθείας καὶ τοῖς ἐλεφαντιῶσι πολλάκις ἐπικουρεῖν πέφυκε. πολλοῦ γὰρ ὄντος τοῦ  
10 διεφθορότος ρεύματος καὶ σηπούσης τῆς τούτου δυνάμεως τὴν ὄλην σύγκρισιν, ἐκνι-  
κᾶν εἴωθεν ἢ ἀντίδοτος τὸ νόσημα, ἐπέχουσα μὲν τοὺς ρευματισμοὺς, καλύουσα δὲ καὶ  
τὴν διαφθορὰν γίνεσθαι τοῦ αἵματος. τοὺς δὲ τετανικῶς σπωμένους καὶ αὐτοὺς πολ-  
λάκις ἐθεράπευσε, θερμαίνουσα τὰ νεῦρα καὶ τὰς τάσεις αὐτῶν χαλῶσα, ὥσπερ δὴ καὶ  
τὰς παραλύσεις τῶν μερῶν ἐξιωμένη πολλάκις καὶ ἀναζωπυρεῖν ποιούσα τὸ πνεῦμα εἰς  
15 τὸ κατὰ φύσιν ἦγαγε καὶ τὰς κινήσεις τοῖς μέρεσιν ἐνεργεῖν ἀπέδωκε. θαυμάζειν δὲ ἔστι  
τὴν ἀντίδοτον, ὅταν μὴ μόνον αὐτὴν τὸ σῶμα πάσχον θεραπεύουσαν βλέπωμεν, ἀλλὰ  
καὶ αὐτὴν τὴν ψυχὴν πολλάκις ὑπὸ τῶν παθῶν διατιθεμένην κακῶς ὠφελεῖν δυνάμε-  
νην. τὰς γοῦν ἐκ τῆς μελαγχολίας γινομένας αὐτῇ κακώσεις παύει διδόμενον συνεχῶς  
20 τὸ φάρμακον, ὥσπερ ἐκπίνον καὶ ἐξαναλίσκον ἐκ τῶν ἀγγείων καὶ ἐκ τοῦ σπληνὸς τὴν  
μέλαιναν χολὴν, καθάπερ καὶ τὸν ἰὸν τῶν θηρίων, διόπερ καὶ πρὸς τὸν πυρετὸν τὸν  
τεταρταῖον μάλιστα ἀρμόζει καλῶς. ὑπὸ γὰρ τῆς μελαίνης χολῆς γιγνόμενος ὁ πυρε-  
τὸς οὗτος εὐκόλως ὑπὸ τῆς ἀντιδότου ἀπαλλάττεται, μάλιστα ὅταν τις αὐτῇ τεχνικῶς ἢ  
χρῶμενος, ἔγωγ' οὖν πολλοὺς τῶν τεταρταίζόντων τῇ ἀγωγῇ ταύτῃ χρησάμενος ἀπὴλ-  
λαξα ῥαδίως τοῦ νοσήματος, προκενώσας αὐτοὺς τῷ ἀπὸ δείπνου ἐμέτῳ, εἶτα τῇ ἐξῆς  
25 ἐπιδοὺς τὸν χυλὸν τοῦ ἀψινθίου, ἵνα ἐπιγλυκάνω καὶ κατακεράσω τὴν χολὴν, οὕτως  
πρὸ ὠρῶν δύο τῆς ἐπισημασίας τὴν ἀντίδοτον δίδωμι. καὶ θαυμαστῶς οἶδα πολλάκις  
ἐπιτυχοῦσαν αὐτὴν, ὡς ταχέως ἀνεπισήμαντον μείναι τὸν λαμβάνοντα.

1 πολλοὶ Q πολλὰ L N Y, Q ante corr. 1 ἀρξάμενοι Q ἀρξάμενα L N Y, Q ante corr. 2 τούτῳ Q τούτο  
L N Y, Q ante corr. 4 καὶ Q om. L om. sed add. in marg. Q 11 καὶ L om. Q 12 διαφορὰν L διαφορὰν  
Q ante corr. 16 τὸ σῶμα L om. Kühn 16 πάσχον L πάσγων Y 19 ὥσπερ ἐκπίνον καὶ Q ἐκπίνον ὥσπερ  
L N Y, Q ante corr. 20 τῶν θηρίων L Y sup. lin. scribit-ον, -ιον 21 γιγνόμενος L γενόμενος Q 24 τοῦ  
νοσήματος Q om. L N Y

Many who from the beginning have started continuously taking it have completely recovered from the disease, and in this way I think it has also often greatly helped dropsy sufferers, dispersing the fluid and cold in them, having the power to warm up the natural heat; and it has often nobly helped those with dropsy in the flesh and the so-called white-phlegmed, being distributed to the whole body and in many places squeezing the moisture out of the flesh. So it is also the best medicine for so-called bad disposition, altering the state of the body and bearing away what is there in excess, but having the power to cause nature to invigorate the strength of the body. And by helping in this way it has often aided sufferers of elephantiasis. For as there is much corrupted fluid and as its power is rotting their whole constitution, the antidote tends to overcome the disease, stemming the fluxes and preventing the corruption of the blood. Those convulsed by tetanus it has also often cured, warming the sinews and slackening their tension, as indeed it has often thoroughly cured paralysis of the limbs and rekindled the breath to its natural state and restored the power of movement to the limbs. And we can wonder at the antidote when we not only see it healing the suffering but also because we often see that it can help the soul itself when it is disordered by disease. For example the drug given continuously stops injuries to the soul arising from melancholy as if it drinks up and discharges black bile from the blood vessels and the spleen, as it does with the venom of animals, for which reason it works especially well against the quartan fever. For this fever being caused by black bile is easily stopped by the antidote especially when used with skill. For example I have easily cured many quartan fever patients of the disease by the use of this remedy, first emptying them with an emetic after supper, then next day giving wormwood juice so as to sweeten and dilute the bile, and so within two hours of the symptoms appearing I administer the antidote. And I know that it often works wonderfully because the patient quickly becomes and remains symptom free after taking it.

[Μεθοδικῶν ἔλεγχος ἄχρηστον εἶναι νομιζόντων τὸ εἰδέναι τὰς τῶν νόσων αἰτίας· καὶ πάλιν τὰ χρήσιμα τῆς θηριακῆς διεξίησι.]

Καὶ τὸν ὑδροφόβον δὲ, τὸν κάκιστον τῶν νοσημάτων, τοῦτο τὸ φάρμακον πολλάκις 278  
ἀπαλλάττειν εἴθε καὶ θαυμασίως ἀνταγωνίζεσθαι τῇ τῶν τοσούτων κακῶν συνδρομῇ.  
5 οὐ γὰρ μόνον αὐτοῖς τὸ σῶμα ζηραίνεται καὶ σπώμενον γίνεται ἐνίοτε καὶ πυρετὸν  
δρμείως ἔνδοθεν καίεται, ἀλλὰ καὶ γνώμη παρανοεῖ καὶ τὸ χαλεπώτατον αὐτοῖς φέρει  
σύμπτωμα. τὸ γὰρ ὕδωρ φοβοῦνται καὶ διὰ μὲν τὴν πολλὴν ξηρότητα τοῦ ὑγροῦ ἐπιθυ-  
μίαν ἔχουσι καὶ τοῦ πιεῖν ἀπέχονται, διὰ δὲ τὴν παρακοπὴν τὸ ὠφελῆσαι δυνάμενον οὐκ  
10 κακῶς, ἐφ' ὧν μάλιστα καὶ τοὺς μεθοδικοὺς ἐγὼ θεθαύμακα, ἀχρήστους γὰρ τὰς αἰτίας  
πρὸς τὰς θεραπείας εἶναι λέγοντες οὐκ οἶδ' ὅπως καὶ θεραπεύειν ποτὲ τούτους δύναν-  
ται, ἀπλοῦ τοῦ δῆγματος ὄντος καὶ ὁμοίου φαινομένου τῷ ὑπὸ τοῦ μὴ λυσσῶντος κυνός  
δεδηγμένῳ. τίνα γὰρ καὶ θεραπείας τρόπον αὐτοῖς ἐνδείξεται, ἀπερισκέπτως ὀρώμενον  
15 τὸ τραῦμα τοῦ σώματος, μὴ ἐξεταζομένης ὑπ' αὐτῶν τῆς ἔνδον αἰτίας οὔσης καὶ τοῖς  
μὲν ὀφθαλμοῖς τοῦ μεθοδικοῦ μὴ ὀρωμένης, ὑπὸ δὲ τοῦ λογικοῦ ἱατροῦ μόνῳ τῷ λογι-  
σμῷ καὶ τῇ ἐξετάσει ἀκριβῶς ἐξευρισκομένης; διὸ καὶ ὁ μεθοδικῶς θεραπεύοντι κακῶς 279  
ἐμπεσὼν ἄθλιος, ὥσπερ ἀλόγῳ τινὶ καὶ αὐτῷ ὄντι θηρίῳ, πάντως τεθνήξεται, ἀκολού-  
θως ἀπολλύμενος αὐτοῦ τῇ αἰρέσει, ἐπεὶ διὰ τὴν ἀκολουθίαν τοῦ δόγματος ὁ μεθοδικὸς  
ἐξετάζειν τὴν αἰτίαν οὐ βούλεται. ὁ δὲ εὐτυχῶς τῷ μετὰ λόγου θεραπεύοντι προσελθὼν  
20 οὔτε τοῖς οὕτω πονηροῖς συμπτώμασιν ἀλώσεται ῥαδίως καὶ τὸν θάνατον ἐκφεύξεται  
διὰ τὴν τοῦ λογικοῦ ἱατροῦ τέχνην. παραλαβὼν γὰρ αὐτὸν ὁ τοιοῦτος ἱατρὸς εὐθέως  
ἀκριβῶς ἐξετάσει ὁποῖός τις ἦν αὐτὸν ὁ κατεδηδοκῶς κύων. εἰ γὰρ ἀκούσεις ὅτι ἰσχνὸς  
μὲν καὶ κατάξηρος τῷ σώματι, καὶ τοῖς ὄμμασιν ἐξέρυθρος, καὶ τὴν οὐρὰν παρειμέ-  
25 νος καὶ τὸν ἀφρὸν ἐκ τοῦ στόματος ἔχων ῥέοντα, μάθεις δὲ ὅτι καὶ τὴν γλῶτταν ἐξῶ  
εἶχε προβεβλημένην καὶ ὥσπερ χολὴν κεχρωσμένην, ἐμπίπτων τε τοῖς ἐντυγχάνουσι  
καὶ ἀλόγως τρέχων, εἶτα πάλιν αἰφνίδιον ἐστάναι θέλων καὶ δάκνων μετ' ὀργῆς τινος  
μανικωτέρας ἀπροοράτους αὐτοῦ γενομένου, εἰ ταῦτα ἀκούσεις οὕτως ἔχοντα, εὐθέως  
μὲν συνήσεις λυττῶντα γεγονέναι τὸν κύνα.

11 *Sect. Int.* I 85.15-19; 88.4-89.5

3 δὲ L καὶ Y 10 ἐγὼ *post* ἐφ' ὧν Q *habet* 10 τὰς L *om.* Q 12--13 κυνὸς δεδηγμένῳ L δεδηγμένῳ  
κυνὸς Q 13 αὐτοῖς Q αὐτῷ L N Y, Q *ante corr.* 18 ὁ μεθοδικὸς L N Y *om. al.* 27 ἀπροοράτους L  
ἀπροοράτους, -ως *sup. lin.* N 27 γενομένου L γενομένου N Y 27 ἀκούσεις L ἀκούσης Q *edd.*

[Chapter 16. Refutation of the Methodists who think there is no value in knowing the causes of diseases; further exposition of the uses of theriac]

And this drug often cures hydrophobia, the worst of the diseases and acts heroically against the dire combination of symptoms it presents. For in hydrophobia not only does the body dry out and becomes shaken and burns intensely with fever from within but it also deranges their understanding and thereby brings them its most dangerous effect. For they fear water and because of their great dryness they have a longing for liquid and yet they refrain from drinking, and because of their madness they do not realise that it would help them. For fleeing from water in fear they die horribly of the most pitiful death; in this context I have often wondered at the methodists, for as they say that explanations are of no value for treatment I do not see how they can treat these patients, since there is one bite only and it looks the same as the bite of a non-rabid dog. For what sort of treatment does it suggest to them, the thoughtless examination of the physical wound, the inner cause not being examined by them or seen by the eyes of the methodist, but being accurately discovered by the philosophical doctor just by reasoning and enquiry? So the wretch who has the misfortune to end up in the hands of a Methodist doctor, who seems as if he were another unreasoning beast, will die for sure, his destruction following from that choice, because the doctor, following his dogma, is unwilling to seek for a cause. But the lucky patient who goes to a doctor who treats his patients with the aid of reason will not easily be caught by such evil consequences of the bite and will escape death because of the skill of the reasoning physician. For such a doctor on taking on his case will immediately make careful enquiry as to what the dog that bit him was like. If you hear that it was withered and dry in its body and very red in the eyes with its tail down and foam running from its mouth, and if you were also to learn that it has its tongue hanging out and as it were bile-coloured, attacking bystanders and running aimlessly, then suddenly wishing to stand still and biting with a certain manic rage the unwary; if you hear all this you will immediately understand that the dog has gone mad.

5 θεραπεύσεις δὲ οὐχ ἀπλῶς οὕτως ὥσπερ ὁ μεθοδικὸς τὸ τραῦμα, ἀλλ' εὐθέως μὲν αὐτὸ 280  
 καὶ μείζον ἐργάση, περιτεμῶν τὴν σάρκα, ἐκ πολλοῦ τοῦ διαστήματος καὶ κυκλοτερὲς  
 αὐτοῦ τὸ σχῆμα ποιῶν, ἵνα μὴ ῥαδίως ἐπουλοῦσθαι δύναται, ἀλλ' ἵνα ἔχοι ἀνεφρότα  
 τὸν πόρον, εἰς πολὺ τοῦ χρόνου τὸ μῆκος τοῦλάχιστον εἰς τὰς τετταράκοντα ἡμέρας,  
 10 καὶ ἐξέλθοι διὰ τούτου ἰδὸς τοῦ κυνός. καυτηρίους γοῦν εἰώθαμεν πάνυ πεπυρακτωμέ-  
 νοις ἐπικαίειν τὸν τόπον καὶ κεχρήσθαι τοῖς ἄλλοις φαρμάκοις ὅσα ἐπισπαστικά ἐστί,  
 καὶ ἔνδον τῆς σαρκὸς τὸν ἰὸν μένειν οὐκ ἔαν. ἐγὼ δὲ ἐπινοήσας ποτὲ, καὶ τὴν ἀντίδοτον  
 αὐτὴν ἀνήκα τῷ ἀπὸ τῶν ῥόδων σκευαζομένῳ ἐλαίῳ, καὶ ὡς τι φάρμακον ἔμμοτον ἐπέ-  
 15 10 διαφθεῖραι δυνάμενον· καὶ ὅλως καθάπερ τι παιώνιον φάρμακον ἢ θηριακὴ καὶ ἐξωθεν  
 ἐπιτιθεμένη καὶ πινομένη τοῖς λυσοδοῆκτοις ἀκριβῶς βοηθεῖ. ἐφάνη δὲ ἡμῖν ἢ ἀντίδο-  
 τος αὕτη καὶ ἐν ταῖς λοιμικαῖς καταστάσει μόνῃ τοῖς ἀλισκομένοις βοηθεῖν δυναμένη,  
 20 μηδενὸς ἄλλου βοηθήματος τῷ μεγέθει τοῦ κακοῦ ἀντιστῆναι οὕτως πεφυκτός. ὥσπερ 281  
 γὰρ τι θηρίον καὶ αὐτὸς ὁ λοιμὸς οὐκ ὀλίγους τινὰς, ἀλλὰ καὶ πόλεις ὅλας ἐπινεμόμενος  
 15 διαφθεῖρει κακῶς, τροπῆς τινος μοχθηρᾶς εἰς τὸ διαφθεῖρειν δύνασθαι περὶ τὸν ἀέρα  
 γιγνομένης, καὶ τῶν ἀνθρώπων τῇ τῆς ἀναπνοῆς ἀνάγκῃ τὸ δεινὸν φεύγειν μὴ δυνα-  
 μένων, ἀλλὰ αὐτὸν εἰς αὐτοὺς ὥσπερ τι δηλητήριον διὰ στόματος ἐλκόντων τὸν ἀέρα.  
 20 διόπερ ἐπαινῶ καὶ τὸν θαυμασιώτατον Ἰπποκράτην, ὅτι τὸν λοιμὸν ἐκεῖνον τὸν ἐκ  
 τῆς Αἰθιοπίας εἰς τοὺς Ἕλληνας φθάσαντα οὐκ ἄλλως ἐθεράπευσεν ἀλλ' ἢ τρέψας τὸν  
 20 ἀέρα καὶ ἀλλοιώσας, ἵνα μηκέτι τοιοῦτος ὢν ἀναπνέηται. κελεύσας οὖν ἀνὰ τὴν πόλιν  
 ὅλην ἐξάπτεσθαι τὸ πῦρ, οὐχ ἀπλῆν τῆς ἀνάψεως τὴν ὕλην ἔχον, ἀλλὰ στεφάνων τε  
 καὶ τῶν ἀνθῶν τὰ εὐωδέστατα, ταῦτα συνεβούλευσεν εἶναι τοῦ πυρὸς τὴν τροφήν, καὶ  
 ἐπισπένδειν αὐτῷ τῶν μύρων τὰ λιπαρώτατα, καὶ ἠδεῖαν τὴν ὀδμήν ἔχοντα, ἵν' οὕτω  
 25 25 καθαρὸν γενόμενον οἱ ἄνθρωποι ἀναπνεύσωσιν εἰς τὴν ἀπαλλαγὴν τὸν ἀέρα. τὸν αὐ-  
 τὸν τρόπον νομίζω καὶ τὴν θηριακὴν, ὥσπερ τι καὶ αὐτὴν οὕσαν πῦρ καθάρσιον, τοὺς 282  
 μὲν προπίνοντας αὐτὴν ἐν τῇ λοιμικῇ καταστάσει μὴδ' ὅλως ἔαν ἀλίσκεσθαι τῷ κακῷ,  
 τοὺς δὲ ἤδη φθάσαντας παθεῖν ἐξιᾶσθαι δύνασθαι, ἀλλοιοῦσαν καὶ τρέπουσαν τὴν τοῦ  
 ἀναπνευσθέντος ἀέρος πονηρίαν καὶ μηκέτ' ἐῷσαν διαφθεῖρειν τὴν σύγκρισιν.

18 Pliny *NH* 7.123.6-9, 36.202.1-4 Varro *Res Rusticae* 1.4.5.1-3 Plutarch *de Iside et Osiride* 383 c-d

2 ἐργάση Q ἐργάζεται L N Y, Q *ante corr.* 2 καὶ Q *om.* L N Y 3 ἵνα L N Y Q *om. edd.* 5 καὶ ἐξέλθοι...κυνός Q καὶ ἐξέλθοι διὰ τούτων τον ἰὸν τοῦ κυνός L N Y, Q *ante corr.* 7 ἔαν *conieci ēq̄ codd. edd.* 9 τις σικύα τινα σικύαν L N Y, Q *ante corr.* τις σικύα *edd.* 12 λοιμικαῖς λογικαῖς *ante corr.* 14 ὀλίγους τινὰς Q ὀλίγας τινὰς L, Q *ante corr.* Q 14 πόλεις L πόδας *ante corr.* Q 14 ἐπινεμόμενος L ἐπινεμμένης *ante corr.* 17 εἰς αὐτοὺς Kühn εἰς ἑαυτὸν L εἰς ἑαυτὸν *vel sim. om. sed add. in marg.* Q εἰς αὐτοῦ *Ald.* εἰς αὐτὸς *Crat.* 22 ταῦτα L τοιαῦτα Q *post corr.* 23 ἐπισπένδειν *Chart. qui superfundit transtulit* ἐπισπεύδειν *codd. edd.* 26 ἔαν Q *add. in marg.* 28 ἀναπνευσθέντος *Crat.* ἀναπλασθέντος L N, Q (*cum obelo*), *Ald.*, *Crat.* qui ἀναπνευσθέντος *suppl. in marg.* 28 διαφθεῖρειν *add. in marg.* Q



So you will not simply treat the wound like a methodist but will immediately do a more important thing – cut round the flesh with a big radius and in a circular shape so that it cannot easily scar over but keeps a passage open for a long time and at least for forty days and the dog's poison can exit this way. And we are used to burning the area with irons heated in the fire and to apply other medicines which can be rubbed on, and preventing the poison staying in the flesh. I once had the idea of dissolving the antidote itself in oil of roses and put this on the wound as a plaster so that like a cupping-instrument it would suck out and draw up from the depth of the wound the destructive substance. And in general theriac like a healing remedy gives precise help both when externally applied and when drunk to those bitten by mad dogs. And this same antidote has also shown itself in plague conditions to be the only one able to help those who drink it, no other form of help being constituted in such a way as to resist an evil of such magnitude. For plague like a kind of wild beast does not just kill a handful but spreads over entire cities and destroys them horribly, when some evil change happens to the air enabling it to kill, and because of the necessity to breathe men cannot escape the evil but draw the air into themselves like a poison through their mouths. And so I commend the most wonderful Hippocrates because he treated that plague which spread among the Greeks from Ethiopia just by a change and alteration of air so as to change the nature of what people were breathing. So he ordered that fire should be lit across the whole city with the fire and stipulated that the material burnt consist not simply of wood but of the sweetest scented garlands and flowers and that they should drip on it the richest and most sweetly scented myrrh so that men should experience relief by breathing air that had been made clean in this way. I think that theriac as if it were itself a cleansing fire entirely protects those who drink it in advance from catching the disease during a plague epidemic and has the power to heal those who have already caught it, altering and changing the harmful quality in the air they are breathing and preventing it from further damaging their constitution.

διόπερ ἐγὼ συμβουλεύω σοι καὶ διὰ ταύτας μὲν τὰς οὕτω γιγνομένης αἰφνιδίους περὶ τὸν ἄερα καταστάσεις, καὶ διὰ τὰς ἄλλας τῶν βλαπτόντων αἰτίας λαμβάνειν τῆς ἀντιδότου συνεχῶς καὶ ὑγιαίνουντι, ἵνα καὶ τοῖς ἔξωθεν προσπίπτουσιν ἀνθίσταται σοι τὸ σῶμα καὶ ὅταν ἤδη πάθῃ, εὐίατον ἢ εὐάκεστον εὐρησ. αὕτη γὰρ ὡς εὐκράσιαν τινὰ καὶ ὑγιεινὴν κατάστασιν περιποιεῖ τοῖς σώμασιν, ἀναλίσκουσα τὰ περιττώματα τῶν ὑγρῶν καὶ ἀναθερμαίνουσα τὰ κατεψυγμένα τῶν μερῶν, καὶ τὴν ἔμφυτον δύναμιν τονοῦσα πρὸς τὸ τὰς φυσικὰς ἐνεργείας ἐκτελεῖσθαι καλῶς. ὅταν γὰρ ἡ φύσις εὐρώστως ἔχῃ, τότε καὶ ἀνεμποδίστως καὶ ἡ κοιλία πέσσει τὰς τροφάς, καὶ αἱ φλέβες ἐξαιματοῦσιν αὐτὰς εὐχερῶς, καὶ τὸ ἥπαρ ῥαδίως διακρίνει τὴν χολήν, καὶ καθαρὸν παραλαβοῦσα ἡ καρδία 283 τὸ αἷμα, ὅλῳ λοιπὸν, ὡς ἤδη θρέψαι δυνάμενον, ἐπιπέμπει τῷ σώματι, τὰς τε ἀποκρίσεις καὶ αὐτὰς ἀποδίδοσθαι συμμετρῶς ποιεῖ, καὶ τὰ περιττὰ τῷ σώματι δι' ὅλης τῆς ἀναπνοῆς ὑγιεινῶς διαφορεῖ. μάλιστα δὲ ἐν ταῖς ὀδοιπορίας συμβουλεύω σοι τῆς ἀντιδότου λαμβάνειν, ὅποτε ψυχροῦ ὄντος τοῦ ἄερος χειμῶνος ὀδεύῃς. ἔσται γὰρ ὡσπερ τι τῶν σπλάγχων ἀγαθὸν ἐνδύμα καὶ πολλὴν τὴν θερμότητα αὐτοῖς παρέχειν δυνάμενον. 15 οἶδα δ' αὐτὴν καὶ εἰς τὴν τῆς ψυχῆς σύνεσιν τε καὶ ὀξύτητα μὴ οὔσαν ἀσύμβολον. τὰς τε γὰρ αἰσθήσεις ἐνεργεῖν εὐτόνως ἀπεργάζεται καὶ καθαρὸν τῶν ἀναθυμιάσεων ἀποφαίνουσα τὸν νοῦν ἀκριβέστερον αὐτὸν διανοεῖσθαι ποιεῖ. συνελόντι δ' εἶπεῖν, ὅλον δυσπάθεος εἶναι τὸ σῶμα κατασκευάζει, ὡς μὴδὲ ὑπὸ δηλητηρίου τινὸς διαφθεῖρεσθαι. ἢ γὰρ ποικίλη καὶ τοσαύτη τῆς μίξεως τοῦ φαρμάκου δύναμις τὴν τοιαύτην δυσπάθειαν 20 ἀποτελεῖ, καὶ μάλιστα ἐπεὶ τὸ τῶν θηρίων ἔχει μίγμα. φασι γὰρ καὶ τὸν Μιθριδάτην ἐκεῖνον τὸν μέγαν πολεμιστὴν, τὴν μὲν θηριακὴν μὴ λαμβάνοντα, οὐδέπω γὰρ ἦν, ἄλλην δ' ἀντίδοτον λαμβάνοντα πολυμίγματόν τινα, καὶ αὐτὴν τῷ ἐκείνου ὀνόματι οὕτω κα- 284 λουμένην, Μιθριδάτειος γὰρ ὀνομάζεται, διὰ τὴν ἐξ αὐτῆς κατεσκευασμένην τῷ σώματι δυσπάθειαν μὴ δυνηθῆναι λαβόντα τὸ φάρμακον ἀποθανεῖν.

3 ἀνθίσταται L ἀνθιστήται Kühn 4 ἢ εὐάκεστον *conieci. om. edd.* ἢ εὐάρεστον L N Y, Q *ante ras.*  
 8 ἀνεμποδίστως L ἀνεκποδίστως *vox nihili* Q *edd.* 8 καὶ L *om. Crat. Kühn* 10 θρέψαι L N Y *τρέψαι* Q *edd.* 15 ἀσύμβολον Q ἀσύμβουλον L N Y, Q *ante corr.* 16–17 ἀποφαίνουσα Q ἀποφαίνουσι L N Y, Q *ante corr.* 17 διανοεῖσθαι L διακεῖσθαι Q *edd.* 19 δυσπάθειαν L δύσπνοιαν Q *ante corr.*  
 21 πολεμιστὴν πολεμιστὰν Q *ante corr.* 23 Μιθριδάτειος Μιθριδάτης L N Y, Q *ante corr.*

And so I advise you because of such sudden alterations in the air and the other causes which harm mankind to take the antidote continuously even in health so that it will fortify your body against external evils and you will find it good for healing a disease you are already suffering from. For it produces good balance and a healthy state in bodies, expelling excess fluids and warming cold parts of the limbs and strengthening innate power so that natural functions are correctly carried out. For when nature is in good strength the stomach digests its food without hindrance and the veins convert it to blood properly and the liver easily separates out the bile and the heart receives clean blood and sends it on, as being now good nourishment, to the whole body and causes the secretions to be equally returned and healthily carries the left over portion through the whole airway. And I especially advise you to take the antidote on your travels when you make a journey in winter when the air is cold. For it will be as it were a good garment for your innards and able to supply them with a good deal of warmth. And I know that it contributes to the intelligence and sharpness of the soul. For it causes the senses to work strongly and makes the mind clear of exhalations and causes it to reason more accurately. To put it briefly, it causes the body to be without ailment so that it is not destroyed by anything harmful. For the power of the drug is varied and so great that it produces such freedom from harm, especially when wild beasts are in the mixture. For they say that Mithridates that great warrior took, not theriac (which was not yet invented) but another complex antidote named after him, for it was called Mithridatium, and that the immunity it gave him meant he could not be killed while he was taking the drug.

5 ὁπότε γὰρ πολεμῶν πρὸς τοὺς Ῥωμαίους ὑπὸ τοῦ Πομπηΐου νικώμενος καὶ ἐν τοῖς ἐσχάτοις ὦν ὑπὸ τοῦ φαρμάκου τοῦ ἰοῦ ἄνοσος ἀποθανεῖν ἠλείγετο, πίων τὸ φάρμακον καὶ πολὺ γε αὐτοῦ λαβὼν αὐτὸς μὲν οὐκ ἀπέθνησκε, τὰς δὲ θυγατέρας πάνυ βουληθείσας αὐτῷ διὰ τὴν φιλοστοργίαν συναποθανεῖν πιούσας τὸ αὐτὸ φάρμακον ταχέως ἀποκτανθῆναι, εἴθ' ὡς ἐβράδυνε μὴ ἀποθνήσκων, τοῦ φαρμάκου δι' ἣν προέπινεν ἀντίδοτον μηδὲν ἰσχύσαι δυναμένου, καλέσας Βίτοιτον τοῦνομα τῶν φίλων αὐτοῦ τινα, ἐκέλευσεν αὐτὸν ἀποσφάζει, καὶ οὕτω ποιήσας τῷ σιδήρῳ τοῦ φαρμάκου γενέσθαι τὸ ἔργον, ἀποθανεῖν αὐτὸν βιαίως ἠνάγκασεν.

10 [Πόσον καὶ πότε καὶ ὑφ' ὧν ληπτέον τὴν θηριακὴν.]

Ῥοῤῥα οὖν ὅπως τὰ πολυμιγῆ τῶν φαρμάκων πολλὴν τὴν ἰσχὺν πρὸς τὸ ποιῆσαι τὴν δυσπάθειαν ἔχει, καὶ μάλιστα ἡ θηριακὴ, διὰ τὴν τοσαύτην δύναμιν, ὡς ἔφην, τῶν θηρίων. 285  
λαμβάνειν δέ σοι τὸ φάρμακον συμβουλεύω, ὅταν εὐπεπτος ἦς καὶ σιτίων μὴ πλήρης, καὶ τῷ μέτρῳ δὲ ἄλλοτε ἄλλως χρώμενος εὖ ποιήσεις. ποτὲ μὲν γὰρ κυάμου τοῦ Αἰγυπτίου τὸ μέγεθος μετὰ κυάθων δύο ὕδατος λάμβανε, ὅταν ὀλίγον ἦ τὸ μέλλον αὐτῆς πρὸς τὴν πέψιν γίνεσθαι διάστημα· ποτὲ δὲ καρύου Ποντικοῦ τὸ μέγεθος πῆγς, καὶ ἀνιείς κυάθους τρισὶν οὕτως αὐτὸ πῖνε, ὅταν πλείονα πρὸς τὴν διοίκησιν τοῦ φαρμάκου τὸν χρόνον ἔχῃς. ἐπίβλεπε δὲ ἅμα καὶ τὴν ὥραν καὶ τὴν χώραν, ἐν αἷς μέλλεις λαμβάνειν 20 τοῦ φαρμάκου. θέρος μὲν γὰρ ὅταν ἦ, οὐδ' ὄλως αὐτοῦ σοι συμβουλεύω λαμβάνειν. θερμοῦ γὰρ ὄντος τοῦ καταστήματος, ἔτι καὶ μᾶλλον θερμότερον γιγνόμενον βλάπτεται τὸ σῶμα, καὶ τοῦτό γε συνιδὼν ὁ θαυμασιώτατος Ἱπποκράτης τὰς ὑπὸ κύνα καὶ πρὸ κυνὸς φαρμακίας ἐργώδεας εἶναι λέγει. πυρετὸν γὰρ ὡς ἐπὶ τὸ πλεῖστον ὁ καιρὸς οὗτος τοῖς ἀνθρώποις φέρει. διόπερ καὶ τοῖς ἀκμάζουσι τὴν ἡλικίαν καὶ πολλὴν ἔχουσι 25 τὴν φυσικὴν θερμότητα μὴ πολὺ μηδὲ πολλὰκις προσφέρεσθαι τὸ φάρμακον παραινῶ· ὥσπερ γε τοῖς ἤδη τοῦ βίου τὴν παρακμὴν ἔχουσι καὶ πλεῖστον καὶ μὴ ὀλιγάκις οὐ μεθ' ὕδατος, ἀλλὰ μετ' οἴνου μᾶλλον συμβουλεύω λαμβάνειν, ἵνα τὸ μαραινόμενον ἤδη τοῦ σώματος καὶ τὸ ἀπεσβεσμένον τοῦ ἐμφύτου θερμοῦ ἀναζωπυρεῖν καὶ ἀνάπτεισθαι ὑπ' αὐτοῦ δύνηται. 286

22 *Hipp. Aph. IV: XVIIb 664.2 Sect. Int. I 89.19-20 Hipp. Aph. 4.5*

5 ἀποκτανθῆναι L Y ἀποκτανῆναι N, Q edd. 6 Βίτοιτον *correxī* Βιστόκον L N Y Βιστόκον Q 14 ὅταν εὐπεπτος ἦς *conieci* ὅταν εὐπεπτος ἦ L Q Y ὅταν εὐπηπτος ἦ N ὅταν εὐπεπτος εἶ Ald. Crat. ὅτε εὐπεπτος εἶ Kühn 16 μετὰ κυάθων δύο ὕδατος μετὰ κ' θ' ὕδατι L N μετὰ κ' β' ὕδατι Y, Q *illeg.* 17 πῆγς Q ποιῆς L N Y 17--18 ἀνιείς ? ἀνήσους L N Y 19 ἔχοις ἔχῃς Kühn 22 τὰς Q τὰ L Y 22--23 ὑπὸ κύνα καὶ πρὸ κυνὸς Littre πρὸς κυνὸς καὶ μετὰ κύνα L N Y, πρὸ κυνὸς καὶ μετὰ κύνα N *in marg.* πρὸ (πρὸς *ante corr.*) κυνὸς καὶ κατὰ κύνα Q edd. 23 φαρμακίας ἐργώδεας Q Littre φαρμακία ἐργώδεα L 23 ὁ καιρὸς L ὁ καιρὸς *post* πυρετὸν γὰρ *habet* Q

For when in his war with Rome he was defeated by Pompey and in his last moments being impervious to venom because of the drug and wanted to die he took poison but although he drank a lot of it did not die, though his daughters who for love of him wanted to die with him, drank the same drug and it quickly killed them; and then when he was lingering and not dying, the poison having no effect on him because of the antidote he had previously drunk, he called one of his friends, Bistocus, and told him to finish him off with a sword, and so causing the poison's job to pass to the steel he brought about his own violent death. 5R

[Chapter 17. How much theriac should be taken and when and from whom] 10R

So you see how the many ingredients of theriac have great power to produce immunity to harm and especially theriac because, as I have said, of the great power of the wild beasts it contains. I advise you to take the drug when your digestion is good and you are not full of food, and taking the appropriate quantity on each occasion you will do well. Sometimes take a lump the size of an Egyptian bean with two tablespoonfuls of water when the interval for its digestion is going to be brief. Sometimes take a lump the size of a Pontic walnut and dissolve it in three tablespoonfuls and so drink it when you have more time for the processing of the drug. Have regard to both the time and the place where you are going to take the drug. For when it is summer I do not advise you to take the drug at all. For the weather is hot and the body is harmed by being made even hotter; knowing this the great Hippocrates says that medicines taken before or under the dog star are difficult. For this season mostly brings fever to men. So I advise that those in the prime of life and full of warmth should not take the drug much, nor often. Those who are past their prime I advise to take it copiously and often and not with water but rather with wine so that what is quenched in the body and extinguished in the natural warmth may be rekindled and relit by it. 15R 20R 25R

ἐπὶ δὲ τῶν παιδίων παντάπασι δεῖ φυλάττεσθαι τὸ φάρμακον. μείζον γάρ ἐστιν αὐτῆς  
 τῆς δυνάμεως τὸ μέγεθος τοῦ φαρμάκου, καὶ διαλύει ῥαδίως τὸ σῶμα καὶ τὸ ἔμφυ-  
 τον πνεῦμα ταχέως σβέννυσιν· ὡσπερ δὴ καὶ τὴν λυχνιαίαν φλόγα τὸ ἔλαιον τοῦ πυ-  
 ρὸς πλέον γενόμενον εὐκόλως αὐτὴν ἀποσβέννυσιν. ἐγὼ γοῦν ἰστόρησα διαλυθέν ποτε  
 5 παιδίον ὑπὸ τῆς ἀκαίρου τῆς ἀντιδότου χρήσεως. τὸ μὲν γὰρ ἐπύρεττε χρονίως καὶ  
 ἦν ἰσχνὸν αὐτῷ πάνυ τὸ σῶμα καὶ τὴν δύναμιν ἀσθενές, μόλις δὲ καὶ διὰ πολλῆς ἐπι-  
 μελείας διαζῆν δυνάμενον, ἄπερ ἐγὼ μὲν συνορῶν ἐκ τοῦ ἱατρικοῦ λογισμοῦ καὶ πάνυ  
 διεκώλυον αὐτῷ δίδοσθαι τοῦ φαρμάκου. κηδόμενος γάρ τις αὐτοῦ καὶ πατὴρ εἶναι δὴ-  
 10 θεν λέγων καὶ τυραννικὴν ἐξουσίαν τοῦ κελεύειν ἔχων μᾶλλον ἤπερ τὴν ἐκ τοῦ λόγου  
 συμβουλίαν ἀκούων ἀλόγως καὶ μετὰ πολλῆς ἀνάγκης ἐξηνάγκασέ με τοῦ φαρμάκου  
 δίδοναι τῷ παιδίῳ. τὸ δὲ ληφθὲν μὲν οὐκ ἠδυνήθη πεφθῆναι· κρεῖττον γὰρ ἦν τῆς ἰσχύος  
 τοῦ λαμβάνοντος· διέλυσε γὰρ αὐτοῦ τὴν σύμπασαν ἔξιν καὶ τὴν γαστέρα ρεῖν ἐποίησε,  
 καὶ οὕτω διὰ τὴν ἄλογον τοῦ φαρμάκου χρήσιν νύκτωρ ἀπόλετο τὸ παιδίον. εἰ δὲ ποτε  
 15 τῆς ἐκεῖ τοῦ ἄερος θερμότητος, διόπερ καὶ τοῖς ἀπο τῆς πρώτης ἀνατολῆς τοῦ ἡλίου  
 ἀνθρώποις θερμοτάτοις οὔσι καὶ πολλὴν ἔχουσι τὴν ἐκεῖθεν ξηρότητα ἀκατάλληλον  
 εἶναι μοι δοκεῖ τὸ φάρμακον.

[Περὶ ἄλῶν θηριακῶν]

20 Σκευάζονται δὲ τινες διὰ τῶν θηρίων τούτων καὶ ἄλες. ἀναγκαῖον γὰρ ἔδοξέ μοι καὶ  
 τῶν ἄλῶν μνημονεῦσαι, ἵνα τελειότατος ὁ περὶ τούτων σοὶ λόγος γένηται, ποιούσι καὶ  
 αὐτοὶ πρὸς πάντα τὰ προειρημένα, μετρίως μὲν καὶ χρόνῳ πολλῷ τὸ χρησιμὸν παρα-  
 25 σχεῖν δυνάμενοι, τὸ δὲ συνεχῆς τῆς χρήσεως κατ' ὀλίγον τὴν ὠφέλειαν ποιούμενοι.  
 διόπερ δὴ καὶ πολλοὶ τῶν χρωμένων τὴν συναίσθησιν τῆς ἀπ' αὐτῶν βοήθειας ταχεῖαν  
 οὐκ ἔχοντες τὴν ἀρχὴν οὐδ' ὄλωσ' ἔχουσι βοῦν δύνασθαι νομίζουσι, μάλιστα ἐπειδὴ καὶ τῷ  
 πυρὶ σποδὸς αὐτῶν τὸ σῶμα γίγνεται, ἐξαφανίζεσθαι λέγοντες τῇ καύσει τὴν πρὸς τὸ  
 ἐπικουρεῖν δύναμιν αὐτῶν.

3 *Ut. Resp.* IV: 488.17-489.4 *Caus. Morb.* VII 9.5-7, 11.14-16 *Hipp. Aph.* I: XVIIb 413.11-17 Marcellinus I  
*de Puls.* 404-7 [Alexander Aphrod.] *Problemata* 1 16.5-7 13 *Sect. Int.* I 90.7-13

1 αὐτῆς αὐτῶν L N Y 2 τὸ *Chart. om.* L Q Y *om. sed add. in marg.* 4 αὐτὴν αὐτὴν L αὐτὸν Q *Ald. Crat. om. Chart.* 7 μὲν L *om.* Q 9 ἔχων L ἔχον Y 10 μετὰ πολλῆς Q μετὰ πολλοῦ L N Y, Q *ante corr.* 12 γὰρ L; Q δὲ *post corr.* 15 ἐκεῖ ἐκεῖσε L N Y 15 ἀπο L ὑπὸ Q 19 [Περὶ ἄλῶν θηριακῶν] Q qui θηριακῶν fortasse rasit; Περὶ ἄλῶν *Ald.* [τέλος Γαληνοῦ πρὸς Πισώνα τῆς θηριακῆς ἀντιδότου: - τοῦ αὐτοῦ περὶ ἄλῶν] L ante ras. Abest in N Y

In the case of children one must avoid the drug entirely. For it is too strong for their inherent power and easily destroys the body and quenches the inborn breath as when the oil overcomes the fire and puts out the flame in a lamp. I have had experience of a child dying of the untimely use of the antidote. He had chronic fever and his body was all withered and his vitality low. and he was greatly struggling to stay alive, which I realised from my medical reasoning and therefore completely prohibited the giving of the drug to him. For the man caring for him claimed to be his father and having a tyrant's privilege of giving orders rather than listening to advice given on the basis of reasoning, he irrationally and with great compulsion forced me to give the child the drug. Having taken it he could not digest it, for it had more strength than the one who took it. It undid his whole constitution and gave him diarrhoea and so the child died in the night because of the irrational use of the drug. And if ever you are in a warmer country beware of using the drug, the warmth of the air being enough for you there. And for this reason the drug seems to me unsuited to men who are very hot at the first rising of the sun and have much dryness therefrom.

5R

10R

15R

[Chapter 18 On theriac salts]

Certain salts are also prepared from these beasts. I thought I should mention these so that this treatise on the subject should be as complete as possible. For they have all the powers mentioned above, having the power to produce useful results moderately and for a long time, but producing benefit little by little if used continuously. For this reason many of their users not swiftly perceiving benefit from them to start with think they are altogether useless, especially because in the fire their body turns to ash and they say that their power to help vanishes in the burning.

20R

ἐγὼ μὲν φημι τὴν μὲν δύναμιν αὐτὴν τῇ θηριακῇ μὴ ἔχειν τοὺς ἄλλας, μὴ μέντοι τε-  
 λείως αὐτῶν ἐξαφανίζεσθαι τὴν ἐπίκουρον ἰσχύν. πολλὰ γὰρ τὸ πυρὶ ὀμιλεῖν ἀποφαίνει  
 κρείττονα, καὶ ποτὲ μὲν καὶ κρυπτομένην αὐτῶν τὴν φύσιν εἰς τὸ φανερόν ἄγει, τινὰ  
 δὲ καὶ πρὸς ἣν βουλόμεθα χρεῖαν εὐαρμόστως ἔχειν παρασκευάζει. ὁ γοῦν χρυσὸς ὑφ'  
 5 ἡμῶν δι' αὐτοῦ κρίνεται, καὶ ὁ μὲν κίβδηλος πυρωθεὶς ἐλέγχεται, ὁ δὲ ἐν τῷ πυροῦσθαι  
 καθαρθεὶς ἀκριβῶς δόκιμος εἶναι φαίνεται. καὶ ὁ σίδηρος πυρροῦμενος μαλάττεται καὶ  
 καμπτόμενος ὑφ' ἡμῶν εὐχρηστος εἶναι πρὸς πολλὰ τῶν ἐν τῷ βίῳ φαίνεται. οὐχὶ δὲ καὶ  
 τῶν προσφερομένων τὰ πλείστα πρὸς τὸ τρέψαι ἡμᾶς διὰ τὸ πῦρ κατάλληλα γίνονται;  
 10 ἄρτος γέ τοι καὶ τῶν κρεῶν καὶ τῶν ἰχθύων αἱ σάρκες ὡμὰ μὲν ὄντα πρὸς τὴν χρεῖαν  
 τῆς ὀρέξεως ἄχρηστά ἐστίν, ὀπτηθέντα δὲ τότε γίνονται καὶ τῶν σωμάτων τροφαί. ὁ  
 δὲ οἶνος καὶ αὐτὸς εὐθέως μὲν καὶ ἀπὸ τῶν βοτρύων ἐκθλιβείς ὡμὸς καὶ ἄπεπτός ἐστι,  
 πεφθεις δὲ τῷ τοῦ ἡλίου πυρὶ τότε καὶ ἡδιστος καὶ ποτιμώτατος γίνονται. ὅτι δὲ πολλὰ  
 καὶ τῶν ἐν τῇ τέχνῃ φαρμάκων τὴν ἀρχαίαν ἑαυτῶν φύσιν ἔχοντα δριμύτατά τέ ἐστι  
 15 καὶ πολέμια τοῖς σώμασιν ἢ πείρα διδάσκει· κολασθέντα γὰρ τῇ τοῦ πυρὸς ἀνάγκῃ εὐ-  
 χρηστα πρὸς θεραπείαν γίνονται. ἡ γοῦν χαλκίτις ὡμὴ μὲν καίει τὰ σώματα καὶ ῥαδίως  
 τὰς ἐσχάρας ἀπεργάζεται, ὀπτηθεῖσα δὲ ἐπουλοῖ τὰ ἔλκη· καὶ ὁ ἀπὸ τῆς Φρυγίας λίθος  
 ὡμὸς μὲν ὢν δριμύτατός ἐστιν, ἀνθρακούμενος δὲ καὶ λειοῦμενος μετ' ἄλλων τινῶν  
 ἀγαθὸν γίνεται τῶν ὀφθαλμῶν φάρμακον. ἡ δὲ ἀπὸ τοῦ καιομένου σπόγγου γιγνομένη  
 20 σποδιά καρτερῶς τὰς αἱμορραγίας εἴωθεν ἐπέχειν. τὸ αὐτὸ μοι δοκεῖ καὶ ἐπὶ τῶν θηρι-  
 ακῶν ἁλῶν γίνεσθαι νομίζειν. πάντα γὰρ ὁμοῦ καιόμενα καὶ ὀλόκληρα συναπτόμενα  
 τὰ θηρία τὴν μὲν ἐπιτεταμένην καὶ πονηρὰν τοῖς σώμασι δύναμιν διὰ τῆς καύσεως ἀπο-  
 25 τίθεται, ἥς καύσεως ἐσβεσμένης οὕτω τὴν ἀπὸ τοῦ πυρὸς πρὸς τὸ βοηθεῖν συμμετρίαν  
 λαμβάνει. ἰδίως δὲ καὶ οἱ ἄλλες θεραπεύουσι μάλιστα τὰ περὶ τὴν ἐπιφάνειαν γιγνόμενα  
 πάθη, λεύκας λέγω καὶ λέπρας καὶ λειχήνας τοὺς ἀγρίους· τὰ τε γὰρ ὑπὸ τῷ δέρματι  
 περιττὰ καὶ δριμῆα κάλλιστα διαφοροῦσιν.

15 CMG IV: XIII 661.12-16 16 CML IV: XII 727.5-730.4 18 SMT XI: XII 376.1-8

2 ὀμιλεῖν L ἀμιλλεῖν Q *ante corr.* 7 φαίνεται Q γίνονται (φαίνεται *sup. lin.*) L 8 τρέψαι L Y τρέψειν N  
 θρέψειν Q 12 ποτιμώτατος L ποτιμότητα Y 14 γὰρ L δὲ Q 21 ἐπιτεταμένην *coniecti* ὑποτεταμένην  
 L ὑπερτεταμένην Q *post corr.* 22 ἐσβεσμένης *coniecti* ἐσφικόμενα L; Q *del.* ἥς καύσεως ἐσφικόμενα οὕτω  
 22 τὴν ἀπὸ L τὴν δὲ ἀπὸ Q 23 καὶ οἱ ἄλλες L Q καὶ ἄλλες *edd.* 25 κάλλιστα L Q μάλιστα *edd.*



I however say that the salts do not have the same power as theriac, but that their supportive strength does not altogether vanish. For association with fire makes many things stronger and brings their hidden nature into the open and harmoniously gives some of them the quality we wish to use them for. For example we test gold by fire and false gold is exposed by fire, but that which is purified by fire it is revealed to be genuine. and iron heated in the fire is softened and bent to be useful to us for many purposes in life. And is it not the case that most of the things which we take in to feed us are made suitable for eating by fire? Bread, certainly, and meat and fish are useless for the purpose of the appetite when raw, but when cooked are food for the body. Wine itself immediately it is pressed from the grapes is raw and indigestible but when cooked by fire of the sun becomes most delicious and drinkable. And experience teaches that many of the drugs used in the art of medicine are very sharp and hostile to the body while they have their original nature; but disciplined by the compulsion of fire they become useful for treatment. For example raw copper ore burns the body and readily produces scars but after being roasted it heals over wounds. Phrygian stone raw is very piercing but after roasting and grinding with other ingredients becomes a good drug for the eyes. The ash from burnt sponges is powerful for stemming haemorrhages. I think the same thing happens in the case of theriac salts. For burning the beasts and setting fire to them all together removes by burning their over-intense power which damages the body and gains from the fire, once the flames have been extinguished, the power to help. In particular salts treat diseases appearing on the visible surface of the body – I mean various forms of leprosy and wild lichens; for they are very good at dispersing wastes and sharp matter under the skin.

5R

10R

15R

20R

ἑσθίοντες γοῦν αὐτοὺς οἱ πλεῖστοι ἰδρωτικώτεροι γίνονται καὶ τὴν διεφθαρμένην κενουσίαν οὐσίαν, ὡς καὶ τοὺς καλουμένους φθειρας ἐκβάλλειν τινὰς, ἐκ διαφθορᾶς ἰδίαν γένεσιν ἐχούσας, καὶ διὰ τοῦθ', ὡς οἶμαι, φθειρας καλουμένας. σμήχουσι δὲ ἄριστα καὶ τοὺς ὀδόντας, καὶ τὰ πλαδαρὰ τῶν σωμάτων πυκνοῦσι, καὶ τὸ ἐπ' αὐτοῖς  
5 ἐπιφερόμενον ἀναστέλλουσι ρεῦμα, ἀσήπτους τε τοὺς ὀδόντας φυλάττουσι, τιτρώσκεσθαι ἢ βιβρώσκεσθαι αὐτοὺς οὐκ ἔωντες.

[Περὶ ἁλῶν θηριακῶν κατασκευῆς.]

10 Γίνεται δ' αὐτῶν καὶ ἡ σκευασία τοῦτον τὸν τρόπον. πειράσομαι γάρ σοι πάλιν καὶ τούτους σκευάζειν τῇ ὑπογραφῇ τοῦ λόγου χρώμενος. λαβόντα γὰρ χρῆ ἐχίδνας ταῖς προειρημέναις ὁμοίας καὶ τῷ αὐτῷ χρόνῳ τεθηραμένας, ἔστωσαν δὲ τὸν ἀριθμὸν δ'. 291  
καὶ μὴ πολλὰς ἡμερὰς μετὰ τὴν θήραν ἐχούσας, ἀλλ' εἰ δυνατὸν, αὐτῆς τῆς ἡμέρας ἧς εἰσιν εἰλημμένα. εἶτα τῶν ἁλῶν καλὸν μὲν εἰ τῶν ἀμμωνιακῶν, εἰ δὲ μὴ γε, τῶν κοινῶν  
15 καὶ τῇ χροῖα λευκῶν καὶ ἐξηθριασμένων ἠρέμα μόδιον Ἴταλικὸν, εἶτα καὶ σὺν αὐτοῖς κόψας ἀδρομερῶς γεντιανῆς Κρητικῆς λλ ας ἀριστολογίας λλ ας . κενταυρίου λεπτοῦ κόψας λίτρας β'. καρδαμώμου Ἀρμενιοῦ, πρασίου, ἀνά γο. στ'. ἐντεριώνης λίτραν α'. σκορδίου ὀρεινοῦ ἀνύδρου λίτραν α', σελίνου, χαμαιδρυος Κρητικῆς λίτραν α'. πηγᾶ-  
20 νου ἡμέρου σπέρματος λίτραν α'. μέλιτι Ἀττικῷ ἐνώσας αὐτὰ, καὶ ἡμισυ λίτραν μέρος αὐτῶν εἰς χύτραν ἐξ ὀστράκου γενομένην καινὴν βαλὼν, εἶτα δ'. ἐχίδνας ζώσας προ-  
επιβαλὼν, σὺν αὐταῖς καὶ σκίλλας ἀπαλὰς καὶ πάνυ νεαρὰς ε'. εἰς λεπτὰ κατατεμὼν, οὕτως ἐπίβαλε τὸ λοιπὸν τοῦ μοδίου τῶν ἄλλων μέρος, καὶ πωματίσας καὶ πηλώσας ἐπιμελῶς τρήσον τέσσαρσί που τρήμασιν αὐτῆς τὸ πῶμα ἵνα δι' αὐτῶν ὁ ἀτμὸς δια-  
25 ζημῆν σοι τὸ μέτρον τῆς ὀπτήσεως. τὸ μὲν πρῶτον φανήσεται καπνὸς ἐξιὼν, πολὺς, ζοφώδης καὶ τε θολωμένος πάνυ, σημαίνων ὅτι τὸ πῦρ ἤδη ἄπτεται τῶν θηρίων, ὅτε 292  
σε καὶ προσέχειν ἀκριβῶς παραινῶ, μήποτε ἀναπνεύσης τούτου καπνοῦ, κεκακωμένου τοῦ ἀέρος ὑπὸ τῆς ἀναθυμιάσεως τῶν ἐχιδνῶν.

11 Paulus Med. VII 11.6

4 ἄριστα καὶ L καὶ ἄριστα Q 10 αὐτῶν καὶ ἡ L αὐτῶν ἡ Q 12 τὸν ἀριθμὸν δ' Q τὸν ἀριθμὸν λ' L 13 μὴ πολλὰς ἡμερὰς L, Q ante corr: μὴ πλεῖον δύο ἡμερῶν Q 16 ἀριστολογίας L ἀριστολογίας στρογγύλης (στρογγύλης add. in marg.) Q 17 ἐντεριώνης λίτραν α'. L del. Q 18 σκορδίου ὀρεινοῦ L om. sed add. in marg. Q 18 ἀνύδρου λίτραν α'. L om. Q 18 σελίνου om. L N Y add. in marg. Q 19 ἡμισυ λίτραν om. L N Y om. sed add. in marg. Q 20 ὀστράκου ὀστρακίνου L N Y, Q ante corr: 20 εἶτα μετὰ L N Y, Q ante corr: 21 καὶ om. L N om. sed add. in marg. Q 22 τὸ λοιπὸν τοῦ μοδίου L N Y, τὸ λοιπὸν ἡμισυ Q post corr: 22 ἄλλων Q ἁλῶν L, Q ante corr: 23 πῶμα L σῶμα Kühn 24 τὸ μὲν L add. in marg. γὰρ post τὸ μὲν Q 26 τούτου Q τὸ τοῦ L N Y, Q ante corr:

Most people taking the salts become more sweaty and void the corrupted matter and for that reason, I suppose, get rid of what they call lice which have their origin in corruption. And they are best for cleaning the teeth and thicken up soft parts of the body of the tooth, they remove the rheum which collects round them, and keep them free of rot not allowing them to be damaged or eroded.

5R

[Chapter 19 Preparation of theriac salts]

This is how you prepare theriac salts. (Again, I will try to give you a written description of how to prepare them). Take some vipers, as described above and at that time of year, thirty in number and not more than two days after they were caught, and if possible on the very day they were taken, and take one Italian modius measure of salts, of ammonia are good but otherwise common salts with white colour which have been exposed to the air, and a pint of Cretan gentian coarsely ground, a pint of Aristolochia Rotunda, two pints of fine leafed centaury, Armenian cardamom and horehound 6 drachms each, mountain garlic, celery, Cretan ground oak one pint, a pint of garden rue seed. Combine with Attic honey and put half the mixture – about a pint – into a new earthenware pot then also add four live snakes and cut five tender and freshly picked squills into small pieces and add the remaining half of the mixture and put a lid on and seal with clay and carefully make four holes so that the steam escaping through them will tell you how the cooking is going. For the first smoke to appear will be opaque and turbid, showing that the beasts are now burning, and I advise you to be very careful not to breathe this smoke, because the air is made foul by the burning of the vipers.

10R

15R

20R

εἴθ' ὅταν παύσῃται ὁ ἀτμός, ἀναβαλλομένην δέ τινα φλόγα λεπτήν διὰ τῶν τρημάτων βλέπῃς, τότε νόμιζε ὡς ἄριστα αὐτὰ ἠψηῆσθαι καὶ οὕτω βάσταξας ἀπὸ τοῦ πυρὸς τὴν χύτραν, ψύξας ὅλην ἡμέραν τε καὶ νύκτα, εἶτα ἀνοίξας καὶ ἀνελόμενος τοὺς ἄνθρακας, ἐπιμελῶς κόπτε καὶ σῆθε μετὰ τούτων τῶν μιγμάτων, καὶ πηγάνου ἀγρίου σπέρματος γο. θ'. ὑσσώπου Κρητικοῦ γο. θ'. μαράθρου σπέρματος ἀγρίου γο. στ'. νάρδου Κελτικῆς, στάχυος Σκυθικοῦ, ἀνά γο. στ'. πετροσελίνου Μακεδονικοῦ γο. δ'. ἀμώμου βότρυος γο. γ'. ὀριγάνου Ἡρακλεωτικοῦ κορύμβων γο. θ'. ὀρμίνου σπέρματος πεφρυγμένου γο. γ'. θύμου κορύμβων Ἀττικοῦ γο. θ'. μαλαβάθρου φύλλων Ἰνδικοῦ γο. δ'. ἀρκευθίδων Λακωνικῶν σαρκὸς λίτρας β'. κορίου σπέρματος ἡμέρου γο. στ'. πεπέρεως λευκοῦ λίτρας β'. πεπέρεως μέλανος λίτρας β'. σιλφίου ρίζης γο. ι'. ζιγγιβέρεως ἀτρήτου λίτρας β'. σατυρίου σπέρματος, ἢ ρίζης οὐγγίας στ'. γλήχωνος ὄρεινου 293 γο. στ'. σεσέλεως Μασσαλεωτικοῦ πυρροειδοῦς γο. στ'. τορδύλου ὄρεινου σπέρματος γο. στ'. ἠδύόσμου γο. στ'. κασσίας τῆς καλλίστης γο. β'. κινναμώμου γο. α'. πειρῶ δ' αὐτὰκόψας, καὶ σήσας, πάλιν ἐπικόπτειν καὶ διακοσκινεῖν πολλάκις, ἵνα ἀκριβῶς 15 λεῖα γένωνται, καὶ οὕτως ἐν ὑελίνοις σκευέσιν ἀποτιθέμενος χρῆσθαι μὴ εὐθές, ἀλλὰ μεθ' ἡμέρας πού δέκα. ἐσκεύασα δ' αὐτοὺς ἐγὼ, μὴ καύσας τὰ θηρία, ἀλλὰ τοὺς ἐξ αὐτῶν ἀρτίσκους, ὥσπερ ἐπὶ τῆς θηριακῆς ὑπέδειξα σκευάζεσθαι, μίξας τοῖς μετὰ τῶν θηρίων καιομένοις ὡσαύτως, ἵνα ἦν περ ἔχη πικρότητα ἐν αὐτοῖς, ἐν τῇ καύσει ταύτην ἀποβάλλῃ, τοσοῦτον μέτρον τῶν ἀρτίσκων προσβάλλων, ὅσον περ ἑτεκμηράμην ἔχειν 20 τὸν ἀριθμὸν τῶν τεσσάρων ἐχιδνῶν, καὶ ἀπέβησαν ὡς ἀληθῶς ἄριστοι, οὔτε τὸ ἐκ τῆς καύσεως σποδῶδες ἐν τῇ γεύσει ἔχοντες οὔτε μέλανες ὄντες τὴν χροιάν, ἀλλὰ καὶ τὴν ποιότητα ἐν τῇ χρήσει ἥδιστοι γενόμενοι, καὶ τὴν δύναμιν πρὸς ἅπερ εἶπον αὐτοὺς ἰδίως ποιεῖν, ἐνεργεστέραν ἔχοντες. οὗτός ἐστιν ὁ περὶ τῆς θηριακῆς καὶ τῶν θηριακῶν ἀλῶν 294 λόγος, φιλοπόνως, ὡς οἶμαι, ἐξετασθεῖς ὑπ' ἐμοῦ μάλιστα, ἐπεὶ καὶ σὺ πάντας τοὺς λόγους φιλοτίμως ἔχεις.

2 ἠψηῆσθαι Q ἐπτήσθαι L N Y 2 βάσταξας L βάσταξε Q 3 χύτραν L Q κύτραν L *sup. lin.* 4 καὶ L N, Q *ante ras.* 5 σπέρματος σπέρμα L N Y, Q *ante corr.* 6 Κελτικῆς L Κελτικοῦ Q *ante corr.* 7 σπέρματος Q σπέρμα L N Y, Q *ante corr.* 8 φύλλων Q φύλλα L, Q *ante corr.* 9 σπέρματος Q σπέρμα L N Y, Q *ante corr.* 11 σατυρίου σπέρματος, ἢ ρίζης οὐγγίας Q σατυρίου σπέρμα ρίζης L, Q *ante corr.* 11 ὄρεινου Q περσίνου L N Y, Q *ante corr.* 12 σπέρματος Q σπέρμα L N Y 13 πειρῶ L πυρῶ Q 14 δ' αὐτὰ L, Q *add. in marg.* 17 μίξας L N Y, ἀναμίξας Q *post corr.* 18 ὡσαύτως L καὶ αὐτοὺς Q *post corr.* 18 πικρότητα *Chart. recte* ποιότητα *al.* 19 προσβάλλων L προσβάλλον Y 21 ἐν Q *add. in marg. om.* L N 24--25 πάντας τοὺς λόγους L πάντων τῶν λόγων *et sup. lin. scribit* L περὶ πάντας τοὺς λόγους (*περὶ add. in marg.*) Q πάντως τῶν λόγων Y

When the vapour stops and you see a bit of flame emerging through the holes then regard them as well cooked and take the pot off the heat, cooling it a whole day and night, take out the coals and carefully cut them up and sieve them with this mixture: wild rue seed 9 oz., Cretan hyssop 9 oz., wild fennel seed 6 oz., Celtic nard, Scythian base horehound (*Stachys germanica*) 6 oz. each, Macedonian parsley 4 oz., Nepaul cardamom *Amomum subulatum*/ grapes 3 oz., tips of *Heracleum oregano* 9 oz., sage, 5R  
clary (*Salvia Horminum*) seed, roasted, 3 oz., tips of Attic thyme 9 oz., Indian cinnamon leaf 4 oz., 2 pints of the flesh of Laconian juniper berries, garden coriander seed 6 oz., white pepper 2 pints, black pepper 2 pints, silphium root 10 oz., unperforated ginger 2 pints, [293] man orchid seed or root 6 ounces, mountain pennyroyal 6 oz., red Massalian 10R  
cicely 6 oz., mountain hartwort seed 6 oz., mint 6 oz., best cassia 2 oz., cinnamon 1 oz. After burning cut them up and sift them cut them up again and sieve them many times so that they become really fine then put them in glass vessels and do not use them immediately but after about ten days. I have prepared them not burning the beasts but 15R  
mixing up pastilles made out of them prepared as I directed in the case of theriac with the substances burnt with the beasts so that they should lose in the burning whatever bitterness was in them, adding the quantity of pastilles which I recommended for four snakes, and they came out extremely well, with no taste of ashes from the burning and no blackened exterior but even in respect of quality they became very pleasant to use, and more effective in respect of the power that I said they specifically had. This is my 20R  
treatise on theriac and theriac salts very carefully constructed, I think, since you are so keen on reading.

μέμνημαι γάρ, ὅποτε τοῖς λόγοις ἐνδόξως ἔτι δημοσιεύων ἐσχόλαζες, ἢ τι λέγων πρό-  
 βλημα, χρῆναι τοὺς λέγοντας διαλιπεῖν ποτε, πολλὰς ἀφορμὰς εὐρίσκειν σε φιλοτιμούν-  
 των εἰς τόδε διαλεγομένων. ἔλεγες γάρ ὅτι καὶ οἱ θεοὶ μὴ χρῶντες οὐ λαλοῦσιν. ἐνίστε  
 5 δὲ καὶ τὰ χρηστήρια σιωπᾶ, ποτὲ καὶ ἡ θάλασσα τοῖς χειμῶσι τὸ πλεῖσθαι οὐκ ἔχει. τὰ  
 γῆ τοὺς καρποὺς οὐκ ἀναφύει πάντοτε. μιμησάμενος οὖν σε κἀγὼ οὐδὲν τῶν περὶ τῆς  
 θηριακῆς ζητουμένων παρέλιπον, ἅμα καὶ σοι προτρεψάμενος ἠδέως χρῆσθαι τῷ φαρ-  
 μάκῳ, ἐπεὶ καὶ πολυετῆ τῆς ζωῆς τὸν χρόνον ἢ χρῆσις αὐτοῦ παρέχεσθαι τετήρηται, ὄν  
 περ εἰκότως ἐγὼ .γενέσθαι σοι παρὰ τῶν θεῶν εὐχομαι.

1 γάρ L σε *post* γάρ *add. in marg.* Q 2 χρῆναι L, Q *ante corr.* κρῖναι Q *post corr., edd.* 3 τόδε τὸ σὲ  
 L 3 λαλοῦσιν Q καλοῦσιν L, Q *ante corr.* 9 γενέσθαι σοι παρὰ τῶν θεῶν εὐχομαι L παρὰ τῶν θεῶν  
 γενέσθαι σοι εὐχομαι Q γενέσθαι σοι τῶν παρὰ θεῶν *Crat. Kühn*

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For I remember when you were still distinguishing yourself in the public service, whenever you had time to spare for literature, or were setting out some problem, you thought speakers should fall silent from time to time and stop looking for subjects to debate. You used to say that even the gods are silent between prophecies and sometimes even the oracles are silent and sometimes because of storms we cannot put to sea. Rivers stop flowing and after a time begin to flow the other way and the earth is not always producing crops. Following your example I too have left none of the questions about theriac unanswered at the same time guiding you towards the use of the drug since the use of it has been shown to add years to the lifespan and which I pray the gods will bestow upon you.

5R

10R

**COMMENTARY**



p.54) 3--4 Πισωνι...Γαληνος The chapter headings and chapter divisions in Chartier adopted by Kühn do not appear in the mss. or the earlier Greek editions of the work prior to Chartier. They do however correspond to chapter divisions and headings in Latin in the Latin Giunta edition of 1565 (Giun.) The 1549 Basle Latin edition (Frob.) divides the work into 36 short chapters, listed and summarised before the main text begins. There are no headings in the text itself of Frob. except at the beginning of chapter 1 where a Latin translation of the heading in P V W (see app.crit.) appears. The heading in P V W covers the whole of the contents of P V W which consist of excerpts of Kühn's chapters 1 and 2.

p.54) 5 Καί The opening Καί forms part of a construction Καί ... καὶ μάλιστα; cf. Lucian *Charon* 17.1-5 Καὶ μὴν οὐδ' εἰπεῖν ἔχοις ἂν κατὰ τὴν ἀξίαν ὅπως ἐστὶ καταγέλαστα, ὃ Χάρων, καὶ μάλιστα αἱ ἄγαν σπουδαὶ αὐτῶν καὶ τὸ μεταξὺ τῶν ἐλπίδων οἴχεσθαι ἀναρπάστους γινομένους ὑπὸ τοῦ βελτίστου Θανάτου. *Hipp.Epid.* XVIIa 962.5-8 Καὶ περὶ τοῦτου πολλάκις ἀκηκόατε καὶ μάλιστα ἐν τοῖς περὶ τῶν ἐκπιϋσκότων φαρμάκων, ὡς οὐ χρὴ διαφορητικὴν αὐτῶν εἶναι τὴν δύναμιν, ἀλλὰ τὴν ὀνομαζομένην ἐμπλαστικὴν. The suggestion of Klass in Pauly (1950) s.v. PISO (5) that "Galen hat dem P[iso] noch eine oder gar mehrere Schriften gewidmet, wie aus dem Anfangsworten des Werkes hervorgeht (Καὶ τοῦτόν σοι τὸν περὶ τῆς θηριακῆς λόγον ...σπουδαίως ἐποίησα [p. 210])", taking Καί to mean "also [in addition to the other treatises I have written for you]" is therefore unlikely to be correct.

p.54) 5 Dedication: see introduction p.40.

p.54) 8 καὶ γὰρ καὶ is a distinctively Galenic phrase; TLG shows 150 instances in authors earlier than Galen and 497 in Galen. καὶ γὰρ καὶ ἄλλως is still more distinctively Galenic: TLG shows 15 instances of which six are in Galen (and none earlier), one in Paulus and three in Oribasius: of these four three are duplicates: a dietary recommendation of ἰχθύων δ' οἱ πολύποδες (καὶ γὰρ καὶ ἄλλως πεπίστευται ἐρεθίζειν) in Orib. *Collectiones* 6.38.16.1-2 = Orib. *Synopsis* 1.6.7.2-3 = Paulus *Epitomae* 1.35.1.16-17. There is of course a strong possibility that this passage derives from a lost work of Galen. The fourth is taken from Galen *Ut.Diss.* II: 889.2-7 Μέγεθος (sc. of the womb) δὲ οὐκ ἴση μὲν ἐπὶ πασῶν· παρὰ πολὺ γὰρ ἐλάττω <v> μὲν ἢ τῆς <μη> κυούσης, μείζων δὲ ἢ τῆς ἐγκύου· καὶ ἦτις δὲ οὐδέποτε ἐκύησε, καὶ ταύτης μείων ἐστίν· καὶ παρὰ τὰς ἡλικίας, αἷς μηδέπω τοῦ λαγνεύεσθαι ὥρα ἢ μηκέτι· καὶ γὰρ καὶ ἄλλως ἐλάττων αἰεὶ ταῖς μὴ λαγνευομέναις. = (with slight variations) Orib. *Collectiones* 24.29.3.1-4.1. The expression ought to mean something along the lines of "and here is another and different explanatory factor" and seems to have that force in the instance quoted above - there are great variations in size depending whether the woman is or is not or has in the past been pregnant, and lesser but significant differences depending whether the woman is or is not having sexual intercourse. Here the sense seems to be that PISO's interest in books and philosophers generally explains the multitude of books surrounding him, while his interest in theriac is a more specific explanation for the book he is actually reading. cf. πολλὰ μὲν καὶ ἄλλα in the preceding sentence.

p.54) 9 φιλοσόφων : φιλόλογον is the *lectio difficilior* but see *Praen.* XIV 629.4 and Nutton *ad loc.* for φιλόλογος used by Galen to characterise his friends at Rome whereas the reference here is to ancient authorities. Cf. *Praen.* XIV 630.13-14 for ἀνδρῶν qualified by φιλόλογον. Cf. *SMT* II: XI 474.13 for Aristotle and Theophrastus as examples of ἄνδρες φιλόσοφοι. For the locution τοῖς παλαιοῖς τῶν φιλοσόφων cf. Thuc. I 5 2.1-3.1 δηλοῦσι δὲ τῶν τε ἡπειρωτῶν τινὲς ἐτι καὶ νῦν, οἷς κόσμος καλῶς τοῦτο δρᾶν, καὶ οἱ παλαιοὶ τῶν ποιητῶν τὰς πύστεις τῶν καταπλεόντων πανταχοῦ ὁμοίως ἐρωτῶντες εἰ λησταὶ εἰσιν, ὡς οὔτε ὧν πυνθάνονται ἀπαξιούντων τὸ ἔργον, οἷς τε ἐπιμελὲς εἶη εἰδέναι οὐκ ὀνειδιζόντων.

p.54) 13 ἀνδρὸς Μάγνου The reading ἀνδρὸς Μάγνου is found in L as noted by Jacques (1999 526-7) but before him by the translator or editor of the Latin Giunta edition of 1565 which states in a marginal note that the Greek printed edition reads Ἀνδρομάχου but the "antiquissim[us] cod[ex]", presumably L, reads ἀνδρὸς Μάγνου. The printer's copy Q reads ἀνδρὸς Μάγνου with the words clearly written and well spaced; P reads Ἀνδρομάχου. The Arabic has "a man called Magnus" (رجل سمي مغنيس); the editor of the text obscures this fact by emending to Andromachus in the text and German translation on the sole authority of the Greek text in Kühn.

There are two issues here: first which reading is correct and secondly where is the reading in the Aldine derived from? As to the reading there is little to choose, both Magnus and Andromachus having written on theriac as appears later in the treatise. Neither locution, somebody called X or a certain man called X, is common in Galen or elsewhere. I prefer ἀνδρὸς Μάγνου on the authority of the Arabic which we know has a source superior to L in at least two places (p. 90.21 and note, p. 114.12 and note) and because as Jacques points out the *difficilior lectio* is ἀνδρὸς Μάγνου; a scribe aware of the contents of this treatise or of *Ant.* is likely to think first of Andromachus as a writer on theriac. The Arabic guarantees an early date for the

reading ἀνδρὸς Μάγνου because there is no reason for a change to have occurred in the transmission of the Arabic in which there is no resemblance between the two readings.

As for the presence of Ἀνδρομάχου in P we do not have enough of P to say very much about it. As there is no other evidence of the Aldine printers taking reading from anywhere other than Q the safest assumption is that the same error has been made independently in each case.

p.54) 14 πεπαιδευμένου ἐντελῶς πεπαιδευμένου is preferred to ἀκριβῶς ἡσκημένου to avoid inelegant repetition at the end of the sentence. ἐντελῶς if correct along with ἐντελή παιδείαν ascribed to Antipater p.60 l.20 constitute the only occurrence of the stemma ἐντελής in Galen.

p.54) 14--15 τῷ λόγῳ, τῶν ἐπ' αὐτοῖς λογισμῶν This is the reading in L N Q and undoubtedly the correct one: τῷ λόγῳ corresponding to τῇ πείρᾳ and therefore in the singular, τῶν ἐπ' αὐτοῖς λογισμῶν (the reasonings on the subject of τὰ ἔργα) corresponding to τῶν ἔργων and therefore in the plural. LSJ sv ἀσκέω state that the verb takes the accusative of the thing practised but the dative is found in Galen *Inst. Log.* 17.2.6 μαθεῖν ἔνεστιν ἐναργέστερον ἅπασι τοῖς ὁπωσοῦν ἡσκημένοις λόγοις τοιοῦτοις.

p.54) 16 κατ' ἐκεῖνον καιρὸν Apparently Kühn's emendation (Chartier has κατ' ἐκεῖνῳ καιρῷ) and the only possible reading

p.54) 23 ἀνθρώπων : ἄλλων ἀνθρώπων (O and *edd.*) is not required by the sense.

p.54) 25--26 ἔνια δὲ καὶ τῶν ἔργων οὕτως ἀκριβῶς ἐπίστασαι καὶ βλέπεις, ὡς οἱ φιλοπόνως μαθόντες ἡμεῖς. The suggestion that medical skill can be acquired otherwise than by diligent study is fundamentally unGalenic: see further note on following chapter. βλέπω + infinitive for "appear to" is rare but recognised by LSJ s.v.

p.56) 1 περιτόναιον: Latin translations by Rota and Froben imply a reading περιναῖον. Arabic however has صفق, peritoneum. The source of the reading περιναῖον is unknown. It is unlikely that Rota follows Froben since we know Rota was working from the original Greek from his note on the reading Andromachus in the printed text as opposed to Magnus in the ms. ( p.54 l.13 above and note). The reading seems more likely an error made independently by each translator than a deliberate emendation, given that there is no obvious reason why the one type of injury rather than the other should be the result of an otherwise unspecified riding accident.

p.56) 2 ἱερουργία (O Friedlaender) is adopted more on the authority of Friedlaender's conjecture than of O, since O offers two patently inadmissible readings in this sentence alone (ὕπῳ, χωρεῦντας) and cannot be regarded as reliable. L and its apographs have ἱερουργῶς: the reading ἱερουργός in the Aldine and subsequent editions including Kühn appears for the first time in the body of Q (not as a correction) and the copious literature predicated on the priesthood of Piso's son therefore depends on either a copyist's error or a conjecture. δημοτελής means "at the public cost" (LSJ s.v.) and seems almost invariably to qualify ἐορτή, ἱερά or πανάγυρις - a pattern which ἱερουργία fits although ἱερουργία is not qualified by δημοτελής elsewhere in tlg. There is no evidence that it can apply to a person with the meaning "public...praefectus" as translated by Chartier. Nutton argues that this passage refers to the *Lusus Troiae* performed at the Secular Games in 204. For discussion see introduction, "Date". The Latin of Julius Martius Rota in the Giunta edition (Venice 1565): "Sacris enim certaminibus tunc ipse praeeras" implies a conjecture changing one letter of the Aldine text ἦν to ἦς so as to read ἐπειδὴ τις καὶ δημοτελής ἦς μυστηρίων ἱερουργός, transferring the putative priesthood from son to father. Rota or his editor Agostini Gadaldino is generally and rightly regarded as a careful and competent scholar. The corruption could very easily have arisen from the loss of ἦς from δημοτελής ἦς by haplography and a subsequent erroneous emendation. The proposed reading of ἦς for ἦν gives force to the words καὶ αὐτοὺς ἰδεῖν τινὰ τῶν μυστηρίων καὶ αὐτοὺς ἐπιτελεῖν - not only was the father Piso involved in the ceremony as an ἱερουργός but so too, in another capacity, was his son. I believe the conjecture to be wrong because it depends on the faulty reading ἱερουργός but it deserves mention as an alternative solution to the problem of Piso's son's phantom priesthood. Rota's departure from the Greek in describing the horse exercise involved leaves little doubt that he believes the *Lusus Troiae* is being described: "Oportet autem eo tempore, nobiles etiam pueros equis insidentes, atque pro conditione certaminum ad numerum discurrentes, ludum quandam obire."

p.56) 4 τοὺς ἵππους: L has ὥσπερ τοῖς ἵπποις, apparently giving the sense that the riders are riding rhythmically, ἵππεύοντας εὐρύθμως, and dancing "as if with (by the agency of) the horses." χορεύω with dative means "to dance in honour of" (LSJ s.v.) and in any event to dance by the agency of a horse is an

exceptionally clumsy expression. Friedlander's striking out of ὥσπερ is justifiable on the assumption that ὥσπερ has been added as an ineffective palliative for the clumsiness. Reading τοὺς ἵππους (my conjecture) gives a much more intelligible sentence in which the riders ride rhythmically, the horses themselves dance, and thus even the horses - καὶ αὐτοὺς, which otherwise lacks force - participate in the rite. For horses dancing in the theatre cf. Plutarch *Bruta animalia ratione uti* 992 A11-B4 ἵπποι δὲ καὶ βόες ἐν θεάτροις κατακλίσεις καὶ χορείας καὶ στάσεις παραβόλους καὶ κινήσεις οὐδ' ἀνθρώποις πάνυ ῥαδίας ἀκριβοῦσιν ἐκδιδασκόμενοι καὶ μνημονεύοντες † εὐμαθείας ἐπίδειξιν ὡς ἄλλο οὐδὲν οὐδαμῶς χρήσιμον ἔχουσιν.

p.56) 8 ἐπιεικῶς ἐθεραπεύετο The passage is ambiguous as to whether surgery actually took place; we would expect the imperfect rather than the aorist ἐδεήθη καὶ τομῆς if the point was that an apparent need for surgery was in fact averted as in the version of the anecdote in the following chapter p.62.7 ff. where the need for surgery is obviated by the emperors' inspired use of a plaster. The relationship between the two passages concerning Piso's son is highly problematic. It seems clear that they do, contrary to the suggestion in Watson (1966) 63 n.4, refer to the same incident. The introduction of the topic the second time around, τὸ δὲ τοῦ σοῦ παιδὸς γινόμενον κτλ presupposes that the reader already knows the facts of the incident. The two versions agree that there was some incident involving Piso's son; that this caused an ἀποστάσις in his body; that Piso was present and was expressing concern about the appropriate type of treatment for his son; that surgery was at least considered as a therapy; and that drugs were applied externally. Neither account absolutely contradicts the other. The express statement of the involvement of the emperors in the second version but not the first is perhaps explicable in the context given the different purposes for which the anecdote is deployed. The two versions do however strongly imply two incompatible versions of the same set of facts. First, the first version naturally implies that surgery does in fact take place: if the aorist ἐδεήθη is not intended to imply that surgery actually occurs, the passage is misleading in the absence of an express negating of the implication. The Arabic text also suggests that surgery occurs: "es endlich notwendig war, sie zu scheiden. Der Jüngling überwand sich und entschloss sich bewusst, sie schnieden zu lassen". Secondly the references to the application of φάρμακα in the first and second passages have widely different connotations. In the first instance the φάρμακα are not identified and appear in the anecdote for the rather indirect reason that Piso's love for his son is evidenced by his making sure they are accurately applied to the affected part. The application of φάρμακα is presumably merely incidental to the surgery. But if the two passages concern the same event the φάρμακα consist of, or include, theriac. In the first instance the description of the event is immediately followed by the statement that Piso οὐδὲ περὶ τὸ φάρμακον τοῦτο τὴν θηριακὴν ἔσχεε ἀμελῶς, ἀλλ' ἐσπούδασας αὐτοῦ εἰδέναι τὴν τε δύναμιν καὶ τὴν κρᾶσιν, τὸν τε καιρὸν καὶ τὸ μέτρον τῆς χρήσεως ἀκριβῶς ἐκμαθεῖν. Note the singular φάρμακον as against the previous φάρμακα. The statement would make much better sense as a coda to the second version of the anecdote, in which theriac has miraculously saved the son's life, than as a coda to the first. As things stand Piso's interest in theriac as stated in chapter 1 is overdetermined in that it is explained both by his acquisition of and reading of the Magnus book and by the accident to his son. The fact that the author is deciding between competing versions of the story of the accident suggests that he is deciding between fictions (he is an eye-witness in both versions so is not deciding between competing accounts) which in turn suggests that the mise-en-scene as a whole may be a fiction. See introduction.

p.56) 8 φιλοσοφίας the mss. and editions have τοῦ φιλοσοφίας. we expect either τῆς or no definite article at all; it is more usual in general to find φιλοσοφία without the definite article (LSJ s.v. φιλοσοφία) and more usual in Galen, e.g. *Praen.* XIV 608.15-16 τοῦ πατρὸς ἐπὶ φιλοσοφίαν ἄγοντός με

p.56) 11-12 καὶ παραινεῖν κατὰ τὸν Ἱπποκράτην, μηδὲν εἰκῆ ποιεῖν. *Hipp. Epid.* VI 2.12.1 Μηδὲν εἰκῆ, μηδὲν ὑπερορᾶν: "Do nothing without a purpose; overlook nothing". Commentary by Galen *Hipp.Epid.* XVIIA 951.1-953.11 esp. 952.1-3 ὅσοι δ' ἂν πρὸς ἐνὸς ἑαυτοῦς ἦτοι δούλους ἢ ἐξελυθῆρους ἀποφώνωνται, εὐθέως ἅμα τῷ γεγραμμένον εὐρεῖν τι παρ' αὐτῷ πιστεύουσιν ἀπερισκέπτως τε καὶ εἰκῆ ... 953.7-12 καθάπερ δὲ νῦν ἐπὶ σημειωτικοῦ θεωρήματος ὡς ἐπὶ παραδείγματος ἐποιήσαμεν τὸν λόγον, οὕτω κάπὶ τῶν θεραπευτικῶν οὐθ' ὑπερορᾶν τινοῦς χρῆ τῶν δοκούντων εἶναι μικρῶν οὐτ' εἰκῆ καὶ ἀβασανίστως πιστεῦειν ταῖς εἰρημέναις αὐτῶν δυνάμεσιν, ὡς ἐν Τῇ θεραπευτικῇ πραγματείᾳ μεμαθήκατε. Acting εἰκῆ in these passages means unquestioningly (ἀπερισκέπτως, ἀβασανίστως) following the precepts of the doctor's chosen sect without properly considering the symptoms.

p.56) 14 ἀτόπως is missing from Q but present in Aldine

p.56) 17 εἰδεῖν is missing from Q and L but present in Aldine

p.56) 19 ἀναμνήσεις εἶναι λέγει Plato *Meno* 81a-86c, *Phaedo* 73a-77a. The theory applies to matters of

geometry (*Meno* 82b-86a) and abstractions such as the Equal, the Beautiful, the Good (*Phaedo* 78d) but not to particular items which are equal or good which are always in a state of flux and are apprehended by the senses rather than the mind (*Phaedo* 78e). The medical expertise exhibited by Piso is plainly of the second kind and therefore outside the scope of Plato's theory

p.56) 20 ἐμφαίνεσθαι δὲ αὐτὰς τότε, ὅτε ἡ χρεῖα καλεῖ. A misrepresentation of Plato's theory. Plato does not say that the process of learning is superfluous. In both the *Meno* and in Socrates' reference to the *Meno* in the *Phaedo* Socrates has to elicit the requisite information from the slave by asking him the right questions - εἰάν τις καλῶς ἐρωτᾷ *Phaedo* 73a - the point is that what Socrates does to the slave should be seen as eliciting a memory rather than implanting new information. This is very far from the suggestion here that the information will spring forth unbidden "when necessity requires."

p.56) 23--24 ἀλλ' ἐσπούδασας αὐτοῦ εἰδέναι τὴν τε δύναμιν καὶ τὴν κρᾶσιν, τὸν τε καιρὸν καὶ τὸ μέτρον τῆς χρήσεως ἀκριβῶς ἐκμαθεῖν. Indication, method of preparation, and dosage instructions are a typical Galenic specification of a drug: cf. *CMG* II: XIII 341. 9-11 Ἀσκληπιάδης δὲ ὁ ἐπικληθεὶς φαρμακίων δέκα χωρὶς τῶν θηριακῶν καὶ γυναικείων προσθεῖς καὶ αὐτὸς ἐκάστου φαρμάκου τὴν ἐπαγγελίαν, ἐπὶ πολλῶν δὲ καὶ τὴν ἔψησιν, ἐπ' ἐνίων δὲ καὶ τὸν τρόπον τῆς χρήσεως. *CML* VII: XIII 33.3-5 καλῶς ἐποίησε καὶ περὶ αὐτῆς γράψας ὁ Ἄνδρόμαχος τὴν τε ἐπαγγελίαν καὶ τὴν σκευασίαν.

p.56) 28 ἄπταιστον cf ἄπταιστως p. 74.5; outside these two occurrences in *Ther.Pis.* the root occurs only once in Galen *Nat. Fac.* I: II 35.3

p.56) 29 τῆς ἐπαγγελίας ἐπαγγελία is typically used by Galen to mean the effect (claimed or actual) of a complex drug, the range of diseases it is meant to treat or cure. The root meaning of ἐπαγγελία and cognates is "claim" and it is capable in Galen of having the pejorative meaning "claimed as opposed to actual state of affairs"; cf. p.112.12 ff. and n.: πολλοὶ γὰρ αὐτῶν τὴν περὶ τὸ θηρεῖν τέχνην ἐπιδείκνυσθαι βουλόμενοι, καὶ μάλιστα ὅσοι καὶ φάρμακά τινα πρὸς τὰ τοιαῦτα εὐρίσκουν ἐπαγγέλλονται, τὸ μὲν ἔχειν τὰ φάρμακα ψεύδονται. It can also be used in a non-pejorative sense: cf. *Ant.* I XIV 1.8-2.1 [some drugs confer immunity from ingested poison, some from the venom of wild beasts, some from the effects of defective lifestyle and] ἐνιαὶ δὲ τὰς τρεῖς ἐπαγγέλλονται χρεῖας, ὡς περὶ καὶ ἡ θηριακὴ καλουμένη. ἐπαγγελία can also mean the objective effect of a drug, independent of any claims made for it: *CMG* III: XIII 641 where Galen conducts an experimental comparison of two drugs: ἐνενόουν ἀφελῶν τὰ πλείω καὶ δι' ὀλίγων ἄλλο συνθεῖς αὐθις ἐπισκέψασθαι τε καὶ βασανίσαι διὰ τῆς πείρας, εἴτε πολλῶ τινι τοῦ πολυμιγμάτου φαίνοιτο λειπόμενον εἴτε ὀλίγῳ. περὶ παντὸς οὖν ἐποησάμην καὶ τοῦ παρὰ τοῦ καθ' ἡμᾶς ἱατροῦ λαβεῖν τὴν γραφὴν καὶ παραχρήμα σκευάσας παραπλήσιον ἔχον εὖρον ἐπαγγελίαν τε καὶ δύναμιν αὐτὸ τῷ ποικίλῳ. Galen here discovers the ἐπαγγελία of the second drug by preparing it (σκευάσας). ἐπαγγελία therefore here is an objective quality of the drug and means something close to δύναμις. The efficacy claimed for theriac here is in line with *Ant.* I XIV 1-3

p.58) 4 Testing of theriac: for rulers testing on criminals cf. *Ant.* I: XIV 2.3-9 ὁ γὰρ τοὶ Μιθριδάτης οὗτος, ὡς περὶ καὶ ὁ καθ' ἡμᾶς Ἄτταλος, ἐσπευσεν ἐμπειρίαν ἔχειν ἀπάντων σχεδὸν τῶν ἀπλῶν φαρμάκων, ὅσα τοῖς ὀλεθριοῖς ἀντιτέτακται, πειράζων αὐτῶν τὰς δυνάμεις ἐπὶ πονηρῶν ἀνθρώπων, ὧν θάνατος κατέγνωστο. τινὰ μὲν οὖν αὐτῶν ἀνεῦρεν ἐπὶ φαλαγγίων ἰδίως ἀρμόζοντα, τινὰ δὲ ἐπὶ σκορπίων, ὡς περὶ ἐπὶ τῶν ἐχιδνῶν ἄλλα. καὶ ἐπὶ τῶν ἀναιρῶντων φαρμάκων τὰ μὲν ἐπὶ ἀκόνιτου, τὰ δὲ ἐπὶ λαγωῦ τοῦ θαλαττίου, τὰ δ' ἐπ' ἄλλου τινὸς ἢ ἄλλου. πάντα δ' οὖν αὐτὰ μίξας ὁ Μιθριδάτης ἐν ἐποίησε φάρμακον, ἐλπίσας ἔξειν ἀρωγὸν ἐπὶ πᾶσι τοῖς ὀλεθριοῖς. There is clearly a close parallel between the two passages but also a significant difference in that in *Ant.* Mithridates (and possibly also Attalus, depending on the scope of ὡς περὶ in line 4) tests simple drugs in order to invent a new complex drug while the unnamed rulers of *Ther.Pis.* are testing to verify whether an existing complex drug performs in accordance with its ἐπαγγελία. The author then presents the test on wild fowl as a parallel to the experiment conducted by the rulers, and this test is clearly also a test or demonstration of the fact that theriac lives up to its ἐπαγγελία. It is not a test of a particular batch of theriac, because the author says that ὅσα δὲ πέπωκεν [sc. theriac] ἰσχύει καὶ μετὰ τὸ δῆγμα τὴν ζωὴν ἔχει rather than saying that if they survive, it shows that the batch is a good one. The author does however then turn to the separate issue of testing for adulteration (p.58.13 ff. and n.); the issue of batch testing (this time for deterioration through aging) arises again later in the piece at p.126.2 ff. and note 1.

For testing on criminals condemned to death cf. *Ant.* I: XIV 2.3-9 (previous note). A parallel allegation of experimenting on living prisoners by permission of the ruler is made in the context of anatomical dissection by Celsus *de Medicina* 1 pr.23.3-24.1: "Praeter haec, cum in interioribus partibus et dolorum et morborum uaria genera nascantur, neminem putant [sc.ii, qui RATIONALEM medicinam profitentur pr. 13.1] his

adhibere posse remedia, qui ipsa<s> ignoret. Ergo necessarium esse incidere corpora mortuorum, eorumque uiscera atque intestina scrutari; longeque optime fecisse Herophilum et Erasistratum, qui nocentes homines a regibus ex carcere acceptos uiuos inciderint ... ". Galen himself is silent on this allegation despite frequent references to Erasistratus' anatomy in *AA I*: II 216.16-217.2 where he says he has written a book on Erasistratus and another on "dissection both of the living and dead": ἐπιδημοῦντος μὲν γὰρ ἔτι τῆ Ῥωμαίων πόλει τοῦ Βοηθοῦ, τὰ τε περὶ τῆς Ἱπποκράτους ἀνατομῆς, τὰ περὶ τῆς Ἐρασιστράτου, καὶ μέντοι καὶ τὰ περὶ τῆς ἐπὶ τῶν ζώων, ἔτι τε τὰ περὶ τῆς ἐπὶ τῶν τεθνεώτων ἐγγραφή.

p.58) 6 The marginal note Πῶς δοκιμαστέον τὴν θηριακὴν vel sim. appears in all three Greek traditions (L, P V W, O) and is therefore clearly of some antiquity. I have not printed it on the grounds that there is little evidence of such notes in Galen's works.

p.58) 7 τὸ αὐτὸ δρῶντες τοῦτο in P V W is an emendation made necessary by their omission of the first part of this sentence to which τὸ αὐτὸ refers.

p.58) 8 ἀλεκτρούνας γὰρ λαβόντες A puzzling sentence. οἰκοδίατοι is a hapax but its sense is clear. ὁμότροφοι (sharing our food) might be preferred to the alternatives ὁμορόφοι etc. (living under the same roof as us) first because it is used by Herodotus 2.66 to denote domestic animals, secondly because the diet of the birds seems more relevant than their living quarters, thirdly because ὁμορόφοι vel sim. merely reduplicates the sense of οἰκοδίατοι. On the other hand ὁμορόφοι is the reading in L and is marginally the *lectio difficilior* and οἰκοδίατοι (a hapax) might have the sense "fed at home" rather than "living at home" in which case the duplication argument works against ὁμότροφοι. The Arabic text has "die Auslauf hatten weil ihr Körper trockener und magerer ist als der im Stall gefangener" to convey the meaning of the negative of both adjectives. Note that Pliny the Elder regards domestic cocks as "living in the house" "imperitant suo generi et regnum in quacumque sunt domo exercent" (Nat Hist X.26 Mayhoff Teubner 1906). The point is not crucial however since "under the same roof" would naturally also imply a different diet from that of wild birds. More seriously it is impossible to see why the diet of the birds and the dryness of their constitution is relevant at all - if theriac works identically on men and wild fowl, it is curiously selective that it acts markedly differently on wild fowl on the one hand and domestic fowl on the other. Furthermore as the test of theriac on birds is meant to be a proxy for a test on humans one would expect the domestic bird to be a better approximation of a human than the wild one. The relative dryness of various kinds of meat, considered as food or medicine, is a major concern in Galen. For differences in the relative dryness within one species varies depending on whether they are tame or wild *Alim.Fac.* III: VI 681.1-10 = CMG 5.4.2 344.25-345.7 Τῶν ἡμέρων ζώων ἢ κρᾶσις ὑγροτέρα τῆς τῶν ἀγρίων ἐστὶ διὰ τε τὴν ὑγρότητα τοῦ ἀέρος, ἐν ᾧ διατᾶται, καὶ τὸ ῥάθυμον τοῦ βίου. τὰ δ' ἐν τοῖς ὄρεσι ταλαιπωρεῖται τε καὶ κάμνει πολλὰ καὶ κατὰ ξηρότερον ἀέρα διατρίβει. διὰ τοῦτ' οὖν ἢ τε σὰρξ αὐτῶν ἐστὶ σκληροτέρα καὶ πιμελῆς ἢ οὐδ' ὄλως ἢ ὀλίγιστόν τι μετέχει. ταύτη τοι καὶ ἀσηπτοτέρα πλείοσιν ἡμέραις διαμένει τῶν ἡμέρων τε καὶ ἀργῶς διητημένων ζώων. πρόδηλον δ', ὅτι καὶ ἀπέριτος ἢ ἐξ αὐτῶν ἐστὶ τροφή μᾶλλον, ὥσπερ ἢ ἐκ τῶν ἡμέρων τε καὶ ἀργῶν περιττωματικῆ. τρέφειν τε οὖν ἀναγκαῖόν ἐστὶ τὴν τοιαύτην τροφήν μᾶλλον εὐχνοτέραν τε πολλῶ τῆς ἐτέρας ὑπάρχειν. The dryness of the air in which they live and the arduousness of their life compared to "lazy" domesticates is here what accounts for the difference, but differences of diet are not mentioned. But cf. also *Vict.At.* CMG 5.4.2 p.441 sect. 56.1-57.1 where mountain and lowland birds of the same species vary in dryness of flesh not only because of the air they live in but also because of their diet: ἐστὶ δὲ καὶ τὰ ἄλλα πάντα τὰ ἐν τοῖς ὄρεσι φυόμενα μακρῶ βελτίω τῶν ἐν τοῖς πεδίοις, καὶ μοι δοκοῦσι καὶ οἱ ὄρειοι στρουθοὶ μὴ μόνον τῆ λεπτότητι τοῦ ἀέρος ἀλλὰ καὶ ταῖς τροφαῖς οὐχ ἥκιστα πλεονεκτεῖν τῶν ἐν ἔλασι τε καὶ πεδίοις διατρωμένων. Concern with this issue in the context of animals regarded as food or medicine for humans naturally follows from the fact of the four humour theory espoused by Galen; in the present context it is rather harder to account for. The reason for the experiment is also unexplained. The author claims to be making a κρίσις of the drug but this is neither for research and development purposes since it is clear throughout the treatise that he is passing on the canonical recipe for theriac rather than seeking to improve it; nor is it for quality control purposes since he proposes a quite different test for that purpose (see below).

p.58) 10 τὰ θηρία τὴν θηριακὴν the reading in P V W cannot be right because it is clear from the rest of the sentence that some fowls have been given theriac to drink and others not whereas P V W's reading suggests that it is given to all of them. Arabic "Ich liess Hähne ... von den Vipern beissen" confirms this reading.

p.58) 13--14 προδίδομεν τῆς θηριακῆς προδίδωμι does not routinely take the genitive of the thing of which a share is given; of δίδωμι and its compounds only προσδίδωμι and μεταδίδωμι do so. However by a comparatively rare but perfectly legitimate construction "The genitive is used with verbs whose action

affects the object only *in part*...Almost any transitive verb may be occasionally so used" (Hadley (1884, 236); cf Weir Smyth (1956, 320)). This construction is favoured by the author of this treatise; cf. p.58.24. (For an instance elsewhere in Galen: βέλτιον εἶναι φησιν εὐθέως ἀπ' ἀρχῆς αὐτῷ δίδοσθαι τῆς πτισάνης, *HVA* XV 545 4-5) but apparently not recognised by P V W who changes the genitive to accusative here and changes the verb at 216 13-14 to one which "officially" takes the genitive.

p.58) 17 The test proposed here for adulteration is the same as that for deterioration through ageing at p.126.2. The test is surprising: the suppression of diarrhoea in cases of cholera is part of the *ἐπαγγελία* of theriac as set out in chapter 15 (see 130.3 ff.) But it also acts as an emmenagogue and the author regards this a paradox requiring explanation (see 130.11 ff.: ἔστι δὲ ἐπὶ τῶν γυναικῶν καὶ τῶν καταμηνίων αἱμάτων ἀγωγὸς καὶ τὰς ἐν τῇ μήτρᾳ καὶ ἔδρᾳ γιγνομένας αἰμορροΐδας ἐπισχεθείσας πολλακίς ἀναστομοῖ.θαυμασίως δὲ καὶ τὰς ἀμέτρους τῶν αἱμάτων ἀποκρίσεις εἶωθεν ἐπέχειν. μέμνησαι γὰρ ὅτι μικτὴν καὶ ποικί- 10 λην τὴν δύναμιν αὐτῆς ἐν τοῖς ἔμπροσθεν εἵπομεν καὶ διὰ τοῦτο τὰ μὲν διαχέουσα καὶ λεπτόνουσα ἐκκρίνεσθαι ποιεῖ, τὰ δὲ δι' ἀτονίαν τῆς ἐμφύτου δυνάμεως ἀποκρινόμενα περιττῶς, ταῦτα τονοῦσα τὴν δύναμιν τῶν σωματίων εἶωθεν ἐπέχειν.) It may in fact be the case that theriac would have the anti-purgative effect claimed because of its opium content; the constipative effect of opioids is thoroughly well documented (e.g. Hanks et al. 2009) but it is not clear why a test of this single one of the many δυνάμεις ascribed to theriac by the author should be a satisfactory test for the drug as a whole. So far as testing for aging is concerned it might be that the opium (or other ingredients which contribute to the constipative effect) have the shortest useful life so that if they have retained their efficiency there is a valid *a fortiori* argument that so too have the other ingredients, but if a similar test guarantees freedom from adulteration in respect of any ingredient that must imply that the constipative effect of the drug is not the direct result of a constipative δυνάμεις in one or more of the simples constituting the mixture but arises only emergently from the precise mixture of all the ingredients and that deviation from the recipe in respect of any one of the ingredients reliably nullifies the constipative effect. Cf. *Ant.* I: XIV 3.17-4.11 for a discussion of the effect of the opium in theriac on Marcus Aurelius' sleep patterns and the observation that "such drugs" Presumably opium-based ones, become weaker with age: εἴρηται γὰρ μοι πολλακίς ἤδη τὰ τοιαῦτα φάρμακα χρονίζοντα πρᾶότερον ἴσχειν αὐτόν. XIV 4.9-11

p.58) 18 οἱ πολλοὶ P V omit οἱ giving the sense "many people" rather than "most people". The Arabic text has "die meisten Leute".

p.58) 19 πλείστου ἀργυρίου ὠνόμοι can take either genitive of price or dative (LSJ s.v. ὠνόμοι) rendering Q's correction unnecessary.

p.58) 21 εἰσὶ γὰρ [οἷ] καὶ τῶν ὑγαινότων τινὲς <οἷ> Q transposes οἷ from the former position to the latter. τινὲς with the definite article is quite common in Galen but usually in οἱ μὲν τινες/οἱ δὲ τινες constructions. In the present case a second οἷ is required even if the first is correct and Q's emendation seems slightly the more probable.

p.58) 21 ἐν ὄλῳ καὶ παντὶ τῷ βίῳ ἑαυτῶν is a rare example of a difference between Q and the Aldine edition not based on a note in Q. ἑαυτῶν is of course unnecessary.

p.58) 21--22 διὰ τὸ σκαιόν, καὶ ἀνελεύθερον τοῦ τρόπου Possibly an echo of Demosthenes 26.17 οὕτω σκαιός ἐστι καὶ βάρβαρος τὸν τρόπον. ἀνελεύθερον probably requires the sense "not free" rather than "base" or "slavish" since the danger of being plotted against is presumably a consequence of being a ruler.

p.60) 1--2 ὥσπερ δὴ τὸν θεῖον Μάρκον καὶ ἡμεῖς οἶδαμεν ἐνθέσμως τὲ βασιλεύσαντα, καὶ ἀκριβῶς ἑαυτοῦ διὰ τὴν σύνεσιν τῇ συγκράσει τοῦ σώματος παρακολουθήσαντα A puzzling passage raising several questions. Why the emphasis on Marcus Aurelius' "lawful rule" and why the wording "we ourselves know that ..."? On the first point the explanation may be that this is part of the rhetorical strategy of praising the present emperors, part of which may require a limited amount of praise for their predecessor - see line 7 below and note. On the second point there is possibly an echo of *Ant.* I XIV 3.16-17 τὰ μὲν οὖν κατὰ Μιθριδάτην ἀκούομεν· αὐτοὶ δ' ἡμεῖς ἴσμεν κατὰ τὸν Ἀντωνίνον... "What we know about Mithridates is hearsay; but concerning Antoninus we have direct knowledge..." This may lend support to Labbé's theory (see introduction) of an author who is a *nugator* basing himself on *Ant.* who in this instance has failed to note that taking this expression out of context spoils its sense. The passage also presents a cluster of hapaxes and rare words - οἶδαμεν for ἴσμεν, ἐνθέσμως, δεδόξασται in the sense of "has acquired glory": see introduction.

p.60) 3 δόξαζω means "I hold an opinion" in 68 of the 72 occurrences of the lemma in Galen identified by TLG. Three times it means "to think well of/ esteem worthy" (*Hipp. Off. Med.* XVIIIb 790.10, *QAM* IV

772.7, *QAM* IV 790.8). Its use in the perfect passive meaning "has acquired glory" has no parallel in Galen but is found in Old and New Testament sources and frequently in subsequent writers in the Judaeo-Christian tradition, often in quotations of the passages of the Septuagint below:

Exodus 15.6 ἡ δεξιὰ σου, κύριε, δεδόξασται ἐν ἰσχύϊ· ἡ δεξιὰ σου χεὶρ, κύριε, ἔθραυσεν ἐχθρούς.  
Thy right hand, O Lord, is become glorious in power: thy right hand, O Lord, hath dashed in pieces the enemy. (King James Version)

Exodus 15.21 Ἀισωμεν τῷ κυρίῳ, ἐνδόξως γὰρ δεδόξασται· ἵππον καὶ ἀναβάτην ἔρριπεν εἰς θάλασσαν.  
Sing ye to the Lord, for he hath triumphed gloriously; the horse and his rider hath he thrown into the sea. (King James Version)

Malachi 1.11 διότι ἀπ' ἀνατολῶν ἡλίου ἕως δυσμῶν τὸ ὄνομά μου δεδόξασται ἐν τοῖς ἔθνεσιν  
For from the rising of the sun even unto the going down of the same my name shall be great among the Gentiles (King James Version, modified)

2 Cor 3.10 "For even that which was made glorious had no glory in this respect, by reason of the glory that excelleth. καὶ γὰρ οὐ δεδόξασται τὸ δεδοξασμένον ἐν τούτῳ τῷ μέρει εἵνεκεν τῆς ὑπερβαλλούσης δόξης·

For subsequent quotation see out of many examples e.g. Gregorius Nyssenus 46 221.15 quoting Malachi 1.11. The word is used exclusively of the giving of worship to a god - usually Judaeo-Christian but cf. Sextus Empiricus *Adversus Mathematicos* 9 185.1-4: εἶγε μὴν ἡ Ἄρτεμις θεὸς ἐστίν, καὶ ἡ Ἐνοδία τις ἂν εἴη θεός· ἐπ' ἴσης γὰρ ἐκείνῃ καὶ αὕτη δεδόξασται εἶναι θεὰ ἡ Ἐνοδία καὶ ἡ Προθυρία καὶ Ἐπιμύλιος καὶ Ἐπικλιβάνιος.

p.60) 5--6 τῆ γὰρ περὶ τὸν βασιλέα γενομένη ὑγιεινὴ καταστάσει τὴν πίστιν τῆς ὠφελείας ἡ ἀντίδοτος μᾶλλον προσεῖληφεν. Compare *Ant.* I XIV 24 14-18 Ἀντωνίνου μὲν οὖν βασιλεύοντος τῶν πλουσιῶν ἡ θηριακὴ ἐσκευάζετο πολλοῖς, καὶ διὰ τοῦτο ἐνίοτε τῶν δυσπορίστων ἀπέλιπέ τινα θαυμαστὸν γὰρ ὅπως οἱ πλούσιοι τὰ τῶν αὐτοκρατόρων ζηλοῦσιν, ἢ βούλονταί γε φαίνεσθαι ζηλοῦντες. "When Antoninus was emperor for example theriac was made up by many of the rich and he sometimes some of the hard to come by ingredients were missing; for it is astonishing how the rich envy what the rulers have or at least wish to seem to envy it." The point is the same but the tone in *Ant.* appears to be satirical rather than laudatory.

p.60) 8 The faint praise of Marcus followed by warmer praise for the present emperors possibly reflect the advice given by Menander Rhetor *Peri Epid.* 376.31-377.2 ἤξεις δὲ ἐπὶ τὴν τελειοτάτην σύγκρισιν, ἀντεξετάζων τὴν αὐτοῦ βασιλείαν πρὸς τὰς πρὸ αὐτοῦ βασιλείας, οὐ καθαιρῶν ἐκείνας (ἀτεχνον γὰρ) ἀλλὰ θαυμάζων μὲν ἐκείνας, τὸ δὲ τέλειον ἀποδιδοῦς τῇ παρούσῃ.

ἔφθασε - has spread, extended: an unusual meaning of φθάνω. LSJ *s.v.* give the examples μέχρι γῆς Plot.3.2.7; εἰς βορρᾶν PFlor. 50.87 (iii a.d.).

p.60) 8 κεχρηῆσθαι: O has χρηῆσθαι but the use of κεχρηῆσθαι with present meaning is standard (LSJ *s.v.* χάω (B)), is common in Galen and occurs elsewhere in this treatise (p.136.6).

p.60) 9--11 ἐπεὶ μὴ μόνον τῷ παρὰ θεῶν ἔχειν τὸ βασιλεύειν ὑπερέχουσιν ἀπάντων, ἀλλὰ καὶ τῷ τῶν ἀγαθῶν ἀπάντων ἅπασι μεταδιδόναι ἠδέως, for a rhetorical parallel cf. Dio Chrysostom's first Kingship Address to Trajan where it is said that εὐεργεσία, generosity to his subjects, is the one virtue that a king exercises voluntarily from a sense of joy rather than necessity: καὶ τοίνυν εὐεργετῶν ἡδεται πλείω τῶν εὐεργετουμένων, καὶ μόνης ταύτης ἐστὶ τῆς ἡδονῆς ἀκόρεστος. τὰ μὲν γὰρ ἄλλα τῆς βασιλείας ἀναγκαῖα νενόμικεν, τὸ δὲ τῆς εὐεργεσίας μόνον ἐκούσιόν τε καὶ εὐδαιμον. (Or. 1 23-4)

p.60) 11 τοσοῦτον is the reading in L and in Q but the Aldine has τοσοῦτῳ as does O. Either reading is possible if τοσοῦτον is regarded as an adverb; I have tentatively followed L but O may be correct.

p.60) 16 γένηται This is corrected to γένοιτο by the Aldine edition on the principle that εἶ (rather than ἐάν) followed by subjunctive is not legitimate in classical Greek. It is however a feature of Koine Greek of Galen's time (Nutton (1979) 61-2); the TLG shows one instance in Galen of εἶ ποτέ + subjunctive, *Di.Dec.* I: IX 792 10-11 εἶ ποτε δ' εἰς τὴν ὀγδόην ἡμέραν ἢ τὴν δεκάτην ἐμπέση λύσις ἄθροα νοσήματος.

p.60) 17--19 οὐ γὰρ περιμένοντες τὴν ἀνάγκην τῆς χρήσεως, τότε καὶ σκευάζουσιν αὐτὰ, ἀλλὰ πρὸς τὸ τάχος τῆς τῶν καιρῶν ὀξύτητος ἐτοιμῆν καὶ τὴν παρασκευὴν αὐτῶν φιλοκάλως ἔχουσιν. This evidently cannot apply to theriac itself which requires a minimum five to seven years maturation (see Chapter 14). Cf also *Ant.* 14.65.15 ff. σύνθεσιν τινα τῷ αὐτοκράτορι Μάρκῳ Ἀντωνίνῳ ποιησάμενος, ὅλην εὐρον τὴν ἀντίδοτον ἱκανῶς τῶν ἄλλων ὑπερέχουσαν, ὥστε γευσάμενον αὐτῆς τὸν αὐτοκράτορα μὴ περιμῆναι χρόνον, ὥσπερ ἐπὶ τῶν ἄλλων, ἐν ᾧ πεφθῆσεται τὸ φάρμακον, ἀλλ' εὐθέως χρῆσθαι, μηδὲ δύο μηνῶν ὀλοκλήρων ἐν τῷ μεταξὺ γενομένων."... and when I was making up some compound for Marcus Antoninus from it I found

that the whole drug excelled all others to the extent that when the emperor had tasted it he waited no time as in the case of other drugs to let the mixture mature but used it immediately after the passage of no more than two months." - in other words even "instantaneous" use of theriac requires a gap of two months after manufacture. Note however that the present passage concerns the provision of τὰ φάρμακα in general, not theriac in particular, by the emperors.

p.60) 20 Αντίπατρος, ὁ τὰς Ἑλληνικὰς ἐπιστολάς αὐτῶν πράττειν πεπιστευμένος i.e. ab epistulis Graecis, their official Greek secretary. See Philostratus *Vitae sophistarum* Cap. 2 606.27-607.34 for his life. The case study is imprecise, specifying neither the disease of the kidneys in question nor the drugs used against it. Book X of CML (*CML X*: XIII 321 ff.) is entirely concerned with compound remedies for the kidneys, but does not mention theriac. Theriac is however said in chapter 15 of *Ther.Pis.* to break down kidney stones: 128.22

p.62) 1 Arria: nothing is known about this woman beyond what can be deduced from this passage. Bowersock (1969) 84 reports Groag's proposal in PIR<sup>2</sup>, A1116 that "she may be the woman of that name known as the wife of M. Nonius Macrinus, consul in 154", and says that this "may not be a bad idea"; it does put the anecdote very late in her life if that is correct given that the emperors' putative medical partnership cannot begin before their return to Rome in 203 (see introduction) 49 years after her husband's consulship. Note that Bowersock mistakenly states that "Galen affirms that he cured this lady, a dear friend of his" (1936) 84 citing this passage; the cure is effected by the emperors.

p.62) 6--7 πιούσα γὰρ εὐθέως ἀνερρώσθη τε τὸν στόμαχον, καὶ ταχέως ἀπέιληφε τῆς ὀρέξεως τὸ ἔργον. Her stomach was immediately strengthened and she quickly recovered the matter of her appetite. Arabic kräftigte sich ihr Magen sofort und sie bekam Appetit. The periphrasis τῆς ὀρέξεως τὸ ἔργον the matter of her appetite is unusual and may reflect the Latin construction with res - "rem appetentiae". cf. Chartier's translation "appetentiae opus"

p.62) 10 ἤπειγε δὲ ὁ καιρὸς ἀποκριθῆναι: Q omits ὁ καιρὸς, reading ἤπειγε δὲ ἀποκριθῆναι. The impersonal ἤπειγε, there was a pressing need, is a legitimate construction: LSJ s.v. ἐπέιγω. The reading in Q is in the main body of the text, not the result of a deletion, and is probably an accidental omission.

p.62) 21 καὶ γὰρ ... ἐν τοῖς ἔργοις A difficult sentence which the Arabic translation simply omits. Galen elsewhere uses ποικιλία to refer to the complexity of a compound drug - e.g. *CML XII* 667.17 ἐπειδὴν δὲ πᾶν μὲν ἢ κεκενωμένον τὸ πῦον, ὑπολείπεται δὲ τις σκληρότης, τοῖς καλουμένοις μαλακτικοῖς φαρμάκοις χρηστέον, ὧν τὴν ποικιλίαν τῆς ὕλης τε καὶ τῆς συνθέσεως ἐν τῷ περὶ μαλαγμάτων ἐδήλωσα λόγῳ. We would expect the genitive rather than the dative τοῖς μίγμασι. The periphrastic participle ἐστὶν ἔχουσα for ἔχει is rare but permissible in classical Greek - e.g. *Soph. O.T.* 580 ἢ θέλουσα.

p.64) 2 Galen elsewhere claims that the empiricists explicitly state that they arrive at cures by dreams and by observing and mimicking the actions of fate: *CMG I*: XIII 366.2-7 *Adv. Jul.* XVIII 250.2-6

p.64) 3 The discussion of the relative roles of λόγος/λογισμός on the one hand and πείρα/ἐμπειρία on the other is central to Galen's theory of medicine in general and pharmacology in particular: see introduction and cf *Sect.Int.* I 74.10, *CMG II*: XIII 376.2-5 ὁ μὲν γὰρ λόγος εὐρίσκει τὴν σύνθεσιν, ἡ δὲ πείρα κρίνει τὴν τῶν εὐρεθέντων ἀρετὴν, ὥστε καὶ τοῖς ἀπείροις λογικῶν μεθόδων πιστεύεσθαι τὰ τεχνικῶς συντεθέντα. In other scientific contexts, *Nat. Fac.* I: II 47.4-8 αἰεὶ γὰρ τὸ μὲν ἀκόλουθον φυλάττειν βούλεται, [*sc.* Asclepiades] τὸ δ' ἐναργῶς φαινόμενον ἀνατρέπειν ἔμπαλιν Ἐπικούρω. τιθεὶς γὰρ ἐκεῖνος αἰεὶ τὸ φαινόμενον αἰτίαν αὐτοῦ ψυχρὰν ἀποδίδωσι.

p.64) 7 *SMT I*: XI 382.1-384.8 on chalk, *SMT II*: XI 465 on roses

p.66) 1 ὅτι τῶν ἀπλῶν φαρμάκων... τὰ δὲ μκτῆν. One of the few headings in L. Written without spacing but occupying an entire line to itself.

p.66) 5 Scammony, Convolvulus Scammonia. For confirmation that in Galen's view it draws out yellow bile cf. *Nat.Fac.* I: II 42.18-43.3

p.66) 6 ἐπίθυμον a parasitic plant growing on thyme, *Cuscuta Epithimum* LSJ s.v. Causes evacuation of black bile - *MM XIV*: X 977.7-8. The Arabic has epithimum from Crete rather than Attica.

p.66) 7 ὁ κνίδιος κόκκος ὁ κνίδιος κόκκος: berry of the shrub κνέωρον (*Daphne Gnidium*), used as a purgative LSJ s.v. . Purges phlegm - *SMT III*: XI 612.10-11. Galen specifies it as an example of a drug with a specific attractive power, against Asclepiades, *Nat. Fac.* I: II 42.5-11.



p.66) 10 The argument set out here against Asclepiades, his theory of solids and voids and consequent view on the true effects of drugs which draw humours out of the body is strikingly similar both in tone and content to *El. Ex Hipp.* II: I 499.1-501.11 and *Nat. Fac.* I and constitutes one of the more powerful arguments for saying that this tract is either by, or a deliberate mimicking of, Galen. See introduction.

p.66) 12 λέγοντι ...ὑπόθεσιν I have restored the reading in L; the emender of Q deletes λέγοντι and substitutes διὰ presumably because he is suspicious of the expression ὑπόθεσιν λέγειν, to state a hypothesis, which is however allowable: Aristotle *Metaphysics* 1086a 10-11 ἰδίας γὰρ καὶ οὐ μαθηματικὰς ὑποθέσεις λέγουσιν where the sense is clearly "they are stating hypotheses which are sui generis and not mathematical" not "they are saying that hypotheses are ..."; cf. also Plutarch *Moralia* 1057 A 7 πλάσματα λέγειν καὶ κενὰς ὑποθέσεις. The emendation is unnecessary and makes an awkward sentence more awkward in that removing λέγοντι leaves nothing for τούτῳ to refer to.

p.66) 24 παιδαριωδῶς : For the attack on Asclepiades cf. *Nat. Fac.* I: II 57.2-3 τῶν μὲν Ἀσκληπιάδου λήρων ἐπιλαθόμεθα.

p.68) 4 τὴν Μαγνήτιν λίθον: the manuscripts, and editions prior to Kühn have μαγνήτιν or μαγνήτιν. No such word is recognised by LSJ or occurs elsewhere except in very late sources, with the exception of Galen *SMT* XII 204.10-12 Τῶν λίθων δ' ἐστὶ μία καὶ ἡ μαγνήτις τε καὶ Ἡρακλεία καλουμένη, παραπλησίαν ἔχουσα τῷ αἵματι τὴν δύναμιν. The Kühn text of Galen has Μαγνήτιν at *Loc. Aff.* I: VIII 66.13 *Loc. Aff.* VI: VIII 422.4 and Μαγνήτις *SMT* III XI 612.4

Galen refers to the magnet also called ἡ λίθος ἡ Ἡρακλεία in several places against the atomists in support of the existence of specific attraction between specific herbs and humours (e.g. *Nat. Fac.* II 44.13 ff.)

p.68) 5 Homer *Odyssey* 17.217-8: "νῦν μὲν δὴ μάλα πάγχυ κακὸς κακὸν ἠγγλάζει, ὡς αἰεὶ τὸν ὁμοῖον ἄγει θεὸς ὡς τὸν ὁμοῖον." (Melantheus the goatherd insulting Odysseus and Eumaeus: "See now how one evil man leads another about, as god always leads like to like" (my translation following *LSJ s.v.* ὡς III in taking the second ὡς as a participle, *contra* Lattimore and other translators). Line 218 is quoted by Plato *Lysis* 214A, Aristotle *Magna Moralia* 1208 b 10, in both cases on the subject of friendship.

p.68) 13 Compare the following passage from the Renaissance forgery *Commentary on Hipp. Epidem* 2, XVIIa 402-3: εὐρίσκομεν γοῦν ἐν τῇδε τῇ ἐξετάσει τὰ μὲν τῶν φαρμάκων καθ' ὅλης ἐνεργούντα τὰς οὐσίας, τὰ δὲ μικτὸν ἐν τῇ οὐσίᾳ τὴν δύναμιν (sic) ἔχοντα καὶ διπλὴν ἐνέργειαν ἀποτελοῦντα καὶ ταῦτα οὕτως ἐναργῶς ἐνίστε, ὡς καὶ τὰ ἐναντιώτατα ὑπ' αὐτῶν γίνεσθαι, καὶ τοῦτο θαυμαστόν τοῖς ὁρώσιν εἶναι. καὶ γὰρ ὁ τῆς κράμβης χυλὸς ἐκταράσσει τὴν κοιλίαν, τὸ δὲ λάχανον αὐτὸ ἡ κράμβη ἀπέχει, καὶ ἄλλα πολλὰ κατὰ τοῦτον τὸν τρόπον.

p.68) 17 λαπάθου monk's rhubarb, Rumex Patientia (*LSJ s.v.*). Referred to elsewhere in Galen mainly as a drug applied externally. No one would eat it raw (*Alim. Fac.* II: VI 635.6-7). Its seed is a cure for diarrhoea and dysentery (*SMT* VII: XII 56.15-17)

p.68) 19 ὁ τῆς κράμβης χυλὸς Cabbage juice. *SMT* III: XI 575.6-576.1 gives a detailed account of an experiment involving multiple infusions to demonstrate that cabbage juice loosens the bowels while cabbage itself has the opposite effect. Cabbage juice is also good for ingrowing eyelashes (*CML* IV: XII 800.15) and loss of voice (*CML* VII: XIII 48. 3-4)

p.68) 20 This passage has very close parallels elsewhere in Galen; *Vict. At.* 51.4-52.1, *SMT* III: XI 575.6-576.1, 576.7-17. The former passage warns that shellfish, and soup made of shellfish or of old cocks, loosen the bowels; the latter gives the same warning and also makes the point that the actual flesh as opposed to the soup has the contrary effect, and goes on (III: XI 576 13-18) to make the same point about flakes of copper (see below). It seems highly probable that the author of the passage in *Ther.Pis.* either was also the author of the passage in *SMT* or had read it very carefully.

p.68) 20 L has a good reading here which N and Q do not preserve. They have τὴν κοιλίαν perhaps influenced by the same phrase in the previous sentence; the plural is required by αὐτάς at the end of the following sentence.

p.68) 21 ἄλδη *Aloe vera* *LSJ s.v.* χαλκοῦ λεπίς "flakes that fly from copper in hammering" *LSJ s.v.* λεπίς. Frequently appear together as ingredients of wound dressings (e.g. *CMG* II: XIII 494.10, 557.3-4). The same paradox that they are astringent applied to wounds but laxative taken internally is discussed *SMT* XI 578.1-4: θαυμάζεται δὲ καὶ ταῦτα πρὸς τῶν πολλῶν καὶ νομίζουσιν ἄπορον ὑπάρχειν, εἰ στυφόν τι σῶμα καθαίρειν πέφυκεν, οἷον ἄλδη καὶ λεπίς χαλκοῦ καὶ χαλκὸς κεκαυμένος.

p.68) 25 Curds and whey: *SMT* III: XI 575.3-5 for the same point.

p.70) 3 τὴν γινομένην: the text is difficult though the overall meaning is not in doubt. L has εἰ μὴ τὴν περὶ τῆς γινομένης διὰ τῆς ὄψεως πίστιν παρὰ τοῦ γινομένου λάβωσι and the subsequent mss. and edd. have variations on this. The problem is that περὶ whether allowed to stand or emended with Q to παρὰ is not needed to govern either τῆς ὄψεως, governed by διὰ, or τὴν πίστιν, the direct object of λάβωσι. Reading περὶ τῶν γινομένων with N adds nothing to παρὰ τοῦ γινομένου later in the sentence. The simplest solution is to delete περὶ τῆς an error which has crept in because of the similar παρὰ τοῦ γινομένου.

p.70) 4 Cf. Paulus Medicus 7.3.18 ἐν δὲ τῷ Περι τῆς θηριακῆς ὁ Γαληνὸς φησιν τὴν τρίφυλλον τὴν τῷ ὑακίνθῳ ὁμοίαν, ὅποταν τοῦ ἕαρος ἐγκύμων γενομένη τὸ σπέρμα ὁμοιον ἔχη τῇ ἀγρία κνήκῳ, ἀφεισομένης αὐτῆς τὸ ζέμα φαλαγγίου μὲν ἢ ἔχει δὴ γαματι καταντλούμενον θεραπεύειν αὐτό, ὑγιεῖ δὲ τόπω προσφερόμενον, φησίν, ὁμοιον πάθος ἐργάζεται τοῖς ὑπὸ τινος τούτων δηχθεῖσιν.

p.70) 4 τὸ γοῦν τρίφυλλον ἢ βοτάνη τρίφυλλον, τό, clover, *Trifolium fragiferum* (LSJ *s.v.*). Seed of τρίφυλλον features in a number of recipes elsewhere in Galen, in particular as an ingredient in theriacs said to be effective against spider bite *e.g.* *Ant.* XIV 186.1-4, 202.13-15. There is no reference in Galen nor elsewhere in Greek literature to the peculiar quality of clover seed referred to here but an apparently similar account is given in Pliny *Nat. Hist.* 21.152-3. Labbé (1660, 29) regards the "false statement" about trefolium here and that about helenium at at p. 100.24 as evidence against Galen's authorship: "Quomodo a Galeno hac aetate, hac experientia, hac eruditione, ex vulgi sermone relata, quae de trifolio et helenio leguntur, omnino mendosa, iisque contraria, quae alibi scripsit?" There is as far as I can see no discrepancy between what Galen says in these passages and what he says elsewhere either about helenium or about clover. Labbé's objection is presumably to what he regards as the unscientific tone of the passages.

p.70) 5 ἐγκύμων: usually "pregnant" but cf. Dioscorides 3.7.3.1 ἢ πόα ἐγκύμων σπέρματος.

p.70) 12 Hemlock and starlings; hellebore and quail. A favourite observation of Galen: *Temp.* I 684.2-4, *Alim.Fac.* VI 567 12-13, *SMT* XI 382.4-7. Outside Galen the same point is made by Alexander of Aphrodisias, concerning both starling and quail: *Problemata* 48-9 ὄρνυγες τε σιτοῦνται τὸν ἐλλέβορον τοῖς ἀνθρώποις δηλητήριον ὄντα: ψάροι δὲ τὸ κόνειον: Alexander was probably appointed to a chair of philosophy in Athens between 198 and 209 which makes it impossible to establish priority between him and the Galenic passages. The point about quail is attributed by Diogenes Laertius to Pyrrho of Elis (c.360-270 BC) the Sceptic philosopher (and Galen's standard example of the worst excesses of scepticism: Hankinson (2008) 158-9). Diogenes says that this fact and similar apparent paradoxes underlay Pyrrho's belief that nothing can be properly known or understood (*Vitae philosophorum* 9 80.6-7). The point about quail also in Lucretius IV 641 and Pliny *Nat. Hist.* 10 69.4-5; starling and hemlock not in Latin at all nor in Greek prior to Galen or Alexander of Aphrodisias.

p.70) 15 Sea hare, blister beetle: very frequently mentioned together by Galen and the identical point is made *CMG* I: XIII 364.1-5: ἀλλὰ τοῦτό γε τὸ σκῶμμα δηλοῖ τοὺς ταῦτα λέγοντας εἰς τοσοῦτον ἀπείρους εἶναι φαρμάκων δυνάμεως, ὡς ἀγνοεῖν ὑπὸ μὲν τοῦ θαλαττίου λαγωοῦ μόνον τῶν πάντων ἐν τῷ σώματι μορίων ἐλκόμενον πνεύμονα, κύστιν δ' αὖ μόνην ὑπὸ τῶν καθαρῶν.

p.70) 22 Hippocrates *Epid.* 2.3.2. There are serious problems with the text as transmitted in this treatise and in the Hippocratic tradition. The apparatus gives the readings in the most recent edition of the *Epidemics* (Smith 1994, Loeb) which takes account of *Ther.Pis.* and the Arabic text of *Commentary on Epidemics 2*. but of course is primarily based on the Hippocratic textual tradition. The most problematic passage is εἰς τὰ πλείστα μειώσει πλείω *Ther.Pis.*/ εἰς τὰ πλείστα (Littre/Smith). Littre's reading "I pass over most of these things" agrees with the Arabic text of Galen *Commentary on Epidemics 2*. It is hard to make any sense of the transmitted text of *Ther.Pis.* Rota followed by other translators extracted the general sense that most of the procedures listed reduce the bulk of the plant ("donec plurima plus minuant" Rota, "donec plerunque plurima minuantur" Chartier; - "until most of them shrink more" (more than what being unexplained). minuantur makes better sense than minuant but μειώω in the active is transitive (LSJ *s.v.*) and therefore incapable of meaning minuantur. μειώω ἢ πλείω is an obvious emendation (compare Ἐφ' οἷσι τε καὶ ὀκοῖα τὰ σημεία, καὶ πλείω ἢ μειώω γινόμενα, χάσμη, βῆξ, παρμῶς, σκορδίνημα, ἔρευξις, φῶσα: πάντα τὰ τοιαῦτα διαφέρουσιν. (*Hipp. Epid.* 2.3.1.36-8) So the text as amended reads "I pass over size of dose (μειώω ἢ πλείω) and type (ὀκοῖα) of drug" while Smith/Littre and the Arabic version of the *Commentary on Epidemics 2* omit μειώω ἢ πλείω and have ὀκόσα in place of ὀκοῖα and therefore "I pass over size of dose (ὀκόσα)". Either reading makes good sense. The Arabic version of *Ther.Pis.* as its editor says "folgt nicht dem Wortlaut des Hippokrates, sondern einer Kommentierenden Paraphrase". The implication that the authors of the two Galenic tracts are working

from different texts does not necessarily imply that they are two different authors: it is conceivable that Galen worked from different copies of Hippocrates at different times. Note however that in the commentary on the passage Galen speaks of having reviewed many manuscripts of the passage

p.72) 12--13 ἔντοι δὲ ἀφυῶς οὕτως ἔχουσι πρὸς τὰς φαρμακείας : ἀφυῶς ἔχειν πρὸς τι to be naturally unsuited to something; LSJ *s.v.* ἀφυῆς citing Aristotle and Plutarch.

p.72) 17 Galen finds it notoriously difficult to explain in general the theoretical basis for designing multi-ingredient drugs; see Vogt (2008) 312-17. Compare the claim at page 64, line 26 that drugs are tailored to the constitution of the patient.

p.72) 23 τετεχνολόγηται The only occurrence of the verb τεχνολογέω in Galen. The cognate noun τεχνολογία occurs twice (*Dig. Puls.* VIII 872.4, *Praes. Puls.* IX 275.3) in both case being ridiculed as a term used by the followers of Herophilus.

p.74) 9 ἐπιβουλήν ἐργάζεται. ἐπιβουλή means a plot: cf. the only other occurrence of the word in Galen *Praen.* XIV 623.14-16 εἰπόντος οὖν Εὐδήμιου ταῦτα καὶ τοιαῦθ' ἕτερα καὶ προσθέντος ὡς εἰ μὴ ταῖς πανουργίαις ἡμῶς βλάψαι δυνηθεῖεν, ἐπὶ τὴν διὰ τῶν φαρμάκων ἐπιβουλήν ἐρχονται. "This was the general outline of Eudemus' message and he added the further warning that, if they could not harm me by their intrigue, they would resort to poison plots" (tr. Nutton). However the cognate adjective ἐπιβούλος is used by Plutarch of toads and snakes as enemies of man - τὰ γὰρ ἐπιβούλα καὶ πολέμια τῶν ἀνθρώπων, φρόνους καὶ ὄφεις *Quaest. conviv.* 727 f 4 so the text can probably be allowed to stand. The Arabic text omits the whole sentence.

p.74) 9 διὰ γὰρ τὸ ἀφύλακτον : The phrase can mean metaphorically "being taken unawares" (LSJ *s.v.* ἀφύλακτος) which would however in this context add nothing to οὐκ εἰδῶς. I take it to mean "not supplied with an antidote".

p.74) 10 ἑαυτῷ πολλακίς προσφέρει τὸ φάρμακον : often unwittingly administers poison to himself: cf. *POxy* 472.5-7 εἶχεν μὲν οὖν αἰτίας τοῦ καὶ αὐτὸς ἐ[αυ]τῷ προσενενκεῖν φάρμακον ἄς καὶ ἄλλοι πολλοὶ τὸν θάνατον τοῦ ζῆν προκρεῖναιτες. φάρμακον meaning poison is unusual in Galen, δηλητηρίον φάρμακον being the standard phrase (e.g. *SMT* V: XI 761.10-11 and see above p.74.7 τῶν δηλητηρίων φαρμάκων).

p.74) 10 καὶ ἄλλως ἀγνοῶν : "and besides not recognising it." This seems to add little to οὐκ εἰδῶς earlier in the sentence; the pleonasm is not enough to justify an attempt at emendation.

p.74) 10 εἶτε : εἶτα in the mss. cannot be allowed to stand. The sense is clearly that some people take poison unwittingly and others get bitten by snakes, not that the same individual first takes poison and then gets bitten by a snake. This is confirmed if confirmation is needed by the Arabic text. εἶτε "or" is an obvious emendation. It is rare in prose generally and in Galen for εἶτε to appear on its own and I have therefore supplied a matching εἶτε earlier in the sentence where it may have dropped out because of its position between two superficially similar words.

p.74) 13 ἄνθρωπος δὲ, φησὶ, Καρχηδόσιος οὗτος : Hannibal. The story is attested by Nepos *Hannibal* 23. 11, Justinus 32.4.6-8, Frontinus *Strat.* 4.7.10-11. See Mayor (2009) 188-9 and 285 n.10. The sources agree that Hannibal's opponent is Eumenes II of Pergamum. The fact that Eumenes is not identified is puzzling if our author is Galen given his usual pride in Pergamum on which see Nutton (1979) 177 note on P. 90,9 "His homeland, Asia Minor and Pergamum, is prominent in Galen's thoughts and affections. Despite his long residence in Rome, he still considers Pergamum his home and often allies himself with its inhabitants in his choice of words. "Among us" is at Pergamum; "our king" is Attalus ..."; Nutton (1997) 141.

p.74) 24 Ἀνδρόμαχος Identified as ὁ Νέρωνος ἀρχιατρὸς *Ant.* I: XIV 2.14 and distinguished from his son also called Andromachus who wrote a version of the theriac recipe in prose *Ant.* I: XIV 42.11-13. Erotian *Vocum Hippocraticarum collectio* 29.3 is addressed to ἀρχιατρὲ Ἀνδρόμαχε and Dioscorides addresses τιμιώτατε Ἀνδρόμαχε 1.Pr.1.1 and 2.Arg.1.2, and ὁ φίλτατε Ἀνδρόμαχε 2.168.1.6. Recipes by Andromachus (usually not specified as father or son but see CML I: XII 438.12-13 ἄλλο πρὸς φαλάκρωσιν, ᾧ ἐχρήσατο Ἀνδρόμαχος ὁ νεώτερος.) are frequently quoted with approval by Galen in his pharmacological works and he is credited with a three volume work on pharmacology at *CMG* II: XIII 463.4-7. The statement that he was of Cretan origin seems to be based solely on the false reading in *Ther.Pis.* p.54.13 and should be ignored.

p.74) 25 ἐν ἔπεσι: in verse. Galen states the advantage of verse that it reduces the scope for corruption of the text *Ant.* I: XIV 32. 5-9 ἐπαινῶ δὲ καὶ τὸν Ἀνδρόμαχον ἐμμέτρως γράψαντα τὴν θηριακὴν αὐτὴν,

ὡσπερ καὶ ἄλλοι τινές. ὁ δὲ Δαμοκράτης καὶ τᾶλλα πάντα διὰ μέτρων ἔγραψεν ὀρθῶς ποιήσας. ἥκιστα γὰρ οἱ πανοῦργοι δύνανται διαστρέφειν αὐτά. *CMG V*: XIII 820.15-17 Εἰρηταί μοι πολλάκις ὡς οὐ μόνον εἰς μνήμην αἱ ἔμμετροι γραφαὶ χρησιμώτεροι τῶν πεζῆ γεγραμμένων εἰσιν, ἀλλὰ καὶ εἰς τὴν τῆς συμμετρίας τῶν μιγνυμένων ἀκριβείαν.

p.76) 9 Andromachus poem: the text given is that of Heitsch who collated inter alia (using my sigla) L, M, N, O, P, Q. I have not printed his apparatus.

p.90) 4 This chapter is crucial to the debate on authorship first because of the different beliefs about the *δίνας* here and elsewhere in Galen, and secondly because of the close parallel between the passage on the δρύϊνος ὄφης and a passage of Sextus Julianus Africanus *Cesti*; see introduction.

p.90) 4 The expression οὐκ ἀφυῶς occurs in Galen only here and at p. 96.2; the only other occurrence of ἀφυῶς in the Galenic corpus is again in this treatise p. 72.12.

p.90) 8 τὴν φθοροποιὸν δύναμιν : the word φθοροποιός occurs five times in this treatise, in each case qualifying δύναμιν, and four times elsewhere in the galenic corpus.

p.90) 12--16 ὁ δὲ δρύϊνος ὄφης ἐν ταῖς τῶν δρυῶν ρίζαις τὸν βίον ποιούμενος οὕτως πονηρός ἐστὶ πρὸς τὸ διαφθεῖραι κακῶς, ὥστε εἴ τις, φασίν, αὐτοῦ ἐπιβαίη, ἐκδέρεσθαι αὐτοῦ τοὺς πόδας, καὶ οἰδήματα πολὺ γίνεσθαι καθ' ὅλων τῶν σκελῶν. καὶ ἔτι τὸ θαυμασιώτερον φασιν, ὅτι καὶ εἰ θεραπεύειν τις ἐθέλοι, τούτου τὰς χεῖρας ἐκδέρεσθαι.

Cf. Sextus Julius Africanus *Cesti* 3.31.1 = Wallraff D56: Ὁ δὲ δρύϊνης ὄφης ἐν ταῖς τῶν δρυῶν ρίζαις τὸν βίον ποιούμενος καὶ πρὸς ἄλλοις δένδροις οὐκ ἀλινδούμενος (οὐκ ἀλινδούμενος *conieci*; καλινδούμενος *codd. edd.*) οὕτω καὶ πονηρός ἐστὶν πρὸς τὸ διαφθεῖραι κακῶς, ὡς, εἴ τις αὐτῷ ἐπιβαίη, τοὺς πόδας ἀποδέρεσθαι καὶ οἰδήματα καθ' ὅλων τῶν σκελῶν γίνεσθαι. Καὶ ἔτι θαυμασιώτερον· εἰ καὶ θεραπεύειν τις αὐτοῦς ἐθέλει, καὶ τούτου τὰς χεῖρας ἀποδέρεσθαι. For discussion see introduction.

p.90) 25--26 ὡσπερ τότε λογικὸν γιγνόμενον τὸ θηρίον The text is unsatisfactory in that it is difficult to see the force of τότε. Reading ἐτυμολογικὸν would make sense given the proximity to ἐμπύει cf. Clemens Alexandrinus *Paed.* Book 2 chapter 8 subchapter 71 section 3 line 3-4: Ὁ γοῦν κίττος ἐμπύει, ἡ δὲ καρῦα πνεῦμα ἀφίησιν καρωτικόν, ὡς ἐμφαίνει καὶ τὸννομα ἐτυμολογούμενον. But there is no authority for the locution.

p.92) 1 τριπλοῦν γὰρ ἐστὶ τὸ εἶδος τῶν ἀσπίδων This tripartite division is found only in Philumenus *de venenatis animalibus eorumque remediis* 16. 1-2, Aëtius *Iatricorum* XIII 22.1-9 and here, and in later sources deriving from Philumenus or from this passage. Neither the *χερσαία* nor the *χελιδονία* is found elsewhere other than in these passages.

p.92) 5 καὶ δὴ καὶ διὰ σπουδῆς φυλάττειν: the transmitted text καὶ ζῆν καὶ makes little sense and adds nothing to ζῶσαν λαβεῖν

p.92) 7 ἐξ ἀνθρώπων γενέσθαι to leave humanity, i.e. to die. Cf. Galen *de Lib. Prop.* XIX 18.15-16 μεταστάντος δ' ἐξ ἀνθρώπων τοῦ Λουκίου, *Ant.* I: XIV 24.18 ἐπεὶ δ' ἐκεῖνος (sc. Marcus Aurelius) ἐξ ἀνθρώπων ἀπῆλθεν *Adv. Typ. Scr.* VII 478-11-12 μεθεστήκει μὲν ἐξ ἀνθρώπων ἔναγχος Ἀντωνίνος ὁ μετ' Ἀδριανὸν γενόμενος αὐτοκράτωρ; Philostratus *Vita Apollonii* 8 31.6 τοῦ δὲ Ἀπολλωνίου ἐξ ἀνθρώπων μὲν ἦδη ὄντος; Pausanias 6 11 6.1 ὡς δὲ ἀπῆλθεν ἐξ ἀνθρώπων. It is noteworthy that Galen, unlike Philostratus and Pausanias, in all cases where he uses the expression uses it of reigning monarchs, consistent with the use here in *Ther.Pis.*

p.92) 10 Νάειρα καὶ Χαρμοῖνη: for the names and the respective duties of hair care and manicure cf. pseudo Plutarch *De proverbii Alexandrinorum* Fr.45 1.1: Εἰράς καὶ Χάρμιον: τούτων ἡ μὲν τῶν τριχῶν ἐπιμέλειαν ἐποιεῖτο Κλεοπάτρας τῆς βασιλίσσης, ἡ δὲ τῶν ὀνύχων· παρέμειναν δ' αὐτῇ καὶ μέχρι θανάτου καὶ ἀποθανοῦσαι πολυτελοῦς ταφῆς ἠξιώθησαν καὶ τιμῆς ἔτυχον and Zenobius *Epitome collectionum Lucilli Tarrhaei et Didymi* Centuria 5 section 24 line 2 which gives the names as Νάηρα καὶ Χαρμοῖνη, but otherwise is identical to the pseudo-Plutarch passage.

Our main source for the death of Cleopatra is Plutarch *Life of Antony* 85-6. Plutarch states that there can be no certainty as to how Cleopatra died because of a lack of surviving witnesses but canvasses the possibilities that the asp is brought in in a basket of figs, or kept in a water-jar, and applied by Cleopatra to her arm, or that the poison was in a hair pin concealed in her hair. (86.1-4). By some accounts two small

puncture marks were seen on her arm - ἔνιοι δὲ καὶ τὸν βραχίονα τῆς Κλεοπάτρας ὄφθῆναι δύο νυγμὰς ἔχοντα λεπτάς καὶ ἀμυδράς. (86.5 3-5).

p.92) 19 Euripides *Hecuba* 568-70

ἡ δὲ καὶ θνήσκουσ' ὅμως  
πολλὴν πρόνοιαν εἶχεν εὐσχήμων πεσεῖν,  
κρύπτουσ' ἃ κρύπτειν ὄμματ' ἄρσένων χρεῶν.

The text reproduces Euripides almost verbatim; εὐσχημόνως for εὐσχήμων spoils the metre in the second line. Polyxena is killed by Pyrrhus in the play; the point of comparison is only that she like Cleopatra exercises forethought as to how her death will appear to others. Rota, the translator of the Giunta edition is so keen to forestall any misunderstanding on this point that he tacitly inserts a gloss into the text: "Id quod de Polyxena tragicus poeta scribit: Nam etiam si a Pyrrho iugularetur, tamen mentem adhibuit, ut cum decore caderet." The versions of the story in Philostratus *Vita Apollonii* 4 16.54-9 (told by the ghost of Achilles to Apollonius) and Philostratus *Heroicus* 737.32-738.8 in which Polyxena commits suicide are irrelevant because in both versions she uses a sword and there is therefore no question of any point of similarity. For quotations of Euripides by Galen see generally *PHP* book 4, *Protr.* section 10. For ὁ τραγικὸς ποιητὴς referring to Euripides *Diff. Puls.* 3 VIII 636.3-4. This couplet is also quoted by Galen *Hipp. Prog.* XVIII 8.1-2 ἡ δὲ καὶ θνήσκουσ' ὅμως πολλὴν πρόνοιαν εἶχεν εὐσχήμως πεσεῖν Here the text is the same as that transmitted in the Euripides tradition and scans properly (although one late ms. reads εὐσχημόνως corrected from εὐσχημόνος – see CMG V 9.2 p.201). In this context it is used to illustrate the use of the word πρόνοια according to the usual usage of the Greeks - τὸ κοινὸν ἔθος τῶν Ἑλλήνων - in contrast to Hippocrates' use of the word. The couplet also turns up in other contexts possibly contemporary with Galen: in [?pseudo] Lucian *Demosthenis encomium* 47.1-7 a fictional Demosthenes quotes these words to an emissary of Antipater as justifying his choice of seemingly death over unseemly life (missing the point that Polyxena is not choosing between life and death): ἀλλὰ δίκαιον γάρ, ἔφη, σοὶ τῶν τραγωιδῶν μνημονεύειν, οὐ σεμνὸν τὸ λεχθὲν ἡ δὲ καὶ θνήσκουσ' ὅμως πολλὴν πρόνοιαν εἶχεν εὐσχήμως πεσεῖν, κόρη καὶ ταῦτα: Δημοσθένης δὲ εὐσχήμονος θανάτου βίον προκρίνει ἀσχήμονα τῶν Ξενοκράτους καὶ Πλάτωνος ὑπὲρ ἀθανασίας λόγων ἐκλασθόμενος; pseudo Hermogenes of Tarsus *Περὶ εὐρέσεως* 4 12. 49-56 quotes these two and the following line - κρύπτουσ', ἃ κρύπτειν ὄμματ' ἄρσένων χρεῶν – as an example of a lapse from dignity into bad taste. Hermogenes' dates are c. 160-225; *Περὶ εὐρέσεως* is probably misattributed to him but may actually be earlier (Davis 2005, 197). So this tag is widely used outside Galen for a wide variety of purposes and no strong conclusions can be drawn on authenticity from the coincidence that it is used in *Ther.Pis.*

p.94) 3--4 καὶ πολλάκις γὰρ ἔθεασάμην ἐγὼ ἐν τῇ μεγάλῃ Ἀλεξανδρείᾳ Galen frequently refers to his time in Alexandria (usually referred to simply as ἡ Ἀλεξανδρεία but ἡ μεγάλη Ἀλεξανδρεία at *San. Tu.* VI: VI 405.14, *Alim.Fac.* II: VI 612.10). His reminiscences usually concern plants and foodstuffs he has encountered there (e.g. *Alim.Fac.* I: VI 486.10, *Alim.Fac.* II: VI 616.12, 617.8), treatments he has witnessed or effected there (e.g. *SMT* IX: XII 177.6-11). The closest parallel to this passage is *AA* I: II 220.14-17 where he says that Alexandria is the easiest place to see for oneself the bones of the human skeleton.

p.94) 17--18 διὰ ταῦτ' ἀποκόπτειν αὐτὰς περιώμεθα The instruction to cut off and discard heads and tails is given in the verse recipe of Damocrates *Ant.* I: XIV 93.18 - 94.2:

Τῶν μὲν κεφαλῶν ἀπόκοψον, ὡς τρεῖς δακτύλους,  
Μικρῶ τε πλείους τῶν ἀπὸ τῆς οὐράς μερῶν,  
Πρῶτον κεφαλᾶς μὲν, εἶτα τὰς οὐράς τότε.

p.94) 19--20 ὥσπερ δὴ καὶ ἐν τοῖς παραστάταις τὸ σπέρμα καὶ ἐν τοῖς μαζοῖς τὸ γάλα μεταβαλλόμενον γίνεται. This accords with Galen's doctrine as stated elsewhere. For breasts and milk cf. *Ven. Sect. Er.* XI 164.10-12: καὶ ἡ μετὰ τὴν κήσιν δὲ τοῦ γάλακτος ἐν μαστοῖς γένεσις οὐ συμκρὰ κένωσις οὐδ' αὐτὴ τῷ πλήθει. For semen and testicles cf. *Sem.* I: IV 583.12-13: ὥστε οἱ ὄρχεις ἐργάζονται σπέρμα. The argument in *Sem.*, that semen is made both by the testicles and by the neighbouring veins and arteries, is not inconsistent with the statement here that it is made by the testicles.

The relevance of the comparison between the viper's head and tail on the one hand and the testes and breasts on the other is doubtful. The obvious reason for cutting off the head and that given by Galen in *SMT* XI: XII 317.8 is διὰ τὸν ἐν τῷ στόματι περιεχόμενον ἰὸν - because of the poison contained in the mouth.

What is the relevance however of the question where the poison is created as opposed to where it is stored? Presumably the suggestion is not that the creation of poison continues after death unless the head is removed which would be a startling belief and not one we know Galen or anyone else to have held. Presumably there is simply ellipsis of the fact that bodily fluids such as milk and semen, and poison, are stored where they are manufactured until needed.

p.94) 20 ἡ δὲ ἔχιδνα Having been told in chapter 8 that the ἔχιδνα is used for theriac because it is so much less deadly than other snakes we now learn that it is more deadly than any other. The argument is incoherent as well as being at odds with chapter 8. ἡ ... ἔχιδνα, usually any viper irrespective of sex, here means the female. She has a more deadly head than any other animal because she uses it to bite the head off the male after he has fertilised her by ejaculating semen in her mouth. The belief that vipers reproduce in this way apparently arises from a misconstrual of Nicander *Theriaca* 130-1 whereby κινόδοντι is wrongly taken to govern θορνυμένου rather than ἀπέκοψεν - "C'est p.-ê. à cause de la f.l. θολερῶ que le *Physiologus* (Sbordone 34, 36, 241 s.) et Michel Glycas [ *Annales* 108.7-14] répétant le contresens ap. Galen *Pis.* 238.14 s. ont construit κινόδοντι avec θορνυμένου (au lieu de ἀπέκοψεν) et compris que l'accouplement se faisait par la bouche, un non-sens qu'on ne peut imputer à N[icandre]" Jacques (2002) *ad loc.* Snakes in fact copulate as follows: both sexes have a vent called the cloaca towards the tail end. The male snake has a pair of sex organs, the hemipenes, within the cloaca which he extrudes and inserts into the female cloaca. It is not clear whether the author of *Ther.Pis.* believes that copulation takes place female-mouth-to-male-cloaca or mouth-to-mouth. The latter view makes the mechanics of the operation easier to understand - it is perfectly reasonable to suppose that if the female genitalia have been relocated to the head so have the male. Glycas supposes that the copulation is mouth to mouth: ἡ θήλεια ἔχισ διὰ τοῦ στόματος αὐτῆς δεχομένη τὴν κεφαλὴν τοῦ ἄρρενος καὶ οὕτω συνευναζομένη ἀναίρει αὐτόν (*Annales* 108.9-11). Rota's translation has the male voluntarily inserting his head into the female's mouth but is ambiguous whether this is the act of copulation or a sequel to it. The Arabic text like the Greek says that the male injects semen into the female's mouth but is silent as to the organ used by the male. The Greek description of the act as a πονηρὰ συμπλοκή may suggest mouth-to-cloaca copulation or may refer to the whole episode including the killing of the male.

In any event the use by the female of her head to bite the head off the male has no visible bearing on the poison content of her head which is what the digression is meant to illustrate. The question can reasonably be asked: if the female viper's poisonous nature can be circumvented by cutting her head off why does the same not apply to the other snakes in chapter 8 which we cannot use at all to make theriac?

p.94) 20 τοῦτο τὸ ζῶον Deleted by Q but restored by me because it is needed to imply ζῶον after τῶν ἄλλων ἀπάντων. It is however very arguable that the deletion should stand on the basis that ὄφρων, ζῶον *vel sim.* is easily understood after ἀπάντων without these words.

p.96) 2 καὶ ἔστι τὰ ἔπη ταῦτα: Nicander *Theriaca* 128-34.

p.96) 12--13 Τὰς δὲ οὐρὰς καὶ αὐτὰ ἀφαιροῦμεν τὰ ἔσχατα τοῦ σώματος, ὥσπερ οὐρὰς ὄντα μέρη καὶ, ὡς οἶμαι, τὸ ῥυπαρώτερον τῆς οὐσίας ἔλκοντα μᾶλλον,

Compare *SMT* XI: XII 317.4-17:

ἐπεὶ δ' ἔθος ἡμῖν ἐστίν, ὅταν τοὺς καλουμένους ἀρτίσκους θηριακοὺς σκευάζωμεν, ἀφαιρεῖν οὐ μόνον τὴν κεφαλὴν αὐτῶν, ἀλλὰ καὶ τὴν οὐρὰν, ἐνενόησα πολλάκις εὐλόγως ἴσως μὲν τὴν κεφαλὴν ὄλην, διὰ τὸν ἐν τῷ στόματι περιεχόμενον ἰόν, ἀλόγως δὲ τὴν οὐρὰν ἀφαιρεῖσθαι. οὐδὲ γὰρ τοῦτ' ἐστίν εἰπεῖν, ὅτι διὰ τὰ περιττώματα τῆς τροφῆς τὰ θ' ὑγρά καὶ τὰ ξηρὰ πρακτέον οὕτως ἐστίν. ἀποκτείναντες γὰρ αὐτάς, εἴτ' ἐκδεΐραντές τε καὶ ἀναπτύξαντες, ἐξαίρομεν τε καὶ ἀπορρίπτομεν ἅπαντα τὰ ἐνδόν, ὡς μόνην καταλείπεσθαι τὴν τῶν σαρκῶν οὐσίαν ἅμα ταῖς διαπεφυκυῖαις αὐτῶν ἀρτηρίαις τε καὶ φλεψίν, ἐλάχιστον ἐχούσαις ὄγκον ὡς πρὸς τὴν ὄλην σάρκα, καὶ μηδὲ φαινόμενον, ἐὰν μὴ πάνυ τις ἐπιμελῶς κατασκέψηται.

"Since it is our custom whenever we make so-called theriac pastilles to remove not only their (sc. the vipers') heads but also the tails, I have often thought that while it is perhaps reasonable to remove the whole head because of the poison contained in the mouth, it is irrational to remove the tail. It cannot be said that this needs to be done because of the waste products of food both liquid and solid, because after killing them we skin them and cut them open and remove and discard all the innards so that all that is left is the flesh itself with the arteries and veins which grow through it and which are of minimal bulk compared to the flesh as a whole, and not even visible except on very careful inspection."

Compare also *Ant.* I: XIV 45.15-18:

ἀποτέμνειν δὲ τὰς τε κεφαλὰς καὶ τὰς οὐράς αὐτῶν. πρὸς γὰρ τῷ δοκεῖν ἰωδέστερα ταῦτ' εἶναι τὰ μόρια καὶ τὸ σκληροῦς, καὶ ὀλιγοσάρκους ὑπάρχειν αὐτοῖς πρόσεστιν.

"Cut off their heads and tails since these parts tend to be greenish and bony and thinly fleshed".

On the face of it the texts are addressing the same question and arriving at diametrically opposed answers. The *SMT* passage fairly states and persuasively rebuts the argument of *Ther.Pis.* It is arguable that in using the ὡςπερ with participle construction and the phrase ὡς οἶμαι the author of *Ther.Pis.* implies that he is speculating about the motivation of others without thereby endorsing it, but it is not typical of Galen to state a position with which he disagrees without also stating his own opinion. The point about the weight of the tail is also difficult. The tail has increased weight because of musculature developed through exercise just as a fish's tail does - and this is what makes the fish's tail more nourishing. We know from later in *Ther.Pis.* p.120.15 ff. that vipers should be caught in summer when they have been out in the open air and had lots to eat after their hibernation, which suggests that the increase in tail weight ought to make it more rather than less desirable. *On Antidotes* recommends rejecting the tail because it is thin and bony, *Ther.Pis.* because it is (a) dirty and (b) fat and fleshy. *SMT* rejects (a) and has nothing to say about (b). cf. also *MMG* II: XI 143.15-144.2 χρῆ δὲ ἐσθίειν αὐτάς (sc. τὰς ἐχίδνας) οὕτω σκευάζοντας ὡς τοὺς θηριοτρόφους καὶ ἀσπιδοτρόφους Μάρσους ἐθεάσω, πρῶτον μὲν ἀποκοπτομένης τῆς οὐράς καὶ τῆς κεφαλῆς ἄχρι δακτύλων τεττάρων, εἶτα τῶν ἔνδον ἀπάντων ἀφαιρεθέντων καὶ τοῦ δέρματος δηλονότι, εἶθ' ὕδατι τοῦ σώματος αὐτῶν περιπλυνθέντος.

p.96) 18--20 ἐνίοις γοῦν βοηθοῦσιν αἱ κεφαλαὶ τῶν μυῶν, καυθεῖσαι γὰρ καὶ μετὰ μέλιτος χριόμεναι, τὰς ἀλωπεκίας ἰᾶσθαι δύνανται. cf. *CML* I: XII 404.10-11 where μυῶν κεφαλὰς συναπόθλα ἀνατριβῶν - grind up the heads of mice - is given on the authority of Cleopatra's work on cosmetics as a cure for baldness.

p.96) 20 καὶ τοῦ ἰκτινίου τὴν κεφαλὴν, φασίν cf. *Cyranides* 3.19 Ἰκτινίου πτηνόν ἐστιν ἱερόν. τοῦτου ἡ κεφαλὴ ξηρανθεῖσα ἄνευ τῶν πτερῶν καὶ λειωθεῖσα καὶ πνομένη σὺν ὕδατι ὅσον οὐγ. α' ποδαγρικούς ὠφέλει καὶ χειραγρικούς.

p.96) 21 ὅσον τοῖς τριεὶ δακτύλοις: L's text is clearly correct. The expression occurs five times in *CML*, e.g. II: XII 582.11-12. In Q πρὸς is incorrectly written for ὅσον and this is then emended in the margin to ὅσον ὑπὸ; ὅσον ὑπὸ + dative does not appear to be a permissible construction.

p.96) 24 ὁ τῆς γαλιῆς : "a name given to various animals of the weasel kind, weasel, marten, polecat or foumart" (LSJ s.v. γαλιῆ). Its dried flesh helps epileptics *SMT* XI: XII 321.13-16.

p.96) 24--25 ὁ δὲ τῆς χελιδόνος μετὰ μέλιτος πρὸς ὑποχύσεις ποιεῖ. Roast swallow with honey *SMT* XI: XII 359.14-17 (for sore throats) and in eight recipes in *CML*; none specifies the brain or indicates treatment of cataracts or other eye problems.

p.96) 25 καὶ ὁ τῶν προβάτων Sheeps' brains: no parallel in Galen or elsewhere.

p.96) 26 τοῦ δὲ ταυρείου κέρατος τὸ ζύσμα Cow horn shavings: no parallel in Galen or elsewhere.

p.98) 1 καὶ οἱ μῆροὶ δὲ καιόμενοι Burnt thighs [of oxen]: no parallel in Galen or elsewhere.

p.98) 2 τὸ δὲ τοῦ ἐλάφου κέρατος ρίνημα καιόμενον Burnt shavings of deer horn to stabilise loose teeth cf. *SMT* XI: XII 334.13-16: [ἠ'. Περὶ κεράτων ἐλάφου καὶ αἰγῶν.] Κέρασιν ἐλάφου καὶ αἰγῶν κεκαυμένοις μάλιστα χρῶνται, καθάπερ καὶ ἡμεῖς ἐχρησάμεθα πολλάκις εἰς τε τὸ λαμπρύνειν τοὺς ὀδόντας καὶ προστέλλειν τὰ οὐλα τὰ πλαδαρά.

p.98) 3--4 ὡςπερ δὴ καὶ τὸν ἀστράγαλον τῆς βοῦς Burnt ox vertebra: no parallel in Galen or elsewhere.

p.98) 6--7 οἱ δὲ τοῦ κάστορος ὄρχεις ὁμοίως πινόμενοι σπασμούς ἰῶνται. : The testicles of the beaver cure spasms. This sentence is crucial to the question of authenticity in light of *SMT* XI: XII 337.3-341.6 where Galen devotes over four pages of Kühn to καστόριον including a denunciation of the dangerous half-truth that it is "good for spasms". *SMT* XI: XII 338.10-339.2:

ἀγνοοῦσι δὲ οἱ πλείστοι τῶν ἰατρῶν, ἐν τῇ τοῦ καστορίου χρήσει προσέχοντες τὸν νοῦν αὐτῷ μόνῳ

τῷ τρέμειν ἢ σπᾶσθαι τι μόριον, ἢ ἀναίσθητον ἢ ἀκίνητον εἶναι, ἢ δυσαίσθητον ἢ δυσκίνητον, μὴ γινώσκοντες ἐπόμενα τοιαῦτα συμπτώματα διαθέσει σώματος ἀνομοίαις. ἀλλὰ σὺ γε παρ' Ἱπποκράτους μαθὼν ἐπὶ πληρώσει τε καὶ κενώσει γίνεσθαι σπασμὸν, ἔνθα μὲν χρὴ κενῶσαι τὰ παρὰ φύσιν ἐν τοῖς νεύροις περιεχόμενα, καὶ πίνειν δίδου καὶ κατὰ τοῦ δέρματος ἐξῶθεν ἐπιτίθει καστόριον. ἔνθα δὲ δι' ὑπερβάλλουσιν ξηρότητα γίγνεται σπασμὸς, ἐναντιώτατον εἶναι γίγνωσκε τὸ φάρμακον τοῦτο.

"But most doctors in using castoreum pay attention only to the question whether a body part is trembling or going into spasm, not knowing whether the part is without feeling and immoveable or hard to perceive and to move, not knowing that such states of affairs arise from dissimilar dispositions of the body. But you have learnt from Hippocrates that spasm arises both from emptiness and from fullness should both give castoreum to drink and apply it externally to the skin when it is necessary to drain unnatural contents from the nerves. But when spasm results from an excess of dryness you should know that this drug has absolutely the opposite effect." The unqualified statement in *Ther.Pis.* seems to be a clear case of ἄγνοια and failure to observe the ὁρισμὸς between the two: on Galen's polemic against errors of this kind see van Staden (1997).

p.98) 10 ἡ γοῦν τῆς βοῦς ἄφοδος ξηρὰ κεκαυμένη *SMT X: XII 290-309* discusses the dung of various animals and birds; 300-1 on cow dung. 301.2, 11 cow dung helps τοὺς ὕδερικοὺς.

p.98) 11 καὶ ἡ τῶν μυῶν ἄφοδος λεία μετ' ὄξους ἀλωπεκίας θεραπεύει cf. *CML I: XII 392.4* ἡ τε τῶν μυῶν κόπρος ἄρκτου τε τὸ στέαρ - mouse dung and bear's fat are cures for baldness; *CML I: XII 404.11-12* μυόχοδα λεία κατάχρη, ὀθονίω ἐφαίμαξας τὸν τόπον. Rub the affected area bloody with a linen cloth and then rub in smooth mouse dung - attrib. to Cleopatra. No parallel in Galen or elsewhere for treatment of gallstones.

p.98) 12 τὸ δὲ τοῦ χηνὸς στέαρ Goose fat; very common in recipes in *CML, CMG*. combined with oil of roses and other ingredients in salves for anus *CML IX: XIII 310.17, 311.4, 18*.

p.98) 13 καὶ ὁ τοῦ ἐλάφου μυελὸς παρηγορικώτατον ἐστὶ φάρμακον. cf. *MMG II: XI 105.4* πρωτεύει δὲ τῶν μὲν μυελῶν πάντων ὁ ἐλάφειος [sc. as a φάρμακον μαλακτικόν]. The qualities of being μαλακτικόν and παρηγορικόν are closely connected - e.g. *CML XIII 337.16*

p.98) 14 τὸ δὲ τῆς βοῦς γάλα πινόμενον δυσεντερικοῖς βοηθεῖ. Cow's milk helps in cases of dysentery. Milk recommended for this purpose *Alim. Fac. III: VI 683.1-4, SMT X: XII 266.18-267.6, 292.3-7, CML VIII: XIII 171.10-12*. All recommend putting hot stones in the milk to reduce its liquid content. The last recommends ass's or woman's or cow's milk, the others are silent on the point. Galen elsewhere states that goat's milk is in general the most frequently used παρ' ἡμῖν - i.e. in Asia - cow's milk elsewhere: *Bon. Mal. Suc. VI 765.8-9*.

p.98) 14--15 τῆς δὲ ὑαίνης ἡ χολὴ μετὰ μέλιτος πρὸς ὄξυδερκίαν ποιεῖ, καὶ τὰς ὑποχύσεις διαφορεῖ ἐγχειομένη. Cf. *SMT X: XII 279.1-9*: hyena's yellow bile with honey produces ὄξυδερκίαν and cures cataracts.

p.98) 15--16 τοῦ δ' ἵπποποτάμου τὸ δέρμα Cf. *CML I: XII 409.4* ἡ ἵπποποτάμου δέρμα καύσας κατάχρη as a cure for baldness, not for cancerous growths. The proximity to the cure for baldness immediately following and the peculiar wording φυμάτων σκορπιστικὸν γίνεται might be grounds for suspecting the text. The Arabic text however agrees that hippopotamus skin helps against hard dry cancerous growths - nützt gegen trockene harte Geschwulste.

p.98) 16 μετὰ ὕδατος: Chartier emends to μεθ' ὕδατος but μετὰ ὕδατος occurs six times in the Galenic corpus excluding *Ther.Pis.* as against 118 occurrences of μεθ' ὕδατος and I consider it justifiable to permit L's reading to stand. Note that L has μεθ' ὕδατος at p.96.26 above.

p.98) 16 σκορπιστικὸν dissipative of LSJ s.v. citing only this instance and the sixth century Simplicius *Commentary on Aristotle Physics* 1186.2. From σκορπίζω to scatter; the only possibly earlier occurrence in TLG is in pseudo Agathodaemon the Alchemist ?1-2AD. The other occurrences in TLG are Paul.Med. 7.3.4.22 (= this passage of *Ther.Pis.*) and two instances in the *Hippiatrica*.

p.98) 17 τὸ ἔχεως δέρμα presumably the skin as opposed to the shed skin (γῆρας). No recommendation elsewhere in Galen of viper skin for this or any other purpose.

p.98) 18 τὸ δὲ τῆς ἀσπίδος γῆρας No reference elsewhere in Galen to the γῆρας (sloughed skin) of the asp. ὄφρεως γῆρας (cf. τῶν ὄφρων γῆρας page 98 line 9) recommended for toothache *SMT XI: XII 342.9, CML*



V: XII 860.5, earache *CML* III: XII 622.16, deafness *CML* III: XII 652.6, black eye *CML* V: XII 813.11-12.

p.98) 20 ἵνα μὴ μακρὸς ἡμῖν ὁ λόγος γένηται. A professed desire to avoid prolixity, μακρολογία, is common in Galen e.g. ἵνα μὴ μακρολογῶ περιττῶς *MM* I: X 25.5-6, ἵνα μὴ μακρὸς ὁ προκείμενος γίγνοιτο λόγος *UP* IX: III 692.7-8. ἡμῖν - the mss. and editions have ὑμῖν. However the treatise is addressed to a single individual who is called σὺ, σε etc. throughout except at page 74 line 19 where the addressee is perhaps the Roman people in general. Cf. ἵνα μὴ μακρὸν τὸ βιβλίον ἡμῖν γένηται p. 114.20.

p.98) 22--24 καρκίνος γοῦν ὁ ἀπὸ τῶν ποταμῶν λειωθεὶς καὶ καταπλασθεὶς ἀνεκβάλλει τοὺς σκόλοπας καὶ τὰς ἀκίδας. The crab as a drug ingredient elsewhere in Galen *Ant.* II: XIV 172.10 (for rabid dog bite), *CML* IX: XIII 264.1 (for dropsy: as here, river crab is specified). Treatments for τοὺς σκόλοπας καὶ τὰς ἀκίδας *SMT* VII: XII 7.10-13, *CMG* V: XIII 787.12-788.4, *CML* X:XIII.343.6-344.7

p.98) 24--25 ἡ καρὶς ὁμοίως λειωθεῖσα μετὰ βρυωνίας ρίζης πινομένη ἔλμινθα ἐξάγει. ἡ καρὶς - the shrimp - does not appear elsewhere in Galen as a drug ingredient. Crat. has the marginal conjecture κανθαρίς but the Arabic has prawns, جراد. Bryony root occurs frequently but not as a treatment for worms.

p.98) 25 ὁ δὲ σκορπίος Remedies for the scorpion's sting occur frequently in Galen; as an ingredient only at *SMT* XI: XII 366.2-4 as remedy for its own sting, whether applied externally or eaten: καὶ σκορπίον δὲ τὴν ἑαυτοῦ πληγὴν ἐκθεραπεύειν ἐπιτιθέμενον λεῖον· ὡσαύτως δὲ καὶ ὀπτόν ἐσθιόμενον.

p.98) 26 τὸ γῆς ἔντερον Earthworms: recommended e.g. for damaged tendons, and as a diuretic: *SMT* XI: XII 363.3-9; not for bladder stones, jaundice or gout.

p.100) 2 ἰέραξ The hawk. Not discussed as a drug ingredient though its bile and dung are (*SMT* X: XII 280.12, 305.3)

p.100) 2 ὁ κἀνθάρος The dung beetle. Not referred to elsewhere in Galen whereas ἡ κανθαρίς the blister beetle is commonly referred to both as a drug and as a poison (*Temp.* I 667.6-8 expressly points out that it both helps and harms, and cf. page 70 line 16 above. ἡ κανθαρίς not recommended for earache elsewhere.

p.100) 3--4 ὁ δὲ κορδαλὸς ὀπτός τρωγόμενος θανασιῶς τοὺς κωλικούς πολλακίς ὠφέλησε. Roast lark. Cf. *SMT* XI: XII 360.9-12 Ὅ γε μὴν κόρυδος τὸ πτηνὸν ζῶον τουτὶ τὸ μικρὸν, ὃ καὶ κατὰ τὰς ὁδοὺς πολλακίς ὀρώμεν, ἐνόμενον ἐν τῷ ζῶμῳ τοὺς κωλικούς ὠφελεῖ. χρὴ δὲ συνεχῶς καὶ πολλακίς ἐσθιῖν αὐτὸ μετὰ τοῦ ζῶμοῦ. Note the difference in preparation - boiled in soup rather than roast - and instructions on dosage. The passage goes on to distinguish between the κόρυδος and similar birds - an instance of διορισμός lacking in *Ther.Pis.*

p.100) 6 ὁ οὖν ἀσκαλαβώτης spotted lizard, gecko, *Platydactylus mauretanicus* L.S.J. s.v. Elsewhere in Galen cures the scorpion's sting if applied ground fine, or eaten: καὶ σκορπίον δὲ τὴν ἑαυτοῦ πληγὴν ἐκθεραπεύειν ἐπιτιθέμενον λεῖον· ὡσαύτως δὲ καὶ ὀπτόν ἐσθιόμενον. ἀρμόττειν δ' αὐτόν φασι καὶ τοῖς ὑπ' ἐχιδνῆς ὀρηχθεῖσιν, ἀσκαλαβώτην δὲ τοῖς ὑπὸ σκορπίου *SMT* XI: XII 366.2-6. Outside Galen carrying a gecko in the hands gives protection against scorpions - Philumenus *Ven.* 14 9.1-4 τοῖς δὲ ὑπὸ σκορπίου πεπληγῶσιν ἐλενίου ρίζαν διδοῦσιν μασᾶσθαι, ἕως ἄπονοι γένωνται· κἀν ἔχη δὲ τις αὐτὸ μετὰ χεῖρας, οὐκ ἀδικήσει ὁ σκορπίος· ἡ εὐρὸν ἀσκαλαβώτην φέρει, καὶ οὐ πληγῆσιν. Cures scorpion sting if torn up and applied to the wound - Aelius Promotus *κατάπλασσον δὲ τῆς πληγῆς καὶ τὸν σκορπίον τὸν πληξάντα, εἰ εὐρεθῆι, ἢ ἀσκαλαβώτην ἀνάσχισον καὶ ἐπίθεε τῆς πληγῆς. Περὶ τῶν ἰοβόλων θηρίων καὶ δηλητηρίων φαρμάκων* 15.29-31.

p.100) 7 ἡ δὲ ἀμφίσβαινα Not elsewhere in Galen except in the Andromachus poem above p. 78.9. The amphisbaina is described by Nicander *Ther.* 372 ff. No evidence elsewhere in Greek for the belief about pregnant women but the same belief is found in Pliny *Nat. Hist.* XXX 128.1-6 "Viperam mulier praegnans si transcenderit, abortum faciet, item amphisbaenam, mortuam dumtaxat, nam vivam habentes in pyxide inpune transeunt; etiam si mortua sit atque adservata, partus faciles praestat. <in> mortua mirum, si sine adservata transcenderit gravida, innoxium fieri, si protinus transcendat adservatam." The correspondence between ὑπερβάλη and transcenderit links the beliefs in the two passages. That in Pliny is more complex than that in *Ther.Pis.*; the text of Pliny is unsatisfactory but appears to say that stepping over the dead amphisbaena causes miscarriage but that having a live one in a box both protects against miscarriage in those circumstances and also guarantees an easy childbirth.

p.100) 20--21 καὶ φησὶ τις ἀρχαῖος λόγος cf. ἔμοι δὲ καὶ λόγος τις ἀρχαῖος ἐμήνυσεν p. 110.8, ἔμοι δὲ καὶ ἐξ ἱστορίας τις ἐμήνυσε λόγος p.74.11. No similar phrase elsewhere in Galen, emphasizing the anecdotal style of *Ther.Pis.* The expression is commonplace elsewhere - e.g. *Soph. Trach.* 1-3:

Λόγος μὲν ἔστ' ἀρχαῖος ἀνθρώπων φανείς  
ὡς οὐκ ἂν αἰῶν' ἐκμάθοις βροτῶν, πρὶν ἂν  
θάνη τις, οὐτ' εἰ χρηστός οὐτ' εἰ τῶ κακός·

p.100) 21--23 ὅτι τινὰ τῶν ζώων ὁμίλησαντα μὲν ἐν τῷ δάκνειν τῷ ἐκ τοῦ δῆγματος ἀποκρινόμενῳ ἀνθρωπιῶ αἵματι ἀναιρεῖ τοὺς δακνομένους, μὴ γευσάμενα δὲ τοῦ αἵματος, ἀλλ' οὕτως ἐσθιόμενα, τοὺς δηχθέντας διασώζειν πέφυκεν. There is a degree of incoherence about the statement. Some animals kill their victims if they come into contact with the blood secreted from the wound - not as we would expect with the blood remaining in the bloodstream; if they do not taste the blood but are then eaten they "save the victim" but *ex hypothesi* he should not need saving if the animal has not tasted the blood. The Arabic clearly conveys the idea of the poison entering the bloodstream: manche Tiere töten, wenn sie jemanden beißen, und ihr Gift in das Blut des Gebissenen nicht schmeckt, tötet es nicht. The Greek text suggests a theory of action at a distance which could be characterised as magic (cf. the effect on the pregnant woman of stepping over - but not coming into contact with - the amphibaina, above). The Arabic may represent a deliberate re-writing of the text since the difference between the texts cannot be accounted for by errors in transmission.

p.100) 23--24 ὡσπερ καὶ ἐπὶ τοῦ ἐλενίου see note on τρίφυλλον at p. 70.4. If Labbé's objection is to the inherent implausibility of the account of the effects of ἐλενίου it is worth pointing out that the new world drug curare has precisely the effect claimed for ἐλενίου: "Curare is one of the names coined by South American Indians to describe the plant-derived poisons that they used to coat the tips of their hunting arrows or blow-pipe darts. The poison is little absorbed after oral ingestion and hence the meat from animals killed with curare is harmless" (W.C.Bowman "Neuromuscular Block" British Journal of Pharmacology (2006) 147, S277--S286.) I am not aware of any old-world drug with a similar effect. However the use of poisoned arrows to hunt prey necessarily implies a poison which kills the prey but not the subsequent consumer of the prey and Cicero Celsus and Pliny all report the existence of arrow poisons for hunting: "Limeum herba appellatur a Gallis, qua sagittas in venatu tingunt medicamento, quod venenum cervarium vocant" Pliny *NH* 27.101.1-3; "Nam uenenum serpentis, ut quaedam etiam uenatoria uenena, quibus Galli praecipue utuntur, non gustu, sed in uulnere nocent." Celsus *De Medicina* 5.27.3b.5-3c.1; "capras autem in Creta feras, cum essent confixae venenatis sagittis, herbam quaerere quae dictamnis vocaretur, quam cum gustavissent sagittas excidere dicunt e corpore." Cicero, *De Natura Deorum* 2.126.10-127.1.

p.100) 24 ὑπὸ δὲ τῶν ἐπιχωρίων i.e. by the Dacians and Dalmatians not, *pace* Nutton (1997, 141), the Romans. In Galen ἐπιχωρίως means "local relative to the subject under discussion", not "local relative to Galen's current position". e.g. *SMT* XII 174.3,4.

p.100) 24 νίνου καλουμένου: νίνον not found elsewhere in Greek or Latin sources. Chartier and Kühn have νίκου ἢ νίνου for reasons not known to me: the mss. and previous edd. clearly read νίνου. Paulus Med. VI 88 (4) 18-21 presumably based on this passage has νίνον: φασὶ δὲ τοὺς Δάκας καὶ τοὺς Δελμάτας περιπλάσσειν ταῖς ἀκίσιν τὸ ἐλένιον τε καὶ νίνον καλούμενον, καὶ οὕτως ὁμίλησαν μὲν τῷ αἵματι τῶν πτωσκομένων ἀναιρεῖν, ἐσθιόμενον δὲ ὑπ' αὐτῶν ἀβλαβές εἶναι καὶ μηδὲν κακὸν δρᾶν.

p.102) 5 Cf the attack on empiricism at p. 64.1 ff.

p.102) 17 εὔρωμεν: the reading of L and N and undoubtedly correct: the optative εὔρωμεν in Q and the Aldine and subsequent editions is impossible after the primary tense of ἔχομεν. Explicable as a mere error by Q in that εὔρωμεν is in the main body of the text, not the result of a correction.

p.102) 24 βρωθέντας : βιβρώσκω usually means to eat. LSJ *s.v.* cites this passage only for the meaning "to bite". No reference elsewhere in Galen to crocodile fat or to crocodile as healing its own wounds. Crocodile dung is recommended frequently in *SMT*, e.g. XII 307.18.

p.102) 25 The field mouse cures its own bites if cut open and applied to the wound at *SMT* XII 365.18-366.2. Note that this passage immediately precedes that dealing with scorpions quoted above in note to p. 100.6.

p.104) 8 L N Y have πλείων αὐτοῖς which Q changes to πλείων τούτοις, and Ald. and subsequent editions to πλείων ἐν τούτοις. As to ἐν Galen almost always has ἐνεμι with ἐν plus dative rather than dative alone but there is at least one exception - *Hipp. Aph.* XVIIIa 187.9; conversely Plutarch for instance regularly has ἐνεμι plus dative alone. I see no justification for the insertion. αὐταῖς clearly gives the sense required that the majority of the poison is in the head and that is why removing the head reduces the danger posed by the snake.

p.104) 10 Q's emendation μέρεσιν for σώμασιν is unnecessary. ἐν τοῖς ἄλλοις can mean "in the other parts of the body" rather than "in the other bodies": cf. *Ars Med.* I 387.11-13 ὡς τὰ πολλὰ γὰρ οἱ παρακεῖμενοι μύες ἅμα τοῖς ἄλλοις σώμασι πάσχουσι, ῥηγνυμένων τῶν ὀστέων.

p.104) 17 ἡ γὰρ τοι κανθαρίς: cf. page 70 line 16 where the point is that the harm done by the blister beetle is specific to the bladder; here the point is that it is harmful per se but beneficial when mixed with other drugs. *SMT XI* 609.2-15 treats the use of the κανθαρίς in a complex diuretic drug as an example of how a poison can be beneficial in a compound drug. cf. Pliny *NH* 29.93.1-3 - cantharides dangerous, but used to treat bladder problems.

p.104) 19 ισχυρία L N Y is *vox nihili*. Q's emendation is the most obvious one.

p.104) 20 ὁ δὲ ὀπὸς τῆς μήκωνος Poppy juice, opium. Frequent in Galenic recipes, including ones for kidney problems, e.g. *CML X*: XIII 327.9-15 and sleeplessness, e.g. *CML VII*: XIII 45.10-11. See also *Ant. I*: XIV 4.4-9 on Marcus Aurelius having to adjust the opium content of his daily dose of theriac in order to regulate his sleep patterns.

p.104) 24 The spider ground up and taken with wine is a remedy for its own bite. Cf. the scorpion *SMT XI*: XII 366.2-4 as remedy for its own sting, whether applied externally or eaten: καὶ σκορπίον δὲ τὴν ἑαυτοῦ πληγὴν ἐκθεραπεύειν ἐπιτιθέμενον λείων· ὡσαύτως δὲ καὶ ὀπτόν ἐσθιόμενον. Cf. also above p. 70.4 for a similar paradox relating to the spider, that the trefoil both cures its bite and produces the same symptoms as the bite if applied to unbitten skin.

p.106) 8 The argument that two substances can be mixed in such a way that a third substance qualitatively different from either of the two components is generated is apparently not expressed elsewhere in Galen's pharmacological works as a theoretical justification for the use of compound drugs: on the contrary it is presented as an objection to them at *CMG II*: XIII 364.9-365.1: οἰομένων τινῶν ἐν τῇ συνθέσει διαφθεیرهσθαι παντάπασι τὰς ἐναντίας ἀλλήλαις δυνάμεις τῶν ἀπλῶν φαρμάκων. εἰ γὰρ ὕδωρ, φασί, τὸ ζεστότατον τῶ ψυχροτάτῳ μίξεις, οὐδέτερον μενεῖ τῶν μιχθέντων ὁποῖον ἦν ἐμπροσθεν, ἀλλ' ἐν τι γενήσεται τρίτον, ἕτερον ἀμφοῖν. ἐδεῖχθησαν δὲ κἀνταῦθα ληροῦντες μάταια διὰ τὸ μὴ γινώσκειν ἓνα μὲν τῶν προσφερομένων τῷ σώματι κατὰ τὰς ἐμφύτους δυνάμεις, ἓνα δὲ κατὰ τὰς ἐπικτήτους ποιότητος ἐνεργεῖν: just as if you mix very hot and very cold water you end up with a third substance which is neither one nor the other, so the combination of simple drugs causes them to destroy each other's faculties. Galen counters this argument with an ineffectual counter argument based on the difference between innate and acquired qualities (ineffectual because it does not address the case where two simples with opposed innate qualities are combined). The third book of *On Mixtures*, Galen's most extensive treatment of the theory of mixtures of simples, is silent on the possibility of drugs in mixtures acting on each other: they act on the body or the body on them. There is only one reference to interaction between drugs, where it is said that a very potent drug can be usefully taken if combined with others which restrain its effect - σὺν τοῖς κολάζουσι τὴν ἰσχύον αὐτοῦ *Temp.* III.I 665.16. The theory that the purpose of making complex medicaments is to restrain the effect of the more potent ingredients occurs in *Ther.Pis.* ch.5 (p. 72.18 above) and cf. below ἀνάγκη τῆς κράσεως δι' ὅλων τῶν κίρναμένων γιγνομένης τὸ ἰσχυρότερον τοῦ ἥττονος κρατεῖν, καὶ διὰ τοῦτο ἡμεῖς ταῖς ἐντέχνους μίξεσι πρὸς τὴν χρείαν τῆς ἐνεργείας τὰς ποιότητος τῶν φαρμάκων ἐναλλάσσομεν - i.e. the overpowering of weaker ingredients by stronger is equated with the change to a new substance effected by the doctor. (Cf. also the discussion in *Ant. I* Chapter 2 of the quality of ingredients used to make theriac; the danger is that if some ingredients are of good quality and others not the composite drug will be overpowered (ἐπικρατηθῆναι *Ant. I.2*:XIV 6.7) by the former. The idea of deliberately combining multiple drugs to produce a new drug with its own character distinct from that of its components is outlined in passing in an analogy in *Quod qualitates incorporeae sint* XIX 478.5-7: ὁ μὲν οὖν ἰατρὸς συντιθεὶς ἐκ πολλῶν φαρμάκων ἕτερον φάρμακον ἰδίαν ποιότητα πάντων ἐχόντων ποῖον ἕτερον ἐκ τῆς μίξεως ποιεῖ. The sense is that it is universally conceded that the doctor can produce a new quality out of a mixture in this fashion and therefore absurd to suggest that God cannot produce new qualities out of primal matter (τῇ πρώτῃ οὐσίᾳ). Note that *Quod qualitates incorporeae sint* is regarded by Kühn as one of the "libri manifeste spurii" (Kühn I XIX), [s]purius ... ex sensu omnium (Kühn I CLXII); it is treated as genuine by some more recent scholars e.g. Hankinson (2004) Hankinson (2008a) but spurious by others e.g. (Algra 1999) 812. The Aldine edition lists it as spurious along with 12 other works which are either omitted altogether by Hankinson or marked by him as spurious or possibly spurious.

p.106) 11 μοι νόμιζε μοι is a "polite" or "ethic" dative - "please consider." No parallels elsewhere in Galen. In τὰ δ' αὐτὰ κἀπὶ τῆς κλειδὸς εἰρησθαί μοι νόμιζε *AA IV*: II.428 13-14 μοι appears to be a dative of agency

after εἰρησθαί.

p.106) 15 Attacks on Epicurus, Democritus and Asclepiades for their atomist beliefs are frequent in Galen; e.g. and cf p. 66.10 and note. The reason for Galen's hostility is that atomism is rejected by Hippocrates (quoted as saying Ἐγὼ δὲ φημι, εἰ ἐν ἦν ἄνθρωπος, οὐδέποτε ἂν ἤλγεεν· οὐδὲ γὰρ ἂν ἦν ὑφ' ὅτου ἀλγήσειεν ἐν ἑὼν. *Hipp. Elem.* I: 1 415.15-16) and contrary to his theory of natural faculties according to which specific attractions exist between specific organs, foodstuffs and drugs: see above p. 66 and cf. Hankinson (2008a) 223-5, May (1968) 49-50 (making the point that to explain something merely by reference to a "faculty" is not really to explain it at all as Galen concedes *Nat.Fac.* I.4: II 9.13 - 10.2 καὶ μέχρι γ' ἂν ἀγνοῶμεν τὴν οὐσίαν τῆς ἐνεργούσης αἰτίας, δύναμιν αὐτὴν ὀνομάζομεν, εἶναι τινα λέγοντες αἰτίας, δύναμιν αὐτὴν ὀνομάζομεν, εἶναι τινα λέγοντες ἐν ταῖς φλεψὶν αἰματοποιητικὴν, ὡσαύτως δὲ κὰν τῇ κοιλίᾳ πεπτικὴν κὰν τῇ καρδίᾳ σφυγμικὴν καὶ καθ' ἕκαστον τῶν ἄλλων ἰδίαν τινα τῆς κατὰ τὸ μόριον ἐνεργείας). and thirdly is opposed to the view of the body as an example of (thousands of instances of) intelligent design which underlies *On the Utility of the Parts*.

p.106) 20 For the observation that Epicurus' ἀτόμοι are the same thing as Asclepiades' ὄγκοι cf. *UP* VI:III 474.16-19 ὃν οὐδὲν οὐτ' ἐγίνωσκεν Ἀσκληπιάδης οὐτ' εἶπερ ἔγνω, δυνατόν ἦν αὐτῷ τὰς αἰτίας ἐξευρεῖν εἰς ὄγκους καὶ κενὸν ἀνάγοντι τῶν γιγνομένων ἀπάντων τὰς ἀρχάς; *UP* XI:III 873.17-18: ταῖς τ' Ἐπικουρείοις ἀτόμοις καὶ τοῖς Ἀσκληπιαδεῖοις ὄγκοις and see generally Vallance (1990). Asclepiades' physiological theory of ὄγκοι and πόροι is poorly understood but it is possible to say that the statement here that they are the same thing as Epicurus' ἀτόμοι and κενόν is tendentious. In the places cited in *UP* and in all other instances that I can identify, where Galen groups Epicurus' and Asclepiades' theories together he does so not on the grounds that they are identical but that they are both monistic theories and he is opposed to all such theories. So *San. Tu.* I:VI 15 8-12 clearly sees them as different but similar theories: συμμετρία γὰρ δὴ τις ἡ ὑγεία κατὰ πάσας ἐστὶ τὰς αἰρέσεις, ἀλλὰ καθ' ἡμᾶς μὲν ὑγροῦ καὶ ξηροῦ καὶ θερμοῦ καὶ ψυχροῦ, κατ' ἄλλους δὲ ὄγκων καὶ πόρων, κατ' ἄλλους δὲ ἀτόμων ἢ ἀνάμων ἢ ἀμερῶν ἢ ὁμοιομερῶν ἢ ἀνομοιομερῶν ἢ ὅτου διὰ τῶν πρώτων στοιχείων. The basis of that opposition is Hippocrates *De natura hominis* 2.10-11 Ἐγὼ δὲ φημι, εἰ ἐν ἦν ὁ ἄνθρωπος, οὐδέποτε ἂν ἤλγεεν· οὐδὲ γὰρ ἂν ἦν ὑφ' ὅτου ἀλγήσειεν ἐν ἑὼν· cf. *CAM* I 247.8-9 φησιν οὖν ὁ Ἱπποκράτης, ἐγὼ δὲ φημι, εἰ ἐν ἦν ἄνθρωπος, οὐδέποτε ἂν ἤλγεεν, ὀρθότατα λέγων. So *Morb. Diff.* VI 839.16-840.1 οὐκ οὖν ἐν ἐστὶ τὸ τῶν ζώων σῶμα, καθάπερ ἡ ἄτομος ἢ Ἐπικουρείος, ἢ τῶν ἀνάμων τῶν Ἀσκληπιάδου· σύνθετον ἄρα πάντως. Similarly in *Hipp. Epid.* IV: XVIIb 162.7-9 τὸ δὲ κενὸν εἶναι τινας χώρας ἢ κατὰ τὸ ὕδωρ ἢ κατὰ τὸν ἀέρα τῇ μὲν Ἐπικουροῦ τε καὶ Ἀσκληπιάδου δόξῃ περὶ τῶν στοιχείων ἀκόλουθόν ἐστι· This passage appears to treat Epicurus' and Asclepiades' theories as equivalent and, importantly, to confirm that in Galen's eyes Asclepiades' theory is a theory of physics (applying generally to air and water). In fact the theory may in reality have been a theory of physiology only. The most important evidence to the contrary is precisely this passage in *Ther.Pis.*: "Supporters of the thesis that Asclepiades was either an Epicurean, or at least heavily influenced by Epicurean atomism, invariably appeal to a chapter in the Galenic treatise *De theriaca ad Pisonem*, entitled 'Refutation of Asclepiades and Epicurus, who deny alteration and refer the works of nature to the atoms and corpuscles'." Vallance (1990) 37-8. In fact there are good grounds for doubting whether Asclepiades' theory had anything in common with Epicurean atomism beyond positing corpuscles of one type of material since Asclepiades was a doctor and not a philosopher, an ὄγκος differs importantly from an ἄτομος in being breakable (*CAM* I 249.13-15 οὐ μὴν οὐδὲ τὸ ἀναρμον τὸ Ἀσκληπιάδου θραυστὸν ὃν ὀδυνήσεται θραυόμενον, ἀναίσθητον γὰρ ἐστὶν) and a πόρος means something very different from a κενόν in Greek. The word connotes a passage through something (the root meaning according to *LSJ* s.v. is "means of passing a river, ford, ferry") and in a medical context usually means a vessel along which air, blood, food and so on can pass. (Galen distinguishes the latter kind of πόρος from that posited by Asclepiades at *Morb. Diff.* VI 857.18-858.15). The puzzling aspect of this passage is that the argument in *Ther.Pis.* as elsewhere in Galen requires only that Asclepiades' and Epicurus' particles should be of one unchangeable substance and the insistence that the two theories are not merely functionally equivalent but identical save for terminology is unexplained. As with the discussion of λόγος and ἐμπειρία in chapter 3 the doctrine stated is compatible with what we find elsewhere in Galen but at an extreme end of the spectrum Galen's argument is that if the particles cannot suffer then nothing made of them can suffer either. The counter-argument that pain may be an emergent or supervening property of collections of particles without being a property of the particles individually, just as the particles in an odd-numbered collection of particles are not themselves odd-numbered, is apparently rejected at *Morb. Diff.* VI 840.1-5: ἀλλ' εἰ μὲν ἐξ ἀτόμων, ἢ ἀνάμων, ἢ ὅλων ἐξ ἀπαθῶν τιῶν σύγκειται [sc. τὸ τῶν ζώων σῶμα], τὸ μᾶλλον τε καὶ ἧττον ἐν τῷ ποιῶ τῆς συνθέσεως ἔξει δίκην οἰκίας ἐξ ἀπαθῶν μὲν λίθων συγκειμένης, οὐ μὴν ἐν τῇ συνθέσει γε πάντῃ κατορθουμένης. The analogy with the stones which constitute a house seems however to favour rather than disprove

the argument that a property - that of being a house - can emerge out of constituent parts which do not have that property: stones are not houses.

p.108) 3 ὁ ἰατρὸς Ἀσκληπιάδης: L has a word after ὁ which has either been blotted or deliberately crossed out and is illegible but certainly ends in the letters *ων*. This rules out Y's *νὺν*. N has *μείων* which is consistent with L but unlikely since the only passage in Galen which distinguishes two doctors called Asclepiades calls Asclepiades of Bithynia the elder - *CML* I: XII 410.8-12. The Arabic has "Am grössten ist meine Verwunderung über den Arzt Asklepiades, denn ich wetteifere mit ihm, da er ein Arzt war..." where the intention seems to be to expand οικειῶς and den Arzt is unqualified. I therefore take L to have a deliberate erasure of a mistake. cf. p.106.20 above κατὰ τὸν ἰατρὸν Ἀσκληπιάδην, and other occurrences of Ἀσκληπιάδης ὁ ἰατρὸς e.g. *El Ex Hipp.* I: I 487.11-12.

p.108) 5 οὐκ ἀποδέχεται: the mss. have ἔχων δείκνυται which makes no sense. Q emends to οὐκ ἐνδείκνυται. In Galen ἐνδείκνυται is frequently used in the sense that state of affairs A materially implies state of affairs B - e.g. *Caus. Symp.* III:VII 213.14-16 τὸ γὰρ μηδ' ὅλως ἐνεργῆσαι περὶ τὰ σύμμετρα τε καὶ συνήθη στία μείστην ἐνδείκνυται τῆς γαστρὸς τὴν δυσκрасίαν· *UP* XII: IV 5.5-7 οὕτως οὖν καὶ ἐπὶ δημιουργικῆς τέχνης ἀπάσης ἀκρίβειαν ἢ τῆς συμμετρίας στενότης ἐνδείκνυται. There is a rare exception *PHP* IV: V 385.13-15 ἐναργῶς ἐν τούτοις ὁ Χρύσιππος ἐνδείκνυται τὰ δύο σημασιόμενα τῆς ἄλλογον φωνῆς. The sense required here is "does not accept" or "is unable to account for," not "does not prove the existence of". For ἀποδέχομαι cf. p. 102.7.

p.108) 5 cf. *SMT* III: XI 584.13-15 ὡςπερ ὅταν εἰς ὕδωρ ψυχρὸν ἓνα δάκτυλον ἄθρῶς καθέντες ἐν ψύχει σφοδρῶ φρίζομεν ὄλην τὴν χεῖρα, πολλακίς δὲ καὶ σύμπαν τὸ σῶμα. The simile is to illustrate how the different elements of a non-homogenous simple are immediately perceived by the tongue and has no evident connection with atomist theories.

p.108) 11 cf. *Hipp. Epid.* III II: XVIIa 635.8-10 ἐνίστε μὲν γὰρ πηδήσασαι σφοδρότερον ἢ δεῖσασαι τὴν τῶν ὀφθέντων αὐταῖς φοβερῶν αἰφνιδίως ἐκτιφροσκοσιν αἱ γυναῖκες. Part of a survey of the causes of miscarriage and not connected with atomism.

p.110) 3 διαπλάττεται τὸ ἔμβρυον : distinctively Galenic. διαπλάσσω/ διαπλάττω and cognate διαπλάσις are used very frequently by him to describe the formation of the foetus in the womb.

p.110) 4 τρέφει: L has τρέψει changed by Q to τρέφεται, the passive corresponding to διαπλάττεται; however the next two verbs κρατεῖ and ἐργάζεται are active, their subject being ἡ φύσις, and the one-letter emendation appears more probable.

p.110) 5 ὁμοιότητα τύπων: L has οἷα δὲ τινὶ θεῖα τέχνη καὶ ὁμοιότητι τύπων ἐν τοῖς γεννωμένοις ἐργάζεται. Q and Y alter τύπων to τύπον correctly seeing that ἐργάζεται require an object. It makes more sense to retain τύπων and read ὁμοιότητα for ὁμοιότητι - nature is producing a similarity of appearances, rather than creating an appearance with [skill and] similarity.

p.110) 8 The so-called theory of maternal impression. Cf. Soranus *Gyn.* I.39 (1) 3-6: ὁ δὲ τῶν Κυπρίων τύραννος κακόμορφος ὢν εἰς ἀγάλματα περικαλλῆ κατὰ τοὺς πλησιασμούς τὴν γυναῖκα βλέπειν ἀναγκάζων [ὁ] πατὴρ εὐμόρφων ἐγένετο παίδων· Heliodorus *Aethiopica* 4.8.5 is less to the point since the contemplation of the painting and its effect on the unborn child are entirely unintentional. Q's emendation δυνατός of δυνατῶν is a second attempt in that he makes a first emendation of the letters following δυνα above the word in the text and then erases it and puts -τός in the margin. Of the translators Rota has hominem opulentum quidem, sed deformem and Chartier and Kühn have deformis quidam opibus potens while the Arabic omits the words altogether describing the man simply as "einen der Alten". According to LSJ δυνατός can mean "powerful, influential" and is understandable on the basis that Soranus identifies the man as a τύραννος. For the identification of the protagonist only as τις cf. above p.74.11 and note (anecdote about Hannibal and Eumenes II) and p. 56 (Lusus Troiae and the festival at which the incident occurs described by periphrases rather than proper names). The phrasing is awkward in that it seems odd to treat "the ugly" as a natural class but cf. Aelius Aristides Πρὸς Πλάτωνα ὑπὲρ τῶν τετάρων 150.5 μαρτύριον μέγιστον εἶναι τοῖς ὑπὲρ αὐτοῦ λόγοις καὶ ὡς οὐ τῶν φαύλων τις ἦν. For the phrase cf. Xen. *Cyr.* 5.4.1 Γαδάτα ἰππικῶν τῶν δυνατῶν τις ἀνδρῶν - one of the powerful men in Gadatas' cavalry. For the construction in Q cf. Aristoph. *Pax* 43-4 οὐκοῦν ἂν ἦδη τῶν θεατῶν τις λέγοι νεανίας δοκησίσοφος. But L N Y's genitive plural appears in principle equally acceptable.

p.110) 20-21 τὸ ὑπὸ τῆς ἄρκτου γινόμενον ἔργον; cf. *CML* I: XII 425.16-426.1 βρέφους δ' ἀμόρφου δοκεῖ μοι λέγειν τῆς ἄρκτου. ταύτην γὰρ φασιν ἀποκυΐσκεσθαι μὲν ἄμορφον, ὡσανεὶ σαρκῶδες τι μέρος.

έκλειψης δὲ τοῦτο τῆς μητρὸς διαμορφοῦσθαι τὸ ζῶον glossing a recipe which refers to βρέφους ἀμόρφου στέατος λίτραν μίαν *CML* I: XII 423.2-3

p.110) 26 The florid imagery is atypical of Galen. For a description of the horse as γᾶρος cf. *UP* I: III 2.11-15 πᾶσι δ' οὖν ἐπιτήδειον τὸ σῶμα τοῖς τῆς ψυχῆς ἡθεσί τε καὶ δυνάμεισιν: ἕπω μὲν ἰσχυραῖς ὀπλαῖς καὶ χαίτη κεκοσμημένον, καὶ γὰρ ὠκὸν καὶ γᾶρον καὶ οὐκ ἄθυμον τὸ ζῶον. The word is often used of horses by other authors. The range of variants on φιλοτίμοις is also puzzling: φοιτοτίμοις/ φοιτοτίμοις are not words and φιλοτίμος occurs only as a proper name. *Crat.* and subsequent editions print φιλοτίμοις which seems the obvious emendation given this author's fondness for the word.

p.112) 9 The overall sense of this passage appears clear. The hunters who wish to show off their skill catch snakes at a time of year when their poison is not strong, overfeed them with the wrong food and force them to bite meat repeatedly so that their venom is drawn, and then feed them barley cakes to block up their poison ducts, all this with a view to deceiving "the onlookers" (τοὺς ὀρώντας, referred to twice) and causing them amazement (ὡς θαυμάζειν πᾶν τοὺς ὀρώντας). The obvious conclusion is that the hunters are showing off a supposed immunity to snakebite. A special relationship with snakes was ascribed to various tribes - the *Psylli*, *Marsi* and *Ophiogenes* according to *Pliny NH* 28.30.1 - mainly the ability to cure snake bite but immunity is also implied by an anecdote about one of the *Ophiogenes*. Galen describes an encounter with the *Marsi* at *SMT* XI: XII 316.5ff. and suspects them of lying to him: οὐ μὴν ἔχω βεβαίως εἰπεῖν εἴτ' ἀληθεύουσι τὸ σύμπαν εἴτε καὶ ψεύδονται κατὰ τι. 316.13-14.

p.112) 10--12 καὶ μάλισθ' ὅσοι καὶ φάρμακά τινα πρὸς τὰ τοιαῦτα εὕρισκιν ἐπαγγέλλονται, τὸ μὲν ἔχειν τὰ φάρμακα ψεύδονται. οὐ γὰρ εὕρομέν ποτε ἡμεῖς αὐτοὺς ἔχοντας For the proposition that professional snake-hunters have their own drug-lore cf. *Loc. Aff.* V:VIII 355.5-11 where a snake-catcher from the imperial household treats himself for snakebite with one of his own customary φαρμάκα which turns his skin green. Galen gives him theriac which restores his normal colour; the text does not say that the theriac cures the snakebite, leaving open the possibility that the snake-catcher's own remedy was effective: δηχθεῖς γοῦν τις τῶν αὐτοκρατορικῶν οἰκετῶν, οἷς ἔργον ἐστὶν ἐχιδνας θηρεύειν, ἄχρι μὲν τινος χρόνου τῶν συνηθῶν ἑαυτῷ φαρμάκων ἔπινεν τι, μεταβαλλούσης δ' αὐτῷ τῆς χροιάς ὄλης, ὡς γενέσθαι πρᾶσοειδῆ, προσελθὼν ἡμῖν ἔκαστά τε διηγῆσατο, καὶ πίνων τῆς θηριακῆς ἀντιδότου τάχιστα τὴν κατὰ φύσιν ἀνεκτήσατο χροίαν. The construction here is "they boast that they find drugs suitable for such things" i.e. presumably to confer immunity from snakebite. The reference of πρὸς τὰ τοιαῦτα is not at first clear but the argument carries on "but in fact they attain their ends by wrongly feeding the snakes etc." implying that the effect of that misfeeding is the same as the effect which the hunters claim to produce by virtue of τὰ φάρμακα. It is not clear whether the pretence of immunity is merely introduced as evidence of the dishonesty in general of snake hunters or whether it is directly relevant to the quality of theriac because the hunters subsequently sell as suitable for theriac snakes which have been used in the demonstrations of immunity.

p.112) 19 An abrupt change of subject from fraudulent snake catchers to inexperience over drugs. Cf. *Ant.* I: XIV 5.13-13.16 for a discussion of the importance of practical experience in recognising and assessing the quality of drugs.

p.112) 20 ὡς ἔφην, ἀπειρία οὐκ ἔστιν ὀλίγη cf. p. 112.9 above

p.112) 22 Cinnamon and cassia frequently occur in conjunction with one another in recipes in Greek and Roman medical sources: e.g. *Hp. Nat.Mul.* 34.10-11, *Mul.* 181.4, *Dioscorides de Materia Medica* V 39 2 3, *Pliny NH* 13 10.5-11.1 *Celsus de Medicina* 3.21.7.4-5. *Herodotus* III 107.1-3 puts cassia and cinnamon among the five spices endemic to Arabia: Πρὸς δ' αὖ μεσαμβρίας ἐσχάτη Ἀραβίη τῶν οἰκομένων χωρέων ἐστὶ: ἐν δὲ ταύτῃ λιβανωτός τέ ἐστι μόνη χωρέων πασῶν φυόμενος καὶ σμύρνη καὶ κασίη καὶ κιννάμωμον καὶ λήδανον. *Hdt.* III 111.1-112.1 for his account of how birds collect the cinnamon from the unknown country where it grows and build nests of it in Arabia; *Pliny NH* 12.85.1-86.1 recounts and rejects this story, saying that the merchants tell these stories to increase their prices - "his commentis augentes rerum pretia."

Galen discusses the relationship between cassia and cinnamon in *Ant.*; at *Ant.* I: XIV 24.4-9 cinnamon is privileged as the most important ingredient of expensive complex drugs: Φιλόνοιον μὲν οὖν τις ἀντιδοτὸν ἢ τινα ἄλλην τῶν εὐτελῶν συντιθεῖς, οὐ πᾶν τι δεῖται τῶν εἰς ἄκρον ἀρίστων φαρμάκων. εἰ δὲ τὴν Μιθριδάτειον ἢ τὴν θηριακὴν ἢ τινα ἄλλην τῶν πολυμιγμάτων τε καὶ κιννάμωμον ἐχουσῶν συντιθεῖ, πάντων τῶν ἀρίστων δεῖται φαρμάκων. Cassia and cinnamon are so closely related that Galen has seen cinnamon shoots growing from a cassia bush: *Ant.* I: XIV 56.2-7 ἐθεασάμην γὰρ ἤδη πολλὰκις ὑψηλῆς καὶ εὐθαλοῦς κασσίας ὡς εἰς θάμνου μέγεθος ἀνήκειν ἀκρέμονάς τινας ἀκριβῶς ὁμοίους κινναμώμῳ κατὰ τε τὴν ὄψιν καὶ

τοῦ φλοιοῦ τὴν λεπτότητα, καὶ πρὸς τούτοις ἔτι τὰ βεβαιότατα γνωρίσματα κινναμώμου διὰ τῆς γεύσεώς τε καὶ ὁσφρήσεως γινόμενα. Distinguishing between these closely related drugs is like telling the difference between identical twins - *Ant. I*: XIV 56.15-57.1 καθάπερ γε ἐπὶ τῶν ὁμοίων ἀλλήλοις παιδαρίων διδύμων οἱ μὲν ἀήθεις ὄντες οὐ δύνανται διακρίνειν τὸ ἕτερον ἀπὸ τοῦ ἑτέρου, ῥάστη δὲ ἡ διάγνωσις γίνεται τοῖς ὁμοδαίτοις, οὕτως ἔχει κἀπὶ τῶν φαρμάκων ἀπάντων.

The identity of cassia and cinnamon is to this day fraught with confusion. Evans (2009) 283 states that true cinnamon is *Cinnamomum verum* Presl. of which two subspecies exist and that "Many other varieties (about 23) have been described and exist wild in Sri Lanka and southern India; most of these, however, on current taxonomic grounds, represent other species". What is sold in London as cassia bark is the bark of *Cinnamomum cassia* from China; it is so similar to cinnamon bark that thin layer chromatography has been used to distinguish between them (Evans (2009) 285).

The distinctions drawn in *Ther.Pis.* are more elaborate than those in *Ant. I*; *Ther.Pis.* refers to ψευδοκιννάμωμον (mentioned once elsewhere in Galen at *SMT VII*: XII 26.12), ξυλοκιννάμωμον (mentioned once elsewhere in Galen at *CML VIII*: XIII 185.4 and ψευδοκασσία (not mentioned elsewhere in Galen) rather than simply to distinguishing κιννάμωμον from κασσία. The passage is however entirely consistent with *Ant. I*.

p.114) 3 cf. Dioscorides *de Materia Medica I* 14 κινναμώμου ἐστὶ πλείονα εἶδη ὀνομαζόμενα ἐπιχωρίως. διαφέρει δὲ τὸ Μόσυλον διὰ τὸ σώζειν ποσὴν ἐμφέρεϊαν πρὸς τὴν Μοσυλίτην καλουμένην κασσίαν. Μόσυλον or Μόσσυλον is a Red Sea port mentioned in the *Periplus maris Erythraei* (ed. Casson Princeton (1989) 10.97, 11.104

p.114) 12 γίζι: A good reading preserved by the Arabic text  $\zeta\gamma\gamma\acute{\iota}\beta\epsilon\rho$  alone; ζγγίβερ in the Greek tradition is an attempt to make sense of an unfamiliar word. cf. *Ant. I*: XIV 72.14-73.2 τούτων δ' ἀπάντων ὧν περὶ κασσίας εἶπον ἀναγκαιότατόν ἐστι διορίσασθαι ποίαν ἐμβλητέον ἐστὶ κασσίαν, ἐπειδὴ τὴν μὲν Γίζι μάλιστα ἐπαινοῦσιν, ἐφεξῆς δὲ τὴν μοτῶ καλουμένην, εἰσὶ δὲ οἱ καὶ τὴν ἀρηβῶ καὶ τὴν σαφνίτιν. ὅτι μὲν οὖν ἡ Γίζι παραπλήσιον κινναμώμῳ κατὰ πάντα ἐστὶν εἰρηταί μοι καὶ πρόσθεν. cf. also *Periplus maris Erythraei* 12 117-8 (γίζειρ) Dsc. *de Materia Medica I* 13 (1).1-10: κασσίας δὲ ἐστὶ πλείονα εἶδη περὶ τὴν ἀρωματοφόρον Ἀραβίαν γεννώμενα· ἔχει δὲ ῥάβδον παχύφλοιον, φύλλα δὲ ὡς πεπέρειος, ἐκλέγου δὲ τὴν ἔγκυρον, εὐχρον, κοραλλίζουσαν, στενὴν, λείαν, μακρὰν καὶ παχεῖαν τοῖς συριγγίσις [πλήρη], δηκτικὴν ἐν τῇ γεύσει καὶ στόφουσαν μετὰ ποσῆς πυρώσεως, ἀρωματίζουσαν, οἰνίζουσαν τῇ ὀσμῇ. ἡ δὲ τοιαύτη ὑπὸ τῶν ἐπιχωρίων ἄχου καλεῖται, σαφνίτις δὲ προσαγορεύεται ὑπὸ τῶν ἐν Ἀλεξανδρείᾳ ἐμπόρων. πρὸ δὲ ταύτης ἐστὶν ἡ μέλαινα καὶ ἐμπόρφυρος, παχεῖα, γίζιρ καλουμένη, ῥοδιζουσα τῇ ὀσμῇ, μάλιστα πρὸς τὴν ἰατρικὴν τέχνην εὐθετος ... It appears from the shared vocabulary (ἀρωματίζουσαν, οἰνίζουσαν, ῥοδιζουσα) that *Ther.Pis.* borrows from Dioscorides here.

p.114) 14 cf. *San. Tu. IV*: VI 268.13-270.7 for a discussion of how to tell long pepper from fraudulent substitutes and for Galen's explanation that he gives instructions on how to detect fraudulent simples when writing not for the medical profession but for amateur φιλιάτρους (269.10).

p.114) 20 ἴνα μὴ μακρὸν ἡμῖν τὸ βιβλίον γένηται: cf. p. 98.20 and n.

p.114) 23 For Andromachus see p. 54.13 and n.

p.114) 25 I have printed the recipe as it appears in L N Y (except for my conjecture στάχυος νάρδου for στάχυος in L N Y) and reported variants in Q in the apparatus. Versions of the recipe appear in the Andromachus poem itself, in the prose version attributed to Andromachus the Younger (*Ant. I*: XIV 42.10-43.17) and in the pseudo-Galenic *Theriac to Pamphilius* XIV 308.2-309.4. The printer's copies of *Ant.* and *Theriac to Pamphilius* are both in Q = Parisinus 2164: (in Diels (1906) 99 under "Antidotes" Parisin. 2664 is an error for Parisin. 2164). The lists are close in both ingredients and quantities, and that in Q as emended is closer to the Arabic than to L. As the emendations within Q which bring it closer to the Arabic in order seem to have no other function it seems that he must be emending by reference to another version of the list. For instance he moves ῥήου from its original position corresponding to L to a new position corresponding to the Arabic although the move makes no other difference; he moves κρόκου to a position corresponding to the Arabic with the effect of changing the quantities from 4 to 6 drachms; through apparent oversight he deletes ἄκορου as part of the same move but neglects to reinsert it so that it is lost from his version of the recipe; he moves black pepper from its position corresponding to L to its position corresponding to the Arabic and as a consequence changes the quantity from 24 drachms as in L to 6 as in the Arabic. This error arises from a

misreading of μακρόν as μέλανον where the poem of Andromachus senior has δολιχόν, presumably adopted for the sake of the metre as an equivalent to μακρόν. Galen points out the discrepancy between the verse and prose recipes (the prose recipe of Andromachus the younger in this case agreeing with L and not Q) in *Ant.* I: XIV 44.10-15: ἐν ἐνὶ μέντοι διαφωνεῖ πρὸς τὴν ἔμμετρον γραφὴν τῷ τὴν ἔμμετρον δραχμᾶς κδ'. ἔχειν τοῦ μακροῦ πεπέρεως, τὴν δὲ πεζὴν γεγραμμένην στ'. ἐπεὶ δ', ὡς ἔφην, πολλὰ τῶν ἀντιγράφων ἡμαρτημένας ἔχει τὰς ποσότητας τῶν φαρμάκων, διὰ τοῦτο α'. μὲν ὀλογραμμάτως αὐτὰς ἔγραψα, μιμησάμενος τὸν Μενεκράτην. Most strikingly he reverses the order of ἄμμεως, σαγαπινοῦ (the order in L, in the Andromachus poem, in the Arabic and in Q prior to alteration) to σαγαπινοῦ, ἄμμεως. This alteration corresponds to none of the extant versions of the recipe.

p.114) 25 Ἀρτίσκων θηριακῶν The recipe for these is given in the following chapter.

p.114) 25 ἀρτίσκων σκιλλητικῶν The recipe for these is given in the following chapter.

p.116) 1 ἡδυχρόου μάγματος The recipe for this is given in the following chapter.

p.116) 4 ναρδοστάχου: L has στάχου, Q νάρδου. νάρδος without qualification means *Nardostachys Jatamansi*, spikenard, as does ναρδοστάχου (Durling 1993 s.v.) and the Arabic text confirms that this is the plant meant here. Q's νάρδου might be good but it is awkward having νάρδου Κελτικῆς later in the recipe (spikenard can be called νάρδος Ἰνδική to make the distinction clear). There is another plant called στάχου - *Stachys Germanica*, base horehound (Durling 1993 s.v. and cf. p. 148.6; however it occurs infrequently in Galen and we know that Andromachus' theriac requires spikenard from *Ant.* I: XIV 73.15-18 where the etymology is also explained: ἐφεξῆς δὲ τῆς προγεγραμμένης ὁ Ἀνδρόμαχος Ἰνδικὴν νάρδον κελεύει βαλεῖν, ἦν περ καὶ στάχου ὀνομάζομεν νάρδου, καίτοι ρίζαν οὖσαν, ἀπὸ τῆς πρὸς τοὺς ἀστάχου ὁμοιότητος κατὰ τὴν μορφήν. The likeliest explanation of the reading in L is that it is the remnants of ναρδοστάχου *vel sim.*

p.116) 13 Xenocrates: Xenocrates of Aphrodisias ca. 50-70 AD (for the date ὁ Ξενοκράτης, ἄνθρωπος οὗ πάλαι γεγονός, ἀλλὰ κατὰ τοὺς πάππους ἡμῶν *SMT* X: XII 248.10-11); attacked by Galen for witchcraft *SMT* VI:XI 793.13-15 and for recommending foul remedies such as cannibalism *SMT* X: XII 248.8-17 but his recipes are quoted e.g. *Ant.* II: XIV 164.18

p.116) 16 Damocrates: Servilius Damocrates mid-late first century AD author of pharmaceutical works in iambic pentameters much cited by Galen including one of 173 lines on theriac quoted in *Ant.* I: XIV 90.2-99.13, giving a recipe virtually identical to Andromachus' but with differences which are highlighted both in the poem and by Galen at *Ant.* I: XIV 99.14-100.3: Ὅτι μὲν οὖν διαφωνοῦσι τινα πρὸς τὸν Ἀνδρόμαχον, Δαμοκράτης αὐτὸς ἐδήλωσεν εἰπὼν,

Τινὲς δὲ τούτων οὐ καλῶς ἀνά τέτταρας,

καὶ πάλιν.

Τινὲς δ' ἀνά δύο φασίν, ὅπερ οὐ βούλομαι,

ὅτι δὲ καὶ σαφέστερον εἶρηται τῶν ὑπὸ Δαμοκράτους γε- γραμμένων, καὶ τοῦτο πρόδηλον.

p.116) 16 ἄριστος ἰατρός for the wording cf. *Trem. Palp.* Ἐπειδὴ Πραξαγόρας ὁ Νικύρχου, τὰ τε ἄλλα τῆς ἰατρικῆς ἐν τοῖς ἀρίστοις γενόμενος.

p.116) 22 Magnus: his recipe for theriac cited six times in this passage. Otherwise there is no way to distinguish him from the writer or writers named Magnus whose recipes are quoted *CMG* V: XIII 829.13, *CML* V: XII 844.8.

p.116) 22 ὁ καθ' ἡμᾶς ἀρχίατρος γενόμενος καθ' ἡμᾶς here "in our time" rather than "in my home Asia as opposed to Rome" as it can also mean in Galen; cf. below Δημήτριος ... καὶ αὐτὸς καθ' ἡμᾶς ἀρχίατρος γενόμενος: Demetrius was Galen's immediate predecessor as preparer of theriac for Marcus Aurelius. ἀρχίατρος - physician to the emperor. The word has a complex history and also has the quite separate meaning of ἀρχίατρος πόλεως, chief municipal physician, especially in Eastern inscriptions: see Nutton (1977). The first literary instance of the word is in Erotian's dedication of his collection of *Hippocratic Terms* to Andromachus as ἀρχιατρὴ Ἀνδρόμαχε (Erot. 29.3). The word occurs four times in Galen, twice here applied to Magnus and Demetrius (and cf. the heading of chapter 6 Ἀνδρόμαχου Πρεσβυτέρου Νέρωνος ἀρχιατροῦ although the chapter headings are not necessarily by Galen) and twice in the first chapter of *Ant.* where it is applied



to Andromachus as inventor *Ant. I: XIV 2.14* and Demetrius as subsequent imperial pharmacist *Ant. I: XIV 4.13-14*. In both cases the concept of the ἀρχίατρος is intimately linked with the transmission of the canonical recipe for theriac and with the concept of kingship (other than the ἀρχίατροι the individuals mentioned in *Antidotes I ch. 1* are Mithridates, Attalus, Nero and Marcus Aurelius). In both cases (*Ther.Pis.* and *Ant.*) we also find minute variations in the quantities of ingredients carefully recorded. The concept of disagreement among written authorities over the composition of a drug is largely confined to the discussion of theriac in these two works and to the plaster called Ἡ Ἰκεσίου or Ἰκέσιος (sc. ἔμπλαστρος) (*CMG V: XIII 780.16-17*) where the competing recipes of Crito, Heras Heracleides and Andromachus are exhaustively reviewed and compared (*CMG V passim* and esp. the admission that the differences can be too trivial to matter *CMG V: XIII 814.9-12* διὸ περιττὸν ἔδοξέ μοι μνημονεύειν αὐτῶν. σκευαστέον γὰρ ἐστὶ τὸ φάρμακον ὡς Ἡρακλείδης ἐκέλευσεν ἢ ὡς Ἡρας, βραχυτάτη γὰρ ἢ διαφορὰ παρ' αὐτοῖς ἐστὶ. In both cases Galen seems to be motivated by the mere existence of competing versions of the canonical recipe to distinguish between them rather than by the pharmaceutical importance of the differences.)

For the accent on the last syllable cf. Herodian *Gramm. I 229*; the mss. and the Aldine and Cratander editions have it on the last syllable; Chartier and Kühn wrongly print ἀρχίατρος in *Ther.Pis.* but not in *Ant.*

p.118) 6 Demetrius: Galen's predecessor as manufacturer of theriac for Marcus Aurelius, dying in 168 while Marcus Aurelius is away fighting the Germanic wars: *Ant. I: XIV 4.11-5.2*.

p.118) 21 μαστίγης: the Greek sources all have the impossible ἄσιας. Nicc. and the Arabic both have masticis/مصطكى. This creates a doublet in the Greek because all the Greek sources have mastic listed last but one in the list of ingredients where the Arabic has cinnamon سليخة. The Latin an abbreviated list of only 10 ingredients as against sixteen in the Greek: corticis aspalii, calami aromatici 6 dr. each; squinati 12 dr. fou, costi, assari, cilobalsami, masticis 6 dr. each cinnamomi 24 dr. crocus 2 dr. I have adopted the reading agreed by Nicc. and the Arabic and altered the second occurrence of μαστίγης to κασσία which occurs in the Arabic list دارصيني and is otherwise missing from the Greek

p.118) 22 μαλαβάθρου φύλλον: the first evidence for this reading is the Froben Latin text of 1549 (foliorum malabathri). L Q and the Aldine and Cratander editions have φύλλα which is grammatically impossible - a genitive is required - and unacceptably vague. The Arabic is of no assistance - it has the unknown ساذج glossed by the editor as μαλαβάθρου φύλλον solely on the (circular) evidence of this passage as printed in Kühn. Whatever the provenance of Froben's reading it is clearly preferable to φύλλα.

p.118) 26 There are three recipes for squill pastilles in *Ant.*, of which the recipe in the author's own voice (*Ant. I: XIV 50.1-51.6*) requires the squills to be coated in πυρῶν νέων καλλίστων, the finest new wheat flour, referred to two lines later as σταίς, Damocrates' verse (*Ant. I: XIV 94.17-95.10*) requires σταίς and Crito's recipe (*Ant. I: XIV 103.17-104.9*) requires coating with γύψω ἢ πηλῷ, gypsum or clay. ζύμη is translated "leaven" by LSJ clearly meaning some form of dough with leavening agent in it. For a similar cooking technique cf *Alim. Fac. I: VI 476.7-10* - to administer scammony remove core from quince and fill hole with scammony, wrap quince in ζύμη, roast, feed quince flesh to patient.

p.118) 26--27 μὴ ὧς τινας πηλῷ, ῥυπαρὸν γὰρ εἶναι μοι δοκεῖ, ἀλλὰ ζύμη. This stipulation is ignored by Nicc. where the instruction reads "Squillam recentem non valde magnam circumtege cum luto ...".

p.120) 1 The final syllable of ὀπτήση is obscured by a blot in L; Y has ὀπτή followed by a wider than usual space between words suggesting that he is following L directly or via a different tradition from N and Q who have ὀπτήση, presumably correctly, whether by conjecture or because they are from a tradition in which the initial copy of L was made before the text was blotted.

p.120) 1 There is nothing wrong with the reading κακκάβοις in codd. and the Aldine; the word κακκάβη/κακάβη/κακάβος occurs elsewhere in Galen - not κακκάβος but that may be a matter of scribal preference. Cratander seems to have printed κλιβάνοις as a gloss which then gets incorporated into the text by Chartier. Y has a misreading of L's cursive β as μ.

p.120) 6 cf. *Ant. I: XIV 50.13-51.2* εὐδηλον δ' ὅτι σεσησθαι τοῦτο χρηὴ λεπτῷ κοσκίνῳ, καὶ μετὰ ταῦτα ἀκριβῶς λελειῶσθαι, τῷ σταθμῷ δὲ ἡμιολίαν εἶναι χρηὴ τὴν σκίλλαν. λέγω δὲ ἡμιολίαν, ὡς δύο μὲν ἀλεύρου μοίρας εἶναι, τρεῖς δὲ τῆς σκίλλης. ὡς δὲ ταῦτὸν λέγων ὁ νεώτερος Ἀνδρόμαχος, οὐκ οἶδεν ὅπως π'. μὲν εἶναι δραχμὰς βούλεται τοῦ ὀροβίνου ἀλεύρου, τῆς σκίλλης δὲ ρκ'. ἥρκει γὰρ εἰπεῖν ἡμιόλιον. The passage in *Ant.* is about Andromachus' terminology rather than the substance of his recipe. Nevertheless the points in common between the two passages suggest either common authorship or a deliberate attempt to give the

appearance of common authorship. Crito's recipe also given in *Ant.* I: XIV 104.7-8 requires one part vetch flour to two of squill.

p.120) 10 L leaves a space one or two words long which is reproduced in N, Y and Q. In Q the space is filled with the word ἔαρος in a different hand from the main body of the text. The Arabic agrees that the time to catch snakes is في أول ربيع. The reluctance of L to reproduce this reading is well-founded. The passage goes on to say that the snakes need time after awaking from hibernation to enjoy the fresh air and feed themselves up. As they do not emerge from hibernation till spring, catching them the beginning of spring does not allow them this time. *Ant.* I: XIV 45.4-14 is clear and specific: Τὰς ἐχίδνας οὐχ ὥσπερ ἔνοι μέρου θέρους, οὐ μὴν οὐδ' ἄρτι τῆς φωλεᾶς παυσάμενας θηρεύειν προσήκεν. ἐν μὲν γὰρ τῷ θέρει διψώδης ἢ σὰρξ αὐτῶν ἐστίν, ἐπὶ δὲ τῇ φωλεᾷ ξηρὰ καὶ ψυχρὰ καὶ ἄτροφος. κάλλιστος οὖν ἐστὶ καιρὸς ὁ μεταξὺ τούτων, ὃν καὶ αὐτὸς ὁ Ἀνδρόμαχος ἐδήλωσεν, ἠνίκα καὶ οἱ τῷ Διονύσῳ βακχεύοντες εἰώθασιν διασπᾶν τὰς ἐχίδνας, παυομένου μὲν τοῦ ἥρος, οὐπω δ' ἠργμένου θέρους, ἢ εἰ χειμῆριον ἐπὶ πολὺ τὸ ἔαρ γίγνεται, κατὰ τὴν ἀρχὴν τοῦ θέρους, οὐ κατὰ πολὺ τῆς τῶν πλειάδων ἐπιτολῆς. There is however further uncertainty here: this passage occurs three pages after the Andromachus poem itself, the intervening pages containing the prose version of the recipe, attributed to Andromachus the younger, which has nothing to say about catching snakes. ὃν καὶ αὐτὸς ὁ Ἀνδρόμαχος ἐδήλωσε ought therefore to refer to the poem, which however appears to suggest catching vipers in the spring (above p. 82.11). The poem speaks of the vipers in the spring "seeking the seed of green fennel on the high-piled threshing floor" which is difficult for spring since fennel sets seed after flowering in summer (Grieve (1931) s.v. *Fennel*). The threshing-floor being piled high is of course also difficult for spring given a typical harvest date of the rising of the Pleiades at the beginning of May (Hesiod *Op.* 383-4). Euripides can however speak of corn being cut in a "spring meadow" *Supp.* 447-9:

πῶς οὖν ἔτ' ἂν γένοιτ' ἂν ἰσχυρὰ πόλις

ὅταν τις ὡς λειμῶνος ἠρινοῦ στάχυν

τομαῖς ἀφαιρῆι κάπολωτίζηι νέους;

It is possible that in the Mediterranean fennel flowers that much earlier than further North and can be setting seed at the end of spring as liberally defined. Andromachus is apparently imitating two passages of Nicander which have snakes feeding on the young shoots rather than the seeds of fennel after awakening from hibernation: *Theriaca* 32-4, 389-91 and cf. Pliny *NH* VIII 99.1-7, XX 254.1-4 for confirmation that snakes use fennel juice to slough their skins and to sharpen their eyesight immediately on emerging from hibernation in the spring. Skin: Pliny *NH* VIII 99.1-3 anguis, hiberno situ membrana corporis obducta, fenculi suco inpedimentum illud exuit nitidusque vernat. Eyesight: Pliny *NH* VIII 99.5-7 "idem hiberna latebra visu obscurato maratho herbae se adfricans oculos inunguit ac refovet;" cf. Andromachus 82-4

διζόμενοι χλοεροῦ σπέρμα λαβεῖν μαράθου  
ὄξυτέρην τὸ τίθησιν ἐφ' ἐρηπτηῆρσιν ὀπωπὴν  
παιῖνον δειλοῖς ἄλγεα βουπελάταις.

The poem would therefore provide support of a reading of ἔαρος here were that reading not excluded by the immediate context.

A separate passage in *Ant.* I: XIV 103.6-14 sets out the views of Crito in favour of catching snakes either at the end of spring or in late summer at the time of the grape harvest: περὶ τὰ τελευταῖα τοῦ ἔαρος κατὰ τὸ θέρος, ἢ τῷ τρυγητῷ κελεύει συλλέγειν (lines 6-8). Similarly *SMT* XI: XII 318.14-16 τούτους (sc. ἀρτίσκους) μὲν οὖν εἰσβάλλοντος τοῦ θέρους σκευάζομεν, ἠνίκα μάλιστα βελτίστη τῶν ἐχιδνῶν ἐστὶν ἢ σὰρξ.

The other point which may confuse the issue is the statement that the snakes' venom is more πονηρὸς immediately on wakening. The theory that the snake collects it, συνάγει, over the winter so that it has a high concentration in spring is plausible enough. It does however conflict at least at first sight with the passage above at p. 112.12 ff. where the deceitful snake catchers capture snakes οὐ τῷ δέοντι καιρῷ, ἀλλὰ μετὰ πολὺν τῆς φωλεῖας τὸν χρόνον, ὅτε μηκέτ' ἐστὶν ἀκμαῖα. As the text immediately following is all about how the hunters contrive to reduce the snakes' ability to poison by misfeeding them, making them bite repeatedly, blocking their venom ducts and so forth, it is possible to read the passage as implying that catching them too early in the season has the same effect. The passage does not in fact carry any such implication: the complaint

is that the snakes are no longer ἀκμαῖα - presumably "no longer" from the perspective of the previous summer rather than "not yet" from the perspective of the coming one. The Arabic text says the opposite, that the snakes' venom is weakened by hibernation: Während sie in ihren Löchern hausen, nehmen sie keine gefährliche Nahrung zu sich, und ihre schädliche kraft is dann schwach. But πονηρός must mean more, not less, harmful and theriac does not depend for its efficacy on potent venom - on the contrary the viper is used in preference to other snakes because it is less venomous than they are (Chapter VIII) and its head is removed prior to cooking because of the venom it contains (Chapter IX). Niccolo's translation agrees that hibernation make the snakes poison more, not less, effective: non enim habent tunc ita malignum venenum quam cum manent intus

The source of all the confusion is apparently the ambiguity in dating in the Andromachus poem which has the vipers waking in midsummer. This passage clearly requires a date end of spring/beginning of summer for catching the snakes and the author of *Ant.* clearly both accepts those dates and regards them as compatible with the Andromachus poem.

p.120) 10 Q's emender changes a series of singular verbs into plurals. Formally speaking he is right in that the subject of the verbs is αἱ ἐχιδναί implied by αὐτάς τὰς ἐχιδνας above. However in the next sentence the implied subject is in the neuter plural presumably reflecting the author's habit of thinking of vipers as τὰ θηρία an expression he uses for them much more often than αἱ ἐχιδναί. They do in fact occur expressly as ταῦτα τὰ θηρία as the subject of the next sentence but one. What seems to have happened is that the verbs have been attracted into agreeing in number with τὰ θηρία and should therefore be allowed to stand in the singular. As for the mood ὅταν requires the subjunctive as all the codd. agree for παύηται/παύονται. It also requires a negative μη rather than οὐ, a rule which Galen elsewhere does not break. I have therefore taken ὅταν to govern παύηται/παύονται only and the following verbs to follow on paratactically.

p.120) 11 οὐκέθ' can only mean "no longer". Chartier mistranslates "non adhuc", not yet, reflecting his uncertainty over the passage as a whole.

p.120) 15 καὶ τῷ χρόνῳ τῆς φολείας μᾶλλον ἤπερ τῆς ἡλικίας τοῦ ζώου γῆρας τυγχάνων: The wording is repetitive but makes sense and there is no need to suspect dittography. τυγχάνων = simply ὄν, being. Chartier emends to τυγχάνων presumably to agree with γῆρας but the true subject is ἐπίπαγός τις παχύτατος and though τυγχάνων could quite easily have been attracted into the neuter there are no grounds for emending.

p.120) 16 L has ἔαν (accented thus) "if" for ἔαν "to allow". Chartier's iota subscript is incorrect in the infinitive of contracted verbs in α (Morwood 2001 74).

p.120) 17 L has ἀπολαύση τὸ τοῦ ἀέρος καὶ τραφῆν τὴν συνήθη νομῆν. Q emends ἀπολαύση to ἀπολαύσαι and τραφῆν (a vox nihili) to τραφῆναι but leaves τὴν συνήθη νομῆν in the accusative which appears unacceptable - on normal principles τραφῆναι to be nourished requires the agent of nourishment - the food - to be in the dative. However there is a parallel in Galen: εἰ γὰρ οὕτως ἔτυχε κοιμηθέντος καλῶς αὐτοῦ καὶ καταωνηθέντος ἐφεξῆς καὶ καταπλασθέντος ἐπὶ τούτῳ, κάπειτα κλισθέντος ἢ αὐτομάτως τῆς γαστρὸς ἐνδοῦσης, εἴτα καὶ τραφέντος τοιάσδε τινὰς τροφὰς, κάπὶ τούτοις ἄπασιν ὠφεληθέντος ἢ βλαβέντος οὐ ῥάδιον εἰπεῖν διὰ τί τῶν γεγεννημένων συνέβη τὸν ἄρρωστον ὠφεληθῆναι ἢ βλαβῆναι. *Hipp. Aph. I; XVIlb 354.15-355.2* and cf. Justin Martyr *Dialogus cum Tryphone 57.2.3-7*: οἵτινες ἀγγελιοὶ τῷ ὄντι ἦσαν καὶ ἐν τοῖς οὐρανοῖς, δῆλόν ἐστιν ἡμῖν, τρεφόμενοι, κἄν μὴ ὁμοίαν τροφήν ἤπερ οἱ ἄνθρωποι χρώμεθα τρέφονται (περὶ γὰρ τῆς τροφῆς τοῦ μάννα, ἣν ἐτράφησαν οἱ πατέρες ὑμῶν ἐν τῇ ἐρήμῳ, ἡ γραφὴ οὕτω λέγει, ὅτι ἄρτον ἀγγέλων ἔφαγον), illustrating that the usage is not confined to cases where the accusative is cognate. Q's emendations therefore appear reasonable. L's text, in particular τραφῆν, remains puzzling however; it is not impossible that we ought to read τροφῆν for τραφῆν and change νομῆν to νέμεσθαι.

p.120) 19 τὰς βουπρήστες καὶ κανθαρίδας καὶ τὰς καλουμένας πιτυοκάμπα: respectively two kinds of beetle and a woolly caterpillar according to LSJ s.v. The three species are described in sequence in the order κανθαρίς - βούπρηστις - πιτυοκάμπη as ingredients of drugs in *SMT XI; XII 363.14-364.19*. All snakes are in reality carnivorous although the belief that they also eat grass is stated by Aristotle *Historia Animalium 594a 4-6*: Τὰ δὲ φολιδωτὰ τῶν ζώων, οἷον σαυρός τε καὶ τὰ τετράποδα τᾶλλα καὶ οἱ ὄφεις, παμφάγα ἐστίν· καὶ γὰρ σαρκοφάγα, καὶ πόαν ἐσθίουσιν. Of the three species of viper common in Italy *Vipera berus Vipera aspis Vipera ursinii* the first two hardly ever eat insects: *Vipera ursinii* lives almost exclusively on insects but confines itself to the orthoptera (Filippi and Luiselli 2004) which do not include any of the three named here. In view of the error over eating plants it seems fruitless to try to identify the viper involved here by its alleged insect eating habits.

p.120) 19 For the characteristics of vipers cf. Aëtius *Iatricorum XIII 23.1-23* clearly deriving from this

text or from a common source but where the text is descriptive of vipers as a danger rather than prescriptive of them as an ingredient.

p.122) 3 For confirmation that four fingers' breadth of tail should be cut off cf. *MMG* II: XI 143.15-144.2 γρή δὲ ἐσθίειν αὐτὰς οὕτω σκευάζοντας ὡς τοὺς θηριοτρόφους καὶ ἀσπιδοτρόφους Μάρσους ἐθεάσω, πρῶτον μὲν ἀποκοπτομένης τῆς οὐράς καὶ τῆς κεφαλῆς ἄχρι δακτύλων τεττάρων, εἶτα τῶν ἔνδον ἀπάντων ἀφαιρεθέντων καὶ τοῦ δέρματος δηλονότι, εἶθ' ὕδατι τοῦ σώματος αὐτῶν περιπλυθέντος. *Ant.* I: XIV 45.18-46.1 αὐταρκές δ' ἐπὶ τῶν μεγάλων ἐχιδνῶν τὸ ἀφαιρεθσόμενον ἑκατέρωθεν, εἶναι δακτύλων δ'; Andromachus poem above p. 82.20; pseudo-Galen *Theriac to Pamphilianus* XIV 307.9-10; but only three fingers in Damocrates ap. Galen *Ant.* I: XIV 93.18-94.2.

p.122) 14 ἀνήθου μὴ ξηροῦ: an emendation by Q who adds μὴ in the margin and thus reverses the sense of L and brings the text into agreement with the Arabic, bearing out the theory (above) that Q has access to a version of the theriac recipe which corresponds more closely to the Arabic tradition than to L. There are contradictory passages in *Ant.* as to whether the recipe requires fresh or dried dill: *Ant.* I: XIV 46.2-5 ὄλον δὲ τὸ λοιπὸν σῶμα, τῶν μὲν ἐντέρων ἐξαίρεθέντων, ἀποδαρέντος δὲ τοῦ δέρματος, ὕδατι περιπλύναντα, ἐμβάλλειν κακάβη προσήκει καθαρὸν ὕδωρ, καὶ ἀνηθον χλωρὸν, ἀκμάζει γὰρ τηνικαῦτα, clearly implies fresh dill but the Damocrates poem *Ant.* I: XIV 94.3-9 requires dried:

Τοῦτο δὲ ποιεῖν δεῖ προσφάτων ζωσῶν τ' ἔτι,  
 Εἶτα περιδείρας ῥαδίως, ὡς ἐγγέλεις,  
 Ἐκβαλλέ τ' αὐτὸς καὶ τὸ λίπος αὐτῶν ἅπαν,  
 Πλύνας τε καθαρῶς, εἰς λοπάδιον ἐντίθει,  
 Ξηροῦ τ' ἀνήθου σύμμετρον δεσμιδίον,  
 Ὑδατος δὲ τ' ἄρκοῦν παραχέας, ἐνυει μέχρι  
 Ἡ σὰρξ ἀποστή ῥαδίως τῶν ὀστέων.

The Andromachus poem merely specifies shoots of dill, ἀνήθου Κλωνας: p.82.25. The question which reading to prefer is finely balanced: if only Q were involved I would argue that the periphrasis "not dry" for "fresh" was unnatural and that he was simply taking them most economical route to bring his text in line with the requirement in the prose of *Ant.* the Arabic, however, has the same periphrasis ("nicht trockenem", لا يبس). I have printed but athetised μὴ.

p.124) 6 The stipulation of the type of wine to be used presents a variety of problems. The overall sense of the transmitted text appears to be that the wine should be sweet Falernian - not Faustian but another variety of Falernian which is δριμύς, pungent. That Faustian is one of a number of varieties of Falernian is consistent with all other mentions of either name in Galen (and indeed elsewhere): *MM* XII: X 832.3-5 ἐπει δὲ καὶ αὐτῶν τῶν Φαλερινῶν ὁ μὲν τις ἱκανός ἐστι γλυκύς, ὃν ὀνομάζουσι Φαυστινόν, ὁ δ' ὡς μὲν πρὸς ἑκείνον ἀσθηρὸς ...*Bon. Mal. Succ.* VI 801.9-11 ξανθοὶ δὲ καὶ κίρροι τινὲς μὲν γλυκεῖς εἰσι μετρίως, ὥσπερ <ὁ> Ἴπποδαμάντειός τε καὶ ὁ Φαυστιανὸς Φαλερινός, ἐνιοὶ δ' οὐδ' ὅλως γλυκεῖς. So Faustian is the sweeter variety of Falernian. it is also apparently δριμύς: *MM* VI: X 405.2-4 ὅσοι δὲ γλυκεῖς τε ἅμα καὶ κίρροι τῶν οἴνων εἰσιν, ὥσπερ ὁ Φαλερινός, ἀνεπιτήδειοι, δριμεῖς γὰρ ἅπαντες οἱ τοιοῦτοι καὶ πέρα τοῦ μετρίου θερμοί: (This last passage does not expressly refer to ὁ Φαυστιανὸς Φαλερινός but the quotation directly above from *Bon. Mal. Succ.* makes clear that that is the variety of Falernian under consideration).

Pliny tells us that there are two tripartite schemes for classifying Falernian: "tria eius genera: austerum, dulce, tenue. quidam ita distingunt, summis collibus Caucinum gigni, mediis Faustianum, imis Falernum." *NH* 14.63.1-5. Pliny's categories do not map on to Galen's in that for Galen something can be both δριμύς and γλυκύς (e.g. *MM* VI: X 405.2-4 above) whereas for Pliny tenuis and dulcis vary inversely with each other: Vinum omne dulce minus odoratum; quo tenuius, eo odoratius. *NH* 14.80.1. So the sense of the passage in *Ther.Pis.*, implying that although Faustian is Falernian and may also be sweet it is emphatically not δριμύς and not suitable as an ingredient in theriac, is directly contrary to the view generally expressed by Galen. *Ant.* I: XIV 20.7-10 is particularly clear: there are two kinds of Falernian of absolutely equal efficacy (ἀρετή), but the sweeter variety make the drug more palatable, and that variety is the Faustian: δυοῖν δ' ὄντων εἰδῶν αὐτοῦ, μηδὲν ἀλλήλων διαφερόντων ἀρετῇ, ἡδιονα τὴν ἀντίδοτον ὁ γλυκύτερος ἐργάζεται, καὶ καλοῦσιν αὐτὸν ἰδίως Φαυστιανόν.

The contradiction is striking whether we are dealing with Galen or a conscious imitator of Galen. Some of the text is clearly corrupt: τε καὶ πᾶσι [καὶ] καλούμενος ἄκτος presents the following problems:

first, the second *καὶ* is redundant (possibly resulting from the scribe embarking on the first two letters of *καλούμενος* with the previous *καὶ* fresh in his memory); secondly *ἄκτος* is impossible to make sense of as either a normal adjective or proper name; thirdly the construction *πάσι καλούμενος ἄκτος* meaning "called ἄκτος by everyone" ("Actum nominatum ab omnibus" Rota "quod omnibus vocatur Actum" Chartier) is difficult. The correct Greek would be *ὑπὸ πάντων καλούμενος*, a very common kind of construction in Galen and elsewhere; e.g. above p. 100.24 *ὑπὸ δὲ τῶν ἐπιχωρίων νίκου ἢ νίνου καλουμένου*, *Alim. Fac. II: VI 609.12-13 Βασιλικά τινες ὀνομάζουσι κάρνα ταῦτα τὰ νῦν ὑπὸ πάντων ἀπλῶς ὀνομαζόμενα κάρνα*. I can find no example in any author of an equivalent construction using dative rather than *ὑπὸ* + genitive with *καλέω*, *λέγω*, *ὀνομάζω*; but cf. *Temp. I: I 509.1-4* Ὅτι μὲν ἐκ θερμοῦ καὶ ψυχροῦ καὶ ξηροῦ καὶ ὕγρου τὰ τῶν ζώων σώματα κέκρται καὶ ὡς οὐκ ἴση πάντων ἐστὶν ἐν τῇ κράσει μοῖρα, παλαιοῖς ἀνδράσιν ἰκανῶς ἀποδέδεικται φιλοσόφων τε καὶ ἰατρῶν τοῖς ἀρίστοις.

Q marks the passage with asterisks above *μη* and after *ἄκτος*.

Rota and Chartier have tacitly mistranslated the passage to give readings of opposite effect but both consistent with the statement in *Ant.* and elsewhere that Faustian is sweet wine: Rota "Vinum autem illud sit optimum, quale falernum dulce est, quod faustinianum appellant, non autem acre et actum nominatum ab omnibus;" Chartier "Sit autem vinum laudatissimum Phalernum; non dulce Faustianum, sed acre, et quod omnibus vocatur Actum". Given that the Arabic text endorses the apparent meaning of the Greek tradition and in the absence of any plausible explanation of how the desired meaning can have become corrupted into what appears in the mss. re-writing of the text on this scale is unacceptable. My proposed emendation is intended to preserve consistency with *Ant.* while doing the least possible violence to the text. I propose *ἄκρος* for *ἄκτος* on the basis that either it may literally mean "from the top of the mountain" in accordance with Pliny's topographical classification or it may mean metaphorically "the best" (cf. *Ant. I: XIV 25. 1-7* ὡς οὖν ἐν Ῥώμῃ τῶν ἀρίστων φαρμάκων ἀπάντων εὐπορήσαι μᾶλλον ἐστίν, ἢ κατ' ἄλλο χωρίον, οὕτως ἐν αὐτῇ τῇ Ῥώμῃ Καίσαρι σκευάζων τις, ἔτι μᾶλλον εὐπορεῖ πάντων τῶν εἰς ἄκρον ἀρετῆς ἠκόντων, οἴνου μὲν τοῦ Φαλερνίου καὶ μέλιτος Ὑμηττίου, ὀποβαλσάμου τε τοῦ Συριακοῦ καλουμένου). The word *καλούμενος* suggests that we have lost a proper name whose remnants are the nonsensical *τε καὶ πᾶσι* [καί]. Pliny says that Falernian wine from the hilltop (*summis collibus*) is called *Caucinum* and I tentatively propose *Καυκίνος* (for the accent see Athenaeus I 48.50-1) *ἄκρος* as meaning "Caucinian from the top of the hill."

p.124) 10 a long passage in *Ant. I: XIV 20.16-23.1* deals with the suitability of honeys of various geographical origins. In particular *Ant. I: XIV 22.14-23.17* on a honey from near Pergamum which derives its character from the plants the bees feed on - thyme origanum and cytissus - and *Ant. I: XIV 25.2-7* for confirmation that Hymettian is the best kind. Honey occurs very frequently in Galen's recipes; it is a drug in its own right (*SMT VII: XII 70.13-18* describes its properties) but principally important as an excipient. Discussions of the best kind occur only here and in *Ant. I*. There are references to Hymettian honey outside *Ant.* and *Ther.Pis.* at *MM XIV: X 965.13* and *CML I: XII 464.6*.

p.124) 12 τὴν ῥητίνην καὶ τὴν χαλβάνην: Respectively resin and "the resinous juice of all-heal, *Ferula galbaniflua*" (LSJ s.v.). LSJ glosses ῥητίνη as "resin of the pine" but in Galen it apparently applies to any tree resin: among other trees the poplar produces it (*SMT VI: XI 816.13*) as does the terebinth (*SMT VIII: XII 114.6*). It may be that ῥητίνη unqualified means pine resin but note that pine resin is often specified as *πευκίνη ῥητίνη* even in contexts where no other tree is named e.g. *CMG II: XIII 476.6* and that it often appears next to *πίττα* in expressions like *ῥητίνη καὶ πίττα καὶ ἄσφαλτος* (*Temp. III: I 669.14-15*) where *πίττα* would appear to mean pine resin. Here the Arabic specifies terebinth gum, *صمغ البطم*.

*ῥητίνη* and *χαλβάνη* frequently appear in Galen as a pair and at the end of a recipe; they are grouped as substances which can be made soft by fire. *CMG II: XIII 629.1-2* *διὰ πυρὸς δὲ* (sc. *τήκεται*) *πρόπολις*, *κηρὸς*, *ῥητίνη*, *λάδανον*, *στέαρ*, *χαλβάνη* in a passage which goes on to specify a combination of terebinth resin and *χαλβάνη*: *CMG II: XIII 629.8-10* *ὀποπάνακα διαλύσας ὄξει λείωσον ἐπὶ πλέον, εἴτα τήξας ἐπὶ πυρὸς πρόπολιν τε καὶ χαλβάνην καὶ ῥητίνην τερμινθίνην μῖζον τῷ ὀποπάνακι*. There is no reason to doubt that the Arabic specifies terebinth resin because that is what the Greek says.

p.124) 15 Glass or silver vessels: this point is discussed twice in *Ant. I*; in the authorial voice (for storage of viper pastilles rather than theriac) at *Ant. I: XIV 48.13-49.3* and in the Damocrates poem *Ant. I: XIV 99.4-6*. Damocrates warns against wood but permits silver:

Ἀπόθου, φυλάττων μὴ ξυλίνους ἀγγεῖους,

Υαλίνοις δὲ μάλλον, κερατίνοις τε κάργυροις,  
Καὶ κασσιτερινοῖς, καὶ κεραμίσις τε πυκνοῖς.

In the author's own voice there is a warning against unrefined silver on the grounds that it rusts quickly, a warning one would perhaps expect Galen to repeat in *Ther.Pis.*: ἡ δ' ἀπόθεσις ἐν ἀγγείῳ καττιτερινῷ ἢ ὑαλίῳ ἢ χρυσῷ γινέσθω. τὸ μὲν οὖν ὑάλινον καὶ τὸ χρυσοῦν οὐδεμίαν ἔχει τὴν δόλωσιν, ὁ δὲ καττιτερινὸς μίξει μολύβδου δολοῦται. τὸν τοιοῦτον οὖν φεύγειν προσήκει, οὐ μόνον ἐπὶ ταύτης, ἀλλὰ καὶ τῶν ἄλλων ἀντιδότην ἀπασῶν, ὥσπερ γε καὶ τὸν ἐξ ἀργύρου μὴ κεκαθαρμένον, τάχιστα γὰρ καὶ οὗτος ἰὸν ἐπιτρεφόμενον ἔχει. καλοῦσι δ' οἱ Ῥωμαῖοι τὸν κεκαθαρμένον ἀργυρον κἀνδίδον.

p.124) 16 καταλιπὼν τινα τόπον εἰς διαπινοῖν τῷ φαρμάκῳ |The metaphor of a liquid "breathing" does not seem to occur elsewhere in Galen, and the only parallel I can find elsewhere is in Dio Chrysostom Oration XIII 15.76-8 where the act of διαπινεῖν over time cause a drug to lose its efficacy: οὐ γὰρ δὴ γε εἰκὸς ἐστὶ τοῦς παλαιούς λόγους ὥσπερ φάρμακα διαπνεύσαντας ἀπολωλέκεναι τὴν δύναμιν.

p.124) 18 Storage and maturation. There is no detailed commentary on this in *Ant.* although we learn by implication that two months is the bare minimum required, and not long enough for proper maturation: *Ant.* I: XIV 64.15-65.3 σύνθεσιν τινα τῷ (αὐτοκράτορι Μάρκῳ Ἀντωνίνῳ ποιησάμενος, ὅλην εὐρον τὴν ἀντιδότην ἰκανῶς τῶν ἄλλων ὑπερέχουσιν, ὥστε γευσάμενον αὐτῆς τὸν αὐτοκράτορα μὴ περιμεῖναι χρόνον, ὥσπερ ἐπὶ τῶν ἄλλων, ἐν ᾧ πεφθῆσεται τὸ φάρμακον, ἀλλ' εὐθέως χρῆσθαι, μὴδὲ δύο μηνῶν ὀλοκλήρων ἐν τῷ μεταξὺ γενομένων. *Ant.* I: XIV 49.3-13 gives advice on the shelf life of theriac pastilles. Damocrates gives vague advice to use the drug neither fresh nor too old and advice on how to revive it (*Ant.* I: XIV 99.7-13):

Δίδου τε πίνειν, μήτε γερονδὸς ἀρτίως  
Τὸ φάρμακον, μήτε πάλιν ἐξηρασμένον,  
Ὅπερ εἰ γένοιτο διὰ τὸ μῆκος τοῦ χρόνου,  
Πάλιν ζέσας πρόσβαλλε μέλιτος σύμμετρον  
Συνεκλεάνας τ' ἐφ' ἰκανὸν τοῦτο χρόνον,  
Εὐχρηστον ἔξεις τὴν ἄχρηστον τῷ χρόνῳ,  
Πολλῷ δ' ἐλάττω τῆς κεκραμένης ἀπαξ.

p.124) 22 The main Arabic text has 12 months instead of years and 7 months rather than 5 or 7 years, though a separate Arabic text preserved as a fragment has 12, 5 and 7 years as in the Greek tradition (Richter-Bernburg (1969) 39.) I take the months reading to be an error although given the paucity of indications elsewhere as to maturation times it cannot be absolutely ruled out.

p.124) 25 ἐτῶν: L has ὁ τῶν. Q's ἐτῶν is in the body of the text, not a correction, so may be a mistranscription but is nevertheless a superior reading.

p.126) 2 Testing the drug: cf. p. 58.13 ff. and n. - a similar test used there to establish whether the drug is adulterated.

p.126) 16 ἀλεξιτήριον: the mss. and Aldine have ἀλεξιτήριον, Cratander and subsequent edd. have ἀλεξητήριον. LSJ does not report the ἀλεξιτήρ- stem at all and TLG shows the earliest example in Oribasius with most of the 65 instances very late. ἀλεξητήρ- (234 instances overall including 24 in Galen) occurs in Homer, all three tragedians, Hippocrates, Plato and Xenophon among others. I have hesitantly retained the reading in L on the basis that the change by Cratander is presumably based on the editors' notion of the correct spelling and the same may equally apply in some or all of the other occurrences in Galen.

p.126) 20 This chapter differentiates *Ther.Pis.* from *Ant.* by its extravagant praise of theriac as medicine for every part of the body. It follows an *a capite ad calcem* order as *CML* does; that is not of course to say that it is consciously or unconsciously modelled on *CML*, the order being obvious and traditional - see for example Celsus, *De Medicina* 4.1. The detailed order is reasonably close to that in *CML* - again, not evidence of influence of the one by the other; *CML* has a whole book on the hair and baldness, a topic omitted by *Ther.Pis.*; conversely *Ther.Pis.* after reaching the foot goes on to deal with ailments of the ψυχή and of the whole body which *CML* does not.

p.128) 3 ἀπ' αὐτοῦ ... ὕπνοις Q marks this sentence with an asterisk but it is printed in the Aldine. The passage makes good sense - there are two related but separate problems, sleeplessness and sleep which is disturbed by dreams and visions, as is clear from *San. Tu.* IV: VI 247.12-248.1 εἰ δὲ καὶ κατὰ τὴν ἐξῆς ἡμέραν

ἔτι παραμένει, σκεπτέον ἤδη περὶ βοηθήματος ισχυροτέρου, καὶ μάλιστα' εἰ διὰ τῆς νυκτὸς ἦτοι κοπόδησος ἐπὶ πλέον ἢ ἀσώδησος ἢ ἀγρυπνός ἢ ἐν ὕπνοις τισὶ φαντασιώδεσι τε καὶ ταραχώδεσι γένοιτο. The sense is therefore perfectly acceptable. As for the grammar I take αὐτοῦ to refer to ὕπνον and ἀπ' αὐτοῦ ... παύουσα to mean "banishing from it" though I can find no parallel for παύω ἀπο. I have deleted τοῖς ὕπνοις after παύουσα because the words seem to fulfil no purpose and may be a marginal note which has crept into the text. The Arabic text omits this sentence altogether but that could well be because the translator did not understand it.

p.128) 5 CML II: XII 582.18-583.8

p.128) 6 ὅταν ἐγκείμενά τινα παχέα φλέγματα εἰς τὰς σήραγγας ἧ τοῦ πνεύμονος Q's text has ἧ (accented thus) which is then deleted and κωλύοντα changed to κωλύονται to compensate for loss of the verb. Charlier then "corrects" further to give the subjunctive required by ὅταν. L N and Y have ἧ although L and N as usual omit the iota subscript.

p.128) 21 σώματος: the corrector of Q is right to reject ἥπατος as an echo of ἥπαρ in the previous line but σώματος is a better reading than Q's αἵματος since it is found in the Arabic and since we know that jaundice causes yellow bile to pervade the whole body: πῶς οὖν τοῖς κτερικοῖς ἅμ' ἅμφω συμπίπτει, τὰ μὲν διαχωρήματα μηδὲν ὅλως ἐν αὐτοῖς ἔχοντα χολῆς, ἀνάπλεων δ' αὐτοῖς γιγνόμενον ὄλον τὸ σῶμα *Nat.Fac.* I: II 40.4-7

p.130) 8 Q alters ἀνίστησι to ἐξάνιστησι, but the difference in meaning if any is so slight that the alteration is unjustified.

p.132) 24 τοῦ νοσήματος: these words are absent in L and are in the body of Q's text, not a correction or insertion. The inescapable conclusion appears to be that Q is not a direct descendant of L despite the closeness of the two texts and the absence of any other variant reading in the body of Q which cannot be ascribed to carelessness.

p.134) 3 Rabies and plague: cf. p.80.13 where the two appear in sequence (but in reverse order to this chapter) in the Andromachus poem. Being ὑδροφόβος and being λυσσοδόηκτος are usually treated as synonyms in Galen though cf. *CMG* II:XIII 431.12-16 [Λευκὴ Ἥρα πρὸς τοὺς ὑδροφόβους.] Πάλιν οὖν ἐπὶ τὸν Ἥραν ἀρικόμεθα, γράφοντα μετὰ τὴν Ἀτταλικὴν ἔμπλαστον ἑτέραν λευκὴν, αὐτοῖς ὀνόμασι τοῖσδε· λευκὴ πρὸς τοὺς λυσσοδόηκτους, ποιεῖ δ' ἀκριβῶς καὶ πρὸς τοὺς ὑδροφόβους. (ὑδροφόβους in Kühn is presumably a misprint).

p.134) 10 Compare the story of two dog bite victims, put into the mouth of an empiricist seeking to refute the claim of a methodist that there is no medical value in knowing the causes of things, in *Sect. Int. Sect. Int.* I 88.4-89.5:

Two men both bitten by a furious dog go to their usual respective doctors. One doctor treats the wound only; the other, when he hears that the dog was furious ( ἐπειδὴ λυτῶντ' ἔγνω τὸν κύνα) prescribes powerful anti-rabies drugs: τοσοῦτον ἀπέδει τοῦ σπεύδειν εἰς οὐλὴν ἄγειν τὸ ἔλκος, ὥστ' αὐτὸ τούναντιον αἰεὶ καὶ μᾶλλον εἰργάζετο μείζον ισχυροῖς τε καὶ δριμέσι χρώμενος φαρμάκοις ἕως χρόνου συχνοῦ καὶ πίνειν δ' αὐτὸν κατηνάγκαζεν ἐν τῷ χρόνῳ τούτῳ φάρμακα τὰ λύττης ἰάματα. The latter patient recovers, the former dies. The schools of the two doctors are not identified, but the context implies that the doctor who fails by refusing to inquire into the causes of things is an ἐμπειρικός.

p.134) 19 ὁ μεθοδικός: The omission by Q and editions makes nonsense of the sentence because it places the blame on the victim rather than the doctor.

p.134) 26 ἀπροοράτους: The mss. have ἀπροοράτους except for N which gives ἀπροοράτως as a variant. This is probably because he is uncertain what L has written (he does not provide conjectures to improve the sense) and though -τους and -τως are rather similar in L's hand I am confident that he has written ἀπροοράτους. The word occurs in Galen only here and *Praen.* XIV 622.7-10: ἐπιτίθενται γὰρ τοῖς ἀγνοοῦσιν αὐτοὺς ἀπροοράτως, καὶ μάλιστα' ὅταν ἀντιδικεῖν αὐτοὺς οἱ δι' ἀπλότητα γνώμης μὴ δύνανται, καθάπερ αὐτοὶ δάκνουσιν ἀλλήλους, ἔαν τι καὶ σμικρὸν ἀδικηθῶσιν. The *CMG* (Nutton 1979) corrects to ἀπροοράτως. LSJ s.v. give this passage of *Ther.Pis.* as evidence for the meaning "not previously seen". The word can also mean "unwary, not foreseeing" as in Philo Judaeus *Quod deus sit immutabilis* 130.5-6 ἀλλ' οἷα τυφλὸς ἀπροοράτως πᾶσιν ἐπιπίπτων and the natural meaning of the passage is in my view, contrary to LSJ, that the dog

attacks unwary bystanders. The translators seem to agree: the Latin in Chartier and Kuhn has "deinde rursus subito consistum, cum ira quaedam magis furenti, non ipsi praevisos momordisse"; Rota has "furiosa quadam indignatione improvisos aggrederet".

p.134) 27 ἀκούσεις - the sense requires the future indicative, not aorist subjunctive ἀκούσης as in Q. The two words are written identically in L.

p.136) 18 For Hippocrates and the Plague see Pinault (1992) 35-60. Pinault traces the story of Hippocrates curing the Athenian plague as if it were fully developed prior to its appearance here but her precedents are all incompatible with the version here: Varro *Res Rusticae* 1.4.5.1-3 asks "an non ille Hippocrates medicus in magna pestilentia non unum agrum, sed multa oppida scientia servavit?" "multa oppida" is inconsistent with the saving of Athens alone in this anecdote, and the method of salvation is unspecified. Pliny *NH* 7.123.6-9 speaks of Hippocrates foretelling a plague from Illyria and dispatching his pupils around the cities to render assistance - a resume of the pseudo-Hippocratic *Embassy* and/or *Decree* and incompatible in almost every detail with the present passage; *NH* 36.202.1-4 says that Hippocrates (and Empedocles) says in his writings that epidemics caused by eclipses - obscuratione solis - can be cured by bonfires: Est et ipsis ignibus medica vis. pestilentiae, quae obscuratione solis contrahitur, ignes si fiant, multifariam auxiliari certum est. Empedocles et Hippocrates id demonstravere diversis locis; Plutarch *de Iside et Osiride* 383 D 1-3 identifies Akron (of Akragas), not Hippocrates, as the doctor who ordered fires to be burned during a great plague at Athens: Ἀκρόνα γοῦν τὸν ἰατρὸν ἐν Ἀθήναις ὑπὸ τὸν μέγαν λοιμὸν εὐδοκιμήσαι λέγουσι πῦρ κελεῖοντα παρακαίειν τοῖς νοσοῦσιν· ὤνησε γὰρ οὐκ ὀλίγους. So the story in *Ther.Pis.* conflates the Hippocrates and Akron stories and is a new development either invented by the author or adopted by him from a source probably more recent than Plutarch, on the assumption that if the story were already told of Hippocrates in Plutarch's time Plutarch is likely to have known and reported it because Hippocrates is a source of greater auctoritas than Akron.

This raises the problem that the account of the plague in Thucydides is incompatible with the story of Hippocrates curing or even alleviating it; Thucydides is very clear that medical interventions were initially useless and later useful only sporadically. Thuc. 2.47.4.1-6 οὐτε γὰρ ἰατροὶ ἤρκουν τὸ πρῶτον θεραπεύοντες ἀγνοία, ἀλλ' αὐτοὶ μάλιστα ἔθνησκον ὄσφ καὶ μάλιστα προσήσαν, οὐτε ἄλλη ἀνθρωπεῖα τέχνη οὐδεμία· ὅσα τε πρὸς ἱεροῖς ἰκέτευσαν ἢ μαντεῖος καὶ τοῖς τοιοῦτοις ἐχρήσαντο, πάντα ἀνοφελῆ ἦν, τελευτῶντές τε αὐτῶν ἀπέστησαν ὑπὸ τοῦ κακοῦ νικώμενοι. Thuc. 2.51.2.1-3.1 ἔθνησκον δὲ οἱ μὲν ἀμελεία, οἱ δὲ καὶ πάνυ θεραπευόμενοι. ἐν τε οὐδὲ ἐν κατέστη ἴαμα ὡς εἰπεῖν ὅτι χρῆν προσφέροντας ὠφελεῖν· τὸ γὰρ τῷ ζυνευεγκὸν ἄλλον τοῦτο ἐβλαπτεν. Galen shows in two places outside *Ther.Pis.* a detailed knowledge of the passage in Thucydides. In *Diff. Feb.* I: VII 290.2-11

καθὰ φησιν ὁ Θουκυδίδης· ἀλλ' ἐν καλύβαις πνιγηραῖς ὥρα θέρους διατωμένων ὁ φθόρος κατὰ τὸ σῶμα ἐγένετο. τῷ δ' εἶναι τοὺς ἐν τῷ σώματι χυμοὺς ἐκ μοχθηρᾶς διαίτης ἐπιτηδείους εἰς σῆψιν ἀρχὴ τοῦ λοιμώδους γίνεται πυρετοῦ. τάχα δὲ καὶ κατὰ τὸ συνεχές ἐξ Αἰθιοπίας ἐρρήη τινὰ σηπεδονώδη μιάσματα τοῖς ἐπιτηδείως ἔχουσι σώματα βλαβῆναι πρὸς αὐτῶν, αἷτια πυρετοῦ γενησόμενα

there is a direct quotation of Thuc. 2.52.1.1-3.1: 2.52.

Ἐπίεσε δ' αὐτοὺς μᾶλλον πρὸς τῷ ὑπάρχοντι πόνῳ καὶ ἡ ζυγκομιδὴ ἐκ τῶν ἀγρῶν ἐς τὸ ἄστυ, καὶ οὐχ ἦσαν τοὺς ἐπελθόντας. οἰκιῶν γὰρ οὐχ ὑπαρχουσῶν, ἀλλ' ἐν καλύβαις πνιγηραῖς ὥρα ἔτους διατωμένων ὁ φθόρος ἐγένετο οὐδενὶ κόσμῳ, ἀλλὰ καὶ νεκροὶ ἐπ' ἀλλήλοις ἀποθνήσκοντες ἔκειντο καὶ ἐν ταῖς ὁδοῖς ἐκαλινδοῦντο καὶ περὶ τὰς κρήνας ἀπάσας ἡμιθνήτες τοῦ ὕδατος ἐπιθυμία.

In *Diff. Resp.* II: VII 850.8 - 851.15 Galen compares the approach of Hippocrates to the description of symptoms with that of Thucydides who is used to represent the intelligent lay writer who therefore gives details omitted by Hippocrates as a doctor writing for doctors who are therefore assumed to know things a layman would not. The plague passage is specifically referred to: *Diff. Resp.* II: VII 851.12-15 ἀποδέδεικται δὲ καὶ περὶ τούτων ἡμῖν ἐν ἄλλοις τε πολλοῖς καὶ δὴ κἂν τοῖς περὶ τῆς Ἱπποκράτους ἀνατομῆς, οὐχ ἦκιστα δὲ κἂν τοῖς περὶ τοῦ παρὰ τοῦ Θουκυδίδου λοιμοῦ. It is very difficult indeed to see how Galen being so familiar with the Thucydidean passage can have recounted the story about Hippocrates curing the plague without comment on the discrepancy. Further Strohmaier (2004) 1-2 reports that there is no reference to this story in Galen's commentary on *Airs Waters Places* (surviving only in the Arabic, edited but not at the time of writing published by Strohmaier) as one might reasonably expect if Galen was familiar with, and believed,



the story. The failure to identify Thucydides by name is reminiscent of the failure to identify Hannibal and Eumenes in the anecdote about them at p.74.11.

p.136) 18 τὸν θαυμασιώτατον Ἴπποκράτην: ὁ θαυμάσιος Ἴπποκράτης occurs elsewhere in Galen - seven instances including p. 108.14 above. θαυμασιώτατος however is applied to Hippocrates only here and at p. 140.22 below; in all the other fourteen places in the corpus where the word applies to an individual or group of people (e.g. ὁ θαυμασιώτατος Λύκος *Adv. Lyc.* XVIII 216.1-2, τούτων οὐδὲν οἱ θαυμασιώτατοι γινώσκοντες μεθοδικοὶ *MM VI*: X 422.16-17) the use is heavily sarcastic.

p.136) 19 τὸν λοιμὸν ἐκείνον τὸν ἐκ τῆς Αἰθιοπίας εἰς τοὺς Ἕλληνας φθάσαντα: the source is Thucydides 2.48.1-2: ἤρξατο δὲ τὸ μὲν πρῶτον, ὡς λέγεται, ἐξ Αἰθιοπίας τῆς ὑπὲρ Αἰγύπτου, ἔπειτα δὲ καὶ ἐς Αἴγυπτον καὶ Λιβύην κατέβη καὶ ἐς τὴν βασιλέως γῆν τὴν πολλήν. ἐς δὲ τὴν Αθηναίων πόλιν ἐξαπιναιῶς ἐσέπεσε. φθάσαντα: compare ἡ χρῆσις εἰς τὸ κοινὸν ἐφθασε p. 60.7 for the unusual use of φθάνω meaning to arrive with no connotation of priority.

p.138) 4 ἡ εὐάκεστον: L has ἡ εὐάρεστον which Q deletes. ἡ εὐάκεστον makes sense which εὐάρεστον does not, though the phrase adds nothing to εὐίατον and may be a gloss which has got into the text.

p.138) 14 ἔνδυμα occurs only here in the Galenic corpus and is generally rare in BC authors. Its use figuratively is largely a Christian phenomenon: e.g. Hesychius *Commentarius Brevis* 132.2.12-15 Ἐνδυμα τῶν πιστῶν ὁ Χριστός. ὅσοι γὰρ εἰς Χριστὸν ἐβαπτίσθητε, Χριστὸν ἐνεδύσασθε, φησὶν ὁ ἀπόστολος. Paul *Galatians* 27.3 ὅσοι γὰρ εἰς Χριστὸν ἐβαπτίσθητε, Χριστὸν ἐνεδύσασθε. Origen *Selecta in Ezechielem* 13 812.7-9 Καὶ ἐνεδύσά σε ποικίλα. Ἐνδυμά ἐστι ποικίλον ἢ ἐκ τῶν ποικίλων ἀρετῶν κοσμουμένη ἔξις, ἐκ δογμάτων ἀληθείας καὶ πράξεως εὐσεβοῦς.

p.138) 19 τὴν τοιαύτην δυσπάθειαν: δυσπάθεια is a propensity not to come to harm. The concept arises frequently in *UP* e.g. *UP I*:III 31.6-9 on why the nails of a human hand have naturally rounded ends: μόνον γὰρ τῶν σχημάτων πρὸς δυσπάθειαν ἀκριβῶς παρεσκευάσται τὸ κυκλωτέρως, ὡς ἂν μηδεμίαν ἐκκειμένην ἔχον γωνίαν ἀποθρασθῆναι δυναμένην ... The word is used three times in this passage of *Ther.Pis.* - four times including the cognate *δυσπαθῆς* above - but as far as I can tell Galen does not use it elsewhere to denote the immunity conferred by a prophylactic drug.

p.140) 6 Βίτοιτον: for the proper name of the assistant in Mithridates' suicide cf. the naming of Cleopatra's assistants. The name is given as Βιοτόκος (L N Y) Βιστόκος (Q). I have corrected to Βίτοιτος on the strength of Appian *Mithridatica* 538.1-539.1 Βίτοιτον οὖν τινα ἰδὼν [sc. ὁ Μιθριδάτης], ἡγεμόνα Κελτῶν, "πολλὰ μὲν ἐκ τῆς σῆς", ἔφη, "δεξιὰς ἐς πολεμίους ὀνάμην, ὀνήσομαι δὲ μέγιστον, εἰ νῦν με κατεργάσαιο, κινδυνεύοντα ἐς πομπὴν ἀπαχθῆναι θριάμβου, τὸν μέχρι πολλοῦ τοσῆσδε ἀρχῆς αὐτοκράτορα καὶ βασιλέα, ἀδυνατοῦντα ἐκ φαρμάκων ἀποθανεῖν δι' εὐήθη προφυλακὴν ἐτέρων φαρμάκων. Neither Βιοτόκος (L N Y) nor Βιστόκος (Q) occurs in *LGNP* or elsewhere. Bituitus king of the Arverni, defeated by Fabius Maximus in 121 BC (*Livy* 61.13-16), guarantees the existence of the Keltic name (there is of course no reason to suppose any connection between the two). There are notable parallels between this story and the death of Cleopatra as described at p. 92.2 above: the readiness of two attendant females (respectively daughters and servants) to die with (συναποθανεῖν) the principal character because of love (φιλοστοργίαν) and the further parallel that both Cleopatra and Mithridates are motivated by the fear of appearing in a triumph in Rome. This motive is mentioned in *Ther.Pis.* in relation to Cleopatra (καὶ ἐλομένη μᾶλλον ἔτι βασίλισσα οὐσα ἐξ ἀνθρώπων γενέσθαι ἢ περ ἰδιώτης Ῥωμαίους φανῆναι) and by Appian in relation to Mithridates (κινδυνεύοντα ἐς πομπὴν ἀπαχθῆναι θριάμβου). On this as a standard topos see Beard (2007) 114-7.

p.140) 23 ὑπὸ κύνα καὶ πρὸ κυνός: I give the text as it appears in *Littre* and in Galen's *Sect. Int. and Commentary on the Aphorisms*. The readings in the *Ther.Pis.* mss all differ from this and none of them would be satisfactory even if it were consistent with those sources. Note that *Littre's* apparatus records that the Paulus Magnolus edition of Hippocrates (Venice 1542) has πρὸ κυνός καὶ κατὰ κύνα as a variant in the margin. *Littre* does not indicate what provenance if any Magnolus provides for the variant and it may be that he has taken it from the Aldine edition of *Ther.Pis.*

φαρμακίας ἐργώδεας: *Littre*, *Sect. Int. and Commentary on the Aphorisms* have ἐργώδεες αἱ φαρμακεία. *LSJ* φαρμάκία, Ion. ἰη, = φαρμακεία, *Hr.Decent.*10, *Lxx Ex.* 7.11 (pl.), *Man.* 2.310. This passage presents difficulties for the theory that Galen is the author of *Ther.Pis.*. φαρμακεία is a deceptive word meaning (*LSJ* s.v.) "φαρμακείᾱ, ἡ, use of drugs, esp. of purgatives, *Hr.Aph.*1.24, 2.36 (both pl.) ...". So Adams (1849) translates *Aphorisms* 4.5 "About the time of the dog-days, and before it, the administration of purgatives is unsuitable." *Littre* "Pendant la canicule et avant la canicule les évacuations sont laborieuses".

Chadwick and Mann in Lloyd (1983) 216 translate "The administration of drugs is attended with difficulty at the rising of the Dog Star and shortly before" while Walzer and Frede (1985) (translation of *Sect. Int.*) give "During and before the dog days, medicines cause problems". There is a simple issue here as to what the Greek means. The Hippocratic usage of *φαρμακεία* as meaning purgative drugs and not drugs in general has apparently misled scholars of the distinction of Chadwick and Mann. (There is not incidentally any question that Chadwick and Mann are translating a variant in the original text. Littré prints *αἱ φαρμακείαι* and has the note in the apparatus "*φαρμακείαι* [9 mss. identified by letter], Gal. - *φαρμακία* vulg." This is unnecessarily confusing: *φαρμακία* could be either feminine singular and according to LSJ simply an orthographic variant of *φαρμακεία*, or the neuter plural of the diminutive *φαρμάκιον*, and if Littré told us what the vulgate had in place of *αἱ* we would know which it was. The point is not however crucial, first because the point at issue here is not what the text says but what Galen understood it to say and secondly because the Hippocrates text so clearly requires a word meaning "purgative drug" that we would be justified in rejecting any variant which gave a different meaning). I have no doubt that LSJ and the earlier translators are to be preferred. Aphorisms 4.1-3 and 5-20 are exclusively about purgation and aphorism 4 would be out of place if it were about "medicines" generally. (It would also be quite hard to explain, whatever its context. Do we really expect Hippocrates to say that there are long periods of the year when the doctor cannot safely prescribe drugs of any kind at all?) The crucial point for present purposes is how Galen interprets the passage. In *Commentary on the Aphorisms* he clearly understands the word *φαρμακεία* in this sense of "purgative drug" with a meaning equivalent to *τῷ καθαρτικῷ φαρμάκῳ* in *Hipp. Aph.* IV: XVIIIb 664.4-13

Ἐκπεπωρωμένη τε γὰρ ἡμῶν ἡ φύσις οὖσα τηνικαῦτα τὴν ἀπὸ τῶν καθαρτικῶν [καθαρτικῶν Kühn] οὐκ οἶσει δρμύτητα, διὸ καὶ πυρέττουσι πολλοὶ τῶν ἐν τούτῳ τῷ καιρῷ καθαρθέντων, ἀσθενῆς τε οὖσα ἡ δύναμις διὰ τὸ καῦμα προσκαταλυθήσεται τῇ καθάρσει. καὶ μέντοι καὶ ἡ κάθαρσις αὐτῇ γενήσεται μοχθηρὰ, ἀντισπώσης τῷ καθαρτικῷ φαρμάκῳ τῆς τοῦ περιέχοντος ἀλέας πρὸς τοῦκτὸς τοὺς χυμούς. ὥσπερ γὰρ τὰ θερμὰ λουτρὰ ταῖς καθάρσεσιν ἀντιπράττειν πέφυκεν, οὕτω καὶ ἡ κατὰ τὸ θέρος θερμασία, καὶ μάλιστα ὅταν ᾗ σφοδρότερον ἑαυτοῦ.

Compare Hippocrates' use of the verb *φαρμακεύειν*: as with *φαρμακεία* this has the sense "to use purgative drugs" and not, as might be expected, simply "to use drugs". Galen himself points this out in his commentary on Aphorisms I 22: *Hipp. Aph.* I: XVIIIb 441.1-6:

Πέποινα φαρμακεύειν καὶ κινέειν μὴ ὡμά, μηδ' ἐν ἀρχῆσιν, ἦν μὴ ὀργᾶ· τὰ δὲ πολλὰ οὐκ ὀργᾶ.

Τὸ μὲν φαρμακεύειν ἔθος ἐστὶν αὐτῷ λέγειν ἀντὶ τοῦ χρῆσθαι φαρμάκῳ καθαίροντι ...

Of the 72 uses of *φαρμακεία/φαρμακείη* in Galen the word means "medicines, drugs" in general three times: in *CML*: I: XII 493.15 (where however it seems to be part of the title of Soranus' book) II: XII 580.2 (where it is part of a section heading and not certainly by Galen himself) and V: XII 845.17 and twice in *Ther.Pis.*; it means "poison" twice in *Loc. Affect.* V: VIII 355.11, VI: VIII 422.16 and once in *Praen.* XIV 602.11. On the other occasions where it is used it is in a commentary on or quotation from Hippocrates and has the sense of "purgative drug". The author of *Ther.Pis.* on the other hand believes Hippocrates to be talking about drugs in general: it cannot be the case that he thinks that the passage applies only to purgatives because he applies it to theriac and we know that he thinks theriac has a very powerful anti-purgative effect since he twice recommends testing the quality of theriac by first administering a purgative and seeing whether the theriac counteracts it (p.58.13, p.126.2). Galen's other quotation of the aphorism at *Sect. Int.* I 89.19-20 is uninformative as to the meaning of *φαρμακεία* because he is focussing there not on the type of drug involved but on the point that the Hippocratic advice implies that the time of year is relevant to medical decisions, while Galen's imaginary methodist opponent denies this. Note that this passage in *Sect. Int.* immediately follows the story of the mad dog (above, p.134.3 ff. and n.) which may provide a clue as to the method of composition of *Ther.Pis.*

p.142) 8 δίδοσθαι τοῦ φαρμάκου For the partitive genitive see p.58.13 ff. and n.

p.142) 8 Note the parallels and antitheses between this story and that of Piso's son p.56.1 ff. and n., p.62.7 ff. and n. at the beginning of the piece. The father's intervention here is malign rather than benign, τυραννικὴν is a term of disparagement rather than praise.

p.142) 13 cf. *Sect. Int.* I 90.7-13 (just after the quotation from Hippocrates discussed above) where Galen says that those who live in the North or in Egypt are less able to benefit from phlebotomy than those in

between (τοὺς δ' ἐν μέσῳ τούτων).

p.142) 19 Heading: L has τέλος Γαληνοῦ προς Πισώνα τῆς θηριακῆς ἀντιδότου: - τοῦ αὐτοῦ περι ἄλλων, all crossed out. The Arabic text ends exactly here except for a final chapter which is an appendix containing the text of the Andromachus poem. The suggestion that *Ther.Pis.* ends here and that what follows is a separate work is to some extent contradicted by the next but one sentence - ἀναγκαῖον γὰρ ἔδοξέ μοι καὶ τῶν ἄλλων μνημονεῦσαι, ἵνα τελειότατος ὁ περι τούτων σοι λόγος γένηται which however can be read as a rather crude attempt to create a bridge between the two documents. There is no indication in the earlier part of the treatise that a discussion of theriac salts is forthcoming. Cf. also the conclusion of the treatise for an explicit linkage of the subjects of theriac, and theriac salts p.148.23 οὗτός ἐστιν ὁ περι τῆς θηριακῆς καὶ τῶν θηριακῶν ἄλλων λόγος, φιλοπόνως, ὡς οἶμαι, ἐξετασθεὶς ὑπ' ἐμοῦ μάλιστα κτλ.

There are few references elsewhere in Galen to theriac salts: *MM XIV: X 995.3-4* notes that ἀλλὰ καὶ οἱ διὰ τῶν κεκαυμένων ἐχιδνῶν ἄλες ἰκανῶς λεπτόνουσι. *SMT XI: XII 319.1-10* mentions in passing that theriac salts are prepared at the same time of year as theriac pastilles and contains a slightly curious refusal to go into detail and defence of the fact that detail has been given as to how to make theriac pastilles: γίνονται δὲ καὶ οἱ διὰ τῶν ὀπτηθειῶν ἐχιδνῶν ἄλες ὑπὸ τὸν αὐτὸν καιρὸν εἰς χύτραν καινὴν ἐμβαλλόντων ἡμῶν τὰς ἐχίδνας ζώσας, ἅμα τοῖς ὑπεστορεσμένοις τε καὶ περικειμένοις αὐταῖς φαρμάκοις, ἃ λέγειν ἅπαντα νῦν οὐκ ἔστι τῆς ἐνεστώσης πραγματείας. ἴσως γὰρ τις ἡμῖν εὐλόγως ἐγκαλέσει καὶ περι τῶν ἀρτίσκων τῆς κατασκευῆς ὡς οὐκ ἐν καιρῷ διελθοῦσιν. ἀλλὰ ταῦτα μὲν ἐπειδὴ φθάνει λελέχθαι, φυλαττέσθω, κἄν δοκῇ μὴ πάνυ τι τῆς προκειμένης εἶναι πραγματείας ἴδια. τὰ δ' ἐξῆς κατὰ τὸ προσήκον μέτρον λεγέσθω.

p.144) 8 cf. Hippoc. *VM* sec. 3 for an account of how food is rendered edible by cooking.

p.144) 15 χαλκίτις: cf. *CMG IV: XIII 661.12-16*: καὶ αἱ στυπτηρία δὲ πᾶσαι ξηραίνουσιν ἰκανῶς ἔλκη στύφουσαι σφοδρῶς ὅθεν οὐκ ἂν τις αὐταῖς χρῆσεται μόναις ἐφ' ἔλκουσ, ὡσπερ οὐδὲ ὠμῇ χαλκίτιδι καὶ ἰῶ. κεκαυμένα δὲ ταῦτα καὶ τὸ μῖσου χρήσιμα, καθάπερ γε καὶ πλυθέντα.

p.144) 16 cf. *CML IV: XII 727.5-730.4* - a lengthy recipe which Galen emphasises is his own invention - Χρησιμώτατον ὑγιαίνουσιν ὀφθαλμοῖς προφυλακτικὸν ἐγὼ συνέθηκα φάρμακον, ὃ πάντες ἔχουσιν ἥδη. καίεται γὰρ λίθος Φρύγιος εἰς λεπτὰ καταθραυσθεὶς, ὡς εἶναι μείζων τοῦ καλουμένου μὲν ὑπὸ τινων καρίου ποντικοῦ, πρὸς ἄλλων δὲ λεπτοκαρίου. (727.6-10)

p.144) 18 cf. *SMT XI: XII 376.1-8*: [ια'. Περι σπόγγου.] Σπόγγος ὁ μὲν κεκαυμένος δριμείας ἐστὶ καὶ διαφορητικῆς δυνάμεως. ἐχρήτο δ' αὐτῷ τις τῶν ἡμετέρων διδασκάλων καὶ πρὸς τὰς ἐν ταῖς χειρουργίαις αἰμορραγίας, ἔτοιμον ἔχων ξηρὸν μὲν καὶ ἄνικμον, δεδευμένον δὲ μάλιστα μὲν ἀσφάλτῳ, μὴ παρούσης δὲ ταύτης πίττη, προσετίθει δ' αὐτὸν τοῖς αἰμορραγοῦσι χωρίοις, ἔτι καίόμενον, ὡς ἐσχαροῦσθαί τε ἅμα τὸ μόριον καὶ οἶον πῶμά τι λαμβάνειν αὐτὸ τὸ σῶμα τοῦ καυθέντος σπόγγου. All three instances correspond closely with the respective passages cited from elsewhere in Galen in emphasising that the material in question needs burning in order to be effective.

p.144) 21 ἐπιτεταμένην: neither L's reading ὑποτεταμένην nor Q's emendation ὑπερτεταμένην is satisfactory: both words are used by Galen almost exclusively in their literal senses of respectively stretched beneath and stretched above. For ἐπιτεταμένην intense cf. above p.128.11 ff. and n. For a construction similar to the present cf. *CMG II: XIII 499. 10-14* ἐπιτεταμένην δὲ τὴν ῥυπτικὴν δύναμιν ἔχει τὰ τὸν πολὺν ἀφαιροῦντα ῥύπον, ὥστ' ἕνια τῶν εἰρημένων φαρμάκων χλωρῶν ἐνὶ μόνῳ τῶν ἀπλῶς σαρκωτικῶν διαφέρει τῷ πλήθει τοῦ ἰοῦ.

p.146) 12 L has λ', thirty here but δ' at p.146.20 below. Q has δ', four in the body of the text rather than as an emendation. L's λ' could perhaps be construed as δ' and deviations from L in the body of Q tend to be mere omissions and errors. However in this instance Paulus Med. VII 11.6.2 has Λαβῶν ἐχίδνας νεοθηράτους δ' at the beginning of a recipe for Ἄλες θηριακοί clearly based on this passage.

p.146) 16 λίτραν α' S' Kühn, λίτραν α' S. in Aldine. L has a ligature of alpha and lunate sigma. The λίτρα is usually used by Galen as a measure of liquid or semi-liquid commodities such as honey or fat: e.g. above p.116.13 - μέλιτος λίτρας ι' in the theriac recipe; p.124.9 - again about honey. Usually he switches measurement units when specifying liquids and herbal ingredients in the same recipe; occasionally a whole recipe is given using λίτρα measures for all or almost all ingredients including herbal e.g. *CMG VII: XIII 1039.10-1040.15* - Andromachus' recipe for γλευκίνος of which a representative part is μαράθρου λίτρας β'. βαλσάμου καρποῦ λίτρας β'. κρόκου γο γ'. δαφνίδων λίτραν α'. πεπέρεως λευκοῦ λίτραν α'. ὀποβαλσάμου γο γ'. μαλαβάθρου φύλλων λίτρας δύο (1040.7-9). Presumably those departures from the norm are explicable

on the basis that Galen is reproducing someone else's words. Here there is a switch to λίτρα measures which is not on the face of it explicable on that basis - the recipe is given in the authorial voice. There are only the two uses of λίτρα prior to the recipe for theriac salts - the 10 litres of honey referred to above - and nine in the recipe for theriac salts.

p.146) 16 λίτραν α' S'' Kühn, λίτραν α' S. in Aldine.

p.148) 13 περιῶ: Q's περιῶ is meaningless.

p.148) 25 μέμνημαι γρ: the text here is confused. The overall sense required seems to be: I am ending the work here because I have observed in the past you insisting that arguments must not go on indefinitely. The problems are that χρῆναι τοὺς λέγοντας διαλιπεῖν ποτε in L yields the satisfactory sense "that it is necessary for speakers to take a break occasionally" but requires a preface "you judge that."; Q's alteration to κρίναι provides "you judge that" but at the expense of losing "it is necessary". The second issue is what the scope of πολλάς ἀφορμάς is. In Galen ἀφορμή is usually followed by an abstract noun in the genitive: e.g. ἀφορμὴν συλλογισμοῦ the starting point of a syllogism: *Diff.Puls.* IV: VIII 941.9-10. We have one case of it taking an infinitive, πιθανὴν ἀφορμὴν εἶχον ἐπιτιμῆσαι σφοδρῶς. *Praen.* XIV 629.3-4 tr. Nutton "[they] had a plausible occasion to censure him severely." I have taken ἀφορμάς ... χρῆναι as elliptical for "occasions [to contend that] it is necessary" but this very arguably goes beyond what the text will support.

p.150) 3 φιλοτιμέομαι is relatively common in Galen and elsewhere. The active voice φιλοτιμέω (not recognised by LSJ) is rare and very late: the earliest instances in TLG excluding this one are in Basilius Caesariensis *Homilia de misericordia et iudicio* 31.1709.48 (4th century) Chrysippus *Encomium in Michaelem archangelum*. (5th century) Page 93 line 6.

p.150) 3 λαλοῦσιν: usually used by Galen in original sense of "talk nonsense" e.g. *Diff.Puls.* III: VIII 653.4 τοῦτο δὲ οὐ λέγειν, ἀλλὰ λαλεῖν ἐστὶ but L's καλοῦσιν is unacceptable. For a neutral meaning in Galen see *Caus.Puls.* III: IX 138.1-3 (of sleep) τὰ δ' ἀλλὰ πάντα τοῖς ἀποθνήσκουσιν ὅμοια, μὴ βλέπειν, μὴ ἀκούειν, μὴ φρονεῖν, μὴ νοεῖν, μὴ λαλεῖν, ἀναίσθητον, ἀκίνητον, ἀλόγιστον ἐρρίφθαι.

**APPENDICES**

## Appendix 1 - μήν

Text	Word count	μήν	percentage
<b>Ther.Pis.</b>	<b>13556</b>	<b>0</b>	<b>0%</b>
CML	150524	53	0.04%
Praen.	11530	6	0.05%
Musc. Diss.	15368	8	0.05%
CMG	109210	64	0.06%
Caus. Symp.	30535	22	0.07%
Ant.	28945	22	0.08%
Hipp.Art.	55499	43	0.08%
Ars Med.	16776	13	0.08%
Hipp.Fract.	44698	37	0.08%
UP	202076	170	0.08%
Hipp.Epid. 6	79741	73	0.09%
Cur. Rat. Ven. Sect.	10398	10	0.10%
Hipp.Off. Med.	43376	42	0.10%
MM	163139	166	0.10%
HNH	25350	26	0.10%
Cris.	34406	36	0.10%
Hipp.Aph.	102970	108	0.10%
Hipp.Epid. 1	40571	43	0.11%
Hipp.Epid. 3	42913	47	0.11%
Hipp.Prorrh.	47475	54	0.11%
HVA	69473	80	0.12%
PHP	98571	114	0.12%
San. Tu.	69757	85	0.12%
Diff. Resp.	33093	41	0.12%
Hipp.Prog.	43712	55	0.13%
MMG	23690	30	0.13%
Praes. Puls.	37699	49	0.13%
Loc. Aff.	72559	96	0.13%
AA	81247	110	0.14%
CAM	12396	17	0.14%
Di. Dec.	28286	39	0.14%
Plen.	11502	16	0.14%
Sem.	21557	30	0.14%
Syn. Puls.	16348	24	0.15%
Temp.	28600	43	0.15%
Mot. Musc.	15264	23	0.15%
Diff. Feb.	21703	33	0.15%
Diff. Puls.	44391	68	0.15%
Thras.	14352	22	0.15%
SMT	139244	228	0.16%
Hipp.Elem.	13951	23	0.16%
Dig. Puls.	32375	54	0.17%
Alim. Fac.	46318	83	0.18%
Nat. Fac.	33104	61	0.18%
Caus. Puls.	33321	67	0.20%
Bon Mal. Suc.	10678	24	0.22%

## Appendix 2 - γοῦν

Text	Word count	incidence	percentage
<b>Ther.Pis.</b>	<b>13556</b>	<b>27</b>	<b>0.20%</b>
Loc. Aff.	72559	75	0.10%
Hipp. Epid. 3	42913	44	0.10%
Plen.	11502	11	0.10%
Hipp. Epid. 1	40571	38	0.09%
Bon Mal. Suc.	10678	10	0.09%
MM	163139	150	0.09%
Thras.	14352	13	0.09%
CAM	12396	11	0.09%
Hipp. Prorrh.	47475	41	0.09%
Hipp. Aph.	102970	87	0.08%
PHP	98571	83	0.08%
HNH	25350	21	0.08%
Hipp. Epid. 6	79741	66	0.08%
Diff. Puls.	44391	35	0.08%
Temp.	28600	21	0.07%
Hipp. Elem.	13951	10	0.07%
SMT	139244	99	0.07%
Dig. Puls.	32375	23	0.07%
Cris.	34406	24	0.07%
sem	21557	15	0.07%
Cur. Rat. Ven. Sect.	10398	7	0.07%
Syn. Puls.	16348	11	0.07%
Hipp. Prog.	43712	29	0.07%
Diff. Feb.	21703	14	0.06%
AA	81247	51	0.06%
HVA	69473	43	0.06%
Alim. Fac.	46318	28	0.06%
Symp. Caus.	30535	18	0.06%
Antidotes	28945	17	0.06%
Diff. Resp.	33093	19	0.06%
San. Tu.	69757	38	0.05%
Caus. Puls.	33321	18	0.05%
Praen.	11530	6	0.05%
Di. Dec.	28286	14	0.05%
Praes. Puls.	37699	18	0.05%
UP	202076	94	0.05%
Hipp. Art.	55499	24	0.04%
CMG	109210	46	0.04%
Mot. Musc.	15264	6	0.04%
Nat. Fac.	33104	13	0.04%
Hipp. Off. Med.	43376	17	0.04%
MMG	23690	9	0.04%
Ars Med.	16776	6	0.04%
Hipp. Fract.	44698	13	0.03%
CML	150524	28	0.02%
Musc. Diss.	15368	1	0.01%

## Appendix 3 - ἴα

Text	Word count	ἴα incidence	ἴν'	ἴα percentage
<b>Ther.Pis.</b>	<b>13556</b>	<b>33</b>	<b>2</b>	<b>0.26%</b>
Mot. Musc.	15264	11	9	0.13%
Dig. Puls.	32375	16	19	0.11%
UP	202076	66	117	0.09%
Nat. Fac.	33104	17	10	0.08%
Diff. Puls.	44391	16	20	0.08%
Hipp.Prorrh.	47475	23	10	0.07%
Hipp.Elem.	13951	2	7	0.06%
Hipp.Off. Med.	43376	21	2	0.05%
Hipp.Epid. 6	79741	19	23	0.05%
Musc. Diss.	15368	8	0	0.05%
MM	163139	33	46	0.05%
Caus. Puls.	33321	8	8	0.05%
Sem.	21557	2	8	0.05%
Di. Dec.	28286	4	9	0.05%
AA	81247	27	10	0.05%
Diff. Resp.	33093	10	4	0.04%
Thras.	14352	4	2	0.04%
CAM	12396	3	2	0.04%
Hipp.Aph.	102970	27	14	0.04%
Hipp.Prog.	43712	7	8	0.03%
PHP	98571	17	15	0.03%
Hipp.Fract.	44698	10	4	0.03%
CMG	109210	26	7	0.03%
San. Tu.	69757	13	8	0.03%
Cris.	34406	6	4	0.03%
Hum.	10593	3	0	0.03%
temp	28600	3	5	0.03%
Hipp.Epid. 3	42913	9	3	0.03%
Hipp.Art.	55499	13	2	0.03%
Plen.	11502	3	0	0.03%
Praen.	11530	2	1	0.03%
Syn. Puls.	16348	2	2	0.02%
Ars Med.	16776	4	0	0.02%
Caus. Symp.	30535	6	1	0.02%
HVA	69473	14	1	0.02%
SMT	139244	26	4	0.02%
Hipp.Epid. 1	40571	4	3	0.02%
MMG	23690	3	1	0.02%
CML	150524	22	0	0.01%
Ant.	28945	4	0	0.01%
HNH	25350	2	1	0.01%
Loc. Aff.	72559	4	4	0.01%
Praes. Puls.	37699	1	3	0.01%
Alim. Fac.	46318	2	1	0.01%
Diff. Feb.	21703	1	0	0.00%
Cur. Rat. Ven. Sect.	10398	0	0	0.00%
Bon Mal. Suc.	10678	0	0	0.00%



## Appendix 4 - ὅσπερ

Text	Word count	incidence	percentage
<b>Ther.Pis.</b>	<b>13556</b>	<b>54</b>	<b>0.40%</b>
Bon Mal. Suc.	10678	40	0.37%
Alim. Fac.	46318	166	0.36%
CAM	12396	37	0.30%
Sem.	21557	62	0.29%
Loc. Aff.	72559	180	0.25%
Thras.	14352	35	0.24%
SMT	139244	334	0.24%
HNH	25350	59	0.23%
Cur. Rat. Ven. Sect.	10398	24	0.23%
Diff. Feb.	21703	48	0.22%
PHP	98571	218	0.22%
Hipp. Epid. 6	79741	176	0.22%
Hipp. Prorrh.	47475	103	0.22%
AA	81247	175	0.22%
San. Tu.	69757	147	0.21%
Plen.	11502	24	0.21%
Hipp. Fract.	44698	92	0.21%
Caus. Puls.	33321	67	0.20%
UP	202076	398	0.20%
Hipp. Epid. 3	42913	83	0.19%
Symp. Caus.	30535	59	0.19%
Diff. Resp.	33093	63	0.19%
Syn. Puls.	16348	30	0.18%
Nat. Fac.	33104	59	0.18%
Di. Dec.	28286	49	0.17%
MM	163139	280	0.17%
Temp.	28600	49	0.17%
Hipp. Art.	55499	93	0.17%
Ars Med.	16776	28	0.17%
Hipp. Aph.	102970	170	0.17%
Diff. Puls.	44391	73	0.16%
HVA	69473	114	0.16%
Musc. Diss.	15368	25	0.16%
Hipp. Epid. 1	40571	65	0.16%
Ant.	28945	45	0.16%
Hum.	10593	16	0.15%
Hipp. Prog.	43712	66	0.15%
Hipp. Off. Med.	43376	64	0.15%
Praes. Puls.	37699	55	0.15%
Mot. Musc.	15264	22	0.14%
CMG	109210	157	0.14%
Hipp. Elem.	13951	20	0.14%
Cris.	34406	49	0.14%
MMG	23690	31	0.13%
Praen.	11530	14	0.12%
Dig. Puls.	32375	39	0.12%
CML	150524	153	0.10%

## Appendix 5 - λοιπόν

Text	Word count	λοιπόν incidence	λοιπόν %	As adverb	As adverb %
<b>Ther.Pis.</b>	<b>13556</b>	<b>13</b>	<b>0.10%</b>	<b>12</b>	<b>0.09%</b>
Hipp.Elem.	13951	2	0.01%	2	0.01%
Diff. Puls.	44391	7	0.02%	6	0.01%
Dig. Puls.	32375	8	0.02%	4	0.01%
Caus. Puls.	33321	8	0.02%	4	0.01%
Praen.	11530	3	0.03%	1	0.01%
Thras.	14352	2	0.01%	1	0.01%
Diff. Resp.	33093	4	0.01%	2	0.01%
Cris.	34406	3	0.01%	2	0.01%
Praes. Puls.	37699	3	0.01%	2	0.01%
Diff. Feb.	21703	1	0.00%	1	0.00%
Hipp. Fract.	44698	5	0.01%	2	0.00%
UP	202076	44	0.02%	9	0.00%
MM	163139	18	0.01%	7	0.00%
PHP	98571	7	0.01%	4	0.00%
Hipp. Aph.	102970	6	0.01%	4	0.00%
AA	81247	18	0.02%	3	0.00%
Hipp. Art.	55499	6	0.01%	2	0.00%
Di. Dec.	28286	2	0.01%	1	0.00%
Temp	28600	2	0.01%	1	0.00%
Caus.Symp.	30535	2	0.01%	1	0.00%
CMG	109210	11	0.01%	3	0.00%
Hipp. Epid. 1	40571	1	0.00%	1	0.00%
Hipp. Epid. 3	42913	1	0.00%	1	0.00%
Hipp. Off. Med.	43376	5	0.01%	1	0.00%
San. Tu.	69757	2	0.00%	1	0.00%
Loc. Aff.	72559	1	0.00%	1	0.00%
Hipp. Epid. 6	79741	3	0.00%	1	0.00%
SMT	139244	11	0.01%	1	0.00%
CML	150524	9	0.01%	1	0.00%
Alim. Fac.	46318	0	0.00%	0	0.00%
Ant.	28945	1	0.00%	0	0.00%
Ars Med.	16776	3	0.02%	0	0.00%
Bon. Mal. Suc.	10678	0	0.00%	0	0.00%
CAM	12396	0	0.00%	0	0.00%
Cur. Rat. Ven. Sect.	10398	0	0.00%	0	0.00%
Hipp. Prog.	43712	1	0.00%	0	0.00%
Hipp. Prorrh.	47475	0	0.00%	0	0.00%
HNH	25350	0	0.00%	0	0.00%
HVA	69473	0	0.00%	0	0.00%
MMG	23690	1	0.00%	0	0.00%
Mot. Musc.	15264	1	0.01%	0	0.00%
Musc. Diss.	15368	0	0.00%	0	0.00%
Nat. Fac.	33104	5	0.02%	0	0.00%
Plen.	11502	0	0.00%	0	0.00%
Sem.	21557	1	0.00%	0	0.00%
Syn. Puls.	16348	3	0.02%	0	0.00%

## Appendix 6 - οὐ and μή

Text	Word count	μή	οὐ/οὐκ/οὐχ(ι)	all neg	μή as % all negs
Hipp. Fract.	44698	240	302	542	44.28%
<b>Ther.Pis.</b>	<b>13556</b>	<b>62</b>	<b>85</b>	<b>147</b>	<b>42.18%</b>
Hipp. Art.	55499	254	357	611	41.57%
Hipp. Off. Med.	43376	203	286	489	41.51%
HVA	69473	363	582	945	38.41%
Hipp. Prog.	43712	187	322	509	36.74%
MMG	23690	86	149	235	36.60%
CMG	109210	253	453	706	35.84%
CML	150524	258	463	721	35.78%
Cur. Rat. Ven. Sect.	10398	35	67	102	34.31%
Ant.	28945	71	142	213	33.33%
Hipp. Aph.	102970	417	864	1281	32.55%
Plen.	11502	70	164	234	29.91%
Mot. Musc.	15264	53	127	180	29.44%
Dig. Puls.	32375	141	352	493	28.60%
San. Tu.	69757	204	515	719	28.37%
Cris.	34406	132	335	467	28.27%
Hipp. Epid. 6	79741	276	701	977	28.25%
Ars Med.	16776	43	110	153	28.10%
MM	163139	541	1409	1950	27.74%
Syn. Puls.	16348	42	114	156	26.92%
Hipp. Prorrh.	47475	175	477	652	26.84%
Hipp. Elem.	13951	53	153	206	25.73%
Praen.	11530	33	96	129	25.58%
Diff. Resp.	33093	106	315	421	25.18%
UP	202076	519	1555	2074	25.02%
Loc. Aff.	72559	175	546	721	24.27%
Nat. Fac.	33104	109	341	450	24.22%
Hipp. Epid. 1	40571	116	367	483	24.02%
Diff. Puls.	44391	148	477	625	23.68%
Hipp. Epid. 3	42913	128	421	549	23.32%
Bon Mal. Suc.	10678	24	80	104	23.08%
Di. Dec.	28286	77	268	345	22.32%
PHP	98571	302	1056	1358	22.24%
Caus. Puls.	33321	88	313	401	21.95%
Diff. Feb.	21703	45	163	208	21.63%
AA	81247	128	473	601	21.30%
Caus. Symp.	30535	59	220	279	21.15%
HNH	25350	67	267	334	20.06%
Praes. Puls.	37699	68	273	341	19.94%
Sem.	21557	59	237	296	19.93%
SMT	139244	276	1132	1408	19.60%
Temp.	28600	64	275	339	18.88%
CAM	12396	24	111	135	17.78%
Thras.	14352	33	154	187	17.65%
Alim. Fac.	46318	80	385	465	17.20%
Musc. Diss.	15368	8	74	82	9.76%

## Appendix 7 - ἀλλὰ

Text	Word count	incidence	percentage
AA	11	81247	36 0.04%
CML	76	150524	173 0.11%
Musc.Diss.	102	15368	18 0.12%
CMG	77	109210	195 0.18%
Ant.	78	28945	56 0.19%
Ars Med.	7	16776	38 0.23%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>33 0.24%</b>
Cur.Rat.Ven.Sect.	70	10398	28 0.27%
Mot.Musc.	18	15264	42 0.28%
Syn.Puls.	63	16348	46 0.28%
Cris.	64	34406	97 0.28%
Praes.Puls.	62	37699	109 0.29%
CAM	6	12396	36 0.29%
Hipp.Off.Med.	101	43376	126 0.29%
Caus.Symp.	44	30535	90 0.29%
HVA	87	69473	207 0.30%
MM	66	163139	496 0.30%
Hipp.Aph.	92	102970	315 0.31%
Hipp.Fract.	100	44698	138 0.31%
Bon.Mal.Suc.	38	10678	33 0.31%
Hipp.Prorrh.	88	47475	147 0.31%
Hipp.Art.	95	55499	172 0.31%
Diff.Feb.	45	21703	68 0.31%
Hipp.Prog.	99	43712	138 0.32%
Hipp.Epid.VI	91	79741	258 0.32%
Hipp.Epid.III	90	42913	139 0.32%
Hipp.Epid.I	89	40571	132 0.33%
Hipp.Elem.	8	13951	46 0.33%
UP	17	202076	670 0.33%
Nat.Fac.	10	33104	111 0.34%
San.Tu.	36	69757	235 0.34%
Loc.Affect.	57	72559	245 0.34%
MMG	67	23690	80 0.34%
PHP	32	98571	341 0.35%
Praen.	83	11530	40 0.35%
Caus.Puls.	61	33321	116 0.35%
Temp.	9	28600	101 0.35%
SMT	75	139244	499 0.36%
Alim.Fac.	37	46318	166 0.36%
Di.Dec.	65	28286	104 0.37%
Dig.Puls.	60	32375	120 0.37%
Diff.resp.	56	33093	128 0.39%
Plen.	50	11502	45 0.39%
Sem.	21	21557	87 0.40%
HNH	85	25350	112 0.44%
Thras.	33	14352	69 0.48%
Diff.Puls.	59	44391	217 0.49%

## Appendix 8 - ův

Text	Word count	incidence	percentage	
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>10</b>	<b>0.07%</b>
Ant.	78	28945	39	0.13%
Musc.Diss.	102	15368	24	0.16%
CML	76	150524	249	0.17%
CMG	77	109210	199	0.18%
Ars Med.	7	16776	34	0.20%
AA	11	81247	173	0.21%
Bon.Mal.Suc.	38	10678	23	0.22%
Praen.	83	11530	26	0.23%
Alim.Fac.	37	46318	116	0.25%
Hipp.Epid.III	90	42913	113	0.26%
Hipp.Epid.I	89	40571	107	0.26%
CAM	6	12396	33	0.27%
Cur.Rat.Ven.Sect.	70	10398	28	0.27%
Hipp.Off.Med.	101	43376	118	0.27%
Syn.Puls.	63	16348	46	0.28%
MMG	67	23690	74	0.31%
Hipp.Prorrh.	88	47475	150	0.32%
Hipp.Epid.VI	91	79741	260	0.33%
Praes.Puls.	62	37699	127	0.34%
Hipp.Prog.	99	43712	150	0.34%
SMT	75	139244	486	0.35%
Hipp.Aph.	92	102970	366	0.36%
Diff.Feb.	45	21703	80	0.37%
Caus.Symp.	44	30535	113	0.37%
Loc.Affect.	57	72559	269	0.37%
Temp.	9	28600	107	0.37%
MM	66	163139	621	0.38%
HVA	87	69473	277	0.40%
San.Tu.	36	69757	284	0.41%
Hipp.Fract.	100	44698	188	0.42%
Diff.resp.	56	33093	140	0.42%
HNH	85	25350	109	0.43%
Thras.	33	14352	62	0.43%
Cris.	64	34406	151	0.44%
Di.Dec.	65	28286	125	0.44%
Sem.	21	21557	96	0.45%
Plen.	50	11502	52	0.45%
Diff.Puls.	59	44391	201	0.45%
Hipp.Elem.	8	13951	67	0.48%
Hipp.Art.	95	55499	277	0.50%
PHP	32	98571	493	0.50%
Mot.Musc.	18	15264	83	0.54%
Caus.Puls.	61	33321	185	0.56%
Nat.Fac.	10	33104	184	0.56%
UP	17	202076	1128	0.56%
Dig.Puls.	60	32375	194	0.60%

## Appendix 9 - δέ

Text	tlg text id	Word count	incidence	percentage
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>266</b>	<b>1.96%</b>
Hipp.Elem.	8	13951	312	2.24%
CML	76	150524	3546	2.36%
Nat.Fac.	10	33104	781	2.36%
PHP	32	98571	2393	2.43%
UP	17	202076	4941	2.45%
Sem.	21	21557	533	2.47%
Hipp.Epid.III	90	42913	1079	2.51%
Hipp.Prorrh.	88	47475	1197	2.52%
0 Dig.Puls.	60	32375	824	2.55%
Hipp.Aph.	92	102970	2630	2.55%
Diff.resp.	56	33093	870	2.63%
HNH	85	25350	670	2.64%
Ant.	78	28945	773	2.67%
Loc.Affect.	57	72559	1938	2.67%
Hipp.Art.	95	55499	1483	2.67%
Diff.Puls.	59	44391	1187	2.67%
Thras.	33	14352	385	2.68%
Cur.Rat. Ven.Sect.	70	10398	279	2.68%
AA	11	81247	2189	2.69%
Hipp.Epid.VI	91	79741	2161	2.71%
Plen.	50	11502	314	2.73%
CMG	77	109210	2983	2.73%
Di.Dec.	65	28286	780	2.76%
Diff.Feb.	45	21703	603	2.78%
MM	66	163139	4590	2.81%
CAM	6	12396	350	2.82%
Hipp.Off.Med.	101	43376	1233	2.84%
Hipp.Fract.	100	44698	1275	2.85%
Temp.	9	28600	827	2.89%
HVA	87	69473	2014	2.90%
Praen.	83	11530	336	2.91%
Hipp.Prog.	99	43712	1304	2.98%
SMT	75	139244	4227	3.04%
Hipp.Epid.I	89	40571	1238	3.05%
Cris.	64	34406	1053	3.06%
Syn.Puls.	63	16348	508	3.11%
San.Tu.	36	69757	2173	3.12%
Praes.Puls.	62	37699	1189	3.15%
Musc.Diss.	102	15368	488	3.18%
Caus.Puls.	61	33321	1078	3.24%
Caus.Symp.	44	30535	990	3.24%
Mot.Musc.	18	15264	501	3.28%
MMG	67	23690	800	3.38%
Alim.Fac.	37	46318	1572	3.39%
Bon.Mal.Suc.	38	10678	384	3.60%
Ars Med.	7	16776	753	4.49%

## Appendix 10 - δή

Text	tlg text id	Word count	incidence	percentage
CMG	77	109210	28	0.03%
CML	76	150524	39	0.03%
Ant.	78	28945	8	0.03%
Cur.Rat.Ven.Sect.	70	10398	5	0.05%
Alim.Fac.	37	46318	25	0.05%
Hipp.Epid.III	90	42913	27	0.06%
Hipp.Prorrh.	88	47475	30	0.06%
Hipp.Epid.VI	91	79741	55	0.07%
Bon.Mal.Suc.	38	10678	8	0.07%
Hipp.Epid.I	89	40571	34	0.08%
Syn.Puls.	63	16348	14	0.09%
Hipp.Fract.	100	44698	39	0.09%
Loc.Affect.	57	72559	64	0.09%
Hipp.Off.Med.	101	43376	41	0.09%
Hipp.Art.	95	55499	54	0.10%
Praen.	83	11530	12	0.10%
Musc.Diss.	102	15368	16	0.10%
HNH	85	25350	28	0.11%
HVA	87	69473	77	0.11%
AA	11	81247	96	0.12%
Hipp.Prog.	99	43712	52	0.12%
Hipp.Aph.	92	102970	133	0.13%
Dig.Puls.	60	32375	58	0.18%
MMG	67	23690	43	0.18%
Diff.Puls.	59	44391	83	0.19%
Plen.	50	11502	22	0.19%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>26</b>	<b>0.19%</b>
Mot.Musc.	18	15264	30	0.20%
MM	66	163139	322	0.20%
Caus.Puls.	61	33321	69	0.21%
PHP	32	98571	208	0.21%
Nat.Fac.	10	33104	71	0.21%
Ars Med.	7	16776	38	0.23%
SMT	75	139244	319	0.23%
Diff.Feb.	45	21703	51	0.23%
CAM	6	12396	30	0.24%
Thras.	33	14352	35	0.24%
Sem.	21	21557	53	0.25%
Hipp.Elem.	8	13951	35	0.25%
San.Tu.	36	69757	180	0.26%
Caus.Symp.	44	30535	83	0.27%
Praes.Puls.	62	37699	104	0.28%
Diff.resp.	56	33093	93	0.28%
UP	17	202076	656	0.32%
Di.Dec.	65	28286	94	0.33%
Temp.	9	28600	115	0.40%
Cris.	64	34406	142	0.41%

## Appendix 11 - διά

Text	tlg text id	Word count	incidence	percentage
Thras.	33	14352	29	0.20%
Diff.Puls.	59	44391	103	0.23%
Plen.	50	11502	35	0.30%
Temp.	9	28600	88	0.31%
Musc.Diss.	102	15368	48	0.31%
Hipp.Elem.	8	13951	45	0.32%
Dig.Puls.	60	32375	107	0.33%
Ant.	78	28945	102	0.35%
Cris.	64	34406	122	0.35%
Di.Dec.	65	28286	113	0.40%
AA	11	81247	334	0.41%
CAM	6	12396	52	0.42%
Sem.	21	21557	91	0.42%
SMT	75	139244	620	0.45%
Nat.Fac.	10	33104	152	0.46%
PHP	32	98571	472	0.48%
San.Tu.	36	69757	340	0.49%
CMG	77	109210	541	0.50%
Hipp.Off.Med.	101	43376	215	0.50%
Diff.Feb.	45	21703	109	0.50%
Alim.Fac.	37	46318	235	0.51%
Praes.Puls.	62	37699	197	0.52%
Mot.Musc.	18	15264	81	0.53%
UP	17	202076	1081	0.53%
CML	76	150524	807	0.54%
Loc.Affect.	57	72559	391	0.54%
Hipp.Fract.	100	44698	245	0.55%
MM	66	163139	898	0.55%
Ars Med.	7	16776	93	0.55%
Bon.Mal.Suc.	38	10678	60	0.56%
HNH	85	25350	144	0.57%
Syn.Puls.	63	16348	95	0.58%
Hipp.Art.	95	55499	332	0.60%
Praen.	83	11530	69	0.60%
Hipp.Prog.	99	43712	262	0.60%
MMG	67	23690	143	0.60%
Cur.Rat.Ven.Sect.	70	10398	67	0.64%
Caus.Symp.	44	30535	201	0.66%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>90</b>	<b>0.66%</b>
Hipp.Epid.VI	91	79741	534	0.67%
Caus.Puls.	61	33321	231	0.69%
Hipp.Prorrh.	88	47475	334	0.70%
Diff.resp.	56	33093	236	0.71%
HVA	87	69473	509	0.73%
Hipp.Epid.I	89	40571	298	0.73%
Hipp.Epid.III	90	42913	348	0.81%
Hipp.Aph.	92	102970	838	0.81%



## Appendix 12 - εĩ

Text	tlg text id	Word count	incidence	percentage
Musc.Diss.	102	15368	24	0.16%
Ant.	78	28945	51	0.18%
CML	76	150524	310	0.21%
Bon.Mal.Suc.	38	10678	22	0.21%
Praen.	83	11530	24	0.21%
CMG	77	109210	268	0.25%
AA	11	81247	210	0.26%
Hipp.Off.Med.	101	43376	115	0.27%
Hipp.Epid.III	90	42913	114	0.27%
Hipp.Epid.I	89	40571	118	0.29%
Syn.Puls.	63	16348	48	0.29%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>40</b>	<b>0.30%</b>
Alim.Fac.	37	46318	139	0.30%
HNH	85	25350	83	0.33%
Hipp.Art.	95	55499	183	0.33%
Loc.Affect.	57	72559	252	0.35%
Hipp.Epid.VI	91	79741	280	0.35%
Caus.Symp.	44	30535	108	0.35%
Hipp.Fract.	100	44698	165	0.37%
Hipp.Aph.	92	102970	403	0.39%
Hipp.Prorrh.	88	47475	191	0.40%
Hipp.Prog.	99	43712	178	0.41%
HVA	87	69473	285	0.41%
PHP	32	98571	417	0.42%
Diff.Feb.	45	21703	94	0.43%
SMT	75	139244	639	0.46%
UP	17	202076	929	0.46%
Diff.Puls.	59	44391	214	0.48%
Thras.	33	14352	75	0.52%
Diff.resp.	56	33093	173	0.52%
Caus.Puls.	61	33321	179	0.54%
Sem.	21	21557	116	0.54%
Cur.Rat.Ven.Sect.	70	10398	60	0.58%
Mot.Musc.	18	15264	91	0.60%
San.Tu.	36	69757	422	0.60%
Nat.Fac.	10	33104	201	0.61%
Plen.	50	11502	74	0.64%
Praes.Puls.	62	37699	249	0.66%
MM	66	163139	1079	0.66%
Ars Med.	7	16776	115	0.69%
CAM	6	12396	90	0.73%
Hipp.Elem.	8	13951	102	0.73%
Di.Dec.	65	28286	217	0.77%
MMG	67	23690	199	0.84%
Temp.	9	28600	248	0.87%
Dig.Puls.	60	32375	297	0.92%
Cris.	64	34406	333	0.97%

## Appendix 13 - εἰς

Text	tlg text id	Word count	incidence	percentage
Diff.resp.	56	33093	105	0.32%
Ant.	78	28945	95	0.33%
Ars Med.	7	16776	57	0.34%
Hipp.Elem.	8	13951	48	0.34%
Plen.	50	11502	40	0.35%
Hipp.Off.Med.	101	43376	152	0.35%
Diff.Puls.	59	44391	156	0.35%
Hipp.Prorrh.	88	47475	167	0.35%
CMG	77	109210	392	0.36%
Hipp.Fract.	100	44698	165	0.37%
Temp.	9	28600	113	0.40%
CML	76	150524	613	0.41%
Hipp.Epid.III	90	42913	175	0.41%
HVA	87	69473	284	0.41%
Cris.	64	34406	146	0.42%
Hipp.Epid.I	89	40571	173	0.43%
SMT	75	139244	616	0.44%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>60</b>	<b>0.44%</b>
Hipp.Aph.	92	102970	461	0.45%
Thras.	33	14352	65	0.45%
Dig.Puls.	60	32375	149	0.46%
Hipp.Prog.	99	43712	203	0.46%
Hipp.Epid.VI	91	79741	371	0.47%
HNH	85	25350	119	0.47%
MM	66	163139	770	0.47%
Cur.Rat. Ven.Sect.	70	10398	51	0.49%
San.Tu.	36	69757	347	0.50%
Praen.	83	11530	58	0.50%
MMG	67	23690	122	0.51%
Hipp.Art.	95	55499	295	0.53%
Alim.Fac.	37	46318	249	0.54%
PHP	32	98571	559	0.57%
Bon.Mal.Suc.	38	10678	61	0.57%
Diff.Feb.	45	21703	133	0.61%
Loc.Affect.	57	72559	459	0.63%
Syn.Puls.	63	16348	105	0.64%
Di.Dec.	65	28286	182	0.64%
CAM	6	12396	81	0.65%
Caus.Symp.	44	30535	205	0.67%
Sem.	21	21557	153	0.71%
AA	11	81247	586	0.72%
Caus.Puls.	61	33321	245	0.74%
Praes.Puls.	62	37699	280	0.74%
Mot.Musc.	18	15264	122	0.80%
Nat.Fac.	10	33104	301	0.91%
UP	17	202076	1840	0.91%
Musc.Diss.	102	15368	183	1.19%

## Appendix 14 - έκ

Text	tlg text id	Word count	incidence	percentage
Dig.Puls.	60	32375	52	0.16%
Thras.	33	14352	25	0.17%
Caus.Puls.	61	33321	65	0.20%
Mot.Musc.	18	15264	30	0.20%
MMG	67	23690	49	0.21%
Diff.Feb.	45	21703	45	0.21%
CML	76	150524	313	0.21%
CMG	77	109210	239	0.22%
Hipp.Aph.	92	102970	235	0.23%
Diff.resp.	56	33093	84	0.25%
San.Tu.	36	69757	180	0.26%
Bon.Mal.Suc.	38	10678	28	0.26%
Diff.Puls.	59	44391	119	0.27%
Caus.Symp.	44	30535	82	0.27%
Temp.	9	28600	78	0.27%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>38</b>	<b>0.28%</b>
Cris.	64	34406	99	0.29%
Hipp.Off.Med.	101	43376	125	0.29%
Hipp.Art.	95	55499	160	0.29%
Hipp.Epid.III	90	42913	124	0.29%
Hipp.Fract.	100	44698	131	0.29%
Syn.Puls.	63	16348	51	0.31%
HVA	87	69473	217	0.31%
Ant.	78	28945	91	0.31%
Di.Dec.	65	28286	89	0.31%
SMT	75	139244	449	0.32%
Hipp.Epid.VI	91	79741	260	0.33%
Hipp.Prog.	99	43712	143	0.33%
MM	66	163139	551	0.34%
Praes.Puls.	62	37699	129	0.34%
Hipp.Epid.I	89	40571	139	0.34%
Hipp.Prorrh.	88	47475	163	0.34%
Praen.	83	11530	40	0.35%
Plen.	50	11502	40	0.35%
Alim.Fac.	37	46318	167	0.36%
Cur.Rat.Ven.Sect.	70	10398	38	0.37%
Loc.Affect.	57	72559	273	0.38%
Nat.Fac.	10	33104	130	0.39%
AA	11	81247	327	0.40%
PHP	32	98571	398	0.40%
Ars Med.	7	16776	68	0.41%
UP	17	202076	829	0.41%
HNH	85	25350	106	0.42%
Sem.	21	21557	109	0.51%
CAM	6	12396	66	0.53%
Hipp.Elem.	8	13951	81	0.58%
Musc.Diss.	102	15368	125	0.81%

Appendix 15 - *év*

Text	Word count	tlg text id	incidence	percentage
Hipp.Epid.I	40571	95	123	0.30%
CMG	109210	61	392	0.36%
UP	202076	33	729	0.36%
Caus.Puls.	33321	38	127	0.38%
Hipp.Aph.	102970	56	414	0.40%
Di.Dec.	28286	64	122	0.43%
HVA	69473	88	327	0.47%
MM	163139	87	845	0.52%
Musc.Diss.	15368	18	83	0.54%
CML	150524	44	845	0.56%
Diff.Puls.	44391	65	280	0.63%
Thras.	14352	79	102	0.71%
Hipp.Epid.VI	79741	89	620	0.78%
Mot.Musc.	15264	67	119	0.78%
AA	81247	17	670	0.82%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>114</b>	<b>0.84%</b>
Praen.	11530	50	97	0.84%
Sem.	21557	36	202	0.94%
Nat.Fac.	33104	102	319	0.96%
SMT	139244	21	1404	1.01%
Loc.Affect.	72559	85	738	1.02%
Temp.	28600	63	298	1.04%
MMG	23690	57	253	1.07%
Hipp.Off.Med.	43376	91	479	1.10%
Hipp.Prog.	43712	100	494	1.13%
Hipp.Prorrh.	47475	101	537	1.13%
Praes.Puls.	37699	83	434	1.15%
Caus.Symp.	30535	6	353	1.16%
San.Tu.	69757	62	837	1.20%
PHP	98571	10	1234	1.25%
Plen.	11502	32	146	1.27%
Hipp.Epid.III	42913	8	564	1.31%
CAM	12396	7	164	1.32%
Syn.Puls.	16348	75	226	1.38%
Diff.resp.	33093	45	461	1.39%
Alim.Fac.	46318	66	665	1.44%
Ars Med.	16776	37	248	1.48%
Dig.Puls.	32375	59	482	1.49%
Bon.Mal.Suc.	10678	78	172	1.61%
Diff.Feb.	21703	70	394	1.82%
Ant.	28945	11	594	2.05%
Hipp.Fract.	44698	90	989	2.21%
HNH	25350	99	614	2.42%
Hipp.Art.	55499	60	1362	2.45%
Hipp.Elem.	13951	92	501	3.59%
Cur.Rat.Ven.Sect.	10398	76	374	3.60%
Cris.	34406	77	1351	3.93%

## Appendix 16 - ἐπί

Text	tlg text id	Word count	incidence	percentage
Hipp.Elem.	8	13951	27	0.19%
Thras.	33	14352	33	0.23%
Ant.	78	28945	94	0.32%
Temp.	9	28600	93	0.33%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>45</b>	<b>0.33%</b>
SMT	75	139244	518	0.37%
Di.Dec.	65	28286	107	0.38%
HNH	85	25350	96	0.38%
Alim.Fac.	37	46318	181	0.39%
Bon.Mal.Suc.	38	10678	43	0.40%
Sem.	21	21557	88	0.41%
CAM	6	12396	51	0.41%
Diff.Puls.	59	44391	184	0.41%
Nat.Fac.	10	33104	141	0.43%
PHP	32	98571	426	0.43%
Dig.Puls.	60	32375	146	0.45%
Diff.resp.	56	33093	164	0.50%
Praen.	83	11530	58	0.50%
UP	17	202076	1019	0.50%
Caus.Puls.	61	33321	172	0.52%
CML	76	150524	798	0.53%
Mot.Musc.	18	15264	81	0.53%
Syn.Puls.	63	16348	88	0.54%
Cris.	64	34406	186	0.54%
CMG	77	109210	597	0.55%
Hipp.Fract.	100	44698	264	0.59%
Caus.Symp.	44	30535	185	0.61%
San.Tu.	36	69757	424	0.61%
Hipp.Prog.	99	43712	268	0.61%
Hipp.Epid.I	89	40571	257	0.63%
Musc.Diss.	102	15368	98	0.64%
MM	66	163139	1042	0.64%
Ars Med.	7	16776	108	0.64%
HVA	87	69473	450	0.65%
Plen.	50	11502	76	0.66%
Loc.Affect.	57	72559	480	0.66%
Hipp.Epid.VI	91	79741	532	0.67%
Hipp.Aph.	92	102970	687	0.67%
MMG	67	23690	159	0.67%
Hipp.Epid.III	90	42913	289	0.67%
Hipp.Art.	95	55499	385	0.69%
AA	11	81247	585	0.72%
Hipp.Off.Med.	101	43376	334	0.77%
Hipp.Prorrh.	88	47475	372	0.78%
Praes.Puls.	62	37699	304	0.81%
Diff.Feb.	45	21703	179	0.82%
Cur.Rat.Ven.Sect.	70	10398	99	0.95%

## Appendix 17 - γάρ

Text	tlg text id	Word count	incidence	percentage
Musc.Diss.	102	15368	41	0.27%
CML	76	150524	610	0.41%
Ant.	78	28945	140	0.48%
Ars Med.	7	16776	92	0.55%
CMG	77	109210	620	0.57%
Praen.	83	11530	68	0.59%
AA	11	81247	601	0.74%
Hipp.Epid.I	89	40571	307	0.76%
Diff.Feb.	45	21703	174	0.80%
Loc.Affect.	57	72559	603	0.83%
Praes.Puls.	62	37699	324	0.86%
MMG	67	23690	208	0.88%
Alim.Fac.	37	46318	411	0.89%
Cur.Rat. Ven.Sect.	70	10398	93	0.89%
Hipp.Epid.III	90	42913	388	0.90%
Syn.Puls.	63	16348	150	0.92%
SMT	75	139244	1281	0.92%
Caus.Symp.	44	30535	282	0.92%
CAM	6	12396	117	0.94%
Hipp.Off.Med.	101	43376	414	0.95%
Bon.Mal.Suc.	38	10678	102	0.96%
Hipp.Aph.	92	102970	1011	0.98%
San.Tu.	36	69757	687	0.98%
MM	66	163139	1609	0.99%
Hipp.Fract.	100	44698	448	1.00%
PHP	32	98571	1001	1.02%
Hipp.Prog.	99	43712	444	1.02%
Hipp.Epid.VI	91	79741	814	1.02%
UP	17	202076	2069	1.02%
Hipp.Art.	95	55499	574	1.03%
Hipp.Prorrh.	88	47475	494	1.04%
Sem.	21	21557	227	1.05%
Plen.	50	11502	127	1.10%
Di.Dec.	65	28286	313	1.11%
HVA	87	69473	771	1.11%
Caus.Puls.	61	33321	376	1.13%
HNH	85	25350	288	1.14%
Nat.Fac.	10	33104	381	1.15%
Diff.Puls.	59	44391	511	1.15%
Diff.resp.	56	33093	384	1.16%
Cris.	64	34406	404	1.17%
Temp.	9	28600	342	1.20%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>163</b>	<b>1.20%</b>
Dig.Puls.	60	32375	396	1.22%
Mot.Musc.	18	15264	191	1.25%
Thras.	33	14352	180	1.25%
Hipp.Elem.	8	13951	192	1.38%

## Appendix 18 - γε

Text	tlg text id	Word count	incidence	percentage
Musc.Diss.	102	15368	23	0.15%
CML	76	150524	227	0.15%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>21</b>	<b>0.15%</b>
Hipp.Art.	95	55499	106	0.19%
Hipp.Off.Med.	101	43376	95	0.22%
Ars Med.	7	16776	39	0.23%
CMG	77	109210	274	0.25%
Hipp.Fract.	100	44698	117	0.26%
Ant.	78	28945	76	0.26%
Praen.	83	11530	32	0.28%
Mot.Musc.	18	15264	45	0.29%
Cris.	64	34406	103	0.30%
Temp.	9	28600	88	0.31%
Hipp.Prog.	99	43712	138	0.32%
Di.Dec.	65	28286	91	0.32%
Hipp.Epid.I	89	40571	135	0.33%
Hipp.Epid.III	90	42913	143	0.33%
HVA	87	69473	234	0.34%
Caus.Symp.	44	30535	103	0.34%
Hipp.Prorrh.	88	47475	162	0.34%
Diff.Puls.	59	44391	155	0.35%
UP	17	202076	729	0.36%
Hipp.Aph.	92	102970	373	0.36%
Diff.resp.	56	33093	120	0.36%
HNH	85	25350	92	0.36%
Hipp.Epid.VI	91	79741	290	0.36%
MMG	67	23690	87	0.37%
Caus.Puls.	61	33321	124	0.37%
Sem.	21	21557	81	0.38%
SMT	75	139244	527	0.38%
AA	11	81247	320	0.39%
Hipp.Elem.	8	13951	55	0.39%
CAM	6	12396	49	0.40%
Dig.Puls.	60	32375	131	0.40%
MM	66	163139	672	0.41%
Plen.	50	11502	48	0.42%
PHP	32	98571	413	0.42%
Nat.Fac.	10	33104	144	0.43%
San.Tu.	36	69757	305	0.44%
Thras.	33	14352	64	0.45%
Loc.Affect.	57	72559	327	0.45%
Cur.Rat.Ven.Sect.	70	10398	47	0.45%
Praes.Puls.	62	37699	173	0.46%
Diff.Feb.	45	21703	102	0.47%
Syn.Puls.	63	16348	77	0.47%
Alim.Fac.	37	46318	237	0.51%
Bon.Mal.Suc.	38	10678	60	0.56%

## Appendix 19 - ός

Text	tlg text id	Word count	incidence	percentage
MMG	67	23690	82	0.35%
Musc.Diss.	102	15368	56	0.36%
CML	76	150524	585	0.39%
Bon.Mal.Suc.	38	10678	48	0.45%
HNH	85	25350	114	0.45%
Hipp.Epid.I	89	40571	185	0.46%
Mot.Musc.	18	15264	71	0.47%
Ars Med.	7	16776	80	0.48%
Syn.Puls.	63	16348	80	0.49%
Ant.	78	28945	148	0.51%
Diff.Puls.	59	44391	239	0.54%
CMG	77	109210	597	0.55%
Alim.Fac.	37	46318	255	0.55%
CAM	6	12396	69	0.56%
AA	11	81247	454	0.56%
Hipp.Aph.	92	102970	589	0.57%
Caus.Puls.	61	33321	195	0.59%
Di.Dec.	65	28286	166	0.59%
HVA	87	69473	409	0.59%
Praes.Puls.	62	37699	222	0.59%
Nat.Fac.	10	33104	197	0.60%
Cur.Rat. Ven.Sect.	70	10398	62	0.60%
Dig.Puls.	60	32375	196	0.61%
Hipp.Art.	95	55499	336	0.61%
Diff.Feb.	45	21703	132	0.61%
San.Tu.	36	69757	428	0.61%
Loc.Affect.	57	72559	446	0.61%
Hipp.Epid.III	90	42913	268	0.62%
Cris.	64	34406	217	0.63%
Hipp.Epid.VI	91	79741	503	0.63%
UP	17	202076	1280	0.63%
Caus.Symp.	44	30535	194	0.64%
Hipp.Prog.	99	43712	278	0.64%
Sem.	21	21557	140	0.65%
Hipp.Fract.	100	44698	292	0.65%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>89</b>	<b>0.66%</b>
Diff.resp.	56	33093	219	0.66%
Hipp.Prorrh.	88	47475	318	0.67%
PHP	32	98571	667	0.68%
SMT	75	139244	951	0.68%
Hipp.Elem.	8	13951	96	0.69%
Hipp.Off.Med.	101	43376	322	0.74%
Thras.	33	14352	108	0.75%
MM	66	163139	1243	0.76%
Plen.	50	11502	97	0.84%
Temp.	9	28600	246	0.86%
Praen.	83	11530	127	1.10%



Appendix 20 - *καί*

Text	tlg text id	Word count	incidence	percentage
Musc.Diss.	102	15368	490	3.19%
AA	11	81247	2723	3.35%
Praen.	83	11530	411	3.56%
Hipp.Art.	95	55499	2059	3.71%
Hipp.Fract.	100	44698	1701	3.81%
Mot.Musc.	18	15264	599	3.92%
Hipp.Prorrh.	88	47475	1870	3.94%
Cur.Rat.Ven.Sect.	70	10398	425	4.09%
Loc.Affect.	57	72559	2967	4.09%
Syn.Puls.	63	16348	677	4.14%
Plen.	50	11502	477	4.15%
Hipp.Epid.III	90	42913	1790	4.17%
Hipp.Off.Med.	101	43376	1836	4.23%
Hipp.Epid.VI	91	79741	3458	4.34%
Hipp.Aph.	92	102970	4553	4.42%
Sem.	21	21557	957	4.44%
Dig.Puls.	60	32375	1438	4.44%
Hipp.Prog.	99	43712	2013	4.61%
UP	17	202076	9311	4.61%
Ant.	78	28945	1346	4.65%
PHP	32	98571	4610	4.68%
MM	66	163139	7814	4.79%
CMG	77	109210	5310	4.86%
CML	76	150524	7368	4.89%
HNH	85	25350	1244	4.91%
Praes.Puls.	62	37699	1856	4.92%
Diff.Puls.	59	44391	2195	4.94%
Di.Dec.	65	28286	1401	4.95%
CAM	6	12396	614	4.95%
Diff.Feb.	45	21703	1075	4.95%
Hipp.Epid.I	89	40571	2036	5.02%
San.Tu.	36	69757	3525	5.05%
HVA	87	69473	3515	5.06%
Caus.Symp.	44	30535	1555	5.09%
Diff.resp.	56	33093	1710	5.17%
Nat.Fac.	10	33104	1723	5.20%
Caus.Puls.	61	33321	1806	5.42%
Thras.	33	14352	789	5.50%
Cris.	64	34406	1967	5.72%
Ars Med.	7	16776	978	5.83%
Alim.Fac.	37	46318	2893	6.25%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>858</b>	<b>6.33%</b>
Bon.Mal.Suc.	38	10678	696	6.52%
MMG	67	23690	1553	6.56%
Hipp.Elem.	8	13951	915	6.56%
SMT	75	139244	9484	6.81%
Temp.	9	28600	1955	6.84%

## Appendix 21 - κατά

Text	tlg text id	Word count	incidence	percentage
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>21</b>	<b>0.15%</b>
Hipp.Elem.	8	13951	63	0.45%
CML	76	150524	753	0.50%
Ant.	78	28945	155	0.54%
MMG	67	23690	136	0.57%
Temp.	9	28600	180	0.63%
Bon.Mal.Suc.	38	10678	69	0.65%
Di.Dec.	65	28286	184	0.65%
Nat.Fac.	10	33104	217	0.66%
CMG	77	109210	754	0.69%
Sem.	21	21557	162	0.75%
Plen.	50	11502	90	0.78%
MM	66	163139	1296	0.79%
Cris.	64	34406	276	0.80%
SMT	75	139244	1129	0.81%
Diff.resp.	56	33093	271	0.82%
Caus.Puls.	61	33321	274	0.82%
Dig.Puls.	60	32375	277	0.86%
UP	17	202076	1729	0.86%
Alim.Fac.	37	46318	397	0.86%
Mot.Musc.	18	15264	135	0.88%
Thras.	33	14352	127	0.88%
San.Tu.	36	69757	632	0.91%
HVA	87	69473	644	0.93%
Hipp.Aph.	92	102970	996	0.97%
CAM	6	12396	121	0.98%
HNH	85	25350	250	0.99%
Hipp.Prorrh.	88	47475	483	1.02%
Hipp.Fract.	100	44698	472	1.06%
Hipp.Epid.VI	91	79741	849	1.06%
PHP	32	98571	1058	1.07%
Diff.Feb.	45	21703	235	1.08%
Hipp.Prog.	99	43712	476	1.09%
Hipp.Epid.III	90	42913	482	1.12%
Cur.Rat.Ven.Sect.	70	10398	119	1.14%
Hipp.Epid.I	89	40571	465	1.15%
Praen.	83	11530	135	1.17%
Caus.Symp.	44	30535	358	1.17%
Hipp.Off.Med.	101	43376	509	1.17%
Musc.Diss.	102	15368	182	1.18%
AA	11	81247	1013	1.25%
Loc.Affect.	57	72559	923	1.27%
Diff.Puls.	59	44391	586	1.32%
Hipp.Art.	95	55499	738	1.33%
Ars Med.	7	16776	231	1.38%
Praes.Puls.	62	37699	558	1.48%
Syn.Puls.	63	16348	274	1.68%

## Appendix 22 - μέν

Text	tlg text id	Word count	incidence	percentage
Ant.	78	28945	195	0.67%
CML	76	150524	1018	0.68%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>102</b>	<b>0.75%</b>
CMG	77	109210	1039	0.95%
Praen.	83	11530	112	0.97%
HVA	87	69473	773	1.11%
Hipp.Prorrh.	88	47475	533	1.12%
Hipp.Epid.III	90	42913	515	1.20%
Hipp.Epid.VI	91	79741	984	1.23%
Hipp.Art.	95	55499	710	1.28%
Cur.Rat.Ven.Sect.	70	10398	135	1.30%
Hipp.Epid.I	89	40571	529	1.30%
Hipp.Aph.	92	102970	1353	1.31%
HNH	85	25350	341	1.35%
Alim.Fac.	37	46318	624	1.35%
PHP	32	98571	1342	1.36%
Hipp.Fract.	100	44698	622	1.39%
AA	11	81247	1133	1.39%
Loc.Affect.	57	72559	1030	1.42%
Hipp.Prog.	99	43712	643	1.47%
Syn.Puls.	63	16348	246	1.50%
CAM	6	12396	187	1.51%
Hipp.Elem.	8	13951	211	1.51%
Bon.Mal.Suc.	38	10678	162	1.52%
Sem.	21	21557	331	1.54%
SMT	75	139244	2152	1.55%
Hipp.Off.Med.	101	43376	674	1.55%
MM	66	163139	2537	1.56%
Diff.Puls.	59	44391	699	1.57%
MMG	67	23690	377	1.59%
Plen.	50	11502	184	1.60%
San.Tu.	36	69757	1129	1.62%
Diff.resp.	56	33093	538	1.63%
Nat.Fac.	10	33104	539	1.63%
Dig.Puls.	60	32375	529	1.63%
Diff.Feb.	45	21703	365	1.68%
Di.Dec.	65	28286	489	1.73%
UP	17	202076	3496	1.73%
Cris.	64	34406	627	1.82%
Thras.	33	14352	265	1.85%
Temp.	9	28600	540	1.89%
Musc.Diss.	102	15368	291	1.89%
Praes.Puls.	62	37699	721	1.91%
Caus.Puls.	61	33321	645	1.94%
Caus.Symp.	44	30535	593	1.94%
Mot.Musc.	18	15264	317	2.08%
Ars Med.	7	16776	362	2.16%

## Appendix 23 - οὐν

Text	tlg text id	Word count	incidence	percentage
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>14</b>	<b>0.10%</b>
CML	76	150524	374	0.25%
Ant.	78	28945	72	0.25%
Musc.Diss.	102	15368	42	0.27%
CMG	77	109210	359	0.33%
SMT	75	139244	521	0.37%
Diff.Puls.	59	44391	176	0.40%
Diff.Feb.	45	21703	89	0.41%
PHP	32	98571	424	0.43%
Praes.Puls.	62	37699	168	0.45%
UP	17	202076	918	0.45%
Hipp.Epid.I	89	40571	186	0.46%
Bon.Mal.Suc.	38	10678	50	0.47%
San.Tu.	36	69757	328	0.47%
Alim.Fac.	37	46318	222	0.48%
HNH	85	25350	122	0.48%
Plen.	50	11502	56	0.49%
Loc.Affect.	57	72559	357	0.49%
CAM	6	12396	61	0.49%
MMG	67	23690	117	0.49%
Hipp.Aph.	92	102970	509	0.49%
Ars Med.	7	16776	83	0.49%
Caus.Puls.	61	33321	165	0.50%
Diff.resp.	56	33093	164	0.50%
Hipp.Prorrh.	88	47475	238	0.50%
Hipp.Fract.	100	44698	227	0.51%
Cris.	64	34406	175	0.51%
Di.Dec.	65	28286	144	0.51%
Cur.Rat. Ven.Sect.	70	10398	53	0.51%
Hipp.Art.	95	55499	284	0.51%
Caus.Symp.	44	30535	157	0.51%
Thras.	33	14352	74	0.52%
Hipp.Prog.	99	43712	227	0.52%
Sem.	21	21557	112	0.52%
Hipp.Epid.III	90	42913	223	0.52%
Temp.	9	28600	149	0.52%
AA	11	81247	424	0.52%
Hipp.Epid.VI	91	79741	417	0.52%
Hipp.Elem.	8	13951	73	0.52%
Hipp.Off.Med.	101	43376	230	0.53%
Nat.Fac.	10	33104	177	0.53%
HVA	87	69473	383	0.55%
Dig.Puls.	60	32375	184	0.57%
MM	66	163139	937	0.57%
Syn.Puls.	63	16348	101	0.62%
Mot.Musc.	18	15264	108	0.71%
Praen.	83	11530	83	0.72%

## Appendix 24 - περί

Text	tlg text id	Word count	incidence	percentage
Mot.Musc.	18	15264	32	0.21%
CML	76	150524	397	0.26%
Sem.	21	21557	58	0.27%
Ant.	78	28945	80	0.28%
CMG	77	109210	318	0.29%
Temp.	9	28600	86	0.30%
MMG	67	23690	75	0.32%
Caus.Symp.	44	30535	104	0.34%
UP	17	202076	706	0.35%
MM	66	163139	583	0.36%
Loc.Affect.	57	72559	271	0.37%
Bon.Mal.Suc.	38	10678	40	0.37%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>52</b>	<b>0.38%</b>
Hipp.Aph.	92	102970	399	0.39%
AA	11	81247	315	0.39%
Hipp.Fract.	100	44698	175	0.39%
Nat.Fac.	10	33104	130	0.39%
Hipp.Elem.	8	13951	55	0.39%
CAM	6	12396	49	0.40%
Praes.Puls.	62	37699	151	0.40%
Caus.Puls.	61	33321	136	0.41%
Diff.Feb.	45	21703	89	0.41%
Cris.	64	34406	144	0.42%
San.Tu.	36	69757	293	0.42%
Hipp.Prorrh.	88	47475	201	0.42%
Plen.	50	11502	50	0.43%
Hipp.Off.Med.	101	43376	189	0.44%
Hipp.Art.	95	55499	244	0.44%
Hipp.Epid.VI	91	79741	362	0.45%
Cur.Rat.Ven.Sect.	70	10398	48	0.46%
HVA	87	69473	328	0.47%
Syn.Puls.	63	16348	79	0.48%
Praen.	83	11530	57	0.49%
Di.Dec.	65	28286	143	0.51%
Hipp.Prog.	99	43712	234	0.54%
Dig.Puls.	60	32375	182	0.56%
HNH	85	25350	145	0.57%
Musc.Diss.	102	15368	90	0.59%
Diff.resp.	56	33093	206	0.62%
PHP	32	98571	632	0.64%
Hipp.Epid.III	90	42913	281	0.65%
Alim.Fac.	37	46318	307	0.66%
Ars Med.	7	16776	112	0.67%
Diff.Puls.	59	44391	312	0.70%
Thras.	33	14352	103	0.72%
SMT	75	139244	1068	0.77%
Hipp.Epid.I	89	40571	320	0.79%

## Appendix 25 - πρόσ

Text	tlg text id	Word count	incidence	percentage
Hipp.Epid.III	90	42913	95	0.22%
Cris.	64	34406	77	0.22%
Hipp.Prorrh.	88	47475	116	0.24%
Caus.Puls.	61	33321	83	0.25%
Bon.Mal.Suc.	38	10678	27	0.25%
Diff.Feb.	45	21703	55	0.25%
MMG	67	23690	61	0.26%
Diff.resp.	56	33093	87	0.26%
HVA	87	69473	184	0.26%
Hipp.Epid.I	89	40571	113	0.28%
Loc.Affect.	57	72559	204	0.28%
Hipp.Aph.	92	102970	296	0.29%
Praes.Puls.	62	37699	109	0.29%
Caus.Symp.	44	30535	89	0.29%
Di.Dec.	65	28286	86	0.30%
MM	66	163139	507	0.31%
Hipp.Epid.VI	91	79741	251	0.31%
Syn.Puls.	63	16348	53	0.32%
Hipp.Prog.	99	43712	149	0.34%
Alim.Fac.	37	46318	159	0.34%
Thras.	33	14352	50	0.35%
San.Tu.	36	69757	252	0.36%
Ars Med.	7	16776	61	0.36%
Diff.Puls.	59	44391	166	0.37%
Nat.Fac.	10	33104	124	0.37%
Cur.Rat. Ven.Sect.	70	10398	39	0.38%
Hipp.Elem.	8	13951	55	0.39%
HNH	85	25350	106	0.42%
Praen.	83	11530	49	0.42%
Mot.Musc.	18	15264	68	0.45%
AA	11	81247	362	0.45%
PHP	32	98571	452	0.46%
Hipp.Art.	95	55499	255	0.46%
Hipp.Fract.	100	44698	206	0.46%
Dig.Puls.	60	32375	151	0.47%
CAM	6	12396	58	0.47%
Musc.Diss.	102	15368	74	0.48%
UP	17	202076	980	0.48%
SMT	75	139244	693	0.50%
Sem.	21	21557	109	0.51%
Temp.	9	28600	151	0.53%
textbfTHER.PIS	79	13556	72	0.53%
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>72</b>	<b>0.53%</b>
Hipp.Off.Med.	101	43376	243	0.56%
CMG	77	109210	765	0.70%
Plen.	50	11502	81	0.70%
Ant.	78	28945	215	0.74%
CML	76	150524	1288	0.86%

## Appendix 26 - τε

Text	tlg text id	Word count	incidence	percentage
<b>Ther.Pis.</b>	<b>79</b>	<b>13556</b>	<b>64</b>	<b>0.47%</b>
Hipp.Prorrh.	88	47475	312	0.66%
CML	76	150524	1049	0.70%
Mot.Musc.	18	15264	112	0.73%
Hipp.Epid.I	89	40571	298	0.73%
Hipp.Epid.III	90	42913	328	0.76%
Hipp.Fract.	100	44698	350	0.78%
Hipp.Art.	95	55499	446	0.80%
Diff.resp.	56	33093	273	0.82%
HVA	87	69473	583	0.84%
Di.Dec.	65	28286	240	0.85%
Hipp.Off.Med.	101	43376	375	0.86%
Hipp.Aph.	92	102970	911	0.88%
Caus.Puls.	61	33321	305	0.92%
Hipp.Epid.VI	91	79741	748	0.94%
Nat.Fac.	10	33104	319	0.96%
Hipp.Elem.	8	13951	135	0.97%
CMG	77	109210	1060	0.97%
Syn.Puls.	63	16348	159	0.97%
AA	11	81247	806	0.99%
Dig.Puls.	60	32375	333	1.03%
Diff.Puls.	59	44391	465	1.05%
HNH	85	25350	269	1.06%
Cur.Rat. Ven.Sect.	70	10398	112	1.08%
Sem.	21	21557	234	1.09%
MM	66	163139	1779	1.09%
Ant.	78	28945	319	1.10%
Cris.	64	34406	382	1.11%
UP	17	202076	2301	1.14%
Hipp.Prog.	99	43712	498	1.14%
Temp.	9	28600	330	1.15%
Loc.Affect.	57	72559	849	1.17%
PHP	32	98571	1239	1.26%
Praen.	83	11530	152	1.32%
Praes.Puls.	62	37699	508	1.35%
Diff.Feb.	45	21703	295	1.36%
Thras.	33	14352	197	1.37%
MMG	67	23690	327	1.38%
Plen.	50	11502	160	1.39%
SMT	75	139244	2049	1.47%
Alim.Fac.	37	46318	688	1.49%
San.Tu.	36	69757	1115	1.60%
Ars Med.	7	16776	271	1.62%
CAM	6	12396	206	1.66%
Caus.Symp.	44	30535	526	1.72%
Musc.Diss.	102	15368	269	1.75%
Bon.Mal.Suc.	38	10678	217	2.03%