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THE ANONYMUS LONDINIENSIS PAPYRUS WITH AN ITALIAN TRANSLATION, A COMMENTARY, AND SOME CRITICAL CHAPTERS

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THE ANONYMUS LONDINIENSIS PAPYRUS

WITH AN ITALIAN TRANSLATION, A COMMENTARY, AND SOME CRITICAL CHAPTERS
Il desiderio di conoscere ciò che hanno detto gli uomini migliori è comune a tutti coloro che sono per natura amanti del bello.

Galeno
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This dissertation results from a choice that I made some misty years ago, when, so to speak, I voluntarily took the optio difficilior. Now that the work is concluded and in front of my eyes I realise that I did well, not only because the goal has been successfully achieved, but specially because in the pursuit my life has been loaded with meaning. I have had to meet with myself and my expectations in different demanding and unsuspected facets, in many cases I have been also required to handle with that nuclear philosophical disposition which lies in accepting your own limitations, and as it seems, in becoming a learner. Apart from the supposed advantages that the obtaining of a PhD may bring about, the real point of the whole experience is how this period of research has affected me. What matters in all senses is how far and deep has gone my knowledge about the subject which primarily drew my attention, and in the measure of my own capacities, in which way my understanding of the discipline that I have been cultivating for the last years has evolved after this period of hard study. I guess that it is of importance as well how it all might have transformed me. If these general pedagogic criteria can be universally accepted, according to these basic parameters I should be then perfectly happy with the thesis that I am submitting; for I feel that I know a little more than when I began and I feel therefore better, or vice versa.

Growing in experience and in skills entails a good deal of personal effort (often all alone), and a considerable engagement which not always points to a clear result. Yet, whatever investigation, all the more if the kind hereby, is unconceivable out of a granting and promoting institution; almost impossible, indeed, without the support of colleagues, experts, and other points of view. So I should like to express my sincere gratitude to the Università degli Studi di Cagliari for having trusted me and my project from the very beginning. Regardless of being a small insular university in southern Europe, the University of Cagliari has furnished me with all kinds of facility so as I could carry out my investigation in the best possible way. It is in this manner that my work is known among the leading scholars who have dealt with the subject-matter of this thesis, and it also only in this way, with the badge « University of Cagliari » broached on my chest, that I have had the chance of presenting and sharing my project in places like Paris, London, Lisbon, or Athens. Likewise, I cannot be but really thankful to the University of Cagliari for having supplementary funded a learning stage at the CeDoPaL, Université de Liège, in Belgium. This period as a trainee yielded a fruitful exchange and supposed a considerable step further when I was in the midway of my research; hence, no doubt, I owe all my gratitude to Madame Marie - Hélène Marganne and to
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I have addressed right here to a number of persons to whom I have been meeting and seeing more or less frequently for the past three years. Yet fortunately the sayable is not bounded to the visible. I would like to devote the final part of these acknowledgments first to the people who actually I have not seen but have helped me “to londonise” my work on the Anonymus Londiniensis. By this I wish to thank Amanda Hawley for having revised the English in the commentary, as well as to Sir Jolyon Patten for having gone over the English in the critical chapters. I am heartily appreciated to both, since their respective works have dramatically improved the quality of mine. Secondly, I am also indebted to Dr. Michiel Meeusen and to Dr. Roberto Lo Presti, from King’s College (London) and Humboldt Universität (Berlin) respectively, for having accepted to read the first draft of this dissertation, and for having given a positive assessment despite it being full of mistakes of all kind. Thirdly, I ought and I wish to thank those whom I have not seen as much often as I would. I send an embrace to my dearest friend Pawel Odyniec who, from the cold distant
Uppsala, has stoically stood and shared many of my tribulations; as usual, his wit advice has opened my eyes from my own blindness several times. My last words of acknowledgement are for Mary, Madre, and Julia’s family for their unconditional acceptance of the author of the pages that follow as he is, and above all, for conceding that the time and the commitment that I have put in this dissertation might have been as significant as they are to me.
**List of Abbreviations and Signs**

1. **List of Signs Used in the Transcription of the Greek Writings in the Anonymus Londiniensis**

   … illegible letters whose number can be guessed to some extent.

   \( \alpha \beta \gamma \) traces of a letter, uncertain reading.

   † † letters or words which have not been deciphered satisfactorily.

   [ ] lack of some letters whose number cannot be inferred.

   [±4] lack of some letters whose number can be inferred.

   ] [ lacuna in the beginning or at the end of a line.

   [\( \alpha \beta \gamma \)] letters restored by the editor.

   [\( \alpha \beta \gamma \)] letters or sentences eliminated in the papyrus by the scribe himself.

   \{\( \alpha \beta \gamma \}\} letters the editor eliminates as a result of a mistake by the scribe.

   <\( \alpha \beta \gamma \)> letters omitted by the scribe according to the editor.

   (\( \alpha \beta \gamma \)) resolution of a word which appears abbreviated in the papyrus.

   \( \backslash \alpha \beta \gamma / \) marginal or interlinear addition by the scribe.

   | end (or beginning) of a line.

   || end (or beginning) of a column.

   I, II, III etc. column number.

   ⌀ diple obelismene (forked paragraphos).

   ___ paragraphos or letters underlined by an extant paragraphos.

2. **List of Other Signs and Abbreviations Used Elsewhere in the Dissertation**

   The abbreviations for the titles of Hippocratic and Galenic treatises are given according to:


   The abbreviations for Plato’s dialogues and Aristotle’s treatises have been respectively drawn from pages XXXIII and XIX (Epigraph I: « Authors and Works ») in H. G. Liddell, R. Scott, *A Greek - English Lexicon* (with a Revised Supplement), Clarendon Press, Oxford 1996.
add.: stands for « addition ».

Anon. Lond.: stands for « Anonymus Londiniensis » in two major senses, the writing on the verso and the two additional notes by the same hand on the recto of P. Brit. Lond. inv. 137 = MP³ 2339, or else for the papyrus itself.

BC: stands for « before Christian era ».

c.: stands for « circa, approximately ».

CE: stands for « Christian era ».

Cfr.: stands for « confer ». By this the reader is invited either to check or to compare what is said with the text indicated next.

ch.: stands for « chapter(s) ».

CMG: stands for « Corpus Medicorum Graecorum ».

CML: stands for « Corpus Medicorum Latinorum ».

Col(s).: stands for « column(s) ».

Col. I, 1; col. I, 3 – 4; cols. I, 3 – II, 4: way to express particular passages (by means of columns and lines) in the Anonymus Londiniensis.

Comment.: stands for « Commentary » on the contents in the Anon. Lond. that comes after the translation into Italian.

CPF: stands for « Corpus dei Papiri Filosofici Greci e Latini ».

DK: stands for « H. Diels, W. Kranz, Die Fragmente der Vorsokratiker. ».

e.t.c.: stands for « et cetera ».

e.g.: stands for « exemplum gratia, for example, by way of example ».

ff.: stands for « following, onwards ».

fr., ffr.: stands for « fragment(s) ».

i.e.: stands for « id est, that is, that is to say ».

infra: stands for « below ».


Li.: in a reference to a treatise of the Corpus Hippocraticum stands for « É. Littré », the first to undertake the modern edition of Hippocrates.
(abc) : apposition or supplementary information.

(...) : in the translation into Italian it stands for a gap in the text of which no translation can be given.

(«…»): translation borrowed from an extant translation.

« abc »: reported speech, literal quotation, or definiens in a definition.
I. 1 Text on the Recto of the Anonymous Londinensis with an Italian Translation

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II.1 [...] per il [...] è un impulso eccessivo, e
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rappresentazione di un bene, tra cui il piacere (...) essere piacevole (...) piacere (...) godim (...) come (...)

III.1 tαγαθὸν' ἣ τε λύπη καὶ φόβος κ(αθ’') ὡς ἂν'κακοῦ φαντασίαν γ'(νοιαστα), ὅν μ(ἐν) φόβος
<κ(αθ’')> ὡς ἂν κακοῦ προσδοκίαν γ’(νερα) φοβούμεθα|γ’(άρ) προσδοκόντες τὸ κακὸν. 'Η δὲ λύ’
5η κ(αθ’’) ὡς ἂν κακοῦ παρουσίαν λυπούμεθα γ’(άρ) ἐπι τοῦς παροῦς κακοὶς. Καὶ ταῦτα—τὰ μ(ἐν) ὕπτως. Πάθος δὲ λεκτέων (ἔναι) σωματικὸν {[(ἔναι) σωματικὸν} διάθεσιν εὐμόμος|κατὰ κίνησιν ἣ
ехέζειν. Τὸν δὲ σωματικὸν παθῶν ἢ μ(ἐν) ἔστι τεταγμένα, ἢ ἄτακτα. [Καὶ ἄτακτα μ(ἐν) ἔστι τα
πάθη τὰ ἄλλατα ἄλλως λυμένα,]ὸ[ν] ὡς μ(ἐν) [κ(τ’)] ὄ[λ]γλιον, ποτὲ ὡς ἄθρως. Τὸν θέται
tεταγμένον [η(ων)] παθῶν ἢ μ(ἐν) ἰδίως λέγεται|πάθη, ἢ ἄτομομα. Καὶ ἰδίως πάθη15 ἔστιν
τεταγμένα τὰ κατ’ ὄλγον λυμένα. [Τὸν δὲ νοημάτ(ον) ἢ μ(ἐν) ἔστιν ἰδίως νοημάτα,] ἢ ἄτομο
μέταμένα. Καὶ νοημάτα μ(ἐν) ἔστιν ἵμαπονες τὰς κ(τ’)εκεφάλεις ἔχοντα|περὶ τὰ εὐμάτα ὑποληπτοὺς τε χρόνουν [20 ἐφόρ领导下 τις λύςεως κατ’ ἐλάχιστον(ν)]. Καὶ γὰρ νοημάτα εἴρηται ἀπὸ τοῦ [ἀπὸ τοῦ] ἐννενεοσεκεύεται περὶ τὰ εὐμάτα, ἢ καὶ ὅτι διὰ τὸ τεταγμένον πάθος τοῦ νοηματο(ε)’, καθ’ τὸ μ(ἐν) πάθος κατ’ ὄλγον τὴν λύμεν25 λαμβάνει, τὸ δὲ νόημα κατ’ ἐλάχιστον. Τὸ μ(ἐν) γ’(άρ) ὄλγον ἐκ πολλῶν ἐλαχίστον|εὐνέτηκεν, τὸ δὲ ἐλάχιστον μέρος|οὐκ ἔχει, ὡς νόημα (ἔστιν) εἰρημένον. Ἐρρύσθημα δὲ τὸ σύν τοῦ κ(τ’)εκεφάλεις ἔχον[ν]30 περὶ τὰ εὐμάτα ἐτι καὶ παραπρήθησα τὴν ἁράμοις(ν) ἀπὸ τοῦτον γ’(άρ) καὶ εἴρηται ἄρρυσθημα. Διαφέρει δὲ νόημα|νός καὶ ἄρρυσθημα ἄρρυστα: νός μ(ἐν) γ’(άρ) (ἔστιν) ἐμμονος κατακεφαλὴ περὶ μέρος35 τοῦ χρόνους ὑποληπτοὺς τε τῆς λύςεως ἐχοῦμα, νός δὲ ἐμμονος κατακεφαλὴ περὶ ὄλον τοῦ εὐματος τῆς λύςεως(ε) ὑποληπτοὺς ἔχουμα χρόνουν. Λέγεται|τε νός
διής, κοινὸς τε καὶ ἰδίως|40 κοινὸς μ(ἐν) πάν ραφ’ φύσει πάθος, καθ’ ὁ σημαίνομεν καὶ ὁ παρέτετο λέγοιτ’ ἄν νόςς, ἰδίως δὲ ἐμμονος κ(τ’)εκεφαλὴ περὶ τὰ εὐματα τῆς λύς[εως] ύπολ
ληπτοὺς ἔχουμα χρόνουε. [Ἀρ]45[π ἐ]τα τε ως ὁμοίως| λέγει(ται) εἰς τα όμοιον: λέγε(ται) εἰς τα γ’(άρ)]]

il bene. [D’altra parte, gli stoici considerano] il dolore e la paura come derivanti da una
rappresentazione di un male. Tra queste la paura sorge perché ci si aspetta che possa verificarsi un
qualsiasi male. Il dolore si forma per la presenza di un male, infatti ci lamentiamo per i mali
presenti. E così stanno le cose [per quanto riguarda le affezioni dell’anima].

Si deve parlare ora della cosiddetta affezione corporea, di una tale affezione corporea
bisogna dire che consiste in un'opposizione del corpo secondo il movimento o la quiete. Tra le
affezioni corporee ci sono, ancora, leordinate e le disordinate. Disordinate sono quelle affezioni che
guariscono ora in un modo ora in un altro, per esempio, talora poco a poco, talora d’un tratto. Tra
quelle ordinate, ancora, vi sono le affezioni propriamente dette e quelle patologiche. Se le affezioni
ordinate stricto sensu vengono considerate in questo modo è perché guariscono poco a poco. Tra le
malattie, addirittura, vi sono i morbi e le infermità.

[Le affezioni] patologiche sono quelle che contengono i principi patogeni che in [contatto]
con i corpi comportano, in precisi momenti, una diminuzione della salute. Quindi, d’ora in avanti,
ogniqualvolta si parlerà della ragione per cui i corpi si ammalano, si dirà che ciò accade per via di
quella affezione che è stata qualificata come patologica, anche perché basta poco tempo per
ristabilirsi dalla affezione ma ne basta ancora meno per liberarsi dall’agente patogeno. [Comunque],
per il fatto che il “poco” viene costituito da un gran numero di “meno”, e questi non hanno parti
ancora più piccole, si è detto [abbastanza sull’ affezione] patologica.

Un linguaggio è quello [che capita] quando i corpi si trovano a contatto col principio
patogeno, o per dira così, quando [quel principio] intacca il vigore dei corpi; ed è appunto per
questo che bisogna indagare sul linguaggio. L’agente patogeno è diverso dalla malattia come il
linguaggio lo è rispetto alla infermità. Il principio patogeno è « quello che a volte si installa in
qualche parte del corpo fin quando [il corpo] riesce a ristabilirsi », mentre la malattia è « quello che

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a volte si appropria del corpo nella sua completezza sin quando il recupero ha luogo». ‘Malattia’ ha due accezioni, una comune e una specifica. [Nella sua accezione] comune [per ‘malattia’] si intende ogni affezione contronaturale, ciò che si intende quando si dice [per esempio] che la febbre è una malattia. [In un] senso specifico, invece, [‘malattia’] si dice della costituzione persistente nei corpi con tempi di remissione opinabili. Altrettanto [capita con il termine] ‘debolezza’ poiché [esso] si dice anche


Αἰ[τιο]λογικὸς.
Νόσος.

20Περὶ τοῦ προκείμενον δὲ προλαβείνως κοινότερον τοὺς ὁνόμασι π(ρος)χρωμαθ(α) νόσους ἢ πάθη λέγοντες: τὰς γιαρ τοῦτ(ον) διαφοράς γνώσις καὶ ἐν τοῖς προγεγραμμένοις. Στάσις δὲ περὶ τοῦ ἐκκείμενου· οἱ μὲν γ’ (ἀπὸ) εἶπον γ’ (νος) θ(α) νόσους παρὰ τὰ περικούματα τὰ γνώμενα ἀπὸ τῆς τροφῆς, οἱ δὲ παρὰ τὰ στοιχεῖα. Καὶ οἱ μὲν γ’ (ἀρχικῶς) καὶ οὐκ ὑποθέμενοι ταῖς περικούματα τὰ γνώμενα ἀπὸ τῆς τροφῆς, οἱ δὲ παρὰ τὰ στοιχεῖα. Καὶ οἱ μὲν γ’ (ἀρχικῶς) καὶ οὐκ ὑποθέμενοι ταῖς περικούματα τὰ γνώμενα ἀπὸ τῆς τροφῆς, οἱ δὲ παρὰ τὰ στοιχεῖα.

Εὑρίσθη τὸν γ’ (ἀπὸ) τὸν Κνίδιος οὗτος τίς ἀποτελεῖσθαι τρόπον τοιοῦτον;— Ὡς τὸν κοιλιά, φ’ (περί), τὴν λεφθεισάν τροφὴν μή ἐκπονήθη, ἀπογεννᾶται ἑκατέρω μέρος, ὁ δὴ ἀνεγερθείνατ’ ὑπὸ τοῦ κατὰ τὴν κεφαλῆς τὸν τόπον ἀποτελεῖ τὰς νόσους· ὅταν μὲν (ἔντο) γελαστή καὶ καθάρτ’ ὑπ’ (ἀρχη) ἡ κοιλιά, διόντως γίνεται ἡ πέμυε· δ’ ἔλαβαν δὲ μὴ ἢ τοιαύτῃ, ὁδὸν συν—κομβίζω [τ]’ ὡς προκείμενα γι’ (νος) θ(α) περὶ τῆς τοῦτον νόσου αἰ(τια)· ἀλλὰς καὶ αὐτὸς κατ’ (μὲν) [τι] οἰνοπορεῖ. ||


[Investigazione] eziologica. Malattie

Per quanto riguarda le denominazioni di ‘malattia’ o di ‘affezione’ si è spiegato che bisogna assumere che le usiamo [nelle loro accezione] più comune. Negli scritti precedenti abbiamo anche menzionato e fatto distinzione tra le loro differenze. C’è dissenso [di opinioni] su quello che XVIII
si crede [essere la causa delle malattie]. Da un lato [ci sono] coloro che sostennero che le malattie si producono per via dei residui che vengono generati dal cibo; dall’altro [ci sono] quelli che [affermarono che le malattie si producono] per causa degli elementi costitutivi [del corpo]. Ora, quelli che supposero che l’origine e il principio materiale delle malattie fossero i residui si attengono a queste ragioni.

Eurifonte di Cnido credeva che le malattie si producessero in questo modo. « Quando il ventre — afferma — non elabora il cibo che si è assunto genera appunto perciò dei residui che col risalire verso certe parti della testa finiscono per causare delle malattie. Per cui quando il ventre si trova pulito e leggero la digestione si svolge come è dovuto, ma quando questo non [è il caso, allora] accadono le cose che si sono date ».

Ciò che dice Erodico di Cnido sulla causa delle malattie in qualche modo si addice


[Erodico] dice che le affezioni si generano per causa del diverso [grado] d’intensità o di debolezza [con cui si danno] questi [fluidi]. Ad esempio quando il fluido acido si produce in eccesso non può allora mescolarsi col poco fluido amaro che, per analogia, dovrebbe esserci;
oppure magari perché [entrambi i fluidi] si trovano sovrapposti. [Comunque] la sproporzione delle combinazioni dei fluidi darà luogo a delle affezioni [patologiche] la cui differenza si trova a seconda delle parti [in cui queste mescolanze si producono].

Ed è appunto per questa ragione che si considera che il fluido amaro diventerà un’affezione [patologica] nella testa, e [per questo motivo si considera pure] che, se in luogo del fluido amaro c’è invece quello acido che si trova a risalire, le affezioni che seguirono [saranno] opposte. Nonostante ciò, [non] è per causa di questi [fluidi] che si verificano le affezioni opposte, ma a seconda dei luoghi in cui si concentri il reflusso [dei fluidi], giacché sarà a seconda che i fluidi convergano verso la testa, verso il fegato ovvero verso la milza che vanno a prodursi le diverse affezioni. La dottrina di Erodico [si basa] su queste [ragioni].

Secondo quello che Aristotele ha rimarcato su questo [assunto] Hippocratico crede che i fiati che emanano infatti dei fiati che quando si levano verso l’alto provocano le malattie; digestione, e in questo modo [si dà] una trasformazione in residui. [Si dà il caso che] da questi residui per causa dell’acido che può essere il cibo che si assume.

che quando circola convenientemente sì dà la salute, eppure è per causa della sua cattiva circolazione che avvengono le malattie.

[Per cui è] giusto [affermare che] noi assomigliamo alle piante perché così come queste attecchiscono nella terra con le loro radici, allo stesso modo anche noi siamo radicati nell’aria per il naso e per tutto il corpo. [Ecco spiegata] la similitudine [che potrebbe] esserci con quelle piante che si chiamano ‘soldati’1, perché esse si spostano per causa dell’umidità radicandosi ora su questo perché è umido ora su quello [perché è umido], anche noi siamo simili a queste piante radicandoci nell’aria; e se siamo in movimento trasferendoci ora qui ora là e di nuovo altrove ciò [si deve], è chiaro, [a quanto] importante sia lo pneuma.

Una volta affermato questo, [abbiamo detto] allora che si generano dei residui e che per naso e per tutto il corpo. [Ecco spiegata] la similitudine [che potrebbe] esserci con quelle piante che attecchiscono nella circolazione che avvengono le malattie. che quando circola convenientemente si dà la salute, eppure è per causa delle malattie. Dunque le malattie si verificano a causa del[l’evaporazione] dei gas, i gas si trasformano in due modi: sia per un caldo sia per un freddo eccessivo; in ogni caso si produce una trasformazione [dei gas] che finisce [per generare] malattie. Ecco ciò che Aristotele pensava su Ipocrate.

Per quanto riguarda Ipocrate stesso, egli dice che le malattie si verificano (…) sulla natura (…)

1 Pista stratiotes (Lattuga acquatica).
per causa dei [fluidi congeniti] in noi — come la bile e il flegma — che per [cause] esterne del tipo delle ferite, dei dolori, di un raffreddamento oppure di un riscaldamento eccessivo; perché le malattie, ancora, si generano per un raffreddamento o per un surriscaldamento della bile e del flegma.

Come afferma Ippocrate, tuttavia, le malattie si producono sia per causa dell’aria sia dei regimi [alimentari]; per cui si deve fare fronte a queste cose e devono essere spiegati. Allora, dice [Ippocrate], si dovrà supporre che la causa [della malattia] è l’aria quando sono molti quelli che allo stesso tempo cadono nelle mani della stessa malattia; infatti è toccato [loro] contrarre la stessa malattia. Quando le malattie sono molteplici e di diverso tipo si dirà, ovvero se ne inferirà, che i regimi [alimentari] ne sono la causa, perché non si fa una vita sana. A volte pertanto la stessa causa produce varie malattie e di diverso tipo.

La plebora predispone alla febbre, alla pleurite e all’epilessia; per questa ragione si deve ammettere che è l’accumulazione [quello che] genera l’affezione e le malattie dei corpi. Tuttavia non di tutti i corpi, giacché se la causa fosse solo una ciò porterebbe indefettibilmente verso un’unica malattia; ma come abbiamo detto prima, ve ne sono molteplici e di vario tipo, e di nuovo cioè perché le cause sono diverse tanto che si producono tante [diverse] affezioni.


A costoro [Aristotele e Ippocrate] segue Alcamae di Abido, il quale afferma che le malattie si producono, nel modo in cui Aristotele opina in base a questo [assunto], ossia dai residui che risultano dal cibar–


Quando non c’è buona salute le malattie sopravvengono perché le vie d’evacuazione della testa si trovano ostruite. Sicombe si trovano ostruite per il fatto che non c’è un’uscita — dice — il residuo [escrementizio] rientra verso i luoghi della testa dove era rimasto sino ad allora, e col rimanere lì diventa un liquido salato e amaro. È per il fatto che si trattiene per un tal lungo tempo laddove fu elaborato che questo liquido può scendere e versarsi in una qualciasia parte, poiché ciò che comporta le diverse malattie [dipende] dalla parte in cui questo [versamento] ha luogo.

In questo modo, quando capita ciò [Timoteo] dice che questo fluido è avviato verso la trachea —o quel che è lo stesso, la laringe —, e la inonda, il che può portare all’huiessa o, per farla breve, [a quella sensazione che uno ha] quando la vita se ne sta andando. Timoteo di Metaponto afferma che la testa si può ammalare per un raffreddamento eccessivo, per un riscaldamento eccessivo oppure per un colpo.

Abas sostiene che le malattie si producono per causa delle evacuazioni del cervello. Il cervello si purga tramite gli orifizi del naso, delle orecchie, degli occhi e della bocca. La salute o la malattia si danno a seconda delle differenze di quantità delle evacuazioni. [In questo modo,] se la purga si dà molto di rado ciò [vuole dire che] l’essere vivente gode di buona salute; mentre se sono eccessive vuol dire che si è ammalato. [Abas] dice pure che a causa di queste evacuazioni si producono cinque [tipi di] catarri.


(…) catarri (…) cleodo (…) stessa (…) due diss (…) per (…) quando il corpo san (…) le malattie (…) i corpi (…) prend (…) gli eccessi ma in (…) e le malattie (…) in eccesso malat (…) e raffreddamento

XXIII
Erodico (…) le malattie (…) esserle per (…) e la causa del dolore (…) che possa avere il (…) cibo, la (…) i corpi che (…) natura crede (…) che i corpi hanno (…) natura (…) malattia contronaturale (…) è disposto contronaturale (…) la medicina (…) che si mette affianco (…) natura porta queste cose (…) l’uomo (…) la medicina (…) portarlo verso quello che è naturale (…) in questo modo. Quello che (…) caldo e (…) si producono delle malattie.

Ninyas l’Egiziano (…) prodursi delle affezioni congenite (…) e le congenite (…) essere. Per altra causa (…) le malattie di tal tipo (…) il cibo che si è assunto non (…) ma rimane, il caldo per lungo periodo (…) da sè stessa si produce (…) 

[ mancano una o più colonne]

X [ lacuna di circa 26 righe]  

 della malattia (…) essere (…) non per (…) il dolore (…) che si (…) trasformare (…) fred 

XI.1 [ lacuna di circa 5 righe ]  

 (…) o il fluido (…) salato (…) i reni (…) il caldo (…) il gran (…) rossa (…) del genere (…) il sangue. La nera (…) sedimento dell’urina (…) sangue (…) ha una localizzazione (…) 

In accordo con la nostra stessa natura, sostiene Ippone di Crotone, c’è in noi un’umidità grazie a cui percepiamo e viviamo. Un essere vivo gode di buona salute sempre che abbia quest’umidità, ma quando si dissecà, allora, diventa incapace di percepire, muore. Questa è la ragione per la quale gli anziani appassiscono e non percepiscono, giacché hanno carezza umidità. 

In base a questa ragione afferma queste cose, [per esempio] e analogamente, che le piante dei piedi sono insensibili per causa dell’esserle sprovviste di umidità. E fin qua [arrivano] le cose che dice [Ippone]. In un altro libro lo stesso autore dice che la suddetta umidità si trasforma tramite un caldo eccessivo oppure un freddo eccessivo, ed è in questo modo che sopravvengono le malattie. Quest’umidità si trasforma, assicura, fino a diventare completamente liquida, o sino ad asciugarsi.
del tutto, oppure si fa più densa oppure più leggera o nel resto [dei modi possibili]. Ed è così che [Ippone] spiega la malattia, per quanto non enumeri le malattie che si verificano.

Trasimaco di Sardi dà per certo che il sangue sia la causa delle malattie e che sia per via della sua trasformazione


che le malattie si producono. [Il sangue] si trasforma per causa di un raffreddamento eccessivo oppure di un riscaldamento eccessivo. La trasformazione del sangue risulta in flegma, bile o materia purulenta. Il sangue è semplice; la bile, il flegma e il pus sono invece di tipo diverso, [ed] essendo essi di diversi tipi [a essi] seguono molteplici e diverse malattie.

In modo praticamente uguale, dice [Aristotele], Dessippos di Cos crede che le malattie si verifichino per causa dell’azione dei residui del cibo — cioè della bile e del flegma — che si producono tanto nelle parti che nel insieme [del corpo] al non agire più per sé stessi ma a seconda dei diversi apporti impropri dell’alimento; cose queste che fanno ammalare. [I residui] si modificano addirittura a seconda della loro quantità, del luogo [dove si trovino] e dei[l loro] tipo; anche l’eccesso di tutti questi [principi fa ammalare]. Ugualmente uno [si ammala] per il calore, per il raffreddamento o per cose simili a queste. Quanto a ciò, dunque, [la posizione di Dessippos] è molto vicina a ciò che per primo [dissero] coloro che indagavano sulle cause, sebbene in ciò [che segue] apparecchiasì ancora più a quegli stessi.

[Desippus] afferma allora che quando la bile e il flegma si mischiano diventano più liquidi, poi finiscono per trasformarsi in umori ed essudazioni vari. Quando questi imputridiscono e si fanno più densi diventano pus, mucosità, muchi (…) quando si asciugano e si solidificano i pori diventano (…) per sé stessi (…) dic (…) al sang (…) qualche (…) si è detto la bile (…) il flegma al mischiarsi col sangue (…) il flegma stesso diventando bianco, quel bianco (…) annerirsi e trasformarsi in bile nera. Ecco qua la dottrina di quello di Cos.
Fasitas di Tenedo dice che le malattie sopraggivano sia a causa dell’emanazione dei liquidi che per natura ci sono in noi, [la quale avviene] con lo stagnarsi e distribuirsi questi verso luoghi [che sono a loro] impropri; sia per causa delle escrecenze stesse. [Fasitas] afferma difatti che ci sono in noi per natura dei liquidi, sebbene non menzioni tali liquidi (…)
XIV.1 [...]tην τροφήν π. [...] [...]
[... ± 11... ± 12... ± 7... ± 5... μ(γ) άπό τ(ων)...]

il cib (…) l’eccesso (…)


Egli afferma infatti che i nostri corpi sono costituiti a partire dai quattro elementi per dissoluzione così come capita con gli [altri corpi] nell’universo (…); bisogna fare distinzione [tra] queste cose: la capacità di dissolversi, di mischiarsi e di combinarsi simultaneamente. La dissoluzione — anche la capacità di fondersi — si dà quando [diversi] corpi, assolutamente per sè stanti, giungono a diventare un’unica qualità superiore; come [accade] con il tetrafarmaco. La mescolanza si dà quando questi stessi corpi rimangono adiacenti per giustapposizione, ma senza arrivare a diventare [uno solo], come capita con un fascio di grano o d’orzo. La fusione si dà ogniqualvolta ci siano dei corpi affiancati i quali vengono a fondersi gli uni agli altri, come vediamo che capita col vino mietato. E giustappunto per via della differenza che c’è fra queste [mani]ere di mischiarsi] Platone afferma che i nostri corpi sono costituiti dai quattro elementi, in base alle loro [rispettive] capacità di mischiarsi simultaneamente.

Alla luce di questa differenza non sembra [che sia] per uno solo [degli elementi] in noi — il fuoco, l’aria, la terra oppure l’acqua a seconda della loro capacità di dissolversi — che gli esseri viventi arrivano a generarsi, perché Platone afferma che la differenza che [v’è fra] alcune delle parti del nostro corpo [si deve al modo in cui] sarebbe stabilita la compenetrazione a partire dagli elementi. La testa o la mano non sono affatto mescolate allo stesso modo, ma in un certo modo la testa e in un altro il torace, visto che in generale ciascuna delle parti del nostro [corpo] risulta da una combinazione diversa, la quale produce le differenze tra di esse.
Addirittura [Platone] afferma che il midollo è costituito a partire dai quattro elementi, e che esso è [la parte] più importante tra tutte quelle che ci sono in noi; [Platone lo afferma] usando queste convincenti dimostrazione: visto che l’anima che amministra tutto il corpo è connessa al midollo

XV.1 [mancano due righe]...[κυριωτ[5καί μήν τ[καί...[νοστή][

καιναί]τε[


(…) più rilevante (…) anche (…) e (…) ultimo (…) elementi stess (…) e allo stesso tempo (…) come deve (…) con (…) dice per second (…) elementi dev (…) elementi han (…) è costituito (…) degli intestini e (…) di questi alcune parti che si sono dimostrate (…) in particolare (…) diverso rispetto alla forma trasmessa. In questo modo, la figura del cervello risulta essere più piana nella base e smussata nella periferia; il resto, dal midollo (…) hanno con le ossa che ci sono dietro. Così, [le] parti dell’anima stessa sono quella chiamata razionale (…) [nel] cervello è dietro (…) parte della stessa nel midollo spinale. [Platone] dice che le ossa sono costituite da terra pura e da midollo, che il fuoco conficcò (…) La carne è costituita dalla terra, dall’acqua, dal fuoco e da qualche tipo di lievito in un liquido salato e acido. Nella sacca si è immischiato un liquido caldo, [e] questo nei riscaldamenti eccessivi, fondendo rin fresca il corpo, nei raffreddamenti eccessivi vi si oppone e mantiene il corpo caldo. Le parti più carnose [si trovano] intorno alle ossa meno animate. I gemelli e i glutei rientrano fra le [suddette] parti per il fatto che sono molto carnose e perché [ricoprono] le ossa che sono meno animate. Intorno alla tes-
XVII.1 A proposito dell’anima afferma che ha tre parti, di cui una è quella razionale, l’altra è quella desiderativa. La razionale la pone intorno al cuore — non lontano da dove fu collocata quella < ένωτος ροτούτου καὶ ἄνωκοι>. Il cuore è immagazzinamento dei residui. Intorno a questa si origina l’intestino crasso, che si ritorce affinché articolazioni si sono prodotte affinché τούτου καὶ τῆς κεφαλῆς τόπους. E’ eufemismo γ(άρ)ο[ν]τοι π(ρός) παραδοχὴν τοῦ ἦγαμο(ν)κ(πΟ) [Τὸ] δὲ θυμικὸν ἔταξεν περὶ τὴν καρδίας. 40[ού] π(όλ)εμο μ(έν) τεταγμένον τοῦ λογικοῦ, [υπ]ερταταγμένον τοῦ τοῦ λογικοῦ, [ίν]α δὴ καὶ ὕπθικο<νον> αὐτῶι γ(η)ται. Tὸ μ(έν)τοι<ν> ἐπημηνήτου>κ(ιν) ἔταξεν μεταξό διά[φρα]γματος καὶ ὀμφαλοῦ.

Εἴπετεςιν|45[δὲ] τὸ ἥπαρ τῇ ἐπιθυμίᾳ κάτοχον, ἵνα ||


Platone crede che le ossa sono rese solide [al fine di] garantire il supporto [del corpo]. Le articolazioni si sono prodotte affinché si possano dare le contrazioni e i piegamenti delle [ossa] stesse. A queste le ossa sono legate dai nervi nelle loro [parti] esterne più fini che permettono i movimenti volontari. Le carni servono di protezione contro il freddo degli inverni e il caldo delle estati. I nervi si sono costituiti da una combinazione peculiare delle ossa con la carne senza lievito.

Per quanto riguarda le vene ve ne sono due, una di fianco all’altra. Una va a destra e l’altra va a sinistra. Fra le due quella che va a destra finisce arrotolata intorno a certe parti ramificate [della vena] che va a sinistra, e [la vena] che va a sinistra [fa altrettanto rispetto alla vena che va] verso destra. Ci sono due cavità, una su e l’altra giù. Quella inferiore ha a che fare con l’immagazzinamento dei residui. Intorno a questa si origina l’intestino crasso, che si ritorce affinché l’alimento si trattenga lì per un certo tempo e in questo modo [esso] non venga assorbito con facilità. Allo stesso modo in cui i corsi d’acqua che scorrono diritti non possono trattenersi nei loro letti, mentre quelli di correnti tortuosi sono più miti perché sono trattenuti; così, se l’intestino che si trova nella cavità inferiore fosse corto e retto allora l’alimento si sposterebbe [troppo] facilmente. Ma si dà il caso che è attorcigliato e che addirittura è molto lungo affinché l’alimento debba rimanerci per un lungo periodo. E queste sono le cose [che Platone sostiene] per quanto riguarda il corpo.


XXIX

i desideri (...) il polmone vicino al cuore, la natura spugnosa i (...) in quanto si trova sempre in movimento [la natura del] cuore, dice, non può essere che cangiante. Afferma [che il cuore è] ciò che (...) quindi malatt (...) lo stesso si ammala con (...) [quando] gode di salute, recupera la salute giunto a (...) verso quello che si trova in conformità con la natura. E queste sono le cose [che Platone afferma] sull’animà.

[Platone] crede che le malattie sorgono in tre maniere: o a causa degli elementi, o della formaazione dei corpi, oppure a causa dei residui di essi stessi.

Le malattie si producono per causa degli elementi quando [essi] si danno in eccesso o perché subiscono qualche tipo di trasformazione, sia perché si insediano [in un luogo del corpo] improprio. Così, dunque, quando gli elementi si danno in eccesso, oltre quel che è dovuto, c’è predisposizione alle malattie a causa dell’eccesso. E dall’altro lato, quando [gli elementi] oltrepascono le forme che sono loro proprie, ciò pure produce malattie; o, allo stesso modo, il fatto che si formino in luoghi non appropriati, poiché, qualora [si formino elementi] in un luogo inopportuno per questa [ragione] sopravvengono ugualmente malattie. (...) Ed è in questo modo come si costituiscono le malattie per causa della disposizione [in cui si trovino] gli elementi.


Le malattie si costituiscono per causa dei residui in tre modi: per i flussi d’aria che si staccano dei-

XXX
La prova di questo è che entrambi neanche ne partecipa il luogo in cui si produce il versamento dello sperma, per cui si rende evidente somigliare Platone a proposito [delle] malattie. Infatti egli non pensa che la bile sia stata assegnata al fegato ma che la bile sia un ἔναμα τῶν μυελίων. L’utero è per sé ancora più caldo per il fatto che è per sé espellerla di continuo.

Filolaod di Crotone afferma che i nostri corpi sono stati formati [a partire dal] calore giacché [i corpi] non partecipano [assolutamente] del freddo, e per prova [egli] adduce evidenze come queste. Lo sperma è caldo, essendo questo [calore] quello che costituisce [qualunque] essere vivo. È caldo, anche, il luogo verso cui si versa [lo sperma]. L’utero è per sé ancora più caldo per il fatto che deve ospitare quei [fluidi vitali, e] quello che è in grado di ospitare qualche cosa deve somigliare a quello che ospita. Quindi, quello che costituisce l’essere vivo non fa parte del freddo e neanche ne partecipa il luogo in cui si produce il versamento dello sperma, per cui si rende evidente che la stessa [mancanza di freddo] è infatti quello che genera un essere vivente [qualsiasi].

La prova di questo è che entrambi² risalono alla stessa [mancanza di freddo]. Ed è per ciò che subito dopo la nascita, dice, [quando] l’essere vivente prende l’aria dal di fuori, che è freddo, si vede allora costretto a espellerla di continuo. Perciò v’è una voglia dell’aria dal di fuori affinché quando si attira l’aria, i nostri corpi — che sono caldi — siano raffreddati dall’aria stessa. Ciò è quello che dice [Filolaod] sulla struttura dei nostri corpi.

Egli sostiene che le malattie si producono per causa della bile, del sangue e del flegma; che questi costituiscono il principio delle malattie. Egli afferma che il sangue si coagula quando si trova oppresso al suo interno dalla carne, ma che è fluido quando i vasi [sanguigni] nella carne si rilassano. [Filolaod] sostiene che il flegma si forma dalle piogge e afferma che la bile risulta dai sieri della carne. Come mai lo stesso personaggio [attribuisce] queste cose a quelle in questo modo paradossale?³ Infatti egli non pensa che la bile sia stata assegnata al fegato ma che la bile sia un siero della carne. Il medesimo [Filolaod] dice che il flegma è quello che per natura è la cosa più

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² Cioè, un essere vivo qualsiasi e il modo in cui esso viene generato.
³ Perché lo stesso personaggio mette in rapporto cose così paradossali?


4 La lingua greca permette un gioco di parole tra « flegma » (φλέγμα) e il verbo per « bruciare » (φλέγων) che non si lascia riprodurre in italiano.

Polibo non pensa che i nostri corpi si siano generati a partire da un unico elemento, ma da diversi che hanno la stessa natura; [i corpi si generano] a partire dall’umido e dal secco, dal freddo e dal caldo. Questi non si danno separatamente, ma sono combinati con moderazione; le malattie accadono quando uno di questi elementi eccede un altro. In secondo luogo [Polibo] afferma che la mescolanza [che costituisce] i corpi è a base di sangue, flegma, bile gialla e nera. Per (...) di questi oppure uno di questi (…) trasformazione ovvero secondo lo stess (...). della combinazione per natura (…) per la quale il corpo si allontana (…) si producono le malattie. Quindi l’ammalarsi [si produce tanto] per il fatto che [gli elementi] si allontanano da [certi] posti che [per] i luoghi verso i quali si trasferiscono [gli elementi].


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Quando [ciò accade] allora sono espulsi dai nostri corpi piccoli ascessi e infiammazioni; per l’eccesso di flegma si generano pure diversi [tipi di] catarrri. [Mencrate] afferma che quando [il flegma] invecchia nel corpo (…) verso dove va il flegma lo (…) in conseguenza di essere rimasto in quiete si genera una bile rosso fuoco. Per il [fatto che] è rimasta in quiete e che è invecchiata questa stessa [bile rosso fuoco] diventa bile nera. Se per causa dell’essere invecchiata capita che [la bile nera] arrivi a un tal eccesso che si accumula li dove si trova, non importa in quale posto in particolare, da ciò, dice [Mencrate], non ci si aspetta nulla di buono. Dunque in questo modo [la bile nera eccessiva e invecchiata] che si è trasferita all’articolazione dell’anca produce la malattia della sciatica, al polmone la polmonite, sopra le costole produce la pleurite, quella che si è trasferita verso le vescere scatenata delle febbri etc. Queste


e tante [altri] diverse affezioni sono quelle che insorgono.

Filistione crede che siamo stati costituiti dalle quattro forme visibili, cioè, a partire dai quattro elementi; dal fuoco, dall’aria, dall’acqua e dalla terra. Ciascuno di questi ha una proprietà, quella del fuoco è il caldo, quella dell’aria il freddo, quella dell’acqua l’umidità, quella della terra la secchezza. Perciò le malattie che si producono [sono] così diverse, ma per quanto riguarda il loro tipo viene detto che in generale [le loro cause] sono tre: per causa degli elementi, per causa della disposizione dei corpi, o per cause esterne.

[Le malattie si producono] per causa degli elementi quando si danno calore e umidità in eccesso, ovvero quando il calore diventa così insufficiente da essere appena percettibile. Le cause esterne [per cui si verificano le malattie] sono tre: per causa di ferite e piaghe; per causa dell’eccesso di calore, di freddo e simili, o per causa della trasformazione dal caldo al freddo o dal freddo al caldo; oppure [per la trasformazione] dal cibo ad alimentio improprio o in cattivo stato.

[Le malattie si producono] per causa della disposizione dei corpi in questo modo: [Filistione] dice che v’è salute a patto che tutto il corpo inspiri l’aria come freddo o esterno [per cui si verificano le malattie] sono tre: per causa di ferite e piaghe; per causa dell’eccesso di calore e umidità, o per cause esterne. [Le malattie si producono] per causa di ferite e piaghe; per causa dell’eccesso di calore, di freddo e simili, o per causa della trasformazione dal caldo al freddo o dal freddo al caldo; oppure [per la trasformazione] dal cibo ad alimentio improprio o in cattivo stato.

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le div (…) muoversi (…) le che (…) si nei (…) che si devono (…) le malattie diventano stesse (…) ma noi (…) necessariamente (…) dell’uomo, e anzitutto (…) della combinazione di questa stessa (…) le cause delle affezioni.


Per quanto riguarda il modo in cui questi sono colti dai sensi, a noi spetta dire che nei corpi ci sono delle parti semplici e delle parti composte. Semplici sono le [cose] omeomere; quelle che quando vengono tagliate si dividono in parti [qualitativamente sempre] uguali, così come [accade con] il cervello, un nervo, un’arteria, una vena e i fluidi [del corpo]. Ciascuno di questi è omeomero perché quando è tagliato si separa in parti che [in sostanza sono] uguali. Composte, invece, sono le [cose] anomeomere, ovvero quelle che a seguito di dissezioni si dividono in parti tanto diverse tra loro; come la mano, la testa, il fegato, il polmone e ciascuna di queste. In questo modo anomeomere sono [le parti che] a seguito di dissezioni si separano in parti disuguali. Tra [le parti] semplici, a loro volta, ci sono quelle che [possono] spandersi e quelle che si mantengono sempre come una. In questo senso, dunque, quelle che possono spandersi sono il sangue, la bile, il flegma e in generale tutti i fluidi in noi, (…) l’aria e i simili a questi. Quelle che si mantengono sempre come uno sono non le stesse rispetto alle precedenti. Tra quelle che si mantengono [sempre] come uno si trovano le dilatabili, le solide e rigide, e quelle che non sono né rigide né dilatabili. Dilatabili (…) l’arteria, la vena e quelle che sono


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In questo modo, criticando il medesimo Ερασistrato[4], alcuni affermano in primo luogo che l'appetito non è di nessun vantaggio se non c'è un sostrato corporeo, i cui appetiti servono al sostegno del sostrato materiale, il sostrato materiale 

serve alla sostituzione d'apporto verso i corpi allora emanazione da parte dei nostri corpi, grazie ai quali i corpi esterni per il fatto che [i primi] si mantengono più caldi. Infatti quando i liquidi vengono bolliti, o semplicemente riscaldati, si riducono per via del calore, la causa di ciò è che lo stesso calore che porta [loro] in alto per natura prende con sé buona parte dell'umidità sotto forma di vapore, e allo stesso tempo, quando [i liquidi] diminuiscono [per effetto] dello stesso calore, l'umidità viene portata via sotto forma di vapore. E così [capita] con i [corpi] esterni. E per queste stesse ragioni l'emanazione [che si dà] a partire dai nostri corpi si verifica per via del calore.

È così che i [corpi] che si possono muovere sono pure in grado di esalare delle emanazioni. Perciò, nondimeno, le cose grosse e pesanti difficilmente evaporano, ma quelle sottili e leggere sono invece volatili al massimo grado, come se il movimento fosse la causa dell'emanazione. Infatti, per causa della loro grande massa le fondamenta ricoperte di una casa non producono gran quantità d'emanazione, mentre quelle che sono secche in eccesso ne producono molta di più per via della loro leggerezza, grazie alla quale una gran quantità di polvere si volatilizza, capitando ciò per causa del movimento. Inoltre, è per via del movimento che ugualmente si produce una continua emanazione a partire dai corpi. Se le cose stanno così cioè [significa] che si produce una continua emanazione da parte dei nostri corpi, e se al posto delle emanazioni non avesse luogo [nessun tipo dell']apporto verso i corpi allora questi si corromperebbero facilmente.

Perciò la natura ha dotato gli animali di appetiti, di un sostrato materiale e di proprietà. Gli appetiti servono al sostegno del sostrato materiale, il sostrato materiale [serve] alla sostituzione [della materia persa con] le emanazioni, le proprietà, peraltro, [servono] al mantenimento del sostrato materiale. Infatti, un appetito non è di nessun vantaggio se non c'è un sostrato corporeo, neppure un sostrato materiale presenterebbe alcun vantaggio se non ci fossero delle proprietà che lo mantenessero. Quindi il sostrato materiale si preserva sulla base del cibo e dell'aria, per cui — così come afferma Erasistrato — sono due i principi basilari grazie ai quali si regge l'essere vivente.

In questo modo, criticando il medesimo [Erasistrato], alcuni affermano in primo luogo che non sono solo due
... (si) quindi l’eccesso non (si) necessario. In terzo luogo né esso (si) amministra l’esser vivente, ma che questi stessi sono (si) dalle proprietà (si) contro Erasistrato (si) nel luogo opportuno in ciò che si riferisce a noi (si)...

Visto che quello che genera e fa accrescere il sostrato materiale di un essere vivente è il cibo e lo *pneuma*, bisogna parlare dell’amministrazione di ciascuno [di loro], e in primo luogo di quella dello *pneuma*.


Ma ciò non è affatto straordinario. Siccome un po’ [di quest’aria] viene integrata nei corpi dopo essere stata inalata, allo stesso modo parte [dell’aria] originaria dei [propri] corpi viene aggiunta all’aria [inspirata], a dire il vero la [parte] maggiore, il che fa che l’aria che alla fine viene espulsa sia [quantitativamente] più importante. [Se] l’aria che è presente è fredda [ma esce] calda quando viene espulsa [dal corpo], ciò capita, perché si sposta attraverso dei corpi caldi. Per cui viene detto certamente che la respirazione si produce al fine di soffocare il caldo eccessivo [che c’è] intorno al cuore e affinché i corpi non si compattono col consumarsi.
accorgerà che l’aria è umida, e che questa umidità è buttata fuori assieme all’aria. E [fin qui si è trattato] delle cose che riguardano l’amministrazione dell’aria.


Infatti noi siamo convinti del fatto che il cibo si trasforma nello stomaco finché diventa adatto, perché li ha luogo un secondo processo di digestione e non [riteniamo], come pensarono Asclepiade (quello che prescriveva il vino) o Alessandro Filalete, che il cibo si triti e si liquefaccia solo una volta nel ventre per via di qualche disposizione dello stesso, e non per [il fatto che si trasforma finché può essere] proprio assorbito. Infatti noi diciamo che il cibo si liquefà nello stomaco e che la digestione si produce ad opera di una trasformazione di quello finché diventa adatto [ad essere assorbito], e che [per il fatto che] queste cose si trovano così distese può darsi che [il cibo] sia portato verso parti più calde.

E le cose devono essere così, come capita pure con le acque. Infatti, queste scorrendo attraverso certi luoghi si trasformano assumendo la proprietà di quelle attraverso cui [scorrono], e ciò appunto fa che [le acque adottino] una proprietà [diversa] a seconda dei luoghi per cui scorrono. In questo modo, dunque, se [i luoghi] sono [neri] come il bitume l’acqua diventa nera per azione della proprietà di questi, mentre se sono gialli come il solforo quando si trasformano le acque diventano allora [di un] giallo solforoso. E ciò è così in funzione delle differenze dei posti [attraverso cui scorrono le acque], giacché questi [luoghi] trasformano le proprietà delle acque; e lo stesso vale anche per il cibo.

Questo pertanto (…) quando è portato attraverso posti più caldi (…) nello stomaco e (…) posti o (…)
ha luogo la digestione.

L’assorbimento [dei nutrienti] comincia a darsi nei vasi che salgono dal mesenterio e si espandono verso il ventre, [da lì l’alimento] è poi distribuito per tutto il corpo. Ugualemente \l’alimento\ riesce a passare attraverso gli interstizi che ci sono nello stomaco, una volta [che è] diventato un brodo fumeggiante;\sole\ si può produrre la distribuzione dei nutrienti a tutto il corpo a partire dal cibo crudo, poiché la distribuzione si produce a partire dal cibo crudo.

Ma è appunto inghiottendo il cibo attraverso la bocca che si produce la [sua] distribuzione e la [successiva] assimilazione [dell’alimento] per tutto il corpo. Per tali cose è anche evidente che avviene la cattura sì che la distribuzione (del cibo) avvi in ventre e da cibi crudi. Ed è anche per [ragione di] questo punto che differiamo da Asclepide. Siccome costui afferma che la distribuzione si produce solo da cibi crudi per il fatto che il cibo è crudo, noi diciamo che avvena sia da cibi crudi sia della cattura che avviene in ventre


 Quando l’alimento si trova negli intestini (si veda all’interno [del papiro])⁵ questi presentano dei †passaggi †(…) e perciò l’assorbimento dell’alimento si produce negli intestini. L’[alimento] più leggero e più liquido rimane nell’intestino tenue, quello più secco e spesso nel retto, come se [la stessa] distribuzione [del cibo] si producesse per il fatto che gli stessi [intestini sono due]. Si dice, ancora, che per ragione di questi [due] stessi [intestini] si formano separatamente [due tipi di] residui (…) alimento


Kai o μόνον ἀπότοιτον(ν) ἀνάδος[ς] γ(ήνει) καὶ πρόθεσις, ἀλ(λά) καὶ ἀλάπτο τ(δόν) ἐν τοῖς ἀγγείσ(α) ὑμεῖς παρα[κέμενον(ον)] καὶ ἀπό τῆς ἐν ταῖς φλεγίν παρακειμένης τροφή καὶ ἀπό τῆς ἐν αὐτάρκης ἀπημιμ(ή) γ(ήνει) καὶ πρόθεσις τοῦ διάδοχοματι καὶ ἀποθέσις. O μένγος γε Ἐρασίκτρατος οὖκ οἴηται ἀνάδοσεν γ(ήνει)θ(α) ἀπό τ(δόν) ἀρτηρίον(ν) μή γ(ήρ) αὐτότ. Κ(ατά) φύσεν ἐν αὐτάς αἵμα, τούτο (ἐχτί) τροφή, ἀλ(λά) πνεύμα, ὡς ἕγερ εἰσθαένειν(ος) λόγον, 35δός ἀποδείξεσθαι(εν). Εἰς μ(έν) γ(ήρ) εἰπέρ μη παρέκτειν ἐν [ἀ]ρτηρίας κ(ατά) φύσεν αἵμα, ἐρθηδ[ὴ] δια[μ]ουμέν([ον]) ἀρτηρίων αἵμα μὴ ἀποκρίνεσθαι δὲ γ(ήρ) ὑμεῖς καὶ τροφή ἐν ταύταις. [Πρ[ῶτ]ο] τοῦτο ἀπολογοῦνται οἱ Ἐρασίκτρατος[40θ]είς λέγοντες διότι, διαφέρεις γεν(ομένης) [κατὰ][τὰς ἀρτηρίας, κενοῦτα τοῦ ἀἵμα κάπορ(ει)τῶν ἀρτηρίων, οὐ μή(ν) τ(ει) ἀρτηρίων. Διαφέρει δὲ τὸ διὰ τὸνος κενοῦσθαι ἢ τ(σκ)ότι τοῦ ὑμεῖς ἀρτηρίων, καὶ γ(ήρ) διὰ τ(δόν) 45κρούνο(ν) μή τὸ υδρό, οὐ μήν τ(ει) κρούνο(ν). Ο[ὕπ]τεο καὶ τ(δόν) ἀρτηρίων διαφερείς[ου] δι' αὐτοὺς μὲν κενοῦτα τὸ ἀἵμα, οὐ μὴν ε(ξ) αὐτ(ων) ὅτι γ(ήρ) κ(ατά) φύσεν ἐν ταύταις ἀἵμα: ἥ(τι) δὲ συναντομοῦσα τά δίαιτα μὲν τοὺς ἀρτηρίας(ο)ι β καὶ κενοῦν[γ(ήρ)]θ(α)αι, τοῦ μή δόγασθαι κενοῦν ἄθροισεν ἀπολλεῖςθαι τόπον μετὰ τὴν π(ε)ψήματος κένων(επὶ), δ παρεμπήπτον τὸ α[μ]μ[ε] εκ τ(δόν) ἄλογον εἰς ἀρτήρια(α) δα καὶ κενοῦν [γ(ήρ)]θ(α)αι, τοῦ μή δόγασθαι κενοῦν ἄθροισεν ἀπολλεῖςθαι τόπον μετὰ τὴν π(ε)ψήματος κένων(επὶ), δ παρεμπήπτον τὸ α[μ]μ[ε] τοῦ μή[ν] ἄλογον ἄγγελον(ν), ὅ[ς]ορον δ' (ἐχτί) λια στόματος τοῖς ἀυμιμ(ή) τοις[κε]ς[α]μιμ(ή) τοῖς αὐτ(ων) ὑμεῖς ἄτοι κ(ατά) ζήντες ἢ τριτηθέντες εἰς ὑμεῖς ἀποκρίνουν[ν].

(…) alimento degli animali irrazionali. Dunque per quanto riguarda ciò, quello che rimane dopo la digestione è, da un lato, il cibo degli animali irrazionali. Quando questo viene ingerito si trasforma, dall’altra parte, nella carne di alcuni [animali irrazionali] e fa accrescere il corpo degli stessi.

Per quanto riguarda noi, ci cibiamo della carne degli animali irrazionali come quella degli uccelli e similari, essendo per via di queste che ci nutriamo e accresciamo. Per la stessa ragione viene detto che ciò che risulta dopo la digestione degli esseri umani è il cibo [degli animali

⁵ Questa indicazione si trova nella pagina seguente del papiro e rinvia al lettore (forse lo scriba stesso) a leggere l’aggiunta che si trova scritta sul verso del papiro.
irrazionali]. Se quello che risulta dalla digestione degli esseri umani deve essere [il loro] alimento perché gli animali irrazionali si cibano e accrescono a partire dai [suddetti] residui [e] noi [ci cibiamo e accresciamo] a partire dagli animali irrazionali allora, per lo stesso ragionamento, dovremo dire pure che il legno, le pietre e [le altre] cose di questo genere sono anche del cibo poiché tutto si trasforma in tutto; il che è assurdo. Per cui dovremmo considerare [pure come] alimento i veleni letali del momento che le quaglie che si cibano della cicuta nutrono pure gli uomini.

A prescindere da queste cose, bisogna ribadire che a partire dal cibo crudo si produce nello stomaco la [sua] cottura e distribuzione. [Abbiamo detto che] la distribuzione [dell'alimento si produce] per lo più dal ventre — o dallo stomaco — dagli intestini e dal colon, già una volta fumeggiante, attraverso gli interstizi di questi stessi due e dalla bocca. E non solo è tramite questi che si dà la distribuzione [del cibo] e l’assunzione [dell’alimento], ma anche a partire da quello che v’è nei vasi; dato che la distribuzione si produce a partire dall’alimento che si trova nelle vene, e [la sua] assunzione per tutto il corpo si produce a partire da quello che, [una volta] fumeggiante, v’è nelle arterie stesse.

Tuttavia Erasistrato non pensa che ci sia distribuzione [di nutrimento] a partire dalle arterie, perché allo stato naturale nelle stesse non c’è sangue, cioè nutrimento, bensì pneuma; il che — come dimostriamo — non sta in piedi per una semplice ragione: se il sangue non fosse contenuto naturalmente nelle arterie, sarebbe necessario che quando esse vengono recise non ne scaturisse del sangue; tuttavia esso esce [quando vengono recise]; dunque c’è anche nutrimento [seil. sangue] in esse. Contro tale obiezione si difendono gli Erasistratidi dicendo che, quando c’è una recisione nelle arterie, il sangue viene svuotato e sgorga [attraverso] le arterie, ma non [è emesso] dalle arterie, distinguendo in questo modo tra l’essere svuotato attraverso qualcosa dall’essere svuotato provenendo da qualcosa, come occorre anche nel mondo esterno; come se [dicesero] che l’acqua che scorre attraverso le fonti non provenga certo dalle fonti.

Così anche quando le arterie sono recise, il sangue viene svuotato attraverso le arterie non certo provenendo dalle arterie, poiché allo stato naturale in esse non si trova sangue. Però le vene hanno uno sbocco comune verso le arterie e si forma un vuoto; per l’impossibilità che rimanga un vuoto assoluto dopo lo svuotamento dello pneuma, il sangue, trasfondendosi dalle vene nelle arterie, fuoriesce attraverso le arterie, non provenendo certo da esse.

Ma questa spiegazione è troppo semplice. In primo luogo, dato che i nostri corpi assomigliano ai corpi incomprimibili, come i tubi e le canne, i quali, quando si rompono o vengono perforati, non lasciano fuoriuscire

O(ὐς)ος ἐχρήνι καὶ ἐπὶ τῆς δ[ι]α[ρ]ῆς τεκοῦσ τὸν ἄρτηριον μετά τῆς κέ[φ]ωκν[η].

A partire dal loro argomento segue che dopo la recisione, una volta espulso lo pneuma, i nostri corpi non assomigliano ai corpi dilatabili — quelli conosciuti come incoercibili — ma piuttosto a un otre che è stato riempito di liquido e gonfiato d’aria. Come l’otre che è stato perforato espelle l’aria e il liquido attraverso se stesso ma non da sé stesso; allo stesso modo le arterie che vengono recise ritengono il sangue che si svuota attraverso esse, ma non a partire da esse stesse.

In relazione a ciò, invece, dovremmo dire che i nostri corpi assomigliano non a quelli comprimibili ma a quelli incompressibili; queste cose sono rese chiare [a partire dalle arterie dei cadaveri]. Lungo le membrane sono presenti infatti delle arterie incompressibili e delle vene dilatabili.

E se le cose stanno così, in base a ciò si rende evidente che coloro che sono a favore di Erasistrato chiaramente stanno sbagliando, perché ciò porta [loro] a credere come giusto che [le arterie] non [assomigliano] ai [corpi] incompressibili, bensì a quelli che [sono] facilmente dilatabili — come gli altri — ; e per convenire con loro [dovremmo] affermare che ogni volta che si svuota l’interno di un otre si produce un versamento congiunto [di liquido e d’aria] e non che il luogo [rimane] assolutamente vuoto. In questo modo bisognerebbe che, quando le arterie vengono recise — dopo lo svuotamento del loro pneuma — esse subiscano un versamento, giacché una volta che queste collassano non dovrebbero prodursi vuoto assoluto, né trasfusione di sangue (o fuoriuscita dello stesso), e neppure alcuno svuotamento, poiché in base a ciò queste cose sarebbero assurde.

A partire dal loro argomento segue che dopo la recisione, una volta espulso lo pneuma, il sangue dovrebbe uscire perché esso fuorusciva al fine che il vuoto non potesse assolutamente darsi. Per questa ragione dobbiamo dire che non [è] il sangue [quello che] bisogna che si svuoti, ma lo pneuma che si trova presente nella nostra costituzione (…) e che esso sia equivalente allo pneuma fuoriuscito. Questo [pneuma] pertanto non viene svuotato né aiuta a riempire il luogo che fu
svuotato dallo *pneuma*, tuttavia [...] Poiché secondo gli Erasistrati [...] quando si svuota [...] e [...] gli Erasistrati [...] il cuore riceve [...] delle arterie che ci sono e [...] né dello *pneuma* [...] in primo luogo si svuoterà [...] secondo la grand [...]
importanti delle arterie perché in quelle la distribuzione [dell’alimento] si svolgerà in maggior misura.

In secondo luogo, per quanto riguarda la dimensione, le arterie sono uguali alle vene — poniamo che sia infatti così — nonostante [le arterie] siano maggiori quanto al rivestimento, possono sembrare [maggiori] solo per quanto riguarda quest’ultimo, giacché in confronto ai quattro strati che hanno [le arterie], assemblati a seconda della loro durezza, le vene ne mostrano solo uno. Le vene sono più fragili per il fatto di avere un solo strato, [ma] sono più cave delle arterie ed essendo più cave la distribuzione [dell’alimento] che si terrà in esse sarà anche maggiore.

In terzo luogo, [quello che] le arterie contengono maggiormente in sé stesse [è] lo pneuma presente [nel corpo] e, in minore misura, il sangue. Le vene, per contro, contengono maggiormente del sangue e in misura minore dello pneuma. Pertanto ci resulta favorevole il [fatto che] il sangue e lo pneuma si trovino per natura presenti tanto nelle arterie che nelle vene. Il fatto che essi si trovino presenti in un tale modo comporta che essi vi stiano pure allo stesso tempo, sebbene nelle arterie prevalga lo pneuma e nelle vene esso sia meno; [e perciò è pure] più plausibile [pensare] che si produca maggior distribuzione [dell’alimento] in una vena che in un’arteria. A partire da queste cose si può concludere dicendo che più che attraverso le arterie la distribuzione [dell’alimento] si dà piuttosto attraverso le vene.

Invece Erofilo la pensava del tutto all’opposto, dato che [egli] crede che la distribuzione si dia maggiormente nelle arterie e in misura minore nelle vene; [ciò] a partire da queste due [ragioni]: da una parte, in primo luogo, visto che entrambe — la vena e l’arte-

XXIX.1 pia, ἐπεὶ δὲ κατ’ ἵκον ὁρέγονται τῆς τροφῆς, κατ’ ἵκον καὶ ἡ ἀνάδοσις εἰς αὐτὰς γεννηται. Δεύτερον δὲ: αἱ μ(έν) ἁρτηρία, φ(ηκίν), υστέλλονται τα καὶ διαστέλλονται τὸν τε φυγμὸν 5 ἅπασδιδάσκει, αἱ δὲ φλέβες ὁποτε υστέλλον| ταί ὁποτε διαστέλλονται οὔτε εφυγμοδός κινοῦνται.

ria — hanno bisogno dell’alimento, tendono allora in ugual misura all’alimento, e perciò la distribuzione che si darà verso esse [si produrrà anche] in ugual misura. D’altra parte, in secondo luogo, [Erofilo] dice che le arterie si contraggono e si espandono in quanto mostrano una pulsazione; le vene, [invece,] né si contraggono né si espandono e neppure si muovono ritmicamente. Mentre le arterie si muovono ritmicamente le vene non si muovono ritmicamente, essendo questa dilatazione delle arterie la causa per cui viene detto che è più sensato [pensare] che la distribuzione [dell’alimento] si dia piuttosto [per le vene] che per le arterie.

L’uomo di cui si è parlato in primo luogo dunque non espose ciò correttamente perché non si accorse che, in confronto alle arterie, le vene sono più cave; e per il fatto che [le vene] sono più cave deve essere anche maggiore [la capacità] di distribuzione che in esse si produce. In relazione alla prima osservazione [di Erofilo] sarà conveniente fare questa menzione capitale; in rapporto alla sua seconda osservazione diremo che le arterie si muovono per pulsazioni — contraendosi e dilatandosi — giacché muovendosi in tale modo costringono l’alimento a uscire verso l’esterno. Se le cose hanno luogo in questo modo ne seguirà di conseguenza che la distribuzione dell’alimento si produrrà in maggiore grado nelle vene piuttosto che nelle arterie. D’altra parte, si deve supporre di conseguenza che l’alimento si trova presente nelle cavità delle vene e delle arterie. In generale in ogni cavità del nostro corpo che è stata tagliata ospita dell’alimento⁶, verso essa stessa si produce la distribuzione e il suo assorbimento per tutto il corpo, dimostrò l’alimento si trova nelle cavità delle arterie e delle vene; addirittura la distribuzione di questo si dà in esse.

E bisogna capire che tutto l’alimento che viene assunto non si distribuisce per tutto il corpo, ma [solo] ciò che di proficuo c’è in esso viene distribuito e assunto dal corpo, mentre ciò che è superfluo e in apparenza inservibile viene separato verso gli intestini e non viene distribuito e assunto dal corpo; mentre ciò che è di proficuo in esso viene distribuito e assunto dal corpo, mentre ciò che è proficuo in esso viene distribuito e assunto dal corpo, mentre ciò che è proficuo in esso viene distribuito e assunto dal corpo.

E quindi dato che non tutto [il cibo] che si assume [si distribuisce] ma [solo ciò che di proficuo] c’è nel cibo, quel che è superfluo che si espelle [si trova] così in proporzione ai corpi (…) stessi (…) che, tra gli antichi filosofi, c’è disaccordo sul fatto che sia a partire dalla vescica che si produce la separazione tra quello che si espelle e quello che non.

Poiché da una parte coloro che dissero che (…)
nel liquido ingerito, c’è (...) ciò che è proficuo [del cibo] e (...) dall’altro, ciò che è proficuo [del cibo] è assunto (...) e riassunto dai corpi, ciò che è [rifutabile e] leggero è portato alla vescica e viene espulso al di fuori sotto forma d’urina.

D’altro canto, quelli che dissero che ogni liquido è (...) per sè stesso, allora, già dallo stesso momento in cui viene ingerito, una parte dello stesso [liquido passa a] distribuirsi e riassumersi nei corpi, mentre l’altra è portata verso il basso, verso le zone che [si trovano] intorno alla vescica, e da lì, in virtù della proprietà che regge queste stesse [parti, il liquido] viene espulso salato e agro. Per questa [ragione] l’urina è irritante e corrosiva, poiché è acre e salata.


In questo modo, una volta affrettare tali cose (...) non possiamo affermare con forza sul liquido che si espelle attraverso l’urina se ciò che di nocivo si espelle si trovava già nel liquido [ingerito] e (...) alla umidità superficiale che c’è [nel corpo], oppure se si trasforma nella vescica per via di (...) [per cui] diciamo che quel [liquido] si espelle acre e salato attraverso i corpi a partire dal liquido che fu ingerito. E [ciò sia sufficiente] per quanto riguarda il funzionamento della vescica.

Alcuni tra questi stessi cercano di stabilire che si producono continuamente emanazioni da tutto il corpo risalendo, anzitutto, a ciò che si trova sprovisto di un anima. Dicono che se possiamo sentire le spezie da lontano ciò [è perché] sentiamo i profumi dei corpi che sono portati da esse stesse fino a noi. [Ma] per quanto riguarda ciò che [essi] dicono di seguito [si vede] che l’emanazione che [si stacca] dai corpi non si produce per causa delle spezie, [ma perché] l’aria si è vista prevalentemente influenzata dalle spezie. Ed è in questo modo, tramite le inspirazioni, che si produce in noi la sensazione delle proprietà a partire dalle spezie; e che non c’è emanazione. E ciò pare oltremodo stolto perché, in linea con il loro ragionamento teoretico, sono i corpi...
prósofata βα—ρυ>terai<ka polutrofóterea. Ká toúto délloîn eîpì tîς|10aïçtòiasè: stathêν γ(αρ) tò èxoló kraycs kata|líthys koufóteron, tò dé π(ροç)éfatoν barútēron|1énvo aî(τīas) y(νοµήν); Délloîn oti tiô aîpò m(é)ν t(òv) èxoló|polllýn xegóınéi ìpsofròv, ì apò δ é t(òv) π(ροç)ràt(òv)|1égethyn, kai mú diafërëv ká tâ to àiçhèntov|15plò toû úpokéménon poûieíthai aïfærëv ì h(κâtû)|tô lógoi òseovnikh. Ká mú kai aîpò t(òv) árτ(òw)n|15tûntó k(âta)ekvàçouv|oî γ(αρ) ÷emòteroi barútēroi[t|h] kai polutrofóteroi, oî dé yψírotōr|koufóteroi kai polutrofóteroi diá tîn ìtû|15tàitān. Ká tautâ pístovn oî aïelëtaî oû|15n pòte γ(αρ) π(ροç)éferov toûc àólìtaî ÷erhmô replacing tâ prósòfata krayc, mú mú barútëra

[Text continues in Latin script]

quelli che si staccano dalle spezie. E ciò diventa evidente per le spezie invecchiata, giacché col passare del tempo [queste spezie] si indebolisce, e già non esalano più con tutta la loro forza la propria essenza che dovrebbe generarsi a partire da sé stesse; queste cose si deducono da quello che si è detto.

Gli Empirici si oppongono a questi argomenti dicendo: « non opporché qualche cosa si stacca da un’altra quella deve divenire leggera, e neanche perché una qualciasi aderisca a qualche altra quella [dove] divenire più pesante, ma il soggetto si fa da sé più leggero quando subisce un’addizione; mentre quando subisce un distaccamento il soggetto diventa più pesante, così come [capita] con gli altri, con gli animali che sono morti e con le altre [cose] ».


XXXII.1 cec μ(ἐν) τῆς ψυχῆς [κ]οῦ[φ][δ][ῦ]ν (ἐκτο) τὸ ζώιον, ὅτι καὶ πνεῦμ(a) ή ψυχή, τὸ δὲ πνεῦμα κοὐφὸν τῆς φύσεως. | Πνευματικὴ δε καὶ ή ψυχὴ· τοιαύτα τ η c δ ε ύ(parχονς), εὐλόγως παροῦσα μ(ἐν) κοὐφὸν παρ| ἔχει το ζώιον. | 5άποδα δὲ βαρύτερον οὗτο γ([ἀρ]) ὑπὸ τῆς ψυχῆς[π]ατάζεται τὸ ὄλον εὐμα. Τι δὲ καὶ λέγειν γ[α]τὸ μ(ἐν)([ἀπο(ον)][υ]λ[ον]) ἀπὸ τ(ὸν) ἄλλον (ἐκτο), τὸν δὲ ἀπὸ τ(ὸν) τιν[τ]ειν.
dell’appassimento produce anche a partire dall’albero; corp. In relazione a questo argomento [essi] dicono:

sono più leggeri; giacché tutti questi presentano dei rami appassiti per causa dell’emanazione. Per quanto riguarda le piante invece cambiano di opinione e affermano senz’altro che:

rimangono per qualche tempo in un tipo di recipiente qualsiasi [dove la parte più solida. Questa stessa ragione [spiega quello che capita].

La morte dei corpi assomiglia. dei corpi appena generatori, no si dà, l’emanazione non è allora la causa καὶ ἐπὶ τῷ ὄν ἀναπλασσομένον(ον) καλλιρίων.] Καὶ ἐπὶ τὰ ψυτὰ δὲ μεταβαίνουσιν καὶ λέγουσιν| « Τὰ μὲν(ε) παρατύπου ἀποτίμητα θαρύτερα (ἐκτιν), τὰ δὲ ποσοῦ ὑπομείναντα χρόνους κουροτέρα(α) ὑπὸ τῆς θρηδικῆς, ἐπὶ τῷ ὄν(ο) ἀνθέουν| Ταῦτα γὰ(ρ) πάντα δία τὴν ἀποφορὰν ῥυζοκαρφ(φα) κατασκευάζετε]. «Εκ δὲ τοῦτ(ον) καὶ τῷ(ῶν) τούτ(ο)ς| παραπλησίων πιετοῦν ὡς ἀποφορὰ γὴ(νται) ἀπὸ τοῦ[ς] κόμματος. 

un essere vivente è leggero perché possiede un’anima, poiché l’anima è aria e l’aria è leggera per natura. Essendo dunque l’anima aerea, è sensato [pensare che è la sua] presenza [che] conferisce leggerezza all’essere vivente e la sua assenza più pesantezza; e che perciò tutto il corpo si sostiene in virtù dell’anima.

Cosa resta da dire? Da una parte che [il corpo esiste] sia a partire dagli altri [corpi] sia a partire dai movimenti, giacché tutto il corpo si muove per via dell’anima che, essendo stata essa ricoperta da un strato terreo, gli conferisce la consistenza [necessaria] affinché [il corpo] si tenga sollevato a partire da essa stessa. Per cui bisogna dire che quando si produce un’addizione su qualsiasi cosa quella diventa più pesante, o detto in altro modo, che ogni volta che si dà un’addizione di qualcosa a qualche altra cosa pesante essa diventa più pesante. L’anima è lungi dall’essere pesante perché per natura alleggerisce e rialza quello che è pesante (a causa della sua gravità). Quindi quando quest’[anima] si trova presente l’essere vivente deve essere leggero; per contro, quando l’anima non si manifesta, non lo [fa] neanche la levità che sospende [il corpo] per il fatto che [l’anima] non si trova più presente, rimanendo allora [solo] la pesantezza che, in verità, è ciò cui la morte dei corpi assomiglia.

E sugli altri che si sono riempiti d’aria [resta da dire che] la loro leggerezza si spiega per causa del fatto che quest’aria – che è leggera – alleggerisce l’altra, quando l’aria si svuota l’altra diventa pesante perché gli manca la causa che [fa] che sia leggero. E questo è quel che capita con i pani caldi e quelli più freddi, infatti, quanto più [essi] sono caldi tanto più sono pesanti e nutritienti, perché non si è generata ancora tanta emanazione a partire dagli stessi; i pani freddi sono leggeri e meno nutrienti perché si è generata abbastanza emanazione.


Per quanto riguarda le piante invece cambiano di opinione e affermano senz’altro che: « tanto la verdura come i fiori appena recisi sono più pesanti e quelli che sono stati recisi tempo fa sono più leggeri; giacché tutti questi presentano dei rami appassiti per causa dell’emanazione. Da tali cose e dalle relative a esse [costoro] assicurano che si produce un’emanazione a partire dal corpo. In relazione a questo argomento [essi] dicono: « se l’emanazione è la causa dell’approccio, non solo i suddetti [fiori] dovrebbero apparsi quali vengano recisi, ma ciò dovrebbe capitare pure nel caso in cui [essi sono sugli] alberi, dato che la perdita [d’emanazione] si produce anche a partire dall’albero; ma [siccome] ciò non si dà, l’emanazione non è allora la causa dell’approccio.»
Essi non arrivano a vedere

XXXIII.1 tó ἀναλόγον· γίν(εται) μ(έν) γ(άρ) καὶ ἐπὶ τ(ὸν) δὲνδρον ἀποφορά τ(ὸν) ἀνθέων πλείων, ἐπὶ τοῖς δὲ τ(ὸν) ἀφορμήμεν(ον) οὐ πλείων. Καὶ ἐπὶ μ(έν) τ[...] ἐπὶ τοῖς δὲνδρεῖ καὶ ἡ κίνησις αὐτῆς ἀναλόγοι πλείων καὶ ἔτι ἡ θερμαία ἀναλόγοι ἱκανά, ἐπὶ δὲ τ(ὸν) ἀποτετμήμεν(ον) καὶ μὴ ὑπὸ φύσεως διοικομέν(ον), ἐλάσσοντοι μὴ κίνησιν μὴθερμότητα τὶ<ν>α> (εἰναὶ ἐπὶ αὐτ(ὸν)). Τὰ σύν ἢ ἢ(πίν) παρ’ ἦν τὰ μ(έν) ἀποτιθεμένα ἐξηραίνεται, τὰ ἐπὶ τοῖς δὲνδρεῖ ὦτ ἐξηραίνεται: Καὶ ἑαυτῆς δὲ αὐτῆς καὶ φαινομένη· τὰ μ(έν) γ(άρ) ἐπὶ τοῖς δὲνδρεῖ ὦτ ἐξηραίνεται τῶν π(ρὸς) λόγον τῆς ἀποφορὰς· γ(ίνεται) θ(α)γ(άρ) καὶ τῆν π(ρὸς)θεσιν. Τά ἐδοκομένη ἐξηραίνεται τοῖς μηκέτι γ(ίνεται) θ(α)γ(άρ) ὡς αὐτὰ π(ρὸς)θεσιν, ἐξ ὦτν φαιν(εται) ὄς καὶ ἀπὸ τ(ὸν) φυτ(ὸν) γ(ίνεται) ἀποφορά. Καὶ ἐπὶ τ[...]15άλογο δὲ τ(ὸν) ζῶνων μεταβαίνουι. Λαμβάνουιν γ(άρ) τοῦς θὴρε[...] τὰς κόνες ὡς οὕτω τῇ ῥινλαίσια γυ[...] ἰρεύουι τὰ θηρία τρόποι τοῦτοι παραγίνονται· τα ἐπὶ τὰ ἀπατοῦς δι’ ὦτ κεχώρη[κε]γ[...] τὰ θηρία καὶ τ(ὸν) ἀπατοῦσον ὄσον ἤμεν μέντοι γε τοῖς χανοντέρους. Καὶ ἢ αί(ταία) παρ’[α]κ[άτων] 25κειται, ἐπειδῷπερ ἀπὸ τ(ὸν) θηρίων εὐμάκται ἀποκεκλινόμενα π(ρὸς)πιπτοντα μ(έν) γ(άρ) ἄποικοι καὶ [μή] καθαρώσεις διακινώνται· χανοντέρα δὲ π(ρὸς)πεάντονται καὶ παραδεχομένη φυλάσσεται καὶ διαμένει. Ταῦτ[α] δὴ καὶ οἱ θηρε[...]οι κύκνες χορωντες καὶ ἄρειφουμένοι τῆς ἀποφορὰς τῆς ἀπὸ τ(ὸν) θηρίων τοῦ περικοίζοντας αὐτίν[...] ἐπὶ χωρησάντες καταλαμβάνου[ν] εἰς τὸ θηρίον καὶ αἵρεστες. Ταῦτ[α] δὴ καὶ ἐπὶ τ(ὸν) δι(φιτο)ν γ(ίνεται) ἀποφορά κατὰ λόγον· ἐξαφανιζοῦν γ(άρ) ἢ ὀμβ[ροῖ]ς τίς ἀπὸ τ(ὸν) ἀποφορά τοῦτοι παραγίνονται καὶ οὐκ ἐπειδῄειν τοι[...] 35τά ἀπὸ τ(ὸν) θηρίων εὐμάκτας καὶ οὕτως γ(ίνεται) τῆς θηράς καὶ τοῦτοι μ(έν) τοῖς δι(πρόσω)πι καὶ ἐναντίον σκύλα. Καὶ οἱ ἔρωταις καὶ ἔως η[...] ἀπατοῦσον πολὺς, 40οὕτως γε ἡ γε πλείονα δεχομένη τίν[...] ἀποφοράν ράδιος εμμαίνει τοῖς κύκες τὰ θηρία. Εἰ δὲ ταῦτα φαβορόν ὃς γίνονται τίνες[...] ἀποφοραὶ καὶ ἀπὸ τ(ὸν) ἀλόγον ζώων. Π(ρὸς) δὲ τ[...]φιτοῖς καὶ Ἔρακίστρατος[κ] πειράται κ(ατα)κεκυμάζει τὸ πρὸ[τ]θέν(ὲν)· 45Εἰ γ(άρ) λάβῃ τίς ζώον οἷον ὄραθα ἢ τί τὸν παραπληγιοῦν, καθαροῖτο δὲ τοῦτο ἐν λέβητι· ἐὰν ἢ τὸ πρὸς μήθεις μὴ τοῖς ἑκάστοις καὶ ἐπιτίθενται κατὰ(θά)μησις γ[...] τῷ εὐμβ[ρό]ιοι τοῖς αἰθε[...]ον[τοίς αἴ[...] ἐνωμένοις, εὐρήκει παρὰ πολὺ ἐλατ[φο]ς τοῦτον τῇ σταθῆ στὰ τῆλον πολλὴν ἀπὸ σφοιρὰν γεγενήθησα (κατὰ) τὸ λόγον θεορητοῦν. Ἀλλὰ γ(άρ) καὶ ἐπὶ τὸν ἄθροισον μεταβαίνοντες[...] ἐπὶ τὸν λόγον ἢ τε γ(άρ) ποιῶνται ἀρώματα καὶ εἰς ἑφασμαγειαντες δύον ἐχουσί[...] 55[τὸ δά] τ(ὸν) ἰδρύστ(ον) κενοῦμενον τοῖς π(ρος)θεσιν]

L analogia, perché, per quanto riguarda gli alberi, l’emanazione si produce piuttosto [a partire] dai fiori visto che [l’emanazione] degli [alberi a cui] sono stati recisi [dei fiori] non è tanta. Per quanto riguarda i [fiori] che si trovano sull’albero, il movimento stesso comporta che si impieghi una maggiore [quantità d’emanazione] e, allo stesso tempo, il calore fa che [se ne dia] abbastanza. Per ciò che riguarda gli [alberi a cui] sono stati recisi [i fiori] o che la natura non mantiene più, l’emanazione si dà in minore misura per il fatto che né il calore né il movimento agiscono sugli stessi. Dunque, qual è la causa per cui i fiori, quando vengono recisi, appassiscono mentre quelle che rimangono sull’albero non appassiscono? È sicuro ed evidente [per] questa [ragione che segue]. Quelli che si trovano sull’albero non appassiscono per la relazione proporzionale che si dà tra l’emanazione e l’assunzione; invece, quelli che sono stati recisi appassiscono per il fatto che l’addizione non si produce assolutamente per esse. Per tali cose diventa chiaro che si origina dell’emanazione a partire dalle piante.
Essi] vanno poi a considerare gli animali irrazionali, prendendo per esempio i cani da caccia per il fatto che questi trovano le prede grazie alla traccia in questo modo: le fiutano mettendosi nei sentieri dove sono passate le prede, uscendo poi alla caccia fino a scovare la preda. Quale ne è la causa? È chiaro che l’emanazione [che si stacca] a partire dagli animali perdura nei sentieri, ed è perciò che non c’è caccia negli ambienti molto secchi, ma piuttosto in quelli più umidi, e la causa si radica nel fatto che quando i corpi delle prede si squamano, [queste squame] cadono sul terreno duro e secco scomparendo per via dell’eccesso di secchezza. In un [ambiente] più temperato [le squame] che saranno cadute si raccoglieranno, di modo che si conserveranno e la [traccia] persisterà. Ed è appunto perciò che i cani da caccia cacciano, poiché annusano la traccia delle prede mantenendola viva, e una volta sulla pista finiscono per balzare sulla preda, e la riportano [al cacciatore]. Tale ragione fa pure sì che il loro olfatto non funzioni durante le piogge. È chiaro dunque che la pioggia funge da misura preventiva per la preda per il fatto che [disperde] i corpi che si squamano dalle bestie. E ciò è quello che capita in rapporto alla caccia, e perciò [le battute] diventano più fruttuose quando [i cani] che seguono le bestie sono giovani e se [lo sono] pure queste, poiché [quanto] più giovani sono [le prede] tanto più diffondono la traccia, cosicché il terreno assimila molto più facilmente la traccia che indica le prede ai cani. Se queste cose [vanno così] è evidente che a partire dagli animali irrazionali si staccano delle emanazioni.

In relazione a questi [scil. gli Empirici], addirittura, Erasistrato prova a imbastire questo [perimento]. Se si prendesse un animale, un uccello o un altro qualsiasi del genere, mettendolo in un orcio per qualche tempo senza che venga cibata e sia poi pesata insieme agli escrementi — quelli che chiarissimo si può osservare che ha evacuato —, si troverebbe nell’operazione di pesatura che vi è stata una gran perdita di peso; sembra evidente che ciò, secondo quanto stabilisce la ragione teoricamente, è perché l’emanazione che si è generata [è stata] molta di più.

D’altro canto, addirittura, riconducendo il tema anche all’ambito umano, [essi] proseguono il discorso dicendo che coloro che assumono delle spezie aromatiche e coloro che mangiano dell’aglio hanno attraverso i [loro] sudori un’escrezione simile a ciò che hanno
argomenti, π... γ δέ ἐπὶ πλεῖον κακοῦντιν αἰθητε[...] καὶ κολυτηρὶον γ[[(νεκ)θ(α)]...]

τῆς... ἀντιληψε... τῶν ἐδεσθεντ(ον)

'Ον τρόπον| καὶ οἱ βυροδέσπαι | οὕτωι γ(αρ) κεκακομένην τις [την] αἰθητειν οὐδὲν παρασ[...]κιντα[κατά] τὴν ὀδη... 

τὸν αὐτὸν καὶ ἀπὸ τ(ῶν) ἐδε[...] κακομενήν αἰθητεις

40... ἀντιλαμβάνεται τῆς ὄντες[...] αὐτῆς (ἄν).—Οὐ πιθανῶς δέ οὐδ’ οὕτωι τι ἐπιμεροῦσιν περὶ λόγ(γο)...

Ἡμεῖς δέ φ(αμεν) π(ρός) τὸν Ἀσκληπιάδη διό[...] ἡ αἰθήτης[...] τῶν ἐν ἡμῖν οὐκ ἀντιλαμβάνεται διὰ τὸ μὴ ὑποπίπτειν αὐτὴ ταῦτα: ὄν γ[[(αρ)]... τὸ πεπο[...] τον εὐκαιροφοι δει (ἐίναι) ἵνα πέσῃ<τα>: καὶ [ὅ] τρόπον τὸ ἐξαμετοποιοῦν δει ἐν οἰκείω|τόποι γενέθηαι εἰς τὸ ἐξαματωθῆαι, ο(τιο) καὶ|τὸ ὄνταμον ἐν οἰκείοι|τοῖς δει (ἐίναι)εις τὸ ὄσφισθηναι. Τὰ δὲ ἐν ἡμῖν ὑπ(ἀρχοντα) 

μὴ ὑπο[πιπτον] τῇ αἰθητεικικότος ἐκλανθάναι] αὐτήν- δι’ ἢν αἱ(ταν) τ(ῶν) εὐκοδὸν 

λαμβανομέν(νων)[...]. η[α][θ]η[ες]ις ο二季度(α)λαμβάνει τὰς τουτ(ων) ποιότητας...Καὶ π(ρός) μ(εν) τὸν Ἀσκληπιάδα ταῦτα.

Αἴγουσι|


Su questo punto Asclepiade prova ad apportare qualcosa di nuovo in relazione a questo argomento. Le spezie, dice, e gli alimenti che contengono l’aglio perdono le qualità loro proprie una volta che si trovano nella nostra costituzione. Se le loro qualità si mantenessero nella nostra costituzione fisica allora noi dovremmo percepirla e bisognerebbe che acquisissimo la [suddetta] proprietà mentre essa passa attraverso tutto quanto il corpo; poiché le stesse [sostanze] che vengono assunte e trasformate in sangue sono poi distribuite per tutte le parti del corpo. (…) le narici. Se esso (…) sono per le narici (…) quello che fu assunto da parte nostra, perché precisamente (…) è la qualità che si trova nei nostri corpi. Ma ciò non accade perché non percepiamo le qualità con le narici, per cui le qualità stessi (…) capitate (…) nel corpo (…) le cause che si sono dette. Su (…) deve essere detta qualche cosa per ciò che riguarda questo (…) attraverso gli stessi, le qualità degli alimenti che si sono assorbiti hanno prodotto (…) della qualità (…) nei corpi (…) per altro (…) che fossero assorbiti, fanno che si spostino e svaniscano [in forma di] gas, ma solo in apparente; [giacché quello] che produsse di nuovo diviene corporeo e permane (…) questo [è quel che ha fatto in modo che] alcuni provassero a rifiutare (…) in quel modo essere portati fino agli orifizi del naso e alle altre parti del corpo, (…) fino al punto di intorpidire la percezione e di impedire l’assopore del cibo che fu mangiato; come capita con i conciatori. Essi, per il fatto di avere la percezione alterata, non si sentono assolutamente turbati dalla puzza [delle pelle]; per lo stesso [motivo], un senso che si trova viziiato dagli alimenti che si sono assunti non percepisce la proprietà [che si diffonde] a partire da quelli stessi. [Ma questo] non convince neanche coloro che provano ad [affermare] qualche cosa in base a questo assunto.

Noi invece diciamo, contro Asclepiade, che la percezione non apprende le cose [ingerite] che si trovano in noi per il fatto che queste non incidono sulla [capacità di] riconoscimento da parte della stessa [percezione]. Così come quello che si cuoce deve trovarsi nel posto adeguato affinché possa venire cotto e, allo stesso modo, quello che viene trasformato in sangue [deve trovarsi] nel luogo pertinente affinché si trasformi in sangue, così pure quello che viene odorato deve essere nel luogo adatto affinché possa essere odorato; quello che si ospita in noi, per il fatto che non è soggetto alla percezione, a ragione sfugge dalla stessa. È appunto per questa causa che quando si mangia si percepiscono gli aromi [del cibo, ma] la percezione non percepisce le qualità di essi. Pure questi argomenti [si rivolgono] contro Asclepiade.

Ed [essi] affermano
XXXV.1 δὲ καὶ ἀποφέρεcθαι̣ ̣ ἀπὸ̣ ̣ [τ(ῶν)] ἡµ[ετέρ(ων)]
cωµάτων|θερµότητα καὶ ὑγρότητ̣ [α].
Ḳαὶ̣ ̣
̣
̣
[ὅτι ἡ] θερµότηc|ἀποφέρεται, ὑποµιµνή
[cκο]υcιν
[ἀπὸ
τ]ο
ύτ(ων)·
τὰ|ἱµάτια
ψυ<χρό>τερα
̣
̣
̣
̣
περιβα̣ [λόµ]ε
ν̣ [οι
θε]ρµότερ(α)|5εὑρίcκοµ(εν) ὡc ἂν δὴ τῆ[c
ἀ ̣ποφερο|µένηc
̣
̣
̣ ἀφ᾽] ἡ[µῶν]
̣
θερµότητοc [κ]αθιζούcη
c̣ τοῖc|
⸏περιβολαίοιc.
Καὶ µὴ ν̣ ̣ [ὅτ]ι ̣ καὶ ὑγρότηc
̣
̣
ἀπο φ
̣ έ̣ ̣ρ[(εται)]|πιcτοῦcιν ἀπὸ τ(ῶν) ἱµατίων·|ξη ρ̣ ὰ̣ ̣ γ(ὰρ) περι β̣ α̣ λ̣ λ̣ [̣ όµ(ενοι)]|ταῦτα
καταλαµβάνοµ[(εν) ἔ ̣νικ
10φανερὸν ὡc καὶ ὑγρότηc
⸏
̣ ρ̣ µ̣ [ό]τ
̣ ̣µα·
̣ ̣ [κ]αὶ̣ θε
̣ ἐ ̣ξ ὧν|̣
̣ η̣ c̣ ̣|
φέρεται ἀπὸ τ(ῶν) ἡµετέρ(ων) ϲωµ[άτ(ων) ..]…| Καὶ ̣ π(ρὸc)
ὄρθρον
διανα
c
ά
τ
ε
c
ἐ
ὕ
̣τ
̣
̣
̣ ̣ ̣ν ̣ ̣ ̣ ̣ξ ̣ ̣[πνο]υ ̣
[..]ι[..].|
βαρυνόµενοι,
τῆc π(ρὸc)…[…]τ
ι̣ [….]η
c̣ ̣ κ ̣αὶ̣ [|
ὀρε{υ}γό µ̣ ενοι ταυτ η.
̣
̣
̣
̣
̣
̣
[…].µ[…]ω
c̣ ̣[..]|
15µετὰ τὸ περιπάτωι χρ̣ ή̣ c̣ ̣αc̣ ̣θ ̣[αι..]πι̣ | ̣
τροφῆc. Τίνοc
̣
γενηθ ̣έν[τοϲ] ; Δη[…]…[..]|
πολλῶν διαπεφορηµε
λ ό γ ω ι
̣ .[̣ 6/7 ]..|
̣
̣ ν̣ [.].ι
θεωρητοὺc ̣ ἀπὸ τ(ῶν) ἡ[µ]ε
τ
έ
c]ω
[
µάτ(ων)].|Καὶ
οὐ
µόν<ον>
δὲ
τοῦτο
κ(ατα)cκε
[υάζ]ο
υ̣ c̣ ̣ιν̣ ,̣
̣ ̣ ̣ρ[(ων)
̣
̣
̣
[ἀλ(λ)᾽ ὅτι]|20⤚καὶ διάφοροι ἀποφοραὶ γί(νονται) ἀπὸ τ[(ῶν)]
ἡµ̣ ε̣ τ̣ [έ]ρ
̣ [(ων)]|
̣
̣
c ̣ω̣[µάτ](ων̣ ).|
̣
Καὶ τοῦτο ὑποµιµνήcκουc̣ ̣[ιν ο]ἱ ̣ πε̣ ρ̣ ὶ̣ ̣ ᾽Ạc ̣κ ̣λ ̣η[πιάδη]|καὶ
Ἀλέξανδρον τὸν Φιλαλήθ̣ ̣η ̣ ὡ̣c ̣ τ…
̣
̣
[.] αἰ̣ c̣ ̣[θη]|τῶc κενούµενα διάφορά (ἐcτι), ο(ὕ
ἀποφερόµενα
̣
̣ ̣το̣ c̣ ̣) κ ̣αὶ̣ ̣ [κ(ατὰ)] τὸ̣ ̣ λ ̣ό ̣(γω̣ ι̣ )|θεωρητὸν
δια[3/4].[ ± 4 ].[..]|25ὅτι δὲ τὰ αἰcθητῶc κ ̣ενούµ[̣ ± 8 ]..|
τ έ ( ἐ c τ ι ) κα ὶ π ο ι κ ί λ α̣ ,̣ ὡ c
απ(εδείξαµεν)· τί δεῖ καὶ λ ̣έ ̣γει̣ ν̣ ̣ ;
[ ± 6].α.̣
|καὶ ὑγρά.
Καὶ [τ(ῶν)] ὑ ̣[γ]ρ(ῶν)
.[…]….[ ± 5]..ι..|̣ ἃ µ(ὲν) γ(ὰρ) διὰ cιάλων[ ± 6 ]αι̣ [̣
± 9 ]ου̣ c̣ ̣γι( )| ἃ
̣
δὲ διὰ {µη} µήτραc̣ . ὡ̣c ̣ ἐ ̣πὶ̣ γυ[ναικ]ῶ̣ν ̣ του[τ]|30⸏ον, ἃ δὲ δι’ ἱδρώτ(ων), πάντα δὲ τ[αῦτα
̣
δ]ιαφέρον[τα],|
[ ]οτ̣ ..[
Καὶ ἐφ᾽ ἑνὸc δὲ
̣ ± 4]ει̣ .̣
τούτ(ων) κατ᾽ ἰδίαν δ ̣ια[….]…εν̣ .[..]υ
c̣ ̣.|᾽Επὶ γ(ὰρ) τ(ῶν) οὔρ(ων) ἃ µ(έν) (ἐcτι) παχέα, ἃ δὲ λεπ̣ [τὰ]|
̣
̣
κ ̣.τ[..].ο
υ̣ c̣ ̣|
ἃ δὲ χολώδη καὶ ἃ
̣
µ(ὲν) τοιάcδε ̣ [ὑποc]ταϲει
c
ἔ
ον(τα)|ἃ
δὲ
τοιάcδε,
ἃ
δὲ
οὐδ᾽
ὅλωc
ὑφι
c
κ ̣αὶ ἃ µ(ὲν) ἐ ̣πι|̣
̣
̣[τάµ(εν)α],
̣
̣ ̣χ ̣
̣
35νέφελά (ἐcτιν), ἃ δ᾽ οὔ. ῾Ωc ὁµοίωc [δὲ καὶ ἐ]πὶ̣ ̣ τ(ῶ̣
.|Τῶν
κενουµέν(ων) κ ̣αὶ̣ ̣ τ(ῶν)
̣ ν)̣ ξηρῶν
̣
̣
ἄλ ̣λ ̣ω̣ν [ ±5 ε]ἰ γ̣ (ὰρ)
τα̣ ῦ̣ ̣τ[α]|
αἰcθ(ητῶc)|
̣
̣
κενούµενα διαφέροντ[ά]
ὅτ]ι κ̣ ̣αὶ̣ [τὰ
κ(ατὰ)] τὸ̣ ̣| λόγωι θεωρητὸν ἀπενεχθηcο.[…]…
̣
̣ (ἐcτιν), δῆ[λον
̣
̣
[|
⸏ἀπενεχθήcεται.
Ἑποµένωc [δὲ] τ[…]c
̣φ[̣ ± 5 ] αἴ(τια)|40διαφέροντα. Καὶ
̣
τοῦτο cαφὲc ἐπ[ί̣ γε] τ(ῶν)
ὑ ̣[γ]ρ[ῶν]|
καὶ
ξηρῶν·|τοῦτο
δὲ ἐπὶ τ(ῶν) ὑγρ[ῶν ..].[.].τ[̣ ± 5 ]|καὶ
̣
̣
ποικίλα, δῆλον ὅτι καὶ διαφε̣ [4/5]c
καὶ ποικίλα.
Ḳ[α]ὶ ̣µὴν
τ[ ±
̣.[ ± 5 ].ε|⸏ται
̣
̣
̣
̣
̣ ἀπ[̣ ± 5 ]τ(ῶν)
5 ]ν|ἀποφορὰ
γί(νεται) καὶ ἀ ̣π᾽ ἐ ̣γκ ̣εφ̣ [άλ]ου
ἀποφε[ ± 6 ]α[ ± 6 ].c|45δὲ καὶ ἀπὸ νεύ̣ ̣ρ(ων), ὀcτῶν,
̣
̣
̣
π(ροc)τα̣ [±
± 5 ]|⸏ἢ
̣ [̣
⸏µέρουc διά̣ ̣φο̣ ρ̣ ό̣ ̣c ̣ (ἐ ̣c ̣τι̣ ν̣ )̣ ἡ ̣ ἀποφο[ρ]ὰ
̣
̣
ἐ ̣χο̣ ι̣ µ̣ [..
̣ ̣ ον̣ τ̣ α̣ ι̣ )]̣ ἀποφορ̣ α̣ ὶ̣ ̣ α[±
̣ 3]οc[
̣ 4/5 ]|50ὅπερ (ἐcτὶν) ἀδύνα̣ τ̣ ο̣ ν̣ ̣
̣ ἀπ]ὸ|παντὸc δὲ µέ ̣ρο̣ υ̣ c̣ ̣ γί̣ (ν
[..]τον.…[…]….c
̣.[ ± 5 ]|ἂν γένοιντο.̣ ᾽Ẹπε̣ ὶ̣ ̣ γ(ὰρ) δυναµ[6/7] (ἐcτιν) υ..[
̣
̣ 3/4 ]|τοῦτο κ(ατὰ) τὴν ̣
φα̣ νταcίαν.
..[…]..[..]..[ ± 5 ]|⸏περὶ τὸ αἷµα πο̣ λ̣ ̣λ ̣αὶ γενήcοντ̣ α̣ ι̣ ̣ ἀ ̣πο̣ φ̣ [ορ]αὶ
ἀπ[ὸ]
̣
̣ αὐ|τῶν. Τῶι
̣
µ[(έν)]τοι [γ᾽] Ἀλέξανδρ[ῳ οὐκ ἀρέc]κ ̣ει [τοῦ]το||
che dai nostri corpi si disperdono calore e umidità, e suggeriscono che il calore si emana
attraverso queste [ragioni]: [coperti da] manti più freschi [dopo li] troviamo più caldi, come se il
al fatto che ugualmente l’umidità si disperde [a partire dai nostri corpi] credono [di spiegarla] pure a
partire da [quello che capita con] i manti; essendo secchi quando gli indossiamo li troviamo [poi]
umidi al loro interno. Da tali cose è chiaro che l’umidità e il calore si emanano a partire dai nostri
corpi (…). E quelli che all’alba si sono destati dal sonno (…) sentendosi pesanti, della che (…) si
distendono. Essa (…) dopo essere andati a fare una passeggiata (…) fosse necessario (…) del cibo.
Cosa si produsse? (…) tra le molte che si sono addotte (…) quelle che sono concepibili dalla
ragione (…) a partire dai nostri corpi. E non solo [essi] propongono ciò, bensì che a partire dai
nostri corpi si producono anche emanazioni diverse.
LIV


Quello che rimarcano coloro che sono a favore di Asclepiade e di Alessandro Filalete è che (…) le evacuazioni percettibili tramite i sensi sono diverse e (…) a seconda di quello che teoreticamente segue dalla ragione (…) ciò che emana (…) che le [evacuazioni] percettibili tramite i sensi (…) sono (…) diverse, come è chiaro. Cosa bisogna dire ancora? (…) e umide. E se le umide (…), da un lato, tramite gli sputi (…) quelle che, dall’altro lato, non (…) tramite l’utero — che nella donn (…) —, coloro che tramite i sudori; tutte queste sono [evacuazioni] diverse (…). E specie in una di queste [evacuazioni] (…). Rispetto all’urina, [bisogna dire] che a volte è densa e a volte acquosa (…) a volte [si dà] con apparenza biliosa, e che a volte in essa ci sono [un tipo] di sedimenti e altre volte [un altro], o assolutamente questi si trovano presenti; e che a volte ha molta schiuma, mentre altre no. Ciò [capita] parimenti in modo simile con gli [escrementi] secchi. Tra le evacuazioni e le altre [escrezioni] (…) se infatti queste evacuate percettibili dai sensi sono diverse, è chiaro che quello che dovrebbe emanarsi d’accordo con quello che contempla la ragione, (…) dovrà pure emanarsi. Di conseguenza (…) causa che divergono, e ciò è chiaro per le [evacuazioni] umide e per le secche.

Ciò per quanto riguarda le [evacuazioni] liquide (…) e varie, è chiaro anche che diverg (…) e diverse. E (…) degli (…) si generano pure delle emanazioni (…) dal cervello (…) a partire dai nervi e dalle ossa (…) Se appunto non ci sono più emanazioni a partire dagli stessi (…) no (…) o per mancanza di cibo. In tal caso (…) da una parte la differenza sta nel fatto che l’emanazione (…) in tutte le parti si generano emanazioni (…) per cui è impossibile (…) che fossero prodotte; poiché la propr (…) è (…) esso (…) secondo la sua apparenza (…). Per quanto riguarda il sangue, si produrranno molte emanazioni a partire dagli stessi, sebbene ciò assolutamente non piaccia ad Alessandro

XXXVI.1 ὁπωσοῦν ἡγ[(ὁ)]ρ [φιν. (ἐκτι) τὸ αἷμα κ(ητε) τὴν |
φαντασίαν, τοιούτοι δὲ και [ατά] τῇ ἰν δυ[ναμίν] (ἐκτιν), ἀπλοὺν τι και |


ἔκει [ἀποφο[ν]]) ός παρὰ τὴν ἐν τοῖς στόματι κατ[εργα]σίαν. 20[Διαφορόν <γ(α)ρ> υ(παρχο[τ]ς)] διάφορον κατακεκαύκεται |

τὸ αἷμα κ(ατά) τε δύ[ναμιν] (ἐκτι) τῷ αἷμα, καὶ [χρόν]μια. [Επεὶ] δὴ τοιγάρτοι διάφορον (ἐκτι) τῷ αἷμα, |

rispettano un tipo di vita più attivo, hanno dei corpi più caldi e perciò le loro emanazioni sono più abbondanti; mentre negli altri uomini [capita] il contrario.

Dato che [gli atleti] si allenano durante [tutte] le stagioni, [è chiaro] che d’estate l’eccesso di temperatura fa che i pori, con l’espandersi, evacuino di più perché i [loro] contenuti, leggeri e fluenti, [hanno una maggiore] disposizione a svuotarsi, stando ciò in accordo con i sensi e la ragione teoretica; mentre d’inverno [la disposizione] è opposta. Da tali cose diventa allora evidente, in accordo con la ragione teoretica, che si producono diverse emanazioni e che esse stesse sono diverse. Dal momento che, in accordo con la ragione teoretica e con la percezione, a partire dai nostri [corpi] si staccano vari e diversi [tipi d’emanazioni], in questo modo, e anche in accordo con la percezione e la ragione teoretica, [varie e diverse addizioni] penetrano in noi.

(...), ed ammirati da un tal suggerimento, Erofilo e Asclepiade dicono che: « la natura, vigilante, è stata progettata [a partire dai criteri] del giusto e del coerente ». Visto che fu ammesso, in accordo con la percezione, e come fu dimostrato, che delle emanazioni vengono espulse, e pure che, in accordo con la ragione l’emanazione era diversa, come pure abbiamo disposto, allo stesso modo e in accordo tanto con la ragione teoretica che con la percezione si dovranno ammettere delle differenze in rapporto a noi.

Ed è chiaro che d’accordo con quello che si trova in conformità con la ragione si dovranno ammettere delle differenze. E anzitutto ciò si può osservare a partire dai principi dei farmaci, sia le fomentazioni che i cataplasmi che si applicano.

XXXVII.1 tē ἐπιφανεί[i[ai ó]]<e μ>ἐν διαλύει τὰ ύποκείμενα, ἵτις δὲ διαφορέσ [άλλοτε δὲ ἐπιστάται]. Τίνος γινομένου; Ὡ νῦν <ν> τῆς δύναμις ὡς τῆς τὸν φαινόμενον τῆς ἑπιφανείας τὸν προσκαλεύοντας αὐτούς ὄστε τὸ αὐτοῦ διαθέμενον. Ἐν ἰσβούν τὸ αὐτόν τοῦ ἀνθρώπου καὶ τοῦ προκειμένου ἐν τῷ δύναμαι τῷ χάριτι φαινόμε...
castorio si scioglie nei nostri corpi. Si dice, infatti, che a volte il castorio fa che l’animo si recuperi e si ritempri quando devono esserci per una ragione teoretica. Ed è per la superficie che quello che si è detto penetra potremmo dire che c’è una penetrazione nel nostro corpo che ha luogo attraverso i pori che forze e (…) rimane. 

Una volta introdotto si espelle verso l’alto, il nero verso il basso. Le radici delle scamonie, dall’altro canto, che si deve prendere dello stesso. L’elleboro fa tanti quanti possono esserci all’interno, per cui l’elaterio sembra essere il più efficace evacuante di tutti. Una volta introdotto si espelle verso l’alto e verso il basso. 

Il principio dei farmaci non solo si assesta presso la superficie ma, per ragioni teoretiche, viaggia anche a grande profondità attraverso i vasi del corpo. A partire da queste cose è evidente che, per una ragione teoretica, si produca una penetrazione in noi e che questa penetrazione, addirittura, si produce in conformità con la percezione. Questo si rende possibile perché quando si applica l’elaterio, una volta che viene introdotto nel corpo, quello stesso agisce verso l’esterno. 


A questo proposito, dicono, secondo la tradizione, che capito che Democrito, dopo aver digiunato per quattro giorni, essendo sul punto di morire, fu pregato da alcune donne di resistere alcuni giorni affinché non fosse loro vietato l’accesso [ai misteri] — capitava infatti che in quel tempo si celebbrassero le Tesmoforie — e dicono che [egli] giurò di non morire. Ordinò di portargli dei pani caldi e questi (…) e Democrito ispirando l’esalazione proveniente dal pane ristabilì le sue forze e (…) rimane.

Allora un po’ di liquido e la (…) alimento e in questo modo diciamo che bast (…), potremmo dire che c’è una penetrazione nel nostro [corpo] che ha luogo attraverso i pori che [devono esserci] per una ragione teoretica. Ed è per la superficie che quello che si è detto penetra nei nostri corpi. Si dice, infatti, che a volte il castorio fa che l’animo si recupera e si ritempi quando si applica sulle narici, giacché le sue proprietà penetrano per il fatto che il principio [attivo] del castorio si scioglie attraverso i vasi che teoricamente [ci sono nel naso].

7 Ciò, intendiamo, in forma di vomito o di feci.
Arrivati a questo punto, Asclepiade dimostra che il vapore a partire dai pani ristabilisce le τούναντίον· iονείται διεγείροντες την ψυχήν ὧφελοντες, ἀλ(λὰ) π(ρος)καταί— ταξεύοντος τοις σώμασι  ὄ(τοιος). Γελοίος δ’ (ἐκτιν) ἀνήρ· ο γ(αρ), ι αἱ ἀμφότερα τὰ βοηθήματα διεγείρει τὰ δυ(νάμεις), ταύτην κοιλιόν ἐτερά κρίνεται καὶ πληγά, ἀλλὰ ὦχο μοίως· διὰ μ(έν) γ(αρ) τ(ὸν) πληγόν· καὶ τύλον διεγείρονται αἱ δυ(νάμεις) καὶ φυλάκωσσορίζεται ἐν τοίς σώματι καὶ οὐχ ἐδειν ἄφαντες(αί), ἀλλὰ πυκνόωσες γινομένη προκαταί ἕγινοντο τοῦ τε πνεύματος καὶ τῆς θερμήτ<to>ς· ιποτά δὲ τοῦ καστορείου καὶ τ(ὸν) ὦχο μοίων ὑπακόμεναι δι(νάμεις) ὃς π(ρος) τῆς ὥμιν τὸ αὐτὸ ἐνεργοθεί, υπὸμένοντε τε γ(αρ) ἀμῖν ὑπονύμαι ὁι δυ(νάμεις) καὶ |προστρεφόμεναι π(ρος)ανακύπτουσιν. 

Δῆλον[20το]τού[3]γ(αρ)τοί ὥς ἀπὸ τ(ὸν) ἀμῖν ὑπονύμαιν]|{1} αἱ δυ(νάμεις), ἀφανίων(ο)ν(ι) τ(ὸν) ἀμῖν διὰ τ(ὸν) λόγου θεωρη(τὸν)πάρον· έξ ὀν ὑμολογούμενος κατακεκαί(σους)ός καὶ εἰκρινότατα τιν αἰ ήμας διὰ τ(ὸν) λόγου—θεωρη(τὸν)πάρον τοῦ καρκός. Ἀλλ’ ὁ ὁ Ε ἔ τε εἰς τήτειται[25τὸς] θερμαίνεται ἡμῶν τὰ σώματα· δῆλον γ(αρ)τὸς τῆς θερμαίας εἰκρινομένος εἰς τα τῇ μετέραε(σώματα κα] ἀλειανύμεν(ον) π(ρος) αὐτής. Εἰ δὲ εἰκρινότατα της θερμαίας εἰς ήμας, πούς δήτα εἰκρίνεται; σομα γ(αρ) αὐτής, σώμα δὲ διὰ σώματος οὐκ εἰς[30κρίνεται. Οὐκοῦν διὰ τ(ὸν) εὐρυχωρευς· Εἰ τούτῳ,πάρον τοι(γαρ)το χρήν ἀπολπεῖν λόγοις θεο<ω>ς· τι δι’ ου εἰκριθήθησαι ἡ θερμαία. Εχομενο(ε), φ(αιν)ι, καὶ οπί τοῦ χειμώνος ψυχρότατα ἡμῶν (ἐκτιν) τὰ σώματα το τό τον ἀέρα, ψυχρὸν άντα καὶ[35] έις εὐνέας εἰς ήμας, κ(ατα)ψύχον ήμας.

Ταύτην· γε το εὐτός(ον) διαπερείται, τί δήποτε οἱ ἐκ τ(ὸν) βαλανείων ἐξερχόμενοι καὶ ὑπὸ τοῦ ἀερί γενό(μενοι)εὔθεως κ(ατα)ψύχονται, οἱ μ(έν)τοι· γε μετὰ τὸ λουτρόν περιερχομένους ψυχρὸν ἐν τοῖς βαλανείς, εἶλα[40έν τὴν αἰθήρα γενόμενο ἤττον κ(ατα)ψύχονται; Τίνος γενθήθηκεν; Δῆλον οτι τῆς μ(έν) καταφύσεως τοῦ ψυχροῦ πυκνούς τῆς ἐπιφάνειας(γα) καὶ κολυώνος ἀφανίζεθαι τὸ εν ἑμῶν θερμ(ον), τὸν τὸν ἀέρα ψυχρὸν οὔτα μὴ ἔοςε εἰκρινόεθ(αί),[45Διὰ δὴ τούτῳ τὸ αἴτ(ον) μὴ ραδίως καταφύσεθαι τούς τοιούτους. Εἴπαν μ(έν)τοι γε τούτῳ μὴ γένηται, ἀλλ’ ἕραμενοι χωρήςοι εἰς τὸν ἀέρα,θάττον δέχοντα αὐτῶν, καὶ δὲ εἰς ὕψοι εἰς τὰ σώματα ψυχρῶς ὁν κ(ατα)ψύχη αὐτά.50Εἰ δὲ τούτῳ, φανέρων ός εἰκρίνεται τί ἀπὸ τοῦ αἴ̱ρος εἰς ήμας. Διδάκουσι δὲ καὶ μετὰ τινὰ ταῦτα, ὥς εἰς τεκνοδῶν λόγους θεωρητοῦ πάροι(ντο) τοῖς ἠμετέροις σώμασιν, ὅπερ δὴ (ἐκτιν) γελόων.[Πρῶτον μ(έν) γ(αρ) ἐχρήν τοῦτο κ(ατα)κεκλώσας καὶ τοῦ]55τοι προκ(ατα)τησιμένους λουπὸν διδάκειν | ὃτι καὶ ἀποκρινότα τινα ἀπ’ αὐτὸν διάφορα, ὡς(η)μοίως δὲ καὶ εἰκρίνεται, ο[. | ± 3]εια(ν)’ | τοῦ τοῦ α’. ἀλ(λὰ) δεύτερον δὴ ἢν αἰ(τίαν).] [ | ἀ μ ι μ τ ή ι μ α τ ι παλι[ | Ακληπτιάδης]|}
esse nutrite, riprendono vigore. È chiaro quindi che le forze si recuperano dai vapori perché i vapori le restituiscono attraverso i pori che [devono esserci] per ragioni teoretiche. A partire da queste cose [essi] stabiliscono che ci sono alcune penetrazioni in noi, similmente, attraverso i pori che teoreticamente [devono esserci] nella carne.


È chiaro che l’umidità della spruzzatura si condensa sulla superficie [della pelle] e ciò impedisce che si dissipino il calore [che c’è] in noi; a sua volta [ciò fa sì che] l’aria fredda non possa penetrare. Questo è il motivo per cui quelli stessi non si raffreddano facilmente [quando escono dai bagni]. In altro modo, quando ciò non capita, ma [la pelle di coloro] che escono all’aria aperta è resa più porosa, per cui accoglie l’aria più rapidamente; e l’aria che si insinua nel corpo, essendo fredda, li raffredda. Se ciò è così, è chiaro che qualche cosa che procede dall’aria penetra in noi.

Dopo tutte queste cose [essi] professano pure che, teoricamente, ci sono dei pori nei nostri corpi, il che è ridicolo. In primo luogo perché questo dovrebbe essere stato stabilito e, una volta assunto preliminarmente ciò, si dovrebbe insegnare il resto, cioè che diversi tipi d’emanazioni si [associano] all’umidità della spruzzatura. È chiaro quindi che le forze si recuperano dai vapori perché i vapori che escono all’aria aperta è [in essi] si insinua (…) Ciò in primo luogo, e dall’altro lato, in secondo luogo, per la ragione che segue (…) per sbaglio di nuovo (…) [Asclepiade]

e Alessandro, fanno uso di (...) determinati elementi vengono espulsi da parte nostra, alcuni [altri] penetrano in noi senza dubbio attraverso i passaggi che teoricamente ci sono; in particolare, [essi] dicono che un corpo non può passare attraverso un corpo. Affermano ancora che dato che la natura si attiene al giusto avrebbe creato, per tutti, alcune emanazioni percettibili dai sensi e conoscibili dalla ragione, e delle emanazioni differenziate in accordo con la percezione e con ciò che è concepibile dalla ragione.

Allora, dato che in accordo con la percezione avrebbe creato dei pori, e li avrebbe creati in accordo con la ragione teoretica per il fatto che dicono che ogni parte del nostro corpo deve nutrirsi, per esempio (...) e quello che è stato trasformato in un succo e gli altri (...) corp (...) il cibo che transita attraverso e (...) ogni parte del corpo (...) i pori che ci sono per una ragione teoretica. Perciò vien detto che Erasistrato non si stupisce (...) degli (...) età così lunga, ma che si nutrono (...) della foglia e di (...) a seconda della pianta [?] Non si stupisce. (...) appunto (...) si occupa della natura (...) e per loro, gli stessi pori che per ragioni teoretiche (...) e per noi.

Così come si nutre una formica, allo stesso modo potrebbero nutrirsi anche l’elefante e i cammelli battriani, poiché la natura ha fabbricato per questi (...) dei pori che, in accordo con la percezione e con la ragione teoretica, sono stati progettati affinché vengano alimentate le parti più piccole, al passare l’alimento attraverso [quegli] stessi pori. Quindi, a partire da queste cose e dalle cose simili ad esse è chiaro che, per definizione, ci sono dei teoretici pori in noi e in tutto l’essere vivente.
I. 2 The Opistographic Writings of the Anonymus Londiniensis

Addition I

Written on the back side of cols. XXI – XXIV:

Oì γ(ûρ) προθμίμα γι(νόμενοι) πρός τὸ διαχωρήςαι, καταλαμβανόμενοι δὲ ἐν ἀγοράὶ ἢ ἑν ἀνεπιτηδείῳς, εἶτα εὐχών [τες ἐπὶ πλεῖον, οὐκέτι διαχωρο[δειν] | 5 ἢ διαχωροῦνεν ἐλάχιστά τε καὶ ἐξ[ρ](ûρ)’; [Τίνος αἰ(τίας) γι(νομένης)]; Δῆλον ὃτι ἀποσορᾶς καὶ ἑν(τὸς) ἀπ’ αὐτ(ῶν) γεγενημένης. Εἰς ὃν φανερὸν | ὅς τροφὴ (ἐτι) καὶ ἢ ἐν ἐντέροις πα[λ] ῥακεμένη. Ἐκω βλέπ(ε) « τοῦτ(ον) ὦ(ῦτως) ἔχ(ῶντον) »

di conseguenza coloro che vogliono andare di corpo, trovandosi in piazza o in luoghi inappropriati si trattengono al massimo, dopo non defecano nulla o pochissimo e duro. Di quale tipo di causa si tratta? È evidente che [si tratta] di una emanazione, e che si è prodotta all’interno degli intestini stessi. Da queste cose è chiaro che c’è dell’alimento e che questo riposa negli intestini. Per quanto riguarda ciò si veda all’interno [del papiro le parole] « È in questo modo quindi »8.

Addition II

Written on the back side of cols. XXI – XXIV:


8 Cioè il recto del papiro, in particolare l’espressione « Τοῦ]tent oύτως ἔχ[ῶντ(ον)] » nella col. XXV, 46 – 47.
9 Cioè, di nuovo, il recto del papiro, particolarmente il termine « προοενθθεία » nella col. XXIV, 20.
The Medical Prescription on the Verso of the Anonymous Londiniensis Papyrus

Written in the upper part on the back of cols. XXI – XXII:

Σκαμμωγίας di scamonea
Αγαρίκου [ d’agarico
βδέλλιου [ di bdellio
Κόμμεως [(?) di gomma [arabica 3 (o 4) oboli?]

The Letter of the Triumvir Marcus Antonius to the Province of Asia on the Verso of the Anonymous Londiniensis Papyrus.

Written at the rear of cols. VI – VII:


LXIII
**Commentary**

**Foreword**

Due to their scant philosophical value we have not taken into consideration the fragments of the *Anonymus Londiniensis* in the previous translation nor will they be included in this commentary. However, anyone interested in this aspect will find them outstandingly described, deciphered, and catalogued in the edition of the papyrus by A. Ricciardetto. We have focused instead on the writing on the recto as well as on the two opistographic additions by the scribe on the verso. The other two extant writings on the verso of the *Londiniensis* that belong to two alien hands are also addressed in the first chapter below titled « *The Opistographic Writings of the Anonymus Londiniensis Papyrus* ».

As a general remark we should like to underscore that, apart from the *paragraphos* « ___ » and the *diple obelismene* « ⤚ » (or forked *paragraphos*) underlining certain words in the writing, the *Anonymus* does not present any other kind of punctuation mark. By both signs the scribe intended a clear and plain pause (a trait that sometimes is also stressed by a *spatium vacuum*), or else a passage from the opinions of a particular author to another. After the following general scheme of the contents of the papyrus, the commentary is arranged by taking separately each one of the 39 preserved columns. In the first place, under the heading « Description », the reader will find some noticeable details at a papyrological, critical, and grammatical level; afterwards, under the heading « Explanation », some lexical information, divergences of reading or translation, and some clues that supplement the text or might help to better understand the meaning of the writing.

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General Scheme of the Contents in the Anonymus Londiniensis


a) Affection (πάθος) in its general sense: διάθεσις. Definition of διάθεσις according to the Ancients and to the Moderns.

b) Affection as a disposition of a faculty whatsoever.

c) Psychical and bodily affections. The psychical affections according to the Ancients and to the Moderns.

d) Bodily affections: πάθος - νόσημα/νόσημα - ἀρρώστημα. Differences and definitions.

e) Criteria for naming the different illnesses; indication that they will be called by their common appellation.

Second part (col. IV, 18 XXI, 8?) Title: « Αἴτιοςιλώγικὸς. Νόσος » (col. IV, 18 – 19).

A) Disagreement on the causes of disease.

1) Review of the theories by 16 authors who put the causes of disease to the residuals of the undigested food (cols. IV, 20 – XIV, 11).

2) Review of the theories by 6 authors — with special emphasis on Plato — who trace the causes of disease to the constitutive elements in us (cols. XIV, 12 – XXI, 8?).

Section mainly devoted to physiological concerns (or third part).

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A) The body constitution (cols. XXI, 9 – XXII, 5). There is need to depart from what the senses make manifest. The medical art and its proper scope (col. XXI, 13 – 18).

B) Economy of the living being, the human body, and the bodies in general. Continuous emission of matter, comparison to the external objects (col. XXII, 5 – 36). To avoid corruption there must be a proportion between emission and consumption (col. XXII, 36 – 41). In light of this purpose nature has created and disposed of the living beings in a certain manner. Matter is said to be mainly constituted of *pneuma* and food (col. XXII, 41 – 50). Some raise arguments against such an assumption (cols. XXII, 51 – XXIII, 8).

C) The *pneuma*: its functioning and administration. Analogy between respiration and sleep, references to Aristotle (cols. XXIII, 12 – XXIV, 9). Explanation for the qualitative transformation in the air we breath.

D) Nourishment.

D. a) Nature of the digestive process. Argument against Asclepiades and Alexander Philalethes. Metaphors and comparisons to underpin the theory whereby bodies can integrate the properties of the places they are or pass by or through (col. XXIV, 20 – 50).

D. b) Food is distributed to the whole body through the vessels in the stomach but also by means of vapor through porosities and interstices in the stomach. The scribe concedes that there is distribution from mere raw food (cols. XXV, 9 – 18).

D. b. 1) Study of the distribution of the nourishment in the body. Arguments against Asclepiades and Erasistratus (col. XXIV, 27 ff.).

D. b. 1. 1) Liquids and soft types of food are absorbed through the pores, hard and more solid types of food experience an elaboration in the stomach by virtue of which the food we intake is transformed into blood. Addition II on the verso of the papyrus.
D. b. 1. 2) The food is also distributed by the intestines, through the pores and through the body vessels. The remnant is transformed into stool or in sperm (by virtue of the property in the spermatic ducts). Addition I on the verso (col. XXV, 35 – 54).

D. b. 1. 3) Refutation of the thesis (probably by Asclepiades) whereby there can be nutrition from the residues (cols. XXV, 54 – XXVI, 19).

The general conclusion seems to be that there is a concoction in the stomach and there is also distribution of unconnected food by virtue of its smoothness (col. XXVI, 20 – 21).

D. b. 2) The majority of the food is distributed in the stomach, in the intestines, and also by means of vapours (col. XXVI, 21 – 31).

D. b. 2. a) Discussion and confutation of the thesis by Erasistratus and his followers that there is no distribution of food through the arteries insofar as the Erasistrateans believed that there was no blood at all in the arteries (cols. XXVI, 31 – XXVIII, 13).

D. b. 2. b) Issue as to whether the distribution of food occurs more in the veins or in the arteries (col. XXVIII, 15 ff.)

D. b. 2. b. 1) Anatomical proof for the majority of the distribution of food in the veins (col. XXVIII, 17 ff.).

D. b. 2. b. 2) Herophilus’s counterargument to the assumption above and confutation of Herophilus (cols. XXVIII, 46 – XXIX, 25).

The scribe comes to the conclusion that there is distribution in the both body vessels, veins and arteries, and throughout the whole body due to its porous nature (col. XXIX, 25 – 34).

D. b. 3) Not all the food we take in is distributed, but only a part of it; the rest is expelled through the rectum, the uretra, the sweat, etc.; it naturally follows from the proportion that must exist between what is taken in and what what is expelled (col. XXIX, 34 – 45). Discussion about the
nature and the formation of the urine, dissension of opinions about the tenet (cols. XXIX, 51 – XXX, 40).

E) Demonstration of the existence of continuous emanations from the evidence of secretions of all kind (col. XXX, 40 – 43).

E. a) Arguments for the existence of emanations.

E. a. 1) Aromatic substances (col. XXX, 42).
E. a. 2) Meats (col. XXXI, 6).
E. a. 3) Bread (col. XXXI, 16). Argument by the Empirics apropos of the heavy and the light which is finally rebuked (cols. XXXI, 25 – XXXII, 31).
E. a. 4) Examples drawn from inanimate objects, liquids, and collyria (col. XXXII, 32 – 41).
E. a. 5) Plants (cols. XXXII, 42 – XXXIII, 14).
E. a. 6) Irrational animals. How hounds get with the wild beasts. Erasistratus’s experiment on the bird in order to provide evidence of the existence of emissions (col. XXXIII, 14 – 44).

E. b) The emanations - emissions from our body are not only are factual but can also be viewed (explained) by reason (col. XXXV, 19 ff.).

E. b. 1) There are different kinds of perceptible secretion (col. XXXV, 22 – 30).
E. b. 2) There are also different varieties of the same kind of secretion (col. XXXV, 31 – 36).
E. b. 3) There are emanations from different parts of the body. Confutation of Alexander’s theory of blood as homogeneous principle (col. XXXV, 39 – XXXVI, 25).
E. b. 4) Emanations differ in quantity and quality on account of the movement (col. XXXVI, 25 – 35).
E. b. 5) Emanations differ also depending on the season (col. XXXVI, 35 – 43).

Conclusion: there are continuous and different emanations from the bodies.
F) Since there are continuous emanations there must likewise be accretions (penetrations) of all kind, in their turn perceptible and liable to be observed by reason (col. XXXVI, 43 ff.). Teleological argument drawn from Herophilus and Asclepiades on the purpose. Other kind of demonstrations.

F. 1) From faculties of drugs.

F. 1. a) Poultices and cataplasms.

F. 1. b) From the elaterion which penetrates through the pores on the body. From the hellebore and the scammony which act upon the body by means of fumigations (cols. XXXVI, 55 – XXXVII, 32). Example based on the anecdote by Democritus (col. XXXVII, 32 – 49). Example drawn from the castoreum, difference apropos of Asclepiades’ opinion about the issue (cols. XXXVII, 49 – XXXVIII, 24).

F. 2) The question on how bodies are warmed up or cooled down, the effective existence of invisible pores through which these states take place should be presumed (cols. XXXVIII, 24 – 32). Some issues ensuing from the thesis: the body in winter; why some do not get cold despite going outside after having had a bath (col. XXXVIII, 35 – 51).

G) Demonstration of the existence of pores (or channels that can be viewed by reason) in our body. Problem with the order of the premises in the demonstration: the existence of pores should have been demonstrated first, and then the existence of continuous emanations. Asclepiades and Alexander’s conformity with the established order in the demonstration. Another teleological argument for the existence of pores, some samples drawn from concrete species. There must be pores susceptible to observation by reason in every kind of animal in order to nourish every part of the body.
Description

The term διάθεσις in l. 7 is in the interlinear space, so « \ διάθεσις / ». In l. 9 the scribe wrote « ζωτική » by mistake, hence [Ζωτική], and by using some of the extant letters he reuses his writing by overlapping « εν τοις εομασ » . In l. 15 there is another interlinear expression « \ δει γινωσκεαιν οε/ ». L. 31 commences with ekthesis of one letter, that is, the line does not respect the layout of the margin: the scribe started to write utterly a bit further to the left, so that the letter « δ » in « [δ]εικσαϊκηνια » can be distinguished insofar as it sticks out from the left margin. However, the most distinctive trait in this first column is the presence of a very long portion of text edited in double square brackets [ ]. This is actually the way to represent the semicircular line that starting from the end of l. 16 continues all the way down on the right margin of the text up to encounter l. 39. As A. Ricciardetto notes, it is one of the many methods the scribe uses to correct the text that he is writing; this meaning that the passage is canceled by the author himself because he judges it erroneous or it needs to be redrafted. After that indication the scribe undertakes anew the definition of the concept he is studying (i.e. ‘affection’). Ll. 19 – 21 were reconstructed on the basis of fr. 1 edited by F. Kenyon and H. Diels.

Explanation


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6 In 1900 there arrived at the British Museum 23 small fragments of which the first seven (according to the numeration coined by F. G. Kenyon and H. Diels) were recognised and replaced in the papyrus; the rest of the fragments are unfortunately lost and there is no photographic reproduction of them. Ricciardetto (2016), pp. XV, 62. Ll. 19 – 21 correspond to fr. 1 in Kenyon - Diels (1901), pp. 1320, 1322.
I, 5: τοῖς ἀρχαίοις

I, 1–7: definition of διάθεσις. D. Manetti is of the opinion that the notion of διάθεσις in cols. I, 1–III, 7 is interchangeable, and in a way synonymous, with κατασκευή in cols. III, 7–IV, 17. Manetti argues that the reason for “the substitution” of one term by another owes to the different kinds of materials that the scribe consulted.

I, 7–10: this passage has been edited and translated into Italian by T. Dorandi.

I, 10–11: κατὰ κίνησιν/σχέσιν: σχέσις should be taken here as ‘contrary to movement’.

I, 14: λήθαργος: the physicians Alexander Philalethes and Asclepiades of Bithynia held identical views on lethargy. The scribe of Anon. Lond. affirms that they also had an identical theory of digestion. It is known that the physician Heraclides of Tarent used the laserpicium (cīlφιον, silphium laserpicium) to treat the lethargy and the tetanus.

I, 15–III, 12: The scribe puts his effort into defining πάθος and ψυχή.

I, 20: ζωτικήν δύναµιν [τῆι] ψυχῆι

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9 Cfr. infra ch. VII § 3. 1.
11 The translation runs as follows: (« (Affezione è) una disposizione di una qualsiasi proprietà vuoi d’un essere vivente vuoi del corpo voui dell’anima insita nei corpi, per movement o stasi. Per movimento, tutti i movimenti in noi sono affezioni secondo movimento, per stasi, invece (lo sono) paralisi, letargia, torpore e quelle prossime a queste. »). Dorandi (2016), p. 201.
16 The silphium was a plant often used in the Antiquity — though extinct by the beginning of the Christian era — because of its strong purgative effects. It is known, for instance, that in the 5th century BC the silphium was retailed. Repici (2006), p. 72. The silphium only grew in the Cyrenaica (NE Libya to-day), hence its Greek denomination (ὀπὸς Κυρηναϊκὸς).
I, 22 – 23: παρεσπαρέμενη: it could bear relation to the Epicurean psychological doctrines according to which the soul is a finely textured body spread along the whole body aggregate\textsuperscript{18}.

I, 24 – 25: ἡ ἐντρέχεια καὶ τῆς μ(ή)ν ἐντρε[χ]εία\textsuperscript{19}.

I, 31: [δ]εισδημονία.

I, 36: μανία ὀμοίως : as W. H. S. Jones noted\textsuperscript{20}, it is certainly strange to find the madness (μανία) among the bodily affections\textsuperscript{21}, unless we assume that — as with fever — madness could either have passed for a physical or for a psychical disorder.

\textbf{Column II}

\textbf{Description}

A high resolution photograph of col. II can be consulted in paper format\textsuperscript{22}. One of the main issues in col. II is the substantive ἐντρέχεια in l. 9\textsuperscript{23}. The papyrus unmistakably reads ἐντρέχεια. Ll. 10 – 17 were partially reconstructed on the basis of fr. 2\textsuperscript{24}. Between ll. 38 – 39 there is a \textit{paragraphos} which does not appear in Manetti’s edition of \textit{Anon. Lond}. In this particular case, the scribe wants to introduce by means of the \textit{paragraphos} a distinction between the types of affection ‘the Ancients’ acknowledged and the types admitted by the Stoics.


\textsuperscript{19} Cfr. infra ch. III.

\textsuperscript{20} Jones (1947), p. 25 n. 36.

\textsuperscript{21} In this passage the author is actually addressing the psychic affections, but as it seems the scribe takes the madness as being a physical, not a mental illness.

\textsuperscript{22} CPF (2002), p. 57.

\textsuperscript{23} Cfr. infra ch. III.

\textsuperscript{24} Fr. 2 in Kenyon - Diels (1901), pp. 1320, 1322.
Explanation

II, 3: [ζω]τική

II, 4 – III, 7: the scribe moves on to examine the affections pertaining to the soul, in the first place according to the Peripatetic views (and his own), then in light of the Stoic doctrine. The Aristotelians conceived the πάθος in terms of a particular psychical διάθεσις (disposition, condition); whereas for the Stoics it was a matter of an excessive impulse.

II, 6: καὶ γ(̣αρ) ἡ ψυχὴ δύναμις (ἐκτην): as regards the concept of δύναμις, in being something like an invisible power, capacity, or susceptibility that served, *inter alia*, to delineate something like causal relations, or at least, to give account for some phenomena, it turns out that the term δύναμις acquired, no doubt, strong ontological and epistemological implications. Present almost from the beginning of Greek scientific literature, it was only in the later 5th and early 4th century BC, nonetheless, that the notion of δύναμις seems to have started functioning as something resembling a technical term. Incidentally, it assumed this new role more or less simultaneously in three distinct branches of so-called rational inquiry: in philosophy, in medicine, and in mathematics. This noticeable historical coincidence gives rise to the question whether interaction between these three forms of inquiry contributed to the rapid development of δύναμις into an explanatory device of central and enduring significance in Greek science. In philosophy, as in medicine, the concept of δύναμις will play a conspicuous role in the postclassical models of the relation of the soul to the body. In general, it refers to the properties in bodies which either have the power to affect or to be affected. In the Corpus Hippocraticum we find different theories of δύναμις. A qualitative one, by virtue of which things are active because some elemental δυνάμεις operate in them (cold, hot, humid, dry, sweet, bitter etc.) A second theory, of quantitative nature, in which what is underlined is

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30 von Staden (2000), p. 84.
31 H. von Staden claims that it would be misleading at best to translate δύναμις as ‘quality’ or ‘property’ for that would imply that the former is identical to the latter two, when it is not the case. von Staden (1998), p. 268. For the meaning of δύναμις as a ‘natural quality/ability’ see Jouanna (2012h), p. 276.
the intensity of these δύναμες, and in the third place even a substantial sense, whereby the δύναμες inherent to a thing is said to be composed of particular δύναμες or active material principles\textsuperscript{32}. The pre-Socratic philosophers and the Hippocratic physicians tried to describe scientifically the δύναμες by dint of two different arguments: by the elemental quality in a thing (hot, cold, dry, humid etc.), or else by the contraposition between different δύναμες (hot – cold, dry – humid and so forth). In Aristotle’s philosophy the term is normally translated as ‘potency’ (as opposed to ‘actuality’\textsuperscript{33}). When referring to a drug, the term δύναμες expresses the efficacy of a remedy\textsuperscript{34}.

II, 12 – 14: Τ(ῶν) τεψυχή|\

Podolak this sentence has echoes in Soranus’s doctrine\textsuperscript{35}. In origin, the distinction between affections according to nature (κατὰ φύσιν) and contrary to nature (παρὰ φύσιν) lies on the basis of the regularity and frequency that a trait is manifested in the phenomenal world, but in this passage the author is apparently introducing a moral nuance in the expressions, so when it comes to psychic affections those regarded as κατὰ φύσιν are deemed so in a positive way, whereas those called παρὰ φύσιν take a negative sense.

II, 18: [τ(ῶν)] ἀρχαίων οἷς καὶ ἡμεῖς ἓπομέθα$: cols. II, 18 – III, 7 have been edited, translated into Italian, and commented on by D. Manetti\textsuperscript{36}. The scribe’s claim is a solid argument for discrediting the author of Anon. Lond. as a Methodist physician, for the followers of such a medical school disregarded the opinions of the ancients, while the scribe is precisely affirming the opposite\textsuperscript{37}.

\textsuperscript{32} It is the case respectively of Hippocrates Vict. I; Vet. med.; and Nat. puer. Gómez Tirado (1986), p. 142.
\textsuperscript{33} R. Joly considers the notion of δύναμες in Aristotle rather as an epistemological hindrance. Joly (1968), pp. 249 – 250.
\textsuperscript{34} Vegetti (1995b), p. 76.
\textsuperscript{36} Cfr. CPF Stoici 3T, pp. 786 – 796. The translation in CPF Stoici 3T, pp. 788 – 789 is as follows: « Questa è la classificazione degli antichi di cui anche noi siamo seguaci. Esso infatti lasciano sussistere le affezioni (passioni) medie nel saggio e affermano che le affezioni (passioni) medie costituiscono il “nervo” delle azioni. Gli autori recenti invece – cioè gli Stoici – non ammettono nessuna passione dell’anima secondo natura. Infatti dicono che la innaturalezza è totalmente indicata dalla formula con cui hanno dato la definizione della passione, « la passione è un impulse eccessivo »: impulso è inteso da loro non nel senso di una tensione eccessiva, ma nel senso che non risponde alla ragione che sceglie. Ma ciò riguarda loro; da parte nostra dobbiamo dire che sono affezioni dell’anima secondo natura il recordo, il ragionamento e cose simili. Contro natura la dimenticanza, l’incapacità di ragionamento e cose del genere. Vi sono due generi fondamentali di affezioni dell’anima secondo gli antichi: piacere e dolore; le affezioni intermedie si formano per la mescolanza di quelle citate. Secondo gli Stoici invece, sono quattro i generi fondamentali di affezioni (passioni) dell’anima: piacere e desiderio, paura e dolore. Piacere e desiderio si formano per la rappresentazione di un bene: di essi il piacere […] di un bene […] è possibile […] il bene. Dolore e paura si formano per la rappresentazione di un male: la paura si forma per l’aspettativa di un male, infatti abbiamo paura quando ci aspettiamo il male. Il dolore si forma per la presenza di un male, infatti proviamo dolore per i mali presenti; ma di questo basta ».
\textsuperscript{37} Van der Eijk (1999c), p. 397.
Since this passage is in the first section, the scribe is still providing definitions of the key terms he will eventually use. This kind of procedure is firmly anchored in both the Academy and the Lyceum. Having started with this tenet from the beginning of the papyrus (or what is left and has been preserved of the Anonymus), the author treats now the definition of ‘affection’ (πάθος). The definition and the classification of the affections is based on compilations of manuals with ethical content. The theory of the affections expounded by the scribe is in this sense clearly indebted to Aristotle, although it could be argued that the origin can be traced back to Plato’s Laws. In the scribe’s view an affection is a disposition that can be either natural or contrary to nature, as well as belong to the soul or to the body. It is also stated that the soul belongs with the two main genres of affection, pleasure and pain; so that the rest of the extant affections are actually built upon these two. A further distinction between νόσημα and πάθος could be introduced. While the former has namely to do with the subjective or psychological aspect of infirmity (illness), πάθος instead intends the affection as such (disease).

In the view of almost all the philosophical schools the passions (that is, unregulated desires and exaggerated fears) are mankind’s principal cause of suffering, disorder, and unconsciousness. According to the scribe of the Londiniensis the Stoics did not concede the existence of natural affections; yet, in the light of some fragments attributed to the Stoics, Panaetius of Rhodes could have classified the πάθη in terms of ‘natural’ and ‘contrary to nature’. At any rate, the discussion in the Anonymus is centered on the opposition between the views the Ancients held on this topic and those of the Moderns (the Stoics), this constituting a kind of locus communis in the philosophical debate from the 1st century BC to the 2nd century CE. From the Ancients the scribe borrows the sense of κρᾶσις as πάθος (which coincides with Herodicus). The Hippocratic treatise titled Regimen in Acute Diseases also makes mention of ‘the Ancients’; thereby they mainly amount to the ancient Cnidian physicians who, as with the author of Anon. Lond., were committed to the taxonomy of diseases and their distinction. There is room to suppose, therefore, that the

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38 CPF Plato 129T, p. 547.
39 Aristotle EN II 2.
40 Plato Lg. I 636d.
43 CPF Stoici 3T, p. 790.
denomination of ἀρχαῖοι was not a mere generic denomination in opposition to the Stoics, rather a way to make allusion to the Cnidian physicians⁴⁵.

In relation to the opposing views of the Ancients and the Moderns on the affections, there is an evident resemblance between the classification of the affections and their respective definitions in the account provided by the scribe and the classification and definition of the affections in the report on Zenon’s philosophy given by Diogenes Laertius⁴⁶. Passion (or also emotion) is defined by Zeno as an irrational and unnatural movement in the soul, as an impulse in excess⁴⁷. The main or most universal emotions according to Hecato and Zeno constitute four great classes (each one subdivided in their turn): grief, fear, desire or craving, and pleasure⁴⁸. Yet, whereas the classification of the passions in the Anon. Lond. is said to be clearly indebted to the Stoics, nobody has noted — as far as we know — the resemblance between the classification of the affections and their respective definitions in the account provided by the scribe and the way these very affections and definitions are handled in the Souda⁴⁹.

II, 20: μετριοπάθεια: the moderation or the evenness in the affections (μετριοπάθεια) is taken by the scribe precisely as a point of dissension between the Ancients and the Stoics.

The sage is someone subject not at all to passions « φοβηθήσεται µὲν γὰρ τὸν σοφὸν οὐδαµῶς, εὐλαβηθήσεται δέ. » this being his foremost characteristic or attribution in Stoic philosophy. Indifference, ataraxia, or the capacity for facing life’s setbacks without much distress is in fact a topic currently discussed in the Imperial period. Deeply imbued with Stoicism and practical intention, Hellenistic philosophy could be considered as an effort to find “the way” to get rid of passions in order to make life as pleasant as possible; which is what the sage reaches.

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⁴⁵ Gómez Tirado (1986), p. 144. For a more detailed treatment of this expression cfr. infra ch. VII § 3. 1.


⁴⁷ πάθος is defined as « ἡ ἄλογος καὶ παρὰ φύσιν ψυχῆς κίνησις ἢ ὀρθὴ πλεονάξουσα » s.v. Πάθος [27] in Souda 110 [Marcovich (1999b), p. 52, 24 – 25].


⁵⁰ Diels (1893a), p. 98: « Dicunt esse Peripatetici. »

II, 20 – 22: καὶ φ(ας)τὰς μ[ε]τριοσθείαις νεῦρ[α] (ἐννα) τῶν πράδεουν52: conceiving the νεῦρα as
‘strength, force, or vigor’ is not new, but in fact lies in an ancient metaphor53; but when applied to
the concern of the μετριοπάθεια, as it is on this occasion, it constitutes a novelty which is,
therefore, only witnessed in the Anonymus54. The expression, no doubt, is connoted and enriched
by the technical sense that the term νεῦρα gets in the Hellenistic period, for it was at that time
(purportedly after Erasistratus’s theories and investigations in the field of medical anatomy) that
from meaning ‘tendon’ or ‘sinew’55 the word νεῦρα would go on to acquire the meaning of ‘nerve’.

In the treatise On Breath56 the nerves are deemed to be the channels through which the
pneuma is conveyed. According to the author of the treatise, sensation and movement are
transmitted to/through the body by means of the blood vessels, in particular by the pneuma they
contain. In this view the veins are said to convey blood and the arteries only air (πνεῦματος)57.

Being hollow inside, and thereby liable to transport “elements” through, the nerves are considered
to be of the same nature than veins and arteries.

II, 22: [ο]ἱ δὲ νεώτεροι, τ[οῦ]τ᾽ (ἔτιν) οἱ Στοικοὶ58

II, 24: ἑμφ[αίν]εθα59: this is the reading suggested by G. Striker, which seems to fit better with
the intended meaning than Diels’s (i.e. ἑμφέρεσθαι); thus, the verb takes the sense of ‘to be
indicated’ or ‘to be implied’.

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52 Beckh - Spät (1896), p. 3: « die Triebfeder der Handlungen ist »; Jones (1947), p. 27: « the sinews of actions »;
infra col. XVI, 9.

53 Consisting of comparing the body to a kind of puppet moved by a higher divine instance. Plato Lg. I 644d 9; R. III

54 CPF Stoici 3T, p. 791.

55 A proof for this is the use of the term νεῦρον (in the neuter) by Plato at Ti. 74b. Burgess (1998), pp. 23 – 24.

56 Pseudo - Aristotle Spir. 483b 13; 484a 33 – 37. In Aristotle’s treatises on biology one is not to find this distinction.

57 In De plenit. XI [VII 573 K.] Galen claims that such a distinction can be traced back to Nicarchus, Praxagoras’s

58 Cfr. col. II 30, 39.

59 Diels (1893a), p. 90: « Inferri notionem (ad animae) ».
II, 26 – 30: ἀ[π]έδογκεν⁶⁰: the passage exhibits resemblances to Diogenes Laertius’s report on Zeno⁶¹, but on account of the difficulty in explaining the likeness of the irrational to the excess, this excessive impulsivity seems definitely to be more in connection to Chrysippus⁶².

II, 27: Besides sensibility (αἴσθεσις) and impressibility (φαντασία), in Erasistatus the impulse (ὀρμή) is one of the capabilities rendered by the psychic pneuma⁶³.

II, 28 – 29: ὑπερτάσεως[c]: as substantive it is only attested in Marcus Aurelius’s Communings with Himself⁶⁴.

II, 31 – 34: as regards the concept διαλογισμός, this is a synonymous word for λογισμός, that is to say, “deliberative activity, the exercise of the faculty of reasoning” and so forth⁶⁵. Touching on the definitions of ‘memory’ and ‘reasoning’, since they are conceived of as the soul’s natural affections, their definitions could have been drawn from Aristotle⁶⁶. In this sense, in an earlier stage of its usage πάθος was perfectly applicable to λογισμός, for the four modalities of intellectual activity in Plato (νόησις, διάνοια, πίστις, εἰκασία) were actually conceived as παθήματα ἐν τῇ ψυχῇ. But, as the time wore on, and above all from a medical point of view⁶⁷, the term πάθος would no longer take that sense, and would progressively assume instead a new meaning: in plain opposition to λογισμός, it would refer to the failures and dysfunctions concerning mental faculties such as memory or sane rationality.

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⁶⁰ Diels (1893a), p. 84: « Definere ».
⁶⁵ CPF Plato 129T, p. 555.
⁶⁷ CPF Stoici 3T, p. 794.

As regards forgetfulness or loss of memory (ἀμημοσύνη), it is an affection that the author of the Hippocratic treatise *The Sacred Disease* attributes to the excessive (contrary to nature) chilling of the brain produced by the superabundance of phlegm.

II, 34 – 37: Τ(ῶν) τε[παθὸν τ(ῶν) περὶ τῆν ψυχήν [δ]ύο (ἐκτὸς) τὰ[γενικότατα κ(ατά) τοῦς ἄρχ[αί]ους· ἡ[δόν]νήν 71 τε γ(ἀρ) [κ]αὶ ὀχλησίς; literally ‘pleasure and disturbance’; that is to say, inhibition/excitation, or calm/agitation.

II, 38: τ(ῶν) εἰρ[η]μένων 72

II, 42 ff.: φανταϲία: the representation (scil. of a good or a bad thing). This is the reason why the Stoics submitted the two major pairs of affections — desire/fear and pleasure/pain — to the general categories of προσδοκία and παροῦσία (i.e. expectation and presence respectively) 73. So a pain is an affection resulting from something which is actually present, while a fear is an affection following something we credit to be evil, pernicious, or dangerous but, in reality, such a thing is not actually there.

**Column III**

**Description**

A high resolution photograph of col. III is available in paper format 74. In l. 2 the author originally wrote « παρουςιαν »; afterwards, in realizing that he made a mistake, he cancelled

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68 Diels (1893a), p. 100: « ut enumeratuiu claudatur ».
70 Diels (1893a), p. 90: « Enumerationem claudens ».
71 As opposite to ὀχλησίς. Diels (1893a), p. 92.
72 Diels (1893a), p. 97: « Eorum quae modo memoravimus ».
73 CPF Stoici 3T, p. 795.
and added « φαντα » in the interlinear space above in order to get « φαντασιαν », so that P. actually reads « [παρου]/φαντα/σιαν ». In col. III there are also two dittographies. In the first case, in ll. 7 – 8, the scribe wrote by mistake the construction « \( \text{εἶναι} \) σωματικον » twice, therefore: (εἶναι) σωματικὸν {εἶναι} σωματικόν. In the second case, in l. 21 the scribe wrote « αποτου » two times. The first letter in l. 13 starts with ekthesis. Finally, since the restitution « ἀρ][ρ[τημά » seems too long, D. Manetti and A. Ricciardetto have suggested « ἂρ][ρ[τήμα » instead75.

Explanation

III, 7 – IV, 7: after having examined the affections of the soul the author takes up now the study of the bodily affections. It seems clear at this point that the author uses a different source than he has been utilizing heretofore76. The bodily affections are catalogued according to the criteria of movement (kinetic) and repose (static), and both in turn are subdivided into the categories of ‘according to nature’ or ‘contrary to nature’. Later on, a further distinction is made among the latter, since the bodily affections contrary to nature are split into irregular (ἀτάκτα) and regular (τεταγμένα)77. This classification is rather rare and, as it seems, unwitnessed elsewhere. In relation to this detail, it is worth noting that, from a lexicographical stance, in its adverbial form (i.e. ἀτάκτως) ἀτακτα is only attested in Epidemics78. When applied to fever the adverb takes on the meaning of « irregularly ».

III, 11 – 15: this passage has been also edited and translated into Italian by T. Dorandi79.

76 In light of the parallelisms that have been found, this passage could share the same source that served to the composition of Pseudo-Galen Def. med. XIX. Cfr. Manetti (2016a), p. 529.
78 This restricted employment has led J. Jouanna to believe that Epidemics I – III were written by only one and the same author, who comes in turn identified with the author of Prognostic. Cfr. Jouanna (1989), pp. 62 – 63, 75 – 76.
79 The translation runs as follows: (« le affezioni irregolari sono quelle che guariscono ora in un modo ora in una altro, per esempio, talora poco a poco, talora d’un tratto. Tra le affezioni regolari alcune sono, nel linguaggio specialistico, affezioni, le altre morbi. E, nel linguaggio specialistico, sono affezioni ordinate quelle che guariscono poco a poco. Tra le malattie alcuni sono, nel linguaggio degli specialisti, morbi, le altre sono infermità »). Dorandi (2016), p. 204.
III, 13 – 35: definition of the term νόϲηµα. So far as the use of the term νόϲηµα — and the derivative sequence νοῦσος - νοσέω - νόϲηµα; it is found in an earlier stage of development of the Greek language if compared, for example, with ἀλγήµα — or the derivative sequence ἀλγός - ἀλγέω - ἄτακτα, which is barely attested in the three main tragedians.

III, 18: κ(ατα)κευὰ

III, 20: τῆ λύσεω

III, 22: ἐννενεοεικέναι

III, 28: [ὁ]ς τε νόϲηµα (ἐξτιν) εἰρηµένον. : the account is now brought to an end and brings back what has been said in col. III, 12. In short, the author of the Anonymus is resuming the reason why ‘the few’ an ‘the more’ are deemed as ἄτακτα. Since the so-called ‘irregular affections’ cannot be known because of the impossibility of drawing more further distinctions between them, the scribe sees the classificatory exercise he undertook as finished.

III, 17: ο δὲ ἀρρωστήµατα

III, 18: at this point the scribe uses for the first time the term κ(ατα)κευὰ as a synonym of διάθεσις; this substitution is believed to be reflecting a change in the textual source used by the scribe.

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80 Again, the coincidence between the definition in the Londiniensis and the description in the Souda is interesting s.v. [3997] Ἀρρώστηµα Souda 115 [Marcovich (1999b), p. 55, 4 – 6]: « ἀρρώστηµα νοσήµατος διαφέρει· νόϲηµα µετὰ ἀσθενείας, τὸ δὲ νόϲηµα οὕτως σφόδρα δοκοῦντος αἱρετοῦ’ ». In col. IX, 23 we find the form ἄγηδ<όν>ος.

81 In col. IX, 23 we find the form ἄγηδ<όν>ος.


86 Galen recollects this very synonymic character, but he prefers κατασκευή to διάθεσις as the meaning of the latter is older and more neutral in comparison with the former. Galen De sympt. diff. [VII p. 43, 6 – 9 K.]; De differ. morb. [VI pp. 837, 15 – 838, 1 K.]. Cfr. Manetti (2016a), p. 530.
III, 29: the definition of ἀρρώστημα seems to dwell on the way the Stoics used the term; in the terminology of the Stoics ἀρρώστημα described the kind of states accompanying ailment, hence its translation as ‘infirmity’88.

III, 30: παρηρήθωσαι89

III, 33 – IV, 8: this passage has been edited and translated into Italian by T. Dorandi90.

III, 36 – 44: definition of νόκος.

III, 39 Λέγεται νόκος διχῶς91

Column IV

Description

In l. 8 the two first letters of the word κυμβέβηκεν start with ekthesis, also the first letter in l. 20; neither are described in Manetti’s edition. In l. 15 the papyrus neatly reads « οὐχι », so Manetti’s suggested reading « ήτοι » does not work. In l. 26 we find another correction by means of overcharging the letters written by mistake. Having formerly written « δια » the scribe converted « δι » into π (i.e. \[\delta\] | \[\rho\] ) adding afterwards « ρα » in the interlinear space (i.e. \[\rho\alpha/\] ) to get to the intended word, the preposition παρὰ.


90 The translation runs as follows: ( « Malattia si dice in due sensi, nel linguaggio comune e in quello specialistico. Nel linguaggio comune, (indica) ogni affezione contro natura, significato secondo cui la febbre sarebbe ugualmente detta una malattia. Nel linguaggio specialistico, una costituzione persistente nei corpi con tempi di remissione opinabili. E debolezza in maniera simile. Si dice infatti nel linguaggio comune e in quello specialistico. Nel linguaggio comune di nuovo, ogni affezione contro natura, significato secondo cui chi ha la febbre sarà chiamato debole. Nel linguaggio specialistico, una costituzione persistente nei corpi con tempi di remissione opinabili con perdita con perdita della forza dei corpi » ). Dorandi (2016), pp. 204 – 205.

91 Cfr. infra ch. III § 3. 2.
The most noticeable trait in this column is that the change from the first section of the papyrus to the second\(^\text{92}\) is not only advertised by means of a title, but also by a double paragraph in combination with a considerable space (amounting to five lines)\(^\text{93}\) that the scribe willingly put in between both sections. In addition, the reviews of the opinions belonging to the physicians reported in this second section tend to be individualized by some of the two aforementioned punctuation marks. What really is at issue in this column is the expression ‘\[Ἀ\][ὶ\] ῥητικὸς\[Νός\]’ in ll. 18 – 19. With this title the second of the three main sections into which the papyrus is deemed to be divided starts\(^\text{94}\).

Explanation

IV, 5: \(λ\)ρ̣ε\(ω\)ο\(υ\)\(^\text{95}\)

IV, 7 – IV, 17: the author explains that the way the different diseases are named mainly depends on the symptoms or the consequences derived (l. 8: ‘\([\acute{από}][\pi\alpha\rho\alpha\kappaολω\thetaο\upsilon\tauο\upsilon\)’) or on the affected place (l. 9: ‘\(\acute{από}\) τ\(\acute{ό}\)που ’). One of the leading assumptions of Hellenistical medicine is the conviction that illnesses are morbid states always equatable with some part of the body. Thus, regardless of not being directly observable, an internal part still remains knowable through inference\(^\text{96}\). The end of the first section of the \textit{Londiniensis} papyrus therefore places stress on the importance of inquiring into the concrete physical location of nosological affection. The name and the particular part of the body that is affected (\textit{a parte corporis quae patitur nomen accepit}) were two important aspects that Methodist physicians took into consideration to catalogue and define an illness\(^\text{97}\). As to the distinction consisting in individualising or classifying an affection in virtue of the part of the body that is affected, this is a trait that features in the first redactional layer of the \textit{Anonymus Parisinus}\(^\text{98}\), a medical writing — almost contemporary to the \textit{Anonymus Londiniensis} —

\(^{92}\) Col. IV, 17 – 20.

\(^{93}\) Ricciardetto (2014), p. 46.

\(^{94}\) For a full account of the subject see infra ch. I § 6. 3.

\(^{95}\) Diels (1893a), p. 97: ‘Sanatio’.


\(^{97}\) Gourevitch (1993), pp. 134, 164 n. 28.

\(^{98}\) Cfr. infra ch. I § 7. 1.
which is believed to pertain to a doxographical tradition specially focused on inquiring into the affected parts\textsuperscript{99}. The Methodist physicians used to include some sections referring to the role of the affected places in their writings\textsuperscript{100}.

IV, 12: paralysis (\textit{παραλύσις}) is ranked in the 21\textsuperscript{st} position among the illnesses described in the \textit{Anonymus Parisinus}\textsuperscript{101}, where it is classified as a chronic illness. It is known that paralysis as well as other shivering disorders, like spasms and bulimia, were treated with the euphorbia (\textit{εὐφορβία}).

IV, 13 – 17: as regards the expression « τὸν τόνον » in l. 13 it is worth noting that among the Pneumatist\textsuperscript{102} physicians, like Aretaios of Cappadocia, the condition of the \textit{pneuma} in health is termed ‘tension’ (τόνος), whereas the loss of tension arising from internal or external causes is the upsetting of the equilibrium in the body\textsuperscript{103}.

Now, touching on the illness called φρενίτις in l. 14, according to Podolak the report given by the scribe on the φρενίτις might be dwelling on Soranus\textsuperscript{104}. It is evident that the meaning of the expression « οὐχὶ διαφραγμ[α] » in ll. 15 – 16 is that when someone is gripped by the phrenitis\textsuperscript{105} it is his φρήν and not the diaphragm that is affected. The remark the scribe introduces is likely due to the fact that in some ancient medical and philosophical views (for instance in Aristotle) the will, and in general, the conscious life was believed to be located in the medial part of the body. We find such a view in Plato\textsuperscript{106}also, where the φρήν is conceived of as the seat of the highest faculties; this assumption will later be widespread\textsuperscript{107}. In this way Galen, for instance, mentions that the delirious episodes the phrenitis brings about once were once believed to be the result of the inflammation of

\textsuperscript{99} Van der Eijk (1999b), p. 322.
\textsuperscript{100} Debru (1999), p. 471.
\textsuperscript{101} \textit{Anonymi medici} XXI 1 (1) – 3 (12) [Garofalo (1997), pp. 122, 17 – 130, 18].
\textsuperscript{102} The Pneumatists regarded themselves as partisans of Dogmatist tradition. Van der Eijk (1999b), pp. 328 – 331.
\textsuperscript{103} Oberhelman (1994), p. 962.
\textsuperscript{105} W. H. S. Jones adds the remark ‘brain-fever’. Jones (1947), p. 31. For a consideration of this disease in the \textit{Anonymus Parisinus} see \textit{Anonymi medici} 1 1 (1) – 3 (13) [Garofalo (1997), pp. 2, 1 – 10, 13].
\textsuperscript{106} Plato \textit{Ti.} 70a, 84d.
\textsuperscript{107} Aristotle \textit{P4} III 10, 672b 14 – 19; Galen \textit{De loc. aff.} V 4 [VIII pp. 327 – 328 K.]
the diaphragm, the place where the ancients put the rational part of the soul\textsuperscript{108}. Besides this location, the φρήνες were also placed in relation to the brain\textsuperscript{109}.

Whatever it might be, the case is that φρήν is doubtlessly a term not easy to translate because it can refer either to some part of the body or to some psychic function that medical science abandoned a long time ago — this situation applyies whenever a Greek word alludes to a psychological function or physiological organ which does not exist anymore in modern science as a function or part subject to study or treatment. In fact some Greek concepts do not have an exact corresponding term in our contemporary anatomical views\textsuperscript{110}, so that the identification of phrenitis with encephalitis, meningitis, or with a type of malaria\textsuperscript{111} is just a partial solution: phrenitis does not mirror any particular disease in contemporary pathology. As M. Grmek pointed out it is almost impossible to give a non presentist account of the facts, since it is almost impossible to leave behind completely the time where one lives or all that one knows\textsuperscript{112}. At the very least, it seems that by ‘phrenitis’ an acute psychiatric perturbation accompanied with delirium was meant; but it yields another problem which mainly consists in finding a modern pathological pattern for phrenitis. The word with which a disease is named must be a \textit{terminus technicus}, that is, a term that denotes precisely the specific condition to which it is applied (either a particular way to get sick or of being sick with a concrete illness). In addition to this condition, the meaning of this term should be univocally understood by all medical professionals, insofar as technicians, who use that word. All

\textsuperscript{108} Galen \textit{De loc. aff}. [VIII p. 327 K.].


\textsuperscript{111} As W. H. S. Jones suggests the reason perhaps lies in the fact that diseases were classified by ancient physicians according to their symptoms; while they are now classified according to the microorganisms that cause them. Jones (1984a), p. LV. The same argument seems also applicable to the term καῦσος that Aristotle takes by example to explain what the medical art is said to consist. Aristotle \textit{Metaph}. I 1, 981a 12. καῦσος is not a mere fever but an acute fever specially related to bilious and phlegmatic people, a kind of dehydration syndrome of toxic and infectious origin accompanied with high fever peaks that leave the surface of the body cold, insomnia, intense thirst, swelling of the spleen, bleeding through the nose etc. Cfr. Spoerri (1996), p. 202; Jouanna - Grmek (2000), p. 195 n. 10. According to Jones καῦσος was almost certainly a form of remittent malaria. The feverish episodes that come along with pneumonia are termed in this way at \textit{Anonymi medici} IX 3 (12) [Garofalo (1997), p. 68, 25]. Aretaios of Cappadocia classified the καῦσος as an acute affection and gives the following symptoms: acute fire that consumes the whole body, especially the internal organs, burning breath, long and intense breath with the need of fresh air, dry tongue, lips, and skin; intense thirst; cold in the extremities, bilious urines, insomnia, frequent and feeble pulse, bright reddish eyes, faded visage. Cfr. Aretaios of Cappadocia \textit{De causis et signis acutorum} II 4 [CMG II pp. 23, 13 – 24, 14 Hude]; Grmek (2000), pp. 47 – 49.

\textsuperscript{112} Grmek (1993), p. XXVI.
that fails any one of these premises will never constitute a true diagnostic\textsuperscript{113}. According to the catalogue DSM IIIR, phrenitis might correspond to an organic deliriant syndrome\textsuperscript{114}.

Phrenitis is the first disease we find expounded in the \textit{Anonymus Parisinus}\textsuperscript{115}, where it is catalogued as an acute affection\textsuperscript{116}. The alleged causes for the phrenitis vary depending on the author. From the author of the \textit{Anonymus Parisinus} we learn that Erasistratus puts the cause of phrenitis down to an affection of the activity of the meninx; Praxagoras to an inflammation of the heart; Diocles to an inflammation of the diaphragm; and Hippocrates to the corruption of the brain (the seat of the mind) when it gets nourishment corrupted by the agency of the bile from the chorioid meninx. In relation to the symptomatology, the patient suffering from phrenitis shows continuous deliriant episodes (παράληρος) accompanied by an acute and continuous fever (συνεχής πυρετός)\textsuperscript{117}. In this sense, it is the presence of fever (πυρετός) that permits us to tell the φρενιτικός apart from the µανιατικός — that is to say, the person affected by madness (µανία); for the latter behaves deliriously, but gets no fever\textsuperscript{118}. In the Corpus Hippocraticum (where the occurrences amount to 25) phrenitis is described as a feverish delirium\textsuperscript{119}. The φρενιτικός also suffers from insomnia, continuous sweat, nausea, vomit, adipsia (i.e. lacks of thirst or intakes few liquids), convulsions, and in some cases also from deafness. His urine in addition is scarcer and transparent, since it is in the wintertime when the φρενιτικός gets worse\textsuperscript{120}.

Dictionaries currently point to some place in the middle part of the body, around the heart and the ribbons; this is the reason why we opt for translating φρήνας as ‘ipocondrio’, for it is mainly located between\textsuperscript{121} one and the other. Yet the difficulty is to make the exact location of the φρένες clear, since apart from knowing from the scribe that the φρένες do not bear relation to the diaphragm, the tradition (both scientific and literary) has placed this part in different bodily places\textsuperscript{122}.

\footnotesize
\begin{itemize}
\item \textsuperscript{113} Lain Entralgo (1981), p. 6.
\item \textsuperscript{114} Cfr. Byl (2011a), p. 216.
\item \textsuperscript{115} \textit{Anonymi medici} I I (1) – 3 (13) [Garofalo (1997), pp. 2, 3 – 10, 13].
\item \textsuperscript{116} For a distinction between acute and chronic see Van der Eijk (1999b), pp. 304 – 307.
\item \textsuperscript{117} As opposed to the intermittent fevers (διαλείποντες πυρετοί), the phrenitis (like the fever, the lethargy, or the typhus) is classified as a remittent fever. Jones (1984a), p. LVII.
\item \textsuperscript{118} Byl (2011a), pp. 203 – 204.
\item \textsuperscript{119} Cfr. e.g. Hippocrates \textit{Epid.} VII 79 [V p. 434, 20 – 21 Li.], Jouanna - Grmek (2000), pp. 154 – 155 n. 8.
\item \textsuperscript{120} Byl (2011a), pp. 208 – 209, 211.
\item \textsuperscript{121} Liddell - Scott (1996), p. 1954.
\item \textsuperscript{122} Van der Eijk (2005), p. 120.
\end{itemize}
In the frame of the medical science of the 5th century BC the notion of cause is defined in Hippocrates’ *On Ancient Medicine* in quite an exceptional way: « Δεῖ δὲ δὴ ταῦτα αἴτια ἑκάστου ἠγέεσθαι, ὅν παρεόντων μὲν τοιούτου τρόπον ἀνάγκη γίνεσθαι, μεταβαλλόντων ὃς ἐς ἄλλην κρῆσιν παύεσθαι.»125, (« we must surely consider the cause of each complaint to be those things the presence of which of necessity produces a complaint of a specific kind, which ceases when they change into another combination »)126. Perhaps one of the most noticeable achievements by Hippocratic physicians was to set the pillars of determinism: everything that happens must have a cause, a reason for it (διὰ τί)127. So much for Aristotle128, to whom the distinctive trait of an art was precisely the knowledge of the reasons accounting for the particular results it produced. Accordingly, science is causal or is not. The two kinds of cause described in the second section are obscure causes (latentibus), in the sense that both — the residuals and the elements in us — cannot be immediately perceived by the senses (contrary to what occurs with the evident causes which precede or provoke the ailments)129.

IV, 20 – 25: the scribe recalls that the terms νόσος and πάθος will be used hereafter according to their common meaning (κοινῶς)130. It looks like a kind of scholastic resource which could obey a current recommendation in the debates on terminology featuring the medicine of the Imperial period131.

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123 Cfr. infra ch. I § 6. 3.
124 Plato *Phd.* 96a: « εἰδέναι τὰς αἴτια ἑκάστου, διὰ τί γίγνεται ἑκάστον καὶ διὰ τί ἀπόλλυται καὶ διὰ τί ἔστι», (« to know the causes of everything, why each thing comes into being and why it perishes and why it exists »). Trans. Fowler (1960), p. 331.
128 Aristotle *Metaph.* I 1, 981a 28 – 30.
130 Cfr. supra cols. III, 39 – 40; IV, 1.
IV, 20: τοῦ προκειμένου: the meaning of the participles προκειμένου, ἐκκειμένου (l. 25), and προκειμένα (l. 40) are intimately related to the immediate context in which they occur. Thus, προκειμένου makes reference to the subject treated in the papyrus while ἐκκειμένου to the opinions held by the φυσιολόγοι. From a linguistic point of view, it is interesting to note that προκειμένου is almost always followed by verbs in the first person and in the present tense, whereas ἐκκειμένου by a distributive coordination whose verbal core is in the third person aorist.

IV, 25: the scribe opens the second section in the *Anon. Lond.* by stating that there has been a considerable dissent among physicians about the causation of disease. It is doubtlessly a turning point in the exposition, for the term στάσει in l. 25 divides the contents in the second section of the *Londiniensis* into two clear cut subsections. The dissension touching on the causes of disease to which the scribe makes allusion should be understood in a dyadic and exclusive way: the ancient physicians assigned the causes of disease to the residues of the undigested food or to the constitutive elements in us.

The emphasis on the disagreement (στάσει) is a kind of “heuristic tool” of the rhetorical genre present in many similar ancient lists of philosophical and medical doctrines. This is one of the reasons why the reader of doxographical accounts comes across dissension and division (διαφωνία) quite often amid the opinions of the authorities. As has been seen previously, the scribe of the *Anon. Lond.* has somehow made use of such a discursive strategy in order to manifest his preference for the views of the Ancients rather than for the Moderns.

IV 20 – 25: the scribe’s remark on the nomenclature serves to establish that even if the author is diligently working on the task of drawing up the introductory part on definitions (as required by the isagoge genre) he will subsequently restrict himself to common language, by talking of diseases.

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134 Col. IV, 25 – 28: « Στάσει δὲ περὶ τοῦ ἐκκειμένου·οἱ μέν γ(ὑρ) εἴπον γ(νεο)θ(α) νόσους παρὰ τὰ περιείδημα τὰ γράμματα· ἀπὸ τῆς τροφῆς·οἱ δὲ παρὰ τὰ στοιχεία. », (« But as to the subject before us there is much difference of opinion. For while some have said that diseases arise because of the residues from nutriment, others hold that they are due to the elements »). Trans. Jones (1947), p. 33. In Vegetti (1995c), p. XII στάσει takes the meaning of ‘rivolta’.
136 It is interesting to note that while the *Anonymus Londiniensis* puts the stress on the dissension among the ancient physicians the *Anonymus Parisinus*, contrasting, tends to remark on the occasions on which they come to an agreement with regard to the cause of a particular disease. Nutton (2004), p. 124.
IV, 25 – 28: the whole of the etiological doctrines reported in the *Londiniensis* are neatly falling into two major criteria. The opinions of those who posited the περιττώματα as the cause of disease are reviewed from this point up to col. XIV, 3, where, starting with Plato, the scribe will address the opinions of the physicians and philosophers who, conversely, posited the στοιχεῖα as the agents of disease.

It is also this passage where the key term περίττωμα occurs for the first time in the papyrus. The scribe underlines that a group of physicians believed that residues (περιττώματα) are produced in the body as a result of having got some food. These residuals — mainly divided into excrements and certain liquids — then circulate in the body and turn into a cause of disease. In Egyptian medical lore overeating is a general principle that accounts for a primary cause of disease, yet it does not mean that the theory of the περίττωμα is actually a matter of a borrowing from ancient Egyptian medicine. Unlike what happens with the term πλῆθος, περίττωμα is a concept that was doubtlessly coined by Aristotle. Given that the notion περίττωμα is not attested in the Corpus Hippocraticum, the fact that the term περίττωμα is used in the papyrus bears strong evidence enough of the fact that the opinions recounted in the first part of the second section of the *Anonymus* are gathered according to a telling Aristotelian influence. In the terminology used by Aristotle περίττωμα is a technical term by which is intended “residue, leftover, what remains of nutritious in the blood after having nourished all the parts of the body”.

138 It is worth noting that στοιχεῖα, the key concept that characterises the theories of the authors who belong to the second group, is only used in connection with the last three physicians reported in the second subsection of the second section of the *Londiniensis* (i.e. Polybus, Menecrates, and Petron). In light of this remark, in a narrow sense only these three authors actually constitute the group of physicians who hold that the constitutive elements in the body are the source of disease. In addition, it is worthy of consideration also to stress that the word στοιχεῖον occurs only one time in the whole Hippocratic collection, concretely in Hippocrates *Mul.* III 230 [VIII p. 444, 4 – 5 Li.]: « στοιχεῖον δὲ σοι ταῦτα ἐστίν ». Cfr. Kühn - Fleischer - Alpers (1989), p. 749. There, term called into question does not have any ontological signification at all, rather it takes on the meaning of “means, tools, remedies, cures at hand” (seil. to treat barrenness due to the neck of the uterus is either harshened or too oblique so as to allow conception). The content in book *De mulierum effectibus* III (also known as *De sterilitate*) is leant towards the Coan school, and it is believed to have been written by an independent author. Jouanna (1992), pp. 547 – 548. It is further important to stress that in the majority of treatises comprised in the Hippocratic collection those principles which Aristotle would describe as στοιχεῖα are called by means of other concepts or periphrastic forms. Thus, for example, in the *Nat. hom.* we find concepts like ἐν, ἐνέοντα, ἐνεὸν, ἐόντα, τῶν συγγεγονότων (and demonstrative pronouns for them like ταῦτα, τούτων, τὰ αὐτὰ etc.). In Hippocrates *Virt.* I 2, 3, 7 we see instead ἄρχῃ, δοῦν, μέμη, [VI pp. 468, 8 – 9; 472, 13; 480, 11; Li.]. In *Virt.* I 28 the author makes reference to the generative material by the term τὰ σώματα [VI p. 502, 5 Li.]. In Hippocrates *Hum.* I [V p. 476, 1 Li.] the term used is χυμοὺς, χυμόν, etc.


140 Cfr infra col. V, 39.


IV, 28: the notion of κτοιχεῖα can be traced back to Empedocles, whose theories were definitely known at the Lyceum. Empedocles posited four eternal and unchanging material components or roots (ῥιζώματα πάντων) which would eventually constitute the basis of Greek physical speculation. According to Empedocles, all kinds of body (this including the human) were a mixture, an aggregation of these four elements.

IV, 31 – 40: Εὐρυφὸν γ(άρ) τοι ὁ Κνίδος

Euryphon of Cnidos (c. 450 BC) is the first author mentioned in the papyrus, hence perhaps also the first in positing the theory of the περιττώματα. According to Anon. Lond. Euryphon maintained that diseases are caused when the belly does not discharge the nutriment that has been taken, which yields residues. These residues then rise to the regions about the head and cause diseases. Euryphon of Cnidos is also generally credited as the first physician to distinguish the veins from the arteries; however, it should be noted that almost a century earlier Alcmaeon of Croton told apart the φλέβες (filled with air) from the φλέβες αἱ ἀμόρροι (filled with blood). The distinction between veins and arteries stands as a distinctive feature of the Cnidian school of medicine. As to this crucial distinction, although it is generally admitted that it was Praxagoras who first properly distinguished the veins from the arteries, it could well be that Diocles was acquainted with this distinction, for Alcmaeon of Croton and Euryphon of Cnidos had already put in motion the basis for the hypothesis, and both physicians were known in the Lyceum.

IV, 40 – V, 34: the scribes deals with the opinions of Herodicus of Cnidos (Ἡρόδικος δὲ ὁ Κνίδος)


144 Ricciardetto (2014), p. XXXV. Herodicus of Cnidos was somewhat in agreement with him, but the Hippocratic Alcmaenes will be against. Euryphon of Cnidos is attested in Galen In Hipp. Epid. VI comment. [XVII, I p. 886, 5 K.]. Diels (1893a), pp. 114 – 115.

145 According to J. Jouanna Euryphon was for Cnidos what Hippocrates was for Cos. Jouanna (1993), p. 12. As for the report in the Londiniensis on Euryphon, as well as for other textual witnesses about this physician, they have been collected in Grensemmann (1975), pp. 11 – 12 fr. 8.

146 Nutton (2004), p. 73.

147 Bidez - Leboucq (1944), p. 16.

Column V

Description

A high resolution picture of col. V is available in paper format. In l. 4 « μή » should be redirected to col. IV, 38 – 39, therefore it is understood « δεόντω ε γίνεται τήν πέψιν ». In l. 22 the philologic crosses (double obelus) for « † τόπου † » do not seem necessary, as the author moves forward by treating, precisely, the affections depending on the places where the humours are present. Ll. 28 – 29 read « αυτού [την] γά τουσ/ ». The term « αυτού » is fixed on the basis of an original « αυτην», and the scribe wrote by mistake the particle γὰρ (in its abbreviated form « γ´ = γ(ἀρ)» ) two times unnecessarily, that is why «{ γ(ἀρ) }» is eliminated.

Explanation

V, 4: καθαρὰν

V, 10 – 14: Ἐκ μ(έν)τοι γε|τῶν περισσομάτ(ων) ἀποτελείθαι διε|εις ύγρότητας, μίαν μ(έν) ὀξέιαν, τήν δὲ|έτέραν πικράν, καὶ παρὰ τὴν ἐκατέρας| ἐπικράτειαν διάφορα γ(ίνεις)θ(αι) τὰ πάθη.

The scribe finishes the description of the theory upheld by Herodicus of Cnidos by claiming that from the residuals in the body arise two major kinds of humour (ὑγρότητας), one acidic (ὀξέιαν) and one bitter (πικράν); the dominance (ἐπικράτειαν) of one upon the other is the factor that actually determines the nature of a disease. The seats of these two basic forms of humour — corresponding to bile and phlegm — are deemed to be the liver and the spleen. In clear contrast with the notion of ἰκονομία (i.e. balance), ἐπικρατεία resembles and acts as μοναρχία (i.e. faulty preponderance of one bodily element in respect of the others), which, as it seems, can be traced

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149 CPF (2002), plate 57; CPF (2008), plate 44.
151 Since G. Marenghi strongly recommends the translation into Italian of καθαρός and kindred terms in medical jargon as ‘evacuare’ we follow his suggestion. Marenghi (1965), p. 61 n. 57.
153 Thivel (1965), p. 278.
back and is indebted to Alcmaeon of Croton. This kind of thinking pattern is also present in the description of Menecrates’ views. In this theoretical framework, with evident political echoes, illness is deemed to be an unbalance (δυσκρασία) of these elements, and the medical art an imitatur naturam, a reasoned and experimental scheme for taking those elements back to their natural proportions.

V, 21: καὶ τὰ πάθη κατὰ τὰς τι(ῶν) ὑγροτήτ(ῶν) κράσεις.: besides the humoral physiology, the notion of κράσις constituted one of the fundamental Hippocratic innovations to explain the constitution of health and disease.

V, 32: the spleen (σπλήνα) is an organ of parenchymatic nature which is present in the majority of vertebrates. The foremost function of the spleen is the destruction of the old erythrocytes, the generation of new ones and maintaining some reserves of blood. The spleen also belongs to the lymphatic system and is the core of immunological activity. The spleen is located in the left upper quadrant of abdominal cavity; it has to do with the pancreas, the hemidiaphragm and the left kidney. Though varying in size, the spleen of an adult tends to be 12 cm length, 8 cm width and around 200 gr. of weight.

V, 34: this first time the scribe uses the substantive δόξα to qualify the opinion of a philosopher or a physician. The Ἡροδίκου in the sentence is Herodicus of Cnidos in col. IV, 40 – 41.

V, 35 – VI, 43: while cols. V, 35 – VI, 17 were translated into French by M. -H. Marganne, col. V, 36 – 37 was translated into Italian and commented by D. Manetti. The scribe addresses


158 Cfr. cols. XII, 36; XVIII, 8; XXVIII, 12. The term δόγμα is in this particular sense attested only once in the Anonymus.

159 Diels (1893a), p. 115.


Hippocrates’ theory of disease in cols. V, 35 – VII, 40. Nevertheless, it is the fragment contained between cols. V, 35 – VI, 43 that deserves most attention; firstly because to provides good proof of the fact that the Hippocratic writings were known at the Lyceum, and secondly because the Peripatetics might have maintained a “heterodox interpretation” of Hippocrates’ theories. The double apices are needed in this case. The humoral theory the tradition attributes to Hippocrates is a late forgery (basically due to Galen) built up on what one might read in some of the treatises in the Corpus Hippocraticum and developed overall from the 16th century onwards. The Hippocratic collection, in the form we know it today, goes back only to 1526, when the Aldine press in Venice printed the first edition of the complete works of Hippocrates in Greek. Before Galenic Hippocratism dominated medical science, the writings that were progressively added to the Corpus Hippocraticum were subject to different interpretation. In the centuries that preceded Galen there was no agreement either about which the important humours were, or on whether they were the causes or the products of diseases. Thus, for instance, the theory of the four humours elaborated in the Hippocratic treatise The Nature of Man was, in its time, just one humoral theory amongst others. There is another treatise where a theory of four humours is expounded with great clarity; in Diseases IV it is said that women and men have four kinds of moistness (γρεγορές εἴδεα) in their bodies: phlegm, blood, bile and water. As a matter of fact, leaving to one side Polybus, none of the physicians mentioned in the Anon. Lond. actually did reduce the fundamental elements in the human body to the straight four humoral pattern of the classical Hippocratism. The humoral theory was very much a minority view, even within the Corpus, and was fiercely disputed by many later writers. There is no such thing as ‘Hippocratic doctrine’, rather only the assembly of around 60 treatises in Ionic dialect which were the work of a great variety of authors from different periods (mainly during the 5th and the 4th century BC), and possibly belonging to different medical schools, that came to be compiled in Alexandria by the end of the 3rd century BC; hence the diversity of styles, methods, and doctrines in the Hippocratic collection. However, we could assume that, in

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165 Lloyd (2003), p. 204.


167 Thivel (1965), p. 266.

general terms, ancient medicine was grounded on the 4 corporeal humours posited by Hippocrates/Polybus (phlegm, black bile, yellow bile, and blood) in combination with the 4 Empedoclean elements (water, fire, earth, and air), with the two pairs of opposed qualities (cold-hot/wet-dry) introduced by Philistion of Locris, and finally, with the four seasons of the year\textsuperscript{169}. The humoral theory prevailed and shaped medical thought from its origin until 1858, when in experimenting on phlebitis R. L. K. Virchow dismantled it as theoretical construct\textsuperscript{170}.

V, 36: διείληφεν\textsuperscript{171}

V, 39: πλήθος: this is the first occurrence of this key term\textsuperscript{172}. Other kindred terms are πληθώρη, πλημμυρή, or πλεῦσαι. Below in col. VII, 35 the scribe will report that the πλήθος might yield fever, pleuritis, and epilepsy\textsuperscript{173}. According to the testimony of Galen\textsuperscript{174}, who devoted a treatise titled Περὶ πλήθους βιβλίον to this issue, Erasistratus explained the disease upon the basis of his theory of nutrition. Erasistratus considered the πληθώρη as a superfluity of blood engendered by an excessive intake of food, and consequently, also as a general pathological principle. Erasistratus maintained that morbid conditions were attributable either to an excess of blood (hyperaemia) or to a flooding of the veins which, in turn, produced a blood overflow from the veins to the arteries through the synanastomoseis — the fine capillaries that in normal conditions are closed; with it impeding, for compression, the regular conveyance of \textit{pneuma} through the arteries\textsuperscript{175}.

V, 45: κατακρατ[ο]μένη\textsuperscript{176}


\textsuperscript{170} Marenghi (1965), p. 19 n. 31.

\textsuperscript{171} Diels (1893a), p. 87: «Exponere».


\textsuperscript{174} Galen \textit{De usu part.} VII 8 [III pp. 537 – 539 K.]. The abundance of nutriment was for Plato an essential factor in the perturbations of the intellect. Jouanna (2012g), p. 223.


\textsuperscript{176} It admits the technical meaning ‘to digest, to concoct the aliment’ etc. (as it happens in Aristotle’s \textit{Metereologica}).
Column VI

Description

A high resolution picture of col. VI can be consulted in paper format. Deichgräber proposes an omission by the scribe « <µ> ἐλάχιστα ». To do so he refers to col. V, 41–44 where it is said that the residuals in the body are produced because of the excess of the ingested food. Though plausible Deichgräber’s proposal remains uncertain. In l. 13 the expression « Ταῦτα δὲ ἔφη τα» is noted as a marginal addition; «\ταῦτα δὲ ἔφη τα»/. In l. 32 « αναθυµ(ιαθεῖ cτα) » is written by means of an abbreviation consisting in superposing the letter µ on the ν, the whole word is to be found as a marginal note on the right part of the column: « \αναθυµ/». Ll. 34 – 35 offer another example of correction by the scribe. Having formerly written « φυϲαι » but intending in reality « νοι », he expunged the first syllable (i.e. [φυ]) and converted it into « νo », afterwards he wrote « cοι » on the right of l. 34 (i.e. « \cοι/»), finally canceling the group « cαι » heading l. 35. Consequently, P. reads « [φυ]νο\cοι/[[cαι] ». In l. 40 the particle « ἂν » is in the margin, therefore « \ἄν/». The name « Ἰπποκράτους » in l. 43 is, according to Ricciardetto’s reading, by far more clearer than Diels or Manetti believed; thereby, while in their respective editions the core of the name is reconstructed, in Ricciardetto’s the central letters in the name of the Coan physician are slightly more legible.

Explanation

VI, 1 – 7: the term θερµότης in l. 1 is the typical case of a substantive that stems from an adjective, that is to say, a substantived adjective obtained by the addition of the suffix -της to the stem (the same rule of derivation occurs with the suffix -τητος)\. Apropos of the term προορµάτ(ων) (i.e. nourishment) in l. 2, it is likely that cols. V, 43 – VI, 2 were shaped on Hippocrates’ Aphorisms I 14 – 15\.\n
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177 CPF (2002), plate 57; CPF (2008), plates 44 – 45.
The scribe tackles for the first time the topic concerning food and diet as a cause of disease, a tenet that will be taken up in more detail a short while later in col. VII, 21 – 35, where the scribe assesses the second of the main causes of disease (i.e. « ἥ [ἀπὸ τ(ὸν) διαί]τημ(ὸς) ») that Hippocrates apparently upheld. As such the topic is believed to hinge upon the Hippocratic writing titled Nutriment (especially ch. XLII). It is supposed that the Nutriment (Περὶ τροφῆς) was composed in midst of the 1st century CE. H. Diller claims the Nutriment fits much better with the natural speculation and reflection on dietetics that grew throughout the Hellenistic period than with the Heraclitean imprint; Diller therefore is of the opinion that the text of Nutriment should not be attributed to Hippocrates, but rather it is more likely that the Nutriment was composed by some author akin to the principles of medical Pneumatism.

As regards the concept μεταβολή in l. 7, which will be used repeatedly from now onward, it plays an important role in both groups into which the scribe has split the doctrines of the ancient physicians on the causation of disease. The idea of mutation, change, or transformation (all the more if produced exaggeratedly) is considered the main factor when it comes to giving an account of a disease.

VI, 13: this line constitutes a transitional addition, since the scribe is at this point summing up what he is expounding. By the term ἄνηρ, as in col. VII, 35, the scribe means ‘Hippocrates’.

VI, 14: κ[ν]ηθέει: it is a very polysemic verb; W. H. S. Jones translated it as ‘to adopt’ while Ricciardetto as ‘animé par’.

VI, 14 – 16: τὸ γ(ὰρ) πνεῦμ(α)|ἀναφημτατον καὶ κυριωτατον ἀπο|λείπει τ(ὸν) ἐν ἡμῖν,
VI, 18 – 23: ἐπέχειν: this passage was first translated into French by A. Debru. It seems almost true that the content of the passage — that is to say, the vivid comparison (ἐνθεασιών) between the water lettuce and the description of mankind as rooted in air, carried hither and thither like that plant — does not mirror any treatise in the Corpus Hippocraticum; therefore perhaps it is a matter of an addition that the scribe found elsewhere, or even an interpolation of his own that he willingly adjoined. Since the dominant structure in the majority of vegetation is almost the opposite to the human, the scribe might have found the water lettuce a suitable example, for its structure looks to be the closest to human anatomy and its main function.

The water lettuce (Pistia Stratiotes) is an aquatic herb that grows in the riversides and the meadows of Africa. From Pliny we learn that the Pistia only grew in Egypt, by the banks of the Nile when the river flooded the surrounding fields. The water lettuce has refreshing properties and the power of healing the wounds, hence the name it takes: ‘soldier’ (στρατιώται καλούνται). Prepared as a beverage, it stopped renal haemorrhages.

VI, 31 – 38: At Pseudo-Aristotle HA X 3, 635b 5 – 10 the φῦσας (i.e. the air which is not breathed in but generated in the body) can either grow in the stomach or in the womb. The opposite terms πολλαὶ ἐλάχιτα in ll. 35 – 36 should be taken in a quantitative sense. In the Anonymus Parisinus, Praxagoras attributes the illness called ‘fanaticism’ (ἐνθεασιών) to the rising of the bubbles about the heart and the thick artery. The situation described in the Anonymus Londiniensis looks in fact much more akin to the theories held by Praxagoras than the classical theory attributed to Hippocrates. As to the origin of certain diseases like epilepsy, madness, paranoia, or apoplexy, Praxagoras adduced a causal explanation very similar to what we find in the Londiniensis, a

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188 Diels (1893a), pp. 90 – 91: « similem esse ».
189 Aristotle PA IV 10, 686b 32 – 687a 2. At Juv. I 468a 4 – 13 Aristotle affirms that plants are contrary to animals — especially to man — because in being immovable and taking food from the soil the former must have the part through which the aliment is taken always down below (roots = mouth).
191 It actually fits with the given definition of φῦσα in the anonymous treatise titled Περὶ ὀνομασίας τῶν τοῦ ἄνθρωπος μορίων 223, 8 – 9: « Φῦσα δὲ τὸ ἐν ἄντερας περισσόν πνεῦμα ». Cfr. Daremberg – Ruelle (1879), p. 165.
192 Cfr. Anonymi medici XX I (1) [Garofalo (1997), p. 120, 13 – 17].
causation which is also linked to the Cnidian treatises of the Corpus Hippocraticum. The verb ἀναθύµ(iαθεῖαι) in l. 32 is another concept that has roots in the Lyceum.

VI, 38 – 40: διχῶ δὲ μεταβάλ|λον ἦ ἐπὶ τὸ ὑπέρµετρον θερµῶν ἦ ἐπὶ τὸ ὑπέρµετρον ψυχρῶν.

VI, 42 – 43: Καὶ ός μ(ἐν) ὁ Αριστοτέλης οἰςται—περὶ Ἰπποκράτους, ταῦτα: D. Manetti edited, translated into Italian and commented on this line. The scribe reacted sharply to the alternative Aristotelian view of Hippocrates by inserting his own quotation from the text as proof of what Hippocrates had really believed.

VI, 43 – VII, 15: it has been postulated that the Anon. Lond. is mainly referring to two different Hippocratic writings: Diseases I 2, and The Nature of Man II 5 – 6. Yet it is unclear whether the corrupted lines in cols. VI, 45 – VII, 1 are in fact a quotation of the title ‘The Nature of Man’.

The reader can find a full development of this issue below in ch. II § 5.

This blurred passage in the papyrus is doubtlessly of interest because it presents the views of the constitutive elements of the body as these appear in The Nature of Man. Polybus puts the stress on the number (4) and difference among the constitutive elements of the body. The στοιχεῖα/ἰδέαι

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196 Col. VI, 42 – 43 was translated into Italian by D. Manetti in CPF Aristoteles 37T, p. 346: « E questo è come la pensa Aristotele a proposito di Ippocrate ».


202 Jouanna (1993), p. 43. The referential text in this case is Nat. hom. IV. The purpose is twofold, on the one hand Polybus wants to take distance from the monistic accounts on the human body, but probably from other possible current explanations of the time, for instance, the binary theory based on the bile and the phlegm (as in Hippocrates Morb. I). Cfr. Jones (1984a), p. XXVI; Manetti (1996a), pp. 299, 301.
(blood, phlegm, yellow bile\textsuperscript{203} and black bile) are described in the treatise as being congenital\textsuperscript{204} and invariable.

**Column VII**

Description

A high resolution picture of col. VII can be consulted in paper format\textsuperscript{205}. One of the most noticeable traits in col. VII is the fact that the last letters in ll. 3, 6 – 7, 9, 11 – 13, 18, 20 – 21, and 23 are in fact on the left margin of the next table, the table III, which contains cols. VIII – XI; therefore, a gap of variable dimension is to be found between the final letters in the lines above and the beginning of the next column. The papyrus at this point has suffered a strong abrasion, so that the writing is very feeble\textsuperscript{206}. In l. 7 the epsilon in « ειλ[.]ςτι. το[.]ι. φ[.» overcharges another letter which cannot be deciphered, the third letter of the compound could be either a lambda or a delta. D. Manetti thinks that the last letters of the group could be restituted as « τό χ[.]μα ». In l. 9 « [ὑ]γρῶν » has been read almost in two other different ways: [ια]τρῶν and [ψυχ]ρῶν. The restitutions by Manetti « [ο(τια)]με[.]τέον » in ll. 22 – 23 and « τ[ό πάθος τικτει] » in l. 29 prove to make much more sense than those by H. Diels. In l. 31 the scribe forgot writing the last sigma in the word « vococ », hence « νόσο<σ> ».

Explanation

VII, 1 – 5: the first five lines are almost illegible. In agreement with the translators into German of the *Londiniensis*\textsuperscript{208}, Manetti affirms that ll. 3 – 15 are actually mirroring the Hippocratic treatise *Diseases* I. Accordingly, there have been attempts of reconstruction on the basis of that treatise.

\textsuperscript{203} Yellow (ξανθός) is the colour of the bile that the liver secretes according to Hippocrates *Nat. Hom.* VII. Erasistratus confessed not to be able to give an origin to the yellow bile, as that humour could be either endogenous or exogenous. Galen *De nat. fac.* II 8 [II pp. 108 – 109 K.]. Cfr. Viano (1984), p. 331.

\textsuperscript{204} *Nat. hom.* V [VI p. 42, 18 – 19 Li.]: « συγγεγονότων ». Manetti (1996a), pp. 302 – 303.

\textsuperscript{205} *CPF* (2002), plate 59.

\textsuperscript{206} Manetti (1996a), p. 298.

\textsuperscript{207} Ricciardetto (2014), p. 50.

\textsuperscript{208} Beckh - Spät (1896), p. 10.
VII, 10: the expression « τ[(ῶν)] ἐν ἡμῖν »209, which refers to the constitutive elements in us, reflects a very current expression in *Morb. I*: « τὰ ἐν τῷ σώματι ἑνεόντα ».


VII, 13 – 14: rather than a concessive meaning, the particle τε in combination with the adverb πάλι conveys the whole construction an accumulative sense that can be also found in cols. VI, 36; XVII, 20; XVIII, 5211.

VII, 15 – 21: the papyrus seemingly makes reference to the theories expounded in *The Nature of Man*212. The interpolation « Ἀλ(λὰ) γ(άρ) ἐτι φ(ηκίν) Ἰπποκράτης [γ(νες)θ(α) τά]νός ου ἂπο τοῦ πνεύματος ἂ [ἀπὸ τῶν δια[τήματον]] »213 in ll. 15 – 17 is regarded by D. Manetti as a clear hint of a remark made by the scribe214, which certainly accords with the conclusion at which the scribe arrives below in VII, 36. This topic is developed below in ch. II § 5.

VII, 20 – 21: παρὰ γ(άρ) πᾶς ἡν ἤτι πάται αὐτή γόνος216

VII, 27 – 28: πλευρίτιδος: in the Corpus Hippocraticum the pleurisy is classed as an acute disease generally accompanied by acute pain in the side217, cough, and a continuous fever. In view of these


212 Hippocrates *Nat. Hom.* IX.


215 Diels (1893a), p. 91: « Ratiocinatio, syllogismus ».

216 Hippocrates *Nat. hom.* IX [VI p. 54, 6 Li.].

symptoms, apart from the modern meaning given to this affection\textsuperscript{218}, the pleurisy quoted in the Anonymus papyrus could also embrace some kinds of pneumonia as well as other affections of the lungs. In the Anonymus Parisinus\textsuperscript{219} it is said that patients suffering from pleurisy have the hypochondria pulled up and the feeling of being pierced by a sharp point, they feel severe pain of the pleura and experience also difficulty in breathing; pleurisy is also accompanied by expectoration of sputa of every kind.

VII, 28: D. Manetti notes that the term \cursive{κύτας} is the predominant one in the doxography and in the first part of the section on physiology\textsuperscript{220}, while the notion of \cursive{κύγκρις} is attested in the subsequent part, more particularly, in relation to the polemic launched first against Erasistratus and later against Asclepiades\textsuperscript{221}. Manetti attributes this variation to the fact that the author of Anon. Lond. borrows the vocabulary he finds in the written sources he has at hand and consults while composing his writing\textsuperscript{222}.

Regards to epilepsy (\emph{ἐπιληψία}), this disease has an extensive literature, perhaps due to its evident and spectacular symptoms\textsuperscript{223}, where science, religion, and popular lore converge and intermingle. The Hippocratic treatise titled \emph{The Sacred Disease} is in this sense probably the first attempt to give a scientific explanation (i.e non-religious) for the origin of epilepsy\textsuperscript{224}. In this particular case, beside other affections like fever or pleurisy\textsuperscript{225}, the scribe of the Londiniensis puts the causation of the epilepsy not directly or uniquely in relation to the excess (\cursive{πλῆθος}), but rather he claims that the presence of alimentary excesses in the body is a factor of predisposition that prompts the apparition of these affections. In a way, this could be indebted to the view that Aristotle upheld in this particular regard. Thus, for example, in \emph{On Sleep and Waking}\textsuperscript{226} sleep is actually equated

\textsuperscript{218} Jouanna - Grmek (2000), pp. 120 – 121 n. 5.

\textsuperscript{219} Anonymi medici VIII 2 (1) – 2 (3) [Garofalo (1997), pp. 59, 17 – 60, 9].

\textsuperscript{220} Cfr. cols. VII, 28; XIV, 10; XVIII, 28 and XXII, 4, 8 respectively.

\textsuperscript{221} Cols. XXVII, 43; XXXIV 3, 9, 10.

\textsuperscript{222} Manetti (2013), p. 165.


\textsuperscript{224} Perilli (2006), p. 28. However, we do not find the word ‘epilepsy’ in \emph{The Sacred Disease}; this affecion is named by means of other periphrastic denominations. It suffices to assume that \emph{The Sacred Disease} is prior to other treatises of the Hippocratic collection in which the concept is attested (e.g. \emph{Airs, Waters, Places}). Thereby, \emph{The Sacred Disease} was written in the 2nd half of the 5th century BC. Cfr. Abel (1957), p. 100; Jouanna (1992), p. 549; Nickel (2005), p. 321.


\textsuperscript{226} Aristotle \emph{Somn. Vig.} III 457a 7 – 10.
with a kind of epileptic fit. The sleep mostly occurs after having food and heavy meals because the evaporation that takes place during digestion is greater, and as a result the draw of heat and matter upwards to the head (and its consequent shift downwards) is also more important. At an anecdotal level, in Antiquity it was widely believed that goats suffered from epilepsy, maybe because they are often seized by staggers, a symptom that resembles an epileptic fit\textsuperscript{227}.

VII, 34 – 37: the scribe is trying to make clear the unsoundness in Hippocrates’ attribution to a single cause (air) when many people are affected by the same illness, and to another a single cause (regimens) in the event of the rest of different illnesses that may occur\textsuperscript{228}. The criticism that the scribe puts forward is one more among the several anti-Hippocratic hints that we find through the \textit{Londiniensis}. The scribe’s objection is based either on the fact that a single cause could be the origin of different diseases, or that different causes may lead to the same illness; the Hippocratic etiology seems to be false because it is too restrictive, or fallible when it comes to giving an account of the extreme variety of illnesses. The fact of ascribing the same consequence to several different causes is in the eyes of the scribe a clear proof of their falsity (this being a typical Empiric point of view)\textsuperscript{229}.

The term δριµυτη in l. 35 is a substantive stemming from an adjective, a nominalised adjective obtained by adding the suffix -της. Moreover, the adjective ψευδός in l. 36 is a hapax in the whole treatise, which doubtlessly reinforces the scribe’s contempt for Hippocrates\textsuperscript{230}.

VII, 34: πλήθος\textsuperscript{231}:


\textsuperscript{227} Nutton (2004), p. 77.

\textsuperscript{228} We understand that this is what the expression « ψευδός ἐστιν τοῦ το[υ] » in col. VII, 36 intends. It gives another argument to believe that the scribe was not merely copying or taking notes but reflecting and concerned with what he was composing.

\textsuperscript{229} Jouanna (2016), p. 8.

These three lines were edited, translated into Italian, and commented on by D. Manetti\textsuperscript{232}. The scribe is taking back up the remark he made in col. VI, 42 – 44; so that now, once he considers that the “true” theory held by Hippocrates has been sufficiently expounded (he is no longer lingering on the Coan physician, but passes to consider Alcamenes’ opinions), the author of Anon. Lond. insists one more time on the necessity of differentiating the doctrine on the causation of disease that Aristotle (or Meno) put to Hippocrates and the theory that Hippocrates himself maintained about this concern, this being purportedly expounded on between cols. VI, 42 – 44 and VII, 37 – 40.

VII, 40 – 43: Οἷς ἐπό]μενος ὁ <Α>βυδήγος Αλκαμέγ[ης]\textsuperscript{233}]λέγει γι(νε)θα(τι) τάς νόσους, ὁς φ(ης) π[ερί]αὐτοῦ Ἀριστοτέλης,

The passage where the scribe is concerned with Alcamenes of Abidos comprises cols. VII, 40 – VIII, 10\textsuperscript{234}. The sentence « ὁ αὐτὸς φιλόφοι ... Ἀριστοτέλης » is presumptive evidence that the scribe is handling an Aristotelian source on which he draws to give his report on the opinions of Alcamenes (and previously on Hippocrates). The presumption lies in the fact that below in col. VIII, 11 ‘Aristotle/Meno’ is understood in the expression « ὁ αὐτός φιλόσοφος ». To this detail we should add the fact that the subject of the verb φησι in col. XII, 8 is, according to Ricciardetto, Aristotle.

**Column VIII**

**Description**

A high resolution picture of col. VIII can be consulted in paper format\textsuperscript{235}. Ll. 14 – 17 are the most problematic. F. Kenyon and H. Diels deemed the juxtaposition of the adjectives καθαρά as a

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\textsuperscript{232} CPF Aristoteles 37T, p. 346: « Ma tuttavia bisogna dire che Aristotele parla di Ippocrate in un certo modo e in un modo diverso Ippocrate stesso dice che hanno origine le malattie ».

\textsuperscript{233} Cols. VII, 41; VIII, 6. There were two cities called Abidos, one in the Hellespont and the other in Egypt.

\textsuperscript{234} The whole passage in the *Londiniensis* concerning Alcamenes was severally collected in Grenseemann (1975), pp. 11 – 12 fr. 8, and afterwards ll. 42 – 43 were reedited, translated into Italian, and commented on by D. Manetti in CPF Aristoteles 37T, pp. 346 – 347: « (Alcamene di Abide sostiene […]), come dice di lui Aristotele ». For more information about this physician one might consult also Ricciardetto (2014), p. XXXVIII.

\textsuperscript{235} CPF (2002), plate 58.
dittography, hence the elimination in the former edition: « {καθαρά} ». But this emendation does not work, in the sense that it involves a syntactical failure. According to Manetti, the second καθαρά is not a dittography; rather, Manetti presumes a comma between the two apparently repeated adjectives, so that the first καθαρά refers to the head while the second to the food. It remains unclear, anyway, why the scribe expunged the expression « [καθαρά] » at the end of l. 16. L. 34 is a bit shorter than the rest in the column and finishes with a spatium vacuum to indicate the end of the sentence, the same case occurs below in col. XXXVI, 9. Although the shortness of the name, the last three letters in ‘Abas’ in l. 35 « Ἄβας » are barely legible; this makes room for other possibilities, for instance, « Αίας »

Given that A. Ricciardetto finds in the third letter the trace of a beta (β) instead of an iota (ι), we follow his reading. In l. 35 the group « δ.ι…c » after the name « Abas » has been taken as the possible ethnicity of that physician, for example the island of Ἰ[κιό]c or Κ[νίδιο]c or indeed Ὄ[διο]c. However, it is a mere conjecture as some other physicians quoted along the papyrus are never named by their ethnicities. In l. 39 there is an abbreviated marginal note: « \( \tau \)υ\( \pi \)λη\( \theta \)ου\( \omicron \)σ/». Explanation

VIII, 5: the adverb ἀπλῶς could be a reference to Topics, where it takes the meaning of ‘speaking in absolute sense’ (as opposite to the expression « κατά τι »).

VIII, 11 – 34: is devoted to the etiological opinions held by Timotheus of Metapontus. Since Timotheus is the only case of a physician associated with that city, Metapontus should not have been a relevant medical center at that time. In this sense, an inscription dating back to 250 BC attests the existence of a modest educational medical establishment (ἐργαστήριον) in

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236 First of all the conjunction ὅταν is used with the subjunctive mood. Depending on the sentence with which we combine προκαθέτωμα the ensuing sentence demands either the maintenance of the καὶ in l. 16 or the change of προκαθέτωμα in the present into the subjunctive προκαθήτωμα. In the papyrus the scribe deleted καὶ in l. 16.


239 This being the case for Hippocrates, Plato and Philistion. Manetti (2014), p. 234.

240 Aristotle Top. II 11, 115b 11 – 16.

241 Ricciardetto (2014), p. XXXVIII.

Metapontum\textsuperscript{243}. Timotheus of Metapontus is only attested in the \textit{Anonymus}\textsuperscript{244}. Hippo of Croton\textsuperscript{245} and Timotheus of Metapontus are two physicians from south Italy\textsuperscript{246}, both equally putting the cause of disease down to the \textit{περιττώματα}.

VIII, 6 – 10: in being quite similar, the scribe feels the need to underline the extant differences between the doctrines of Euryphon and Alcamenes. To do so, the author of the \textit{Anonymus} quotes literally\textsuperscript{247} a passage about which it is impossible to determine, anyhow, whether it was drawn from an original work by Alcamenes to which he had access, from a quotation he might have found in Alexander Philalethes’\textsuperscript{248}, from Aristotle’s (Meno) lost work, or if it were an addition of his own that he learned by heart.

VIII, 10 – 12: Ό δὲ Μεταποντίνος Τιμόθεος, καθώς|φησι περὶ αὐτοῦ ὁ αὐτὸς φιλόσοφος,|λέγει: these two lines were edited, translated into Italian, and commented on by D. Manetti\textsuperscript{249}.

VIII, 14 – 17: ὅταν μ(ἐν) ὃ(ἄρ) ἢ κεφαλὴ ὑγιῆ| καὶ κ[α]θαρά, καθαρά καὶ ἢ τροφὴ ἀπ’ αὐτῆς συστήθεται τόι ὀλοι εὐμάτι, καὶ ο(ὗτος)|υγιαίνει τὸ ζῴουν.

H. Diels considered the substantive κεφαλή to be a mistake for κοιλία, which certainly seems to make sense. There seems to be a misreading between head and belly, another reason that prompted Diels to think that the author of the \textit{Londiniensis} was a mediocre student of medicine\textsuperscript{250}. Conversely, D. Gourevitch argues for the consistence of the argument expounded in the \textit{Anonymus} by saying that it is not a confusion, but rather that Timotheus stated that it was the nutritive power of the aliment (and not the aliment itself, of course, as it had first been processed in the belly) that was distributed from the head to the rest of the body. According to Timotheus, the source of the illnesses consists in the blockage or in the retention of the nutritive power of the food in the brain,

\begin{itemize}
\item \textsuperscript{243} Nutton (1995), pp. 14 – 16.
\item \textsuperscript{244} Gourevitch (1989), p. 238; Manetti (1999), p. 109 n. 34.
\item \textsuperscript{245} Cfr. infra col. XI, 22 – 41.
\item \textsuperscript{246} Gourevitch (1989), p. 238.
\item \textsuperscript{247} It is known that the \textit{Anonymus} is made of a free usage of the consulted sources in combination with almost literal quotations. Manetti (1996a), p. 296.
\item \textsuperscript{248} Cfr. infra ch. II § 4 n. 266 – 268.
\item \textsuperscript{249} CPF Aristotele 37T, pp. 346 – 347: (« Timoteo di Metaponto afferma, secondo quanto dice di lui lo stesso filosofo, […] »).
\item \textsuperscript{250} Diels (1893a), p. XV: « caput et ventrem confundere ».
\end{itemize}
or in the fact that the nutritive power does not find a proper outlet from the head\textsuperscript{251}, as it is this part of the body on which the discussion is centered\textsuperscript{252}. In addition to this remark, given the important role played by the head in the causation of illness — for instance in the theories of Euryphon, Herodicus, Alcamenes, or Abas — there is no apparent need to substitute one word for the other\textsuperscript{253}. It has yet to be investigated whether there is a correlation between the etiology based on the residuals and the encephalocentrical body view; or in other words, whether there are hints allowing us to pose that encephalocentrism is the dominant slant among the physicians that belong to the first group reported in the second section of the \textit{Anonymus} papyrus.

It is also important to note a slight variation in the translation of the adjective καθαρὰ, which in the majority of the extant editions has been translated as ‘pure’\textsuperscript{254}. Insight into the medical, and more concretely, the pharmacological usage of this adjective suggests that the intended meaning, though close, could be somewhat different. Therefore, when the adjective καθαρὰ is applied either to a drug or to a therapeutical substance it means that it has the quality of expelling or making out from the body through an excretory via a matter whatsoever which is regarded as alien or pernicious\textsuperscript{255}. This is the reason why we translate this passage as ‘[duly] evacuated’.

VIII, 18: \textit{διεξόδου}\textsuperscript{256}

VIII, 19: \textit{ἀποφράσσεσθαι}: this notion heads the rest of the concepts (περίσσωμα, μὴ ἔχειν διεξόδου, μεταβάλει, ἐμμεῖναι) by virtue of which Timotheus explains the causation of illness\textsuperscript{257}.

VIII, 29 – 32: this passage brings up another recurrent issue when it comes to the taxonomy of the anatomical parts in ancient medicine, in this case the discussion is about the concept of the ‘larynx’. The scribe is willing to stress the fact that by « τὴν τραχεῖαν ἀρτηρίαν » Timotheus of Metapontus intended the larynx. This denomination bears evidence of the original and former meaning of the

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\textsuperscript{251} At \textit{Mete.} IV 2, 380a 1 – 2. Aristotle emphasises that a clear sign of health in regard to the whole body (not only to head) is the presence of all kinds of residual (urines, excrements, catarrhs etc.)


\textsuperscript{253} Ricciardetto (2014), p. 51.


\textsuperscript{256} Diels (1893a), p. 88: « Corporis ». Allegedly the “ways out” in the head.

\textsuperscript{257} Gourevitch (1989), p. 238.
term ἄρτερια in Greek (reprised later below in col. XXIII, 14). Originally a duct was meant by ἄρτηρια. What might have triggered the remark by the scribe is the fact that the Greek term for ‘artery’ once also meant ‘trachea’\(^{258}\). This meaning is also attested in Aristotle\(^ {259}\). Thus, the apposition in l. 30 « λάρυγξ δὲ αὕτη »\(^ {260}\) reflects the will by the author of the \textit{Londiniensis} to render a clearer idea of the tenet than the one he might have found in the source he was consulting, that is to say, that by τραχεῖαν ἄρτηριαν he is namely meaning the larynx, or the upper extremity of the trachea\(^ {261}\). The semantic ambivalence of the term τραχεῖα gives place precisely to the chapter in Aulus Gelius’s \textit{Attic Nights} titled \textit{That Plutarch in his Symposiacs Defended the Opinion of Plato about the Structure and Nature of the Stomach, and of the Tube Which Is Called τραχεῖα, against the Physician Erasistratus, Urging the Authority of the Ancient Physician Hippocrates}\(^ {262}\).

On the other hand, the expression « ἐξαγωγὴ ἐκ τοῦ ζῆν » can mean either ‘the fact of dying’ or ‘death’. It is said to lie clearly afield of the medical domain, in actual fact only attested in two other texts of ethical content by Epicurus\(^ {263}\) and Arius Didymus. It suggests that the scribe’s philosophical knowledge was neither so poor nor risible as H. Diels thought.

VIII, 34: πληγή\(^ {264}\): the scribe recounts that Timotheus considered that illnesses might begin in three possible ways: an excessive heat, an excessive cold, or by a blow. The term ‘blow’ (the last cause mentioned) is how W. H. S. Jones translated the term πληγή\(^ {265}\). By this term it is seemingly intended something like “suffocation”. In the 1\textsuperscript{st} century CE Aretaios of Cappadocia coined the term συγκοπή in the sense of ‘sudden and complete strike in virtue of which one loses the consciousness’ or ‘mortal collapse’. As such, and in this particular and narrow meaning, συγκοπή is neither attested in the Corpus Hippocraticum nor in any other ancient physician preceding Aretaios\(^ {266}\). The


\(^{259}\) Aristotle \textit{Aud.} 800a 21.

\(^{260}\) Manetti (1990), p. 221 n. 10.

\(^{261}\) This very intention will be found again below, in cols. XI, 34–35; XIII, 38; XVIII, 14. Manetti (2013), p. 166.

\(^{262}\) Aulus Gelius \textit{Attic Nights} XVII 11, 1 – 6 [Hosius (1903), pp. 211, 18 – 213, 18]. Cfr. infra ch. VII § 3.


\(^{264}\) In col. XXXVIII, 11 the term occurs anew (i.e. πληγαί), but taking the sense of a particular technique of body massage.


Anonymus Parisinus\textsuperscript{267} includes the description of an acute disease precisely named ‘syncope’, though the author of the Parisinus does not concede to the συγκοπή the mortal irreversibility that Aretaios attributes to the syncope.

VIII, 35 – IX, 4: the scribe goes ahead by expounding Abas’s theory\textsuperscript{268}. Abas lived at the end of the 5\textsuperscript{th} century BC, and is a physician we know only through this witness in the Anonymus. As Alcmaeon of Croton first, Abas also thought that the head was the punctum saliens of illnesses, since they deemed that it was in the head where the excess of nutriment tended to get stored and from there then distributed to the rest of the body. In the Londiniensis, Abas’s theory of purgation of the excessive nutrients through the different extant outlets in the head looks to be in connection with the five different arterial ducts posited in the Hippocratic treatise Places in Man\textsuperscript{269}. In this writing the number of fluxes (ῥόοι) issuing from the head are seven in number, but only three are observable (those coming out through the nose, the ears, and the eyes)\textsuperscript{270}.

The word κάθαρσις in l. 36 is a typical abstractive substantive obtained by the addition of the suffix -σις. This and other syntactic constructions alike were the way the ancient Greek language built up a wide range of technical terminology. On this occasion the materialization of an action is intended\textsuperscript{271}. The term καθάρρωσις in l. 44 amounts to saying ‘humours, humoral fluxes’. The absence or the weakness of bodily fluxes is also considered pathological, for it might bring about affections like sciatica or arthritis. For Abas the first and foremost part of the body is not the head but its content, the brain (ἐγκέφαλος), for the body’s general health actually depends on the evacuations of the brain (κάθαρσις). In view of the fact that they shared this same theory, Timotheus, Abas, and Alcamenes could be testifying the membership of a particular medical trend where such a view took particular import\textsuperscript{272}.

\textsuperscript{268} Wellmann (1903a), p. 2.
\textsuperscript{270} At De san. tuenda I 13 [VI p. 73, 3 – 7 K.] Galen states that the sutures of the calvarium are the in third place of importance as far as the purgation of the brain is concerned, adding that it is not unlikely that there is some drainage from the brain into the eyes. But it is in the last part of this book where Galen is mainly concerned with disorders of the head — due to the large amount of excrements it produces — and the lesions that affect the lower organs inasmuch as to them pass the catarrhs from the head to them. Galen De san. tuenda VI 9 [VI pp. 420, 11 – 423, 1 K.]; VI 13 [VI p. 440, 11 – 13 K.]. At De san. tuenda VI 12 [VI p. 439, 2 K.] Galen minds a certain Hippocratic procedure called παροχέτευσις which mainly consisted in diverting the catarrhs from the head to the nose by means of antiphlegmatic drugs.
VIII, 20: τὸ περίςσωμα

**Column IX**

**Description**

The first line in col. IX is lost and only a few traces of the second remain. The entire right part of the column is also lost. A review of the opinions held by some physician starts in l. 5. Because of the incompleteness, the readings for the remaining group « [.].κλεοδω[ » in l. 5 are multiple. It could be read either as « Κλεοδω[ρος » or « [Ἡρ][κλεοδω[ρος » (which was the restitution by Diels) or « Κλεοδό[της » or even as « Κλεοδο[ις ». Problems of the same nature also arise when identifying the ethnicity of Herodicus in l. 20. In l. 37 this very problem reappears, but in a converse way; while the ethnicity (Egyptian) is clearly legible it is the name, supposedly ‘Ninyas’, that constitutes the hindrance this time. A. Ricciardetto reads « Νινυ[ » (like H. Diels and D. Manetti), M. -H. Marganne reads « Νιν[ » instead. In l. 15 the preposition εἰκ is in the interlinear space (i.e. \(\varepsilon i\kappa\)), as is also the case for the expression « ἡ θερμό[της» in l. 43: «\(\varepsilon i\ \thetaερμο[\tauης».

**Explanation**

IX, 5 – 19: the passage has to do with the opinions of a certain physician whose purported name was Heracleodorus, an author unattested elsewhere.

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275 Diels (1893a), p. 15: « Nomen plane incertum, Aegyptium tamen esse negant periti ».


IX, 37 – X, ?: the scribes is now concerned to expound the theories of a certain Niny[...]

The papyrus is very deteriorated at this point, so that it is impossible to decipher the name. By comparison to other papyrus and ancient documents, there are several evidence of 'Niny' as current proper name in the Egypt at the time. Following the way this name has been read in the Londiniensis’ previous editions, we limit ourselves to calling him « Ninyas the Egyptian ».

IX, 32: iα[τρικήν]

Column X

Description

Almost an entire column is lost between cols. IX and X. Col. X is very lacunar. The first 26 lines are entirely lost, and in the fragment thats extends from ll. 27 – 45 just the endings of the lines remain, sometimes only a few letters and sometimes almost the whole line, as in l. 39.

Column XI

Description

A high resolution picture of col. XI can be consulted in paper format. As in the preceding column, the first five lines are illegible, and the next two lines have not been successfully deciphered. Between ll. 23 – 24 one might distinguish the traces of a diple obelismene which was not included in Diels’s edition, nor the ekthesis with which the first letter in l. 24 is written. The expression « καὶ [υγιαιν] ὀνε [εν] · » in ll. 25 – 26 results from a correction by the scribe of « και [νηναι] γομ[ε]ν] ζωμ ». In l. 34 the first letter starts with ekthesis. The expression « Και τοιούτων

278 Diels (1893a), p. 15: « Nomen plane incertum, Aegyptium tamen esse negant periti. ».
279 Ricciardetto (2014), p. XXXIX.
280 Plato Lg. II 673a. Diels (1893a), p. 15.
281 Ricciardetto (2014), p. XVI.
XI, 16 – 21: since the adjectives πυρρὰ, πρακοειδής, and μέλαινα appear in a row it seems that the scribe is concerned with the different kinds of bile. H. Diels thought that this passage relied on the treatise by Rufus of Ephesus titled Περὶ ὀνομασίας τῶν του ἀνθρώπου μορίων 221 – 223. Perhaps the most interesting is the wide array of colours the bile might have. Notwithstanding a slight variation called ὑποπύρρος, the red colour (πυρρὰ) is one of the 13 colours attested in the Corpus Hippocraticum. Other red-like chromatic nuances are the ἐρυθρός and the φοινικους.

Apart from red, we find in the papyrus the occurrence of two other chromatic variants: πρακοειδής, which amounts to a leek-like colour or green, and black (μέλαινα).

XI, 21: the concept ‘hypostasis’ (ὑπόστασις) takes on a completely different meaning depending on the discursive regime or the jargon where it is used. Therefore, in Plotinus’s metaphysical system ‘hypostasis’ refers to each one of the three ultimate ontological instances (One, Nous, and Soul) of which Reality is said to be constituted; while in a medical treatise, as in this case, the remnant solid posits or sediments observable in the bottom of the urines are called ‘hypostasis’. The fact that the term ὑπόστασις occurs mostly in the Epidemics (and kindred books of the Hippocratic collection) shows the existence of a prognostic trend bent on drawing conclusions from the assessment of the ailing person’s urine.

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284 Daremberg - Ruelle (1879), p. 165.

285 Byl (2011a), pp. 237 – 238. Empedocles, and later on Gorgias the sophist, maintained that colours were emanations (ἄπορροαι) from the objects perceived through some alleged corporeal channels (πόροι), a view that would exert an important imprint on Plato’s theory of colours in the Timaeus. Cfr. Vegetti (1995c), p. 52 n. 3. As regards the chromatic spectrum in Aristotle, the philosopher admitted 7 different types: black, white, grey, red, purple, green, and blue. Cfr. Sens. IV 442a 21 – 26.

286 Cfr. infra Comment. on col. XXXV. In Hippocrates Nat. hom. XII [VI p. 62, 1 Li.]; XIV [VI p. 64, 19 Li.] this phenomenon is termed ὑψήστασις. Cfr. López Eire (1996), pp. 388 – 389. In the Corpus Hippocraticum one finds even two major adjectives to qualify such sediments: ἀνατατεραγµένα in the case they remain compacted in the bottom of the urines, and δασέαι if they are thick. Jouanna - Grmek (2000), pp. 261 – 262 n. 4.

XI, 23 – 43: the scribe expounds Hippon of Croton’s opinions on the causation of disease. This passage was severally edited, translated into Italian, and commented on by D. Manetti. The full and real name of the personage was Hipponax (Ἱππώναξ), but he will be known by means of the hypochoristic form Ἵππων. It is from the Anon. Lond. papyrus that we come to know the medical theories of this author who previously had mainly been considered a philosopher. Originally from Samos, Hippon lived in South Italy, in Croton, and in Metapontus. In light of ancient textual witnesses, Hippon’s impact among his contemporaries was rather little. He is derided in Cratinos’s comedy titled Panoptai (a kind of ante litteram Aristophanes’ Clouds), and his philosophy is defined by Aristotle as mediocre, and in fact Aristotle belittles him as a philosopher.

In considering that humidity is the primordial substance in the universe, Hippon in a way takes up the principle posited by Thales of Miletus. From this initial hypothesis Hippon explains the disease: it is on account of the alteration, either by excess or defect, in this natural humidity that ailments arise. Consequently, Hippon sees death as amounting to a total loss of such a humidity or to dehydration. As we shall see, Hippon’s theory is actually the opposite of Philolaos of Croton’s. Whereas Hippon states that life and sensibility are possible by virtue of the humidity in us (ὑγρότητα), Philolaos claims instead that it is the heat that in fact makes them possible.

XI, 26: ὅταν μὲν οὖν οἰκείω εἴχῃ


289 CPF Hippo Crotoniates IT, pp. 455 – 461. The translation of the passage into Italian by D. Manetti in CPF Hippo Crotoniates IT, pp. 456 – 457 is as follows: « Ippone Crotoniate ritiene che in noi vi sia un’umidità propria, in relazione alla quale sentiamo e viviamo: quando un’umidità siffatta è nella sua condizione propria, l’essere vivente è sano, quando si dissecà, l’essere vivente non ha sensazioni e muore. Ecco anche perché i vecchi  sono ‘secchi’ e non hanno sensazioni, appunto perché hanno carenza di umidità, e analogamente le piante dei piedi sono insensibili perché prive di umidità. Espone tali argomenti fino a questo punto. In un altro libro lo stesso autore dice che quella che viene detta ‘umidità’ muta per eccesso del calore o del freddo e produce le malattie. E dice che essa muta in una maggiore umidità o aridità o in una maggiore densità o sottigliezza o in altro modo. E così spiega la malattia, ma non specifica le malattie che si producono ».

290 Diels (1893a), p. 115.

291 This applies to Philolaos of Croton too.

292 Aristotle Metaph. I 3, 984a 8 – 11; de An. I 2, 405b 2.


294 Cols. XVIII, 8 – XIX, 1.


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XI, 29 – 31: Διὰ δὴ τοῦτο[κ］αι οἱ [γέ]ροντες ξηροὶ296 καὶ ἀναίεθητοι, ὀντὶςχορίς ύγρότητος297: on this criterion, it was a common belief that in infants and young children the moist quality prevailed physiologically just as old people were dry by nature, for from his birth every animal daily becomes drier, and is not equally warmer or cooler at all ages298.

XI, 33 – 34: Ἐν ἄλλων δὲ βιβλίοι αὐ[t]ῶς ἀνήρ λέγει299

XI, 34 – 35: the participle καὶ πωνομα[κ］[ν]ητοί is, according to D. Manetti, a clear hint that the author of the papyrus is citing a particular text that he had at his disposition300.

XI, 42 – 43: τὰς δὲ νόσους τὰς γινομένας—οὐχ ὑπαγορεύει: this slight complaint owes to the fact that, according to the rhetorical scheme he might have found for the previous authors, at this point the scribe was expecting the description of different kinds of disease301; this means that the scribe tries to respect or follow the same expositive order of the source he is perusing.

XI, 42 – XII, 8: Thrasymachus of Sardis (Θραύσμαχος)302 is another physician solely attested in the Anonymus303.

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296 Since ‘are dry’, which is the solution adopted in the three extant translations of the Anonymus papyrus, is not really idiomatic in Italian, we propose the variant ‘appassicono’, as it seems also to fit with the original Greek.


298 Cfr. Galen De san. tuenda 1.5 [VI p. 26, 1 – 2 K.]; 1.12 [VI p. 60, 1 – 4 K.]; V 3 [VI p. 319, 6 K.]; V 8 [VI p. 351, 1 – 2 K.]. In Hippocrates Aph. 1.14 [IV p. 466, 9 – 12 Li.] it is stated that old men have little innate heat, this being also the reason why their fevers are less acute than others, for their body is also colder. In Hippocrates Vict. 1.33 [VI p. 512, 11 – 12 Li.] we see a variation in the argument, since it is stated there that old men are cold and moist because fire retreats and there is an onset of water.

299 This remark has been taken by D. Manetti as more proof for the autographical nature of Anon. Lond. Cfr. Manetti (1996a), p. 300.

300 Diels (1893a), p. 95: « Qui supra dictus est ».


302 Manetti (1990), p. 223 n. 13. The same observation can be found in col. XX, 14 – 16 with regard to Petron of Aegina.


304 Ricciardetto (2014), p. XL.
Column XII

Description

The expression « Μεν γράβαλλα..ν δέ ...» in the first line corresponds to an interlinear addition « \[.]γράβαλλα..ν δέ../ ». In l. 7, apart from the unnecessary letter v in the verb ἐπιφέρεται{ν}, the lapsus by the scribe is interesting, who forgot to change « χολή » to the accusative in the expression « τὸ μ(ἐν) αἷμα ἀπλοῦν [(ἐκτίν)], ἣ δὲ χολῆ καὶ τὸ φλέγμα ». This means that he changed the syntactic structure of the sentence while writing; the origin of the mistake is probably due to the fact that in being casus rectus the other two words did not require any modification, hence why « χολῆ » remains in the nominative when in reality it should be in the accusative. In ll. 8 – 9 the proper name « Δέξιμπος ὦ Κόιος » is written on the basis of a correction; it is a significant addition by means of which the scribe manifests the intention of specifying the ethnic of the personage: « δεξιμπὸς ὦ Κόιος/ ». In l. 13 the term in the interlinear space « \[πολλὸς/» (instead of the right form « πολλὰς ») shows the simplification of two identical consecutive consonants into one, a trait that is also witnessed in other places in the Anonymus. The shred in the fibers of the papyrus renders the reading of l. 20 very difficult, apparently such shred is due to a manufacturing defect. The adjective « Περιττὸς τερος » in ll. 20 – 21 bears evidence of a dittography: the letter tau in the dittography is written with ekthesis. Between ll. 28 – 29 there is an unedited paragraphos that appears in neither of the earlier editions of the Londiniensis. In l. 31 the passive participle ἐπιμειχθε(ντος) has the preposition in the interlinear space and the suffix of the genitive is severely abbreviated; thus P. reads « \[ἐπι/μειχθεος »306. As regards the name ‘Φακίτας’ in l. 36, it has not been deciphered unanimously. H. Diels, for instance, was of the opinion that Φακίλας was preferable to Φακίτας, Φακίδας, or Φακείδας; W. H. S. Jones does follow Diels’s reading307. The expression in l. 41 « ἀποχωρ<υμάτων> αὐτ(ῶν) » corresponds to « ἀποχωραντί », and thus D. Manetti believes that it consists in a mistake that she puts down to the scribe’s fast writing style308. Lastly in l. 43 the article « τὰς » is repeated by mistake (thereby « {τὰς} »), for the ending of the next word in the sentence « \[γροτη]τας » renders the former definite article unnecessary.


Explanation

XII, 8 – 36: the passage actually deals with the opinions maintained by Dexippus the Coan (Δέξιππος ὁ Κῶιος)\(^{309}\), a disciple of Hippocrates\(^{310}\). His activity is placed at the end of the 5th and the beginning of the 4th century BC. According to the Souda, Dexippus wrote a Ἄιτρικόν βιβλίον in one volume, and another treatise, in two volumes, titled Περὶ προγνώσεων\(^{311}\).

XII, 8 – 11: ὁ Δέξιππὸς ὁ Κῶιος ὁ ἡγεῖται εὐν[ίσταεθαι] τὰς νόσους ἀπὸ τὸ δῶν τῆς τροφῆς π[ε]ριττωμάτ[ω]ν, ἀπὸ τὸν ὀσμἶν καὶ φλέγματος.:

We should add that Aristotle held a very similar position in regards to phlegm\(^{312}\). Akin to those of Philistion of Locris and opposed to those of Erasistratus, it is precisely by means of the Londiniensis that we know about Dexippus’s view on the constitution of the illnesses. Dexippus maintained a cardiocentric physiological stance\(^{313}\). Dexippus’s opinion on the origin of the sweat is almost the same as one finds expounded in the Hippocratic treatise Diseases\(^{314}\). Apropos of this similarity, H. Grensemann\(^{315}\) addressed some moot points in relation to Dexippus’s doctrine with some treatises in the Hippocratic collection. M. Wellmann, and after him W. H. S. Jones, pointed out the similarities between Dexippus’s etiological principles as they come in the Londiniensis and those in Hippocrates Diseases I or Affections\(^{316}\). Grensemann was mainly concerned with explaining where and why the doctrines of a Coan physician ended up featuring treatises which are generally ascribed to the Cnidian school\(^{317}\). To get to the point of the issue that Grensemann undertook, the discussion is centered on explaining the reason why a Coan physician like Dexippus

\(^{309}\) Wellmann (1903b), pp. 294 – 295.


\(^{311}\) Suidae Lexicon (238) [Adler (1931), p. 23, 23].

\(^{312}\) Aristotle Somn. Víg. III 458a 2 – 5.

\(^{313}\) Cfr. Wellmann (1903b), pp. 294 – 295; Debru (1996), p. 188.


\(^{315}\) As a matter of fact Grensemann shifts attention to this passage in the Londiniensis by giving a translation into German of col. XII, 8 – 36. Cfr. Grensemann (1975), pp. 210 – 211.

\(^{316}\) Hippocrates Aff. I. [VI p. 208, 7 – 15 Li.].

\(^{317}\) Grensemann (1975), p. 209.
was believed to have held that liquids and soft nourishment went into the lungs\(^{318}\), that is, why
Dexippus maintained a doctrine downright ascribable to the Cnidian school\(^{319}\).

XII, 11: τοῦτ᾽ (ἐκτειν) ἀπὸ τε χολῆς καὶ φλέγματος, δυ(νάμεων)\(^{320}\) γ[ι(νομέων)] περὶ μέρος καὶ
περὶ ὄλον,

We should like to move onto the consideration of a main point concerning Dexippus’s
theory of causation of disease. The difficulty arises from the apposition in l. 11 « τοῦτ᾽ (ἐκτειν) ἀπὸ
tε χολῆς καὶ φλέγματος, » which, to our mind, introduces a remarkable and distinctive
characteristic in respect to the previous statement. No doubt, Dexippus of Cos believes that diseases
are produced from the residues of nutriment, but the apposition introduced by the scribe gives the
impression that the author of the papyrus wants to emphasise that bile and phlegm result from food
residues, and consequently, that to Dexippus neither are held as constituents of the body. If our
interpretation is right — which seems quite feasible considering that Dexippus is reviewed in the

group of physicians who put the cause of disease down to the residues — it would certainly be
cause for surprise, since Dexippus’s position would be in conflict not only with the fourfold
humoral theory, but also with its acknowledged binary variant whereby some physicians reduced
the bodily humours to two (bile and phlegm) and accounted likewise for disease only on the
grounds of those two\(^{321}\). On that very view, it turns out that in light of the report in the Londiniensis
Dexippus would be, in a way, an extended version of the doctrine posited by Petron of Aegina\(^{322}\),
for whom bile is a non constitutive humour, but originated παρὰ φύσιν; the difference lying in the
fact — if we have understood correctly — that Dexippus applies this nosological attribution also to
phlegm. The consideration of the bile as a “nosological outcome” can also be found in Aristotle.

XII, 36 – XIII, 9: the scribe shifts the attention this time to Phasitas of Tenedos\(^{323}\), another physician
unknown if not for the Anonymus papyrus\(^{324}\).

\(^{319}\) Hippocrates Morb. I 12.
\(^{322}\) Petron’s etiological views are expounded in col. XX, 1 – 24.
\(^{324}\) Ricciardetto (2014), p. XLI.
Column XIII

Description

In l. 13 the expression « καὶ διὰ [...]θεσεῶ(ν) [τὸ ὅ]λον [...]δήμ(α) » is a matter of a note on the right margin. P. actually reads « \ καὶ διὰ [...]θεσεῶ(ν) [τὸ ὅ]λον [...]δήμ(α) \ ». In l. 15 before « ς Ὠ σήπεται » the group « θαικαπο\ » was canceled (i.e. [[θαικαπο\]]). Ll. 15 – 24 were partially reconstructed in connection with fr. 326. In ll. 17 – 18 « ωϲ » was written twice, the dittography {ωϲ} probably owes to the fact that the previous word « διὰθεσεωϲ » finishes in « ωϲ ». Also in l. 18 the disjunction « ἓ υγ[ιαί]νε(ι) » is expressed in the papyrus by means of a deletion and an interlinear addition « η [νο[[..]]\ v γ[...]\νε/ », that is to say, « ἓ [νοε[]] υγ[ιαί]νε(ι) ». In l. 20 preceding the word ‘δυκράτωϲ ’ there is a spatiun vacuum, signalled neither by H. Diels nor by D. Manetti, which makes the whole line a bit shorter with respect to the rest of the lines in the column. In l. 21 the verb « γί(νε)θ(αι) » is abbreviated as « Γ[α]θ ». Apropos of this abbreviation, in l. 23 we find an interesting case of correction. Originally intending « Γινόμενον » the scribe realises that he has written « Γ[α]θ » by mistake; then he writes the verb in full but forgets to expunge the θ in the abbreviation which remains superscripted. He continues deleting the superfluous letters and finally adds the suffix betwixt the lines; consequently P. reads at this point « Γ[α]θ[νε]θ[α]μενον/ ». In l. 40 « αὔξης » instead of « αῴξηςηςπιϲ » consists in a mistake that D. Manetti assigns to the scribe’s fast writing style327.

Explanation

XIII,  9 – 10: this should have corresponded to the introduction of a new author whose name is lost.


326 Fr. 3 in Kenyon - Diels (1901), pp. 1320, 1322.

XIII, 19: εὐκράτως

XIII, 21 – XIV, 3 [?]: after having dealt with Phasitas the scribe goes on to report the causes of disease according to Aegimius of Elis.

D. Manetti has paid particular attention to the terminology the scribe uses in this passage (e.g. σύντηξις, κατὰ τὸ λόγω θεωρητόν, κατὰ τὸ αἰείθητον, ἀποφοράς, ἐνδογον, ἀνάδοσις, πρόσθεσις etc.) to singularise Aegimius’s opinions; the Italian philologist has underscored that the majority of these notions will eventually be used next in the physiological section of the papyrus.

XIII, 27 – 28: κατὰ τὸ λόγῳ θεωρητόν: this is the first occurrence of this expression in the papyrus, the scribe uses it to explain the gradual growth of the body according to the theory of Aegimius. “κατὰ τὸ λόγῳ θεωρητόν” and expressions like mean “a theoretical possibility of observation (possibilité théorique d’observation)”, while D. Sedley suggests “viewed by reason”. In fact, as H. Diels noted, the expression was drawn from the Epicureans; Asclepiades of Bithynia and Alexander Philalethes will make eventual use of this expression. Galen attributed it to Erasistratus, but as such it is not attested in Erasistratus’s extant fragments.

XIII, 29: μυκτὴρων

XIII, 30: ἀποκρίσεων

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328 Diels (1893a), p. 92: « Corpus concinne se habere ». Whitous the preverb -εὖ, the term κρᾶσις takes also the meaning of ‘good individual constitution’. Cfr. Pseudo - Aristotle Pr. 1 3, 859a 16.

329 Ricciardetto (2014), pp. XLI – XLII; (2016), pp. LXXXVI – LXXXVII. In the De san. tuenda II 12 [VI p. 160, 1 K.] Galen quotes the way to proceed with massage by a certain Aegimius, but it cannot be determined if he is the physician reviewed in the Anon. Lond.


331 This very tenet could be found in the physician of the 4th century Dieuches. Cfr. Manetti (2013), p. 160 n. 28.


335 Diels (1893a), p. 84: « secretio ». Cfr. cols. XXVII, 34; XIX, 43.
Column XIV

Description

D. Manetti is of the opinion that between ll. 7 – 8 there could have been either a *paragraphos* or a forked *paragraphos*. In the intercolumnar space on the left of col. XIV, in correspondence to ll. 7 – 8, one may distinguish the feeble traces of something like “/Λ/” or “/Λ/”. There is a strong likelihood that these traces stand for the lower part of a *coronis* with which the scribe indicated the passage from the former subgroup in the second section to the second subgroup reviewed. The reconstruction of the expression « [κα]τά [ε]λέγοντα /» in l. 14 hinges upon fr. 5 « [...]τά [...]άρσιν / ». In l. 20 the scribe wrote first « μιᾷνδε/οταν » instead of « μιᾷν δέ (εἶναι) ὅταν »; he then decided to change the syntactic structure and transformed the ν in « μιᾷν » into c, and the abridged infinitive « (εἶναι) » into the singular ἐτικ, afterwards also canceling « ὅταν »; but apparently by mistake, for he wrote it again. Between ll. 20 – 21 there is a *paragraphos* that H. Diels had not noted. Diels’ insertion « [Δ]ιάρκεια » in l. 23 seems to Manetti the most plausible. On the right margin in l. 29 one finds the addition « \καθ /» that stands for « καθ ὅ(ν) ». In ll. 31 – 32 after the word κύρος ἀρσεν in the sentence « κύρος ἀρσεν αὐτῶν τῆς ἡμερας ἀποτελεσθαι » there are many crossings-out and supralinear additions, some of them illegible. In l. 39 the expression « γι(νεται) καὶ αὐτὰ διάφορα ἑαυτ(ῶν) » is written in the interlinear space: « /Γ/ ξαί αὐτα διαφορα εαυτ/ ». The first letter in l. 40 starts with ekthesis.

Explanation

XIV, 6 – XVIII, 8: these columns were severally edited, translated into Italian, and commented on by D. Manetti. We have devoted chapter V below to the study of this long passage dealing with

336 Diels (1893a), p. 82: « Digestio ciborum ».
341 CPF Plato 129T, pp. 531 – 545.
Plato’s medical views. Manetti’s translation is as follows: (« Vediamo poi anche gli autori che fanno derivare le cause delle malattie dalla natura e dalla condizione dei corpi e coloro che ritengono che i nostri corpi si formino dalla composizione degli elementi. E cominciamo da Platone. Questo afferma che i nostri corpi si formano dai quattro elementi per distruzione simultanea perché anche gli oggetti nel cosmo si formano [allo stesso modo (?)]. C’è differenza fra queste tre cose: distruzione simultanea, mescolanza, crasi. Distruzione simultanea, cioè (con–)fusione, si ha, quando i corpi attraversandosi reciprocamente per intero producono una sola qualità superiore, come nel tetrafarmaco. Mescolanza si ha quando alcuni corpi si affianchino per giustapposizione e non si attraversino reciprocamente, come un mucchio di frumento, di orzo. Crasi si ha quando alcuni corpi convergendo nello stesso luogo si affianchino gli uni agli altri, come vediamo nel vino mielato. È dunque a partire dalla differenza di queste nozioni che Platone afferma che i nostri corpi si formano dai quattro elementi per distruzione simultanea: e in questo modo non appaiono singolarmente in noi fuoco o aria o terra o aqua, per il fatto che gli esseri viventi sono prodotti per distruzione simultanea di questi. Peraltro, egli dice che alcune delle nostre parti hanno una differente composizione, anch’esse nascono diverse l’una dall’altra. Dice poi che il midollo osseo è formato dai quattro elementi ed è la più importante di tutte le nostre parti, servendosi di questi argomenti plausibili: al midollo è connessa l’anima che governa tutto il corpo || […] importante […] degli elementi […] e insieme [rotondi] […] come si deve […] dice […] degli elementi […] è formato (opp. sono formati) […] e lisci […] Così stando le cose divide [il midollo in] alcune parti e assegna per ciascuna parte una differente figura: infatti la figura del cervello [dice che] è liscia (?) e rotonda e circolare, del resto del midollo [la parte spinale] è lasciata nelle ossa [che lo contengono?]. E dal momento che dice che dell’anima stessa ci sono [parti (o specie, tipi)] assegna la [parte divina (oppure di essa)] razionale al servile, invece la parte [mortale oppure irrazionale] di essa al [resto del] midollo. Dice che le ossa sono formate dallo scambio di terra pura e midollo e per l’azione del fuoco [che li ha saldati] per fissazione. La carne è formata da terra e acqua e fuoco e una specie di lievito in un liquido salato e acido. Ed è diffuso nella carne anche un liquido fatto di calorie. Questo nei riscaldamenti eccessivi, fondendo rinfresca il corpo, nei raffreddamenti eccessivi vi si oppone e mantiene il corpo caldo. La maggiore quantità di carne si trova intorno alle ossa meno animate: intorno alle cosce e alle gambe e ai glutei c’è infatti molta carne, dal momento che le loro ossa sono meno animate. Invece intorno alla testa || ce n’è poca, perché le ossa della testa sono più animate. È ovvio che si dica che ciò che è grosso è inerite: c’è infatti il detto « ventre grosso non fa mente sottile ». E dice che le ossa sono state rese dure per fare da sostegno. Ad esse sono state fatte le articolazioni per permettere contrazione e piegamento. Al loro esterno, i nervi [legano?] la rigidità
delle ossa per producere i movimenti volontari. Le carni hanno lo scopo di proteggersi dal freddo e dal calore. E i nervi sono formati da carne senza lievito e ossa in una composizione peculiare. Così anche per le vene: ne presenta due, l’una verso destra, l’altra verso sinistra: di esse le ramificazioni della destra intrecciano le parti sinistre, le ramificazioni della sinistra le parti destre. E ci sono due cavità, di cui l’una in alto, l’altra in basso. La cavità in basso esiste per ricevere i residui di digestione. In questa sede è nato un intestino lungo e sinuoso, affinché il cibo, quando viene ingerito, non sia portato in basso facilmente ma vi rimanga per un certo tempo. Come infatti le correnti dei fiumi che hanno un corso diritto sono inarrestabili, mentre quelle dei fiumi dal corso curvilineo sono più miti perché sono ostacolate, così se l’intestino che si trova nella cavità inferiore fosse breve e diritto, il cibo sarebbe trasportato facilmente. Poiché invece è tortuoso e molto lungo, il cibo vi si ferma per molto tempo. E per ciò che riguarda il corpo questo è tutto. Dice anche che l’anima è tripartita e che una delle sue parti è razionale, l’altra emotiva e l’altra appetitiva. E assegna la parte razionale ai luoghi della testa: essi sono infatti naturalmente adatti ad accogliere il principio direttivo. La parte emotiva l’ha disposta nel cuore, in una sede non lontana dalla parte razionale, ma posta al di sotto di essa, appunto perché le sia sottoposta. Infine ha disposto la parte appetitiva nella regione fra diaframma e ombelico. Ha posto il fegato a contenere il desiderio affinché || i desideri […] e il polmone vicino al cuore […] la natura […] molle. Il cuore, dice, avendo un frequente [movimento] saltando non […] dice 'spugna' […] dal momento che (ammalato) […] anch’esso(a) si ammala e […] se è sano(a) anch’esso(a) è sano(a) […] verso il suo stato naturale. E riguardo all’[anima] basti questo. Dice che le malattie sorgono in tre modi: o a causa degli elementi o a causa della generazione dei corpi o a causa dei loro residui. A causa degli elementi le malattie sorgono quando essi divengano troppi o cambiano forma o si collochino in luoghi inopportuni: se aumentano più del dovuto questi elementi producono malattie per la quantità. E poi anche quando escano dalla propria forma, ancora producono [le malattie]. Peraltrò, allo stesso modo anche quando siano disposti in luoghi non appropriati producono malattie proprio per questo motivo: il trovarsi appunto in luogo inappropriato è morbifico. Così si formano le malattie a causa della disposizione degli elementi. A causa della genesi dei corpi le malattie sorgono in questo modo: per esempio la carne nasce da sangue solidificato e rappreso, i nervi dalle ‘fibrine’ del sangue. In questo modo se sono tolte le fibrine del sangue il sangue rimane per il resto non rappreso. Ma in definitiva bisogna dire che (oppure non rappreso, eccetto che […]]; poiché) la carne trae la genesi del sangue, i nervi dalle fibrine del sangue. In questo modo, dice, questi corpi sono tenuti insieme e nutriti dal grasso, quando esso si fonde ed è fornito attraverso la porosità delle ossa e nutre le ossa. Quando dunque la genesi dei corpi sia questa, l’essere vivente è nel suo stato naturale; quando
invece la genesi non sia questa, ma al contrario (in modo scambiato), produce malattie. Questo per ciò che riguarda la genesi dei corpi. A causa dei residui le malattie sorgono in tre modi: o a causa dei flussi d’aria || derivanti dai (oppure che accompagnano i) residui o a causa della bile o a causa del flegma. Per questi tre motivi sorgono malattie sia in generale sia specificamente. Infatti uno solo di essi produce malattie e due concentrandosi nello stesso luogo ancora producono malattie. Allo stesso modo anche attraverso i tre fattori combinati insieme sono prodotte malattie. L’opinione di Platone a proposito delle malattie è contenuta in ciò che ho detto.

XIV, 6: καὶ

XIV, 12 – 32: the terms κρᾶσις and διάκρασις (this latter in l. 23) are used interchangeably. The explanation of the different kinds of mixture (σύμφωναρσίς, μίξις, κρᾶσις) presumes a classification akin to the Stoics, but it is not known when or by whom such a classification was linked to and incorporated in the exegesis of the Timaeus.

XIV, 15: H. Diels saw a possible allusion to On Coming-To-Be and Passing Away.

XIV, 16: σύμφωναι, μίξιν, κρᾶσιν

XIV, 15 – 29: Chrysippus’s theory of mixture allows for three kinds of relation between physical substances: juxtaposition or “joining” (μίξις), fusion (σύγχρωσίς), and blending (κρᾶσις). An example of juxtaposition is a mixture of beans and grains of wheat: their surfaces are in contact, but each preserves its own substance and quality. Fusion, by contrast, occurs when the substances and qualities mixed together are mutually destroyed, and another different body with different property is generated out of them, as it is the case of a compound medical drug. The original substances and

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343 CPF Stoici 3T, p. 793.


qualities of the ingredients can never be recovered from the fused new body, which now has properties that none of the ingredients had by itself. Thirdly, as regards blending, the blended substances and their qualities are mutually coextended throughout the entity, passing through one another everywhere, so that there are no parts of the blended mixture that do not participate in everything contained in the mixture; yet each of the original substances remains preserved with its qualities. This is the relation that Stoics believed happened between body and soul, since natural bodies are in a unified condition 349 by means of a natural material principle of unity that renders them in a single entity 350. The notion of σύμφθαρσις 351 is not really common in the usual Stoic definitions of ‘mixture’ — the most used term is σύγχυσις — but the verb (συμ)φθείρω is often used in the definiens of the former to indicate that the qualities of the components end up dissolved/fused in the composition. The Anon. Lond. shows an inverted view concerning both terms, that is, the mention of the term σύγχυσις is hereby almost of a secondary order, while that of σύμφθαρσις takes most import. It could be this way because of the passage in the Timaeus 43a (συντήκειν), or due to the stress the scribe wants to put on the actual loss of the visible properties of each one of the elements comprising a mixture, or even due to the indication of a particular medical tradition 352. But, why does the scribe takes this interest in the theory of the mixtures? At a certain point the Stoics (especially from Chrysippus’s notion of κρᾶσις διόλου onward) applied that theory to the Timaeus in order to give an account of the connection of the soul (πνεῦμα) with the body 353.

XIV, 19 – 20: the scribe makes use of the example of the τετραφάρμακος to clarify what should be intended by ‘contemporary fusion’ (σύγχυσις) 354. The first four premises in the Epicurean Κύριαι δόξαι are also named τετραφάρμακος.

XIV, 25: the example of the honeyed wine is also attested in On Breath 355.

351 σύμφθαρσις has two meanings: ‘simultaneous destruction’ and ‘melting into one another’. Cfr. Liddell - Scott (2006), p. 1687. This passage is actually addressing the combination of the four primordial elements according to the Greek view of the world, or more precisely, the combination of the bodies resulting from the combination of the primordial elements.
352 For a supposed later medical usage of the term σύμφθαρσις to explain the relationship between the food and the nutritive product after digestion see CPF Plato 129T, pp. 553 – 554.
353 CPF Plato 129T, p. 555.
XIV, 26: J. Blomqvist notes the particular postposition of the particle τοιγάρτοι, a usage rather uncommon that he judges as a peculiar trait of the scribe’s style.\footnote{Blomqvist (1969), p. 130.}

XIV, 29 – 32: ζωμηρ[θα]ρ[ε]γακτου\footnote{Diels (1893a), p. 22: Plato Ti. 82a.}: at this point the scribe addresses the issue of the mixture of the cosmic elements inside the human body. The explanation given for this problem was probably taken from Timaeus 56b – c. A quite similar argument, almost parallel, can be found in Galen.\footnote{Galen De elem. sec. Hipp. V 15 – 18 (29/30) [CMG V 1, 2 p. 96, 7 – 21 De Lacy]; CPF Plato 129T, p. 556.} The physician of Pergamon is taking issue with the commentators who claim that in The Nature of Man I Hippocrates rejects the theory according to which man is constituted of the four elements. Galen emphasises that Hippocrates is not against the theory, but against its monist version.

XIV, 33 – 34: τετευχέναι is the Ionian form for τετυχηκέναι. The use of κρᾶσις from this point onwards is not properly in accordance with the theory of mixture that the scribe has just described, but reflects the common meaning of the term. Hereafter the term κρᾶσις will take on the meaning of ‘composition’.\footnote{CPF Plato 129T, p. 556.}

XIV, 39: οἱ μυελὸ\footnote{Diels (1893a), p. 22: Plato Ti. 73a – 74a.}

XIV, 42: the syntagm « πιθανότης λόγων » makes manifest the feature of reliability of an argument. The expression is basically attested in writings from the 1st century CE onwards. Also of interest is the fact that in a rhetorical context the construction « πιθανότης λόγων » tends to convey a somewhat pejorative meaning, in the sense of "plausible but fallacious; deceitful argument" etc.\footnote{CPF Plato 129T, p. 558. Cfr. also Aristotle Top. I 11, 104b 14.} This negative meaning is stressed in the writings of early Christian writers, who used the expression to depict the tall tales invented by heathen thinkers. πιθανότης λόγων refers to occurrences in the Timaeus where a given description is deemed as feasible enough.\footnote{E.g. Plato Ti. 27d, 29d 1; 30b 7. Cfr. Abel (1957), p. 97.
XIV, 43 – 44: both lines mirror *Timaeus* 73b 3 – 5.

XIV, 44: τὴν ψυχὴν τὴν τὸ ὅλον κοιμά διοικ(οὐκεν): this could be an allusion to Plato’s *Laws*\(^{363}\).

**Column XV**

**Description**

A high resolution picture of col. XV can be consulted in paper format\(^{364}\). A good deal of the first half of col. XV is lost, the rectangular lacunae perhaps resulting from rolling the scroll. The first letter in l. 5 starts with *ekthesis*. In l. 10 the expression « καὶ ἠμα ςυ[……] τὸ πτ[ρ] » has been restored with difficulty. One might glimpse « ςυ[\ τοτ[ι]/ » in the interlinear space, and « ςυ » before the restitution could just as easily be « ςτ » (i.e. « ςς[τοχείον » or the like). In addition D. Manetti interpreted the interlinear addition as « ]ςα[ » as if « πα[ραμήκη » were the word that the scribe wrote\(^{365}\). In l. 11 the first word commences with *ekthesis*, a detail that passed unnoticed in the two former editions of the *Londiniensis*. In l. 15 there is a *spatium vacuum* noted by neither H. Diels nor D. Manetti. The reconstruction « τούτων]έκκειμέν(δον) » in ll. 19 – 20 seems to be fortunate, since the expression « τούτων ἐκκειμένων » is a structure that the scribe tends to use in order to underpin either the beginning of a new paragraph or the commencement of a new topic\(^{366}\). In l. 25 Diels’s reconstruction « ὁ γ[ντια[ος περι]έχουσι ] seems too long\(^{367}\), so that Manetti is of the opinion that it is necessary to find other possible restitutions appropriate to the available space. Manetti suggests either « κ(ατ)έχουσι » or « π(ρος)έχουσι », for to some extent both seem to fit with the passage in the *Timaeus* concerning the nature of sperm\(^{368}\). The integration « κ(ατα)λείπ[ετ]ημ. Κα[ μήν] » in l. 26 was suggested on the basis of the fr. 5 edited by F. G. Kenyon and H. Diels. It is seemingly the best possible\(^{369}\) suggestion since it comes to establish that, in fact, the preponderant part of the soul is twofold or that one could distinguish two types, a mortal and an


\(^{364}\) *CPF* (2002), plate 59.

\(^{365}\) On account of Plato *Ti.* 73d 3.

\(^{366}\) *CPF* Plato 129T, p. 560.

\(^{367}\) *CPF* Plato 129T, p. 561.

\(^{368}\) Plato *Ti.* 73b1 – d2.

\(^{369}\) *CPF* Plato 129T, p. 561.
immortal one\textsuperscript{370}. The expression « τε | της {τε της} ψυχης [μερη]» in ll. 26 – 27 attests another case of dittography as a result of distraction by the scribe; ll. 26 – 27 have been put in connection with fr. 5\textsuperscript{371}; Manetti suggested the restitution [γενη] instead of [μερη]\textsuperscript{372}. The endings of lines ll. 35 – 40 were partially reconstructed on the basis of fr. 4\textsuperscript{373}. In l. 40 the letter « ἕ » that follows immediately after the restitution in the expression « τη {τη} κομη[νη] ἐμψυχειν » could be a « η »; so that it could constitute again a dittography (i.e. « τηκομενηνηνψυχειν »).

Explanation

XV, 14: the most plausible reading is « αεταποςκ »\textsuperscript{374} insofar as a word beginning by « βοςκ » might bear some relation to food or nutriment. The passage in the Republica 338c suggested by H. Diels barely stands here; it looks much more likely instead to be a reference to Timaeus 73c 7.

XV, 20 – 30: δωμ[πει\textsuperscript{375}]: these ten lines make reference to Ti. 73b 8 – e 1.

XV, 26 – 28: Και [μην] αοτης τε|της {τε της} ψυχης [μερη] (ειναι) λεγονα|το μ(εν) λογιςκόν\textsuperscript{376}

XV, 26 – 30: the scribe is at this point paraphrasing Timaeus 73b 6 – d 7, where Plato states that the divine (θεον) part of the soul is placed in the head whereas the mortal one (θνητον) is in the marrow; this yields an eventual "bipartite interpretation of the soul".

XV, 31: καθ(αρας)\textsuperscript{377}

\textsuperscript{370} CPF Plato 129T, pp. 562 – 563.
\textsuperscript{371} Fr. 5 in Kenyon - Diels (1901), p. 1320; Ricciardetto (2016), p. 113.
\textsuperscript{372} Manetti (1999), p. 122.
\textsuperscript{373} Fr. 4 in Kenyon - Diels (1901), pp. 1320, 1322.
\textsuperscript{374} Diels (1893a), p. 23: Plato R. I 338c.
\textsuperscript{375} Diels (1893a), p. 87: « Scindere ».
\textsuperscript{376} Diels (1893a), p. 24: Plato Ti. 69 d – e.
\textsuperscript{377} Diels (1893a), p. 24: Plato Ti. 80c, 81a – c.
δ’ὑγρ]οὖ» or «ἐναλ[λάξ δ’ὑφ’ὑγρ]οὖ».

V, 30 – 33: the passage is a reference to Timaeus 73e 1 – 5. The term ἐμπήξει379 is not easy to
translate; it means something like “implant, infixation” or the like. In D. Manetti’s opinion, the best
way to take l. 33 is as «τ]οῦ πυρὸ τε αὐτὰ ἐμπήξει π[ροε τηκότος», for it matches the content
in the Timaeus (i.e. the bones are mended or solidified by means of fire)380.

V, 33 – 36: ὄ[γροτητα ἀλμυράν τε καὶ δριμεῖαν.381: these three lines seemingly mirror Timaeus
74c 6 – d 2. The verb παρεπάρθωα in the perfect tense is often used by Galen to speak about the
diffusion of certain humours or liquids in the body382.

V, 39: the term ἐγκαυει, literally ‘heat wave’, is a technical term of the pathology of the Post-
Hellenistic period383. As a matter of fact heat is regarded as the main cause for the transformation of
bodies.

V, 40: τη{ί}κόμε[ην]384

V, 41 – 42: ἐν[τι]οὺς385

V, 43 – XVI, 2: at this point the scribe paraphrases Timaeus 74e 1 – 75a 3.

V, 46 – 47: ἐπειδήπερ τὰ ὀτέα ἀψυχ[ότερα (ἐκτιν),386

378 Diels (1893a), p. 90: « vicissim mutare ».
380 CPF Plato 129T, p. 564.
382 CPF Plato 129T, p. 565.
384 We take this participle as a verbal variation of τήκω/τάκω, as occurs for instance in Tl. 85d: « στοιχεῖα καισοῦμενα
385 Diels (1893a), p. 90: « Diversa via ire ».
Column XVI

Description

A picture of col. XVI can be consulted in paper format. In ll. 13 – 14 the deciphering of « παρα[κ]είξθαι » is highly uncertain. Between ll. 30 – 31 there could have been, according to D. Manetti, a paragraphos; both lines present a lacunar beginning. In l. 39 the term « καρδ(ίαν) » is abbreviated as « καρδ ».

Explanation

XVI, 1: τρ]οφὴ δὲ τ(ῶν) ἀλόγων ζώιων: what is at issue in this passage is the possibility that some inferior animals (i.e. insects and worms) had their origin in the matter of decomposition (περίττωμα) by spontaneous generation.

XVI, 2: ἐμψυχότερα makes reference, again, to Timaeus 74e 2 – 3. This time, as with col. XXIII, 38 where the scribe quotes Aristotle’s On Sleep and Waking, the adverbial form ἀμέλεια actually introduces a digression to indicate that the scribe is about to comment on the sound of the theory he expounds in light of a well known proverb. D. Manetti takes this reference to the inert world (τὰ ἐμψυχα) as the author’s aim at putting mankind in the broader context of the external world.

XVI, 3 – 4: « Παχέα γαστήρ|_[λε]πτ[ῶν] οὐ [τ]ίκτει νόο[ν »: H. Diels remarks that it is a trimeter by an unknown poet. The sentence is transmitted by many ancient authors, both Greek and Latin, notably Galen, Seneca, and Pliny the Elder.

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387 CPF (2002), plate 60.
388 In regards to this topic see Aristotle HA V 19, 551a 6. In Mete. IV 3, 381b 9 – 13 Aristotle affirms: « καὶ ζῶον (scil. worms) οὐκ ἐγρίγεται ἐν τῇ πέψει, ὡσπερ τινὲς φασιν (perhaps Empedocles), ἀλλ’ ἐν τῇ ἀποκρίσει σηπομένη ἐν τῇ κάτω κοιλίᾳ, ἄτ’ ἐπανέρχεται δόνον πέπτεται μὲν γὰρ ἐν τῇ ἄνω κοιλίᾳ, σήπεται δ’ ἐν τῇ κάτω τὸ ἀποκριθέν· δι’ ἴν τὸν τὸν πάροκριθὲν· καὶ τὸν τοῦ πάροκριθὲν, ἐλέρηται ἐν ἐπέρως », (« and it is not true that worms are generated in the excrement which decays in the lower belly, and subsequently make their way upwards. For digestion takes place in the upper belly and the excrement decays in the lower. The reason for this we have explained elsewhere » ). Trans. Lee (1952), p. 311.
390 Diels (1893a), p. 25: Plato Ῥ. 75a – c. Diels (1893a), p. 86: « Ἰπσε σcriptor medicus utitur vocabulo κοιλία », (« Had the scribe been a doctor then he would have used the term κοιλία »). Diels (1893a), p. 115. Cfr. infra ch. I § 2 n. 32.
XVI, 5: [ἀ]ποστηρί[γμα]τος: this is in fact an Hippocratic term; the sense the word takes here is ‘to bank firmly’ supplementing in this way the argument the scribe has previously explained about bones in col. XV, 30 – 33.

XVI, 6 – 7: π(ρός) τάς ευεκτολής καὶ κάμψεις.

XVI, 7 – 9: διὰ τὰς κ(ατά) πρ[ό]αίρεσιν κιν[ή]τει: the sentence reveals a technical expression to define the voluntary movements, thus making the Herophilian medicine the ante quo, for Plato ignored the distinction between the conjunctive and the voluntary motion nerves (συνδετικά καὶ προαιρετικά νεῦρα) insofar as such a distinction came as the result of Herophilus’s anatomical investigations.

XVI, 10: the noun προβολή is linked to Timaeus 74b 7 – 8.


XVI, 13 – 17: in the Anonymus one finds a rather scarce description of the circulatory system. The reason for this is that this aspect is unclear in Plato, perhaps also why the scribe will address it in more detail in the next section. The term εὐφύλαμα in l. 15 hints at some form of superstitious thought. Since bad omens were said to come from the left side, perhaps the author of Anon. Lond. avoids saying ‘left’ (ἀριστερά) and uses instead an euphemistic or apotropaic form. L. 16

392 Diels (1893a), p. 84: « Fulcrum ».  
393 CPF Plato 129T, p. 565.  
394 Diels (1893a), p. 94: « Membrorum coni. euctoli ».  
398 Diels (1893a), p. 26: Plato Ti. 77c – e.  
399 Plato Ti. 77c 9 – e 6.
κ(ατα)πλέκε[ι]ν. As regards the term ἀποσχίδας also in l. 16, it stems from ἀποσχίζει (split, division) and occurs in Hippocrates\(^{401}\), yet we find it here interpolated in Plato’s theory.

XVI, 18 – 20: Plato (and Aristotle) concedes an ἄνω and a κάτω κοιλία\(^{402}\). The term κοιλία means in general “hollowness; cavity” etc. It can therefore be applied in many senses and in a wide array of situations. In ancient Greek there are mainly two ways to refer to the stomach: « κοιλία(η) » and « γαστήρ »\(^{403}\). J. Jouanna has laid the stress upon the fact that κοιλία is by far the preferred form in \textit{Epidemics} I – III\(^{404}\).

XVI, 20: ὑποδοχή is a reference to \textit{Timaeus} 73a 3\(^{405}\).

XVI, 21 – 24: these lines refer to \textit{Timaeus} 72e 3 – 73a 8.

XVI, 30: Ἐπεὶ δὲ\(^{406}\)

XVI, 24 – 32: l. 24 ποιοῦσα χρόνου\(^{407}\). The comparison to rivers is, one more time, founded on the effort to understand what happens inside the body by means of what happens in the world, or outside the body. The scribe could have been inspired by Plato or Aristotle or even Theophrastus\(^{408}\). As regards this later reference, Theophrastus reports that it was Democritus who stated that if curved plants tend to live for longer than the straight ones it is precisely on account of the fact that their contorted shapes confer on the former a higher capacity to retain the nutriment. While Theophrastus (Democritus) gives a cause of material order, the scribe of the \textit{Anonymus} offers a functional reason.

\(^{400}\) Diels (1893a), p. 95: « De venis ».
\(^{401}\) Hippocrates \textit{Oss.} V- VII [IX p. 172, 2, 5, 20 Lii.]. Diels (1893a), p. 84.
\(^{402}\) Plato \textit{Ti.} 73a 3, 85e 10.
\(^{403}\) Galen remarks that the ancients even called the stomach ‘pylori’ or ‘cardia’ \textit{De san. tuenda} VI 14 [VI p. 444, 4 K.]. Cfr. Green (1951), p. 273.
\(^{405}\) Cfr. also Pseudo - Aristotle \textit{Pr.} I 40, 863b 33.
\(^{406}\) Diels (1893a), p. 91: « Post irrealem conditionem ».
XVI, 33 ff.: it is likely that the term τριµερής refers to the Topics. The scribe introduces the doctrine of soul in the Republic but applies it to the Timaeus, suggesting that he might have used Arius Didymus’s Epitome, which contains Platonic doctrines.

XVI, 35: τὸ δὲ θηµικόν

XVI, 36 – 38: εὐφυεῖς instead of εὐφυής. The term ήγεµονικὸς(οῦ) in l. 38 is well attested in the philosophical tradition (Democritus, Plato and even Neoplatonists), but it is among the Stoics and the Epicureans that the notion acquires special signification. τὸ ήγεµονικὸν is a way to indicate the ruling part of the soul in the purported hierarchical scheme of the psychical apparatus, whereby some functions or faculties hinge on others of more importance due to being in charge of the discerning of events coming from outside through the senses and perception, or of elaborating the representations ensuing from perceptual data. The moot point concerning the ήγεµονικὸν is to make clear where exactly in the body the hegemonic part is allocated, the issue becoming even odder because the location and particular properties allotted to the commanding psychical part vary from author to author (the chest, the diaphragm, the brain, the heart etc.)

XVI, 39 – 42: these three lines might be an allusion to Plato Ti. 70a 2 – 8.

XVI, 42 – 44: ἵνα δὴ καὶ υπῆκον αὐτῶι γίνηται. As neatly opposed to the flesh or to the body (σάρξ, σῶµα), in Epicurus the ήγεµονικόν amounts to the so-called animus, which was believed to constitute properly the ψυχή.

XVI, 44 – XVII, 1: Ἐπέκτησεν. It is a reference to Plato Ti. 71a 3 ff.

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409 Aristotle Top. V 4, 133a 30 – 32.
410 CPF Plato 129T, p. 570.
412 Diels (1893a), p. 28: Plato Ti. 45a – b.
413 Solmsen (1961), p. 158.
415 CPF Plato 129T, p. 549.
416 As neatly opposed to the flesh or to the body (σάρξ, σῶµα), in Epicurus the ήγεµονικὸν amounts to the so-called animus, which was believed to constitute properly the ψυχή.
417 These two lines are seemingly an allusion to Plato Ti. 70d 7 – e 3.
418 Diels (1893a), p. 28: Plato Ti. 70d – e, 71a – b.
419 Diels (1893a), p. 92: « Praeficere ». 
XVI, 45: κάτογον, 420

**Column XVII**

Description

A high resolution picture of col. XVII can be consulted in paper format. According to D. Manetti, Diels’s restitution of the adjective «πυκνοκίνητος» in l. 4 is fully consistent; it is worth noting however that such a term is only attested in Hippocrates’ *On Joints* and in the Galenic commentary on the same treatise. In l. 15 the term νόϲοι is in the interlinear space, thus «\νοϲοι». Manetti is also of the opinion that Diels’s restitution in l. 20 «πάλι ἐµποιεῖται ἑτέροις» is unacceptable because the middle voice in combination with the dative makes the sentence unintelligible, as the common form is the verb in the active voice followed by the accusative. Ll. 22 – 23 were reconstructed by means of the discovery of the actual emplacement of fr. 2 by D. Manetti. In ll. 31 – 32 the integration «ἀπηκτὸς» suggested by H. Diels seems to be the only possible one; the notion is clearly Aristotelian. In the next line, though «τὸ αἷµα πλὴν ἐκ[ ]» is the most likely reading, it is nonetheless quite difficult to ascribe a sound ending to the sentence. The particle «ἐκ» might well be introducing a new sentence, so that if it were the case, a pause after αἷµα would be needed; therefore the text could end up integrated, for example, as «πλὴν ἐκεῖνο ῥήτη(όν)».

420 Diels (1893a), p. 28: «κατεχον vel κατοχον P. librarius haud dubie intellegebat κατειληµµένον, quod contrarium sententiae. κάτοπτρον Platonicum restituendum ».

421 CPF (2002), plate 60.


423 CPF Plato 129T, p. 574.


425 Aristotle *Mete.* IV 7, 385a 20, 385b 1.

426 CPF Plato 129T, p. 575.
Explanation

XVII, 1: τὰς ἐπιθυμίας τα[.].

XVII, 2: π(ρός) τὴν χρ[αία] the expression refers to Timaeus 70c 1 – d 6.

XVII, 5 – 10: these five lines correspond to Ti. 72b 6 – d 3; the term ἐκμαχεῖον in particular could be a reference either to Timaeus 50c or 72c.

XVII, 11 – 23: the passage reflects Timaeus 82a 1 – b 8; regardless of the fact that the version provided by the scribe was dramatically resumed, it remains nonetheless quite attached to the Platonic source. The sentence in ll. 17 – 19 « καὶ γ(ὰρ) πλείονα γεγόμενα τῷ [ὕ] δέοντ(ος)] τὰ στοιχεῖα νόσους κ(ατὰ)κενούζε[ι] διὰ τὸ πλῆθος » deserves more attention. The comparative form πλείονα in l. 17 no doubt is an allusion to the term στοιχεῖα (elements), both *ad casum* and *ad sensum* because the scribe refers to the first of the three causes of illness in Plato’s Timaeus. The way A. Ricciardetto translates the comparative does not really match the scribe’s intended meaning. Since the author has just expounded how the different elements — air, fire, earth, and water — constitute the different parts of the body, the στοιχεῖα should be taken as the constitutive elements (in an Empedoclean sense). Given that the στοιχεῖα are by definition always four in number, there cannot be more than four. In any case, in the unlikely event that in the eyes of the scribe Plato likened the στοιχεῖα to the Hippocratic humours (or their qualities) the restrictive rule should be applied too, as the Hippocratic humours were also limited in number. Our objection is furthermore reinforced by the descriptions of the στοιχεῖα in other passages in the *Londiniensis*, for instance, in light of Menocrates or Philistion’s theories. The translation, therefore, in no way could suggest that the elements (the humours, or the qualities linked to the elements) are more numerous than four, this being what occurs with Ricciardetto’s. It is not the case that the scribe is saying that Plato maintained that the causation of the illness was due to the excess of elements

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427 Diels (1893a), p. 89: « Speculi imagines ».
428 Diels (1893a), p. 29.
429 Diels (1893a), p. 29: Plato *Ti.* 81e, 82a – e.
432 Cfr. cols. XIX, 22 – 24; XX, 25 – 27 respectively.
(more than four) in the body, but rather a certain partitive demands to be understood here; so that
the meaning more adjusted to Plato’s reading by the scribe is that illnesses arise when there is an
excess of a certain element in the body, when there is more air, water, fire or earth in the body than
necessary. In sum, in this instance the form πλείονα should be taken as synonym of ‘excessive,
some X is in excess, or more than necessary’, in a much closer way to the meaning ascribed to
terms like πληθος, πληθώρη, πλησιμοή, or πλέιον above (as particularly happens in Aegimius of
Elis).433.

XVII, 29 – 30: for Aristotle and Praxagoras the heart was the nucleus of vital activity, for Aristotle
because he thought that the heart was in fact the first part of the body to be formed in the uterus
after conception, for Praxagoras because he believed that the heart was the source of the nerves (the
Coan physician conceived of the nerves as fine and thin prolongations of the arteries); hence the
bounds between arteries, pneuma and mobility/motion in Praxagoras’s anatomical and physiological
system434.

XVII, 46: D. Manetti proposes Timaeus 84e 2 – 7 as the source on which the paraphrase might be
dwelling at this point.

Column XVIII

Description

A high resolution picture of col. XVIII can be consulted in paper format435. In l. 10 the
adjective « ἀμέτ<οχ>α » is seen in rather late Greek writings436; curiously it is again badly written
in ll. 16 – 17 because the second letter o in « ἀμέτ]θοχόν » is rewritten on a former letter η, and the
letter µ in the second occurrence apparently surcharges another letter. In ll. 15 – 16 there is a
supralinear addition « \(\text{το} \ \text{δε} \ \text{εικος} \ \text{τινι} \ \text{τατο} \ \text{δυναται} | \ \text{ωι} \ \text{εικεν/} \ » on the right margin of the

433 Col. XIII, 22, 23, 25, 45 etc.
435 CPF (2002), plate 60.
436 CPF Philolaus 1T, p. 24.
column that D. Manetti takes as a proof for the incompleteness of the *Londiniensis*\(^{437}\). On the right margin of l. 27, the expression «\(\pi(\rhoο\,\epsilon)\ \alpha\nu\tau(ο)\overline{ο}\)» is abbreviated as «\(\backslash \pi\alpha\nu\tau^v/\)». L. 33 bears evidence of the scribe’s writing skills. Having written by mistake «\(\mu\epsilon\varsigma\omicron\omicron\)» but intending «\(\mu(\epsilon\nu)\ \epsilon\varsigma\omicron\omicron\)» he first crossed out ‘\(\omicron\omicron\)’ (i.e. [\(\omicron\omicron\)]) and then wrote «\(\epsilon\omicron\omicron\)» in the interlinear space (i.e. «\(\backslash \epsilon\omicron\omicron/\)») and added the mark «\(\).» for the abbreviation of the particle «\(\mu\epsilon\nu\)» above the initial letter \(\mu\) (therefore «\(\mu\)») in the expression. Lastly, in l. 42 there is another case of deletion and correction in the interlinear space: «\([\theta\epsilon\rho\mu\omicron\nu]\ \psi\chi\omicron\omicron\omicron/\)», which should be restored as «\(\psi\chi\varsigma<\rho>\omicron\omicron\)» since the letter rho is missing.

Explanation

XVIII, 1 ff. : the idea the scribe has in mind, or else the Aristotelian source he was consulting, on bile and phlegm are certainly in contrast with Plato. The illnesses reported by Plato were well known at that time and in general attributed to some humoral disorder\(^{438}\).

XVIII, 4 – 5: καὶ δόσο κ[υνάμφ]ω συνελθόντα πάλι νό|κους κ(ατα)κχ[ευάκ]ει.\(^{439}\)

XVIII, 8 – XIX, 1: the scribe finishes the report on Plato and moves onto the theories by Philolaos of Croton\(^{440}\) (Φιλόλαος[δέ \(\omicron\omicron\) \(\omicron\omicron\) Κρο[ονιάτ]ης])\(^{441}\). This passage was severally edited and translated into English by D. Manetti in a contribution\(^{442}\) previous to her complete edition of the *Londiniensis* in 2011.

H. Diels was of the opinion that Philolaos, a contemporary of Socrates, was a Pythagorean acquainted with the “Hippocratic” principles of humoral pathology\(^{443}\). Philolaos was born in the


\(^{438}\) CPF Plato 129T, p. 578.

\(^{439}\) Diels (1893a), p. 31: Plato \(\Xi7\). 84c – d.


\(^{442}\) The translation in English is in Manetti (1990), p. 224.

midst of the 5th century BC, and belonged to the generation that experienced the dramatical end of the political domination of the Pythagoreans at Croton. As a consequence, Philolaos was exiled and went in the first place to Lucania, afterwards to Thebes where he taught444 in his midlife sheltered by the important Pythagorean community which had settled there. More than 20 fragments are attributed to Philolaos, some of them of considerable length, but opinion is divided on the question of their authenticity. Perusal of the extant fragments exhibits a notable resemblance to Aristotle’s surviving accounts of Pythagoreanism445. G. S. Kirk and J. E. Raven likewise remarked on the similarity, both in the general picture and in the vocabulary, to the passages describing the beginning of the Pythagorean cosmogony446. It is also believed that Alcmaeon of Croton exerted a strong imprint on Philolaos’s ideas447.

According to the Londiniensis papyrus, Philolaos upheld that our body is namely and mainly constituted of heat (in agreement with Aristotle)448, and that the air we breathe in is cold by definition (τὸ ἐκτὸς πνεῦμα ψυχρὸν ὄν)449. Such opinion probably lies in his cosmological theory whereby fire occupied the center of the universe as its ruling principle450. In respect of the causes of disease, Philolaos maintained that they were brought about by three humours (blood, bile, and phlegm) and affirmed that every kind of excess or defect of heat, cold, and nourishment intervened or prompted the apparition of pathological states451. Perhaps the most peculiar trait in Philolaos’s theory is that he might have considered phlegm a warm element, and not a cold one as it was conceded among the majority of physicians of Philolaos’s own day. Philolaos could have found this admittedly striking variant in a treatise titled Περὶ φύσεως ἀνθρώπου attributed to Prodicus, a pre-Socratic sophist452. Philolaos’s most renowned disciple was Petron of Aegina, whose theories are also reviewed in the Anonymus453.

444 Plato Phd. 61 d – e.
446 Cfr. Kirk - Raven (1957), p. 313. The Pythagoreans affirmed the existence of the vacuum. They posited that vacuum penetrated the cosmos by means of the world’s breath, as if the cosmos would have breathed in the void from the outside. Aristotle’s picture of the Pythagorean cosmogony is based upon the analogy of the formation of the embryo in the womb. Aristotle Metaph. XIII 3, 1091a 13 – 21. For the fact of envisaging the origin of the cosmos by means of a primordial breath the Pythagoreans necessarily conceived of the world as a living being.
448 E.g. Aristotle Juv. IV 469b 7 – 10.
453 Col. XX, 1 – 24.
XVIII, 20: κατακ[εύθυνς]

XVIII, 12 – 20: the scribe develops Philolaos’s assumption whereby heat is the foremost principle in the living being. We find expounded therefore the conditions present and necessary for the generation to be possible. First, it is worth underlining that the idea of sperm as a warm fluid « τὸ επέρμα [α (εἶναι) θερμα] » also occurs in Aristotle455. The gloss in l. 14 « [μήτρ]α δὲ αὐτη, » reflects the author’s aim of disambiguating a concept that he might have deemed equivocal in the source he was using456. In this very line, the term ‘insemination’ or ‘ejaculation’ (καταβολή) is linked to the pre-Socratics457. The reason given by the scribe for the uterus to be warm presents some points of coincidence with Aristotle458. If we were to give a metaphysical reason for that, we could adduce the so-called ‘Movement Towards the Same’459.

XVIII, 21 – 23: the incessant need for the attraction and expulsion of air is a central aspect in the cosmology of the Pythagoreans460.


One might find the Pythagorean cosmogony reproduced here, but applied to mankind. In actual fact the Pythagoreans were the first pre-Socratic philosophers to propose that the whole universe respires461. Apropos of this, in the Physics462 Aristotle brings up a passage concerning the opinions the Pythagoreans held on this matter wherein the pneuma amounts to a “substance”463.

454 Diels (1893a), p. 95: « Demonstratio ».
455 Aristotle GA II 4, 748b 25 – 27.
458 Aristotle GA II 4, 739b 9 – 12.
459 Prince (2014), p. 923. In Hippocrates Morb. IV 17 there is a description of an experiment in order to explain how the similar entities move and experience attraction to each other.
463 The pneuma, the primordial substance the cosmos respired, cannot be likened in this case to air because in such a mythical picture of the origins any of the four classical elements had yet to come to be (or to separate).
inhaled from the outside (which Aristotle equates to void). In any case, in the Anonymus papyrus it is stated that this endless process is mainly to do with cooling the bodily heat. As regards the adjective ἐπεικάκτωτα, it is commonly found in Aristotle’s biological treatises.

XVIII, 35: διαρουμέν(ων)

XVIII, 36 – 37: τό δὲ φλέγμα συνίστασθαι ἀπὸ τ(/octet) ὁμβρών φησίν.:. in the Hippocratic treatise The Nature of Man phlegm is also assigned to the rains, as the rainy seasons (springtime and autumn) are midway, while the acme for blood is said to be in the summertime. D. Manetti believes, however, that there is no reason to introduce a climate reference in this passage. The philologist instead proposes a metaphorical use of ὁμβρός in a physiological context (i.e. ‘liquid’), and argues moreover that the infinitive συνίστασθαι has a clear technical meaning: ‘to consist of, to be composed of’.

According to Philolaos blood becomes a cause of disease when it is altered by external mechanical causes that influence the pressure of the blood vessels and the flesh. For Philolaos phlegm was warm and composed of liquids; that is to say, he did not see phlegm as properly constituting a humour, but he continued to maintain its primordial meaning (inflammation or inflammatory swelling). We could assume that Philolaos considered bile and phlegm effects rather than causes of disease; therefore drifts away from the Cnidian pathological theory based on a binary theory of humours (bile-phlegm).

XVIII, 37 – 40: the bile as a serum (ιχώρ) of the flesh, a harmful liquid in Petron’s view; the closest parallel to this opinion is in Plato Timaeus 82 e ff.

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464 Cfr. infra ch. VI § 2. 1.
465 Diels (1893a), p. 87: « Laxari ».
469 Similarly, in the first half of the 4th century BC Petron of Aegina (infra col. XX, 1 – 24) held that bile was produced only when the body was diseased; so that contrary to the general belief bile itself was not the cause of disease. Cfr. infra ch. V § 3. 2. 2.
470 Manetti (1990), p. 231.
XVIII, 44: ἀπὸ γ(ἄρ) τοῦ φλέγειν φλέγμα εἰρήθη(α)\textsuperscript{472}

XVIII, 45: by the expression « ταύτη ἃς καὶ » the scribe introduces a new example in support of the main issue under discussion\textsuperscript{473}.

XVIII, 48: [c]υνεργά δὲ ὑπέρβολ[ά]ϲ\textsuperscript{474}: the term cυνεργά is a kind of hapax in the Anonymus papyrus and points to a certain hierarchy between the different causes. In actual fact the causes defined as cυνεργά are opposed to the primary causes, therefore, contributory or coalescent causes. This classification resembles the Stoic system\textsuperscript{475} more than the Aristotelian, and it was probably current in the rhetorical schools of the early Roman empire\textsuperscript{476}. As regards the notion ὑπέρβολ[ά]ϲ, it has the meaning of ‘extreme condition’ (either by excess or by defect)\textsuperscript{477}.

**Column XIX**

Description

A high resolution picture of col. XIX can be consulted in paper format\textsuperscript{478}. The name ‘Menecrates’ in ll. 18 – 19 appears in the papyrus after a clear wide blank underlined by a diple obelismene, and l. 19 starts furthermore with ekthesis; all these details head to the fact that the scribe was certainly aware of furnishing the reader with particular information, relevant enough. The endings of ll. 22 – 28 were partially reconstructed on the basis of fr. 6\textsuperscript{479}. One of the features that attracts most the attention is a quite long oblique descending sign (⧸) affecting ll. 35 – 36. Although many conjectures have been put forward in relation to this trace, its presence and meaning are still unclear. H. Diels thought that it was the abbreviation for « ἐστίν », whereby the first three

\textsuperscript{472} Diels (1893a), p. 33; (1893b), p. 419. Cfr. infra. ch. V § 3. 2. 2.


\textsuperscript{474} Diels (1893a), p. 33: « vel ὑπερβιά/, sed ὑπερβαλλούσα vel propter spatium suppleri nequit ».

\textsuperscript{475} SVF II fr. 351 [von Arnim (1964b), p. 121].

\textsuperscript{476} Pseudo - Galen Def. med. CLX [XIX p. 393, 16 – 18 K.].


\textsuperscript{478} CPF (2002), plate 61; CPF (2008), plate 45.

\textsuperscript{479} Fr. 6 in Kenyon - Diels (1901), pp. 1320, 1323.
letters would have been written above the word « có[µ]τι » in l. 34; but A. Ricciardetto has been unable to read those letters. A much more suitable proposal in this particular case is that the scribe used such a trait as a check-mark (as seems to be the case in other literary papyri). The descending line would be a diacritical sign that the author drew to remind himself that he had to go over that section, either because it contained some mistakes or needed a revision (l. 36 appears in fact flanked by philological crosses and has not been satisfactorily deciphered). This mark is then another argument upholding the scribe’s work in progress (i.e. incomplete), perhaps to remind him of the necessity to have a look at the antigraphon he was using or to reconsider the passage in question.

Explanation

XIX, 2 – 18: Polybus of Cos (‘Ο δὲ]Πόλυβος)482

XIX, 1 – 8: ‘Ο δὲ]Πόλυβος εξ ἐνός μ[(ἐν) ετοιχείου οὐ λέγει]τά ἡμέτερα σῶμα[στά γεννάεθαι, ἕλ(λα) πολλ[(ὸν)] τὴν]αιτήν φύσιν ἐξὸν[t(ον)], εξ ὑγροῦ τε καὶ ἕγροῦ[ὁ],[οὐ χωρίε[ὀν(ον)] ἀλλά κεκραμέν(ον) αὐ[t(ον)] μετρίως, ὑπερ][]βαλόν δὲ θάτερον θατέρου, νόσους ἀπο]τελεῖν.483

XIX, 3 – 17:

A chapter in Aulus Gellius’s Attic Nights bears the following title: That those Persons Are in Error Who Think that in Testing for Fever the Pulse of the Veins Is Felt, and not that of the Arteries. In brief, the portrait of the situation is that Aulus Gellius is down in bed with high fever in the house of a friend who is settled in the Attica; his friend the philosopher Calvicius Taurus and some of his disciples visit him while he is being attended by a local doctor. Then, the physician starts telling the visitors of the discomfort Aulus Gellius is suffering, and suggests that by taking the

484 Aulus Gellius The Attic Nights XVIII 10 – 11 [Hosius (1903), pp. 249, 1 – 250, 24].
pulse\textsuperscript{485} on one of the veins (φλεβός)\textsuperscript{486} of the ailing Aulus they will be in a better position to tell what kind of sickness is affecting Aulus Gellius. Calvicius Taurus and his students are stricken by the suggestion; in gauging the invitation of the doctor as an unfortunate comment, they all come to think the doctor has made a terrible mistake. But, why were Aulus Gellius’s learned friends so shocked at hearing the words of the doctor?

Perhaps the scene is mindful of a phenomenon that was becoming the norm all over the Roman world in the Imperial period: the increasing number of incompetent physicians hanging around Hellenistic cities\textsuperscript{487} on account of the evident social and economic benefit that one was to enjoy by way of practicing medicine\textsuperscript{488}. Yet, apart from this, the astonishment among the group of friends is more likely due to what Aulus Gellius should have considered a theoretical assumption, since everybody who was minimally educated — above all, a doctor — must have necessarily been familiar with the distinction between veins and arteries\textsuperscript{489}. It was Praxagoras of Cos the physician who actually set and put forth such a distinction for the first time\textsuperscript{490}. According to Praxagoras the system of the arteries was separate from that of the veins, the arteries containing only pneuma\textsuperscript{491}. Praxagoras was of the opinion that in the course of normal digestion bubbles were formed in the system of the veins, this air intercepted from the blood being the thing that actually explained air in the arteries, as well as the existence of a link between the two main systems of channels within the body\textsuperscript{492}. As the arteries beat they were said to have a movement of their own, i.e. the pulse

\textsuperscript{485} It is generally admitted that the analysis of the pulse among the Greeks was formerly taken into account by Praxagoras. Nutton (2004), p. 126. Yet, inasmuch as this method of diagnostic (sphygmology) is also witnessed in the On Respiration, no doubt the pulse was already known at Aristotle’s time. Aristotle Resp. XX 479b 17 – 480a 5; Mete. II 8, 368a 6 – b 25. Cfr. Abel (1957), p. 110; Thivel (1965), p. 272.

\textsuperscript{486} In origin φλέψ, the term that later came to be used in a narrow sense for ‘vein’, was the way to call indistinctly any blood vessel; as νεῦρον (i.e. nerve) in origin also meant ‘ligament’ or ‘tendon’. Wilson (1959), p. 295; Longrigg (1993), pp. 208, 210; Nutton (2004), pp. 77, 126.

\textsuperscript{487} In the first two centuries of the Roman Empire there flourished a veritable marketplace of medicine, with learning and showmanship, practical expertise and eloquence on all sides — Pneumatists, Dogmatists, Methodists or Hippocratics. Nutton (2004), p. 201. Hence the circulation of sayings touching the unworthiness of a too talkative doctor like « garrulus medicus secundus est morbus aegroto » and so forth.

\textsuperscript{488} Vegetti (1994), 1674 – 1675.

\textsuperscript{489} Aristotle seems to have known nothing about the distinction between veins and arteries. Aristotle HA III 2, 511b 13 – 3, 513a 7.

\textsuperscript{490} According to Galen De dign. puls. IV 3 [VIII p. 950 K.] almost two physicians — Erasistratus and Praxagoras — claimed that the arteries contained and conveyed only pneuma. Since Praxagoras (c. 300 BC) was older than Erasistratus (330 – 250 BC), here we make reference first to Praxagoras. Cfr. Steckerl (1958), pp. 2 – 6.

\textsuperscript{491} Praxagoras held that the liver was the origin of the veins. Cfr. Jaeger (1913), p. 67; Diller (1936), p. 184; Steckerl (1958), p. 48.

\textsuperscript{492} There is a very similar description at Pseudo - Aristotle Spir. IV, 482b 14.
(σφυγµός) From Praxagoras onwards the pulse would be thus conceived as the natural movement of the arteries (κίνησις κατὰ φύσιν) or as the right deliverance and conveying of pneuma throughout the body. According to Praxagoras the arteries had a cognate power of beating, becoming filled with pneuma because they beat but not because they were filled with pneuma. Therefore, the pneuma in the arteries could not come from the exterior but from the body; the mechanical destruction of the bubbles by the arterial wall was the source of the air in the arteries.

Some time later, in the 3rd century BC, the physician Erasistratus of Ceos made some experiments with animals in order to prove that in normal circumstances there was no blood in the arteries. In the eyes of Erasistratus the experiments revealed that the beating of the arteries was due to the action of the pneuma impelled by the heart while passing through and not to any special characteristic of the arterial walls (as Galen wrongly believed); thus it was definitely Erasistratus who founded the belief in the total absence of blood in the arteries, since he conceived the two nets of channels in the body as completely independent, and committed to two different physiological scopes; the veins to nutrition and the arteries to respiration. As the author of Anon. Lond. was — with Herophilus — convinced of the presence of blood in the arteries while containing only a few parts of pneuma, the scribe of the Anonymus was somehow led to take issue with Erasistratus and his theory of the exclusive presence of pneuma in the arteries. One century after the composition of the Londiniensis, Galen would have to repeat the test to confute Erasistratus’s theory.


494 Steckerl (1958), p. 63. Praxagoras undoubtedly must have wanted to distinguish the pulse from a movement of the arteries which is not perceptible (αἰσθητή). As opposed to the pulse, there were three other abnormal or pathological (contrary to nature) movements in the arteries: the πάλµος, the τρόµος, and the σπασµός. Steckerl (1958), pp. 21 – 23, 26.


497 Manetti (1996b), p. 309. In view of this, the comprehension of the chapter in the Anonymus Parisinus dealing with the causes of paralysis according to Erasistratus becomes problematic, for it is as if the Anonymus Parisinus ignored or dismissed this distinction in Erasistratus. Cfr. Anomymi medici XXI 1 (1) [Garofalo (1997), p. 122, 19 – 23].


499 Cfr. infra. Comment. on col. XXVI, 35 – 38 n. 735.

500 Galen De anat. admin. VII 16 [II pp. 641 – 646 K.]. Grmek (1997), pp. 81 – 82. From a practical medical perspective, venesections and bloodlettings were carried out for therapeutic purposes because of the belief that the veins only conveyed blood; the arteries, contrariwise, were capable of manifesting by their motion and pulsation the sound or the bad condition of the body as well the intensity of fever.
Aulus Gellius had no qualms about remarking that the criticism Calvicius Taurus addresses to the doctor is not only shameful for a physician but also « for all cultivated and liberally educated men »\textsuperscript{501}. It seems that during the Second Sophistic the medical thought was somewhat dominated by philosophical paradigm, and on the other hand, it attests that for some highly educated persons the language had become nearly as important as reality. Conceptual accuracy (ἀκριβεία) is fundamental in all rhetorical genres, but specially in the epideictic. The whole scene finally comes to an end by providing the definitions for ‘vein’, ‘artery’, and ‘pulse’ (the three concepts are given in Greek, as wells as the definiens of ‘pulse’). Since Aulus Gellius says the veins contain a small amount of vital breath (spiritus naturalis)\textsuperscript{502} and the arteries also to convey some blood, the definitions of the veins, the arteries, and the pulse given by Aulus Gellius are slightly closer to Praxagoras than to Erasistratus.

As regards pulsation, given that it is a matter of an involuntary movement — one and the same in the heart and in the arteries — Aulus Gellius bears evidence of updated medical knowledge, as he will next remark that in the eyes of the ancient Greek physicians this involuntary movement corresponded to a contraction and a dilation taking place in the heart, and to a contraction and a dilation taking place in the arteries themselves.

XIX, 18 – XX, 1: Μενεκράτης δὲ ὁ Ζεὺς

With a strong historical slant, G. Squillace has published a number of contributions and even a monograph\textsuperscript{503} touching on Menecrates, the physician surnamed Zeus\textsuperscript{504} (middle years of the 4\textsuperscript{th} century BC), as well as on other personages who are also reviewed in the Anonymus papyrus. Although published in 2012, the passage concerning Menecrates\textsuperscript{505} was edited, translated into

\textsuperscript{501} Aulus Gellius \textit{The Attic Nights} XVIII 10 (8) [Hosius (1903), p. 250, 3 – 7].

\textsuperscript{502} There is no innate heat in the system of Praxagoras, he knew nothing of an innate pneuma (σύμφυτον πνεύμα). The theory of humours, the very backbone of Praxagoras’s system, shows no connection with the corresponding views in Aristotle. Praxagoras is credited as a Hippocratic physician, but his system presents many points of view in common with Aristotle. Steckerl (1958), pp. 19, 36 – 37.


\textsuperscript{504} The reason for this name is disclosed in the Souda; as it seems Menecrates regarded himself as the higher divinity, giving also divine names also the patients he could heal of the sacred disease. Squillace (2012), p. 128 [T. 6]. Menecrates is also studied in Diels (1893b), pp. 416 – 417.

\textsuperscript{505} Squillace (2012), pp. 134 – 138 [T. 1].
Italian\(^{506}\), and commented on by Squillace prior to D. Manetti’s full edition of the *Anonymus* in 2011. However, Squillace’s commentaries are somewhat misleading, presenting some shortcomings and incongruent points in different aspects. The reasons for the criticism are several and of various natures, but the main ones to a great extent owe to the fact that he used the edition of the *Londiniensis* that D. Manetti was preparing\(^{507}\). The reader will therefore find some imprecisions in the quotations of the passages concerning the different authorities reported in the papyrus. Yet, leaving these *peccata minuta* aside, the weakest point in Squillace’s book in relation to the *Anonymus* probably has to do with the title. Squillace notes that the *Londiniensis* papyrus is the only source from which we learn that Menecrates actually wrote a work titled ‘Ἰατρική’\(^{508}\), but he does not give any translation of the title (« nella sua opera ‘Ἰατρική’ »\(^{509}\). As soon as he has affirmed, again, that Menecrates wrote a treatise titled ‘Ἰατρική’\(^{510}\) and recalled that it was a recurrent title in ancient medical writings, Squillace moves on to deal with the title\(^{511}\) « ‘Ἰατρικά’ » — or wrongly transliterated « ‘Ἰατρικά’ » — that Manetti uses in her edition of the *Anonymus* papyrus. By doing so Squillace proves that he has not autopsied the papyrus, otherwise he would have remarked that the title of Menecrates’ work in no way could be considered in light of the purported title that Manetti gives to the *Londiniensis*\(^{512}\). Manetti therefore goes beyond the boundaries of the scientifically acceptable, so much so that Squillace uncritically takes a standpoint which seems to be plainly mistaken, for both presume more than the papyrus actually reads. Finally, Squillace takes a passage in Aristotle’s *Politics*\(^{513}\) in order to liken Menecrates to an ἀρχιτεκτονικὸς, but in doing so he proves

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\(^{506}\) (« Menecrate, soprannominato Zeus, nella sua opera ‘Ἰατρική’, offre una descrizione dei corpi, spiega le cause delle malattie, interessandosi in primo luogo della composizione dei corpi. Afferma, infatti, che essi sono costituiti da quattro στοιχεῖα: due caldi, due freddi. Sono caldi sangue e bile, freddi aria e flegma. Il corpo sta bene, se questi non sono in contrasto ma rimangono in equilibrio, si ammala se confliggono. In questo caso sono espulsi dai nostri corpi flegmi che provocano piccoli ascessi e rigonfiamenti. Inoltre catarri di varia natura nascono dall’eccesso di flegma. Infatti (Menecrate) afferma che, quando il flegma invecchia nel corpo […] al phlegma che entra […] quando rimane bloccato produce bile rossa. La bile, a sua volta, ristagnando e invecchiando, produce bile nera. Se poi una parte del corpo, dovunque questo si verifichi, riceve la bile diventata in eccesso e invecchiata e se ne riempie non ne consegue — dice Menecrate — niente di buono. Infatti, se si accumula sulle gambe, provoca la sciatica, sul polmone la polmonite, sui fianchi la pleurite, portata nelle viscere provoca febbre ardente. E insorgono inoltre molte malattie dello stesso genere e differenti »). Trans. Squillace (2012), pp. 135 – 136.


\(^{510}\) Squillace takes for granted that to write his report on Menecrates the scribe of *Anon. Lond*. read that book, but this assumption seems far-fetched. Squillace (2013), p. 176 n. 100. The scribe might merely be reporting what he found written in the Aristotelian source that he supposedly was consulting. Another evidence of that, this time concerning Hippo of Croton, can be found in col. XI, 33 – 34: ‘Ἐν ἄλλω[ι] δ[ε] βιβ[λίωι] αὐ[τ]'[τ]ος ἀνήρ λέγει ].


\(^{512}\) Cfr. infra ch. II § 4.

\(^{513}\) Aristotle *Pol.* III 6, 1281b 38 – 1282a 8.
anew that he did not properly understand the concept πεπαιδευμένος in Aristotle, for Squillace contends that a person only learned in the medical art cannot be judged to be a doctor\textsuperscript{514}, when the perusal of Aristotle’s Politics seems rather to confirm the contrary.

XIX, 23 – 29: λέγει τὰ σώματα ἐκ τ汉语(ῶν) τεσσάρων\, ἑτερομοιώς, β´ μ(ῆν) θερμῶν, β´ δὲ [ψ]ψυχρῶν\, ἑτερομοιῶς ἁματος χωλής, ψυχρῶν\, ἑτερομοιῶς πνεύματος. [Σοῦτ(ῶν) μ(ῆν) δὴ μὴ στασιαζόντων(ων), ἄλλες κράτους διακειμένῳ(ων), ὑπεικεὶ τὸ ζῴον\, δυκράτως δὲ ἔχοντον νο[σεῖ.

Menecrates argued that the body was created from four elements, two hot (blood and bile) and two cold (breath or \textit{pneuma} and phlegm). Along with Polybus, Menecrates is in a narrow sense the only physician in this subsection who put the origins of disease down to the elements in us, and thus also the only one who considered phlegm and bile as plain constituents of the body. Menecrates’ theory of the cause of disease resembles in a way some doctrines in the Corpus Hippocraticum. The elements that Menecrates maintains constitute the body (blood, bile, breath, and phlegm)\textsuperscript{515} are close to those expounded in \textit{The Nature of Man}. Anyhow, according to the description of Menecrates’ views in the \textit{Londiniensis}, when they are in harmony a healthy constitution follows; contrariwise, an imbalance among the constitutive elements brings about illness\textsuperscript{516}. With Philolaos of Croton and Philistion of Locris, Menecrates is the third physician by whom it is stated that the causation of the illness is due to the unbalanced state of the elements informing the body, or their alleged qualities\textsuperscript{517}.

Menecrates also believes that if the fluid he terms ‘red bile’ is allowed to become stagnant and stale then it turns into black bile, a situation that yields different diseases depending on the place where such black bile happens to settle during its course around the body. Thus, he explains pneumonia\textsuperscript{518} on account of the transference of black bile in the lungs, lumbago around the hips, pleurisy in the ribs, and καῦσος\textsuperscript{519} — an extremely burning fever — if black bile comes to settle in the bowels. The excess of bile is cause for several illnesses in the Hippocratic treatise titled

\textsuperscript{514} Squillace (2012), pp. 93 – 94.

\textsuperscript{515} Jones (1984a), p. L.

\textsuperscript{516} The author of \textit{The Nature of Man} also defined health and disease in terms of balance and imbalance. Hippocrates \textit{Nat. hom.} IV [VI pp. 38 – 40 Li.]. Cfr. Nutton (2004), p. 82.

\textsuperscript{517} Gourevitch (1989), p. 238.

\textsuperscript{518} In Hippocrates \textit{Vet. med.} XVII [I p. 612, 7 – 9 Li.] the peripneumonia is described as a feverous pathology.

\textsuperscript{519} Cfr. supra \textit{Comment.} on col. IV, 13 – 17.
In the Aphorisms sciatica, pulmonitis, pleurisy, and boiling fever are listed together, as they are all considered to belong to the same class of affections (i.e. acute). These aforementioned illnesses were extremely dangerous, almost lethal. Nevertheless, it is almost impossible to say whether Menecrates came to know about all these theories from such Hippocratic writings.

XIX, 31: δοθιῶνα; [ποιοῦντα]

XIX, 33 – 34: Π[αλαί]ούμενον

XIX, 47: τὰ σπλάγχνα: it could be also translated as ‘the zones in the abdomen’, or ‘the abdominal organs’.

Column XX

Description

A high resolution picture of col. XX can be consulted in paper format. In l. 3 the word « διϲ[.v » evinces again the omission of two contiguous consonants. In l. 18 the expression « τ(ῶν) νόϲων α<υ>τ(ῶν) » is written in the papyrus as « τ\’ νοϲων/ [ϲωμ]ατ’ ». The author erased [ϲωμ] maybe because he wanted to write another word, for instance « νοϲημάτ(ων) », or else — as D.

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520 Squillace (2012), p. 89.
521 As for this particular affection, in studying pleurisy Caelius Aurelianus in Cel. II 16 (96) [CML VI 1, 1 p. 96, 1 – 7 Bendz] reports that there was issue among ancient physicians at agreeing which part of the body was properly affected. On the one hand Euryphon, Praxagoras or Herophilus believed that it was the lung « pulmonem pati dixerunt »; while Diocles, Erasistratus or Asclepiades posited that the affected part was the hypochondria « hypezocota membranam, quae latera ex interiore cingit ».
522 Hippocrates Acut. II.
525 Diels (1893a), p. 100: « ut enumeratio claudatur ».
526 Diels (1893a), p. 35: « fortasse ἄλλοιοῦμενον ».
527 CPF (2002), plate 61.
Manetti hypothesised — the scribe could have corrected « [εωμ]ατ́ » to get « νοϲων αυτ́ » (i.e. νόϲων αὐτῶν). To do so he deleted the first three letters ([εωμ]) and afterwards inserted « νοϲων » in the interlinear space (i.e. « νοϲων/ »), but he apparently forgets the addition « υ » in order to transform « ατ(ῶν) » into « αὐτ(ῶν) »; that is why the transcription reads « α<υ>τ(ῶν) ». In l. 24 the the verb in the expression « τἆλλα αὐτον<ο>εί » is partially written on the margin. Ricciardetto’s reading at this point is closer to Diels (who suggested « τὰλλα ἡγοῖνει; ταἈλλαγηνει; αὐτογνωμονει; αὐτον<ο>ει) than to Manetti’s.528 As regards the numerals in ll. 25 – 26 (and in the following), the way the scribe writes them is by adding a transversal stroke above; then, for example, the number « 4 » is not written as « δ´ » but as « δ̅ »529. In l. 37 the scribe first wrote « αμαρον », and to amend the mistake into « ἀμαρόν » he erased the first upsilon and added the right upsilon in the interlinear space, hence « α[[υ]μαρον/ρον ». Between ll. 37 – 38 there is a paragraphos that has not been edited in any of the two former editions of Π. In l. 45 the expression « οὐ γ(ἄρ) μο(νον) κ(ἀτὰ) » provides a good sample of some of the abbreviations used in the papyrus: « οὐγ μικ´ ».

Explanation

XX, 1 – 24: this passage, where the scribe is concerned with Petron of Aegina, was severally treated by D. Manetti in a contribution previous to her full edition of the Londiniensis in 2011.530

XX, 1 – 2: (ὁ δὲ Αἰγινήτης Πέτρων)531

XX, 8 – 9: διὰ τὰς περιττώσεις τῆς τροφῆ[ε]532

XX, 10: δῶσι533


529 The same applies to l. 38 and to cols. XXI, 10; XXII, 54; XXVI, 49; XXVIII, 17, 23, 33, 49; XXIX, 17; XXXI, 33, 47; XXXIII, 3; XXXIII, 3; XXXVIII, 58 etc.

530 Manetti (1990), p. 223.


533 Diels (1893a), p. 35: « fortasse γάρ vel ὀψείν ». 
XX, 11: κατεργάσηται

XX, 19 – 21: οὗτος δὲ ἀπὸ τῶν νόσων τὴν χολήν. in the Hippocratic treatises The Nature of Man and De morbis I 2 bile is conceived of as a constitutive element, humour, principle, or “idea” of the human body. This assumption strongly contrasts with Petron’s views.

XX, 25 – XXI, 8 [?]: Φιλιστίων: Philistion was a Sicilian physician of the 5th century BC. Galen affirms that Philistion belonged to the circle of Empedocles, which makes sense, since Philistion could have incorporated Empedocles’ theories when he moved from his native Locris to Sicily. Philistion’s medical principles are actually deeply rooted in Empedocles’ doctrines, so that Philistion was properly the bridge that brought and introduced Empedocles’ medicine to Athens, that is to say, to Plato (with whom Philistion formed a solid friendship), to Aristotle, and to Diocles. At the end of the 5th century BC Philistion founded an important medical center in Syracuse, which was attended by Chrysippus and Eudoxus (both from Cnidos) for purposes of studying. When Chrysippus and Eudoxus moved to Sicily to learn the medical art, they introduced to the school founded by Philistion the distinction between veins and arteries formerly made by Euryphon of Cnidos; the melding of the traditions would exert strong influence upon the Sicilian and the rest of the medical tradition to come.

One might find traces of Philistion’s theory in the pseudo-Hippocratic treatise Heart (De corde). In light of the detailed description of the heart in Heart, if not absolutely certain it is more than very likely that Philistion practiced dissections on human. It is generally admitted that the Heart is a book that was incorporated quite late in the Hippocratic collection. At Galen’s time

534 Diels (1893a), p. 95: « Concoquere ».
535 Cfr. infra ch. V § 3. 2. 2.
537 Galen Meth. med. [X p. 6, 3 – 4 K.].
538 Abel (1957), pp. 107, 112 n. 66.
540 Ricciardetto (2014), p. XLV. This treatise is considered the oldest anatomical hypomnematic writing that has come down to us. Bidez - Leboucq (1944), p. 20.
541 Bidez - Leboucq (1944), p. 39. Philistion of Locris was also the first physician to describe the sigmoid valve. Bidez - Leboucq (1944), pp. 33, 38. Yet it is Erasistratus (3rd century BC) who appears to have been the first to discover all the valves in the heart (bicuspid, tricuspid) in charge of keeping the sanguineous flux in one direction. Abel (1957) p. 110; Wilson (1959), p. 298; Byl (2011b), p. 21.
almost nothing was known about Philistion; the physician of Pergamon cites Philistion very seldomly, so presumably Philistion’s works were lost in the 2nd century CE. M. Wellmann collected the fragments attributed to Philistion in *Die Fragmente der Sikelischen Ärzte, Akron, Philistion un des Diokles von Karystost*.

Many scholars contend that Philistion’s views as they are expounded in the *Anon. Lond.* resemble Aristotle’s views, but the influence that the former may have exerted upon the latter should not be overrated. In contrast to Philistion, Aristotle does not combine each of the primordial elements with its opposing quality but with a pair of opposed qualities. Such procedure — witnessed in the Corpus Hippocraticum — is also to be found in Diocles of Carystus. It is nevertheless generally admitted that Philistion introduced teleological thinking patterns into Italic medicine. Philistion essentially made a turn from essentialism to the qualitative, namely by substituting the four Empedoclean roots (earth, water, air, and fire) into the four δυνάμεις (dry, wet, hot, and cold). The *Anonymus* recalls in fact that it was Philistion who set the correspondence between the elements and their qualities.

Philistion posited three general causes of disease. He attributed the first cause (internal) to an excess or a deficiency in one of the four “forms” (hot, cold, wet, and dry). Along with Philolaos of Croton and Menecrates of Siracusa, Philistion is one of the three south Italian physicians in the *Anon. Lond.* that attributed the causation of disease to an imbalance between the constitutive elements in us and their qualities. The second cause (external) was the presence of wounds or sores, the result of an excess or deficiency of external heat and cold, the inopportune changes from one into another, or else simply due to a deficient/incorrect nutrition. This second kind of cause is also conceded by the pre-Socratic philosophers and the Hippocratic physicians. Philistion put the third and last cause of disease down to some impediment in the air that did not allow it to flow properly.

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546 For instance in Hippocrates *Nat. Hom. III* [VI pp. 36, 17 – 38, 19 Li.].
into or out of the body. Hence, where there is no breath the body begins to rot; where there is too much the air forces its way through where it should not and this causes painful swellings, sweatings and distortions.

XX, 34: ἥ παρὰ τὰ ἐκτός.

XX, 47: as Philistion and Plato, the Peripatetic Diocles held that diseases appear when the passages (πόροι) in the skin were obstructed, preventing the air to pass in and out. The theory of respiration throughout the body surface can be traced back to Empedocles.

**Column XXI**

Description

The text in ll. 10 – 13 is full of lacunae. The beginning of ll. 24 – 26 is preserved on the fragment VIII catalogued by H. Diels. In l. 30 the verb « <(εκτιν)> » is in angular brackets because the scribe wrote by mistake the trace that serves as abbreviation for the infinitive « εἶναι ». The first letter in l. 33 starts with ekthesis. In l. 38 the word « ἀνοιμομερη » is another case of haplography. While writing « ἀνοιμομερη » the scribe realised that he wrote it incorrectly, whereupon he expunged the group « οι » and added « ομοιο » above the word; thus P. reads: « ον[οι] \ομοιο/μερη ». In l. 43 the word « ἀπλ(ον) » is abbreviated as « απλ ». In the next line the first letter starts with ekthesis.

551 In the *Timaeus* Plato gives two very similar explanations to Philistion’s first and last causes (i.e. the imbalance of the four elements, and air’s failure to move properly and freely into or out of the body). Cfr. Plato *Ti*. 84 a – e; and infra ch. V § 3. 2. 1 n. 545.


553 Diels (1893a), p. 90: « Causae externae ».

554 Cfr. ch. II § 3. 1.


556 Ricciardetto (2016), pp. 60, 129.
XXI, 17: \( \mu \varepsilon \lambda \nu \varepsilon \tau \omicron \nu \) 557

XXI, 18: \( \Theta \omicron \varsigma \varsigma \mu \omega \alpha c \) the third section of the *Londiniensis papyrus* 558 is said to start with this word (i.e. cols. XXI, 18 – XXXIX, 32).

XXI, 21: \( \Upsilon \rho \omicron \phi \lambda \omicron \omicron \) 559

Herophilus of Chalcedon (330 – 260 BC) is credited with having been Praxagoras’s pupil 560, presumably on Cos. Herophilus, however, took issue with his mentor on different points. As regards the alleged qualitative differences of the pulse Herophilus, contrary to Praxagoras, conceived of the palpitation (\( \pi \alpha \lambda \mu \omicron \omicron \)ς), the tremor (\( \tau \rho \omicron \mu \omicron \omicron \)ς), and the spasm (\( \sigma \pi \alpha \omicron \sigma \omicron \omicron \)ς) not as three different affections that the arteries might experience, but as three quantitatively different motions of the pulse. On the other hand, Herophilus also carried on an interest of Praxagoras by studying the nervous and the vascular systems 561; true, he distinguished between veins and arteries anatmically (as well as functionally) 562 by noting the greater thickness of the arterial coats, but Herophilus seems to have rejected Praxagoras’s opinion that the arteries carried only *pneuma* in favour of a belief in a mixture of blood and *pneuma* 563.

Herophilus’s pupils 564 constituted his household, which implies that they lived communally, but not necessarily within the Museum. It should be kept in mind that there is no evidence that Herophilus (or any of his followers) was a member of the Alexandrian Museum 565. In any case, a

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557 Diels (1893a), p. 37: « Ελητεον vel ενιτεον vel επιτεον ».  
558 Manetti (1996b), p. 308. The first lines with which the scribe starts what is deemed to be the third section of the Londiniensis can be also found in Dorandi (2016), p. 200.  
559 Herophilus is also mentioned in cols. XXVIII, 46; XXXVI, 47.  
561 Aristotle had no knowledge of the nervous system as such, it would be an Alexandrian discovery; in fact Herophilus is credited as the first physician to give a description of the nervous system as it stands (or is represented) in modern medicine. Veggetti (1993), p. 92; French (2000), p. 91.  
562 The distinction between veins and arteries is attributed to Praxagoras (who will be afterwards followed by Erasistratus).  
564 While in the 2nd century CE there were still Erasistratean physicians at Rome, by contrast the Herophilean school disappeared in the middle of the 1st century CE. Gourevitch (1993), pp. 126 – 127; Veggetti (1993), p. 112.  
systematic research into the internal anatomy of the human body was doubtlessly first carried out in Alexandria by Herophilus\(^\text{566}\). Thus, the discovery of a number of anatomical parts and their technical names is due to Herophilus. In this way the calamus scriptorius (a pen–shaped groove in the brain also called ‘Arantius’s ventricle’); the torcular (the “wine–press”, a concavity in the rear part of the cranial bone where the sinuses converge); the choroid plexus (so–called because it resembles the membrane wrapped around the fetus)\(^\text{567}\); the styloid process of the skull (in the rear part of the ears); the duodenum (twelve–fingers long); the rete mirabile and perhaps the pineal gland (pine–cone) are all linked to Herophilus’s research. Herophilus also studied the reproductive systems in both sexes.

The scribe is taking up his own position. We see here a somewhat accomplished version of the apothegm « where the philosopher finishes the physician begins » (\textit{quia ubi naturales terminant ibi incipiunt medici ut dicitur in libro de sensu et sensato})\(^\text{569}\). The use of the first person singular could in fact be seen as a plain authorial hint. According to D. Manetti, moreover, this is the only case in the whole papyrus where the scribe genuinely reveals his main concern, where he is clearly taking a stance\(^\text{570}\). The author of Anon. Lond. is on the side of the physicians; he regards himself as a physician and takes the way he proceeds as the right one in the pursuit of the medical art. The scribe is therefore differentiating his own concern from philosophy’s. This passage in the \textit{Londiniensis} might be taken as a reconsideration of Socrates’ statement in the \textit{Phaedrus} wherein it


\(^{567}\) The choroid plexus is a kind of network in the brain where the cerebrospinal fluid is produced. Having an important immunological role, such fluid acts as cushion in order to preserve the brain from motion.

\(^{568}\) Diels (1893a), p. 37: « Ελησεν vel ενειςεν vel επεισεν ».

\(^{569}\) French (2000), p. 78. On the other hand, this claim is also opposite of the view held by Plato at \textit{Chrm.} 156d – 157a where the philosopher reports the opinions of Zalmoxis the Thracian in relation to the inherent failures of Greek medicine. In short, Zalmoxis underlines that it is impossible to achieve a real and effective cure by just focusing on the body; in this sense the radical therapy must include the soul. In the hierarchy of the souls, the soul of the physician is placed in the fourth place, after those of the philosopher, the king and the politician. Plato \textit{Phdr.} 248d – e. Cfr. Vegetti (1995c), p. 102.

is said that the method of the art of healing is much the same as that of rhetoric\textsuperscript{571}; thus, when both texts are viewed alongside each other, it comes out that next in his exposition the scribe addresses the basilar distinction between simple and composed bodies, while Socrates in the \textit{Phaedrus} affirms that the analytic is the only scientific way to proceed.

However it might be, apropos of the relation of philosophy to medicine, the philosopher is inclined to see the health of the soul as primary\textsuperscript{572}, while the doctor (the scribe in this case) is more inclined to see psychical health as dependent upon physical\textsuperscript{573}. This self-limitation does not imply that the scribe had no opinion on the soul\textsuperscript{574}. In his writing the scribe allows the reader to glimpse a vision bent somehow on a certain “Pneumatic view”\textsuperscript{575}, or at least countering the positions held by the Empirics.

XXI, 18 – 4\textsuperscript{776}: the physiological accounts and arguments expounded in the third section distance themselves from Erasistratus’s views\textsuperscript{577}. In fact, and in agreement with Aristotle, the scribe regrets that in positing the theory of τριπλοκία\textsuperscript{578} Erasistratus had gone beyond what observation makes manifest because the body is in the opinion of the scribe made only of either simple or compound parts. This heuristic premise is due to Herophilus of Alexandria who, in turn, is almost sure to have drawn it from Aristotle\textsuperscript{579}. The scientific analysis of the constituent parts of the body is an enterprise that was first undertaken by Aristotle — even though the notion ‘element’ is doubtlessly Empedoclean. The classification of tissues began with Aristotle and would remain almost invariable

\begin{itemize}
\item \textsuperscript{571} Plato \textit{Phdr.} 270b.
\item \textsuperscript{572} Plato \textit{Chrm.} 156c.
\item \textsuperscript{573} Tarrant (1998), p. 232.
\item \textsuperscript{574} Cfr. supra \textit{Comment.} on cols. I – II and infra ch. III § 3. 1 – 3. 2.
\item \textsuperscript{575} Col. XXXII, 1 – 2: « δὴ καὶ πνεῦμα(α) ἢ ψυχή ἢ».
\item \textsuperscript{576} Col. XXI, 18 – 32 corresponds to fr. 50a in von Staden (1989), p. 125. The passage comprised between ll. 21 – 46 is a criticism that the scribe launches against Erasistratus for contravening the stoichiological principles of Herophilus. From the quotation it can be inferred that the author of \textit{Anon. Lond.} is by far more akin to Herophilus than to Erasistratus, as many other fragments in the papyrus seem to support this very presumption. An exception, however, is to be found in col. XXII, 52.
\item \textsuperscript{577} Garofalo (1988), p. 31.
\item \textsuperscript{578} A consistent biomechanical theory is actually meant by τριπλοκία, a particular ancient anatomical and physiological view, according to which there are three different kinds of vessels in the body — i.e. veins, arteries, and nerves. The Alexandrian physician Erasistratus, to whom such a theory is attributed, assigned a specific function to each one. Thus, he believed that the veins conveyed either blood or nourishment, arteries the \textit{vital pneuma}, and nerves the \textit{psychic pneuma}. Cfr. Diller (1936), p. 184; Viano (1984), p. 308; Garofalo (1988), p. 33; Vegetti (1993), pp. 101 – 102; Vegetti (1994), p. 1701; Garofalo (1997), pp. 144, 174; Grmek (1997), p. 79; von Staden (2000), p. 92; Byl (2011b), p. 22.
\item \textsuperscript{579} Manetti (1996b), p. 308.
\end{itemize}
until M. X. Bichat. Aristotle conceived the bones, the nerves, the marrow, the skin and the flesh as continuous parts of the body. In On Coming-To-Be and Passing Away the so-called « ὁμοιομερή (bodies or things) » furnish the matter by which the differentiated parts of the body (i.e. the organs belonging to a particular apparatus or system, that is to say, the ὁμοιομερή parts) are said to be formed. As such, simple things which are of like/uniform parts (ὁμοιομερή) are distinguished on account of the differences yielded by sense perception, mainly touching. In the Metereologica such ὁμοιομερή parts are said to be constituted of dry and humid, as well as the agents capable to act upon them, i.e. heat and cold. Therefore, in Aristotle the ὁμοιομερή correspond to the stromatic or structural tissues (that is, the non-parenchymatic tissues) of medicine nowadays.

XXI, 21 – 23: καθός καὶ Ἡρόφιλος ἐπισημειοῦται λέγων ὁ(δότως): « Λεγέσθω δὲ τά φαινόμενα πρῶτα, καὶ εἴ μὴ (ἐκτι) πρῶτα.»

The fact that Galen refers to this sentence that the scribe attributes to Herophilus is what led M. Wellmann to the belief that Galen knew and had access to the Anonymous papyrus, and

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581 Aristotle GA I I, 715a 9 – 11.

582 Aristotle GC I 1, 314a 18 – 24.


585 Col. XXI, 20: « Ἀπλὰ δὲ καὶ συνθέτα (scil. τῶν συμπάττων) λαμβάνομεν (πρὸς) αἰτίθεσιν »; later on in ll. 29 – 32: « Ἡμῖν δὲ ἐλεγξάντων ὡς τ(ῶν) συμπάττ(αν) τὰ μὲν (ἐν) <(ἐκτιν)> ἀπλὰ, τὰ δὲ [εἰ]νὴται, π(ρὸς) αἰτίθεσιν τούτ(αν) λαμβάνοι. » (« By “simple” and “compound” we mean what appear so to our senses»); (« of our bodies some parts are simple and some are compound, as these are observed by our senses»). Trans. Jones (1947), p. 83.


588 The dictum assigned to Herophilus was first addressed by H. Diels in Diels (1893b), p. 414 n. 1. According to the German philologist this motto could only be explained because of Herophilus’s medical Methodism, this being why Diels contended that Herophilus was a Methodist physician. The same tenet is taken back up in Manetti (2003), pp. 336 – 337; (2013), p. 174. H. von Staden renders the sentence as follows: (« Let appearances be described as primary things even if they are not primary »); D. Manetti translates it in this way: (« parliamo dei fenomeni (di ciò che appare ai sensi) come primari anche se non sono primari »); and M. Vegetti in turn as: (« siano queste le cose prime, anche se non sono prime »). Cfr. von Staden (1989), p. 134 fr. 50a; Manetti (2003), p. 337; Vegetti (1993), p. 90 respectively.

589 Galen Meth. med. II 5 [X 107, 15 – 16 K.]. In the same treatise Galen uses a very similar sentence to reject Herophilus’s arguments, which shows the manipulation of the information in the sources the scribe used according to his own explanatory purposes.
furthermore, that the *Londiniensis* constituted the principal source that Galen consulted for his commentaries⁵⁹⁰.

The sentence is about the phenomena that anatomical dissection brings to light. The scribe makes use of Herophilus’s saying in order to underpin a theoretical justification for the classification of the body parts, yet it could also be taken as the first and basic formulation of the principle on which hinges the majority of the arguments the scribe will expound hereafter in the third section. There must be some reasons accounting theoretically (λόγωι θεωρητὰ) for the phenomena, no doubt, but these alone do not suffice nor are valid enough to provide a full account of worldly phenomena. This is why the scribe tends to shore up his arguments by means of data which are in accordance with the senses (κατὰ τὸ αἰθητὸν), and likewise, the reason why the scribe takes Erasistratus’s views as unacceptable⁵⁹¹ since they lie mainly in reasons of theoretical order.

XXI, 23 – 25: Ὅ µ(ὲν) γ(ὰρ) Ἐρασί(στρατος καὶ πόρρω τοῦ ἱατρικοῦ κανό|νος προῆλθε·

Erasistratus’s reluctance to accept the humoral theory as expressed in *The Nature of Man* can be interpreted as a wholesale rejection of the Hippocratism and as a failure to acknowledge any purposeful organization within the body⁵⁹² (i.e. Platonic teleology); this being a feasible reason for the scribe’s contempt for Erasistratus.

XXI, 29: the verb παραιτητέον is a hapax in the treatise and has a very strong meaning: “to dispatch or dismiss someone who is regarded as inferior”⁵⁹³.

XXI, 30 – 32: όε τ(ὸν) σομιάτ(ον) τά µ(έν) <(ἐκτίν)> ἀπλά,|τά δὲ [c]ύνθετα, π(ρὸς) αἰθητειν τοῦ(ον) λαµ[βα]ν[υμένον] (Προφητεία): this division could be a reference either to Plato or to Aristotle⁵⁹⁴.

XXI, 32 – 33: τὰ ὁµοιο|μερῆ|⁵⁹⁵

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⁵⁹⁰ Wellmann (1922), pp. 419, 421.
⁵⁹¹ Ll. 23 – 25: « Ὅ µ(ὲν) γ(ὰρ) Ἐρασί(στρατος καὶ πόρρω τοῦ ἱατρικοῦ κανό|νος προῆλθε· », (« For Erasistratus went far beyond the medical rule »). Trans. Jones (1947), p. 83. This is the first mention of Erasistratus in the papyrus. For more details about this physician one might consult Wellmann (1907), pp. 333 – 350.
⁵⁹⁵ The scribe of the *Anon. Lond.* claims that what makes a thing to be of like parts, or by contrast, not homogeneous is what comes out when a part of that very thing is cut or sliced and then put in reliance with the whole to which it belongs. Cfr. Aristotle *Mete.* IV 10, 388a 10 – 26. Cfr. also Hippocrates *Nat. hom.* V [VI p. 42, 3 – 5].
XXI, 35: by τὰ ύγρά the author means the constitutive corporeal fluids. It could in a way be presumed that, following Aristotle, in the physiology held by the scribe the humours are considered as ὀμοιομερῆ parts. The constitutive elements the scribe acknowledges are named in l. 45.

XXI, 38: τὰ ἀνοιομερῆ

XXI, 44: διεπαρμένα,598

XXI, 45: Κ[αὶ διεπαρμένα]599

XXI, 46: here the opinion that the scribe maintains about bile and phlegm is presumably expounded. From the given description, the author of Anon. Lond. regards both as simple (ἀπλά) and homogeneous (ὁμοιομερῆ) parts600. The expression « πάντα τὰ ἐν ἡμῖν » to indicate the constitutive elements in the human body may well refer to Hippocrates Morb. I « τὸν μὲν ἐν τῷ κόματι ἐνέοντον »601.

XXI, 47: τὰ τούτων ἐσκόπτα602

598 Diels (1893a), p. 38: « Hic et 45 spatiis et vestigiis ductus dubitanter supplevi, ut particularum in illis flumen Platonica voce significetur ».
599 D. Manetti’s edition reads « [διεπαρμένα] ». Manetti (2011a), p. 46. Diels’s restitution of the perfect participle κεκερατίσμενα is by dint of a blurry trace of what presumably looks to be an initial kappa. That is why in Jones’ translation — that follows the editio princeps by Diels — instead of « [διεπαρμένα] » or « [διεπαρμένα] » one is to find « κεκερατίσμενα ». Cfr. col. XXI, 44 – 45 in Jones (1947), p. 84. The verb κερατίζο means ‘to dice, to chop, to divide in pieces, to make something smaller by dividing’, and in the middle passive voice ‘to dissolve’: so that the final translation would be ‘that has been dissolved into smaller parts’. διεπαρμένα, by contrast, is well attested in Galen where it takes a somewhat more resultative meaning ‘to be spread about, to be scattered, distributed’.
602 Diels (1893a), p. 90: « Enumerationem claudens ».
Description

In l. 5 the abbreviation « (ἔστιν) » (i.e. / ) has been obtained on the basis of « γ( ) ». In l. 11 the privative « ἀψύχου » is the result of a clear mistake by the scribe (the papyrus actually reads ἐμψύχου); perhaps due to the presence of the adjective ἐμψύχου in the precedent line. In l. 13 for the expression « ἐµ[ ] ± 3 θερμα]ciac » H. Diels suggested « [ἐν ἕµιν θερμα]ciac » while D. Manetti « ἐµ[φύτ(ου) θερμα]ciac ». In l. 29 the participle κατερραμμένον (P. κατερραμμένον) was taken by H. Diels as belonging to καταρραίνω (to besprinkle, to sprinkle) while Manetti to καταρράπτω (to stitch on or over)⁶⁰³. In l. 41 the central part of the verb « ἐµηχανήciac » is in the interlinear space « ἐµηχα\νηϲα/το ». In l. 49 the author wrote only διοικονοµού, therefore « διοικονοµοῦ<cat> ». The usage of blank spaces in ll. 41 – 49 serves to highlight individual points of import in the argument⁶⁰⁴. In l. 50 the first letter starts with ekthesis.

Explanation

XXII, 2: τὰ δοµιῶαι.⁶⁰⁵

XXII, 3: τὰ ἐ[οι]κότα.⁶⁰⁶

XXII, 8 – 9: ἀπὸ πάσης δὴ τοῖνυν [ϲ]θ[τάςεως ἀποφόραι]⁶⁰⁷ π(ῶν)]|ςωµάτ(ων) συνεχεῖς [γί(νονται)]

XXII, 19: ἀτµοειδὸς⁶⁰⁸

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⁶⁰⁵ Diels (1893a), p. 100: « ut enumeratius claudatur ».
⁶⁰⁶ Diels (1893a), p. 90: « Enumerationem claudens ».
⁶⁰⁸ ἀτµοειδὸς and other related terms to the verb ἀτµοειδὸς in the Anon. Lond, refer to the vaporous nature (ἀτµόδος) of the pneuma, the same that Galen states that Praxagoras held in regard to that element. Galen An in art. II [IV p. 707, 2 – 3 K.]: « Πραξάγορας μὲν ὄν καὶ παχυμαρτέστρον αὐτὸ καὶ ἰκανὸς ἀτµοειδὸς εἶναι φήσιν ». ἀτµοειδὸς is also used below in cols. XXV, 5; XXVI, 31. Diels (1893a), p. 85.
XXII, 22: ἐπὶ τῶν ἐκτός.609

XXII, 22 – 24: Διὰ ταῦτα [δὲ γίνεται] ἀποφορὰ π(ρὸς) τῆς θερμαξ[ι] [ας ἀπὸ τῶν] ἱμετέρων σωμάτ(ον).: the author of Anon. Lond. gives an account of the way some emanations are generated in the bodies. With this first statement the scribe begins to nail down all the exposition that follows.

XXII, 25: δύναται ἀποφέρειν.610

XXII, 36: the scribe states that Erasistratus posited a continuous loss of pneuma from the arteries towards the body’s surface.611

XXII, 41 – 43: Ὡθέν ἡ φύσει ἐμµηχανήσατο ὄρεξει τε τοῖς ζῴοις καὶ ὥλη καὶ δυνάμεις,

One might find in this sentence one of the many teleological hints the scribe displays in his writing613. Teleological thinking patterns are firmly anchored in Greek philosophy, but perhaps it is in Aristotle’s philosophy where teleology pervades throughout614. The doctrine of internal finality within nature, and the conviction of a narrow link between the structure of the organs and their function (with its derived corollaries, i.e., there are no useless organs, it is better that every single organ carries out a single function etc.) are all aspects witnessed to some extent in the Anonymus papyrus615.

609 Diels (1893a), p. 90: « In rebus externis ».
610 Diels (1893a), p. 84: « Evaporare. pass. evaporari ».
611 Diels (1893a), p. 147 n. 54.
615 Vegetti (1993), p. 79.
XXII, 49 – 52: there are three factors that prevent the continuous loss of substances through the entire surface of the body: the appetites, the restoring substances, and the faculties in charge of administering such substances\textsuperscript{616}.


These two fundamental principles are mentioned \textit{en passant} as regards Erasistratus’s theory, according to Manetti because the author of the \textit{Londiniensis} is more akin to Herophilus than to Erasistratus\textsuperscript{617}; it must however be underscored that to a considerable extent the third section is concerned with the study of the assumption, administration and evacuation of these two main Erasistratean principles.

XXII 53 – 54: Ἐνίοι δὲ ἐγκαλοῦσιν αὕτοι καὶ λέγουσιν ἐκεῖνο\textsuperscript{618}

\textbf{Column XXIII}

\textbf{Description}

A high resolution picture of col. XXIII can be consulted in paper format\textsuperscript{619}. The first line only preserves the traces of few letters and more than the half of the second is lost. In l. 11 the substantive « πνεύματος » is abbreviated as « πνευματο »\textsuperscript{620}. The verb « κ(ατα)ζβεννυϲθαι » in l. 40 is abbreviated as « κ(ατα)ζβεννυϲθαι ». In l. 42 « αριστελε » consists of a mistake (haplography for « Ἀρις<το>τέλη ») that D. Manetti assigns to the scribe’s fast writing style\textsuperscript{621}.

\textsuperscript{616} Debru (1996), p. 134 n. 18.
\textsuperscript{617} Manetti (2003), p. 337.
\textsuperscript{618} CPF (2002), plate 62.
\textsuperscript{619} This term is often abbreviated in P. For an elenchus of the abbreviations used in the Anon. Lond. see Diels (1893a), p. 117; Ricciardetto (2014), pp. XVIII – XXIII; (2016), pp. XXIII – XXXIII.
\textsuperscript{620} Diels (1893a), 89: « Proxime antecedentis vicem gerens ergo illud tantum ».
\textsuperscript{621} Manetti (1994), p. 55.
Explanation

XXIII, 8 – 25: the attribution of this testimony to Erasistratus is doubtful.\(^{622}\)

XXIII, 10: διοικήσεως\(^{623}\)

XXIII, 12: <καὶ> πρὸ[τε]ρον περὶ τῆς τοῦ πνεύματος: the pneuma and everything that has to do with its administration is the tenet that the scribe addresses from this point up to col. XXIV, 19; afterwards the author of Anon. Lond. will shift his attention to nourishment, the second of the stated principles in every living being.

XXIII, 12 – 18: the subject under discussion is mainly concerned with the course of the air in the body, or to the question of whether some of the air we breathe in remains in the belly or not. Since he contrasts his views on this subject to those held by Erasistratus, Manetti took this passage as an example of the authorial intervention by the scribe (καθ’ ἡμᾶς).\(^{624}\)

XXIII, 14: δι[α] τῆς τραχείας ἀρτηρίας

In his miscellaneous work Attic Nights\(^{625}\) Aulus Gellius addresses some issues related to this part of the body in the chapter that bears the title: That Plutarch in his Symposiacks Defended the Opinion of Plato about the Structure and Nature of the Stomach, and of the Tube Which Is Called τραχεῖα, against the Physician Erasistratus, Urging the Authority of the Ancient Physician


\(^{625}\) Aulus Gellius Attic Nights XVII 11 (1/6) [Hosius (1903), pp. 211, 18 – 213, 18].
Hippocrates. Aulus Gellius deals there with the criticism that Erasistratus of Ceos makes of Plato for affirming (Ti. 44a) that liquid passes firstly to the lungs, and flowing through them in virtue of their spongy nature, finally reaches the bladder. The theory of the passage of liquids into the lungs is an old doctrine, and a disputed concern among the physicians of the 5th and the 4th century BC. In the Cnidian school this opinion was widespread and admitted (hence we find it in Hippocrates Morb. I 12, a treatise generally put to the Cnidian school), while it was straightforwardly rejected among the Hippocratic physicians. From Cnidos the doctrine was transferred to the Sicilian school, and it is likely there that Plato (Ti. 70c – d) came to know about it. Plato’s account of respiration is in accordance with neither Empedocles nor with Aristotle. To Empedocles both air and blood are the source of life and circulate alternately throughout the whole body in the vessels and the pores of the skin (περίωσις); for Aristotle the lungs are the organs of respiration, but the air is no longer useful to breathe, it is just a cold flow whose only function is to cool the heat of the heart. Plato’s description of respiration had to be nonetheless perfectly feasible to the contemporary cultivated audience, as the explanations the Greeks gave to respiration were several and changed dramatically as time wore on. The discussion that Aulus Gellius’s portraits is raised from the incompatibility between the two extant paradigms accounting for respiration. The ancient physicians (including Plato) posited that the function of the lungs was to let the liquid pass, the assumption probably owing to the spongelike (κπογειδή) appearance of the lungs. Wherefore, in an early period the lungs were not considered as having any relation to

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626 Despite being abundantly quoted by Strabo, Celsus, Pliny (who preserved some fragments of his pharmacological works), Plutarch, Rufus, Caelius Aurelianus, and Galen (his bitterest opponent) it still remains unclear either when Erasistratus of Ceos lived or where (320 – 240 BC?) Cfr. von Staden (2000), p. 92. Erasistratus’s uncles — Medios and Cleombrotes — were physicians, and his teachers were Chrysippus of Cnidos and Metrodorus. Apropos of Metrodorus cfr. Diogenes Laertius Vitae philosophorum VII 186 [Marcovich (1999a), p. 558, 1 – 2]. To Chrysippus of Cnidos the contents in papyrus P. 38 have been attributed (3rd century BC P. Gren. II7b + P.Ryl. 1 39 + P. Heid. inv. 401+ P. Hiber II 190 r cart. = MP3 2343.1, coming from El Hibah) which deals with the theory of poral respiration and the ocular physiology. Cfr. Andorlini - Marcone (1995), pp. 468 – 469, 488. It is agreed that Erasistratus attended the courses taught by Theophrastus and Strato of Lampsacus. It is known that Erasistratus was the private doctor of the king Seleucos I Nicator. Vegetti (1984), p. 459; Byl (2011b), p. 19. Since none of his writings survive in more than fragments, we have to be content with the portraits provided by later authors or with a scarce handful of papyri that, preserved in mummies cartonnage, have handed down some passages of Erasistratus’s works. This perhaps is the case with P. Köln VIII 327 = P. Colon. inv. 20941 = MP2 2380.010. This papyrus contains fragments of a writing titled Treatise on Fevers. Cfr. Andorlini (2014), pp. 217 – 219. It can be consulted online at http://www.uni-koeln.de/phil-fak/ifa/NRWakademie/papyrologie/PKoeln/PK20941r.jpg (23. 12. 2016). Cfr. also Longrigg (1988), pp. 455 – 456.

627 A possible opponent could bring up Plato Ti. 84d 2 ff. to undermine either Erasistratus’s criticism or the version of the facts as these are recounted by Aulus Gellius.


629 Harris (1973), p. 120.


632 Hippocrates Oss. XIII [IX pp. 184, 14 – 186, 16 Li.].
respiration (as it seems to be the case in Hippocrates Morb. Sacr. VII.), but with the digestion of liquids. It seems that it was Solon the Sage (6th century BC) who first considered the lungs as an organ having to do with nutrition. Namely, as the lungs received liquids they could not receive air, for this would have opposed resistance to the liquids to pass through. Thus, Aulus Gellius or the doxographical source on which he relied to introduce this medical topic was akin to Plato and showed general contempt for Erasistratus’s explanation.

It will be necessary to wait for Aristotle to attribute a prominent respiratory function to the lungs; with Aristotle and his remarks on the function of the epiglottis, the belief that some liquid could pass into the lungs through the trachea was definitely overcome. Erasistratus looks to be much closer to the Aristotelian view, since he apparently draws from Aristotle the importance of the role played by the epiglottis in both processes, the inspiration of air and the ingestion of food. Erasistratus sets forth the existence of two different overlapping canals which, though having their origin in the rear part of the mouth, come to end in two different organs: one in the stomach (κάτω κοιλία), and the other in the lungs (τραχεία ἄρτηρια). In view of this, the windpipe lies along and in front of the oesophagus, the channel through which food actually passes into the belly. The epiglottis (ἐπιγλωττίδα) is a cartilaginous lid that occludes the windpipe (τραχεία ἄρτηρια) while we are eating or drinking, thus preventing any food or drink may from fall therein. In Erasistratus’s view, then, the epiglottis has a plain discriminative function. From a contemporary perspective it turns out that Erasistratus’s theory (i.e. the epiglottis does not allow any food or drink to go down through the trachea) describes the facts much better than Plato — or Erasistratus was closer to our of to representing how things happen than Plato. The point not only consisted in taking some authoritative opinions into account whenever these were useful in supporting one’s arguments, but also in rejecting systematically and utterly the views of a particular author.


636 This “natural device” is present in quadruped vertebrates and in man. Given that birds and oviparous quadrupeds lack an epiglottis, the way they achieve the swallowing of food is by contracting the windpipe. The epiglottis is also mentioned in the pseudoHippocratic treatise Cord. II [IX p. 80, 12 Li.].

637 This is the reason why it is impossible to swallow and to breath at once. From the pseudoAristotelian treatise Spir. 482b 14 – 16 we learn that beside respiration and pulsation some conceded another particular movement of the breath in the trachea which acted upon the food: « Ἐπεὶ δὲ τρεῖς αἱ κινήσεις τοῦ ἐν τῇ ἄρτηρια πνεύματος, ἀναπνοή, εφυγμός, τρίτη δ’ ἢ τὴν τροφήν ἐπάγουσα καὶ κατεργαζόμενη ». 99
XXIII, 15: ἕττο

XXIII, 26: λέγω δὲ: this is the only occurrence in the Anonymus where the scribe sets forward his own views by using the first person of the singular (the author would rather prefer the plural form ἤµετα, much more in consonance with a written than spoken style). For the purpose of our concern with A. Ricciardetto’s hypothesis on the structure and nature of P., it might be important to note that the first person serves to reinforce the presence of the speaker before his audience. In all the treatises of the Hippocratic Corpus belonging to the genre of oral presentation or speech (i.e. oral works), we frequently find the use of verbs in the first person, if necessary supported by the presence of ἔγω (ἔγωγε); we would like to point out here that the exceptional nature of this detail in the Londiniensis would apparently contradict Ricciardetto’s hypothesis. For all purposes, however, the use of this form owes to the fact that the scribe wants to refute other theories of respiration previously expounded such as those by the Megarics.

XXIII, 36 – XXIV, 10: this fragment seemed to M. Wellmann to rely on the Pneumatic school of medicine. In l. 39 the verb ‘φασιν’ has been taken by D. Manetti in the impersonal, while H. Diels, by comparison to a passage in Galen, believed that the subject of the verb could be Erasistratus.

XXIII, 38 – 42: at this point the account in the Londiniensis is in full agreement with the Aristotelian assumption according to which respiration namely serves to cool down the pericardial heat, which is actually the meaning of the verb κ(ατα)κβέννυθαι in l. 40.

638 Diels (1893a), p. 90: « Tertium nomen adiugens ».
639 Diels (1893a), p. 97: « parenthesin explicativam incipiens ».
640 Diels (1893a), p. 88. I.e. cols. II, 19, 31; XXII, 17; XXXVI, 44 etc. For a more detailed description of this aspect cfr. infra ch. I § 2.
642 Jouanna (2012c), p. 43.
643 Wellmann (1922), p. 418.
644 Galen De resp. usu I [IV p. 471, 8 – 9 K.].
646 Liddell - Scott (2006), p. 910. For a full description of the function of this verb in its immediate context see infra ch. VI § 2. 2.
XXIII, 42 – XXIV, 9: the papyrus makes reference to Aristotle’s *De somno* III 647. This passage was severally edited, translated into Italian 648 and commented on by D. Manetti 649 prior to her full edition of the *Londiniensis* in 2011.

XXIII, 51: κα[τάρρο]υ 650

**Column XXIV**

**Description**

A high resolution picture of col. XXIV can be consulted in paper format 651. The first line is completely lost. In ll. 5 – 6 D. Manetti suggests restituting « πλεονάζον[τ]ητοι » with « [ἀ]λ(λ)’ ο[ὑ]τοι » because in her opinion it is the scribe, rather than Aristotle, who is speaking at that point 652. In l. 20 the restitution by Diels « μετ[υ]τα » actually reads « μετ[υ]τα[…..]/ ». In l. 26 part of the verb « ἀποικειοῦται » was written in the interlinear space: « ἀποικε[ι]\ου/ταί ». In ll. 29 – 30 the scribe wrote « κ[τ]αῦτα », therefore « κ(ατ)\ερ>\γαίας ». In l. 32 the expression « ὡς τέμνεται » actually reads « \ως/τέμνε[ξ]τα\ς\αι ». This time, the scribe seemingly wanted to use a sentence in the infinitive but then changed his mind transforming it into a “ὡς clause”, so that he deleted the ending of the verb and put it in the indicative, introducing afterwards in the interlinear space the conjunction « ὡς ». This correction has been taken by D. Manetti as evidence for the autographical character of the *Anon. Lond.* 653

In l. 34 it is a matter of a dittography corrected by the scribe « οὐμη[ν]\ομη[ν] ». In l. 36 the infinitive « τυγχ(άνειν) » is abbreviated as « τυγώ ». The


648 Manetti’s translation runs as follows: (« E il sonno, come dice Aristotele, si produce in questo modo: giacché il cuore è per natura caldo e il calore dipende da questo, mentre il cervello è freddo, ne consegue che intorno al cervello si condensa l’umidità sollevata dal calore che proviene dal cuore, la quale appunto, una volta condensatasi, si raffredda ed è di nuovo partita in basso dal […] , non potendo a causa del peso rimanere nello stesso luogo e […] al cuore […] e con la mezcolanza il caldo. Così avviene il sonno. La veglia si produce invece quando si è consumata tutta l’umidità nella zona del cervello, in seguito, quando il calore è pienamente dominante. Eppure Aristotele (non) si loda per il fatto che in confronto agli altri ricerca la causa sia del sonno che della veglia, mentre quelli ricercano la causa solamente del sonno, preso a sé, e non si occupano ulteriormente anche della veglia »).


650 Diels (1893a), p. 43: « fortasse κατάρρου vel <ἐν>καθάρλου ».

651 *CPF* (2002), plate 62.

652 *CPF* Aristoteles 22T, p. 308.

expression that occupies two lines “καὶ μεταβολῆ τῆς” is written on the right margin as “καὶ μεταβολῆ τῆς”. In l. 46 the word “ὄδος–τοῦ” is a haplography and not the resolution of an abbreviation as H. Diels interpreted; in Manetti’s view it is a mistake due to the scribe’s fast writing style. Finally in l. 48 there is another correction. The scribe erased the group “τῶς” that he wrote twice by mistake after the abbreviation “ὁ” (standing for “οὗτος”), therefore P. reads “ὁ[τῶς]”.

Explanation

XXIV, 18 – 19: διότι

XXIV, 22 – 24: τεμνομένη μ(ἐν) πρὸς τῶν προσθίων ὄδον|τῶν, τομεῖς καλοῦνται, καταλεαινομέ|νη δὲ πρὸς τ(ὁν) μυλῶν,

The names and functions assigned to the different types of teeth were well known in Aristotle’s time. The theories of teething seem to respond to a mechanistic thinking pattern related to atomistic views. Though Aristotle makes some notable mistakes in regard to this subject, for instance, his claim that men have more teeth than women, by judging the way this concern is expounded in the *Londiniensis* we see that the scribe wants utterly to underline either the function or the finality of the teeth (final cause). Along the same line, he is also emphasising the relationship between the organ and its function. One may assume therefore that it is not the organ that properly determines the function but the contrary; therefore Nature endows living creatures with the necessary organs according to the characteristics akin to their essence. Moreover, Nature also seems to operate by taking into account the logical and chronological correlation of the functions (this applies to all levels from the uterus); wherefore the cutting of food is prior to its division into

657 A more detailed examination of the arguments that Aristotle maintained as regards this concern can be found in *HA IV* 10, 687a 7 ff.
smaller pieces. Erasistratus’s theory of digestion is of particular interest in this sense. Erasistratus maintained that once in the stomach food was subject to mechanical action and torn to pulp by the peristaltic action of the gastric muscles.

XXIV, 24: μυλῶν

XXIV, 26 – 27: this is a clear case of ἀποικειοῦται, that is to say, of an explanation on the grounds of the theoretical principle according to which assimilation takes place because of what is similar. As such ἀποικειοῦται is a very rare verb, apart from the Londiniensis papyrus it occurs only in Hero of Alexandria.

XXIV, 30 – 35: this fragment was edited, translated into Italian, and commented on by D. Manetti in a contribution previous to her complete edition of the Londiniensis in 2011.

XXIV, 30 – 31: ὁ Ακληπτιάδης ὁ οἰνοδώτης

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659 This nutritious mass, Erasistratus held, was then squeezed out in the form of chyle through the walls of the stomach and intestines into the blood vessels communicating with the liver, where it was transformed into blood. During and along such a process, the biliary contents were separated off and passed to the gall bladder, while the pure blood from the liver was conveyed via the vena cava to the right ventricle of the heart. From that place the pure blood was pumped into the lungs through the pulmonary artery and distributed generally through the venous system as nourishment to regain the bodily wastage which, as Erasistratus had so vividly demonstrated, took place not only visibly but to some extent invisibly. The supply of nutriment to each particular body part was effected by a process of absorption through extremely fine pores in the walls of the capillary veins contained within it.

660 Diels (1893a), p. 98: « Molares ». It is related with the substantive μύλονας and the verb μυλίνο (i.e. « to boil imperfectly, to scald »).

661 I.e. « to assimilate, to absorb ». Cfr. infra Comment. on col. XXIV, 34 – 35.


663 Hero of Alexandria Spir. (Pneumatica) I [Schmidt (1899), pp. 6, 27 – 8, 2 ]: « τὰ μὲν οὖν τῆς ψάμμου μόρια τοῖς τοῦ ἀέρος σώμασιν ἀποτελοῦσθαι ὑποληπτέον, τὸν δὲ ἄερα τὸν μεταξύ τῶν τῆς ψάμμου μορίων τοῖς μεταξύ τοῦ ἀέρος κενοῖς ».

664 Manetti (2003), p. 338: « E non (riteniamo), come sostengono Asclepiade e Alessandro Filalete, che il cibo sia solo triturato e reso liquido nel ventre e che ci sia una sorta di « predisposizione », ma non certo un adattamento a ciò che è proprio ».

It is the first time that the scribe makes mention of Asclepiades in the *Londiniensis*. It is another way to refer to Asclepiades of Bithynia, the physician who lived and carried out his medical activity in the 2nd century BC. It is very likely that ‘Asclepiades, the wine-giver’ might be the same person known as ‘Asclepiades the Younger’, to whom Galen refers as « the drug-giver » (ὁ φαρμάκιον).

Traditionally practiced and discussed by Greeks, the medical art was established firmly in Rome by the late 2nd century BC. Asclepiades of Bithynia was by far the most influential immigrant medical practitioner of Late Republican Rome. Asclepiades wrote in Greek, although his message was largely intended for a Roman audience and his abilities were recognised across the linguistic divide. He probably came to Rome in 120 BC. Asclepiades may have lived in the age of Pompey, which is where Pliny locates him.

Asclepiades might have received his medical education in Alexandria, but there is an issue at this point, his ignorance of anatomy apparently points to the contrary. Asclepiades refused teleological explanations, but accounted instead for the functioning of the body in purely mechanistic and quantitative terms. Asclepiades criticised the theory of knowledge of the Empirics and reworked Erasistratus’s corpuscular theory of matter. The books that Galen specifically devoted to discussing Asclepiades’ doctrines are lost.

Asclepiades believed that the body was built up of invisible divisible particles (ὀγκοί), and that health was a function of their free and balanced motion through the theoretical vascular ducts (πόροι) in the body. Disease resulted from an imbalance, a blockage, or a flood. His mechanistic

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666 Ricciardetto (2016), p. CV.
667 Polito (1999), pp. 48, 65. Asclepiades was born at Cius (Prusias ad Mare) in Bithynia (N.W. Turkey to-day) in the later 2nd or early 1st century BC. Leith (2012), p. 164.
670 It is only from Galen that we know that Asclepiades was the author of a treatise titled *On Elements*. Galen *De elem. sec. Hipp*. I 9 [I p. 487 K.].
673 At *De nat. fac.* III 61 [II pp. 165, 15 – 166, 5 K.] Galen makes reference to Asclepiades’ theory that food does not undergo any concoction in the body.
and materialistic explanation of kidney and bladder function owed much to earlier Hellenistic thinkers, notably Erasistratus and Heraclides of Pontus\textsuperscript{677}, but Galen was almost certainly wrong to include Asclepiades among the Epicureans, despite the similarity between his ideas and their conception of the universe\textsuperscript{678}. Themison of Laodicea (40-50 CE?), a pupil of Asclepiades, is credited with the foundation of the Methodical school of medicine. In relation to the \textit{Londiniensis}, Asclepiades — the forerunner of medical Methodism — is an “important rival” for the scribe of the \textit{Londiniensis}, as the latter takes serious issue seriously with him on many occasions (though occasionally can also find points of agreement)\textsuperscript{679}.

XXIV, 31 – 32: \textit{Ἀλέξανδρος ὁ Φιλαλήθειος διέλαβον},\textsuperscript{680}

According to M. Wellmann Alexander was born in the beginning of the Christian era, and founded his own school nearby Laodicea\textsuperscript{681}. The epiklesis « Philalethes » was common and widespread for a number of physicians and philosophers of the Hellenistic period\textsuperscript{682}. H. Diels contended that the author of \textit{Anon. Lond.} could only have been familiar with Meno’s doxography through another doxographic document attributed to Alexander Philalethes, the so-called \textit{Ἀρέσκοντα}\textsuperscript{683}. Since Alexander is the latest author quoted in the \textit{Londiniensis}, he has been taken as the \textit{terminus post quem} for the dating of the papyrus\textsuperscript{684}.

XXIV, 33 – 34: the notion \textit{προδιάθεσις} (predisposition) is not attested in the rest of the extant fragments attributed to Asclepiades\textsuperscript{685}.

\textsuperscript{677} Heraclides of Pontus (4\textsuperscript{th} century BC) wrote a treatise titled \textit{Αἰτίαι περὶ νόσων}. Van der Eijk - Francis (2009), p. 223.

\textsuperscript{678} The divisibility and the extreme fragility of such primordial elements is what makes the system posited by Asclepiades different from (and perhaps unreconcilable with) the atomism of Democritus and Epicurus. Wherefore there cannot be identification of the \textit{ὄγκοι} with atoms or of the pores with void, though both pairs have an analogous and co-ordinate relationship in both theories. Cfr. Gourevitch (1993), p. 130; Leith (2012), pp. 168, 173.

\textsuperscript{679} Diels (1893a), p. 87; « Opinari ».

\textsuperscript{680} Diels (1893b), p. 412; Wellmann (1922), p. 412.


\textsuperscript{683} Manetti (1994), p. 57.


\textsuperscript{685} Manetti (2003), p. 338.
XXIV, 34 – 35: the expression « ἀποικείωσις ἐπὶ τὸ οἰκεῖον » is, according to D. Manetti\(^{687}\), a typical Hippocratic and Aristotelian thinking pattern that Galen inherited\(^{688}\). Nonetheless, the most important point to realize is that ἀποικείωσις constitutes an absolute hapax, that is to say, it cannot be found anywhere else in Greek literature\(^{689}\).

In light of the contents of the *Anonymus*, the ἀποικείωσις (i.e. the assimilation of what is proper)\(^{690}\) succeeds because nutriment assimilates, or integrates, the properties it might come across in passing through certain places. Unfortunately, the lines where the scribe tackles the assimilation of nutriment in the papyrus are damaged to unintelligibility; it is impossible to know\(^{691}\) the opinion the scribe might have held regarding this issue. We may infer that it had to be in contrast with Asclepiades’ views. It is quite likely that the scribe would have held that the qualitative assimilation of nutriment occurs in virtue of the particular qualities and heat abiding in each and every part through which nutriment passes or stays\(^{692}\), this being the reason the scribe brings up the simile of water when passing through certain places.

XXIV, 43: ἄφαρματόεις: the term ἄφαρματον is translated as ‘bitumen’ in Aristotle\(^{693}\). The medical properties of the bitumen were known from ancient times\(^{694}\).

XXIV, 45: θειώδεις: this is a very rare adjective, meaning something like “sulphureous yellow colour”\(^{695}\).

\(^{687}\) Manetti translates it as « trasformazione del cibo in ciò che è proprio a ciascuna parte ». Manetti (2003), p. 337.

\(^{688}\) Galen *De fac. nat.* II 4 [II 89, 7 – 90, 4 K.].


\(^{692}\) A. Debru underlines the fact that the *Anonymus of Brussels* draws heavily from this same assumption. Debru (1999), p. 462.

\(^{693}\) Aristotle *Mir.* CXXVII, 842b 15: « bitumen ».

\(^{694}\) Cfr. Marganne (2010), pp. 43 – 59 (the papyrus from the beginning of the 3rd century CE conserved in the Vitelli Institute in Florence quoted by M. -H. Marganne containing passages from Hippocrates *Aph.* IV and V is a recent delendum which now redirects to *P.Ryl.* 3.530 = MP1543.400). In general asphalt was regarded as a stinking and disgusting substance. Totelin (2014), pp. 88 – 89.

In l. 4 the scribe wrote a sentence that he expunged almost completely in rewriting a new
one above, thus « προστίθεται τόι ὄλωι χώματι[.] sp. vac. Καὶ μὴν » actually reads « [τη της
κατεργασίας τυγχανεί] \προστίθεται τωι ὄλωι σωματ[.]\ sp. vac. καὶ μην ». In ll. 12 – 18 an
irregular vertical stripe on the right side of the column is missing (the same applies to ll. 24 – 54),
and with it an average of 3 letters per line. The word « ἀν[α]δός(εως) » in l. 14 is abbreviated as «
ἀν[.]δός », but in ll. 19, 25, and 36 as « ανάδ ». The addition « \ καιαυταειρ/ » in l. 18 is written on
the right margin. In l. 28 there are several corrections and hesitations by the scribe while writing.
Thus, in the syntagm « καθ’ ὄνομ » the last two letters are added in the interlinear space and the
letter 0 is written on a former « τ ». Afterwards, in the expression « μ(ἐν) το 注 {μ(ἐν)} » the first
particle μὲν is written in the interlinear space, therefore « \μ/ ». The scribe first wrote « τοῦ » but in
deciding to write the particle in the beginning he forgot to delete the second original μὲν. In l. 33 the
expression « διὰ τ(δων) ἄραιο(μάτων) » is in the interlinear space as «\διατ’ἄραιο/ ». In ll. 33 – 35
one can distinguish 3 additions, one supra linear and the other two on the right margin, but they
constitute a single addition which probably concerns l. 34. In this way, in P. the expression «
πέσσεται] sp. vac. ἐν κοιλίαι: πέψις γ(άρ) (ἔστι) μεταβολὴ κ[αι χύλω]ς{επι τοιτι} |κα[ί ] » is written
as follows: « πεσσεται [\κ[.]ς\[σι\]/ | εν κοιλιαι: πεψις γ/ \καιτα...λου\[± 7].φ…]/μεταβολη
κ[……].ςεπι τοιτ .}| και »696. In l. 36 after the word « ἀλ(λα) » there is to be found a long supra
linear addition which extends on the right margin of the column: « \παςης της τροφης αλ[± 10]
ἐπεται και φερ\[ | εις τα εντερη[(.)] | και εν του/ | αναδ/ και εν τοις εντεροις [± 6]οιοις ». The last
sentence in the addition could be an unnecessary repetition that should be suppressed, hence
the elimination « {και ἐν τοις ἐντέροις [± 6] οῖοις} ». In l. 46 « ἱδιοτη<το>c » is another case of
haplography, for P. reads « ἱδιοτης ». At the end of l. 46 the author introduces an addition which
extends into the right margin and bears relation to the complete passage comprised in ll. 31 – 46: «\κ
[.]τροφη/ εν τοι/ | ενεροις εξο βλεπε / »697. The first letter in l. 47 starts with ekthesis; the end of
the line has been unsatisfactorily deciphered: « † πορονκατ[….]εν0( ) † ».

697 Cfr. infra Comment. on « The Two Additional Notes on the Recto of the Papyrus ».
Explanation


This passage has been edited and translated into English in one of the latest contributions by D. Manetti698 with a view to showing the common usage of the structure « ταύτη δὲ καὶ » by both the scribe of the Londiniensis and the thinker Hierocles, with the aim of introducing a particular example to make an argument clearer.

This notwithstanding, the fragment is of value because it in some ways introduces an argument that makes the scribe closer to Asclepiades than would generally be thought from the contents of the papyrus699. In fact, the scribe adds an interesting observation whereby he states that the assimilation of the food not only occurs through the blood vessels that are connected with the mesentery and the belly, but also through the porosity (ἀραιώματα) of the belly and through the porosity of the mouth; what prompts us to claim that to a certain extent (if easily divisible into particles small or liquid enough) the scribe could have admitted the direct assimilation of raw food — in the manner of Asclepiades. Therefore, solid food needs to be processed through digestion in order to acquire the ideal texture to be duly assimilated700. But leaving this aspect aside, perhaps another even more important assumption follows from the description, namely the scribe’s firm belief in the porosity of the body, in the existence of pores through which matter can actually pass, which permits and makes possible the continuous flux of matter between our body and the external world. Therefore the hint the scribe puts forward proves of the utmost import, for in a way it introduces the concern that he will address from this point onwards (dare, we say indeed to the end of the papyrus), again: the existence of continuous invisible emanations from every kind of body701.

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699 The scribe expresses on many occasions that he disagrees and is at odds with Asclepiades, e.g. cols. XXIV, 30 – 35; XXV, 34.
701 Manetti (2003), pp. 343, 346.
XXV, 5: ἀτυμοειδός: this is an adverbial form of a supposed adjective ἀτυμοειδής, whose employment in technical and scientific language is coextensive with those terms ending in -ώδης (i.e. intending ‘to appear, to look like, to have the quality of’ etc.)

To our mind ἀτυμοειδός cannot mean ‘vaporous’ in the sense of “having gained the state of a gas” because the object thus qualified would be deprived of all eventual nourishing power. ἀτυμοειδός rather suggests the state of a smoky soup, or for the sake of accuracy a ‘concocted chyme’.

XXV, 7: ἐξ ὁμοίων: in the papyrus the term ὁμός does not take the meaning of ‘raw food’ in the sense of food that has not been baked or cooked, but rather the rawness of any food which is still not ready nor suitable for absorption; it amounts to saying that in some theories of digestion food is somehow considered ὁμός from the mouth all the way to the intestines — where the absorption of the nutrients is said to take place.

XXV, 22: πέψις: there is a direct relationship between πέψις and σῆψις; σῆψις is in fact the first way to term what we actually mean by ‘digestion’. However, either from a diachronic approach or from the context itself it appears that πέψις is no longer interchangeable with σῆψις. σῆψις means ‘putrefaction’, taking on a prominent nosological sense, while πέψις (concoctio) namely means ‘digestion’, in particular, the ‘concoction of raw food’ that takes place in the stomach; so that the term πέψις has more to do with nutrition than illness.

As a substantive πέψις is built from the prefix of the reduplicated perfect tense (i.e. –πε) in combination with the basis of the verb ψίω or ψίζω, and the abstractive ending –σις (literally: ‘the “that / food” that has been chewed’); the formation of the term πέψις could also be explained on the basis of the verb πέεσω (later πέπτω) ‘to ripen, to cook or to change by means of heat’. This altogether should suffice to render the general meaning of the notion. The point, however, lies not only in the fact that in the middle voice πέψις means ‘to chew’ whereas in the passive voice it means ‘to be fed’; the problem also arises when it comes to finding a concept suitable enough in our modern languages to assign to πέψις. As far as it goes, the notion of πέψις in the papyrus apparently

alludes to the common or non-technical way to refer to the digestive process, or more concretely, to a particular step in the digestion process, the stage that comes after the intake of some food or liquid but preceding the absorption of the aliment in the intestines.

XXV, 22 – 27: Εξ ὧν φανερὸν ὡς καὶ πέψις γίνεται καὶ ἐν κοιλίαι, καὶ ἐξ ὧμον δὲ ἢ ἀνάδοσις. [Τ]αύτη δὴ καὶ τὸν Ἀςκληπιάδου διοίκουμ ([ἐν]· οὔ]τος γ(άρ) ἐξ ὧμον αὐτὸ μόνον λέγει γ[(νε)θ(α)ί] τ’ ἰν ἀνάδ(οσίν)]· ἡμεῖς δὲ καὶ ἐξ ὧμον μ(ὲν) καὶ ἐκ π[έψις] [ξος] τῇ ἐν κοιλίᾳ γη(νομένη). The passage was edited, translated into Italian, and commented on by D. Manetti in a previous contribution705 to her full edition of the Londinienis in 2011.

XXV, 28: with the expression « μ(ὲν) τὸ {μ(ὲν)} » the scribe introduces a substantive difference apropos of Erasistratus’s theory of blood as the ultimate source of nutriment; the author of Anon. Lond. is of the opinion that raw food can also be considered in that way.


As has been seen above in col. XIII, 43 H. Diels suggested translating ἀνάδοσις as « digestio cibi »707. But the fact is that by such a translation the intended definition of digestion becomes circular in the immediate context of the sentence, and therefore somewhat useless. If finally we have opted for translating διαίρεσις as differenzazione — and not for other possible translations like divisione, trasformazione per divisione etc. — it is because differenzazione is most suitable for an antonym to ἀνάληψις (i.e. ‘absorption’ below in col. XXV, 48). Thus, by διαίρεσις (differenzazione) it is meant the process of the division of food in the stomach in order for food to be eventually absorbed, or the process in virtue of which a chyme is yielded apt to be absorbed (χύλωσις); whereas by ‘absorption’ ἀνάληψις (assimilazione) is meant the process of absorption of food in the intestines once the aliment has being duly divided and transformed (μεταβολή) in the stomach, and finally treated in the intestines to become a chyle suitable to be absorbed or incorporated.


M. Wellmann took up this passage as evidence of the scribe’s ascription to the Pneumatist medical school. Both Alexandrian philosophers and doctors were fond of speculating about the origin of human seed. The author of Anon. Lond. is of the opinion that a part of the aliment is transformed and becomes sperm by virtue of the inherent property that abides in the spermatic channels. This subject has been studied in more detail in the chapters that follow this commentary.

The term ἰδιότητας is the epistemological clue of the passage, in the sense that it is by means of this concept that the transformation the nutriment experiences in the spermatic ducts is explained. The belief in the effective agency of natural properties allocated in certain parts of the body can be found in col. XXX, 12 « ἐνυπαρχούση δυνάμεως », but apropos of the urine.

XXV, 48: ἀνάληψις. Apart from ‘absorption’, which is the sense the term has in the papyrus, the kindred term ἀναληπτικόν takes on as it seems another technical sense in the medical literature prior to Galen and also in Galen himself; namely, it was the way by which ‘the Young physicians’ termed that part of the medical art oriented to the maintenance of a healthy condition when the patient is still under the weather, or not fully recovered from the affection he has undergone; what amounts to saying, the part of the medical art mainly concerned with the administration of the necessary cures in order to prevent the patient to get sized again by disease.


709 Debru (1999), p. 461. For a fuller account of this topic in ancient Greek science cfr. infra ch. V § 3. 1.

710 Cfr. infra ch. II § 5; ch. V § 3. 1; ch. VII § 3.


713 Cfr. e.g. Anonymi medici VI 3 (26) [Garofalo (1997), p. 48, 23]; or Galen De san. tuenda V 4 [VI p. 330, 5 – 6 K.]: « καλεῖται δὲ ὑπὸ τῶν νεωτέρων ἱστρόν τουτὶ μὲν τὸ μέρος τῆς τέχνης ἀναληπτικόν ». 
We take this passage on purpose to study the notion of ἀνάδοσις. Though it has occurred previously (col. XXV, 19), we deem that it is precisely in this fragment where the scribe makes plain what he intends by ἀνάδοσις and the concept then comes to light. ἀνάδοσις is a key concept touching on the physiology of nutrition, since the discussion mainly focused on the way and the instances involved in the distribution of nourishment. A good deal of the contents in the third section of the Anonymus is centered on the distribution of the aliment. It is not far from true to say that in the Anonymus papyrus the scribe means by ἀνάδοσις the particular step in the digestive process (πέψις) that comes after the division (διαίρεσις) in the stomach but previous to the absorption of the nutrients in the intestines (ἀνάληψις). In this way, and properly speaking, the distribution is about the lightness or coarseness of the matter resulting from the division occurring in the stomach. In view of their nature some parts of the division (the smallest, lightest, or most liquid) are directed to the small intestine (τῶι λεπτῶι [ἐν]τέρῳ), while others (the greatest, coarsest, or most solid) pass to the large intestine (τῶι ἄπευθυς[μέ]νῳ)714; this particular differentiation or distribution to one intestine or the other by virtue of the qualities of the elements concocted in the stomach being precisely what we deem stands for ἀνάδοσις in relation to the digestion process as described in the Anon. Lond.

Thus far, and to recap the whole thing, in its simplest version the physiology of the digestive process described in the Londiniensis seems to consist of the following steps: trituration, mincing, and smoothing of the food (in the mouth by dint of the teeth and saliva), a first distribution towards the oesophagus, division and liquefaction (in the stomach), distribution (into the small or large intestine depending on the characteristics of the food that comes of the stomach), absorption of the nutrients (in the intestines towards the veins through the passages and interstices therein), evacuation (through the bladder in form of urine, through the rectum in form of stool). From the descriptions provided by the scribe we learn that there is an issue among the different medical schools and authors at this point to admit whether a predigestion (or digestion) can actually take place in the mouth and not just in the stomach, or to concede that some absorption also occurs in the walls of the stomach, the issue remains as well at the reason adduced to explain the transformation

of the food we intake into different kinds of residual. This latter subject matter brings up a further discussion in the *Londiniensis*, intimately related to the balance there must be between what is assumed and what is excreted, which mainly consists in proving the existence of emanations.

XXV, 54 – XXVI, 19: this passage was provisionally edited, translated into Italian and commented on by Manetti in a contribution715 previous to her full edition of the *Londiniensis* in 2011. The scribe reduces *ad absurdum* the thesis whereby it is affirmed (or Erasistratus affirmed) that the residuals do constitute a source of nutriment and growth.

**Column XXVI**

Description

The expression « π[(ρὸς)] αὐτ(ῶν) » in l. 3 actually reads « παντὶ». In l. 4 the word « αὐτ(ῶν) » acts as a postclitic of the preceding animals deprived of reason in ll. 1 – 3 « τ(ῶν) ἡλόγυν ζῶων ». In l. 10 the term « περιςκόματα » is abbreviated as « περιςκ», and περι[cc]ωμάτ(ῶν) in l. 12 as « περὶ […]…τ» In l. 16 the word « θανάςμα » is abbreviated as « θαν−». In the next line the term « τροφήγ » is written in the interlinear space «\τροφήγ/». The term « λ(γόν) » in l. 34 does not respect the bilinear symmetry and is abbreviated by inserting a lowercase omicron in the blank space of a capital lambda716. Some initial parts of ll. 39 – 49 in col. XXVI have been partially restituted on grounds of their correspondence with F. G. Kenyon and H. Diels’s fr. 7717. In l. 41 the expression « [κατὰ] τὰς ἀρτηρίας » actually reads « [Κ´τὰς][…]τας/αρτηριας ». In l. 47 the expression « δι´ αὐτ(ῶν) μὲν κενοῦται » is written as « διαωτ ´μεν/κενουται ». On the right (a – b)
and bottom side (c – f) of l. 48 one finds the longest addition on the recto of the papyrus\footnote{\textsuperscript{718}} which, again, has been taken by D. Manetti as a proof of the incompleteness of the \textit{Londiniensis}\footnote{\textsuperscript{719}}. The last word in the addition « αγγειόν» was probably corrected by the scribe himself, hence the difficulties in its deciphering.

Explanation

XXVI, 1: ἀλόγων ζώων. Manetti takes this reference to the τὰ ἄλογα as a promptness by the author to put man in the broader context of living beings and the external world\footnote{\textsuperscript{720}}. In ancient Greek the concept ζώον included human kind, but with the privative adjective ἀλόγων in this context such an inclusion is prevented. In actual fact, what really makes the difference between the irrational and the human being is the latter’s faculty of language, that is, the ability to articulate sounds in a meaningful way. In Aristotle we find a well based opposition between the adult man and on the other hand the animal, child, teenager, and slave\footnote{\textsuperscript{721}}.


tὸ κόνειον is hemlock, or water hemlock (\textit{Cicuta virosa} L.), famous in the philosophical tradition for having been the way chosen by Socrates to put an end to his days\footnote{\textsuperscript{722}}. The scribe is at

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\footnotetext[719]{Manetti (1994), p. 51 n. 18.}

\footnotetext[720]{Manetti (2013), p. 164 n. 18.}

\footnotetext[721]{Aristotle \textit{EN} III 2; VI 2; VIII 11; \textit{Pol.} I 2, 1253a 9; \textit{Pl} I 10; IV 10. Cfr. Vegetti (1984), p. 454. This is also why at \textit{Ep. VII} 324b 8 – c 1 Plato affirms that, as many other ephebes, he wanted to enter into politics as soon as he was able to master his own acts (οἱ θερτόν ἄμφοτος γενομένον κόρος). Aristotle states in several passages that children, as happens with animals, are in constant search for pleasure and satisfaction; therefore, pleasure can neither be taken as true happiness nor children into consideration in Ethics. Cfr. Aristotle \textit{EN} II 3, 1104b 11 – 13; X 6, 1177a 1 – 3. On the other hand, Aristotle was convinced of the mental weakness of the slaves; to Aristotle’s mind the slaves were incapable of making their own decisions or putting forward their own arguments. Cfr. Fisher (2001), p. 95.}

\footnotetext[722]{In the 1\textsuperscript{st} century CE the methodist physician Thessalus of Tralles attempted to build a new science, a sort of “Astrobotanics”, on the basis of the links he found and established between the planets, zodiac signs, and attributes in plants. He therefore ascribed the poisonous power of hemlock to Mars and put both in relation to the zodiac sign of Scorpio. Cfr. Repici (2006), p. 83.}
this point apparently disagreeing with Erasistratus’s argument according to which one may pose a kind of infinite trophic chain which leads — in the scribe’s view — to a fallacious argument (reductio ad absurdum). It should be underscored however that in this particular Galen probably would have been aligned with Erasistratus and against the author of the Londiniensis. In his treatise called *Hygiene* the physician of Pergamon makes reference to the laxative properties of the milk from calves fed either on scammony or on any other of the mallows, and underlines that a poisonous vegetable like the hellebore is food for some animals. The tenet seems to have constituted a common place in the past, since it was well attested in the philosophical tradition; in actual fact it was the belief that quail and starling meat could easily constitute the cause of intoxication.

XXVI 23 – 24: ἀνάδοκος is translated here in Italian as diffusione.

XXVI, 31 – 48: the topic under discussion in this passage is whether the arteries only contain and convey air or not. D. Manetti has signalled that it is a strong point of dissension between the author of the *Anonymus* papyrus and Erasistratus.

XXVI, 34: πνεῦμα.

As for the expression « οὐχ ὑγιῶν ιετάμεν(ος) λόγ(ος) », for a more detailed study of the scribe’s personal assessment of the arguments of the authors he reviews and the value we have attributed to them we direct the reader to ch. I below. The expression reflects both, according to

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723 Insofar as the passage seems doubly related to Erasistratus, firstly by the objection supra in col. XXV, 27 – 28: « τοῦ Ἐρασίτα(χος) του διοίκου(μεν), », and secondly by the expression below in col. XXVI, 31 – 32: « Ὅ μ(εν) τος Ἰρασίτα(χος) οὐκ οἴεται ».  
731 In the middle voice it signifies statuere. Diels (1893a), p. 93.  
732 Cfr. infra ch. I § 3 n. 36; § 6. 4.
Manetti, the scribe’s interest in giving to his argumentation a particular format, and also in a way the dialectical factor as a dominant trait in the *Anonymus* writing. The rhetorical, or non-practical, turn that Greek medicine took in the Imperial period is also manifested if it is taken into account that the very same concern the papyrus addresses at this point is treated by Aulus Gellius in the *Attic Nights* (i.e. by a non–practitioner in a non-medical writing).


C. A. Viano is one of the scholars who, to our knowledge, has paid most attention to the issue discussed in this passage. In one of his contributions Viano addresses the problem expounded in col. XXVI, 31 – 48 for more than 50 pages; yet, given that he neither says a word about nor mentions the London papyrus at any point, Viano was not aware of the fact that the *Anonymus Londinensis* contains the argument he studies; this is perhaps the only (but remarkable) reproach that one could make to the article that Viano devoted to the concern.

As we have seen, Erasistratus, and Herophilus first, was convinced of the fact that the arteries conveyed only pneuma, and no blood at all. It is in fact one of the three cornerstones on which Erasistratus forges and hinges his theory of the τριπλοκία. However Erasistratus could not deny what is evident: some blood comes out when an artery is sectioned. In order to explain the phenomenon which clearly challenged his view of the body Erasistratus did not change the

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734 Aulus Gellius *Attic Nights* XVIII 10 (8) [Hosius (1903), p. 250, 10 – 12]. Aulus Gellius affirms he devotes all of his leisure to the reading of medical books.
736 It is actually a part of the theoretical background that featured anatomy developed in Alexandria, or in other words, the assumption that every “diffusive” system neither rigid nor with mechanical function should be regarded as a vessel filled with some kind of liquid. Viano (1984), p. 302.
737 Cfr. supra *Comment. on col. XXI, 18 – 47.*
principles of his theory nor come to think that it was weak and rejectable; he sought instead an argument *ad hoc* with which he could explain the evidence away saving the phenomena (σώζειν τὰ φαινόµενα) according to his theoretical principles. To do so Erasistratus introduces another theoretically observable physiological structure, synanastomosis, and comes up with the following explanation: it is actually the *pneuma* (invisible by definition) that first goes out when an artery is cut, and blood comes out afterwards because of the need to fill the void left by the invisible *pneuma*. Erasistratus believed that such interchange took place by means of the finest and imperceptible passages connecting the arteries with the veins; this is how Erasistratus explained the bloodletting when an artery is sectioned: the blood only reaches the arteries when they are cut, and they let pour out first the *pneuma* which cannot be directly observed and are immediately filled with the blood that proceeds from the veins through the synanastomoseis. The model Erasistratus put forth calls for the theoretical charge of observation, or in other words, for the extent to which observational data depend, in the last instance, on theoretical assumption.

By means of an experiment some centuries later Galen tried to demonstrate the falsehood of Erasistratus’s standpoint in relation to the interaction between blood and *pneuma*, that is to say, that the arteries of living creatures conveyed blood continuously and that this was their normal condition and not the result of disease or damage. Galen’s objection is mainly on grounds of a ‘negation of the antecedent’, the very same logical figure that the scribe of the *Anonymus* applies

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739 In Erasistratus’s view of the body *synanastomosis* is an assumption of theoretical order (a theoretically observable structure) by virtue of which the system of the arteries and the system of the veins become intertwined in the periphery of the body (*partes acra*) by means of some invisible apertures that enabled their communication (with it, the conveyance of *pneuma* and blood) between the arteries and veins. Cfr. Wilson (1959), p. 299; Vegetti (1993), p. 107; (1995a), p. 465; Debru (1996), p.194; Manetti (1996b), pp. 311, 314. It is said furthermore that by hypothesising the existence of synanastomoseis Erasistratus placed the foundation for the capillaries. The term ἀναστόµωσις in the single edition of the *Anonymi medici* remains untranslated e.g. ch. XXVI 1 (1); XXXII 1 (1); XXXVIII 1 (1) [Garofalo (1997), pp. 141, 3; 171, 15; 199, 7 respectively].

740 This physical principle has been termed as πρὸς τὸ κενὸµενον ἀκολουθία (PTKA). It evinces the *horror vacui* present in the physical theories of most ancients authors. Cfr. von Staden (1989), p. 304 n. 229; Longrigg (1993), pp. 210, 215. Underlying Erasistratus’s views is the axiomatic principle that if matter is vacated from any contained space, or, whenever there is a loss of matter in an organism whatsoever, then other matter — especially of a contiguous type — will rush in to take its place, since a massed void is believed to be impossible. Galen *In Plat. Tim. comm. III* 17 [CMG Suppl. p. 23, 11 – 13]; Viano (1984), p. 337; Vegetti (1993), p. 103. Although formulated less explicitly, such a principle also occurs in the *Timaeus*. Cfr. Plato *Ti*. 79b 1 – 10; 81a 1 – 4. In the former passage the principle hinges on Plato’s objection against the existence of void; in the second Platonic passage a PTKA-like process is said to obey the law whereby every substance moves towards its kind.


742 Galen *An in art*. VI [IV pp. 723, 14 – 724, 9 K.].

to confute Erasistratus’s theory of the exclusive presence of \textit{pneuma} in the arteries\textsuperscript{744}. The scribe concedes the presence of blood in the arteries while containing only a few parts of \textit{pneuma}.

XXVI, 39 – 48: the passage was reconstructed by F. Kenyon who put the lacunae in the papyrus in relation to fragment \textsuperscript{745}.

XXVI, 44: ὅς κατὶ τ(ῶν) ἐκτός\textsuperscript{746}

XXVI, 45: ἐκ τ(ῶν) κρουν(ῶν).: the preposition « ἐκ » contrasts with the preposition « διὰ » and helps to stress the distinction the scribe is introducing, for in his opinion there is a telling difference between ‘flowing through’ and ‘flowing from’\textsuperscript{747}.

XXVI, 48d: παρεμπίπτον

\textit{Paremptosis} (and kindred terms) was formerly rendered into Latin as ‘\textit{intercurrens}’; B. Fuchs translated the notion into English as ‘transfusion’\textsuperscript{748}. In Erasistratus’s physiological system the \textit{paremptosis} is a deep structure underlying many infirmities, indeed the primary and foremost cause of disease. While in medicine previous to Erasistratus the disease was generally attributed to an imbalance in the qualities of the constitutive elements of the body, Erasistratus put the causation of the disease down to the mixture of blood with \textit{pneuma}, the two main types of matter (ὀλαί) in the body\textsuperscript{749}. Thus, fever and inflammatory diseases are explained on the basis of the fact that an excess of blood in the veins is driven into the arteries, resulting in the arteries administering \textit{pneuma} incorrectly\textsuperscript{750}. Since in actual fact there is no \textit{synanastomoseis} from the veins to the arteries it is necessary to pose that such transfusion takes place at a theoretical level, at the level of the \textit{τριπλοκία (omnis theoria est theoria)}\textsuperscript{751}.  

\textsuperscript{745} Manetti (1996b), pp. 311 – 313.
\textsuperscript{747} Manetti (1996b), p. 314.
\textsuperscript{748} Anonymi medici XLIII 1 (1) [Garofalo (1997), p. 219, 10]. Cfr. also col. XXVII, 7.
In Jones’ translation the term ετάμνοις is understood as καλάμοις. By way of this simile the scribe sets forward two opposing physiological views in which the two main types of channels in the body, veins and arteries (and particularly the latter), can be conceived of as bodies likely to collapse or not. In Aristotle’s *Metereologica* this detail is reckoned either as a faculty or as one of the possible passive properties common to every simple body (i.e. ὀμοιομερῆς). The objection the scribe makes against Erasistratus and his heirs is that in his opinion our organism, and consequently our arteries, is rather not likely to collapse body (ὡςμυπτότοις), therefore, our body is like a tube or a jar in which a void cannot occur.

XXVI, 48: the example is attributed to Asclepiades and is used against the Erasistrateans.

### Column XXVII

**Description**

In l. 4 the term « πνεύματος » is abbreviated as « πνευμ »578. In l. 9 the substantive « κατοχής » is abbreviated and written as « κ`/ο/χής », and the next expression « καὶ προσαναπληρώσε (εαύ) κενοθ(ἐν) » actually reads « καὶ προσαναπληρώσε κενοθ/ ». In this line and the following there is another interlinear addition, thus, « ὀστε <τὸ> αἴτιον παρορνά| δέξ » is written as « ὀστε αἴτιον παρορνάν δέξ/ »; furthermore a spatum vacuum precedes the affirmation « Νάι ». In l. 14 the term « ἀποκρί<νετ> » is another case of haplography, for the scribe

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573 Diels (1893a), p. 50: « Prima littera ut cursiva et mutilata difficilis lectu, cetera vestigiis satis apta ».

574 Aristotle *Metet.* IV 8, 385a 17; 9, 386b 1 – 11.


578 The same abbreviation appears in cols. XXVIII, 7, 34, 36, 38, 49; XXXII, 1, 22, 24. However, in col. XXXI, 35 « πνεύματος » stands for « πνεύματος(ς) ».
wrote « αποκρει ». The term « [τ]έλευτ(όν) » in l. 22 could correspond to « τετέλευτ<ηκό>τ(όν) » as in col. XXXI, 33. Also in l. 22 the substantive « ϊμε(νια) » is abbreviated as « ϊμφ ». In the following two lines, the expression « ζι δὲ φελβ(ες) [c]ύμπτωτοι » is in the interlinear space as « \άδεφλεβ'\[.]ύμπτωτοι/ ». By the remaining traces of the ink, the first letters in l. 24 were superposed over some previous and expunged letters. In l. 25 the expression « οι [Ε]ρι[αεθείοι] » reads « οι[.]ρι[.]οσ. In l. 28 the marginal addition « και ουχι κενος αθροε τοπο[.]» has been taken by D. Manetti as a proof of the Londiniensis incompleteness759. The participle « ἀποκριγο(μένου) » in l. 37 is abbreviated as « αποκριν'. As regards the partially restituted expression « λε…[..][..]. και συνέρχεσθ[θαι] τούτο » in l. 43, it was written as «\λε…[..][..].και/ συνέρχεσθ[..] τούτο ». The participle in the passive « κενοι(θέντος) » in l. 45 is abbreviated as « κενω ». The expression « ἀλ(λά)…..[.] απο[.]μυ…..[.]ον » in l. 46 is an addition on the right margin practically illegible today. As for the expression « τού<του>ε[πε]{ν} » in ll. 47 – 48, the last three letters were added on the left margin preceding the first word in l. 48, therefore P. reads «\τε{\ν}/ ». Still in l. 48, the expression « κενούτατι {μεγον} » appears as « κενοὺτατι/μεγον » in P. The group « εν » in the verb « κενούτατ/ » seems to be a correction of the abbreviation for είναι (i.e. \). The author added « τατ » above « μεγον », but he forgot to delete the ending (A. Ricciardetto has seen some tiny traces of a deletion for the first two letters)760. In l. 53, after having written by mistake « προθη » the scribe inserted « τη » in the interlinear space, yet he forgot anew canceling the ending « θη »; so that in P. the adjective « πρωτή {θη} » reads « πρω/τη{θη} ». Finally in l. 54 « † ρονέτως. » manifests the uncertainty of the deciphering at this point.

Explanation

XXVII, 6: ὅσπερ κάπι τ(όν) ἐκτός.761

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761 Diels (1893a), p. 90: « In rebus externis ».
XXVII, 19, [23]: from a lexicographic point of view σύµπτωτος, the adjectival form of the substantive σύµπτωσις, is in general used in the privative ἀσύµπτωτος.


The scribe goes on to develop and assess the argument whereby he wants to demonstrate, against the Erasistrateans, the mistake of likening the arteries to collapsible bodies (συµπτωτοί), for corpses — he adduces — show that the case is rather the contrary. Apropos of the last sentence in ll. 21 – 22, an argument supporting the belief that the scribe is at this point talking about human corpses consists in the specification « ζώων » that he adds to give a picture of the argument that the Empiric physicians raise to explain that neither an addition to a body nor a subtraction from a body necessarily imply that the body in question becomes heavier or lighter. At any rate, the arguments based upon dead bodies bring about some epistemological problems; for instance, what is actually the relationship between a corpse and a living body?; to what extent can the dissection of a dead body provide any solid information about a living body?; is the passage from dead to alive epistemologically legitimate and consistent? etc. According to Erasistratus even the minimal modification to the body is liable to modify, and in fact does modify, the theoretical organization in the body; hence he was compelled to look for explanations ad hoc. The distinction between veins and arteries as a set of two close and independent nets of vessel could have roots in the observation/dissection of corpses.

Another important detail to consider is that the Anonymus papyrus is dated almost 300 years after the supposed dissections or vivisections took place in Alexandria. Furthermore, dissection is a step fraught with problems, not least because it breaches a long-standing Greek taboo on touching, let alone mutilating, a human corpse; religious laws also imposed a ban on interfering with a dead

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762 As substantive it is extremely rare. It is unattested before Aristotle. As far as medical literature is concerned, the term σύµπτωσις is attested few times in the Corpus Hippocraticum: Epid. II 1.6 [V p. 76, 12 Li.]; Epid. IV 35 [V p. 178, 15 Li.]; 46 [V p. 188, 11 – 15 Li.]; Epid. VI 3.1 [V p. 292, 11 Li.]; Hum. V [V p. 482, 11 Li.]; Aph. I 3 [IV p. 460, 3 Li.]. Cfr. Jouanna (1989), p. 66 n. 21.

763 Fortasse τετελευτηκότων.

764 Cfr. col. XXXI, 33: « [τ]έτελευτηκότ(ων) ζώων ».

765 In corpses the left ventricle and the arteries prove almost bloodless and full of gas by the effect of the putrefaction. Vegetti (1993), p. 82; Grmek (1997), p. 79.
body and continued this way in Greece long after the arrival of human anatomy, even into the Roman Imperial period.

XXVII, 26: εὐκομπτότοιοι

XXVII, 30 – XXVIII, 11: ἐπιεσχομπτοτοι the scribe is still dealing with Erasistratus’s views. As has been said, Erasistratus had not failed to observe that the arteries of living creatures spilled blood when cut. In order to account for this phenomenon Erasistratus worked with the principle of horror vacui and maintained that when an artery was severed the pneuma it contained escaped unperceived and created a vacuum whose pull drew blood from the veins through certain fine capillaries.

XXVII, 43: εὐγκρίει: M. Wellmann took the occurrence of the term συγκρίσει (also in col. XXXIV, 3, 10) as evidence of Soranus’s authorship of the Londiniensis due to its being forged in the tradition transmitted by Herophilus and Asclepiades.

Column XXVIII

Description

One of the main traits of col. XXVIII are the numerals (Α´, β´, γ´) heading each point adduced by the scribe while he argues for the primacy of the veins in regard to the distribution of nourishment in the body. Also present in the previous column, such discursive marks are, in Diels’s eyes, the typical teacher’s way of expounding. In l. 3 the expression « πρὸ τ(ῶγ) ὑπτη(ριῶν) » is written in the interlinear space as « \[.]προτ ὑπτη/ ». In l. 6 the scribe wrote « [.π]π\'ως/τ´ » for the
expression « [ά]πενκράνις» in l. 9 « λέγω φως » is an addition in the interlinear space. In l. 10, in the beginning of the interlinear space and extending into the right margin, there is another addition that reads « και δεσποζοντι του ζωιου μ[...]ωι/ ». As regards l. 11 the expression « πολλων γ(άρ) διαρουμεν(ων) ώρτηριοι(ν)οϋδεξις άπεξ[ανεν] » is also in the interlinear space: « πολλων γ´ διαρουμεν' ωρτηριον » ουδεξις άπεξ[α]/. In l. 13 the sentence « και γ(ίνομα) διά τας ώρτης ρια(α{ω})ε » reads « και Γ.λ[ιοτ]ω[τ]τε/ αρτηρια(α)ς/ ». The elimination has at least two possible readings, or else the scribe wanted to put « αρτηρια » in the plural; or, as D. Manetti suggests, instead of ἀρτηριας perhaps φλέβιας should be understood. The sentence « κ(ατ)α τας(("ωρτηριας ἀπεδειξαμ(εν) » in ll. 14 – 15 reads « κ`τας/[[αρ]]τ[ηριον] /[αρτηριας/[[προ]]απεδειξαμι ». In relation to ll. 16 – 17 the sentence « η ἐν τας φλεγει ανάδοςις ʹηπερ ἐν τας ώρτηριας, ὡς ἀποδειξομ(εν) ». actually reads « ἡ τας / φλε[βων]ψυ/ ανάδοςις ʹηπερ [απο τα] /εν/τας αρ[τηριον]αι/ ος ἀποδειξομι » . It seems, the author first wrote « ἡ ἀπο των φλεβων ἀνάδοςις ʹηπερ ἀπο των ώρτηριων », but realised that the preposition should be changed so he modified the construction on the basis of the preposition ἐν. This kind of change is far from being a mere mechanical mistake, but rather is the expression of the scribe’s opinion apropos of the issue in question (again, whether the assimilation of nutriment is greater ‘in’ the veins or in the arteries). The first letter in l. 34 starts with ekthesis. In l. 41 the scribe repeats the word « πλειον », thereby « πλειον {πλειον} ». Explanation

XXVIII, 10: δεσποζοντα του ζωιου μ[οριω], ι in the papyrus the heart is featured as « the dominant part of the living being » so that, presumably, along with Aristotle, Dexippus, and the Stoics.
the author of the *Londiniensis* also held a cardiocentric view of the body\(^{780}\). As opposed to encephalocentrism\(^{781}\), ‘cardiocentrism’ refers to the theoretical assumption that the main physiological functions and psychical activities are assigned to the heart\(^{782}\) (or the diaphragm)\(^{783}\). To Aristotle the heart has ontological primacy\(^{784}\), and is related to the incitement of the movement, the production and distribution of blood, and also with sensation\(^{785}\). The heart is furthermore deemed to be the seat of innate heat\(^{786}\), one of the principles in every living form along with *pneuma*\(^{787}\). Given its very medial placement in the body, the heart is held as the source of heat in vertebrates (or sanguineous animals)\(^{788}\).

XXVIII, [11]: ἀνέξο[ανεψ]·: this works almost as a gnomic aorist.

XXVIII, 29 – 30: μονοχί[τονες]\(^{789}\)

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\(^{780}\) M. Asper coined the expression ‘Auktoriales Ich’ in order to indicate the traces, traits, and features in the *Anon. Lond.* whereby the scribe manifestly gives his own opinion about different issues. Asper (2007), pp. 299 – 300. Cfr. Debru (1999), pp. 458 – 460; Manetti (2013), pp. 159, 162, 169 – 171; Ricciardetto (2012), p. 44; (2014), pp. XVI, XXIV. We claim that the contents in col. XXVIII, 10 ff. fit perfectly with Aspers’s category, wherefore, we assume that the scribe is at this point expounding his own view about the role and import of the heart. Cfr. infra ch. I § 2 n. 25.

\(^{781}\) Aristotle expounds the reason for this double view in *Pl* II 10, 656a 29 – 11, 657a 12.

\(^{782}\) Insight into the History of Science points to Diogenes of Apollonia as the physician who put forward the theoretical cardiocentrism that Aristotle would eventually assume. Galen *De plac. Hipp. et Plat.* II 8 [V p. 282, 8 – 15 K.]. Diogenes was of the opinion that the heart was the place where *pneuma* and blood (scil. the nutritive principles) had their abode (ὅ δὲ πρῶτον τροφῆς καὶ πνεύματος ἁρώτα, ἡ καρδία). Diogenes neither distinguished these two nutritive sources nor ascribed each one to a different apparatus (say the digestive and the respiratory), but placed both in the heart; so much for Aristotle insofar as he conceived respiration as a natural cardiac movement. Cfr. Aristotle *Resp.* XX 479b 17 – 19.

\(^{783}\) The moot point consists in giving the exact location — the chest, the diaphragm, the heart, the hypochondria (literally ‘the part under the cartilage’), the so-called φρήν etc. — of the hegemonic part (τὸ ἡγεμονικόν). The issue becomes odder because the location and particular properties allotted to the commanding psychical part vary from author to author even in the frame of the very same philosophical trend. Cfr. Jouanna (1992), p. 419; Van der Eijk (2005), p. 120; also supra *Comment.* on cols. IV, 13 – 17; XVI, 36 – 38.

\(^{784}\) Aristotle *Juv.* III 468b 28 – 29. The order of the formation of the parts in a body has a functional and structural reason, hence for Aristotle in sanguineous animals the heart is formed first. Accordingly, the progressive development occurring in the matter of the embryo is said to begin with the formation of the organ where the vital activity has prevalence and priority.


\(^{787}\) Aristotle *Pl* II 10, 656a 28; *Juv.* III 468b 28 – 469a 1; *Resp.* XVII 478b 31 – 479a 1.

\(^{788}\) Aristotle *Resp.* XVI 478a 29 – 30.

\(^{789}\) Diels (1893a), p. 98: « φλεψ ». 

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XXXVIII, 15 – 43: this is perhaps an even more noteworthy passage to find traces of authorship by the scribe\(^{790}\). By means of three different arguments, and against Herophilus\(^{791}\), the author of Anon. Lond. claims that the assimilation of food is greater in the veins than in the arteries\(^{792}\). But it is mainly from the third argument that we know that the scribe’s opinion (again, that in the arteries and in the veins both pneuma and blood are present, though in different proportion) coincides with the opinion held by Diocles\(^{793}\).

XXVIII, 25 – 30: αἱ μ(έν) ἁρτηρίαι, μείζονες οὐκεὶ κ(ατὰ) τὴν περιοχὴν, αὐτὸ μόνον φανήσονται τοῖς τετεραχίτωνες (ἐίναι) καὶ εὐφροσύνην τὸ(ῶν) χιτῶν(ων). Αἱ δὲ φλέβες ἀθενεῖς τεραι ψή(άρχουσαι) κατὰ τὴν περιοχὴν τοὶ μονοχίτωνες εἶναι δὲμε εὐφυκοιλιώτεραι

As has been said, the distinction between arteries and veins on the grounds of their respective contents (pneuma and blood respectively) was apparently formulated for the first time by Praxagoras\(^{794}\), but the real distinction of the two bodily vessels on the grounds of the different number of layers in each one belongs to Herophilus\(^{795}\).

XXVIII, 33 – 43: Τὸ δὲ γ’ αἱ μ(έν) ἁρτηρίαι π[λ.]είον ἔχουσι τὸ παρακείμενον ἐν αὐτ(αίς) πνεύμα(α), ἢταν δὲ τὸ αἷμα, αἱ δὲ φλέβες πλείον[[έχοι]σι τὸ αἷμα, ἡλάχιστον δὲ τὸ πνεύμα(α). Ἄρτεκεὶ γ(άρ) ἢμιν καὶ ἐν ἁρτηρίαι καὶ ἐν φλεβὶκατὰ φύσει παρακείσθαι καὶ αἷμα καὶ πνεύμα(α),[οῦτ]ος δὲ ταύτα παρακείσθαι<>, καὶ


The fragment reproduces the third argument that the scribe sets forth against the sole presence of pneuma in the arteries. He asserts that in the arteries the presence of pneuma prevails and in the veins the presence of blood, so that although in an uneven proportion, both material principles are to be found in either vessel. The same idea is recollected in the Anonymus of

\(^{790}\) “Authoriality” according to the model ‘A, or inclusive’ as it is coined by D. Manetti in order to show that the scribe regards himself as partaking in a scientific community or, indeed, in a particular medical school. Cfr. Manetti (2013), p. 169.

\(^{791}\) Manetti (2003), p. 337 n. 11.


According to Erasistratus such a claim would seem to concede that nature has produced two vessels for the same purpose, which straightforwardly belies the assumption that nature never operates in vain.

At any rate, the scribe continues the discussion by offering another kind of argument, this time drawn from Herophilus, but in order to confute it. The scribe affirms that Herophilus conceived of arteries and veins as having an equal desire for nourishment, and therefore an equal power to absorb nutriment. In light of this view, Herophilus could have admitted the presence of some blood in the arteries, namely, to feed the layers of the arteries. But because arteries dilate and contract, whereas veins do not, a greater absorption takes place in the arteries than in the veins; so that according to Herophilus the arteries are in the end the main distributors of nutriment to the tissues. However, the scribe argues conversely, that is to say, he claims that absorption in the veins is greater than absorption in the arteries since they contain more blood and less 

**Column XXIX**

Description

Col. XXIX presents substantial differences between Manetti and Ricciardetto’s editions. In l. 2 the author transformed « ἐξ αὐτῶν » into « εἰϲ αὐτὰϲ » by doing the same operation two times: « ε ἢϲ/⟦ξ⟧ αυταϲ/⟦(ων)⟧ ». In l. 41 the second word in the expression « λαμβανομέν(η) τροφ(ή) » is written on the right margin; P. actually reads « λαμβανομέν ‘τροφ’ / ».

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798 At this point the scribe takes up the matter of whether the distribution of aliment in the body is greater in the arteries or in the veins. The discussion lasts in col. XXIX, 12.
802 This concrete passage is assessed in von Staden (1989), pp. 324 – 325 [T. 146].
It might be worth seeing the topic addressed in this passage as relying on the booklet titled Σύνοψις περὶ σφυγμῶν (Compendium pulsuum), since this brief work bears evidence of the state of the art concerning the pulse and its role in medical diagnosis at the end of the 1st century CE. Ch. Daremberg underscores that this anonymous treatise is ascribed to Rufus of Ephesus. In the beginning, the Σύνοψις refers to a certain personage called Aegimius, who is credited as the first physician to have taken the pulse into consideration. In many Hippocratic treatises the existence of a pulse is manifest and recognised. It is generally admitted that this treatise is a later work, strongly imbued with Stoicism. Though no use was made of this knowledge in any treatise of the Hippocratic collection, it must not be inferred from this that the Hippocratic writers were ignorant of pulse(s); it is rather that they did not use it for practical purposes until the Hellenistic period.

Anyway and anyhow, in the Σύνοψις it is remarked that Aegimius made no distinction between παλµός (palpitation) and σφυγµός (pulse). The personage in question could be the physician from Elis, in Arcadia, mentioned in cols. XIII, 21 – XIV, 3[?] , but from the description in the Londiniensis papyrus such a coincidence remains a mere guess.

All the developments and theories of the heart and pulsation depend on the major medical view by which the veins are envisaged conveying blood and the arteries pneuma. According to this

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804 Diels (1893a), p. 84: « Efficere ».

805 Daremberg - Ruelle (1879), pp. 219 – 232.


807 In Ti. 70c Plato defined παλµός as a « πηδήσις καρδίας », (« a heart’s leap »). According to the description that Galen provides on the concern, by παλµός Aegimius understood every movement of the arteries, that is to say, by παλµός Aegimius took what Praxagoras and Herophilus would later term σφυγµός, this last word being the commonest way to make reference to the pulse. Cfr. Steckerl (1958), p. 61. Ever since Galen the denomination παλµός would be applied, however, only to abnormal cardiac movements. Cfr. Daremberg - Ruelle (1879), p. 618.

808 Hippocrates Epid. VII 83 [V p. 438, 23 K.].


theoretical frame, during the systole the heart takes *pneuma* from the lungs through the left ventricle and by its own natural beating during the diastole sends *pneuma* into the arteries\(^{811}\). The pulse is by definition the diastole and systole of the heart and arteries inasmuch as both beat at once (ισοχρόνως). Accordingly, they were regarded as the only body parts with a proper sphygmical movement. Thus, in a narrow sense, the pulse is deemed to be the involuntary (ἀπροαιρέτως)\(^{812}\) and natural movement of the heart and arteries when these are in sound condition: the pulse corresponds to the filling of the arteries and the emptying of the heart.

The Alexandrian\(^{813}\) doctors went further and distinguished three other kinds of beating: palpitation (παλµóς), spasm (σπασµóς), and trembling (τρόµος). While Praxagoras considered this triple difference in quantitatively his disciple Herophilus considered it qualitatively. Herophilus claimed, moreover, that only pulsation was properly a movement of the heart and the arteries, as the three other aforementioned movements belonged to the muscles and nerves. The *Compendium pulsuum* transmits the following definition of the pulse according to Herophilus: « the involuntary contraction and distention of the heart and arteries »\(^{814}\). Herophilus had a certain obsession with the rhythm(s) in the body; this led him to build “a poetical sphygmology”\(^{815}\). Herophilus believed that the rhythm of pulsation varied case by case, depending on the age and condition of the body. In light of these variable factors Herophilus established a correspondence between the pulse, age, and different prosodical meters or poetic feet (perhaps because the musician Aristoxenus of Tarentum might have exerted some influence on him). Therefore, since a newborn’s pulse was short (fast) the meter that fitted most was the pyrrhic; among young ones the pulsation resembled a trochaic, amid adults a spondee, and finally he likened elder people’s pulsation to an iamb\(^{816}\).

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\(^{812}\) Cfr. Anonymus *Compendium pulsuum* II 2 [Daremberg - Ruelle (1879), p. 221, 5].

\(^{813}\) Often introduced as equivalent, the categories ‘Alexandrian’ and ‘Hellenistic’ should not be confused, wherefore expressions like ‘Alexandrian period’ should be utterly avoided and substituted for more sound formulae. Thus, M. - H. Marganne suggests for instance expressions like ‘the medical school of Alexandria’ when the time comes to make reference to the group of physicians settled in Alexandria from the beginning of the Hellenistic period to the muslim conquest of the city. These physicians’s research and innovations promoted by the Ptolemaic dynasty at first were disseminated in form of writings, books, philological works and teachings. Cfr. Marganne (2002), pp. 364 – 365.


XXIX, 10: εὐ[λο]γόν (ἔστι) πλείονα[γί(νες)]θ(α)ι τὴν\|άνάδοσιν ἦπερ τὴν ἐπὶ τὸν \|φλεβὸν διὰ τὴν\| εἰρημένην αἰ(τίαν).

There seems to be at most two reasons for the scribe’s claim that the distribution of food is greater in the veins than in the arteries. The first is because the pulsation of the arteries turns the food delivery into an interrupted or syncopated process, whereas in the veins (because of deprived of pulsation) the deliverance \textit{a priori} occurs in a much more continuous way. The second possible reason is connected to the different number of layers of the vessels, since the arteries have more layers than the veins the concavity of the arteries is less and likewise the power to convey and transmit the nutriment.

XXIX, 34 ff.: the scribe claims that not all ingested food is assimilated, but a kind of selection between what is suitable and what is unacceptable in food operates along the digestive process, the latter is transformed into excrement\textsuperscript{817}. It is likely that at this point the author is presenting an abridged version of the production of urine according to Asclepiades, a theory that Galen strongly refuted and bitterly criticised\textsuperscript{818}.

XXIX, 49 – XXX, 40 : the passage discusses the nature and origin of urine\textsuperscript{819}. It is the only fragment in the third section of the \textit{Anon. Lond.} where the scribe still follows the doxographical approach that he had applied to the second section\textsuperscript{820}. The passage covering cols. XXIX, 49 – XXX, 19 has been edited, translated into Italian and commented on by D. Manetti on the basis of fr. 9\textsuperscript{821}.

\textsuperscript{817} Manetti (2003), p. 343.


\textsuperscript{819} For a more thorough study of this subject cfr. infra ch. VII.

\textsuperscript{820} Manetti (1999), p. 135; Ricciardetto (2014), p. XLVI.

Column XXX

Description

A high definition picture of col. XXX can be consulted in paper format. A thin strip of papyrus that traverses the whole column (coinciding with the juncture between two κολλήματα) was detached and lost; consequently some letters are missing at that point in the majority of lines. In plate IX, which contains cols. XXIX - XXXI, the third column is placed a bit lower in respect to the other two. Ll. 4 – 10 could be restituted by means of the discovery of the right placement of fr. 9 by D. Manetti. In l. 12 the participle « ἐνυπαρχο[ύςε] » is written in the interlinear space as « ἐνυπαρχο[/ ». In l. 34 the scribe wrote a line in full that he canceled to rewrite a new one, though quite lacunar. Between ll. 39 – 40 there is a paragraphos that neither H. Diels nor D. Manetti had signalled; the first letter in l. 40 begins with ekthesis.

Explanation

XXX, 15 – 24: ὅτι (ἐκτὶ) δριµὺ τε καὶ ἁλµυρὸν. [Ἄλλ᾽ ἐκεῖ]νο ῥητέον ὅτι ἐπὶ τοῦ πρώτου ἐκκεῖ[ ]

This passage was severally edited, translated into Italian, and commented on by D. Manetti prior to her full edition of the Londiniensis papyrus in 2011. According to the Italian philologist there is no need to introduce a strong contrast between what has been expounded (on the origin of urine) and this new topic, but rather the metaphor the scribe presents is a way to put the precedent explanation in clearer terms. The definition of ‘sun’ as « ἄναµι[µα] νοερὸν » takes up, as H. Diels already noted, a Stoic assumption — though in some doxographies it is attributed to Heraclitus.

822 CPF (2002), plate 61.

823 Diels (1893a), p. 83: « Stoic sol ».

824 Col. XXX, 15 – 24 corresponds to CPF Stoici 3T, pp. 796 – 797. The translation provided by D. Manetti reads as follows: (« Ma bisogna dire che sulla prima posizione si trovano la maggior parte degli antichi e utilizzano per questo l’esempio del mare e del sole: questo infatti, che è un “oggetto intelligente che si accende dal mare”, si nutre della parte buona che si trova nel mare, assumendo ciò che è leggero, e lasciando invece nel mare ciò che è inutile e pesante e salato »). Cfr. infra ch. VII § 1.
In On Sleep and Waking\textsuperscript{825} Aristotle makes the comparison between evaporation that takes place on the surface of the sea because of the sun, as compared to evaporation that reverts in form of rain when the evaporated water gets the cold regions in the atmosphere\textsuperscript{826}, with emanations that arise from badly digested food on account of the heat in the heart, as compared to emanations that, as they rise to the brain — which in Aristotle’s opinion is the coldest organ in the body — end up prompting sleep due to the body’s general cooling.

XXX, 32: the substantive ἀπουρήϲιϲ (col. XXX, 6) appears in the Anonymus as well as in Soranus of Ephesus\textsuperscript{827}.

XXX, 40 – 43: at this point (up to col. XXXIV, 6) the author introduces, presumably according to an Empiric premise, the claim that emanations occur in each and every level of matter\textsuperscript{828}. Beginning with the inert world, then with plants, afterwards with animals, and finally with man it turns out that the whole argument takes the format of a plainly Aristotelian scheme that would eventually characterise the thought of the Romantics or Idealist thinkers; especially F. Schelling’s natural philosophy. Two further details also featuring this teleological standpoint could be found in col. XXXIX, 5 « ὡς ἡ φύσις τηρεῖ τὸ [δίκ]匮ον ». In light of the nature of the argument that the scribe sets forward, the expression in ll. 42 – 43 « Πειρῶνται δὲ κ[ατα]ϲκευάϲειϲν ὅτι ἀπὸ παγ[τὸϲ τοῦ]ϲόʔματοϲ συνεχεῖϲ γί(νονται) ἀποφοραὶ »\textsuperscript{829} could well have a general sense, that is to say, it could mean “from a body whatsoever” rather than ‘from all the body’; yet, for the sake of sticking closely to the text we translate the expression in a literal way.

It is difficult to establish to whom the scribe is actually making referring, for the subject of the verb πειρῶνται (or ἐροῦϲι in col. XXX, 40 – 41, 46 respectively) could be: 1) ‘the ancient philosophers’ (col. XXIX, 52: « τοῖϲ ἀρχαῖοϲ τ(ῶν) ϕιλοφων· »); 2) those among the latter who deemed that in the fluid taken a dual nature exists (col. XXIX, 53: « ὃ[ι] µ(ἐν) »); 3) those among the ancient philosophers who posited instead that all fluid is homogeneous (col. XXX, 7: « Οἱ δὲ »);

\textsuperscript{826} The same simile is to be found in Hippocrates Aer. VIII [II pp. 32, 17 – 36, 19 Li.].
\textsuperscript{827} Soranus of Ephesus Gynaeciorum I 57 (5) [CMG IV p. 42, 27 Ilberg].
\textsuperscript{828} D. Manetti assumes that the exposition of this demonstration (i.e. there is an imperceptible movement of matter from the body outwards) extends up to col. XXXVI, 43. Manetti (2011b), p. 169 n. 23.
4) the majority of the ancient philosophers (col. XXX, 17: “οἱ πλείου[ς τ(ῶν) ἀρχαί]ων “); in this case then 4) would coincide with 2). Furthermore the reference to the Empirics below in col. XXXI, 26 must be taken into account: “Π(ρὸς) τούτου τοὺς λόγους ἀντιφέρονται οἱ Ἐμ(πειρικοί) λέγοντες “), a denomination that the scribe uses to refute the theory that the unknown subject in question puts forward\(^{830}\). The point overcomplicates when the expression “οἱ πλείους τ(ῶν) φιλοσοφον|λέγουσι” in col. XXXI, 41 (reported speech assigned to the Empirics) is brought up into discussion. In the case that the scribe would have equated “οἱ πλείους τ(ῶν) φιλοσοφον|” to “οἱ πλείους τ(ῶν) φιλοσοφον|” it could be then affirmed that in the Anonymus papyrus the vague expression “the majority of the ancient philosophers” means a group necessarily other than the Empirics who attributed a dual nature to the fluids we take in, but the equation is not clear at all.

Col. XXXI

Description

As in the previous column, in Ricciardetto’s edition col. XXXI presents a number of divergent readings when compared to Manetti’s. In l. 8 the comparative “βατερα” constitutes a new case of haplography, since P. reads “βατερα”. Manetti attributes this mistake to the scribe’s fast writing style\(^{831}\). In l. 11 after the word “κουφότερον” there is a spatium vacuum that the two former editions of the papyrus did not signal. From l. 16 to l. 48 the papyrus presents a defect, consisting in a thin strip of papyrus that traverses the horizontal fibers; however, it was not an impediment for the scribe as he still wrote on it. The first letter in l. 17 starts with ekthesis; in the next line — preceding the article “οἱ” — there is, anew, a spatium vacuum that neither Diels nor Manetti signalled. The same phenomenon occurs in l. 29 after the verb “γίνεται” as well as in l. 50 preceding the verb “π(ροϲ)τίθεμ(εν)” . The denomination “Ἐµ(πειρικοί)” in l. 26 is abbreviated as “ἐµ”\(^{832}\). In l. 38 the adjective “κοῦφόν” is written on another word that cannot be deciphered. The expression “ὡς ἡ θυρὴ ἀφαιρεῖ(σαι) ἡμικρότερ(α)” in l. 43 consists of a marginal addition on the right side\(^{833}\) of col. XXXI that reads “

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830 For a more detailed explanation of this concern cfr. infra ch. VII § 3. 1.
XXXI, 8: ὀλιγοτρόφωτα: the adjective ὀλιγοτρόφος occurs only once in the Corpus Hippocraticum\(^\text{835}\), but it is widely attested in Aristotle or Theophrastus.

XXXI, 10: αὐτοψίας: it is a *terminus technicus* among the Empirics (i. e. ‘observation’), but in the immediate context it takes the sense of “evidence to the senses, to the sight”. \(\text{σταθέν}^{\text{836}}\).

XXXI, 6 – 16: fresh meat was said to be heavier and more nourishing than hanged (dried) meat\(^\text{837}\). Literature on regimen was abundant at Aristotle’s time, as is clear in the second book of *Regimen* (wrongly ascribed to Hippocrates) which contains a long catalogue of light and heavy meats with their different properties\(^\text{838}\).

XXXI, 20: ἀλεῖπται\(^\text{839}\)

XXXI, 21 – 22: that warm bread is more nourishing than cold is an opinion that could owe to the physician Philistion\(^\text{840}\). The issue concerning the nutritive properties of the different kinds of food is a commonplace of discussion in the tradition of dietetics. It is said that warm bread and fresh meat have more nutritive power because the dispersion (ἀποφοράι) operating in these has yet to take place. If hot loaves of bread are more nutritious than cold ones it is because the latter have lost matter through imperceptible emissions\(^\text{841}\).


\(^{836}\) Diels (1893a), p. 93: passive voice « pendere ».


\(^{839}\) Diels (1893a), p. 82: « Athletarum institutor ».


XXXI, 25 – 47: this passage was addressed by D. Manetti in order to show the different authorial levels displayed in the *Anonymus*. The argument, which the scribe assigns to the Empirics, can be summarised as follows: according to the Empirics it is not true that whenever an addition to an object is made produced that object necessarily becomes heavier, nor does any removal from an object automatically imply that the object becomes lighter. The scribe will proceed to reject the position of the Empirics by dint of a series of numerated objections (i.e. XXXI, 48 – XXXII, 26).

The term βαρύτης in l. 45 is a typical substantive stemming from an adjective, obtained by adding the suffix -της. In Greek literature the first occurrence of βαρύτης is in the Corpus Hippocraticum.

XXXI, 26: Εµ(πειρικοί)844: this is first time that this medical sect845 is mentioned in the *Anonymus*. The Empiric medical school was founded by Philinos of Cos and Serapion of Alexandria. They are credited with touting a revival of the ancient ways in the acquisition of the medical art: this is perhaps the reason why it is almost impossible to distinguish the Ancients from the Empirics at certain points in the scribe’s exposition847. The Empiric school was founded shortly after the death of Herophilus848, in a way as a schism in the medical trend that Herophilus led. The methodology grounding the views of the Empirics could be summed up in the trinomial ‘empiria’ (αὐτοψία), ‘metabasis’ (ὁ µοίοιο µετάβασις), and ‘history’ (ιστορία)849. By definition medical Empiricism sought to minimize logic and argumentation. The Empirics rejected all kind of speculation on the causation of disease, focusing instead on the most proper and effective ways to palliate a disease and recover health850. The Empirics claimed that medical knowledge had its roots in observation (αὐτοψία),


844 In P. this denomination is written by means of an abbreviation, a kind of circumflex sign above the first two letters: « Εµ ». From an historiographic point of view, the notion of ‘medical sect’ (that is to say, a group that follows a master and accepts his teaching constituting a school in the long run) appeared in Alexandria in the 3rd century BC. What was at issue among the main medical sects of the Antiquity was the best method of acquisition of medical knowledge, its sources and scope. Gourevitch (1993), pp. 121 – 122, 124, 127.


848 Gourevitch (1993), pp. 128 – 129. The second of the fundamentals (the passage from one particular case to a similar one in virtue of the purported similarities between one and the other) constituted one of the main points of dissonance with the Erasistrateans, as the latter did not search for such similarities in observable properties or empirically proven effects the way the Empirics did, but in the bodily δυνάµεις. Giannantoni (1984), p. 70.

more particularly in a kind of “imitative observation”. That is, the Empirics put their effort to singling out the morbid agent, presumably on the grounds of similar previous cases; afterwards they prescribed the same therapy or remedy that proved effective in similar cases to the patient\textsuperscript{851}. The accumulation of such successful observed experiences was shaped in patterns and theorems of frequency (\textit{ἱστορία}) and served to ground their medical practice.

XXXI, 40 – 41: δ[τι] (ἐκτίν) ζῶμα ἣ ψυχῇ οἱ πλείονε τ(ῶν) φιλοσόφον λ[έγ]ουσι: this sentence is in plain conflict with Aristotle’s view\textsuperscript{852} whereby the essence of the soul cannot be corporeal.

XXXI, 42: ἀκώματον\textsuperscript{853}

XXXI, 43: θυρί\textsuperscript{854}

XXXI, 51: if we consider that above (col. XXI, 15 – 16) the scribe stated that he left concerns about the soul to philosophers, from this line up to col. XXXII, 6 the scribe seems somewhat compelled to take the issue back up in order to refute the Empirics.

\textbf{Column XXXII}

\textit{Description}

The term « εὐλόγωϲ » is a marginal addition between ll. 3 – 4. In l. 6 the first two letters in « ὅλον » are written on a former « ζωιτ »; in this same line « ἱπμοι/ ». In l. 7 the author forgot to cancel the first three words that he wrote by mistake, hence «{αποτ(ων)ἀλ(ων)} ἀπό τ(ῶν) ἀλλων (ἐξτίν), τρητο δὲ ἀπό »\textsuperscript{855}. In l. 18 « αγαν » was deleted (〚αγαν〛) after the expression « μ(ἐν)τοι γε

\textsuperscript{851} It is, in short, what Aristotle states at \textit{Metaph.} I 1, 981a 5 – 9 which, in its turn, resembles what Plato expounds in \textit{Grg.} 448c.

\textsuperscript{852} Cfr. e.g. Aristotle \textit{Juv.} I 467b 13 – 14.

\textsuperscript{853} The soul. Diels (1893a), p. 85.


\textsuperscript{855} Manetti (1994), p. 56 n. 34.
» In l. 25 the verb γί(νεται) is abbreviated as « γίθ » which actually stands for the abbreviation of the passive infinitive « γί(νεϲ)θαι ». In l. 28 the verb « (εἰϲι) » (currently abridged as « \ » in P. ) is corrected on a former « / », the abbreviation for (ἐϲτι). In l. 46 the term « ῥυ̣καρ(φα) » (= ῥυ̣καρ P.) was suggested by H. Diels from a passage in Dioscorides where the physician speaks about the properties of the cinnamon. On the right of l. 48 one might read « \οτρογγυ \ ». Between cols. XXXII, 55 – XXXIII, 1 there is a paragraphos that has not been previously signalled in any of the three former editions of the Londiniensis.

Explanation

XXXII, 1 – 2:  ὅτι καὶ| πνε̣μ(α) ἡ ψυ̣χή

Xenophanes of Colophon (6th - 5th century BC) asserted the soul (ψυχή) was made up of pneuma. Since Xenophanes believed that everything which comes into being is liable to perish, by this general law the sense that Xenophanes attributed to ψυχή was something like “perishable breath”.

XXXII, 9: γεώδους

XXXII, 15 – 21:  the scribe contends that the soul is the agent keeping the body at the particular pitch or tension necessary for its operation. In Plato such a function is ascribed to the sinews, responsible for the cohesion of the human frame as well as the physical source of movement in man (via tension and relaxation). In l. 20 the term αἰωροῦν can mean either ‘to be slightly hung’ or ‘to lift some moderate or light weight’. In case of the first meaning this verbal form would constitute a hapax. The second meaning was used in medicine to refer to the passive exercises, that is, non intensive or extenuating workouts. Related to the infinitive αἰωρεῖν, in the Anonymi medici the nominalised form αἰώρας is put beside massages, vocal exercises, and some techniques of retention


857 Diogenes Laertius Vitae philosophorum IX 19 [Marcovich (1999a), p. 644, 11 – 12]: « πρότος τε ἀπεφήνατο ὅτι πᾶν τὸ γενόμενον ψαρτὸν ἐστὶ καὶ ἡ ψυ̣χή πνε̣μ(α). », (« scil. Xenophanes) was the first to declare that everything which comes into being is doomed to perish, and that the soul is breath »). Trans. Hicks (1950b), p. 427.


859 Ti. 74b. Burgess (1998), p. 25. At Phd. 86b 9 – c 3 Plato claims that our body is kept in tension and held together by heat, cold, dryness, moisture and the like, and our soul is a blending and acquisition of these same things when they are mixed with each other in due proportion.

of respiration such as therapeutical indication\textsuperscript{861}. In l. 21 ‘bodies’ should be understood in the expression « τὰ νεκρὰ »\textsuperscript{862}.

XXXII, 41: τ(ῶν) ἀναπλασσομέν(ῶν) κολληρίων\textsuperscript{863}

XXXII, 42 – 55: the examples from flowers, plants, and trees do not pursue any medical purpose at all but are rather rhetorical. The scribe does not speak about the properties of these plants, nor the way to pick them, and he does not discuss the convenient measures to take in order for them to maintain their attributes. What happens with flowers and herbs when they are cut is only mentioned with a view to reinforcing more solidly the argument held by the Empirics which, seemingly, also tallies with the opinion that the scribe also defends: there are continuous emanations from all kinds of bodies\textsuperscript{864}.

The term ῥυσόκαρ(φα) in l. 46 is extremely rare. On the grounds of this exceptionality H. Diels considered that the \textit{Anonymus} was likely written at Domitian or Trajan’s time\textsuperscript{865} (1\textsuperscript{st} century CE) when the use of the word became more frequent.

XXXII, 55 – XXXIII, 1: it is impossible to figure out who the subject is of a number of verbs in the third person plural in this passage, perhaps it is the followers of Erasistratus’s opponents\textsuperscript{866}.

\textbf{Column XXXIII}

\textbf{Description}

In the first line, above the article « τὸ » and with ekthesis one may distinguish the letters « τού » that the scribe expunged. In the next line before « π’λ/ειων » the scribe deleted « ου », therefore « [ου] ». As regards the interlinear addition « ἔμεταβαινουσι/ » in l. 15, A. Ricciardetto told

\textsuperscript{861} E.g. \textit{Anonymi medici} XXXV 3 (1) [Garofalo (1997), p. 190, 6].

\textsuperscript{862} Diels (1893a), p. 98: « scil. cóματα ».


\textsuperscript{864} As we have seen, the argument is taken up in col. XXX, 40 and gets its completion in col. XXXIV, 6.

\textsuperscript{865} Diels (1893b), p. 413.

\textsuperscript{866} Manetti (1986), p. 73.
about the new reading he made on the former deciphering of «\καταβαίνουσιν»\(^{868}\). First of all he adduced that the verb καταβαίνουσι, if correct, would constitute a hapax in the Anon. Lond., and in the second place that μεταβαίνουσι actually fits with the two other occurrences of the same verb in the papyrus\(^{869}\). In l. 34 the expression « ὁ δὲμ[ρος] » is written on the right margin of P. as « \ ο[υμ]|…/ »; the same applies to « [τ]ού[τ]οις » in l. 43 ( P. = \[.]ου[.]οις/ ). In ll. 37 – 38 the scribe wrote in the first place « εκυλάκες », then canceled the last three letters in the beginning of l. 38, but, perhaps thinking twice, he rewrote it again above those first expunged; thereby, in P. the word is to be found as « εκυλά[<Array1]κές ». The first word in l. 51 starts with enthesis of two letters in relation to the rest of letters in col. XXXIII, and finishes with a sp. vac. The word « κενούμενον » in l. 55 reads « κενομ[[(ev)]]ε/νον ».

Explanation

XXXIII, 1: τὸ ἀνάλόγον.\(^{870}\)

XXXIII, 32 – 33: καταλαμβάνου| _et\(^{871}\) 


Now, at this stage of the argument, with the aim of reinforcing more solidly his conviction that continuous (invisible) emanations\(^{872}\) take place from the entire body — and all kinds of bodies

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\(^{867}\) 18. 12. 2015.

\(^{868}\) Ricciardetto (2014), p. 27.


\(^{871}\) Diels (1893a), p. 95: « Capere, intellegere ».\(^{872}\) At this point Ricciardetto’s translation « contre ces assertions » in col. XXXIII, 43 does not seem to make much sense. Cfr. Ricciardetto (2014), p. 28; (2016), p. 48. In the first place the translation does not fit with the final conclusion to which the experiment leads (i.e. emanations from animals take place), and secondly because the scribe portrays the experiment by Erasistratus precisely with a view to bringing a more solid buttress to the different kinds of argument that the Empirics adduce on the same purpose (cfr. cols. XXX, 40 – XXXIV, 6). This is why we deem that a translation « en relation avec ceux/eux » or the like would go better with the meaning of the passage.
(particularly from animals), the scribe recollects an experiment made by Erasistratus873 in order to reinforce the long argument by the Empirics about the existence of such emanations. Prior to Ricciardetto’s translation, the passage with the experiment was formerly versed into French by M. D. Grmek874. The experiment as such presents a double interest. First of all on a historiographical level: as much as Galen does not say a word about it, the experiment would fall into oblivion875 in medical history until the discovery of the *Londiniensis*. Secondly, if we call it an ‘experiment’ it is because the procedure of the experiment described in the papyrus meets all the requirements to be taken in that sense876.

The scribe has heretofore expounded different types of arguments on the basis of different “degrees of experience”, these ranging from forms of popular lore to others of a certain experimental complexity877. From *Anon. Lond.* we learn that to give an account of his “emanationist” theory Erasistratus proposed the periodical weighing of a bird or another similar animal with its excrements under controlled conditions. By doing so Erasistratus introduced some of the most important epistemological assumptions in medical science nowadays: that biomedical phenomena must be measurable, in other words, the outcomes obtained in Biomedicine have a stronger possibility after experimental procedure. This amounts to saying that biomedical phenomena are liable to be considered in light of the methodology that governs the so-called Experimental Sciences878. Hence in Erasistratus’s experiment one finds first a hypothesis (one aims to test the feasibility of a proposition, e.g., emanations take place from animals), and then a particular artificial scenery is created for that purpose (the choice of an animal, the choice of a vessel or pot where the bird will remain, the prohibition of feeding it etc.). Although the experiment is in fact intended to demonstrate that something is always flowing away from the body, the point to be realized is that this assumption is reinforced by deciding not to feed the bird in the pot. This os

874 Cfr. Grmek (1997), pp. 71 – 77. Cfr. also von Staden (1975), pp. 180 – 186; Garofalo (1988), p. 86; Longrigg (1993), p. 215; Debru (1996), p. 185 n. 31; Byl (2011), p. 23. However, this is not the only evidence of Erasistratus’s experimental activity. By inserting a cannula into an artery Erasistratus is also credited with having done another experiment to determine whether pulsation was a property of the arterial tunics or the result of the *pneuma* being driven into the arteries by the beating of the heart.
875 Thus, when in the 17th century the Italian physician Santorio Sanctorius performed some similar experiments he apparently was unacquainted with Erasistratus’s.
877 Cols. XVI, 3 – 4; XXXII, 42 – XXXIII, 43.
because eating and drinking are what ultimately provide the matter\(^{879}\) that the body will eventually evacuate, since the emanations are one of the multiple possible forms of evacuation. Along the same lines, in the experiment the variables are also taken into account (the animal and the visible stools are systematically controlled and weighed), the differences in weight are periodically measured (one actually notes a diminution in the weight of the bird after the experiment), and from this one can draw compelling conclusions (i.e. it becomes plain that emanations take place).

From all these facts it follows that the enterprise transmitted in the papyrus can be called and considered an ‘experiment’ in its own right. Erasistratus’s test bears evidence of the passage from the visible to the invisible, and accounts for what is perceptible by senses to what is perceptible only by reason; yet, ultimately and at the end of the day the experiment on the bird in the pot is the first step in the demonstration that what has been tested and proved with an animal\(^{880}\) is likely to happen analogously on man.

A few words and clarifications are needed apropos of the term ἀποφορά and the physiological process related to it: insensible perspiration (occulta/insensibilis perspiratio)\(^{881}\). Besides sweat\(^{882}\), insensible perspiration was deemed the result of superfluous substances inevitably formed in the body due to the fact that not all food taken in is completely assimilated, a perspiration in virtue of which the body was said to become purified. This hygienic view is doubtlessly bound to the ancient theory of the balance between physical activity and alimentation\(^{883}\), and on the other hand, to a particular view of body wherein the body is considered an open entity exposed to the effect and agency of the air\(^{884}\). Neither produced in the intestines nor eliminated through any of the conventional ways (stools, urines etc.), insensible perspiration was furthermore regarded as a genuine kind of residual. Therefore, it was believed that it was formed in all the parts of the body.

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\(^{879}\) It must be borne in mind that Erasistratus posited two main material principles in the body: air and blood.

\(^{880}\) Grmek (1997), p. 78.

\(^{881}\) The idea of the continuous exchange of matter between organism and its environment can be found to some extent in Heraclitus, Anaxagoras, and Democritus. Horne (1963), p. 323. The theory of sweat (sudor) and invisible perspiration was formulated and settled in Aristotle’s time, and it became a kind of appendix to medical physiological theories. Cfr. Debru (1996), p. 193. The hypothesis of insensible perspiration was an issue often discussed by Hellenistic physicians. Grmek (1997), p. 77.

\(^{882}\) The purported origin of sweat varies from author to author. Thus, whilst some maintained that sweat originated from the separation of the fluid part of blood, others from the residuals of food, or even from the liquefaction of the bodily fluids. Debru (1996), p. 187.

\(^{883}\) Cfr. col. IX, 20 – 36 apropos of Herodicus. The author of Regime I recognises that such correct balance depends on each individual; hence he claims that one might have a complete and exact knowledge of health for men if it were possible to discover the μέτρον of food and the ἀριθμός of exercise for each individual. Cfr. Hippocrates Vict. I 2 [VI p. 470, 14 – 17 Li.]; Lloyd (1968), p. 75 n. 17.

from the juices that nourish the body\textsuperscript{885}. Such invisible perspiration must be distinguished from the “experatory” phase of the cutaneous or poral respiration (\textit{διαπνοη})\textsuperscript{886} that takes place throughout the body — as can be found for instance in Empedocles, and especially, in Philistion of Locris\textsuperscript{887}. Thus, whereas poral respiration\textsuperscript{888} (as with oral) serves to refrigerate and keep the body in thermal balance, invisible perspiration is a way of evacuating residuals produced during the digestion process, this it is mainly related to nutrition\textsuperscript{889}. The reasons for the confusion between poral respiration and perspiration are several, but they could be reduced to three: both are produced throughout the body, both take place through the skin, and both are produced constantly from birth to death. By way of contrast, the differences between poral respiration and invisible perspiration are at the level of the quality (heat in the body), quantity (residual matter in the body), and finality or nature of what is excreted (warm air or the excess of unprocessed food)\textsuperscript{890}.

XXXIII, 52 – XXXIV, 2: this passage was provisionally edited, translated into Italian, and commented on by D. Manetti in one of her contributions\textsuperscript{891} prior to the full edition of the \textit{Londiniensis} in 2011.

XXXIII, 53 – XXXIV, 1: οἳ τε γ(ἀρ) πόντες ἄρωματα|καὶ οἳ σκορδοφαγήκαντες ὁμοίαν ἐχουσι|τὲς| διὰ τ(ῶν) ἵδρωτων κενούμενον τοῖς π(ρος)ενη|νεγαμένος;: That those who have consumed food with strong flavours or smells give evacuations (through their sweat) that resemble what they have taken in is something that can be found in the Hippocratic collection\textsuperscript{892}.

\textsuperscript{886} The former definition of this term can be found in Pseudo - Galen \textit{Def. med}. CIX [XIX p. 375 K.].
\textsuperscript{887} Col. XX, 25 – 50. In the description dealing with the respiration process at Plato’s \textit{Ti}. 79c 5 – d 6 Timaeus suggests that air enters and leaves the body not only through the nostrils and mouth, but also through imperceptible pores all over the skin, an idea that Plato might have taken from Philistion (or from Empedocles). Cfr. infra ch. V § 3.
\textsuperscript{888} Cfr. e.g. col. XVIII, 21 – 28.
\textsuperscript{889} A. Debru assigns this distinction to Galen, e.g. \textit{De atra bile} II [V p. 107 K.]; \textit{De san. tuenda} I 10 [VI p. 53 K.]; \textit{Meth. med.} XIV [X pp. 950, 968, 995 K.]; but E. T. Renbourn seems not to attribute this fundamental difference to the physician of Pergamon: « Although the early physicians wrote a great deal on sweat its relationship to insensible perspiration was, as might be expected, far from clear; and this relationship was to remain obscure to almost recent times ». Cfr. Renbourn (1960), p. 136. The distinction could have its roots in Erasistratus (cfr. e.g. col. XXII, 49 – 52) but the main argument for this can be found in cols. XXXIII, 52 – XXXIV, 6. The details recounted in this latter passage indicate that the distinct causes and divergent effects attributed to respiration and digestion were known and operative when the \textit{Anon. Lond}. was written, so that the distinction between poral respiration and perspiration is presumably prior to Galen.
\textsuperscript{890} Debru (1996), p. 186.
\textsuperscript{891} Manetti (2003), pp. 343 – 344: (« Si utilizza nell’argomento anche un esempio tratto dell’uomo; infatti quando si bevono sostanze profumate o si mangia dell’aglio, si ha poi un sudore che ha le stesse caratteristiche di ciò che si è ingerito, perché appunto c’è stata una \textit{apophora} del cibo in modo osservabile con il ragionamento »).
\textsuperscript{892} E.g. Hippocrates \textit{Morb}. IV 56 [VII p. 608 Li.].
Column XXXIV

Description

A number of decipherments in col. XXXIV were first suggested by D. Manetti in one of her contributions. In the first line, before «ὡς», there is a spatium vacuum that is neither signalled in Diels’s nor in Manetti’s editions. In l. 9 the omission in «ἡμὶ<ετ>ἔφη» is due to P. reading «ἡμῇ». In l. 11 the verb «συναντιλαμβ(άνεςθαι)» is abbreviated as «συναντιλαμβ¯». L. 31 brings up another case of dittography: «φ[ἔρεθ0]αί {φέρεθ0α}». According to A. Ricciardetto the first letter of this line should have started with ekthesis. In l. 39 after the term «αἴϲθηϲιϲ» the scribe expunged the expression «ουκαντιλαμβ¯», therefore «[ουκαντιλαμβ]». In l. 49 the participle «Τὰ — ὑπ(άρχοντα)» is abbreviated as «ὑπ». Ricciardetto states that the letter alpha in «Τὰ» is this time easily legible, so that perhaps the principal participle «ὑποπ�ττον» on which «Τὰ — ὑπ(άρχοντα)» depends should be modified (i.e. υποπιπττον<τα>).

Explanation

XXXIV, 6 – 20: this passage was provisionally edited, translated into Italian and commented on by Manetti in one of her contributions. It mainly consists in applying the logical figure of tollendo tollens to refute Asclepiades’ position on aromas and their qualities in the body. The structure of the argument is as follows. If aromas could conserve their qualities when they are inside our bodies we should be able to perceive them, but we cannot, and therefore aromas neither conserve nor maintain their qualities. As regards the passive participle «ἐξαιµατω[θέντα] in ll. 13 – 14, even though it does not constitute a hapax it is a very rare term, in fact only witnessed in Aristotle’s On Sleep and Waking, in Philo of Alexandria and in Galen.

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894 Manetti (2003), pp. 344 – 345: («Asclepiade tenta di rinovare l’argomento: le sostanze aromatiche, dice, e l’aglio perdono le loro qualità entrando nella nostra costituzione; se infatti conservassero le loro qualità all’interno della nostra costituzione, sarebbe necessario che anche noi le percepissimo e fossimo consapevoli delle qualità mentre essa passa attraverso tutto quanto il corpo. Sostanze del genere una volta assunte e trasformate in sangue, si distribuiscono ad ogni parte del corpo [e anche] alle narici. […] Ma questo non avia, infatti non percepiamo le qualità con le narici… »).
895 Aristotle Somn. Vig. III 456b 4.
XXXIV, 42: Ἡμεῖς δὲ φ(αμεν): by expressing himself in the first person plural, the scribe manifests his own opinions while dissenting from Asclepiades.

XXXIV, 44 – 49: ὅν γ(ι[άρ]) τρόπο[ψ] τὸ πεσεόμε[νον ἐν οἰκείῳ τόπῳ δεί (καὶ οὴρ) Ἰνα πέση<ται>]
καὶ [δ]γ τρόπον τὸ ἔξαματούμενον δεὶ ἐν οἰκείῳ τόπῳ γενέσθαι εἰς τὸ ἔξαματοθήκην, θ(υτω) καὶ τὸ ὁδόμουμεν ἐν οἰκείῳ τόπῳ δεί (καὶ οὴρ) εἰς τὸ ὀφθερηθήκην.

It is a good example of the so-called οἰκείος τόπος theory. In accordance with a teleological thinking pattern, the scribe presumes that there is a goal in nature.

XXXIX, 53: Λέγουσι: the verb in the third person plural again raises the issue of its subject; is it “the ancient philosophers”? The Empirics above in col. XXXI, 26? It looks that the presumed subject here cannot be equated to Asclepiades or Herophilus as it happens in col. XXXVI, 48 – 50.

Column XXXV

Description

The writing on the right part of col. XXXV is very weak and faded, at many points practically illegible. In l. 4 the omission « ψυρθορη/τερα » is due to P. reads only « ψυτερα ». According to D. Manetti it is a mistake that owes to the scribe’s fast writing style. In the next line, the second ταυ in « θερμστητος » is written on a sigma, which seemingly suggests that in the first instance the scribe wrote « θερμστης ». In l. 14 the scribe’s shortcoming in the participle « ὅρε {ν} γόμενοι » perhaps owes to a visual error. The scribe corrected the participle, the letters « γο » are in fact rewritten onto what seems to be a letter μ. In l. 19 the omission « μον<ον> » constitutes another case of lapsus calami, for P. reads only « μον ». As regards l. 26 the sentence « ὅτε απ(εδείξαμεν) » is abbreviated in the interlinear space as « \wcap/ ». In l. 29 D. Manetti has seen in the expression « διὰ {ης} μήτρας » a possible case of dittography. In l. 30 above the expression « ἑαφέρνον » one might distinguish the addition « \iota\ ] + 4]ε/ ». In ll. 33 – 35 the expressions « τοιάς [ύπος]ταείς ἔχον(τα) » or « ἑπηνέφελά » were restituted on the basis of some

898 Manetti (1994), p. 56 n. 34.
passages in the Hippocratic collection dealing with the nature of the urine. In l. 46 the word « ἀποφορ[..] » is written in the interlinear space, therefore « \(\alphaποφορ[..]/\) ».

Explanation

XXXV, 19 – 29: the History of Science is full of cases accounting for the existence of different types of bodies before they were actually discovered (ἄδηλα), of bodies proven first by necessity and later by evidence. This particular subject is related to the extant tension between the epistemological categories of theoretical/observational (also “sayable”/visible). In this way, the expression « κατὰ τὸ λόγῳ θεωρητὸν » serves the scribe in the purpose of turning what is at a mere hypothetical level into truth. In the Anonymus papyrus the expression κατὰ τὸ λόγῳ θεωρητὸν has the meaning of ‘theoretical possibility of observation, viewed by reason, perceptible to reason’ etc. What is intended by such an expressions is the existence of entities and structures which cannot be observed through anatomical analysis but that constitute, in turn, conditio sine qua non for the full breadth of the theories that hold these “unobservable phenomena”. In Erasistratus’s physiological theory, the τριπλοκία is a netlike structure of this kind (only theoretically observable). The scribe uses the expression to shore up his conviction in the existence of continuous emanations and intromissions through invisible passages in the body. However, and perhaps constituting more proof of his empiricism, the scribe does not content himself in proving the existence of such passages at a mere theoretical level. Instead, he insists on the necessity of the visible character of such structures either empirically or, much more interesting, if they are not directly observable they must then be equally accountable by means of observable models or metaphorical referents. In sum, the scribe apparently takes some theories as fully proved if, and

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900 Giannantoni (1984), p. 59; Viano (1984), p. 333; Debru (1996), p. 264. The case of atoms in Democritus’s theory is a good example. While in the mind of the former Greek atomists atoms were theoretical concepts imperceptible to the senses (only perceived logically), for scientists today the atom is a “real entity” in its own right, which is subject to observation and can indeed be photographed in vacuum conditions. Cfr. Horne (1963), pp. 319 – 320.


904 Cfr. Vegetti (1995a), p. 462 n. 4. Hippocrates Vet. med. XXII [I p. 626, 17 – 18 Li.] reads as follows: « one should learn this (scil. the knowledge of the internal organs) from unenclosed objects that can be seen ». 

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only if, there is agreement between reason and sensibility, if the *quid* under consideration can be satisfactorily explained by virtue of the sensibility and the rational feasibility.\(^{905}\)

XXXV, 52: κ(ατὰ) τὴν φαντασίαν.\(^{906}\)

**Column XXXVI**

Description

Col. XXXVI is one of the longest columns in the papyrus as for the number of preserved lines. Col. XXXVI also presents many divergent readings between Manetti and Ricciardetto’s respective editions. According to H. Diels the integration « <παρὰ τὴν διαφοράν > » might be necessary after « (ἐκτ) » in l. 8. In P. the word « κ(ατ)<ε>ργαζίαν » in l. 10 is abbreviated as « κ’ργαζίαν ». In l. 18 the appellative « Ἐρασίτρ(ατείους) » is written by means of the abbreviation « Ἐραςιτρ− ». The omission « <γ(ἀρ)> » in l. 20 was suggested by D. Manetti. On the right margin of l. 29 the author added in an abridged form the verb « κατά(ἐπιστοι) » as « κατά/ ». Likewise below in l. 35 the verb « κ(ατα)κευάζ(υις) » is shortened to « κςκευαζ− ». In relation to the restitution « γίγον[ται πολλ]αί » in l. 42, since it clearly exceeds the available space it is likely that the scribe would have simplified two repeated consonants within the word, thus « γίγον[ται πολ−λα]αί ». In l. 44 the omission in « ποι<κί>λα » owes to the fact that in P. it is only written « ποιλα »; this being a type of mistake that D. Manetti ascribes to the scribe’s fast writing style.\(^{909}\) The expression in l. 47 « κ[αι θ]αυμ[α]τοι καὶ Ἡρ(όφιλος) καὶ Ἀσκληπιάδης » in P. reads solely as « κ[...]αυμ[α]τοι καὶ Ἡρ( ) καὶ Ἀσκληπιάδης », the restitution of the gaps was again suggested by Manetti by means of the discovery of a new textual witness concerning Herophilus.\(^{910}\) The presence of the physician of Chalcedon besides Asclepiades has revealed that the saying that

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\(^{907}\) Diels (1893a), p. 117; Ricciardetto (2016), p. XXIX.

\(^{908}\) Cfr. supra *Comment*. on col. XII.


\(^{910}\) Ricciardetto (2016), p. 171.
comes next is not by the Bithynian but by Herophilus. From l. 47 to l. 58 (and also 49 – 58) two vertical ink stains blur some letters on the right part of the column; in the space between cols. XXXVI – XXXVII a similar accidental ink stain can be observed. In l. 48 after « τοιαύτης » there is a sp. vac. that had not been signalled by Diels nor by Manetti. In l. 51 the scribe forgot to write the article τὸ before the expression « λόγῳ θεωρητὸν »; thereby κατὰ <τὸ> λόγῳ θεωρητὸν ». The same mistake is reproduced below in col. XXXVII, 6 – 7. In l. 52 the second half of the expression « δὲ ἀπεφέρετο καὶ διάφορα » is in the interlinear space, so that P. reads « δὲ ἀπεφέρετο \καὶ διάφορα/ ». In l. 51 the words « λόγῳ θεωρ(ητὸν) » are abbreviated on the right margin of the column as « λογ̃ω θεωρ̃/ ». Also in l. 56 and preceding the term « πρῶτον » there is an expunction: « [...]δη [...]γ » . The deciphering of the word « αἰονήματα » in l. 56 (faulty deciphering ἔπαινοντι κινητ(ον)†) owes to D. Leith911.

Explanation

XXXVI, 3 – 4: ἀπλοῦν τι καὶ]

μονοειδές912: as opposite to σύνθετος.

XXXVI, 18 – 19: these lines have been put in connection with Pseudo-Galen Medical Definitions913.


XXXVI, 35: κ(ατα)σκευάζο(υν)ιν.915

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915 Diels (1893a), p. 95: « Idem efficere ».

XXXVI, 54 – 55: διάφορα εἰκριθήκεται εἰς|ήμερον⁹¹⁷

**Column XXXVII**

**Description**

A high resolution picture of col. XXXVII can be consulted in paper format⁹¹⁸. Two vertical creases along the column have made some letters disappear in every line. In the third line the author forgot to write «νο» in «Οὐ μὸν» because in P. it is written «ομον». In l. 24 the omission «ἐπί» restitutes the snaky sign that D. Manetti was unable to decipher; the restitution has been made by seeing the expression as relying on some passages in Galen⁹¹⁹. In ll. 32 – 33 the participle «καὶ|ταλωμένας» was corrected by the scribe himself who in the first place wrote «καὶ|ταλελυκε» and therefore P. reads «καὶ|ταυ|θα». In ll. 34 – 35 the term «Κἀνταῦθα» reads «κα|υ|θα». Since the letter γ is clearly written on a former iota and the θ on a former letter tau it is likely that the scribe wrote «καὶ|τα». In l. 35 for the abbreviation «φ.» Manetti prefers the reading «φ(αϲιν)» to the singular «φημί». In l. 41 the expression «φιτόν ἀπομοζαὶ κφ[ι]]» is written in the interlinear space: «ἀφιτον ἀπομοζαὶ κφ[,].». In l. 43 the elimination «γι( )» constitutes another case of dittography in the expression «καὶ ὁ Δ[ημόκριτος » which is written in P. as «Γ[καιοδημοκριτο[ς]]». In relation to the faulty deciphering in l. 50 «† προκείμενον » the scribe wrote first «προκείμενον » and afterwards expunged each one of the letters of the participle, i.e. «[μενον] »; as a result the word in P. is incomprehensible.


⁹¹⁸ CPF (2002), plate 62.

⁹¹⁹ Galen De simpl. med. temp. VIII 15 [XII p. 122, 19 – 20 K.].
XXXVII, 1: διαλύει

XXXVII, 5: from here onwards the expression « λόγῳ θεωρητοί πόροι » becomes a stereotyped junction. The scribe affirms that on account of its porosity skin is liable to absorb the properties of certain drugs.

XXXVII, 13 – 14: ἐνεργεύεται παντός καθαρτίκης(όν) (εἶναι) | τὸ ἐλατήριον:

By the superlative ἐνεργεύεται the scribe underlines the most drastic purgative power of the elaterium. The elaterium (ἐλατήριον) is a very bitter extract of fruit of the wild cucumber (σίκυον ἄγριος) that was used as a purgative in the case of icterus. The squirting cucumber (Ecballium elaterium L.), whose purgative properties are well established, might have been used as an emmenagogue or an oxytocic as much for symbolic as for practically evaluated reasons: its capacity to eject its seeds forcefully made it an appropriate plant to use when wishing to expel an unwanted conception, an afterbirth, or a suppressed menstrual period. As regards the recommended posology of the elaterium, in l. 17 the scribe emphasizes that due to the powerful effect of the elaterium half an obol (ἡ µιωβέλιον) is enough, that is, 0, 33 gr. Ancient Greek pharmacology developed a system of symbols in order to express the measures and the commonest substances employed in abridged form. Thus, for the drachma, amounting to 6 obols, the correspondent symbol was « < »; for one obol « - »; for two obols « = »; whereas for half an obol — as is the case for the elaterium — the symbol was « ∩ ».

920 Diels (1893a), p. 87: « De fomenti VI ».


922 Debru (1996), 199.

923 Diels (1893a), p. 93: « Purgamentum ».

924 After having been tested (probatum est), the extraordinary effectivity of a particular remedy or drug is noted in papyri as old as the Ebers (1534 BC). In the Greek world, Galen tends to stress the effectiveness of a substance by means of verbal forms like χράοιαι or ἐπιτετέυγαμον. Cfr. Andorlini (2006), pp. 143 – 144.


928 Since 2 obols amount to 1, 33 gr. The natural substances regularly used in the composition of drugs were expressed in the genitive (as is in the Anonymous Londiniensis) and were also abbreviated: καδίας stood for zinc, κόμεος for Arabic gum, ὕδατος and so forth. Cfr. Andorlini (2006), pp. 150 n. 17, 160, 162, 166; Ricciardetto (2014), p. LIII.
In the Corpus Hippocraticum the hellebore is indicated as a purgative for abdominal pain and pains in the loins, but it was mostly prescribed as the best remedy against madness. It was also used by Herophilus (330 – 250 BC). In accordance with one of the main principles in the medical practice (ὡφελέειν, ἡ μὴ βλάπτειν; primum non nocere), the majority of the drugs and therapeutical treatments used by ancient physicians were not harmful nor could they worsen the state of the ailing patient by means of their direct effects. As for hellebore, one of the strongest drugs administered by the Hippocratic physicians, only the right indication and doses made the difference between a beneficial therapy and a powerful venom — hence the double meaning (drug/poison) of the term φάρµακος in Greek. Command of the therapeutical usage of the hellebore was for the ancients an important step in the acquisition of the medical art. The indicated posology to administer should have posed some problems. It is from a Hippocrates’ relative of the 5th century BC, the physician and historian Ctesias of Cnidos, that we know that the right mixture, quantity, and measurement in which hellebore had to be administered were all still ignored at his father and grandfather’s time; so that the prescription of hellebore entailed a real peril for the patient. Ctesias remarks nevertheless that in his own days all the necessary knowledge concerning hellebore had fortunately been fixed and achieved.

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929 Cfr. infra ch. I § 3. 2. 1 n. 53.
930 Hippocrates Coac. II 16 (304) [V p. 650, 15 – 17 Li.].
935 Cfr. infra ch. I § 3. 2. 1.
936 Cfr. infra ch. I § 3. 2. 5.

It is likely that the relationship between the hellebore and the menstruation could have been drawn from the Hippocratic treatise Diseases of Women, where hellebore is often mentioned as an ingredient for the composition of drugs; yet in such a pseudo-Hippocratic treatise the variety which is mentioned is the black, generally mixed either with water or sweet wine.

XXXVII, 32 – 46: the passage was edited, translated into Italian938, and commented on by D. Manetti939. The same anecdote on Democritus was also recollected by Diogenes Laertiuss940. L. 32 « εἰλαφ[με]νοι »941; l. 34 « θέμενοι »942; l. 41 « φ(αιν), »943; l. 42 « κατα[ ± 7 ]ιττιττο »944.

Apparently against Aristotle945, it is on account of the existence of pores in our flesh that the scribe of the Londiniensis papyrus judges the tale featured by Democritus plausible. The anecdote is staged during the Thesmophoria festival. The atomist philosopher Democritus of Abdera (5th century BC) was about to die from starvation after having no food for four days, but Democritus is believed to have recovered his strength just by smelling the vapors rising from some hot loaves of bread946 that he ordered. The perusal of the Aristotelian description of the bodies capable or liable of emitting exhalations947 might lead to the conclusion that even Aristotle could have considered the tale recounted in the Anonymus papyrus as possible. According to Aristotle only those bodies

937 scil. « ἁγωγὸς τῶν καταμυγηνίων ».


945 According to Aristotle, among the Pythagoreans there were some who mistakenly believed that some animals were able to be nourished by smells. Sens. V 445a 17 – 18, 27 – 29. At Resp. VI 473a 1 – 2 Aristotle argues that respiration cannot be for the sake of nourishment.

946 Cfr. col. XXXVIII, 19 – 22.

containing humidity can actually emit exhalations, but when acted upon by the action of the heat such humidity does not evaporate separately from the body itself, but rather it seems that there is simply a change of physical state; so that Aristotle drew a distinction between evaporation and exhalation.

XXXVII, 47: « διεξαρκ. [ ... ] εἴποιμ(εν) » as regards the verb διεξαρκεῖν (to be enough, to suffice) A. Ricciardetto\(^948\) has signalled that besides the Anonymus this verb is solely attested in De mutatione nominum and De specialibus legibus by Philo of Alexandria.

XXXVII, 51: τὸ κατόρειον\(^949\)

**Column XXXVIII**

Description

A singular trait in col. XXXVIII is, compared with the preceding columns, the great number of abbreviations and omissions; in a way it is as if the scribe were at this point in a hurry and did not pay much attention to his writing. In ll. 3 – 4 the expression « {π(ρος)} », |Λλ(λά) » reads as « {π} [καταστασσονται] τοιοίς ομοίας ». The scribe wanted to delete the four former words in the sentence but he forgot to do it with the first (hence the elimination {π(ρος)}); the next three words are crossed out by a horizontal trace of ink. In the fourth line also the sentence « ὡςπερ εἰπον » figures as an addition on the right margin « \(\omegaςπερ\) εἰπον/ ». The first letter in l. 16 begins with ekthesis. The elimination « {τ} αἰ » in l. 20 owes to the fact that the scribe firstly wrote « τῷ » and transformed the delta into an alpha to get the article « αἰ » but he forgot to cancel the first iota. In l. 38 the ending in the word « μ(ἐν)<τὸι> » is omitted. In l. 52 the substantive « πόροι » is added in the right margin, thereby « ποροῖ ». The ending of ll. 57 – 59 is lost because at this point the papyrus is mutilated. The word « ὁμορθήματι » was deciphered by D. Leith. D. Manetti is of the opinion that after l. 59 there had to be one or two more lines. It should be also assumed that the name « Ἀσκληπιάδης » was written in l. 60 because of the verb π(ρος)χρῶντα, in the plural, and the fact that in P. ‘Asclepiades’ is often mentioned beside ‘Alexander’\(^950\).

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\(^948\) Ricciardetto (2016), p. 175.

\(^949\) Liddell - Scott (2006), p. 882. It was a drug that was made from the extraction of a substance present in the genital organs of certain rodents. Cfr. infra ch. I § 7. 1 n. 146.

\(^950\) Cfr. col. XXXIX, 1.
Explanation

XXXVIII, 7: Γελοῖος δ᾽ (ἐκτίν) ὁνήπ.\(^{951}\)

XXXVIII, 10: ὁ τύλμος\(^{952}\)

XXXVIII, 15: τοῦ τε πνεύματος\(^{953}\) καὶ τῆς θερμότητος.\(^{954}\)

XXXVIII, 16: καὶ τ(ῶν) ὁμοίως.\(^{954}\)

XXXVIII, 19: π(ρος)ανακύπτουσιν.\(^{955}\): this is a very rare term.

XXXVIII, 35 – 49: the situation described in the papyrus resembles a passage in the Ancient Medicine\(^{956}\) in which it is recounted that if a man in health cools his body in winter, the more he cools the more he warms up than before when he puts his clothes on or enters his shelter. Contrariwise, if he warms up his body he will feel far colder even dressing in the same clothes or staying in the same room. L. 42 πυκνοῦσε.\(^{957}\)

XXXVIII, 41 – 47: according to P. Podolak this could be another point in common with the Methodist school of medicine.\(^{958}\) L. 47 ἰρασμένοι.\(^{959}\)

\(^{951}\) Withington (1929), p. 186 pulls out from this argument to argue for the scribe’s independent views, in the sense that the opinion of the scribe is at this point barely ascribable to a particular medical school. Cfr. infra ch. I § 2 n. 36.


\(^{955}\) Hippocrates Vét. med. XVI [I pp. 608, 6 – 610, 9 Li.].


\(^{958}\) Diels (1893a), p. 84: « Poris laxatis ».
XXXVIII, 50 – 51: εἰςκρίνεται τι ἀπὸ τοῦ ἄέρος εἰς ἡµᾶς.\(^{960}\) the claim for the existence of passages in the body at a theoretical level (vias esse latentes) was in M. Wellmann’s eyes an indication for the scribe’s Methodist slant\(^{961}\).

XXXVIII, 53: διὲ 

The meaning of the passage is not easy to assess. On the one hand the adjective γελοῖον seems to indicate the refusal of the existence of pores but later below, in col. XXXIX, 30 – 32, the scribe affirms in fact that one must take the existence of such pores for granted (seemingly in agreement with the extensive argument he has been expounding heretofore). The lacunae in between the two references do not permit us to make definitely clear whether the author of the Londiniensis is in fact giving his own opinion.

\section*{Column XXXIX}

\section*{Description}

The last column in the papyrus presents a vertical fracture at the level of the first letter in each line in respect to the rest of the column, which is why it leans a bit towards the right. The last κόλληµα of Anon. Lond. is visibly smaller than the rest, in fact the juncture band by which it is united to the other is inside the column. In l. 21 the verb « µελές ταῦτα »\(^{963}\) was more accurately deciphered as « µεµηχανηµένης » by D. Leith. In l. 29 the resolution of the abbreviation for « δικνούµεν(ης) » (i.e. δικνοµεν’ ) only occurs — by mistake — on this concrete occasion, as for that form one should expect « δικνοµένων(ων) » instead. The restitution in l. 24 was made by H. Diels on the grounds of some passages in History of Animals\(^{964}\). In l. 28 after the word « µερῶν », which is in the interlinear space, the scribe canceled the word « σοµατ´», hence P. reads « µερῶν/ [σοµατ´] ». Doubtlessly the most evident trait in col. XXXIX is the forked paragraphos at the end.

\(^{960}\) A very similar argument can be found at Pseudo - Aristotle Pr. I 3, 859a 9 – 21.

\(^{961}\) Wellmann (1922), pp. 414 – 415 n. 2.


\(^{964}\) Aristotle HA II 1, 498b 8 – 9; 499a 14 – 16.
of the writing. This factor and the reduced dimension of the last κόλλημα, in a manner suggesting that it was trimmed, apparently point to the scribe’s full awareness of concluding his writing.

Explanation

XXXIX, 4: ἐπειδήπερ σώμα διὰ σώματος ὁ[ὑ] λέγουσι διέλθει: according to an anonymous scholiast on Galen’s De elementis ex Hippocratis sententia\(^{965}\) the statement in the Anon. Lond. owes to Asclepiades\(^ {966}\).

XXXIX, 5: Καὶ ἄλλως φ(αίνη)

P. Podolak takes this expression as an evident sign for his assumption that the Anonymus is a compilation\(^ {967}\). Yet, as has been said, the author of Anon. Lond. is certainly something more than a doxogapher or compiler, and in many places his personal intervention is recognisable. The final part of the text, examined in its general characteristics, shows fewer traces that can be described as an appropriation of the text by the scribe himself. It would seem that in this final part the author loosened control over his own material, limiting himself to collecting it, possibly with a view to re-elaborating at a later date with the usual deletions, marginal additions or other modifications. This suggests that the material in this part was transcribed more passively and thus was more faithful to its source. In short, the interruption halfway down l. 32\(^ {968}\) seems to be prepared by a sort of gradual fading of commitment\(^ {969}\).

XXXIX, 10 – 15: this passage was addressed by D. Leith\(^ {970}\) in his contribution devoted to enquiring on Asclepiades as a void theorist.

\(^{966}\) Leith (2012), p. 178 n. 36.
\(^{969}\) These are some of the conclusions which D. Manetti reaches after having argued for the incompleteness of the Londiniensis. Cfr. Manetti (2013), p. 177.
\(^{970}\) Leith (2012), pp. 174 – 175.
The Two Additional Notes on the Recto of the Papyrus

As regards the two writings on the verso of the papyrus (more particularly, in the middle of the papyrus scroll), the first addition is a supplement to ll. 46 – 47 in col. XXV and was written behind cols. XXIII – XXIV. The second addition supplements ll. 19 – 21 in col. XXIV and was written behind cols. XXII – XXIII. Both additions were written on the same κόλλημα where the medical prescription was penned.

In his former edition of the Anonymus, and somewhat coinciding with Manetti’s readings, A. Ricciardetto deciphered the last words in both additions as « τούτον ἔχω (μενα) » and « τ[..]χεθκειε(ς) » respectively. On the 3rd December 2015 A. Ricciardetto told me with enthusiasm about the new readings he found during his last autopsical exam of the papyrus in London. He could get make a much better decipherment of the last word in the second addition, thus, he could make « προενεχθείσα » from the initial « τ[..]χεθκειε(ς) » which unmistakably led him to reveal that the scribe had given a clear deictic, referential, or ostensive meaning to the word « προενεχθείσα » in col. XXIV, 20. This new reading cast much more light upon the addition, for now the sentence took on the following sense: « See inside (scil. of the papyrus) ‘προενεχθείσα’ ». After his realization Ricciardetto thought that perhaps the same could be applied to the first addition, and it was in this way that, analogously, he changed the original « τούτον ἔχω (μενα) » for a more accurate « τούτ(ον) ο(ὔτος) ἔχω (ντον) » which was an unmistakable reference to « Τοῦ]τον οὔτος ἔχωντ(ον) » in col. XXV, 46 – 47.

From a lexical point of view, J. Jouanna has signalled that the verb διαχωρέω — and its nominal form (διαχώρημα) — is typical of the Epidemics and kindred books in the Hippocratic collection which represent, in total, solely 30 per cent of the Corpus Hippocraticum. In addition to this fact, it turns out that in the classical period the term is only used in the Hippocratic writings.

972 Ricciardetto (2016) pp. 185 – 186. The second major addition can be found in the translation into German but not in the English translation.
976 Ricciardetto (2016), p. 66.
978 In the papyrus the demonstrative « Τοῦ]τον » is chopped in two by the interlinear addition \[β]τροφή (ἔστιν) ἐν τοίς ἐντέροις ἔξω βλέπει/. Cfr. critical apparatus to l. 46 in Manetti (2011a), p. 57.
979 Cfr. add I II. 4 – 5.
III Critical Chapters

The Opistographic Writings of
the Anonymus Londiniensis Papyrus

1. Introduction

The Anonymus Londiniensis is a Greek literary papyrus1 of medical content written at a certain point during the last quarter of the first century CE. The 39 preserved columns in the papyrus, containing an average of 49 lines (c. 1920 lines in total), turn the Anonymus Londiniensis into the longest papyrus of its kind to come down to us. The contents in the papyrus have been generally divided in three different sections. The first one, nosological, consists of a list of definitions of medical concepts about disease. The second section, etiological, recollects the opinions on the causation of disease held by 20 ancient authors, seven of them unattested elsewhere. The whole of the etiological theories reported in the second section neatly fall into two major criteria: one finds first expounded the opinions attributing the disease to the residues of the

1 P. Brit. Lond. inv. 137 = MP3 2339 or LDAB 3964.

2 Manetti (1994), p. 57. From a paleographical point of view, the way the scribe of Anon. Lond. writes the letter alpha tallies with the typology 16a established for documentary papyri. Cfr. Harrauer (2010), p. 146. Albeit this sole hint does not unmistakably mean that the Londiniensis papyrus was written at some point in the third quarter of the first century CE, this chronology has been confirmed by way of other comparative arguments. Dorandi (2016), p. 199. Thus, it has been adduced that the “main hand” on the recto of Anon. Lond. shares many points in common either with the first (m1) or the fourth hand (m4) distinguished in P. Lit. Lond. 108, Brit.Lib. inv. 131v = MP3 163 or LDAB 391; that is to say, the papyrus of the later 1st earlier 2nd century CE which transmits Aristotle’s Αθηναίων πολιτεία. Cfr. Manetti (1994), p. 48; Bastianini (1995), pp. 32 – 33; Cavallo (2008), pp. 57 – 58; Del Corso (2008), p. 17; Ricciardetto (2016), p. CXXVIII.


6 All the authors mentioned in the second section are contemporaries to Aristotle or lived before the 4th century BC. Cfr. Ricciardetto (2014), p. XXXII; (2016), p. LIX. For an almost coeval medical view (5th century BC) on the concept of ‘cause’ see Hippocrates Vet. med. XIX [1 pp. 616, 17 – 618, 1 Li.]. Cfr. supra Comment. on col. IV, 18 – 19.

food (περισσώματα)\(^8\); and, on the other hand, starting by a long paraphrase of the *Timaeus*\(^9\), the opinions of the authors who put the causation of disease down to the constitutive elements in the body (στοιχεία)\(^10\). In the third section\(^11\), physiological, the scribe addresses some issues concerning the distribution of the air and the nutrients in the body, this latter giving place to a discussion on the theory of the emanations.

Apart from this on the verso of the papyrus there are three more writings, which turns the *Anonymus Londiniensis* into an opistographic papyrus. This feature alone does not make it unique; for, although scarce, other opistographic papyri are recognised. What makes the difference is perhaps the fact that the different kinds of writing on the verso of the *Londiniensis* belong to three different hands, which is certainly much more infrequent if compared, overall, to what seems to be habitual procedure in later copies on codex. However it might be, the first of such opistographic writings consists of two notes that the scribe of the *Londiniensis* wrote on the verso in his aim to supplement the argument he was developing on the recto.

As to the other two aforementioned types of writing, the verso of the *Londiniensis* papyrus has preserved also the blurred and tiny traces of some words in a prescription. The nature of the contents transmitted on the recto of the papyrus fits certainly well with a writing of this genre, as a great number of medical papyri are featured with prescriptions. The literary papyri of medical content reveal an enormous variety of medical prescriptions, as in almost 350 of them some kind of prescription for a wide range of affections is transmitted\(^12\). This would do as sufficient argument when the time comes to explain the reason for the prescription on the verso of the *Londiniensis* papyrus. Yet, as we shall show, the explanation could be attributed to other possible causes. In the third place, on the verso of the *Anon. Lond.* there is also the rescript of an edict of the emperor Marcus Antonius. In the rescript are collected the grants bestowed to a body of (crowned) winners.

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8 Cols. IV, 20 – XIV, 11.

9 Cols. XIV, 12 – XVIII, 8. The contents in these columns are addressed below in ch. V.

10 Cols. XIV, 12 – XXI, 8?

11 Cols. XXI, 18 – XXXIX, 32. Cfr. Ricciardetto (2016), pp. XC VIII – CX IV. In the last section of the *Anon. Lond.*, the body and its functions are studied by means of a juxtaposition of Herophilus’s, Erasistratus’s, Asclepiades’, and Alexander Philalethes’ views. Cfr. Nutton (1990), p. 247. As J. Jouanna and A. Ricciardetto have remarked, if compared to the second, the third section brings about a significant change in the model of reference. The scribe introduces the arguments of physicians much more posterior to all the authors reviewed theretofore, and contends their ideas with a higher level of personal involvement. Jouanna (2016), p. 9; Ricciardetto (2016), p. XC IX.

in the frame of some kind of sacred games. This third opistographic writing opens a window to some little-known aspects related to the medical world in the Ephesus of the first centuries CE.

This first chapter is therefore intended to survey the *Londiniensis* from a rear view and give a summary report of the different hypotheses adduced to explain the reasons for these three opistographic writings. By means of arguments of papyrological, epigraphical, historical and comparative nature our aim is to contribute to deepen in which way they might be connected with “the main text” on the recto of the Londoner papyrus, for in unveiling the links there might be between the extant writings in the papyrus a greater appreciation of this outstanding document will be gained.

2. *The Two Additional Notes on the Verso of the Anonymus Londiniensis Papyrus*

In the first place, then, it is a matter of two additional notes supplementing an argument developed on the recto. Their respective translations have been given above, and in the commentary we have also ferreted out some details in both additions\(^\text{13}\). Since their link with the writing on the recto of the papyrus is plain there is no need of further insight in this respect: with no room for a doubt both notes were penned by the scribe of the writing on the recto.

For our present interest what really matters is that the presence of such additions has been taken in support of the thesis whereby the *Anon. Lond.* is believed to be a draft, a scholar exercise for strict personal use, or a hypomnematic writing\(^\text{14}\). Regardless of the subtle nuances in the meaning that each one of these considerations entails, they all point to a certain sense of incompleteness, a sketchy nature that can be actually banked by dint of other kind of arguments beside. Thus, for instance, apart from the two opistographic additions, the great number of corrections and marginal notes in the papyrus\(^\text{15}\) are also evidencing its incompleteness and provisory style\(^\text{16}\). By the same token, given that the expression « ὥς προϊόντος ἐπιδείξομ(ε) τοῦ λό(γου). » in col. VII, 37 — by which the scribe intends to show that the Hippocratic etiology does

\(^{13}\) Cfr. supra *Comment.* on Additions I and II.


\(^{15}\) Cfr. supra *Comment.* on cols. I, 16 – 39; IV, 26; V 28 – 29; VI 34 – 35; XVIII, 15; XIX, 35 – 36; XXVII, 30; XXXI, 43 etc.

not work in many cases — remains as an unfulfilled promise, it has prompted D. Manetti to reaffirm that such unkept intendment gives another clue for taking the Londiniensis as a hypomnematic writing. On the same argument, the majority of studies on the Anonymus stress the abrupt way in which the papyrus comes to an end as an evidence of its being a draft. D. Manetti is convinced of the incomplete of the papyrus. The Italian philologist adduces in this sense two kinds of reasons, technical and contextual. Manetti affirms that the presence of a diple obelismene beneath the last line in col. XXXIX, 32 is a trait that is never used to indicate the end of a book, and secondly, in Manetti’s opinion the last sentence in the Londiniensis papyrus is only resuming the last argument presented by the scribe, but not the whole text.

Concomitantly and in relation to these details, the two additions on the verso of the Anonymus Londiniensis doubtlessly reinforce the view of the papyrus as ‘autographic writing’. The attribution belongs again to D. Manetti and constitutes one of the main contributions to the understanding of the essence of the Londiniensis papyrus. By ‘autograph’ it is namely meant that

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17 Col. XXXIX, 29 – 32: « φ[ανερo]ν[όν] τούτον(όν) και τι(όν) τούτοις παρατηρηθανόν ὡς λόγοι θεωρητοί πόροι (εἰςίνι) ἐν ἡμίν—καὶ παντὶ ζώῳ. || », (« Therefore it is clear from this and such like evidence that there are passages apprehended by reason in us and in every animal »). Trans. Jones (1947), p. 147.

18 Cfr. Manetti (1986), pp. 58 – 59; (1990), pp. 219 – 220; (1994), pp. 47 – 58; (1996a), p. 298; (2013), pp. 159, 161, 177; Podolak (2010), p. 101. The majority of studies on the Anon. Lond. tends to stress the abrupt way with which the papyrus comes to an end as evidence of its incompleteness (i.e. the writing in the papyrus is a draft). Cfr. Manetti (1986), p. 59 n. 10; Dorandi (2016), p. 199. But the text on the recto of the Anonymus could not finish so abruptly as it could seem. Ricciardetto (2014), p. XXVII. M. Asper takes the content of the last three lines in the papyrus as the expression of the conviction by the author that the hypothesis he has been developing (i.e. we should assume the existence of pores in the body surface) is fully proved and has been argued enough. Asper (2007), p. 297. In considering Asper’s point, in the last sentence claiming for the existence of the pores we could in a way see also assumed the existence of constant emanations (being this the argument addressed in cols. XXX, 40 – XXXIV, 6). To such demonstration, it should be added that in cols. XXXVI, 43 – XXXVIII, 51 the scribe puts his effort into evincing that since such emanations exist, then all perceptible objects (also human body) are likewise capable to experience some kind of penetration (ἐκκρίσεις). Thereby, the last three lines of the writing could be summing up a good part of the third section of Anon. Lond. In Phdr. 267d Plato makes clear that the conclusion of a speech should remind the audience of the points of the subject that was discussed. Jouanna (2012c), p. 46. Contrariwise, on this point D. Manetti is convinced of the incompleteness of the papyrus. Manetti (1994), p. 52. Manetti brings into discussion some good reasons for that. For instance, in col. VII, 37 the scribe utterly expresses his aim of dealing with a topic further in the exposition, while such commitment is not fulfilled. Manetti (1990), p. 221; (1994), p. 56 n. 36; (1996a), p. 305. Moreover, the presence of several corrections, interlinear, and marginal additions, but above all, the marginal note « \`εξι\`ων βλέπει/ » in col. XXV, 47 seem to corroborate Manetti’s point of view. Cfr. supra Comment. on « The Two Additional Notes on the Recto of the Papyrus ». This notwithstanding, in the last sentence of the Anonymus it could be also understood “the existence of constant emanations”, therefore, col. XXXIX, 29 – 32 could well sum up the whole argument the scribe undertook in col. XXX, 40. The length of the papyrus (336,5 cm) matches with the normal for a complete scroll. Cfr. Manetti (1994), p. 56; Ricciardetto (2016), p. 179. Thereby, that the contents expounded along the Anonymus are disordered and incomplete is something debatable or, at least, a point that should not be taken for granted.


21 D. Manetti’s claim is as follows: « sulla valutazione [...] che il papiro rappresenta [...] come sembra più probabile un testo autografo, incompiuto, ma composto con un scopo preciso legato alla prassi scolastica ». CPF Aristoteles 37T, p. 347.
the scribe and the author of the *Anon. Lond.* were actually one and the same person; in view of this, furthermore, it is implicit that the contents preserved on the recto of the *Londiniensis* papyrus cannot merely amount to a copy. Autographic literary papyri are rather rare phenomena, since among the thousands of papyri catalogued up to-day only 20 can be classed as autographs.

In turn, in addition to the several proves of emendations by the scribe, M. Asper acknowledges the autographic character of the *Londiniensis* on the grounds of a special series of categories that he displays in order to tackle this concrete concern. Whether Asper coined these notions on purpose to be strictly applied to the *Londiniensis* or they are a matter of a wider heuristic paradigm in his views, in this particular Asper’s conceptual frame is in any case an input that certainly helps to clarify the issue. Moreover, to our mind the ‘Auktoriales Ich’ leading to such an autographic interpretation of the papyrus emerges in many other passages than those strictly signalled by Asper. In this way, the fragment in the *Anon. Lond.* introduced by « Ὡς δὲ αὐτὸ ἱπποκράτης λέγει… » manifests to some extent an autographical nature. Likewise, in col. XXIV, 50 – 54 the scribe of *Anon. Lond.* could be giving his own opinion about the way the food is assimilated, but the papyrus is at that point so damaged that it is admittedly difficult to give a concluding statement in this sense. Even perhaps more noteworthy, another passage in the *Londiniensis* manifesting traces of autography is to be found in col. XXVIII, 15 – 43 whereby,

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23 Our claim is thus wholly incompatible with I. Andorlini’s one: « rispetto alla copia dell’opera medica sul recto ». Andorlini (2010), p. 43. From col. XIII, 21 – 40 it is evinced that the scribe of *Anon. Lond.* did not merely bound himself to copy the work(s) he was consulting, rather he had no qualms about introducing his own opinions on some particular subjects. In taking this fragment into account, D. Manetti has observed that, though the majority of key terms featuring this fragment are specific of this passage, many of them are later extensively used in the physiological section. The explanation that the Italian philologist gives to this phenomenon is that the scribe re-elaborated the text *in scribendo*; so that the written materials the scribe was using were considered and manipulated to a different extent. Cfr. Manetti (2013), pp. 167 – 169.


25 In contrast with a ‘Integrative Wir’ or a ‘Anthropologischen Wir’, M. Asper sets out a ‘Auktoriales Ich’ which he uses to identify and to highlight those passages (e.g. cols. V, 17; XXIII, 26) where, to his mind, the scribe of the *Londiniensis* papyrus openly manifests as an author and gives his own personal opinion. Asper (2007), pp. 299 – 300. Cfr. also Debru (1999), pp. 458 – 460; and particularly Manetti (2013), pp. 159, 162, 169 – 171.


against the physician Herophilus, the scribe claims — by setting forth three different reasons — that the absorption of the nourishment is greater in the veins than in the arteries\textsuperscript{29}.

Having said this, there still remains another important question in relation to the two additions (and consequently also to the text on the recto); this being namely to do with giving a reliable picture of their author. According to the actual state of affairs it is likely that the identity of the author will remain always unknown. But, in view of the nature of the contents he expounds on the recto, the \textit{Anonymous Londiniensis} could be either the work of a learned Egyptian, maybe a teacher\textsuperscript{30} (of medicine), or a cultivated person who for the sake of his own education studied medical issues\textsuperscript{31}. Maybe the writing on the \textit{Londiniensis} papyrus is by an advanced student of

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{29} Jouanna (2016), pp. 10 – 11.
\item \textsuperscript{30} In this sense, the ordinals (A´, β´, γ´) that head each one of the points adduced by the scribe while arguing for the primacy of the veins as regards the distribution of the nourishment in the body (cols. XXVII – XXVIII) could reflect the typical \textit{modus operandi} of a teacher who was used to lecture or to give speeches in public. Diels (1893b), p. 414.
\end{itemize}
\end{footnotesize}
medicine, an erudite physician\textsuperscript{32} or a doctor cultivated in philosophy\textsuperscript{33}. Probably the latter option is the best. It seems reasonably that the author of Anon. Lond. was a doctor — or at least someone who regarded himself as a doctor\textsuperscript{34} — somewhat bent on a certain Empiricism\textsuperscript{35}, and furthermore, fully conscious of the boundaries and the object of his discipline. But above all, the scribe of the Londiniensis papyrus shows really sui generis in his views, being punctilious to the extreme as he

\textsuperscript{32} The traces of a medical prescription on the verso of the Anonymus papyrus led H. Diels to suppose that the Londiniensis could have been part of the library of some physician. Diels (1893b), p. 412. The cursive ductus in the Anon. Lond. belongs to someone evidently skilful at writing; the contents in the papyrus seem, in addition, the work of a vir doctus, of someone who reflects while is writing and who changes his mind from time to time, and no doubt, who is familiar with a wide range of philosophical and medical tenets. Manetti (1986), p. 59; (2011a, p. xii; Ricciardetto (2013), p. 82. However, H. Diels found several reasons, as W. H. S. Jones later, to disregard the value of the author of the writing. Thus, from the expression « librum non artificem fuisse libros mercede scribere consuevim, sed hominem mediocrer scrump, qui exemplar sive situ sive tritus corruptum in usu privatum describeret », it follows that Diels deemed the author of Anon. Lond. rather as a mediocre student. Diels (1893a), p. X. To this criticism Diels added two further arguments against the scribe’s level of literacy: the misusage of the term \textit{λόγωι} in col. XV, 15 – 17 is « caput et ventrem confundere ». Diels (1893a), p. 90; (1893b), p. 411; (1893a), p. XV respectively. Diels objected also to the use of the term \textit{γατερι} in col. XVI, 3, for, in his opinion, had the scribe of the Londiniensis been a doctor then he would have used the term \textit{κοιλία}: « Ipse scriptor medicus utitur vocabulo κοιλία ». Diels (1893a), p. 86.

\textsuperscript{33} According to the standard curriculum of the time the author of Anon. Lond. might have been acquainted with a wide variety of subjects, from literature, maths, and rhetoric to philosophy. Cfr. Drabkin (1944), p. 337. Arabic textual evidence neither supports nor contradicts the suggestion that medical students of Imperial period were required to study philosophy. Cfr. Roueché (1999), pp. 154, 156 – 158. Galen’s outstanding education, not applicable to the rest of his contemporary physicians, was absolutely imbued by the study of philosophy. In That the Best Doctor is also a Philosopher Galen is committed to nail down the convenience of philosophical knowledge in the practice of medicine. From the perusal of this brief writing, one can draw almost two different conclusions: the first is that to Galen philosophy is namely bound and reduced to Logic, a discipline that plays an ancillary role in regard to medicine. Jouanna (2012i), p. 333. The second is that Galen’s main interest in the principles of Logic lies in its helpfulness so far as the method of division is concerned. The procedure based on διάτριβα is believed to play a primordial role when it comes to the classification and the distinction of different diseases in accordance with their respective genres and species. Galen believes that once an illness has been formally identified and defined (\textit{scil.} known) by means of logical principles, the physician is then in a better position, or more unlikely to fail, to prescribe right cures and remedies. Galen \textit{Quod opt. med.} [I pp. 53, 1 – 63, 4 K.]. In the eyes of Galen, thereby, philosophical knowledge is necessary for the right practice of medical art. Considering the several references to philosophers and to philosophical doctrines in the Londiniensis papyrus, that could have been the case of its author.

\textsuperscript{34} Col. XXI, 15 – 17: « Καὶ περὶ μὲν (ἐν) ψηφιᾷ\textsuperscript{[\`δηλοις]} ἀγ(α)βάλλομαι[ν· ἡμῖν δὲ] τοῦ σώματος μὲν ἐπὶ \[μᾶλλον] περὶ τοῦτο —[καὶ] δὲ[ξι] ἡ ἱατρική [ν] », (« I leave the discussion of the soul to others; for we must pay attention to the body, since medicine is chiefly concerned herewith »). Trans. Jones (1947), p. 83. Col. XXI, 15 – 17 is in fact the passage on which J. Jouanna focuses when he claims that: « la raison pour laquelle il refuse de se livrer à l’étude de l’âme pour se consacrer à l’étude du corps […] nous livre un renseignement décisif sur l’auteur […] Cela implique donc que l’auteur n’est pas un philosophe, mais un médecin, bien qu’il n’ignore pas la philosophie ». Jouanna (2016), pp. 8 – 9.

\textsuperscript{35} Col. XXI, 21 – 26: « καθὼς καὶ Ἡρόφιλος ἐπισημειώθησα λέγων φήμην ἡμῶν, καὶ εἰ μὴ \( \text{καθὼς} \) πρῶτο », \( \text{καθὼς} \) μὲν γὰρ \( \text{Ερασίστρατος καὶ πόρφος τοῦ ἱατρικοῦ καλόν καὶ προήλθε} \) ὑπεξαίρον γάρ τὰ πρῶτα σώματα λόγων \( \text{θεωρεῖν} \) εἶναι, \( (\text{καθὼς} \) τὰ πρότερα \( \text{παρατητήρια} \) \( \text{εἰσι} \) αὐτοῦ », \( (\text{καθὼς} \) the terminology of Herophilus ‘Let those things be called primary that appear to be primary, even though they are not really so’. For Erasistratus went far beyond the medical rule when he supposed that the primary bodies are observed by reason »,). Trans. Jones (1947), p. 83. Cfr. supra Comment. on col. XXI, 21 – 23. It is apparent in this quotation — featured with the verb \( \text{παρατητήρια} \) in 1. 9 (a hapax in the papyrus) — that the scribe is against the “deviations” of an excessive rationalism. Jouanna (2016), pp. 9 – 10. In addition to this remark, in col. XXVII, 21 – 22 the scribe of Anon. Lond. wrote: « \( \text{Καὶ} \) τὰ\[\text{[ν]}\]τοῦ ἱατρικοῦ ἡμῶν ἡμῶν \( \text{ἔργο} \) \( \text{εἰσι} \) αὐτοῦ », \( (\text{as is shown when people are dead} \) [Trans. Jones (1947), p. 107], which seemingly drops the ubest of hints that the scribe could have examined corpses. We shall not enter here into discussing about whether autopsies were practised in Imperial period.
takes issue with almost all the authorities and the physicians he quotes, from Hippocrates to Alexander Philalethes\textsuperscript{36}; manifesting with it a certain level of doctrinal independence.

3. The Medical Prescription on the Verso of the Anonymus Londiniensis Papyrus

It should be borne in mind in the first place the partial nature of the pharmacopoeia in the whole of the medical art in Antiquity. Although in the past it was conceived as constituted of multiple and variated parts\textsuperscript{37}, what is known as \textit{θεραπεία} embraced the appliance of the procedures, the skills, the treatments, the techniques, the medicines, and the bedside manners suiting whatever disease when it was clearly manifested in the body of the bedridden; that is to say, once the body’s natural balance was so harmfully disrupted that any kind of hygienic habit could overcome the disease undergone by the patient. In few words, the \textit{θεραπεία} was concerned to modify a faulty condition and had to do with the treatment of contracted diseases\textsuperscript{38}.

3.1 Description

The medical prescription in the \textit{Londiniensis} papyrus was written in the upper part on the back of cols. XXI – XXII\textsuperscript{39} on the recto by a hand which was neither that of the scribe of the

\textsuperscript{36}Cfr. Withington (1929), p. 186. As we will show in ch. V, if not the only, Plato is among the few personages in the \textit{Anon. Lond.} who is not the object of any criticism. Thence, by way of contrast, the scribe writes that Hippocrates ‘does not think in a sound way’ (col. VII, 23 – 24: \textit{« οὐχ \ ιδέα \ ινόφυμα \ τὸν \ οἰκείον \ τὴν \ ἐπανάνθησιν \»}), or that Herophilus ‘has not expounded all this properly’ (col. XXIX, 12 – 13: \textit{« Ός \ οἱκείος \ δὲ \ ὁ \ προκείμενος \ ἄνηρ \ ἐποίησεν \»}), or even that the followers of Erasistratus ‘show themselves to be poor scientists’ (col. XXVII, 25: \textit{« μοθηροί \ φαινόνται \ καὶ \ κυκτί \ τοῦτο \ οἱ \ [Ε]ρασίστρατος \ καὶ \ τοὺς \ τούτους \»}). The scribe considers indeed the explanations by Erasistratus and his followers as ‘too simple (or feeble)’ (col. XXVI, 49: \textit{« \ Ναοθρόν \ δ’ (ἔστι) \ λαῖ \ τοῦτο’}). The same expression is used against Alexander Philalethes in col. XXXVI, 3 (which Jones translated as ‘stupid reasoning’). Cfr. Jones (1947), p. 133. In another occasion, an argument ascribed to the Empirics is reviewed as ‘senseless and flattering’ (col. XXXI, 46 – 47: \textit{« μῶρὸς \ τε \ [καὶ \ ἰπτά] \ θητηκός \»}); not to say that Asclepiades (and his disciple Alexander) are pictured as a ‘ridiculous personage’ (col. XXXVIII, 7: \textit{« \ Γελοῖος \ δ’ (ἔστιν) \ ἄνηρ’}).

\textsuperscript{37}At the Praef. I 1 – 11 [Daremberg (1891), p. 2, 20 – 24] to the \textit{De medicina} Celsus states that at the time of Diocles, Praxagoras, Chrysippus, Herophilus, and Erasistratus medicine was conceived of as divided into Dietetics (\textit{διατητική}, \textit{victa}), Therapeutics — or Pharmacy (\textit{Φαρμακευτική}, \textit{medicamentis}), and Surgery (\textit{Χειρουργία, manu mederetur}). Steckerl (1958), p. 46; Grmek (1993), p. VII; Wilkins (2005), p. 121. This systematic division is to be found slightly modified according to the particular idiosyncrasy of each ancient medical sect. Thus, for instance, the Empirics divided the medical art into Semiotics, Therapeutics, and Hygiene. Cfr. Vegetti (1994), p. 1699. As regards Herophilus, he distinguished a part concerned with health, another with disease, and finally a neutral one. The physician Erasistratus conceived medical art as divided into a scientific part, which had to do with etiology and anatomo-physiology, and a stochastic part, mainly concerned with semiotics and therapeutics. Vegetti (1993), p. 75.

\textsuperscript{38}Galen \textit{De san. tuenda.} I 1 [VI pp. 1, 1 – 2, 1 K.].

\textsuperscript{39}Andorlini (2010), p. 39; Ricciardetto (2014), p. LIII.
Anonymous Londiniensis 40 (though almost coeval) 41 , nor that of the copyist of the rescript of Marcus Antonius also on the verso of the Londoner papyrus. The writing in the prescription is swift and straight, and slightly inclined forwards. As with the two additions by the scribe also on the verso of the Anonymous Londiniensis 42 , the prescription was penned turning laterally the folium with respect to the sense of the utilization of the writing on the recto 43 . The prescription was transcribed by H. Diels in his first edition of the papyrus 44 , and following that it was afterwards translated into German by the philologist H. Beckh in collaboration with the doctor F. Spät 45 . The prescription passed almost unnoticed since that time until 2010, when it was addressed by A. Ricciardetto in a panel held at the XXVIth International Papyrology Congress, Geneva; and reedited by I. Andorlini. In 2011 it was edited one more time by D. Manetti 46 and has been recently subject to two new editions, in 2014 and 2016 respectively, both by A. Ricciardetto 47 .

As such the prescription consists of four superimposed words, somewhat set in a column, which have been identified as four different natural substances of vegetal origin, all of them well-known in ancient pharmacopoeia. As in this case, the substances used in the composition of drugs were regularly expressed in the genitive case, and came often abbreviated 48 .

40 Although similar to the hand of the writing on the recto of the Anon. Lond., the traces of the prescription are doubtlessly by another hand which resembles the first hand (m1) of the four different hands that have been individualised in the scroll of the Αθηναίων πολιτεία. Cfr. Del Corso (2008), p. 37; Ricciardetto (2013), p. 80 n. 2; (2016), pp. CXIX – CXX. When the British Museum acquired the rolls of Aristotle’s Αθηναίων πολιτεία, these were part of a kind of private library or particular archive that contained other papyri akin to the Αθηναίων πολιτεία: P. Lond. I 131 [p. 166] and 131 16 [p. 189], Brit.Libr. inv. 131 16 = MP 3 1272) Isocrates, On peace; (P. Lit. Lond. 130, Brit.Libr. inv. 135 = MP 3 337) Demosthenes, Epistle III; (P. Lit. Lond. 134, Brit.Libr. inv. 132 = MP 3 1234) Hyperides, In Philippidem; (P. Lit. Lond. 165, Brit.Libr. inv. 137 = MP 3 2339) Anonymous Londiniensis; (P. Lit. Lond. 96, Brit.Libr. inv. 135 = MP 3 485) Herondas, Mimes. Cfr. Kenyon (1892), pp. 237 – 240; Del Corso (2008), pp. 33 – 34, 38, 46; Privitera (2011), p. 119; Ricciardetto (2012), pp. 43 – 44 n. 2; (2016), pp. IX – X. It was deemed that the pack of papyri constituted a certain unity as regards their content, that being one of the reasons for the whole deal ended up in London.

41 Andorlini (2010), p. 43.

42 In fact the two additions and the prescription were written on the same κόλλημα. Ricciardetto (2016), p. CXIX n. 388.

43 Andorlini (2010), p. 44.

44 It is there defined as « Praeceptum in postica iuxta fr. II ab aliena manu scriptum ». Diels (1893a), p. 76.


46 Along with the two additions to the text on the recto, in Manetti’s edition the prescription is placed in the so-called Fragmenta maiora. Manetti (2011a), pp. 95 – 96. In so doing D. Manetti, apparently along the same lines of H. Diels first, makes a mistake from a papyrological and a conceptual point of view, since neither the additions on the verso of the Londiniensis papyrus nor the prescription (nor the rescript of Marcus Antonius also on the verso) can be considered as fragments. Diels (1893a), p. 75.


3. 2 The Ingredients in the Prescription and their Qualities

Regarding the basilar elements described below, I. Andorlini has hypothesized that an “incipit-like line” could have preceded them, a former line no longer extant (due to the mutilation of the papyrus at this point, amounting to approximately 2 cm) in which Andorlini contends that one may read the term ἀλόηϲ."49

3. 2. 1 Scammony50

The *Convolvulus scammonia* L. is an evergreen climbing plant of the *Convolvulus* family — which grows spontaneously in Asia Minor and in the south-western Europe, whose dried roots yield a strong purgative and anthelmintic power. It was really hard to digest and usually harmful for the patient’s stomach (κακοστό µαχον). Attested in a wide array of prescriptions in the Hippocratic collection, the scammony was generally consumed as beverage or juice after having made an incision in the roots of the plant. Beside the elaterium and the hellebore (two other purgative plants), the scammony comes also mentioned in col. XXXVII on the recto of the *Londiniensis*.54

53 Cols. XXXVII, 17; XXXVII, 30. The herbaceous plant called ‘hellebore’ corresponds to two main types: the white one, *Veratrum album* L., belongs to the family of the Liliaceae, while the black variety, *Helleborus cyclophylus* Boiss., to the Ranuncolaceae (which in general includes herbs with high poisonous seeds). Though presenting a quite different aspect, the roots of both varieties have the same purgative quality, a fact that often led many to confuse them in ancient times. Cfr. Theophrastus *HP* IX 10, 1 – 4. The melanic type was the most used in medicine. Guardasole (1997), p. 231; Ricciardetto (2014), p. LV n. 403. In the Corpus Hippocraticum the term φάρµακον without an adjective designates in general an evacuant, firstly and foremost the hellebore. Cfr. Jouanna - Grmek (2000), p. 2 n. 2. Hippocrates *Epid*. V 2 [V p. 204, 8 Li.]. For the employment of hellebore as purgative against colics see *Anonymi medici* XV 3 (16) [Garofalo (1997), p. 106, 10 – 12]; or as a drastic remedy against the paralysis cfr. *Anonymi medici* XXI 3 (9) [Garofalo (1997), p. 128, 22 – 23].
54 Col. XXXVII, 19: « σκα[μ]ι[όνα] ». In the Προβλήματα φησικά, the Aristotelian book devoted to medical issues, this group of three plants (elaterium, hellebore, and scammony) are also mentioned altogether. Pseudo - Aristotle *Pr*. I 41, 864a 4 – 5.
3. 2. 2 Agaric\textsuperscript{55}

Though being a kind of mushroom\textsuperscript{56} whose growth owes to the putrefaction of the trunk of the oak tree and the conifers\textsuperscript{57}, the agaric was regarded by Dioscorides as a root (similar to the silphium\textsuperscript{58}) of which, he stated, there was a male and a female species\textsuperscript{59}. Among many other properties Dioscorides makes reference to the agaric as a purgative, recommending (due to its extreme bitter taste)\textsuperscript{60} the dose of 1 or 2 drachma mixed with some honied liquid. The agaric was also believed to be an effective remedy for the febrile spasms.

3. 2. 3 Bdellium\textsuperscript{61}

The bdellium is the smelly and smoky gummy resin produced by a shrub of the family of the \textit{Burseraceae} known either as Indian bdellium-tree or Mukul myrrh tree\textsuperscript{62}. In the wild the bdellium takes the form of big reddish or dark reddish spheroidal tears whose aroma resembles the myrrh. The bdellium had a wide geographical area of distribution, from north Africa and the region of Petra to the Arabic peninsula and northern India. It is in Celsus where the bdellium is most appreciated as a purgative\textsuperscript{63}. As a potion\textsuperscript{64} the bdellium was prescribed as abortive and against the bites of


\textsuperscript{56} Philum Basidiomycota appertaining to the family of Agaricaceae, this comprising c. 300 species of different measure, while some are suitable for human consume others are toxic.

\textsuperscript{57} The \textit{Fomes officinalis} Bres. belongs to the family of the \textit{Polyporaceae}. The agaricine, the active agent in this fungus, has tested antitropic properties. Andorlini (2010), pp. 41 – 42.

\textsuperscript{58} The silphium (ὀπὸς Κυρηναϊκός), also known as lasercipium, was a very used plant in Antiquity because of its purgative qualities. The silphium only grew in Cyrene (today Libya), and this endemic character brought it to extinction by the beginning of the common era. Diluted with vinegar and injected in the nostrils, silphium (or Cyrenaic juice) was prescribed to patients seized by cynic spasms. Administered as beverage it was as a remedy against the bulimia. Cfr. Anonymi medici XI 3 (2) [Garofalo (1997), p. 82, 23 – 24]; XXIII 3 (2) [Garofalo (1997), p. 132, 13 – 14]. In the 2\textsuperscript{nd} century BC the physician Heraclides of Tarentum prescribed silphium against lethargy and opisthotonos.


\textsuperscript{60} Dioscorides \textit{Mat. med.} III 1, 3 [Wellmann (1958b), p. 2, 9 – 10].


\textsuperscript{63} Celsus \textit{De medicina} V 5, 11 [Darembek (1891), p. 162, 11].

\textsuperscript{64} Galen \textit{De simpl. medicament. temp.} VI 6 [XI pp. 849, 18 – 850, 14 K.]; Dioscorides \textit{Mat. med.} I 67, 1 – 2 [Wellmann (1958a), pp. 60, 18 – 61, 14].
poisonous animals. Its purported diuretic properties made the bdellium a common remedy for renal calculus. It was likely used as expectorant, in emulsions, and applied to external poultices.

3. 2. 4 Arabic Gum

The Arabic gum is also a gluey substance (τὸ κόµµα) obtained from the Acacia arabica L. (in fact extracted from two species of sub-Saharan acacia: Acacia senegal and Acacia seyal). As for the majority of gums and resins of vegetal origin, it is spontaneously yielded by some plants in order to protect superficial damage. Through being a natural mixture of polysaccharids and glycoproteins the Arabic gum is absolutely comestible. It was exported from Egypt to the rest of the Roman world. The Arabic gum is a current ingredient in a great number of prescriptions as emollient or excipient (often diluted with water), but it was namely used for the composition of collyria. It is worth noting that on the right of this substance one can make out the traces of a symbol which could have indicated the exact dose to administer or to employ.

3. 2. 5 The Prescription: What Was It Good for?

We have only access to the remnant traces of the four words in the prescription, that is to say, only to a part of the apodosis. Since the former part (the conditional proposition or protasis) was not written, this detail prevents us from knowing the specific disease against which the ingredients were prescribed, as it is in this part where indications are currently found. This notwithstanding, by judging the nature and the qualities of the four individualized ingredients, as

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66 In Roman times it was often mixed with bdellium, the ingredient prescribed in the third line above. Bdellium was so expensive in the past that traders found out a way to make business by mixing it with Arabic gum.

67 Theophrastus HP IX 1, 3.


70 Greek pharmacology developed a system of symbols in order to indicate the measures and the commonest substances in abridged form. Riddle (1993), p. 113. The presumed symbol on the right of the term ‘Arabic gum’ could be either 3 ( ) or 4 ( ) obols. Ricciardetto (2014), p. 38. Though constituting a possible reading, I. Andorlini is reluctant to accept it uncritically, in fact Andorlini has noted that the symbol could well be the medial letter rho « ρ » in the purported expression ‘ῥῶ’ (i.e. to use, to apply), which is commonly found in medical papyri. There seem not to be any indication alike for the rest of the ingredients in the prescription. Andorlini (2010), p. 40 n. 5.

71 Andorlini (2006), pp. 146, 149 – 150. For a stereotyped module of an ancient Greek medical prescription see, for instance, Hippocrates Mêd. II 200 [VIII p. 382, 12 – 15 Li.] The therapeutical indication could have been introduced by a monogram made by superposing the two Greek letters pi and rho — which could stand for the preposition πρὸς (i.e. against). Andorlini (2006), p. 162.
well as in considering their inclusion in some later prescriptions, it is likely that the four lines on the verso of the Anon. Lond. could have corresponded to the substances to employ for the composition of a laxative or a purgative which, seemingly, had to be orally administered in format of swallowable tablets or pills (κατασκότια).

A further point should be made so far as to drugs that have the power of evacuating is concerned. The ancients distinguished up to five different kinds: downwards drugs or purgatives (cathartics), upwards drugs or emetics, diuretics or drugs that help urinary excretion, hydrotics or drugs which facilitate the sweating, and ptarmics or drugs which help to sneeze.

Enough has been said about the medical prescription; hereafter attention will be shifted to the analysis of the third hand individualised on the verso of the Anonymus Londiniensis, that in the rescript of the letter of Marcus Antonius.

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72 Galen Meth. med. V 14 [X p. 374, 10 – 12 K.] is the reference on which actually hinges such presumption; but there are other texts that have been taken into account: two prescriptions by Aëtius of Amida (5th – 6th century CE) in Libri medicinales III 101 [CMG VIII 1, p. 297, 12 – 19 Olivieri] and two prescriptions assigned to Paul of Aegina (7th century CE); the first in Θεραπεία τῶν ἐπὶ αἰματικοῦ γομῶ τρωματιζόμενων ΙΙΙ 78, 12 [CMG IX 1, p. 303, 6 – 10 Heiberg], and the second in Κατασκότια διὰ τοῦ ἀρμενικοῦ λίθου ἐπὶ ἀρθριτικῶν ὡς μάλαιτα διδόμενα VII 5, 14 [CMG IX 2 p. 283, 23 Heiberg]. Cfr. Ricciardetto (2016), pp. CXXII – CXXIV.


74 Marenghi (1965), pp. 61 – 63 n. 57. It is important to remember that humors tend to a particular direction though a particular passage. Cfr. e.g. Hippocrates Hum. VI [V p. 484, 18 – 19 Li.].

75 As regards evacuatives (purgatives) with a downward effect, one can consult Hippocrates Mul. II 127 [VIII pp. 272, 9 – 274, 9 Li.], or the contents in the medical papyrus P. Arztekammer 1 (220 – 150 BC), in which are contained many therapeutical indications of upwards and downwards evacuatives. Andorlini (2014), p. 221. This papyrus has been recently published in Two Hellenistic Medical Papyri of the Ärztekammer Nordrhein (P.AkNo 1 and 2) (Pap.Colon. XXXVIII) 1 – 2, in: I. Andorlini, R. W. Daniel (eds.), Paderborn 2016. I am thankful to A. Ricciardetto for his advice in this sense. For a general explanation of the adverbs ἄνω and κάτω when applied to purgatives see López Férez (1996), p. 383. It is worth remembering that the natural procedure before administering healing substances consisted in expelling the alien substances from the body by various purgative means, hence the variety of purgative substances and the importance they received in ancient medicine. Tarrant (1998), p. 234.

76 The first two types are in a way referred in col. XXXVII, 17 – 19 on the verso of the Londiniensis papyrus. There, the scribe describes how the bilious humour that the hellebore produces can be evacuated depending on its variety: « Ό μ(ἐγ) [οὖν] ἐξέλεξκορος χο(λ)όθη καθαίρειν, καὶ ὁ μ(ἐγ) λευκὸς [ὑπὸ κανεῖν ὄ δὲ μέλας κάτω. », (« Now hellebore clears away bilious matters; the white evacuates by vomiting the black by stool »). The same argument applies to scammony in ll. 25 – 26: « ὅ τε μ(ἐγ) ὅ δὲ κάτω, ὅ τε δὲ κάτω », (« — scil. scammony — purges sometimes by vomit and sometimes by stool »). Trans. Jones (1947), p. 139.

77 This category has its stem in the Greek word ἑρός (sudor, sweat), while the term ὑγρόν refers to the corporeal fluids which emanate as the result of a febrile state. Andorlini (2014), p. 223.

78 πταρμικά (or πταρμάς). Cfr. Guardasole (1997), p. 120. Introduced in the nostrils, ptarmics were in general applied to purge the head from the excess of humours. Hippocrates Epid. VII 112 [V p. 460, 8 Li.].
4. The Rescript of the Letter of Marcus Antonius on the Verso of the Anonymus Londiniensis Papyrus

4. Translation and Translation into English of the Letter of the Triumvir Marcus Antonius to the Province of Asia


« Marcus Antonius emperor, triumvir for the reestablishment of the affairs of the State, greets the community of Greeks of Asia. And in having been asked me first in Ephesus [by] my friend and trainer Marcus Antonius Artemidorus, along with the eponymous priest of the assembly of the winners of the sacred games — of the crowned winners arrived from all over the world — Charopinus of Ephesus, that the privileges previously accorded in assembly to remain them irrevocable, as well as the rest of honours and privileges which were requested me (exemption from military service, exemption from every public responsibility, exemption from hosting troops, the legal authority on truce while feasting, the right of asylum and the grant of having in sight the purple80); by my part I confer on you immediately with good-willing aim, for my friend Artemidorus and in favour of his eponymous priest, for the good and the honour of their [Ephesian] body. And, now, after having been requested again by Artemidorus to allow him to exhibit a bronze plaque and to inscribe on it the aforementioned privileges, I deem [opportune] in nothing to postpone the appointment with Artemidorus, [so that] I confer on him the grant of exhibiting the plaque that he requested [me]. And it is in regard to these subjects that I have addressed to you. »


80 The meaning of such privilege is not clear at all; it could have to do with the right to dress up and to exhibit in public with some specific clothing. Cugusi (1979b), p. 291: « hoc beneficium haud perspicuum est ».
4. 2 Description of the Rescript

The copy of the letter of Marcus Antonius to the Greeks of the province of Asia\(^1\) is at the rear of cols. VI – VII on the recto of the Anon. Lond. papyrus\(^2\). The orientation of the writing is upside-down if compared to the text on the recto. With the exception of a few letters near the end, the rescript has been preserved intact. The 33 lines of the copy are written in a single column (c. 18.5 x 10 cm) in a rather large semi-cursive hand, with the ductus tending slightly to the left. The writing of the script is elegant and attentive, the layout of the whole column seems to have been figured beforehand\(^3\). The copy of the letter has been subject to no less than eight different editions\(^4\). As regards the chronology, while the original script could be dated back either to 42-41 or to 33-32 BC\(^5\), by dint of paleographical comparison\(^6\) the copy of the answer of Marcus Antonius imperator to the second solicitude\(^7\) by Marcus Antonius Artemidorus barely could be earlier than the last quarter of the first century CE; yet, and most important for present purposes, the

\(^{1}\) SB I 4224. Some remaining fragments of the first four lines of the response of Marcus Antonius were conserved on a lapidary inscription in Tralles (I. Tralleis 105A, 2\(^{nd}\) and 3\(^{rd}\) century CE), where a festival in honor of Asclepius, the Great Asclepieia, was celebrated. The place of the discovery of the inscription was close to Men Karou, the sanctuary where it is deemed that the Herophilean medical school in Asia was established. Kenyon (1893), p. 477; Brandis (1897), p. 519; Ebert (1987), p. 41; Manetti (1994), p. 58; Ricciardetto (2012), pp. 46 – 47, 56 n. 69; (2014), p. LV n. 409.

\(^{2}\) Ricciardetto (2016), p. CXXVI.


\(^{5}\) Marcus Antonius sojourned almost twice in Ephesus, in 42-41 and in 33-32 BC, before the defeat in Actium. Cugusi (1979b), p. 289; Ebert (1987), p. 39; Manetti (1994), p. 57; Ricciardetto (2016), p. CXXVI. F. G. Kenyon believed that the original letter was written in 41 BC, whereas Brandis and Del Corso in 33. Cfr. Brandis (1897), pp. 517 – 518; Del Corso (2008), p. 44. The position that these two authors defended seems reasonable in considering that in ll. 11 – 12 the rescript makes allusion to some grants already conferred on that Ephesian association (allegedly in 42 – 41 BC). The point to realise is that the rescript of the edict on the verso of the Anonymus papyrus was copied almost 150 years after the promulgation of the edict.

\(^{6}\) Two papyri from the 1\(^{st}\) century CE have been proposed in this sense: P. Mich. III 148, pl. IV; P. Coll. Youtie I 19, pl. VIII. Cfr. Manetti (1994), p. 57.

rescript of the letter is certainly later than writing on the recto\textsuperscript{88} (constituting in fact its \textit{terminus ante quem})\textsuperscript{89}, and manifestly belongs to a different hand\textsuperscript{90}.

As to the content, the copy of the edict on the verso of the \textit{Anon. Lond.} belongs to a broad epistolary genre known as ‘official letters’\textsuperscript{91}. Whereas “in normal circumstances” the original is the piece liable to be copied\textsuperscript{92}, on this occasion the verso of the \textit{Anonymus} papyrus conveys the answer of Marcus Antonius to the demand of maintenance of the privileges\textsuperscript{93} previously conferred on the winners of some sacred games held at Ephesus. In short, the imperator first ratifies the privileges that had been once accorded, and afterwards allows his friend and trainer Marcus Antonius Artemidorus — on behalf of the priest Charopinus — to inscribe the aforesaid grants on a tablet of bronze which will eventually be hanged up in order to take effect, making it visible to all those concerned.

In the following subsection we should like to contribute to the diffusion of some of the interpretations given to the reason for the rescript of this edict on the verso of the \textit{Londiniensis} papyrus.

4. 3 The Inherited Views

The circulation of compilations of official letters — from Roman Egypt or from other parts of the Roman world — containing edicts and other dispositions by Emperors is well witnessed. Such compilations furnished those who stood a position in the administration with useful primary sources for the jurisprudence. Moreover, official letters by celebrities used to call learned people’s


\textsuperscript{90} Ricciardetto (2014), p. XVII.

\textsuperscript{91} For a general typology of Greek letters on papyrus one might consult Luiselli (2008), pp. 677 – 737. I am thankful to Dr. A. Ricciardetto for his advice in this particular matter. For a more detailed typology of letters of medical content see Langslow (2007), p. 213.

\textsuperscript{92} Ricciardetto (2016), p. CXXIX n. 416. Ideally, the preservation of a writing takes place by means of copies of the original document (i.e. the demand of the Ephesians addressed to Marcus Antonius) or not by those of the response the receptor may give.

attention and were thereby often read and transcribed\textsuperscript{94}. However, as early as the very start of the discussion, F. G. Kenyon wondered and considered it impossible to answer why a document written by Marcus Antonius after visiting Ephesus was reproduced on the verso of a scroll that transmitted such unalike contents\textsuperscript{95}, if compared, to those in the letter; not to say the reason for such a belated rescript in respect of the original. The question that Kenyon raised was absolutely pertinent: why was a letter concerning some privileges conceded to the winners in certain games celebrated in Ephesus copied on the verso of a papyrus of medical content written in Egypt\textsuperscript{96} 150 years later?

To our knowledge, three scholars have attempted to give a solution to the problem. Though perhaps not neatly manifested, to some extent each of these three proposals is built on different assumptions about the authorship of the Anon. Lond., the place where it is believed the papyrus was composed, or about the final intendment of the scroll. The three standpoints succinctly introduced hereafter present their pros and cons and are irreconcilable.

To begin with, J. Ebert has claimed that the transcription is owed to an Egyptian physician who bought the scroll during a journey he made in Asia (Ephesus), bearing it with him back to Egypt\textsuperscript{97}. According to Eber, therefore, the link between such an Egyptian doctor and the rescript is authorial whereas with the writing on the recto it is merely one of possession. Secondly, in Manetti’s view — concomitantly to her assumption whereby the writing on the recto of Anonymus papyrus could have been written in Asia Minor\textsuperscript{98} — the rescript should have been copied in a place where the dispositions in the letter could have taken some effect, for instance and presumably, in Ephesus. From that place the author of the Londiniensis papyrus brought it with him when he moved to Egypt.

\textsuperscript{94} Del Corso (2008), pp. 45 – 46.

\textsuperscript{95} Kenyon (1893), p. 476. All the more in considering the existence of technical letters (including medical ones). Langslow (2007), pp. 217, 223.

\textsuperscript{96} Cfr. supra § 1 n. 2; § 3, 1 n. 40. The similitudes observed between the ductus in the Londiniensis and the fourth hand (m\textsuperscript{4}) identified in cols. XXV – XXX of the \gamma scroll — the third of the 4 scrolls of the \Ἀθηναίων πολιτεία — have brought about more proofs for the Egyptian provenance of the Anon. Lond. Cfr. Manetti (1994), pp. 56 – 57; Marganne (2002), p. 367; Del Corso (2008), pp. 24 – 26, 43; Van der Eijk - Francis (2009), p. 224 n. 44. M. Wellmann noted in this sense that the plant quoted in col. VI, 22 — the water lettuce (\textit{Pistia stratiotes}, \textit{Lattuga acquatica}) — is also original from Egypt. Cfr. Wellmann (1922), p. 422.


For the time being we do not adopt either view, but it should certainly be noted that Manetti’s position for a supposed Asian origin of the *Anonymus* papyrus might not stand several arguments pro its Egyptian provenance. In the third place, the two proposals above have been also called into question by L. Del Corso, who judges both explanations as too complicated. To Del Corso the incompleteness of the writing on the recto can hardly explain the circulation of the scroll from Egypt to Ephesus (or vice versa)

99; but Del Corso does not take into consideration the fact that perhaps the writing is not as incomplete as he believes, nor does he takes account of the cause for the change of emplacement of the scroll. In that regard, his proposal seems to overcomplicate the actual state of affairs.

With all this in mind we will probably never know how things actually were, and if any, the reason why the letter of Marcus Antonius was copied on the verso of the *Londiniensis* papyrus. However, we need a reasoned account of all the data and the state of things above portrayed. Despite the imperfections in our knowledge, we are now in a better position to introduce another explanation to this cluster of seemingly discrepant interpretations.

4. 4 *The Rescript and the Cult of Asclepius in Ephesus*

The copy of the letter collects the grants bestowed to a body of (crowned) winners at the sacred games. Considering that the request by Marcus Antonius Artemidorus to the triumvir was made in Ephesus, and that Ephesus is also the home city attributed to Charopinus (the priest accompanying Artemidorus in the request), there is room to believe that the body of games winners in question could well have gathered in Ephesus

100. Capital of the senatorial province of Asia, Ephesus had an attended Aesculapian sanctuary,

101 as well as a renowned Museum which played the role of intellectual centre where the physicians were constituted as a permanent corporation, confraternity, or some kind of similar association

102 (as apparently occurred in other places where an important city had a Museum). The existence of this professional and religious society in

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100 Ricciardetto (2016), p. CXXX.


Ephesus is also confirmed by epigraphical evidence. Such groups were in charge of organizing periodical competitions in honour of Asclepius known as « the Great Asclepieia » which comprised athletic, poetic, and artistic events.

As regards the first, although some passages on the recto of the Londiniensis papyrus address the physical condition of athletes — in contrast to non-athletes — and set out some recommendations on dietetics by athletic trainers, it is no less true that, with respect to the rest of the contents of the papyrus, these mentions are too minimal to support the view that the rescript on the verso of the Anon. Lond. was copied on account of them. What really seems to give the master key for the turning passage from the rescript on the verso to the writing on the recto of the Londiniensis papyrus is rather the particular way the Great Asclepieia were celebrated in Ephesus.

In the Christian era the games programme in honour of Asclepius was enriched by a medical contest (ὁ ἀγὼν τῶν ιατρῶν). The uniqueness of this medical tournament in Ephesus is attested in lapidary inscriptions from the time of Antoninus Pius (138-161 CE). In light of an inscription discovered in Epidaurus, it has been hypothesised that within this peculiar medical event in the frame of the Ephesian Great Asclepieia the competitors contended in four different areas:

103 I. Ephesos IV 1162, VI 2304, VII.1 3239, VII.2 4101 A and B (this last inscription dates from 135 CE). Samama (2003), p. 69. From the inscriptions, the organization of this medical body in Ephesus is credited with having been structured in almost two main layers: one hosting the members, the students, and the sympathizers of the Museum (οἱ ἀπὸ τοῦ Μουσείου ἰατροί), and another layer in charge of managing the events held in the Museum and ruling over the professional activity of the members (τὸ περὶ τὸ Μουσείου συνέδριον). Cfr. Ricciardetto (2016), p. CXXXI n. 421. Among the members of this supervising council, there should have been a priest of Asclepius to whom, on a yearly basis, it was assigned the office of presiding the assembly — or having a proactive bridging role between the temple and the medical association. The reference to Charopinus of Ephesus in l. 10 of the rescript could bear relation with such charge. Cfr. Kenyon (1893), p. 477; Brandis (1897), p. 511.

104 This is the denomination that Plato uses in Ion 530a. Cfr. Edelstein - Edelstein (1945a), p. 513 [T. 560]; (1945b), p. 208. As it seems, the Great Asclepieia was a religious event that took place during two days long. Cfr. Keil (1905) V Ephesos 1161 – 1169, 4101b; Debru (1995), p. 69; Andorlini - Marcone (2008), p. 51; Ricciardetto (2014), pp. LV – LIX. In addition to the offices instituted for the purpose of venerating the Emperor, the Great Asclepieia — like the Olympic games — was a periodical tournament intended to satisfy, in a way, the political and the intellectual demands of the time.

105 E.g. cols. XXXI, 17 – 25; XXXVI, 5 – 7, 32 – 35.


108 Perhaps this special competition for physicians might have taken place in other cities, but we are only told about the city of Ephesus. Cfr. Edelstein - Edelstein (1945b), p. 212.

χειρουργία, ὄργανα, σύνταγμα, and πρόβλημα. There is issue at what these trials actually corresponded, but in general they seem respectively to be a surgery test, the skills at handling different kind of medical instruments, the contender’s aptitudes for the composition of drugs and medicaments, and to the reasoned expounding of (or else the solution to) some medical problem.

5. The Anonymus Londiniensis or the Scribe’s Readiness for the Competition

Insight will be now shed on the last of the trials, the πρόβλημα, since the initial query on the reason(s) for the coexistence of the three different hands in the Anon. Lond. makes much more sense when the particularities of this specific event in the medical competition held at the Great Asclepieia in Ephesus are put alongside the arrangement of the contents on the recto of the Anonymus papyrus, which, as has been seen, is said to be divided in three different sections.

A. Ricciardetto has argued that there could be a correspondence between the general triadic outline of the Londiniensis and the format that the trial called πρόβλημα could have taken as it is envisaged in the framework of the Ephesian Great Asclepieia. Thereby, the scribe might have written the first section in the papyrus by having in mind possible answers to questions like « What

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111 It is also known that, in the first centuries of the CE, during the public demonstrations (ἐπιδείξεις, ἀκροὰσεις) before a cultivated audience and the members of the aristocracy held at the main centers of Asia Minor there were performed commented dissections and vivisections. Debru (1995), pp. 70, 73; Ricciardetto (2014), p. LVIII n. 439. In fact Galen’s works are addressed to the emperor Marcus Aurelius, the proconsul Sergius Paulus, the consul Flavius Boetus and to other prominent personalities. Vegetti (1994), pp. 1679 – 1680. The emperor Julian, contrariwise, addressed some letters to Oribasius. Criscuolo (1999), p. 55.


113 We should remember that a hand which is neither the scribe’s (but almost coeval) nor that of the rescript’s copyist wrote down a medical prescription on the verso of cols. XXI – XXII of Anon. Lond.


115 Cfr. supra § 1 n. 3.
is the definition of X? », « What is X? », « What is meant by X? » (τί ἐστιν;). Accordingly, the second section in the *Londiniensis* papyrus — essentially doxographical — might correspond to another feasible request in the πρόβλημα event: « What is the cause of the disease? », « How is that disease produced? » (διὰ τί, πῶς;). As to the third section in the *Anon. Lond.*, it could be reflecting some possible answers to questions like « In which is way X produced? » or « Why? » (πῶς; Τίνος αἰτίας γινοµένης; Τίνος γινοµένου;) during the πρόβληµα test. In view of this latter event, the scribe might have been preparing himself with a view to defending or discussing (disputatio) one of the different topics treated along the third section in the papyrus (spermatogenesis, presence of blood in the arteries, respiration, digestion and qualities of the food, perspiration etc.); many of which were common topics in the medical literature of the period.

Yet, though this is perhaps the most complete and most detailed explanation, one could find others. An alternative, and very different proposal, completely prescinded from Ricciardetto’s hypothesis, could consist in taking the *Anonymus* papyrus as a rhetorical exercise to which were added, at a certain point and by two hands both different to that of the scribe, the name of certain pharmacological substances and the message of an official letter as a part of the same rhetorical work. In this new view, the tripartite arrangement of the contents in the *Anon. Lond.* (definition, recollection of different etiological opinions or theories, and disputation) could correspond to a sample of the methodology to follow, for instance, to introduce an advanced student into the art and the skills of the right argumentation. As these are actually found in many similar ancient lists of

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116 The notion of conceptual accuracy (ἀκρίβεια) is a fundamental trait in all rhetorical genres, but specially in the epideictic. Beside the deliberative and the forensic, the epideictic is one of the main kinds of rhetorical speech. Aristotle *Rh.* I 2, 1358b; III 17, 1417b; *EN* VII 6, 1148b 27 – 34. Cfr. Peary (1993), pp. 446 – 448. Two epideictic speeches about medicine have been fully preserved, the treatises titled *Breaths* and *The Art.* They form part of a larger group of oral works (i.e. discourses) in the Hippocratic Corpus that were composed to be read or spoken out loud before an audience. Jouanna (2012c), pp. 40 n. 6, 41, 43 n. 13, 44. In *A Professor of Public Speaking*, Lucian of Samosata describes the rhetorical teacher Potheinus encouraging his young prospective student in performing an accurate language, as it was likely to make him seem far beyond in education than the laymen; *Rh. Pr.* XVII, 1 – 6: « μέτει δὲ ἀπόρρητα καὶ ξένα ρήµατα, σπανιάκως ὑπὸ τῶν πάλαι εἰρηµένα, καὶ ταύτα συµφορήσας ἀποτόξεµεν προειρεµέονος εἰς τοὺς προσµυµλοῦντας, οὕτω γάρ σε ὁ λεώς ὁ πολὺς ἀποβλέψονται καὶ θαυµαστοὶ ὑπολήψονται καὶ τὴν παιδείαν ὑπὲρ αὐτούς», (« Hunt up obscure, unfamiliar words, rarely used by the ancients, and have a heap of these in readiness to launch at your audience. The manyheaded crowd will look up to you and think you amazing, and far beyond themselves in education. »). Trans. Harmon (1953), p. 157.

117 Doxographies served as particular dialectical items to scholars and learned people of the Imperial period. Doxographical works were valuable sources where one could find the right and the efficient tools to face with guarantees the argumentative challenges during the public demonstrations (ἐπιδείξεις) in which physicians took part.

118 Cfr. e.g. cols. XXXI, 12; XXXII, 38; XXXVII, 2 – 3, 27; add. I, 6.

119 Cols. XXVI, 31 – XXVII, 12. For the charge that Galen levelled against Erasistratus’s view cfr. supra *Comment.* on col. XXVI, 35 – 38.


121 Stover (2005), p. 357.
philosophical and medical doctrines, the emphasis on the disagreement (στάσις) in the opinions of the authorities quoted in the second section\textsuperscript{122}, or the grudge manifested by the scribe against certain philosophical trends (e.g. Stoics) and authors (e.g. Hippocrates, Erasistratus, Asclepiades etc.) could well be considered as heuristic devices and particular features of rhetorical genre\textsuperscript{123}.

Nonetheless, since such an alternative proposal would seemingly yield more difficulties and leave more points to solve than the ones there might be in Ricciardetto’s, I momentarily assume — following A. Ricciardetto — that the contents on the recto of Anon. Lond. could constitute the assemblage of concerns, subjects, and matters that the scribe prepared with a view to participating as a contender in one of the afore described medical competitions in honour of Asclepius in the city of Ephesus. So far, thus, the writing on the recto of the Anonymus (including the two additions on the verso by the scribe himself), the layout of the writing, and its contents might be reflecting the arguments that the scribe put forward during the competition\textsuperscript{124}. The papyrus in this way would be bearing witness of a kind of suasoria — to use a notion drawn from the Stoics — that the scribe developed in advance in order to face with greater confidence the different challenges with which someone, supposedly among the jury of the competition, could have come up during the trial called πρόβλημα\textsuperscript{125}.

6. Some Issues Involved in the Hypothesis

Now, although the assumed explanation is sound and makes sense, the feasibility of the general portrayal seems not without complications, in the sense that Ricciardetto’s hypothesis contains some questionable points concerning matching data, theoretical assumptions, or hermeneutics.

\textsuperscript{122} Col. IV, 25.

\textsuperscript{123} Nutton (2004), p. 72.


6.1 Chronological Mismatch

As regards the first of the inconsistencies, the chronology assigned to the *Londiniensis* papyrus (no matter to which of the three hands for the present purpose) fits badly with either the century in which it is known that the medical competition started at Ephesus or with the chronology given to the single preserved inscription on which an important part of the hypothesis is based\(^{126}\). By this I do not mean that the whole hypothesis must be wholly rejected as ill-founded, but no one could assert with any confidence that such a discrepancy supports a definitive position linking all the assumptions in the hypothesis back to a time which, it seems, is neither textually nor epigraphically witnessed. Indeed, if it is well known that the cult of Asclepius in Asia Minor, and more concretely in Ephesus, has roots in a far earlier period (the rescript on the verso of *Anon. Lond.* could be the clearest evidence of that), then the particularities of the medical competition on the occasion of the Great Asclepieia in Ephesus constrains us to speak about the second century CE onward, which definitely does not tally with the *Anon. Lond*.

6.2 The Writing on the Recto and the Rescript on the Verso: Yes but Not?

The second problem in Ricciardetto’s hypothesis is mainly about an assumption shared by most of the papyrologists concerned with the *Anon. Lond*. The response of Marcus Antonius on the verso of the papyrus has always been severally treated, as if discrete, independent, and having nothing to do with the rest of the contents in the *Anonymus*\(^{127}\); hence perhaps the blunder of the whole issue, but this also gives us a clue. To a greater or a lesser extent, it is generally agreed that the rescript on the verso of the *Londiniensis* is a mere personal exercise of copy\(^{128}\) unrelated to the writing on the recto, and accordingly, also deprived of every kind of perlocutionary force. By adducing different sorts of argument L. Del Corso, I. Andorlini, or A. Ricciardetto contend thus. Del Corso, for example, is of the opinion that the scroll of *Anon. Lond.* just served as a writing support to a piece with no further repercussion\(^{129}\). Andorlini explains the rescript of Marcus Antonius on the

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\(^{126}\) Respectively, the 2\(^{nd}\) and the 2\(^{nd}\) or the 3\(^{rd}\) century CE. Cfr. Edelstein - Edelstein (1945a), p. 318 [T. 573]; (1945b), p. 212.

\(^{127}\) Ricciardetto (2014), p. LXII: « la copie d’une lettre de Marc Antoine a toujours été éditée séparément des autres textes, probablement à cause de son contenu, qui n’a en apparence aucun lien avec le monde médical ». 

\(^{128}\) Del Corso (2008), p. 46 n. 110.

\(^{129}\) Del Corso (2008), p. 46.
verso of the *Londiniensis* along the lines of the same material justification, and has no qualms about prescinding almost entirely from the contents on the recto\textsuperscript{130}.

Looking at the rescript this way the standpoints held by papyrologists, though absolutely respectable and solidly argued, prove also somehow tenuous; for not only do they seem excessively to reduce the import of the writing on the recto, but they also dismiss the fact that the writing in the rescript and that of the scribe on the recto of the *Londiniensis* papyrus are too well-constructed as to think of them in terms of casual school works. Moreover, even though the rescript of the letter (to repeat, almost contemporary but later than the writing on the recto)\textsuperscript{131} never alludes to any kind of specific medical tournament\textsuperscript{132}, the point is that it informs us of the existence of a collective involved in some sacred games before the Christian era, as well as of the concession of some privileges to such a collective; the paradox lies in the fact that — in light of the chronology assigned to the aforesaid inscriptions — perhaps the rescript on the verso of *Anon. Lond.* is the only textual proof we possess and to which we could resort which speaks about the existence of such a tournament at the time it is believed that the writing on the recto of the *Anonymus* papyrus was drafted.

Thus, on grounds of papyrological assumption there is the *petitio principii* of taking for granted that the hand of the rescript and the rescript itself bear no relation to the scenery that gives place to the hypothesis launched by Ricciardetto, so that one is asked to accept that the rescript is completely apart and detached in all ways from the medical-religious event in Ephesus. I am not in a position nor is it my business to judge the arguments adduced by papyrologists; it falls wholly outside my field of expertise and consequently is something which I shall not deal with here. I presume the arguments they put forward which make them feel as they do about the rescript result from a thorough examination of documentary papyri, some stereotyped trends of copy in Imperial time, and other kindred tenets; yet, for the general hypothesis to come out unscathed, on account of the arguments just expounded it should not be ruled out that, beyond the strictly material one, the

\textsuperscript{130} I. Andorlini takes the *Londiniensis* papyrus as a mere writing support which eventually would have lead to a completer draft of its contents, or, at least, this appears to be Andorlini’s claim when she writes: « è probabile che la copia del rescritto di Marco Antonio sia stata eseguita sulla superficie bianca del verso quando il contenuto del recto non interessava più ». Andorlini (2010), p. 44.

\textsuperscript{131} Cfr. supra § 4. 2.

\textsuperscript{132} Cugusi (1979b), p. 289: « ita haud absurdum videtur ei petitionem pervenisse poetarum et musicorum et athletarum collegii cuiusdam: quibus petentibus Antonius is quidem litteris respondet ».
hand in the rescript and its content may be connected with the writing on the recto of the *Anon. Lond.*

To our knowledge D. Manetti is among the few specialists to concede some kind of perlocutionary force\(^{133}\) to the letter copied on the verso of the *Londiniensis* papyrus, which amounts to admitting that whoever could have read the letter should have felt obliged to act in a particular way on account of its content. I take Manetti’s point as a sound conjecture in this sense and accept, provisorily, that the letter could have been copied on the verso of the *Anon. Lond.* precisely because of the cogency of the message the rescript conveys.

6. 3 *Are the Contents on the Recto of the Londiniensis Actually Divided in Three Sections?*

As for the third inconsistency in Ricciardetto’s hypothesis, the issue is bound to the fact that in a way dispatches the objection raised by M. Asper whereby the contents on the recto of the *Londiniensis* papyrus might not be divided in three sections, as is generally agreed, but just in two.

In fact it is the expression « Α[ι][τ][ιό]λογικός,[Νόςοι.] » which raises the polemic. It has been questioned whether these two lines have to be considered as a title or not, and due to the writing in the papyrus being at this point very blurred (almost illegible), the first query comes along with the difficulty of proper decipherment. It was H. Diels who first tried to give a solution. Diels’s consideration of col. IV, 18 – 19 as a title will be assumed in the majority of editions of the *Anonymus* to come, and supplemented with some slight modifications\(^{134}\), Diels’s final reading\(^{135}\) will be also widely accepted.

In spite of acknowledging that ll. 18 – 19 do constitute a title, stressing that the scribe did not use any similar subtitle (*kein neuer untertitel*) to introduce what is believed to be the third section of the *Londiniensis*, in interpreting col. IV, 18 – 19 differently M. Asper is probably the most discordant voice as regards this point, inasmuch as he gives a different reading of the first line: φυσιο[ι]λο[γικός in place of Α[ι][τ][ιό]λογικός\(^{136}\). Apropos of Asper’s divergent reading of l. 18, a look

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\(^{133}\) Cfr. supra § 4. 3.


\(^{135}\) Diels (1893b), p. 412: « Ich glaube am ehesten wird λογικός den Zügen entsprechen, sodass etwa die Ueberschrift lautete Αιτιολογικός . Νόςοι. ».

at Greek lexicons shows that the verb αἰτιολογέω is a voice as alien to the Corpus Aristotelicum\textsuperscript{137} as is unAristotelian the adjective Αἰτιολογικόϲ in the Anonymus Londiniensis. This detail might lead to several interpretations, but we set forth only two of those possible. First, it is likely that, as such, the occurrence αἰτιολογικόϲ might have been absent in the supposed Aristotelian source that the scribe might have consulted to write what actually stands as the title of the second section in the Anonymus papyrus. Considering this, then secondly, the upper line Αἰτιολογικόϲ heading the purported second section in the papyrus could be interpreted as an attempt addressing a potential question (for instance « Why do illnesses come about? ») in the trial called πρόβλημα.

In any case, Asper’s alternative reading challenges at this point the supposed tripartite arrangement of the contents of the writing on the recto of Anon. Lond. It is on account of his new reading that Asper takes the content in the Anonymus papyrus as if it were conceived in two sections (\textit{als zweiteilig konzipiert ist}), and not in three. According to the point that Asper makes the third section in the Anon. Lond. would be integrated in the second one, or else the writing on the recto would only consist of two sections\textsuperscript{138}; and this interpretation casts doubt on the connection that Ricciardetto establishes between each one of the three sections in the writing on the recto of Anon. Lond. and the formal template of possible queries in the trial called πρόβλημα\textsuperscript{139}. The exegesis of the writing on the recto of Anon. Lond. in the light of the πρόβλημα in the Ephesian Great Asclepieia should stand after coming to grips with the remark that Asper introduces, which, on the other hand, is somehow justified by an argument of lexical nature. Unfortunately the difficulties in the decipherment of l. 18 preclude us from obtaining a convincing transcription on which to rely so as to agree definitively with Asper’s reading, and consequently, also to side clearly with one of the two standpoints in the discussion.

\textsuperscript{137} I am thankful to Dr. J. Aoiz and Dr. D. Deniz (Universidad de Caracas) for their piece of advice in this sense.

\textsuperscript{138} At the international conference held at Parma called ‘Greek Medical Papyri. Text, Context, Hypertext’ (3. 11. 2016) D. Manetti handed out a general layout of the contents in the Anon. Lond. which only included (acknowledged) two sections. We ignore whether it has to do with the objection raised by Asper or with any other reason.

\textsuperscript{139} Cfr. supra § 5.
From a hermeneutical point of view, a last argument could be still raised against Ricciardetto’s hypothesis. Our slant on the scribe’s charges levelled against practically all the authorities he quotes is that they are barely in accordance with the supposed linguistic standards used at the time to express oneself in a public competition. One has no way of knowing what might have been appropriate nor how strictly and properly any such norms had to be respected, but we assume that adjectives like ‘ridiculous’, ‘stupid’, ‘false’ etc. — although they neither interfere in the autographical nor in the hypomnematic nature of the Anonymus — might have been out of place in front of the members of an examining board if, again, the writing on the recto of the papyrus were a preparatory essay composed to face a trial of the kind with guarantees. In view of this, the qualifications the scribe assigns to the arguments of almost all the authorities he reviews in his writing seem somehow pointless in the event that they were intended to help him answer the questions that might be put to him in the πρόβλημα event.

7. Un tour de force encore...

Given the four main objections above Ricciardetto’s hypothesis comes out very badly. Yet in being the only one ad hoc that tackles the problems arising from the existence of three different hands in the Anon. Lond., it seems useful to continue to bear it in mind in order to get the maximum benefit from its inherent heuristic advantages. Thereby, we should like to reinforce Ricciardetto’s assumption by bringing into discussion two further new arguments, since they might help to shore up more solidly the hypothesis in question. By means of these new, essentially comparative arguments, we shall try to show the rhetorical purpose of the writing on the recto of the Londininesis papyrus. To some extent related with this, the second argument aims at bridging the traces of the medical rescript with the medical competition held at the Ephesian Great Asclepieia.

7. 1 The Londiniensis Papyrus, or When Drugs Do not Heal but Help to Win

Given that the Anonymus papyrus seems neither to have actually served for medical practice nor concerned any particular medical specialty (say lithotomy, dental surgery, treatment of cataracts, hernias or the like), it is rather unlikely that someone would have used the Anonymus Londiniensis

\[^{140}\text{Cfr. supra § 2.}\]
with the serious aim of healing. Deprived of a clear-cut practical purpose, the Anon. Lond. looks rather like a scholarly text or some kind of theoretical instruction, or as has been expounded above, it could have been composed simply for on a plain rhetorical purposes\textsuperscript{141}.

Consequently, the point to which we should like to draw attention is the fact that none of the medicaments quoted on the recto\textsuperscript{142} of the Londiniensis papyrus bear any therapeutical intendment. Thus, by way of example, the τετραφάρµακος\textsuperscript{143} is used to make clearer what the σύνχισις\textsuperscript{144} consists of, one of the possible types of combination between two or more substances. Along the same lines, the remaining references to medicaments in the Anon. Lond. are utterly utilised to enhance the conviction of the existence of penetrations and emanations through the body skin. As regards the elaterium\textsuperscript{145} the scribe seems to emphasize the drastic power of this purgative, that is true, but he does not mention in which cases the elaterium should be administered. Such mere rhetorical (theoretical or non practical) usage of medicaments in the Anon. Lond. also applies to the

\begin{thebibliography}{99}
\bibitem{Horstmannhoff} Horstmannhoff (1990), p. 182.
\bibitem{Cols} Cols. XXXII, 41; XXXVI, 57 – XXXVII, 7.
\bibitem{Galen} Col. XIV, 19 – 20. Galen De const. art. med. I 6 [I p. 242, 5 – 8 K.]. Cfr. CPF Plato 129T, p. 555. The τετραφάρµακος was the plaster (γάλβαν) for excellence in the past, it was specially prescribed to cure open sores in the extremities. It was prepared by mixing an equal proportion of wax, tar, resin, and bull or calf fat. Galen Simpl. XI 2 [XII p. 328, 8 – 12 K.]; Celsus De medicina V 19, 9 [Daremberg (1891), p. 173, 28 – 31]. Cfr. Guardasole (1997), p. 102; Andorlini (2006), p. 158. Due to the texture resulting from the mixture of these four ingredients, the τετραφάρµακος was considered a hard/compact (σκληρός) variety of plaster.
\bibitem{Alexander} Col. XIV, 16 – 20. By this it is mean ‘dissolution or contemporary fusion of some elements into a new one’. Cfr. also Alexander of Aphrodisias De mixtione III (595) [Bruns (1892), p. 216, 23 – 25]. The fact that Alexander uses the same example to describe the same kind of phenomenon (σύντηξις). It is worth of consideration because, rather than a casual coincidence, it could give us another clue about the existence and the circulation of an Aristotelian doxographical source to which the scribe of the Londiniensis, Alexander of Aphrodisias, and Galen could have had the access.
\bibitem{Garofalo} Col. XXXVII, 8, 13 – 14, [22]. By the superlative ἐνεργέστατον the scribe intends the most drastic purgative power of the elaterium — if compared to the rest of the extant purgative plants. The extreme efficacy of a particular remedy after having been tested (probatum est) is a feature noted in documents as old as the Papyrus Ebers. In Imperial period, Galen stressed the efficacy of a substance by using verbal forms like χράοµαι or ἐπιτετέυγµενον. Cfr. Andorlini (2006), pp. 143 – 144. The elaterium (ἐλατήριον) is a very bitter extract that was used as a purgative in case of icterus (jaundice), or diluted with water against the angina. Cfr. supra Comment. on col. XXXVII; Anonymi medici VI 3 (21) [Garofalo (1997), p. 48, 1 – 8]. The meaning of the term is problematic, as there is issue at whether it might refer to a generic downwards evacuative or to the purgative made of the wild cucumber (σίκυον ἄγριος). Furthermore, whereas some deem to be the juice extracted from the fruit, others affirm from the leaves and the roots of the wild cucumber. Jouanna - Grmek (2000), p. 5 n. 2; Ricciardetto (2014), p. LIV n. 402. Hippocrates Epid. V XXXIV [V p. 230, 8 Li.] reads « ῶδην ἐλατήριον ». Evenly the squirting cucumber (Echallium elaterium Rich.), whose purgative properties are well established, may have been used as an emmenagogue or an oxytocic as much for symbolic as for practically evaluated reasons: its capacity to eject its seeds forcefully made it an appropriate plant to use when wishing to expel an unwanted conception, an afterbirth or a suppressed menstrual period. Cfr. Guardasole (1997), p. 230; Nutton (2004), pp. 98 – 99.
\end{thebibliography}
castoreum, insofar as this drug is mentioned only in order to reaffirm the scribe’s firm belief in the existence of pores, which allow the vivifying properties of the castoreum to penetrate first the nostrils and only afterwards to reach the whole body.

All this strongly contrasts with the picture of the medicaments we learn from the medical treatise on acute and chronic diseases known as *Anonymus Parisinus*, a handbook for practicing medicine almost contemporary with the *Londiniensis* papyrus. A quick glance at the threefold general layout of the *Anonymus Parisinus* will suffice to make clear the main practical purpose of that medical work. The way in which are described the 51 different affections collected in the *Parisinus* codex follows the same pattern. One first sees presented the opinions of credited ancient physicians on the causation of a particular disease, afterwards the description of the symptoms that intervene in the recognition of each disease, and finally the remedies and the proper prescriptions to treat every particular illness. This order *a capite ad calcem* could have been in accordance with a didactic purpose; though, if contrasted with the *Anonymus Londiniensis*, the

146 Cols. XXXVII, 51 – XXXVIII, 19. The castor, or castoreum (καστόρειον), is a substance which is found along the castor’s preputial channel. Guardasole (1997), p. 203. In being as hard as a bone, the penis of the marten was first reduced to powder (ἐπιξυόµενον) and afterwards it was applied to treat affections of the bladder. Aristotle *Mir.* XII, 831b 1 – 4. For the employment of castoreum as ointment to calm down the contractions of the extremities supervening with the cholera see *Anon. medici* XIII 3 (12) [Garofalo (1997), p. 92, 26 – 27]. As ointment, castor was obtained by mixing 1 gr. of castor with 6 gr. of almond oil, and letting both macerate during 5 days. When absolutely dried, it became very hard and difficult to break, and it took on a penetrant heavy smell. In Hippocratic writings, as well as in Soranus, the inhalation of stinging substances is a common prescription to treat hysteria, since the womb, to the mind of Greek physicians, had the faculty of movement in response to attiring or repulsive smells. Cfr. Jouanna (2012f), p. 192; Totelin (2014), pp. 88 – 85. Castor was deemed that produced tachysphygmia, headedness, and vertigo. In the 1st century CE, Aretaios of Cappadocia recommended castoreum to heal and dry the *pneuma*. Cfr. Oberhelman (1994), p. 965. The Empiric physician Haraclides of Tarentum prescribed castor oil to treat phrenitis, lethargy, ileus, and other nervous dysfunctions. Any of these indications is reported in the *Anonymus*, it is just said that castor has revitalising properties.


148 The *Anonymus Parisinus* is the simplified form to make reference to the *Anonymus Parisinus Darembergii sive Fuchsii* or *Anonymus Fuchsii*. Cfr. Kudlien (1963), p. 457; Van der Eijk (1999), p. 295. It is a manuscript discovered by Mynoë Mynas on the Month Athos in the 1840’s, which comprises four different Greek manuscripts (*Par. supp.* gr. 636 + *Par.* gr. 2324 (146v – 209v) + *Vindobonensis medicus græcus* 37, V + *Londiniensis* gr. 52b). Pages 21r – 82r in the first manuscript — dating the 16th century and conserved in the Gallerie Mazarie (BnF) — contain and transmit a medical work of the 1st century CE titled *De morbis acutis et chroniis* (*Anonymi medici*). Cfr. Garofalo (1992), pp. 91 – 93, 95; (1997).


150 The layout may well correspond to the standard arrangement used in literature concerned to pathology, which, in turn, could have roots in Diocles’ work *Πάθος, Αἰτία, Θεραπεία*. Cfr. Van der Eijk (1999), p. 327.

151 Cfr. Van der Eijk (1999), p. 312. In fact, the gap between the *Anonymus Parisinus* and the next text in the manuscript is filled with anatomical designs and illustrations with an evident educative intention.
empirical nature and the practical scope of the Anonymus Parisinus is evident and incontestable. In paying attention to both time and remedies, the Parisinus codex also shows a clear familiarity with the practice of the medical art.

Another reason for proposing that the Anon. Lond. bears very little relation to the practice of medicine is that the crucial distinction between acute and chronic, in its appliance to diseases, is overlooked. In the papyrus the categories of acute and chronic are addressed from a mere heuristic point of view, both terms are regarded as definienda in a purported definition whereby the scribe wants to make clear what should be intended by this or that term next in his argumentation. Contrariwise, the contents in the Anonymus Parisinus are in actual fact arranged according to these two categories. In the same vein, another argument for the rhetorical intendment of the Londiniensis papyrus is the almost complete lack of attention to the core matter of the progress of the evolution of the ailing patient. Regarding this point, the only passage in the Anon. Lond. where apparently the scribe deals with this aspect is in the third column, but in a very tangential way. In contrast to the Londiniensis papyrus, the emphasis on assessing the progress of the patient as the time wears on is well attested in several diseases described in the Parisinus, since depending on the patient’s evolution the author of the Parisinus codex recommends a change in the therapy formerly prescribed.

7.2 The Prescription on the Verso of the Anonymus in the Light of the Ephesian Great Asclepieia

The traces of the prescription on the verso of Anon. Lond. could account for a wide array of reasons, all of them admittedly amounting to no more than a guess. After having studied the...
rhetorical intendment of the medicaments quoted in the *Anonymus* papyrus, there is no obvious reason to conclude that the prescription on the verso of the *Anon. Lond.* necessarily responded to a practical orientation.

Were the arrangement of the contents on the recto of the *Anonymus* papyrus in harmony with the test in the competition of the Ephesian Great Asclepieia called πρόβλημα, analogously the traces of the prescription on the verso of *Anon. Lond.* could likewise be explained by reference to another trial in the competition. In this way, the fact that the traces of the medical prescription on the verso of the *Londiniensis* papyrus belong to a hand which is not that of the scribe could be explained as being a query put by some member of the tournament board in charge of assessing the σύνταγμα. The event called σύνταγμα, which consisted in testing the contender’s diligence at preparing a remedy, could thus be the reason that prompted the writing of the prescription in the papyrus; then one may assume that the prescription corresponds to the assessment of the competitor as φαρμακοποιός or φαρμακουργός.

Wherefore, despite the weakness of the three proposals below, for the purposes of this enquiry it matters that the prescription in the *Londiniensis* papyrus could also be hinged upon the frame of the Ephesian Great Asclepieia. With this in mind, the medical prescription could have appertained to:

1) The hand of some contender or acquaintance whom the scribe of the papyrus might have met on the occasion of the tournament.

2) An apothecary or root-cutter. In being conscious of his weakness in the trial called σύνταγμα, we can imagine that before attending the competition the scribe (striving to ensure his success in this specific event) asked a craftsman to write down the indispensable ingredients in a purgative because that kind of competence simply fell outside his field of expertise.

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155 Cfr. supra § 4. 4.

156 At least, it was composed by the priest of Asclepius, by an especially appointed arbiter, and by the presiding officer of the association of physicians. Edelstein - Edelstein (1945b), p. 212.


158 In the 1st century BC there was a specific craft called ῥιζότομος. The root-cutter’s skills comprised the knowledge of alleged properties of every plant, the right places and seasons to pluck each kind of plant, which parts of a plant were useful, the mode to conserve unaltered the curative attributes of some plant for a long time, and the way to prepare each one in particular so as to take effect. Cfr. Repici (2006), pp. 77 – 78. The level of literacy of such craftsmen, as well as their activity in Egypt or in Asia Minor, has been barely studied.
3) Some member of the organizing committee during the contest in the trial called σύνταγμα. It could have been that, according to the standard procedure in the tournament, the scribe was asked to compose a medicament from a collection given aleatory substances, and that the premises to accomplish the trial were written where, say, the scribe had previously drafted some of the contents about which he was likely to be asked during the event called πρόβλημα.

8. The Anonymus Londiniensis. Towards an Interpretation

Before putting forward what we deem a feasible interpretation of the facts expounded through this first chapter after having thought about them over and over, the most sensible course seems to state that the issue will probably remain unsolved. The following account is far from exhaustive or categorical; it is simply an attempt to reconsider the main aspects on the recto and on the verso of Anon. Lond. studied hereto as being reciprocally implicated and bearing a relationship to the Ephesian Great Asclepieia. Of course, what follows is just an hermeneutical path; things should not have to be necessarily in the way we expound, but in the light of the objections and the analysis above either in the way suggested in Ricciardetto’s hypothesis.

The scribe of the Anon. Lond. was a learned Egyptian doctor. From his original Egypt he brought the scroll to the city of Ephesus for his personal usage. It is doubtful and unlikely that anyone apart from the person directly involved could have been interested in traveling from Egypt to Ephesus with a scroll containing such an apparently incomplete\textsuperscript{159} writing. The scribe was well acquainted with the different events in the Ephesian tournament, and consequently arranged the notes of his essay\textsuperscript{160} according to the framework and the requirements of a particular trial in the Ephesian Great Asclepieia; the προβλήματα. From this perspective the Anonymus papyrus can thus be equated to the preparatory exercise by the scribe as a prospective contender in the competition\textsuperscript{161}. By the same token, the traces of the medical prescription on the verso of Anon. Lond. could have been penned by someone in the assessment board of the tournament in the event called σύνταγμα.

\textsuperscript{159} Cfr. supra § 2 n. 18.

\textsuperscript{160} Edelstein - Edelstein (1945b), p. 212: « the competitors had to write an essay on a subject of their own choice and another one on a given problem ».

Now, one could imagine that after having listened to the answers given by the scribe during the test and observed his abilities with the ingredients he was given, the competition board reached the decision of proclaiming our scribe the winner of the medical contest, such that he came out crowned\textsuperscript{162}. As a reminder of the privileges awaiting him for the victory, and in accordance with what might have been a standard procedure, the dispositions promulgated by Marcus Antonius were copied on the piece that the contender had handed out; this being, in sum, the reason for the rescript of the edict on the verso of the \textit{Londiniensis}.

If the scribe emerged as the winner in the competition, some official or competent authority could have copied the letter of Marcus Antonius on the verso of the text, then sealed the scroll with some kind of stamp. As a result of his participation and victory in the contest, the scribe might have felt the need to found a medical society in his natal Hermopolis\textsuperscript{163} like the one he came across in Ephesus. In having in mind the eventual creation of a similar medical assembly in his hometown, the scribe could have had the letter of Marcus Antonius written out again on the verso of the papyrus for a further official demand. Yet, would such privileges have taken effect when written on a papyrus of such poor quality\textsuperscript{164} and which also bore notes made in preparation for a competition?

\textsuperscript{162} In the context of a tournament ‘crowned’ could perfectly be equated with ‘winner’. Ricciardetto (2012), p. 51 n. 28.

\textsuperscript{163} The Egyptian provenance of \textit{Anon. Lond.}, nearby Hermopolis Magna (today El-Ashmounein in the Middle Egypt) is almost sure. Cfr. Del Corso (2008), p. 37. It is known that among the public buildings in Hermopolis Magna there was a temple of Asclepius, a gymnasium, and a library.

\textsuperscript{164} Ricciardetto (2016), p. XIX.
1. General Frame and Problematics

A key figure in the history of philosophy Aristotle tackled almost all the branches of the science of his time. However, none of the treatises in the Corpus Aristotelicum is specifically about medicine. In life Aristotle was known among cultivated people by the works he published, but no example of these exotrical works has survived; thus, whatever Aristotle himself might have written and published on medicine is lost\(^{165}\). The Aristotelian treatises that have come down to us are mainly didactical\(^{166}\), so that if not for the lectures and speeches addressed to the students of the Lyceum we would have access only to a very meagre version of Aristotle’s literary activity. In addition, the tricky history\(^{167}\) of the library of the Lyceum certainly increases the difficulty of obtaining a feasible picture of all the subjects on which Aristotle enquired, and consequently, of knowing whether or not medicine was taught at the Lyceum. Apart from these preliminary details, Aristotle makes a few references to doctors in his treatises, as if they were of no account\(^{168}\). This series of facts has led many scholars to pose that Aristotle never undertook any serious investigation into the medical domain\(^{169}\).

With this in mind, we should like to introduce arguments precisely to the contrary and to underscore the reasons of different nature — but mainly textual — by virtue of which there would

\(^{165}\) Nutton (2004), p. 120.

\(^{166}\) Bidez (1943), p. 43.

\(^{167}\) To get a detailed account of this topic one may consult Bidez (1943), pp. 11 – 25; Canfora (1988), p. 7; Lee Too (2010), pp. 24 – 29. The two main Greek catalogues in which are collected the works by Aristotle owe to Andronicus of Rhodes (1\(^{st}\) century BC), and afterwards to Adrastus of Aphrodisias and his work De ordine librorum Aristotelis (first half of the 2\(^{nd}\) century CE). Cfr. Moraux (1951), pp. 6 – 7, 212; Manetti (1986), p. 63; CPF Aristoteles 37I, p. 351. At Cicero’s time, Andronicus of Rhodes used the work by the Roman grammarian Tyrannion of Amisus. Tyrannion published Aristotle’s unedited treatises that arrived at Rome after the conquest of Athens by Lucius Cornelius Sulla (83 BC). The Arabic catalogues of the works by Aristotle also used Tyrannion’s edition. Although Andronicus is who actually takes the most part of the renown and fame, the definitive order and compilation of Aristotle’s writings seems to have been carried out, to a greater extent, by Adrastus.


be room for medicine in Aristotle’s philosophy\(^{170}\), and to reconstruct in this way, as far as possible, the nature of the medical fundamentals that Aristotle might have upheld.

2. Some Sociological Aspects Touching the Medical Art in Ancient and Classical Greece

Alcmaeon of Croton\(^{171}\), Empedocles\(^{172}\), Democritus\(^{173}\), Diogenes of Apollonia\(^{174}\), Anaxagoras\(^{175}\), Parmenides, that is, the majority of pre-Socratic philosophers were physicians or dealt to some extent with some aspect of medicine\(^{176}\), so, too, did Plato, Theophrastus, Strato and Sextus Empiricus. In point of fact in his work *On Sense and Sensible Objects* Aristotle underlines that it is not at all unusual for philosophers to finish their books by addressing a medical issue, and for physicians to start theirs by treating some philosophical problems\(^{177}\). Aristotle’s indifference towards medical art looks even more striking in considering some sociological aspects inherent to the medicine of classical Greece\(^{178}\). Like Hippocrates\(^{179}\), Aristotle was of Asclepiadian birth\(^{180}\).

Among the Asclepiadians the details of dissection as well as the rest of the advanced techniques in

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\(^{170}\) Or in Ph. J. Van der Eijk’s own words: « the assumption that Aristotle wrote medical works at all may need some elaboration ». Van der Eijk (1999), p. 492. Cfr. also Aelian *Varia Historia* IX 22 – 23 [Hercher (1866), p. 102, 23 – 32].

\(^{171}\) Jouanna (1988), p. 47. It is generally admitted that Alcmaeon was the founder of medical diagnosis in western world, and though slight, also the first physician to make a distinction between veins filled with air and veins filled with blood. Alcmaeon is also credited with having discovered the principles of visual perception by practicing dissections, as well as with having carried out other anatomical researches on the physical organism. Cfr. Diels (1893b), p. 421; Bidez - Leboucq (1944), pp. 13, 16, 39; Lain Entralgo (1981), p. 10.


\(^{174}\) Galen *De plac. Hipp. et Plat.* II 8 [V pp. 281, 12 – 284, 3 K.].


\(^{176}\) For a concise treatment of the entwinement between medicine and physical speculation in pre-Socratic philosophy cfr. Jouanna (1992), pp. 370 – 379.


the medical art were transmitted from generation to generation. Nicomachus of Stagira, Aristotle’s father, was a famous surgeon. Aristotle’s daughter, Pythia, married Metrodorus, the Alexandrian physician who was the master of Erasistratus of Chios. From this, it is difficult to imagine that Aristotle would not have taken any step in that respect. If it is borne in mind indeed that in Antiquity a medical education existed that clearly fell outside any professional intendment, it is then almost sure that Aristotle was acquainted with the principles of medicine. The education of the cultivated Greek citizen required a certain familiarity with medical culture, so that it is hard to believe that Aristotle could have remained alien to the pedagogical dominant of the time. It is worth noting in addition that the term ‘doctor’ was polysemic in Greek. In the Politics we learn from Aristotle that the notion ‘doctor’ also applied to “someone instructed in the principles of physiology”.

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181 Jaeger (1957), p. 55; Jouanna (1993), p. 10; Boudon - Millot (1994), p. 1423; Longrigg (1995), p. 431; Squillace (2013), pp. 162 – 163, 173. From the 5th century BC onward, medical practice will gradually drift away from the familiar bonds that it had in ancient Greece. The diffusion of medical texts beyond the strict medical sphere is well attested and more widespread than it could be expected. Nelson (1909), pp. 91 – 97; Manetti (2014), p. 234. Some treatises in the Corpus Hippocraticum like Flat. or Vet. med. appear to be the work of sophists or else non professional physicians as their respective content have no practical purpose. Cfr. Van der Eijk (2005), p. 269. Against this opinion communis, nonetheless, it has been argued that Flat. could be the work of a Hippocratic doctor in the wider meaning of the term. Rhetoric was indispensable to succeed in a medical career, above all as a public doctor, since appointment depended on a speech that a doctor had to give before the people’s assembly in a democratic city; so that genuine doctors could be the authors of rhetorical speeches. Jouanna (2012c), pp. 50 – 52. It is also believed that the Hippocratic oath served to deter the increasing number of non-Asclepiadian practitioners of the time from making an abusive use of the art, to keep new practitioners in the ethical boundaries inherent to the medical lineage who traditionally had played such role in Greece. Edelstein - Edelstein (1945b), pp. 53 – 64; Jouanna (1988), p. 26; (2012h), p. 263.


187 Aristotle Pol. III 6, 1281b 38 – 1282a 8; Pl. I 1, 639a 4 – 8. According to Aristotle, even the non-practitioners (µὴ τεχνίται) could be properly considered physicians. Pliny the Elder, for instance, was a non-practitioner of the Imperial period who delighted himself reading medical literature. If we were to make extensive Aristotle’s third meaning of ‘doctor’ in the Politics, then Pliny was a πεπαιδευμένος, that is to say, someone who despite having never practised the medical art did entertain in instructing himself by reading medical literature for the sake of his encyclopedic project. In the light of the third meaning that Aristotle confers to the word, Pliny could perfectly be called ‘doctor’. Cfr. Jori (1995), pp. 414 – 416; Van der Eijk (1995), p. 451; Hirt Raj (2006), p. 67. It makes sense, thus, that the only systematic handbook of medicine preserved from the Antiquity, De medicina by Celsus (c. 30 CE), has been precisely transmitted by an erudite who was not a practitioner. Gouvevitch (1993), p. 142; Andorlini - Marcone (2004), p. 49.
medical art for the sake of his own education”; yet, such knowledge does not seem necessarily to have involved practising the art\textsuperscript{188}.

We have summarily expounded the contextual reasons why it is likely that Aristotle knew something about medicine. We shall examine hereafter which traits in the Corpus Aristotelicum match this hypothesis.

3. Aristotle’s Medical Treatises: an Approach

To make an argument clearer Aristotle often displays analogies\textsuperscript{189} drawn from medical experience. From an epistemological point of view, the analogy reflects the tacit knowledge by the user of the elements intervening in it, for present purposes, Aristotle’s knowledge of the procedures implicit in medical art. The moot point consists in distinguishing whether Aristotle used such analogies as mere rhetorical figures or if, per contra, those imply the teaching and the diffusion of the medical art at the Lyceum\textsuperscript{190}. The latter possibility is reinforced by means of a number of technical allusions to medicine in the Corpus Aristotelicum. In connection with this, we need to analyse four cases. In the first place, the references (almost 20) to a treatise entitled \textit{Dissections}. In the second place, the mentions of another work that bears the title \textit{On Health and Disease}. Thirdly, the contents of the last book in the \textit{Historia animalium}, and finally the collection of medical queries known as Προβλήματα.


\textsuperscript{190} G. E. R. Lloyd comes to the conclusion that the use of medical analogies served Aristotle as discursive tool; so that, in Lloyd’s view, all the medical analogies in the \textit{Nicomachean Ethics} would not help much for the present purpose. Lloyd (1968), p. 68, 82. However, it remains unclear how Lloyd would explain, for instance, the evident textual parallelisms between Aristotle \textit{Pol.} VII 6 and Hippocrates \textit{Aer.} XXIV.
3. 1 The Dissections

One might legitimately wonder why a chapter with a title like this should be included in an essay whose major scope pursues the connections between Aristotle and medicine. We shall deal with that in full in the next lines, but let us set out certain reasons in order to cast some more light upon the subject. The first one has to do with the unquestionable activity that Aristotle conducted in the field of zoological dissection. In considering his writings on biology, it becomes plain that Aristotle and his disciples dissected (and vivisected) at least 50 species with the aim of gaining insight into the natural world and the pillar vital processes. Although this activity is absolutely certain and can be taken for granted, we should avoid nevertheless extrapolating, for such enterprise was never directed towards human anatomy in Aristotle’s time. The taboos developed around the human corpse in Greece rule out such an endeavour; but it is also important here to consider the particular stage of development that “experimental science” reached in 4th century - Athens. Thus, some inconsistencies in the Corpus Aristotelicum hint at Aristotle’s reluctance to make any kind of experiment, all the more so on human subjects. Aristotle was of the firm opinion that the dead human body had the same appearance as the live one, but the former was somehow different, and thereby there was just a homonymic link between a living body and a dead one. Moreover, all this would contravene the strict theoretical nature of medicine in the whole of the Greek paideia. From these reasons conjointly it follows that the representation of the human body and the physiological processes we find expounded in the Corpus Aristotelicum were obtained from observations that Aristotle carried out of the natural world, or else by analogy of what he could

191 Aristotle Long. VI 467a 19; Juv. II 468a 22 – 27, 468b 15 – 16; Resp. III 471b 2 – 4, 21 – 23, VIII 474b 9, XVII 479a 3 – 6. Nutton (2004), pp. 119 – 120. At Pl I 5, 645a 5 – 23 Aristotle hints at the necessity of anatomical analysis in order to obtain some information on certain parts. Repici (2006), p. 76. For more evidence apparently pointing to the fact that the conclusions at which Aristotle arrives are likely the result of his own observations see Somn. Vig. III 456b 2 – 3; GA IV 1, 764a 34 – 35; Pl IV 2, 677a 9 – 10; Resp. XVI 478b 27 – 28, 36 – 37.


193 For instance at Pl I 4, 666b 20 – 22 or at HA III 3, 513a 30 Aristotle errs when he states that the heart of huge animals has three chambers while the heart of the minute only two. Likewise at HA II 3, 501b 19 – 21 Aristotle fails to attain the truth in saying that women have less teeth than men. Nutton (2004), p. 120. In Aristotle’s biological writings, especially in GA, the cases of ‘false observations’ are easy to find, this being the reason why R. Joly affirms that Aristotle’s biological theory might be rational but not yet fully scientific. Cfr. Joly (1968), pp. 225 – 227, 228, 232 – 233, 248 – 249.

194 Aristotle Pl I 1, 640b 34 – 36.

see during the dissections made on animals; hence the inclusion of the present section in this chapter.

Diocles of Carystus — ‘the younger Hippocrates’ — is credited with writing the first treatise on anatomy. Given the bonds between Diocles and the Lyceum some experts are of the opinion that the references to the *Dissections* in Aristotle correspond to Diocles’ work *De anatomia animalis*, the treatise on which Aristotle supposedly dwelled to compose his work. However, one finds telling differences between Diocles and Aristotle, for instance, in the way they explain how mammals get their food in the uterus. It appears that Aristotle pursued an independent activity in that field beside Diocles’ observations. We should assume therefore that in his several treatises on zoology, or in the *Parva Naturalia*, Aristotle makes allusion to a work of his own also entitled *Dissections*. Consisting of seven (or eight) books, the *Dissections* was somehow a handbook in which were collected the schemes and drawings of the animals that

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199 Cfr. Bonitz (1870), p. 1465; Marenghi (1961), p. 150; Longrigg (1993), pp. 150, 154, 162; Van der Eijk (1999), p. 493. That is to say *Ἀνατομή*. The term *Ἀνατομή* has in ancient Greek a much more extended meaning than the sense it has to-day. *Ἀνατομή* could mean ‘an opening to observe the most internal and deepest parts’, this comprising the experimental physiology as well as the anatomy. Sometimes *Ἀνατομή* takes the sense of ‘demonstration’ or ‘description of the parts’. In Aristotle it is especially many-sided, since the word is allowed to mean ‘by my own effective vision’ or ‘by means of others effective vision’ or ‘drawings and models of internal structures never observed’ or ‘inference from particular observed cases to cases never observed or unobservable’. Cfr. Viano (1984), p. 338.


202 Aristotle *GA* II 7, 745b 34 – 746a 28. According to Diocles, in mammals the fetus gets the nourishment by suckling some nipples that protrude, like lumps, from the walls of the uterus. This view strongly contrasts with Aristotle, who, by direct observation (διὰ τῶν ἀνατομῶν), refutes Diocles’ description by arguing that the placenta actually prevents such kind of suction.


Aristotle dissected\textsuperscript{206} during the lectures on physiology and anatomy held at the Lyceum. All that material served the philosopher in his effort to visualize those parts of the human body that, for the different reasons expounded, remained unknown and obscure to direct observation.

3. 2 \textit{The Book On Health and Disease}

As regards the second medical treatise aforementioned, Aristotle’s aim — expressed on many occasions\textsuperscript{207} — is to assemble and collect the medical knowledge of his time, as well as to go over medicine. In this sense it would be no accident that Aristotle would have written another work entitled \textit{On Health and Disease}\textsuperscript{208}. There is some issue on this point, however. Just as E. Zeller believed that the \textit{On Health and Disease} was a mere desideratum that Aristotle never carried out, E. Heitz on the other hand, plainly considered the treatise as a work in its own right, which had appertained to the \textit{Parva Naturalia}\textsuperscript{209}. In a similar vein, others maintain that the commentaries at the end of Aristotle’s \textit{On Respiration}\textsuperscript{210} are but the extant remnants of \textit{On Health and Disease}\textsuperscript{211}. P. Moraux and V. Nutton claim that Aristotle penned the \textit{On Health and Disease} \textsuperscript{212}. If we were asked to take position on this concern, given that Alexander of Aphrodisias\textsuperscript{213} report the existence of a treatise with that title, we consider that there is greater likelihood that Heitz’s slant is right.

\textsuperscript{206} Animals that died by natural causes were picked up for the purpose of dissecting, but considering Aristotle \textit{HA} III 3, 513a 12 – 15, it seems that Aristotle had no qualms about putting down some animals according to an especial procedure. Cfr. Wilson (1959), p. 294; Viano (1984), pp. 317, 334.


\textsuperscript{208} \textit{Περὶ νόσου καὶ ὑγείας}. Later authors knew about this treatise with some slight variations in the title, for instance, \textit{Περὶ ὑγείας καὶ νόσου (De sanitate et morbo)}, or \textit{Περὶ ἰατρικῆς (De medicina)}. Diels (1893a), p. XVI; Moraux (1951), pp. 110, 186 – 193; Manetti (1986), p. 61. In ancient Greek literature titles are rather seldom (only obligatory in theater plays), a situation that prompted the use of periphrasis to make reference to particular extant works. Cfr. Moraux (1951), p. 7 n. 17.

\textsuperscript{209} Cfr. Zeller (1879), p. 96; Heitz (1865), pp. 56 – 58 respectively.

\textsuperscript{210} Aristotle \textit{Resp.} XXI 480b 22 – 30.

\textsuperscript{211} \textit{CPF} Aristoteles 37T, p. 350.

\textsuperscript{212} Cfr. Moraux (1951), pp. 110 – 111; Nutton (2004), p. 356 n. 35. According to P. Moraux, the book \textit{Περὶ νόσου καὶ ὑγείας} did not deal with the practice of medicine, but it was a writing in which Aristotle, as a physicist, introduced his own opinions regarding medical art.

After having assessed the pros and cons and the plausibility of the two preceding works, the third case is quite different. Book X in History of Animals bears the title On barrenness and is mainly about the investigation into the causes of human infertility: why women are unable to conceive and, if any, by which means such an incapacity could be remedied. In the 3rd century CE Diogenes Laertius ascribed to Aristotle a book precisely entitled On barrenness. This detail looks loaded with meaning considering that in Diogenes’ and in another catalogue of the works by Aristotle it is stated that the History of Animals comprises 9 books, and not 10 as in its actual disposition. Furthermore, Book X is not included in a group of medieval manuscripts containing the History of Animals. The point to be realised from these details is that Book X could well have constituted a unity as such, a book conceived and composed separately that ended up added to the rest of the 9 books of the History of Animals. But, to what extent is it fair to attribute the writing of On barrenness to Aristotle? On grounds of argumentative and technical
features it is generally agreed that Aristotle did not write it\textsuperscript{220}. First, because the author of Book X does not argue according to the thinking patterns featuring Aristotle’s works\textsuperscript{221}. Secondly because Book X includes an outstanding empirical knowledge about the situations that need treatment\textsuperscript{222}, this being somewhat alien to Aristotle’s mind. In the third place, because the language and the phenomena described in Book X imply the direct observation of certain afflictions and an evident knowledge of certain medical procedures; for instance, the medical examination of the patient\textsuperscript{223}. Lastly, the criticism that Aristotle supposedly makes to “his colleagues” (scil. doctors) when it comes to diagnose some particular hardened cysts in the uterus (μύλας)\textsuperscript{224} talks of a very far-fetched attitude by Aristotle in this sense. However, as to this last objection, it might be worth bearing in mind two different arguments. In \textit{Generation of Animals} Aristotle explains the fleshy masses (μύλης) that sometimes women bring forth on the grounds that, alone of all animals, women are liable to uterine problems\textsuperscript{225}. Aristotle insists that the extirpation of these masses is very difficult by means of an iron blade, and he makes the point that has spoken about the cause of this occurrence in the \textit{Problems}. In point of fact, this specific ailment is not witnessed in the \textit{Problems}, but — as we have just seen — in the \textit{HA X}. According to this testimony, Aristotle was acquainted with a very specific malady, and he also knew that it was remedied with surgery that often caused further problems. Secondly, in his book \textit{On the Anatomy of the Uterus} Galen\textsuperscript{226} shows that neither Aristotle nor Herophilus nor Euryphon knew of certain inflammations in the uterus (ἐμφύσεις)\textsuperscript{227} which,

\begin{footnotesize}
\textsuperscript{220} Some have suggested that someone in Strato’s school could have written Book X. Cfr. Moraux (1951), p. 107 n. 15; Balme (1985), p. 193.

\textsuperscript{221} Van der Eijk (2005), p. 261. The objection grounds in the difference of the theories expounded at \textit{GA} II 7, 746b – 747a 24 and in \textit{HA X}. The divergences between both texts are so striking that one hardly can ascribe them to the same author. However, it is also possible to individualize some passages (e.g. \textit{GA} I 19, 727b 13 – 33) in which points of convergence with \textit{HA X} seem out of doubt. For the purposes of this chapter, it suffices to say that \textit{HA X} is prior to \textit{GA}. Cfr. Balme (1985), p. 193; Van der Eijk (1999), p. 491.


\textsuperscript{223} Cfr. Van der Eijk (1999), p. 494. The key term is doubtlessly the verb θιγγάνω, whose sense is «to touch, to palpate, to apprehend or reach by touching». Cfr. Pseudo - Aristotle \textit{HA X} 2, 635a 6 – 14; 3, 635b 15 – 16; 7, 638b 16 – 38.

\textsuperscript{224} Pseudo - Aristotle \textit{HA X} 7, 638b 16 – 38. The author renews them for their inability to discern that such cysts in the uterus are cold to tactile recognition in the event of unaccomplished conception. Cfr. also Hippocrates \textit{Mul.} I 71 [VIII pp. 148, 24 – 150, 22 Li.].

\textsuperscript{225} \textit{GA} IV 7, 775b 25 – 776a 14. From the description, it seems that Aristotle is speaking about cases of fake pregnancy.


\textsuperscript{227} By ἐμφύσεις Galen terms not only the internal abscesses in the chest but also in wherever part such purulent inflammations may grow. The issue, thus, is to make clear to what extent the word μύλη in \textit{HA X} reflects Galenic terms like ἐμφύση, ἐμφύσες, or φύμα. Cfr. Galen \textit{In Hipp. Aph. comment.} VII 44 [XVIII, 1 pp. 149, 7 – 150, 2 K.]; Grensemann (1975), p. 6 fr. 4.
\end{footnotesize}
though invisible to the naked eye, can be observed by means of an accurate dissection. If Galen’s remark is to be trusted, this means that Aristotle was actually concerned with medicine yet not to the point of treating patients; hence, a weak point has been signalled in the arguments of those who claim that Aristotle is the author of *HA X*. Anyway and anyhow, the four reasons expounded right here have driven most experts to judge Book X as spurious²²⁸.

3. 4 *The Προβλήματα φυσικά*

It is time now to move onto the next treatise under consideration. Cicero, Galen, and Plutarch are specific enough about the existence of an Aristotelian book on problems²²⁹ which is now lost²³⁰. It is widely accepted that Aristotle was not the author²³¹ of the collection of medical questions known as *Προβλήματα φυσικά*. The Προβλήματα was composed after the death of the philosopher, and gradually compiled and supplemented from the 3rd century BC to the 5th century CE²³². This notwithstanding, the Προβλήματα is the result of the investigations either by Peripatetics or by physicians who were keenly bent on accepting the medical-like tenets circulating in the Lyceum²³³. The vast amount of information collected in the Προβλήματα comprises a wide range of topics touching physiopathology, pathogenesis, therapeutics, the effects of the body position, the influence exerted by the climate, the structure and ailments of the sensorial organs and so forth²³⁴. Especially noteworthy is the definition of ‘drug’ in the first book: a drug is something which is not food, and independent of the amount taken, also a substance that provokes alterations when it penetrates into the vases of the intestines since it is not liable to be digested nor assimilated; for a drug — by definition — stands the natural heat of the body²³⁵. The first book of the

²²⁸ Ph. J. Van der Eijk is perhaps the most noticeable exception to this main opinion, for he claims that Aristotle was the author of *HA X* as well as Book X did not belong to *HA*. Cfr. Van der Eijk (1999), pp. 491, 495 n. 26, 502; (2005), pp. 262, 265.

²²⁹ Scholars like G. Marenghi, P. Louis, and in a way also H. Flashar, have stated that Aristotle wrote the first book of the Προβλήματα. Cfr. Van der Eijk (1999), p. 493 n. 18.

²³⁰ Moraux (1951), p. 11.

²³¹ As with other treatises in the Corpus Aristotelicum, for instance *On Breath*, in most modern editions the author of the Προβλήματα is often called ‘Pseudo - Aristotle’.

²³² Vegetti (1993), p. 115 n. 20. The most ancient manuscript dates back to the 10th century CE.

²³³ Moraux (1951), p. 116; Marenghi (1965), pp. XV – XVI.

²³⁴ By judging the wide array of topics addressed in the Προβλήματα, rather than to a real practical interest the expounded contents seem to have corresponded to a kind of *felix curiositas*. Cfr. Marenghi (1965), p. xviii.

Προβλήµατα φυσικά is also of value for containing references to the Hippocratic treatises *Airs*, *Waters, Places* and *Aphorisms*. J. Jouanna has provided insight on the embedding of the Aristotelian Προβλήµατα into some treatises of the Corpus Hippocraticum. As a result of the comparisons, it looks as if some chapters in the Προβλήµατα φυσικά were penned by perusing the earlier of the Hippocratic treatises; this yields definitive evidence that some writings attributed to Hippocrates were widely known among the Peripatetics.

And here the question regarding the alleged medical writings by Aristotle must be left. It remains to speak about the subject-matter of this second chapter: the relation between the Ἰατρικά and the *Anonymus Londiniensis* papyrus.

4. *The Ἰατρικά and the Anonymus Londiniensis Papyrus*

Though scarcer, we do have a few reports on a purported Aristotelian medical treatise — in two books — entitled Ἰατρικά (*De medicina*). The 7 purported fragments concerning this writing are severally collected in the former edition of the *Anonymus Londiniensis* papyrus. However, it is the quotation that Galen made about the Ἰατρικά that scholarly tradition will eventually assume.

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236 The treatise titled *Aphorisms* is, by far, the most read and commented Hippocratic writing. Jouanna (1993), p. 21.


In his *Commentary on Hipppocrates’ The Nature of Man* Galen wrote: « he who wishes to gain insight into this subject (scil. the causes of disease) should read the *Medical Compendium* which, although having been ascribed to Aristotle, was written by his disciple Meno ». Because of this remark the Ἰατρικά will be also known as *Menonia* or *Menoneia*. As has been said, Galen’s note matches well with the encyclopaedic project that Aristotle had in mind, so that the Ἰατρικά/ *Menonia* would correspond to the exhaustive investigation into the history of the different disciplines that Aristotle would have commended to some of his disciples, in the case of Meno in particular, that of the medical literature stored in the library of the Lyceum.

From the moment of its discovery F. Kenyon launched the hypothesis that the long papyrus of medical content which arrived at the British Museum corresponded to the *Menonia*. Adopting Kenyon’s standpoint, in 1893 H. Diels contended that the second section in the *Anonymus Londiniensis* papyrus was an epitome based on the *Menonia*. In the long run the “Kenyon – Diels hypothesis” would become dominant in the majority of studies on the London
papyrus. Thus, the second section of the *Anonymus Londiniensis* papyrus was accepted as confirmatory evidence of the existence of a medical doxography that, under the label ‘Aristotle’, circulated in Egypt at the end of the 1st century CE\(^{250}\).

Yet issues of different kinds arise when looking at the subject more closely. To start with, it is not clear at all who Meno was. D. Manetti, the philologist who has been studying the papyrus for the last 30 years, maintains that in the first two centuries CE about as much was known about Meno as we do today, which amounts to saying that it cannot be said that Meno ever existed\(^{251}\). Moreover, again according to Manetti, it cannot be discounted that the papyrus might represent an Aristotelian lost work to which the scribe of the *Anonymus* had direct access\(^{252}\). Were it true, the second section of the *Anonymus* papyrus would be a mess made of quotations, meditations, and comments drawn on the aforesaid *On Health and Disease*. But, besides this, the picture is accompanied by some additional difficulties.

Since not even a minimal trace of ink is to be found where Manetti’s edition indicates the presence of the term “Ἰατρικά”, by heading each and every page in her edition\(^{253}\) of the *Londiniensis* with that title Manetti’s alternative to the “Kenyon-Diels hypothesis” is automatically called into question. The addition is troublesome from a papyrological point of view\(^{254}\), for, according to the standard conventions, in finding the supposed title in angular brackets (i.e. ⟨ΙΑΤΡΙΚΑ⟩)\(^{255}\) the reader is asked to assume that ‘ΙΑΤΡΙΚΑ’ was an omitted word by the scribe, and on the other hand, that ‘ΙΑΤΡΙΚΑ’ is also the title of the whole papyrus which, if not wrong, is even more debatable. Both the actual state and the nature of the papyrus suggest that the scribe could not have wanted to give it a title at all or at least not the title that Manetti proposes. The sole title in the whole papyrus is the expression « Αἴ[τίο]λογικός.|Νόσοι.] » in col. IV, 18 – 19: « Etiological <Enquiry>. Diseases ». If the *Anonymus* is a hypomnematic writing, as has been solidly argued, there is no need for the scribe to have given it a title, for in being mainly conceived for private use

\[^{250}\text{Van der Eijk (1995), p. 452 n. 20.}\]


\[^{253}\text{Manetti (2011a).}\]

\[^{254}\text{Ricciardetto (2014), p. 41.}\]


\[^{256}\text{At best, we should find it amended as [‘Ιατρικά].}\]
the hypomnematic pieces used to be untitled\textsuperscript{257}. Therefore, if the adjective ‘untitled’ were added to ‘anonymous’\textsuperscript{258} we would be possibly doing much more justice to the papyrus.

Thus, despite the fact that it cannot be categorically asserted that the second section of the \textit{Londiniensis} mirrors any work by Aristotle or by Meno\textsuperscript{259}, it is at least undeniable that — apart from the explicit references to Aristotle — the papyrus shows a strong Aristotelian imprint from many other stances\textsuperscript{260}. Of the three sections the \textit{Londiniensis} papyrus is said to comprise, the second properly consists in a doxography. By ‘doxography’ H. Diels termed a genre of ancient writings intending to recollect the doctrines (\textit{δόξαι\textsubscript{2}}, \textit{ἀρέσκοντα\textsubscript{2}}, \textit{ἔνδοξα\textsubscript{2}}, \textit{placita}, etc.) of the authors who were credited as eminent in a particular subject. Such a compiling enterprise began with the dialectical method taught at the Lyceum\textsuperscript{261}. Aristotle’s influence on the \textit{Anon. Lond.} can be also appreciated in cols. XXIII, 42 – XXIV, 9 where the scribe alludes to a passage in \textit{On Sleep and Waking}\textsuperscript{262}. Other traits pointing to the Aristotelian influence on the \textit{Londiniensis} are the taxonomical criteria and the vocabulary: \textit{περίττω\textsubscript{1,2}, ἀναθυ\textsubscript{1,2}ιαθεῖ\textsubscript{1,2}αι\textsubscript{1,2}}, \textit{ἄπηκτον\textsubscript{1,2}} and the like are all terms coined by Aristotle or notions on which the philosopher confered a particular technical meaning.

Even if Aristotle — and not Meno — wrote the \textit{Ἱατρικά\textsubscript{2}}, we should definitely admit that we know it in such a diluted and distorted way by means of the \textit{Anon. Lond.} that it looks barely useful when the time comes to get a reliable picture of Aristotle’s medical doctrines. Aristotle, is true, is

\textsuperscript{257} Cfr. supra ch. I § 2; Dorandi (2007), p. 77; Ricciardetto (2013), p. 84. Apart from the title mentioned above, no other of the usual forms of title in papyrus (incipit, explicit, or titulus index) is found in the Anonymus; wherefore, had the Anonymus ever had a title it should have been in the initial part of the papyrus which has been lost (two columns, c. 90 lines). Diels (1893b), p. 410; Ricciardetto (2014), p. XVI. We have very scarce documentation about the starting part of papyrus scrolls, which interferes when the time comes to get a clue about the current literary procedures in this particular subject. Bastianini (1995), p. 25.

\textsuperscript{258} The fact of being anonymous appears to be the dominant trend when it comes to papyri. A look at the ensemble of Greek and Latin medical papyri evinces that only 54 (16.5 per cent) of the 328 papyri catalogued up to 2015 can be ascribed to some author, whilst the 274 that remain (83.5 per cent) are adespota. Marganne (2004), p. 63 (data provided by Prof. M. -H. Marganne during her communication « \textit{L’apport de la papyrologie à l’écdotique des titres des livres médicaux} »; CeDoPaL, Liège, 8. 10. 2015).

\textsuperscript{259} Ricciardetto (2014), pp. XXIX.


\textsuperscript{262} Cfr. infra ch. VI.

\textsuperscript{263} Col. VI, 32.

\textsuperscript{264} Col. XVII, [31].
always behind the scenes of the argumentative style in the papyrus, but we do not have a vivid portrait of his opinions. The second section of the *Londiniensis* presents Aristotle’s medical doctrines as these were received and understood by the scribe\textsuperscript{265}, perhaps indeed, as Diels believed\textsuperscript{266}, mixed with the contents that the author of the *Anonymus* found in the Αρέσκοντα\textsuperscript{267}, another doxographical work attributed to the physician Alexander Philalethes\textsuperscript{268}. In consequence roughly 2 or 3 interfaces intervene between Aristotle’s medical doctrines in the *Londiniensis* and us; with it, the exigible standard degree of verisimilitude and objectivity proper to any scientific approach to the subject is a long way from the desirable. Furthermore, the scribe does not make reference to Aristotle in the same way as he deals with the rest of the authors he addresses in the second section. Aristotle does not come reviewed as an authority whose theories of causation of disease can be found in this or that treatise; rather, it looks as if the author of the *Anon. Lond.* quotes Aristotle as one among multiple sources from which he draws the information he uses to give the multiple descriptions we find in the second section\textsuperscript{269}.

Matters standing thus, we cannot do more than sketch, from the treatises of which Aristotle is generally credited the author, a more accurate report on Aristotle as if the philosopher, like the rest of the reviewed personages, had been included in the second section of the *Londiniensis*.

5. *Aristotle and Medicine; a Recreation*

It is not that clear that the scribe of the *Londiniensis* would have placed Aristotle in the first of the two groups represented in the second section of the papyrus, which is comprised of the

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\textsuperscript{265} As J. Jouanna has noted « comme dans toute doxographie qui n’est pas une citation explicite ». Jouanna (1988), p. 32.

\textsuperscript{266} Diels (1893a), pp. 414 – 415; CPF Aristoteles 37T, p. 348.

\textsuperscript{267} In almost five books (today lost) according to Galen *De diff. puls.* IV 4 – 5 [VIII pp. 725, 17 – 732, 7 K.]. Cfr. von Staden (1989), pp. 533 n. 9, 538. Alexander Philalethes (Ἀλέξανδρος ὁ Φιλαλήθειος) is mentioned in cols. XXIV, 31; XXXV, 22; [54]; XXXIX, 1.


\textsuperscript{269} Cols. IV, 18 – XXI, 8. The second section (and to some extent perhaps also the third) is doubtlessly drafted on a variety of texts: manuals of ethics, medical definitions, different doxographies, exegetic material of diverse nature, collections of problems, collections of debates *in utramque partem* and the like. Cfr. Manetti (1996a), p. 295; (2013), p. 164.
physicians who assign the causes of disease to undigested food residue (περίττωμα)\textsuperscript{270}. Aristotle might have occupied instead a transitional position between that group and the other group also considered in the second section, that including the physicians who posited that diseases arise from the constitutive elements in us (στοιχεῖα)\textsuperscript{271}.

As has been said, the term περίττωμα is plainly Aristotelian\textsuperscript{272} but, in fact, the definition of περίττωμα given in the Generation of Animals\textsuperscript{273} does not seem to imply any kind of morbid agency; on the contrary, the περίττωμα is pictured in that treatise as an innocuous item related to the formation of the sperm\textsuperscript{275}. Thus, albeit Aristotle conceived the περίττωμα as the algid point of corruption of the nourishment in the body, he did not ascribe a pathologic agency to the περίττωμα, as seemingly comes to the fore in the report of the Londiniensis\textsuperscript{276}. According to Aristotle there is a flagrant contradiction in, on the one hand, attributing to the περίττωμα the causation of disease, and on the other, in regarding the περίττωμα as the matter that makes life possible; for, in Aristotle’s mind, it is simply inconceivable to put such two divergent effects to the same cause\textsuperscript{277}. There would then be serious difficulties in explaining how the same matter which is said to be at the root of

\textsuperscript{270}Cols. IV, 20 – XIV, 11. Euryphon of Cnidos (5\textsuperscript{th} century BC) is credited with having set the basis of such nosological theory. Cfr. Nutton (2004), p. 73. Euryphon’s etiological views are expounded in col. IV, 31 – 40.

\textsuperscript{271}Cols. XIV, 12 – XXI, 8? However, as H. Diels well remarked, the scribe of the Londiniensis papyrus considered two main causes of disease: a dietetic and a somatic one. Cfr. Diels (1893b), p. 415. We should add, moreover, that the presence of bodily fluids is in general regarded a pathologic sign among the physicians who put the causation of disease down to the residues; contrarily, those who ascribed the causes of disease to the elements in us tend to consider bodily fluids as plain constituents of the organism.

\textsuperscript{272}Nelson (1909), p. 105; Thivel (1965), p. 268; Jouanna (2012a), p. 7; Van der Eijk (2014), p. 364. There should be made a distinction between περίττωμα, πλήθος (cfr. cols. V, 39; VII, 27, 34; VIII, 39; IX, 15; XII, 14; XIII, 22, 23, 25, 45; XIV, 4; XVII, 9), and πληθώρα. The first notion mainly means “residues formed within the body after digestion”, the second and the third terms “more quantity or amount than necessary”, thereby also “superfluity”. While the concept περίττωμα takes a resultative sense, πλήθος and πληθώρα rather suggest a faulty condition which is likely to bring about a variety of diseases. Cfr. Galen De san. tuenda VI 6 [VI p. 408, 5 – 6 K.]; 13 [VI p. 442, 4 – 9 K.]. Seen as a potential cause of disease, several tenets related to the πλήθος were taken up as current topic of discussion in the medicine of the post-Hellenistic period, to the point that Galen wrote a treatise on the question. Manetti (1996a), p. 308. Erasistratus held that the majority of affections arise from an exceeding amount of blood in the veins, which provokes, in turn, the flooding of the arteries with the blood that passes to the arteries through fine capillaries that, in normal conditions, remain closed. Still according to Erasistratus, this abnormal situation also yields a deficient supply of pneuma in the arteries. Cfr. von Staden (1989), p. 304; Longrigg (1993), p. 217.


\textsuperscript{274}However, in col. XXV, 8 – 16 the scribe discusses and rejects the possibility that the περίττωμα could constitute aliment for irrational animals.


\textsuperscript{277}Cfr. also Pseudo - Aristotle HA X 5, 637a 40 – 41.
disease is at the same time decisive for conception and generation\textsuperscript{278}. That could be one of the many
incongruences or undetermined points we find in every great philosophical system, or further
evidence of the different attributions that the majority of fundamental concepts undergo throughout
their transmission\textsuperscript{279}.

To pay due heed to Aristotle it should be noted, however, that he differentiated between the
notion of περίττωμα from that of σύντηγμα\textsuperscript{280}, the latter always being of morbid nature
(νοσώδης)\textsuperscript{281}. Thereby, while the περίττωμα is the matter resulting from digestion or assimilation,
by σύντηγμα Aristotle intended something apparently different from περίττωμα, something like
“non-assimilated residue; humours permeating the body which neither being secretions nor
excretions are nevertheless regularly excreted; dissolution of the flesh; putrefaction of the flesh”\textsuperscript{282}. In this way, in contrast to what appears to happen in the Anonymus papyrus — where the concept περίττωμα takes an evident nosological sense — the use that Aristotle made of the term περίττωμα suggests some kind of bodily matter that is useless and superfluous but not necessarily pathogenous or harmful\textsuperscript{283}. Two different options seem possible thus far: either Aristotle made a distinction
between the περίττωμα and the σύντηγμα (attributing to the latter the causation of disease), or he
posited the existence of two different genres of residue, useful ones and useless ones, the useless
ones (συντήγματα) being those that caused disease.

Returning once more to the thread of the argument, Aristotle’s etiological doctrine as a
midway position between the two groups portrayed in the second section of the Londiniensis could
be reinforced by the fact that he conceived the human body as the result of a successive aggregation
of elements. In Aristotle’s view the four qualities or causes of the elements are heat, cold, dryness

\textsuperscript{278} Aristotle Mete. IV 6, 383a 6 – 9.

\textsuperscript{279} Which can be extrapolated to the reason why the constitutive elements of the body are in the end also potential
agents of disease.

\textsuperscript{280} Aristotle Somn. Vig. III 456b 35. This notwithstanding, Aristotle not always seem to make a distinction between one
and the other, i.e. PH IV 2, 677a 13; GA I 18, 724b 27.

\textsuperscript{281} Νοσώδης is a typical adjective formed by adding the suffix -όδης, which belongs to a cluster of concepts that
experienced a notable increase in scientific language from the 5\textsuperscript{th} century BC on. Νοσώδης is in fact attested in other
places than the Corpus Hippocraticum, but not earlier than the 5\textsuperscript{th} century BC. Originally, the suffix meant « to smell to 
», but either due to the confusion with the suffix -ειδής or to the import that the sense of sight had in the Greek world ,
the word νοσώδης soon took on meanings like « to have the aspect of », « to possess the quality of », or « to seem, to


\textsuperscript{283} As far as this distinction is concerned, A. Thivel claims that pathologic determinism grounded in the notion of
περίττωμα cannot be Aristotelian. It is a firm belief of Thivel that it is all about the Ἀρέσκοντα. In short, it is not the
case that the scribe is ignorant of Aristotle’s theory, but it rather seems to Thivel that in having drawn from Alexander
Philalethes’ work, the author of the Londiniensis got with some unhappy version of Aristotle’s opinions on the causation
and humidity, attributing to the first two agents the majority of biological processes in us\textsuperscript{284}. Hence the difficulty in foretelling on the side of which of the two groups the scribe would have placed Aristotle.

Probably because he considered that the digestive process could bring about several kinds of disease, Aristotle placed importance on the physiology of the digestion ($\pi\acute{e}$ψις)\textsuperscript{285}. In the Corpus Aristotelicum digestion is likened to an ebullition\textsuperscript{286}, to a type of concoction which is possible and made effective by means of the performative power of the innate heat within the body\textsuperscript{287}. According to Aristotle, after a meal the fluids resulting from the ebullition taking place in the stomach are distributed through a network of thin vessels in the intestines. Afterwards, such fluids pass through the pores by virtue of an evaporation-like process becoming in that way a kind of serum (ίχωρ), which in its gradual ascension through the body is said to turn finally into blood\textsuperscript{288} after having experienced a series of concoctions: the first in the intestines, the second in the liver\textsuperscript{289}, the spleen,

\textsuperscript{284} Aristotle \textit{PA} II 2, 648a 33 – 35.

\textsuperscript{285} The word πέψις (digestion) is etymologically linked to σήψις (putrefaction), this being perhaps the reason for Empedocles rather considered the digestion as a kind of putrefaction, and not as a concoction. Longrigg (1993), pp. 162, 172. In Aristotle the term σήψις gets a nosological meaning, i.e. the transformation undergone by an organism when it is exposed to a too high temperature. Cfr. Aristotle \textit{Mete.} IV 1, 379a 14 – 15; 3, 381b 7 – 8. Steckerl (1958), p. 32. While digestion takes place in the viscera in the upper part of the body, bowels in those of the lower part. In being the lower part of the belly the place where the residues “get stocked”, there is more likelihood for a process of putrefaction to occur therein. Aristotle \textit{Mete.} IV 4, 381b 6 – 13; \textit{HA} V 19, 551a 4 – 8. Cfr. also col. XVI, 19 – 24. In the Aristotelian Προβλήµατα, the verb πέττεσθαι can indicate « state of maturation », or else « the complete absorption of the harmful humours in the body », as if in a stew. Cfr. Pseudo - Aristotle \textit{Pr.} I 6, 859b 13; Marenghi (1965), pp. 27 – 29 n. 18; López Eire (1996), p. 393. At Pseudo - Aristotle \textit{HA} X 7, 638b 4, the verbal form πέψαι is used to describe the gradual evolution that the fetus experiences in the uterus; so that, in a sense, pregnancy was also viewed in terms of concoction.


\textsuperscript{287} Aristotle \textit{PA} II 3, 650a 4 – 5; \textit{Mete.} IV 2, 379b 10 – 14; 3, 380a 8; Pseudo - Aristotle \textit{Pr.} I 117, 861a 23.

\textsuperscript{288} Aristotle \textit{Juv.} III 469a 1 – 2. To Aristotle every living being has blood or some analogous principle.

\textsuperscript{289} For the importance attributed to the liver in Aristotelian commentators and their description of the issue cfr. Wiesner (1978), p. 256.
the kidneys, and finally in the heart. It comes as no surprise then that a wide range of dyspeptic ailments come to be explained by virtue of an unfulfilled concoction of the food.

In a similar vein, so far as the causes of disease are concerned, Aristotle deems the air enclosed in the body — yielded by the gases exhaled from the residues formed after a copious or heterogeneous meal to be the cause of uncontrollable palpitations, shivers, and trembling. Apart from bringing about sleep, Aristotle states elsewhere that one is liable to be seized by catarrh, nightmares or indeed the deformation of certain parts of the visage when the warm gases produced during the digestive process get cooled in the head. It is precisely here that Hippocrates comes in, for this etiological theory resembles the Hippocratic one, or more properly speaking, Hippocrates’ doctrine insofar as it was understood and assumed by Aristotle. We should go now into the details implied in the assertion.

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291 In examining the antonymous notion, ἀποψία, it turns out that it means « raveness, indigestion, privation or absence of concoction, food that has not been transformed into juice » etc. The word διστηθεία refers to a corrupted concoction. The first group of physicians reviewed in the second section of the Anon. Lond. is in some way convinced that diseases come upon due to some kind of digestive dysfunction provoked by the unbalance between bodily heat and amount of consumed food; for, whenever the situation is such that the ingested food cannot be wholly assumed by innate heat, then the body produces residues (περιτριπήματο), which in turn — according to those doctors — is the cause of different kinds of ailment. Cfr. Tacchini (1996b), p. 98.
292 At the basis of the Hippocratic view of health and illness one sees the idea that there is a kind of fight between the body and the food (either solid or liquid). Jouanna (1988), p. 35; (2012e), p. 146. Cfr. col. VI, 1 – 6. The term προσαρμὸντος in col. VI, 2 has led D. Manetti to hold that the fragment comprised between cols. V, 43 – VI, 2 was shaped on Hippocrates Aph. I, 15. Cfr. Manetti (1996a), p. 295.
293 Aristotle Mete. II 8, 366b 25 – 30. Diocles of Carystus was who assigned the efficient cause of a number of diseases to the blockage of the air in the body. Thus, in Diocles’ view, if the phlegm blocks the pneuma in the aorta that can bring about epilepsy or apoplexy. When the obstruction of the pneuma takes place near the heart it is accompanied by fevers, headaches, or even melancholy. Nutton (2004), pp. 121 – 122, 126.
294 Aristotle Sens. V 444a 11 – 15: « διό καὶ ἡ τῆς τροφῆς ἀναθεμάτωσις ψυχομένη διὰ τὸν τόπον τὰ νοσηματικά ἡμάτια ποιεῖ », (« This is why the fumes of food, when they are chilled by the coldness of that region, cause catarrh »). Trans. Hett (1957), p. 253.
295 Aristotle Somn. V 1454b 6 – 7; III 458a 4 – 5; Insomn. III 461a 23 – 25. In addition, Aristotle affirms that those whose nature is so constituted that much upwards evaporation takes place do not see mental pictures in their dreams. Aristotle Insomn. III 462b 6 – 9.
296 At Aristotle’s time, or immediately after, by ‘satyriasis’ it was meant the deformation of the traits of the visage; whereas later, at least from the 1st century CE on, this denomination started to mean the inflammation of the seminal ducts, or of the neck of the bladder; inflammation that provoked, it was believed, acute pains in the genital area, a very intense sexual desire, and even delirium. Cfr. Anonymi medici XVI 1 – 2 [Garofalo (1997), p. 106, 16 – 23].
297 D. Gouveiritch and J. Longrigg affirm that a good deal of the physiological and medical principles we see in Aristotle are related to the physician Philistion of Locris (cols. XX, 25 – XXI, 8 ?)). Gouveiritch (1989), pp. 237 – 239; Longrig (1993), p. 158. Philistion was a Sicilian physician of the 4th century BC. Cfr. Bidez - Leboucq (1944), pp. 7, 17 – 18; Nutton (2004), p. 115; Ricciardetto (2016), p. XCVII. In the Londiniensis papyrus, Philistion, along with Philolao of Croton and Menecrates of Siracusa, is one of the three authors from south Italy who attribute the causation of disease to the unbalance between the constitutive elements of the body and their properties. Contrariwise, Hippo of Croton and Timotheus of Metapontus — two other physicians from the same area also reviewed in the papyrus — assign the causes of disease to the residues which arise from undigested food. Cfr. Debru (1996), p. 179.
5.1 Hippocrates and the Lyceum

Although none of the titles classed as Hippocratic is quoted in the Corpus Aristotelicum, columns V, 35 – VI, 43 in the Anon. Lond. bear definitive evidence that Hippocrates’ writings were studied at the Lyceum, as well as that a “heterodox interpretation” — mistaken in the scribe’s opinion — of Hippocrates’ etiological theory circulated among the Peripatetics. Nothing of what is reported in Anon. Lond. V, 35 – VI, 43 fits neatly in every particular with any surviving work in the Hippocratic Corpus. True, the aforementioned fragment in the papyrus seems to follow closely some ideas and occasionally even the wording of Breaths. In Breaths one is to find a twofold interpretation of pneuma. On the one hand in Breaths III 1 the pneuma is said to be a source of nourishment, so that the comparison between the plants called ‘soldiers’ and the anatomical disposition in man could have inspired the author of the Anonymus to justify the preponderant role of the air. On the other hand, the author of Breaths supposes that all diseases are caused by the air, so that he pictures the pneuma as the principal source of illness, this probably being why the scribe might have made use of that treatise in the etiological section. Both the description of

298 Split in two (i.e. V, 35 – VI, 18 and VI, 31 – 43), this passage was translated into French and addressed by J. Jouanna in Jouanna (1992), pp. 89 – 91.

299 Diels (1893b), pp. 421, 431; Manetti (1999), pp. 105 – 106; (2014), p. 233; Ricciardetto (2014), p. XXXVI n. 198. Judging by how the substantive προσφατησις (σις) is used in col. VI, 2, it has been suggested that cols. V, 43 – VI, 2 were written by fixing the gaze on Hippocrates Aph. I 14 – 15, for the term προσφατησις (i.e. nourishment) is in both chapters utilised to shore up more firmly the idea that, in relation to the capacity of digesting, there must be a fair proportion between food and innate heat. Cfr. Aph. I 14 – 15 [IV p. 466, 8 – 16 Li.]. The same tenet is taken up in Hippocrates Hum. VI [V p. 484, 11 Li.]; Dec. hab. XIV [IX p. 240, 13 Li.]. In the medical literature to come after Hippocrates, the word προσφατησις is always employed in constant reference to Aphorisms. Cfr. Manetti (1996a), p. 295 n. 2.

300 Manetti (1990), p. 219. The contents comprised between cols. VI, 44 – VII, 37 convey what the scribe of Anon. Lond. takes as Hippocrates’ real theory of causation of disease. Cfr. Jones (1984a), p. XL. Consequently, in cols. VI, 42 – 44 and VII, 37 – 40 the scribe insists on the fact that it must be drawn a distinction between what Aristotle believed that Hippocrates upheld as regards this subject-matter, and on the other hand, what Hippocrates in fact hypothesised as a cause of disease. In the Anon. Lond. such distinction is expressed by means of verbs like οὐφελε ή λέγει. Cfr. Kudlien (1989), p. 358; Nutton (2004), p. 207. From a papyrological point of view, the contrast in the opinions is also stressed by the diple obelismene between ll. 43 – 44 in col. VI. As has been said in the commentary above, in the Londiniensis the diple obelismene is systematically used precisely in order to indicate the shift from the opinion of one author to another. Finally, this “heterodox Hippocratism” (perhaps “pre-Galenic Hippocratism” would be a more correct appellation) is also witnessed in another medical papyrus from the 2nd century CE, the P. Stras. gr. inv. 26. Cfr. Manetti (1996a), p. 304.


Hippocrates’ etiological theory (according to Aristotle) and the pathological interpretation of pneuma in the Hippocratic treatise Breaths convey the same assumption, that is, massive intake of food in combination with lack of physical exercise, and the intake of too varied kinds of food may both lead to improper digestion. Food in excess brings about an excess of air in the body, be it due to the air inhaled at the same time as eating, or to some extra air that arises from the residues of the undigested food which is eventually added to the extant air in the body. The combination of these two facts is said to block the upper stomach. This blockage generates air bubbles (φῦς) that cool down the parts of the body where sanguineous irrigation is major; thereby the whole body becomes excessively cooled, and with it the majority of natural functions become prevented or impeded.

So far, thus, it seems that the portrayal of Hippocrates’ etiological views in the Anon. Lond. has roots in the writing entitled Breaths — a treatise that Aristotle/Meno took as a genuine work by Hippocrates. Yet one must then also take up a substantial reworking by the scribe in order to produce a succinct entry; because of this, the assumption (whereby Anon. Lond. would rely on the treatise Breaths) yielded discordant opinions from as early as the first decade of the last century. In this sense F. Blass believed that the doctrine attributed to Hippocrates in the Londiniensis papyrus must have been in a lost treatise — with a similar content to that in the Breaths — stored or circulating in the Lyceum. He suggests that this entry is a composite included in a section taken from a work that is now lost. As to the supposed link between Breaths and this particular passage in the Londiniensis dealing with Hippocrates’ etiological theories, Blass raised a happy double objection by showing that neither the term περιττώµατα in col. V, 42 – 43 nor the comparison with the water lettuce in col. VI, 22 – 29 occur in the Breaths. Later on, in a contribution on the issue at hand, F. Steckerl underscored anew the mistake of tracing Hippocrates’ theory (as described

304 Col. V, 35 – 37.
306 Blass (1901), pp. 408.
307 Blass (1901), pp. 405 – 407. It was H. Diels, however, the first who took this detail into account. Diels (1893b), p. 424. In Plato Ti. 90a – b we see a formulation which resembles the simile with the water lettuce: (« God has given to each of us, as his daemon, that kind of soul which his housed in the top of our body and which raises us — seeing that we are not an early body being that part which, we say, dwells at the top of the body, and inasmuch as we are a plant not of an earthly but a heavenly plant — up from earth towards our kindred in the heaven […] for it is by suspending our head and root from that region whence the substance of our soul first came that the Divine Power keeps upright our whole body») [Trans. Bury (1961), pp. 245, 247]. Beside this coincidence, H. Diels argued that the comparison between the aquatic plants and the nature of man might have been drawn from Hippocrates Nat. Puer. XXVI [VII p. 526, 14 – 19 Li.]. Diels (1893b), p. 424 – 426.
above) in the treatise *Breaths*\(^{309}\). Steckerl argued that the theory of the ϕύσαι as pathological agent—therefore also the source of Hippocrates’ theory of causation of disease in *Anon. Lond. cols. V, 35 – VI, 43*—was rather drawn from the *Ancient Medicine*\(^{310}\), another treatise in the Hippocratic collection. In the light of Steckerl’s remark one gains an appreciation of the possible root of the misunderstanding hitherto: the gases resulting from digestion are the immediate cause of some ailments, but the residues from which such gases arise are first and foremost the real cause of ailments. The etiology that was based on the pathologic action of residues, as pictured in the *Anonymus Londiniensis*, could be taken as the last breath of a theory of the causation of illness that ended up eventually overturned by a new explanatory paradigm basically made of Hippocratic humoralism (vulgata Hippocrativa)\(^{311}\) and Galenism\(^{312}\).

Independently of the criticisms and reformulations suggested by Blass and Steckerl, in the *Anonymus* we bump into a theory that looks to be in conflict with everything which, in general, we have been told and taught about Hippocrates. For this reason it is fairly plausible that in the Aristotelian doxographical source that the scribe used Hippocrates’ etiological view was placed beside the theories of those physicians who held the food residues to be the cause of disease. Such a doctrine, admittedly highly unusual at first glance, could have lasted for some time\(^{313}\) among medical circles before being finally superseded by the “orthodox humoral theory” that the scribe of the *Anonymus*, for the purposes of this issue, judged genuinely Hippocratic.

The author of *Anon. Lond.* argues in fact that, if we were to believe Aristotle, Hippocrates should be considered as a physician partaking in the views of those who ascribed the causation of disease to the residues; yet, in his opinion, the version that Aristotle offers of Hippocrates is incorrect. By way of counterargument, in cols. VI, 45 – VII, 1 the scribe brings into discussion the

\(^{309}\) Hippocrates *Flat. VII* [VI pp. 98, 16 – 100, 12 Li.] = [CMG I 1 pp. 94, 23 – 95, 18 Heiberg]. Diels (1893a), p. 8.

\(^{310}\) Hippocrates *Vet. med. XXII* [I pp. 630, 6 – 634, 4 Li.]. Steckerl (1945), pp. 175 – 176. As to the question whether the *Ancient Medicine* was written by Hippocrates, É. Littré and Th. Gomperz considered this treatise as Hippocrates’ genuine work. Cfr. Steckerl (1945), p. 180 n. 9; Jouanna (1993), p. 17.

\(^{311}\) Manetti (1996a), p. 296.

\(^{312}\) By judging Galen’s interpretation of humoral theory, the *Anonymus* papyrus offers a quite original reading of Hippocrates. Manetti (1999), pp. 303 – 304. According to D. Manetti there is nothing in the *Anon. Lond.* suggesting that the scribe would have held radical doctrinal differences in respect to Hippocrates. Manetti (1999), p. 310. Manetti’s interpretation is in conflict with J. Jouanna, who actually contends that the author of *Anon. Lond.* holds a clear-cut anti-Hippocratic view.

\(^{313}\) It is significant that a very similar theory can be found in the physician of Pergamon. According to Galen, from the effluvia (ἀναθυµάσεως) of the residues (περιττούς) not only headaches occur in some, but also the symptoms of effusions and in some also epileptic convulsions. Galen *De san. tuenda* VI 10 [VI pp. 425, 12 – 426, 1 K.].
treatise *The Nature of Man*\textsuperscript{314}, since he assumes that it is precisely to this writing that one should go to read Hippocrates’ real opinions about the causes of disease\textsuperscript{315}. As a matter of fact it is in *The Nature of Man* where the contrast between the two categories of disease and the two types of causes to which the *Londiniensis* makes reference is asserted with the greatest clarity\textsuperscript{316}. The alternative put forward by the scribe tallies much better with the Hippocratic humoral theory to which we are accustomed\textsuperscript{317}. Imagine that the contents expounded in *The Nature of Man* are such as Hippocrates’ real doctrine, the physician of Cos should be placed then in the second of the groups reviewed in the second section of the *Anonymous* papyrus.

That would do were it not for the fact that the objection raised by the scribe introduces three non-trivial matters. The first one lies in the conjectural reading of the papyrus at this point\textsuperscript{318}, so that in view of the lacunary nature of the papyrus we can only guess that the scribe is presumably alluding to the title of the Hippocratic treatise *The Nature of Man*. In the second place, the obscurity of the issue is to do with the fact that it is rather strange that the author gives at this point a specific title of a work while, in fact, he does not mention the name of the second treatise which, it seems from the content, is also purportedly alluded to (i.e. *Diseases*)\textsuperscript{319}; this belying in addition what looks to be the dominant all through the papyrus: the omission of the title of the sources on which the author dwells. The third difficulty lies in the scribe’s apparent unawareness of the fact that Hippocrates might not have written *The Nature of Man*; for, to the Aristotelians\textsuperscript{320} it was Polybus of

\textsuperscript{314} As it seems, Hippocrates *Nat. hom.* IX [VI pp. 52, 11 – 56, 12 Li.]. The disagreement is grounded in the intermingling of both passages with some other content that the scribe apparently drew from Hippocrates *Morb.* I.


\textsuperscript{317} Or the so-called ‘Hippocratic vulgata of the Imperial period’ as we see it expounded, for example, in Hippocrates *Nat. hom.* IV [VI pp. 38, 19 – 40, 2 Li.]; V [VI p. 40, 15 – 16 Li.]. Cfr. Jones (1984a), pp. XLVIII – XLIX; Manetti (1996a), p. 296. In any case, either the predominance of one humour upon the rest or their uneven mixture are likely to engender harmful gases. Steckerl (1945), p. 177.

\textsuperscript{318} Col. VI, 45 – VII, 1: « [±]γ.4/5…. (…) ἐρι ζυγεῖον || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || || |
Cos (Hippocrates’ disciple and son-in-law) who was credited with doing so — and it was perhaps on account of this familial bond that Polybus’s theory became ascribed to Hippocrates.

As regards the first objection, insight into the content immediately following in the Londiniensis points to a factual reference to Hippocrates’ (Polybus’s) The Nature of Man. Even though the scribe holds that it is an explanation that does not really match the facts, he claims that, besides an excessive cooling or heating of the bile or the phlegm, Hippocrates advanced two other possible causes for disease: the air (ἀπὸ τοῦ πνεύματος), and the alimentary habits or the diet (ἀπὸ τῶν διατημάτων). So in short, general diseases originate from the miasmas contained in the air, and individual diseases originate from dietary regimen (this distinction is made in two Hippocratic treatises, Breaths and The Nature of Man). By the former cause, airborne miasmas, is meant the agent that acts upon a population when many people are suddenly and almost at the same time gripped by the same illness. Seeing that in the Corpus Hippocraticum it is rather scarce to see occurrences where the term ‘epidemic’ (ἐπιδημία) takes the medical sense we nowadays to see occurrences where the term ‘epidemic’ (ἐπιδημία) takes the medical sense we nowadays


322 Col. VII, 18 – 21.

323 It should be kept in mind, moreover, that the quaternary humoral scheme (blood, phlegm, black bile, and yellow bile) as we see expounded in Hippocrates Nat. hom. IV-V is, as such, unattested in the majority of books of the Hippocratic collection. Anon. Lond. makes mention of only three humours (phlegm, bile, and blood); so that, on grounds of this detail, at this point in the argument the author of the Anonymus could not have been paraphrasing Hippocrates’ (Polybus’s) The Nature of Man. We should remember that Philolaos of Croton only conceded the existence of those same three humours, and as has been said, it is likely that he found this theory in the philosophy of the pre-Socratic sophist Prodicus, who is credited with having written a treatise titled, precisely, Περὶ φύσεως ἀνθρώπου. Cfr. Galen De fac. nat. II 11 [II p. 130, 4 – 5 K.]; Diels (1893b), p. 419 n. 1; Manetti (1990), p. 230; and supra Comment. on cols. XVIII, 8 – XIX, 1. The only argument to which we could resort to claim that it is not the case seems to lie in the division established by the scribe himself, inasmuch as Philolaos (Prodicus) belongs to the second group of authors reviewed in the doxographical section; but, at any rate, Hippocrates’ theory of causation of disease appears to be also a meddling in the logical order of the arguments that the scribe proposes.


326 Another similar use can be found in Hippocrates Progn. XXV [II p. 188, 12 – 14 Li].
attribute to it\(^{330}\) (that is, ‘pestilence’)\(^{328}\), or the fact that the majority of the population suddenly comes down with the same illness at once — which is also the intended meaning below in col. VII, 18 – 21; and in considering also that it is precisely this scenario that we find in *The Nature of Man*\(^{329}\); it could be by that token that this writing that the Peripatetics attributed to Polybus, which will be eventually assigned to Hippocrates, was the treatise taken into consideration in the *Anonymus* papyrus. We should add that the objection that the scribe raises against this general Hippocratic theory seems at this point to be in consonance with the content of *The Nature of Man* itself\(^{330}\).

6. « Aristote, fils de médecin, lecteur attentive d’Hippocrate »

We have extracted on purpose the heading for this last section from J. Jouanna\(^{331}\) because it seems to grasp most of what has been said hitherto. It is time to set out some conclusions. So far,  

\(^{327}\) By ἐξονήμια it was generally meant ‘visit, notes taken by a physician while sojourning, sporadical arrival to a certain place, general affliction coming about in one place at the same time, pestilence’ etc. Cfr. Jouanna - Grmek (2000), p. 230 n. 6; Pino - Hernández (2008), pp. 200 – 201; Jouanna (2012d), p. 124.


\(^{330}\) Compare for instance col. VII, 23 – 32 « οὐχ ἤγιόν περιοίσιμον την ἐπιζηρήσειν [...] ᪂ Γήρα δὴ πάντωθι...ους αἰτία ἐστιν, δὴ ἄπτεται πάντων ἡ νοῦς, ἐβόθτες καὶ τῶν νεωτέρων καὶ τῶν πρεσβυτέρων, καὶ γυναικῶν καὶ ἀνδρῶν ὑμόιοις, καὶ τῶν θρησκευόμενων καὶ τῶν ὕδροποτεόντων, καὶ τῶν μάγων εὐθύνοντων καὶ τῶν ἄρτων σιτευόμενον, καὶ τῶν πολλὰ ταλαπωρούντων καὶ τῶν ὀλίγων », (« It is clear that the diet of each of us cannot be the cause of disease, since it attacks everyone in turn, young and men and old, without distinction, those who drink wine and those who drink water, those who eat barley bread and those who eat wheat bread, those who do a lot of exercise and those who do little »). Trans. Jouanna (2012e), p. 143 n. 20.

after this journey through catalogues, treatises, manuscripts, and papyri in order to clarify the alleged bonds of the medicine with Aristotle the matter in question could be summed up as follows.

Caelius Aurelianus quotes literally a passage of a lost book attributed to Aristotle entitled *On Remedies*. However, it could scarcely be affirmed that Aristotle practised medicine in the way we understand it nowadays; so Aristotle did not follow family tradition. The fact that he would not have practised medicine does not mean that he had no interest in it; rather than being a practitioner Aristotle studied the medical art from a theoretical stance, putting special emphasis on the methods displayed by doctors at the time. Just as Hippocrates focused his efforts on disease and the techniques to treat it in a successful manner, Aristotle did so on health, and the means of keeping it, thus subordinating the technical to the theoretical. This is the clue to comprehending the particular doxographical way in which Aristotle approached medical doctrines, particularly Hippocrates’s, the most salient physician in Antiquity.

Aristotle's extant writings show proof of his activity as a naturalist, this prompting him to dissect animals, which permitted him to get an approximate image of human anatomy by way of analogy and inference. Furthermore, in many occasions the accounts given by Aristotle can be traced to Hippocratic writings. The Peripatetic tradition immediately after Aristotle dwelled on Hippocratic treatises to entertain in the discussion of medical issues at a theoretical level. Despite the difficulties involved in the transmission and the editing of Aristotle’s writings, the last part of his *On Respiration* might preserve the traces of the purported Aristotelian writing *On Health and Disease*. Most experts agree that book X in *History of Animals* was not written by Aristotle, but it is debatable.

Now, as has been argued, cols. V, 35 – VI, 43 in the *Anon. Lond.* yield evidence of Aristotle’s acquaintance with a certain set of Hippocratic principles regarding the causation of disease as expounded in the Hippocratic book entitled *Ancient Medicine*. Whether whoever held such an etiological theory was the historical Aristotle, or Meno, or the early Peripatetics is almost impossible to figure out — the silence of the scribe on the sources he used and his proneness to make no distinction in that sense means that this point remains unclear.

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334 This is the meaning of the dictum that Aristotle assigns to Anaxagoras at *EN II* 2, 1104a 13 – 14: « δεῖ γὰρ ὑπὲρ τῶν ἄφαντων τοῖς φανεροῖς μαρτυρίοις χρῆσθαι », (« for one is forced to explain what is invisible by means of visible illustrations ») [Trans. Rackham (1962), p. 77].
Thus, the answer to the question put by Diels\textsuperscript{336}, whether the \textit{Anonymus} could in a way help to illuminate the concern of the medicine at the Lyceum, should be given in the affirmative; since, apart from the aforesaid parallels between some Hippocratic writings and some passages in the \textit{Προβλήματα}, the \textit{Anonymus Londiniensis} papyrus looks for the time being to be the only textual evidence available to support the view that at least one medical treatise attributed to Hippocrates\textsuperscript{337} (i.e. \textit{Ancient Medicine}) was known at the Lyceum.

\textsuperscript{336} Diels (1893b), pp. 409, 421.

\textsuperscript{337} Ever since Galen it is believed that the \textit{Ancient Medicine} was not by Hippocrates. Jouanna (1992), p. 530; (2012e), p. 149 n. 33. As with \textit{Breaths} and \textit{The Art}, the treatise titled \textit{Ancient Medicine} belongs to a well witnessed literary genre in the Corpus Hippocraticum known as ‘discourses of thesis’. \textit{Ancient Medicine} is a kind of writing that was composed and conceived of as to be read or spoken out loud before an audience Cfr. supra ch. I § 5 n. 116.
The Concept ἐντρέχεια in the
Anonymus Londiniensis Papyrus

1. Where Is That, and What Is Written?

The first section of the Londiniensis papyrus consists of a list of definitions regarding the notion of disease. Before going on to classify the psychical afflictions, the scribe of Anon. Lond. goes briefly into dealing with the soul. It is in relation to this topic that the concept ἐντρέχεια comes across, and not just once but twice:


«This having been established, we must learn that of affections some are said to be psychological, others bodily, including as bodily all those included under the power of life, and distinguishing the powers, especially the power of life, from the soul. The word “soul” is used in three senses: (1) the soul that pervades the whole body, (2) the rational part, and also (3) entrecheia ». With entrecheia we have nothing to do at present but we have with the other two meanings of soul, especially with the rational part. »


« For in fact the soul is a power. The word “soul” is used in three senses: (1) the whole soul, (2) the rational part and, (3) the entrecheia itself. But let us deal now with the two former meanings ».

The reason for this doubled occurrence owes to the fact that the former is placed in a broad passage deleted by the scribe that he inserted later in col. II, 6 – 9. According to our autopsic study of the papyrus, and after having examined both passages by means of high resolution magnified photographs at the CeDoPaL[339], it becomes plain that « ἐντρέχεια/ἐντρέχεια » is how the Anonymus papyrus reads respectively in cols. I, 24 bis and II, 9. However, the different translations and interpretations to which the concept ἐντρέχεια has been subject blur what actually counts as


[339] For which I ought to express my gratitude to Prof. M. -H. Marganne and to Dr. A. Ricciardetto.
ἐντρέχεια in the Anonymus. This third chapter is therefore devoted to putting forward some arguments in order to throw a little more light on the aim of the scribe at this point.

2. Some Interpretations

The issue commences with H. Diels, for whom it was a matter of a misreading between ἐντρέχεια and ἐντελέχεια; this being, among others, one of the main reasons that led the philologist to argue that the scribe of Anon. Lond. was not really learned in philosophy\textsuperscript{340}. Following Diels, the majority of scholars has agreed that the term ἐντρέχεια in the Londiniensis is due to a mistake\textsuperscript{341}; so that in place of ἐντρέχεια one should find either ἐνδελέχεια or ἐντελέχεια\textsuperscript{342}. This is the view of W. H. S. Jones\textsuperscript{343}. Insofar as Jones considered the writings of the Londiniensis papyrus notes taken by the scribe while attending some lectures\textsuperscript{344}, to Jones the term ἐντρέχεια would correspond to misspelling, and the term ἐντρέχεια is to be taken as an error owing to the ἀπὸ φωνῆς\textsuperscript{345} nature of the Anonymus Londiniensis. From another stance but still considering ἐντρέχεια as an error, there is also P. Podolak. In his quest for the identity of the Londiniensis’s author, Podolak comes to the conclusion that the papyrus was not penned by the physician Soranus of Ephesus (2\textsuperscript{nd} century

\textsuperscript{340} Diels (1893a), p. XV: « in philosophia plane hospes esse videtur ». The alternative meaning that Diels proposed was « animae status ». Diels (1893a), p. 90. Cfr. also Diels (1893b), pp. 410 – 411; supra ch. I § 2 n. 32.

\textsuperscript{341} In col. I, 24 bis, the first occurrence(s) of ἐντρέχεια in the Anon. Lond., the word is fairly edited in double square brackets [ ]. As a matter of fact, the expression « ἡ ἐντρέχεια καὶ τὰς μὲν ἐντρέχειας » belongs to a broader passage in the first column which was canceled by the scribe himself by means of a descending semicircular line which covers ll. 16 – 39. Cfr. supra Comment, on col. I. In view of that, one could be prompted to draw the hasty conclusion that ἐντρέχεια is a partial mistake in the core of a longer paragraph that the scribe deemed also faulty.

\textsuperscript{342} In the Trial in the Court of Vowels the comedy writer Lucian of Samosata presents the following situation. The letter Sigma (Σ) brings the letter Tau (Τ) to trial because of feeling that, according to the Neo-Attic style in vogue, she has been almost completely superseded from the majority of the writings when the time comes to write two contiguous consonants. In her apologetic discourse, the letter Sigma recalls to the audience that the letter Delta (Δ) also holds the same grudge against the letter Tau. One of the examples that the letter Delta makes is precisely ‘ἐντελέχεια’, when in reality the right form should be ‘ἐνδελέχεια’: « τοῦ μὲν Δέλτα λέγοντος ἐντελέχειαν ἀξιοῦν λέγεσθαι παρὰ πάντα τοὺς νόμους αὐτόν ». Cfr. Lucian of Samosata Iudicium vocalium X 95 [Jacobitz (1882), p. 32].

\textsuperscript{343} Jones (1947), p. 4.

\textsuperscript{344} Manetti (1990), p. 219; CPF Aristoteles 37T, p. 347.

\textsuperscript{345} Dorandi (2007), p. 54.
In his argument against Soranus’s authorship, Podolak views the gap between ἐντελέχεια and ἐντρέχεια as a lexical deformation (Verzerrung) which in no way could be attributed to Soranus because in his view Soranus’s command of Aristotle, especially On the Soul, precluded that the Ephesian physician could have made a mistake in that wise. A. Ricciardetto, in the fourth place, gives first a description of the immediate context of the occurrence in the papyrus, afterwards equating ἐντρέχεια to ἐντελέχεια for no apparent reason.

Wherefore, there is no interpretation — be it by H. Diels, W. H. S. Jones, P. Podolak, A. Ricciardetto, or by extension anyone else in a manner attributing the presence of the word ἐντρέχεια to a mistake on the basis of an Aristotelian ἐντελέχεια — compatible with ἐντρέχεια (the term the papyrus actually contains), this being so because they have fallen into an error of looking at the issue the wrong way round. The point made by Jones was abandoned long ago. Jones’s assumption hardly stands when the time comes to give account of a number of details concerning correction and amendment in the second and the third section of Anon. Lond., and is rendered too when considering that the first occurrence(s) of ἐντρέχεια happen(s) in a cancelled paragraph which can be barely explained on grounds of a situation involving dictation or lecture attendance. At any rate, the reason the translator of Anon. Lond. into English adduced is at odds with the hypothesis of the autographical origin of the papyrus which, in our opinion, contributes much more to clarifying other pressing topics in the Anon. Lond. This notwithstanding, if it is borne in mind that the nub of the problem is in the first section of the Anonymus, one realises that, unless obeying a certain blind automatism, the fact of putting ἐντρέχεια in reliance with a supposed Aristotelian voice ἐντελέχεια has no reason to be; for, so it seems, what is believed to result from fixing the gaze on an Aristotelian doxography is the second and not the first section in the Londiniensis.
A contrary view could be made by saying that from the catalogue of notions reviewed in the first section and their definitions it follows that the philosophical matrix of the section is mainly shaped according to Aristotle’s philosophy, or else in opposing Aristotelianism to Stoicism.\(^350\) Anyway, in such a counterargument a no less important linguistic factor would come either dismissed. By equating the term ἐντρέχεια in the Anonymus papyrus with the Aristotelian notion of ἐντελέχεια one risks contorting the text, leaving the notion untranslated, or betraying the real meaning of the concept.\(^351\) Apropos of this, J. Jouanna has highlighted the blunder in rendering ἐντρέχεια as ‘entelechy’. Though the words resemble each other, for example, in relation to the way they are formed (i.e. by a prefix in -ἐν and an abstractive particle in -εια), their respective stems are undeniably radically different. Thus, while in ἐντελέχεια there is the idea of “having a goal in (one)itself” (in fact meaning ‘being-as-holding-in-a-τέλος’), in ἐντρέχεια there is implicit something like “to run towards”\(^352\). Besides this difference, ἐντελέχεια is a notion coined by Aristotle and fully attested in the Corpus Aristotelicum whereas ἐντρέχεια is neither.\(^353\)

J. Jouanna has underlined moreover that when it comes to speak about the soul in terms of ‘impulse, instinct, innate strength, inertia, leap’ or any other related meaning the Anon. Lond. does not constitute the only occurrence of ἐντρέχεια in Greek literature. In that regard, Jouanna has taken into consideration an expression drawn from Procopius of Gaza\(^355\). But since Procopius displays ἐντρέχεια in the definition of σύνεσις (a terminus technicus in Aristotle that amounts to saying


\(^{352}\) To go to the point, it could be of interest studying the inclusion of ἐντελέχεια in the definition of the word ‘motion’ that Aristotle gives at Ph. III 1, 201a 9 – 11. There ἐντελέχεια refers to a “stable continuing process of motion”, but at its very least it would entail accepting that ἐντρέχεια is a mistake in place of ἐντελέχεια, a position against which we actually contend.  


\(^{355}\) Aristotle concedes that discern is necessary to discern which is prudent, but he means a practical intelligence which bears no relation with a high specialized theoretical knowledge. Aristotle EN VI 10, 1143a 4 – 6. Therefore, in Aristotle’s definition what is intended is the intelligence of the person who easily gets the meaning, who comprehends a given situation with no difficulty, the type of intelligence that characterises the wit man (ὁ εὐσυνεστής, συνιων); what amounts to saying ‘sagacity, readiness in giving an answer’ etc. In contrast to wisdom (σοφία), or the virtue of the rational and scientific part of the soul, the σύνεσις is the virtue of the sensible part of the soul midway the nutritive soul (deprived of every kind of virtue) and the lower part of the rational soul, whose virtue par excellence is called prudence (φρόνησις). Aristotle EN VI 12, 1144a 10 – 11.
‘natural witness, quick comprehension, sagacity’ etc.), the example adduced by Jouanna — although shedding some more light upon the issue — is still the best to refute the thesis put forward by Diels, for the sense that Procopius attributes to ἐντρέχεια is charged with an exceedingly rational nuance which is absent, in the immediate context, in the meaning that the scribe of the Londiniensis papyrus seemingly assigned to ἐντρέχεια when he wrote it.

3. ἐντελέχεια: a Philosophical Insight

3.1 Brief Historical Exposition

Thus if, as has been argued, ἐντρέχεια is somehow radically different to ἐντελέχεια, maybe by virtue of an apophatic approach it is possible to gain some appreciation of the former by enquiring into the second concept.

The theory of the ἐντελέχεια corresponds to a late stage in the development of Aristotle’s philosophy, when he drifted away from Plato’s position on the opposition of soul and body. Plato’s allegory of soul as “the power” of a team of winged horses and their charioteer in the Phaedrus is, primarily, a metaphor that implies movement and motion (perhaps one of the first pictures of the soul as the agent responsible for movement and motion); and this first sense is apparently what the tradition will transmit. Aristotle took up Plato’s postulates on the soul in a particular way, a perspective that led him to uphold the position that the soul is the form of the body which was, furthermore, unlikely to overcome the body after death.

In the Tusculanae Cicero takes up Aristotle’s argument whereby the soul is said to be made of a very fine substance different to the four Greek classical elements. The Latin author contends that soul is compounded of a special kind of matter that withholds the higher faculties in

357 Plato Phdr. 246a – e.


360 Cicero Tusculanae disputationes 1 10 (22) [Pohlenz (1965), pp. 228, 24 – 229, 25]: « (scil. Aristoteles) quintum genus adhibet vacans nomine et sic ipsum animum ἐνδελέχειαν appellat novo nomine quasi quandam continuatam motioned et perennem. »
man and stands as a principle of movement due to her divine origin. Cicero lays also the stress on the difficulties that Aristotle found in giving a name to that peculiar fifth element\textsuperscript{361}. In Cicero’s view, since Aristotle was somehow unable to find a proper name for that (hence the expression ἀκατονόμαστον), the Greek philosopher had to coin a new concept, this being the origin of the term ἐνδελέχεια\textsuperscript{362} according to Cicero.

But, to bring back the concern to our present interest, the most striking aspect of the whole thing is perhaps that, in considering its immediate context, the sense that ἐντρέχεια carries in the Anonymus papyrus looks to bear no relation to the Physics of the bodies that Aristotle opposed to the sublunary sphere; rather it seems much more akin to the primary meaning intended in the image that Plato displays in the Phaedrus (power, might, strength, energy etc.); and in regard to its concrete application to human soul — still stuck in the semantic field of motion — ‘instinct’\textsuperscript{363}, or even ‘impulse’.

3. 2 Parts of the Soul in the Anonymus Papyrus?

It must be now emphasised that the expression « Λέγεται δὲ ψυχήν τριώδες »\textsuperscript{364} in cols. I, 21; II, 7 cannot be taken as meaning that soul has three separate parts\textsuperscript{365}, nor as a definition of soul (as Ricciardetto apparently understands)\textsuperscript{366}; rather it looks that by such expression the scribe is intending that the term ψυχή can be construed in three ways.

A perusal of Aristotle’s writings makes plain that the philosopher never posited a threefold psychological scheme; it seems that nobody has noticed that nowhere in Aristotle is it said that the soul has three parts. In this instance, it seems instead a matter of a deep misunderstanding resulting from mixing the faculties of the soul in Aristotle (nutritive, sensitive, thinking, imaginative,

\textsuperscript{361} In our opinion the reference text in this particular sense could be Mete. I 3, 339b 20 – 30, where Aristotle attributes to Anaxagoras the fact of being the first philosopher to theorise about the ether.


\textsuperscript{363} Albeit this is the first meaning that A. Ricciardetto assigns to ἐντρέχεια, he does not use it in his translation, alas he makes an incomprehensible equation between ἐντρέχεια and ἐνδελέχεια. Cfr. Ricciardetto (2016), p. LIII n. 138.

\textsuperscript{364} The argument also applies to the expression in col. III, 38 – 39: « Λέγεται τε νόσος δύχος, κοινῶ τε καὶ ἰδίως». 

\textsuperscript{365} Thus, in the expressions « τὸ μέρον τὸ λογιστικὸν » in col. I, 23 and « τὸ μέρος τὸ λογιστικὸν » in col. II, 8 — by means of which the scribe describes one of the three ways to speak about the soul — neither the division of the soul in other parts is implicit nor into a concrete number of parts.

\textsuperscript{366} Ricciardetto (2016), pp. LII – LIII n. 138: « l’auteur de l’Anonyme va définir cette dernière (scil. the soul) de trois manières […] sur cette définition de l’âme […] ».
appetitive, locomotive etc.) with the parts of the soul as can be found, for example, in Plato\textsuperscript{368}. In the \textit{Nichomachean Ethics} and in the \textit{Politics}\textsuperscript{369} Aristotle clearly sets forth that the soul has (only) two parts (δύ’ ἐξαι τῆς ψυχῆς): the rational (τὸ τε λόγου ἔχον) and the irrational (τὸ ἄλογον), and keeps on arguing that the former is in turn subdivided into two other parts; the scientific (τὸ ἐπιστημονικὸν), with which we apprehend (θεωροῦμεν) the objects whose principles are not contingent (ἡ ἐνδεχόμενα) — i.e. necessary, and another subpart that Aristotle terms ‘calculating’ or ‘arithmetic’ (τὸ λογιστικὸν) which serves to perceive the objects whose principles are contingent (τὰ ἐνδεχόμενα). In the \textit{Nichomachean Ethics} the calculating part is called ‘deliberative’ (βουλευτικὴ) — or ‘practical’ in the analogous passage in \textit{Politics}.

In view of this it could be assumed thence that for Aristotle the deliberative is the part which is in charge of deliberating and handling the affections\textsuperscript{370}. The reason why the scribe decides to leave apart or not to deal with the soul in its concrete sense of ἐντρέχεια\textsuperscript{371} is namely because it has nothing to do with the discernment of the affections\textsuperscript{372}; this latter being (we remind the reader) one of the main tenets the scribe of \textit{Anon. Lond.} addresses in the first section of his writing\textsuperscript{373}. Apart from all these details, what Aristotle describes as ἐνδεικτικὸν in its application to the soul is the wholeness of the psyche\textsuperscript{374} not only in terms of the sum of its parts, but its integrity and stability as

\textsuperscript{368} Cfr. e.g. Aristotle \textit{de An.} II 2, 413a 22 – b 13.

\textsuperscript{369} Plato \textit{R.} IV 439 c – e. In col. XV, 26 – 28, in which the scribe addresses the rational part of the soul, the word 'parts' (μέρη) is precisely restored by the editor: « Καὶ [μὴν] αὐτῆς τῆς τῆς ψυχῆς [μέρη] (ἐξαι) λέγοντο τὸ (ἐν) λογιστικὸν»; however, from col. XVI, 33 – 36 it becomes plain that in Plato one can in fact speak of a tripartite division of the soul. The Platonic tripartite division of the soul will exert eventual influence on Galen, who placed the sensible soul in the heart, the vegetative soul in the liver, and the rational soul in the ventricles of the brain. Grmek (1997), p. 160. At \textit{Π.} II, 69c 5 – 71a 3 Plato gives a description of the irrational soul.

\textsuperscript{370} In Aristotle’s opinion we deliberate about what is up to us and attainable « βουλευόμοθα δὲ περὶ τῶν ἐρ’ ἡμῖν καὶ πρακτῶν », while about what is exact and sufficient there is no possible deliberation. Cfr. Aristotle \textit{EN} III 3, 1112a 30 – 1112b 1; \textit{VI} 6, 1140b 25 – 28.


\textsuperscript{372} Among the Stoics the affections (πάθη) were held as judgements (κρίσεις). Another reason for not taking the sentence « Λέγομαι δὲ ψυχῆς τριγόνος » as if we were intending that the soul is divided in three separate parts is that the Stoics (Zeno of Citium) professed an eightfold division of the soul. Cfr. Diogenes Laeritus \textit{Vitae philosophorum} VII 110 [Marcovich (1999a), p. 508, 14 – 16]. However it might be, sensible perception — i.e. the συμπτωματα of the sentient body, the sensations, and the πάθη — does not belong to soul (ψυχῆς) in Epicurus’s philosophy, rather to the soul is assigned the task of reflecting the movements of which the perceptions are said to consist, a reflex that in turn unchains another movement. This fundamental distinction is what makes bodily sensations (αἴσθησεις) to appear as representations (φαντασία) in the soul, and consequently, what makes also possible that bodily pleasure (ἡδονή) and distress (ἀλγηδῶν) become joy (χαρά) or pain (λύπη) in the soul. Cfr. Diano (1974), pp. 47 – 49.

\textsuperscript{373} Cfr. supra Comment. on cols. II, 18 – III, 7.

\textsuperscript{374} Aristotle \textit{de An.} II 4, 415b 15 – 20.
constituted by the interdependency of the functional parts of the whole; and this is in conflict with the former alleged definition of soul in the passage as « ἡ τε ὁλη»375.

Having stated so far why the expression « Λέ[γ]εται δὲ ψυχῆ[ὴ] τριχῶς » should not be confused with nor pass for a tripartite division of soul, we should like now to bring up other arguments in order better to understand in what way it is also necessary to argue against an interpretation of the same expression as if it were a definition.

3. 3 The Discourse about the Soul Is not the Soul

To begin with, since the participle σημαινόμενον can mean ‘above-mentioned’ or ‘aforementioned’, the translation of col. I, 25 – 27 could be then « with entrecheia we have nothing to do at present, but we have with the other two aforementioned, and foremost the rational (seil. part) ». Such a translation could bias the reader against the general meaning of σημαινόμενον (i.e. meaning); on the other hand it could be objected nevertheless that as a matter of fact σημαινόμενον does not take, as far as we know, the sense of ‘definiens’ in a definition. In addition to this point of dissent, when in the same first section the author of the Anonymus gives definitions of concepts he does it in a “systematic way” by recourse to somewhat of a reported speech that affects the style of the writing376; but it appears that the scribe does not address the soul as if he wanted to give a definition of it.

However, what differentiates definitions from predication comes clearly to the forefront a bit later in the papyrus, when, immediately after having given a definition of ‘disease’, the scribe states that the notion can be used in two senses377. According to Aristotle378 expressions in the Londiniensis papyrus like « Λέ[γ]εται δὲ ψυχῆ[ὴ] τριχῶς » or « Λέγεται[τε νός]ος διχῶς » or « τύποι καὶ γενικότερον εἴπει τριχῶς » are a typical case of ‘predication καθ’ ὑποκειμένου’. As opposed to ‘predication ἐν ὑποκειμένῳ’, the formula « καθ’ ὑποκειμένου λέγεσθαι » or equivalent implies

375 Col. II, 7.


378 Aristotle Cat. 2, 1a 20 – 1b 6; 1b 10 – 11.
that whenever something is predicated about something this latter is taken as a subject, and this in turn means that what is predicated is held to appertain to the essence of the thing of which it is predicated. What is predicated of a subject must be more general than the subject itself, and its name and interpretation must be applicable to the subject too, that is, must be liable to be predicable of a subject in a synonymical way. Species and genres of a subject fulfil such demand, whereas the subject of which something is predicated or is a substance (τὸ ὑποκείµενον) or else an accident. As to the former possibility, one can distinguish the following principal meanings:

1) In opposition either to εἶδος or to ἐντελέχεια, the matter in which underlies the form.

2) Insofar as it is a hylomorphic compound, and in opposition to the πάθη or the συμβεβηκότα, the substance that underlies accidents.

3) In opposition to τὸ κατηγοροῦµενον, a substance is also the logical subject about which some attributes are said.

In light of this distinction, a more cogent reason indeed against taking the expression « Λέγω τὸ ψυχῆς τριφῶς » as a definition of soul and against the translation of ἐντελέχεια as ‘entelechy’ is the indication the scribe gives in col. II, 6: « ἡ ψυχὴ δύναµις (ἐκτιν) ». Somehow calling for the active side of the φύσις, it is well-known that in the frame of Aristotle’s metaphysical system the term δύναµις means ‘potency’. Aristotle introduces two different terms as counter-poles to δύναµις and even explicitly juxtaposes ἐνέργεια to ἐντελέχεια, i.e. ‘actuality’, in certain passages. In being opposed to the notion of ‘potency’ (δύναµις), according to the logical law of transitivity as well as to the Aristotelian principle of non-contradiction, if the soul is said to be a force then in a supposed definition of soul the notion of entelechy is automatically forestalled.


380 Aristotle Cat. 2, 1a 20, 27; Metaph. I 3, 983b 16; VI 12, 1037b 15 – 17.

381 Aristotle Cat. 2, 1b 10, 21. Meanings 1) and 2) are furthermore given in Aristotle Metaph. VI 3, 1029a 1 – 5; 13, 1038b 4 – 6; VII 1, 1042a 26 – 31.


383 Aristotle Metaph. IX 3, 1047a 30 – 32; 8, 1050a 21 – 23.

384 The definitive argument for the first section of the Anonymus is grounded in some Aristotelian work is in fact the expression in col. II, 6 « ἡ ψυχὴ δύναµις (ἐκτιν) » as long as the word ἐντελέχεια does not be translated as ‘entelechy’. Cfr. supra § 2. In translating the term « δύν(ά)µενον » in col. XII, 11 as « propriété » A. Ricciardetto is apparently unaware of such distinction. Cfr. Ricciardetto (2014), p. 9; (2016), p. 15.
The point now would be to sketch an interpretation of ἐντελέχεια and how it differs from the closely related concept ἐνέργεια, but that would mean to go astray from the goal of the present chapter.

4. Conclusions

Inasmuch as the word the scribe wrote in col. II, 9 can only be ἐντρέχεια, the premise whereby ἐντρέχεια is a misspelling or a mistake that the scribe of Anon. Lond. made on account of a purported Aristotelian ἐντελέχεια should be discarded. If we take the view that is much more worthwhile putting the effort into finding the possible sense of ἐντρέχεια, it has been hopefully demonstrated by dint of different arguments that among all the possible translations of ἐντρέχεια that of ‘entelechy’ proves the most faulty. So, in order not to leave the notion untranslated, it seems fair to take the meaning of ἐντρέχεια in the Anonymus papyrus as ‘instinct’, ‘impulse’, or ‘impulsivity’.
1. General Remarks

A distinctive trait in ancient Greek medicine is the insistence on dietetics as central to all therapeutics. Dietetics provided detailed and complex rules whereby one might regulate one’s life throughout the year. The medicine of the end of the 5th and the beginning of the 4th century BC experienced an evident dietetic turn, or at least it is the conclusion at which one arrives by judging some books in the Hippocratic collection such as *Regimen in Health*, *Epidemics II-IV*, *Ancient Medicine*, or *Aphorisms*. Perhaps the most representative personage of such a growing trend was Herodicus of Selymbria. Herodicus drew a lot from dietetic prescriptions, and he was also able to articulate them in a form acceptable to intellectuals of his time, to the point where Plato considered Herodicus’s meddling in medicine as problematic.

In col. IX, 20 – 36 the scribe of *Anon. Lond.* recollects the etiological theory of a physician called Herodicus. The identity of the personage is unclear, for while his name can be easily made out unfortunately his corresponding ethnicity is this time omitted in the papyrus. According to H. Diels, the personage to whom *Anon. Lond.* makes mention is Herodicus of Selymbria. However, in one of her contributions D. Manetti has thoroughly argued that the hypothesis that Diels put forward is far from watertight; in Manetti’s view, there is neither cogent argument nor definitive proof for assenting to Diels’s belief.

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386 Above all Hippocrates *Vet. med*. IV. Vegetti (1995c), p. 83. For the polemic concerning the attribution and the origins of the Hippocratic treatise *Regimen in Health* see Jouanna (2012i), pp. 323 – 324, or the note to the treatise entitled *Du régime salutaire* in the bibliographical section.


388 Taken from Diels’s edition, the passage concerning Herodicus was separately collected and translated into German in Grensemann (1975), pp. 15 – 16 fr. 8a. The first translation into Italian was by A. Jori, afterwards the same passage was edited again by D. Manetti. Cfr. Jori (1993), pp. 159 – 160; Manetti (2005), pp. 297 – 298. Cfr. also Debru (1996), p. 182 n. 19; Ricciardetto (2014), p. XXXIX.


‘Herodicus’ was a reasonably widespread name in the medical circles of the time. There is evidence for instance of the existence of two other contemporary physicians by that name: Herodicus of Cnidos and Herodicus of Leontini (one of the siblings of Gorgias the sophist). Given that in cols. IV, 40 – V, 34 the author of the Anonymus papyrus has dealt with the Cndian doctor, the issue now is to clarify whether the Herodicus in the Londiniensis papyrus is the Selymbrian or the Leontinian. On grounds of the main lines and the features of the doctrine assigned to Herodicus in the papyrus, and on the basis of the fact that an athlete trainer (αλείπτης) named Herodicus of Selymbria is largely attested to in other medical and philosophical sources, I assume — in agreement with Diels and W. H. S. Jones — that the scribe of Anon. Lond. is at this point concerned with Herodicus of Selymbria.

Wherefore, we shall first go into the theories ascribed to Herodicus in the London papyrus. But since only this single perspective might blinker the portrayal of Herodicus, once we have got the picture of him from the papyrus, to deepen that view we shall compare, in the second place, the description in the Londiniensis with the different accounts of Herodicus as they are respectively found in the Corpus Hippocraticum, in Plato, and in Aristotle.

2. Herodicus in the Anonymus Londiniensis

From the description in the Londiniensis papyrus it appears that Herodicus put the cause of disease down to the imbalance between the functions — opposed but complementary — of

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394 It comes as no surprise, since the gymnast trainer is a figure that, from an early period, appears often along with doctors as authority on diet. Cfr. Jaeger (1957), p. 60. One of the criticisms that Plato launches to Herodicus is precisely the fact that he managed to pass for a doctor, despite being in origin an athlete trainer. Kollesch (1989), p. 195. Herodicus is not the only example in this sense, for Galen speaks about the gymnast Theon of Alexandria and his four volumes on exercise and workout entitled Gymnastics. Galen cites a passage of this book in which it is discussed the ideal quantity and quality of the massage, and he contrasts its content with Hippocrates’ opinion about the subject. Though being likewise criticised, Galen deems that Theon’s knowledge in this particular regard is higher and more complex than Hippocrates’. Galen De san. tuenda II 3 [VI p. 96, 2 – 4 K.]; 4 [VI p. 114, 4 – 7 K.]; III 3 [VI p. 182, 4 – 15 K.]. Anyway, from the case concerning Herodicus we learn that physicians will not be the only health educators anymore, but the gymnast and masseur will play also an important role in the teaching and the practice of that part of medicine called ‘Hygiene’. By ‘hygiene’ is technically meant “applied physiology”, that is, the study and the endeavour to create the conditions most conducive to the normal function of the body and its organs. Jouanna (1988), p. 22.

395 There is no full agreement on this point. Cfr. e.g. Ricciardetto (2016), p. LXXVIII.
assimilation and dispersion which occur at every layer in the chain of life. In respect to human beings, and more concretely to human health, Herodicus maintained that illnesses arise from a disproportion between the matter that our body assumes and the matter that our body consumes; so that Herodicus conferred a quantitative\textsuperscript{396} slant on the notions of health and disease. In this way, according to Herodicus, when the intake of food is excessive and furthermore not balanced by any kind of physical activity (which amounts to a bad regimen for life in a broader sense) in the long run this combined situation produces negative effects on health. Medical intervention is consequently intended to regain the natural balance between the two primordial physiological activities of assumption and consumption. In the eyes of Herodicus the only way to do it is by means of combining a correct diet with physical activity\textsuperscript{397}. Since the sick body is in some way out of balance, it must be brought back into balance either by removing whatever is in excess or by building up whatever is deficient\textsuperscript{398}.

3. Herodicus in the Corpus Hippocraticum

The portrayal of Herodicus in the \textit{Epidemics VI}\textsuperscript{399} fits quite well with the report on his etiological views in the \textit{Anonymus} papyrus, this coincidence being another prop to support the view that “the Herodicus” in the \textit{Londiniensis} is the Selymbrian:

\begin{quote}
« Ἡρόδικος τοὺς πυρεταίνοντας ἔκτεινε δρόμους, πάλησι πολλῆς, πυρίης, κακόν, τὸ πυρετιδῶς
πολέμιον πάλησι, περιόδοις, ὀρμήσις, ἀνατρίψει, πόνος ἀυτοῖς, ἔρευθος, πελίωσι, χλωρότης, ὀδύναι
λαπαραὶ. ».
\end{quote}

(« Herodicus killed fever patients with running, much wrestling, hot baths. A bad procedure. Fever is inimical to wrestling, walks, running, massage; that is trouble on trouble for them. Swelling of the blood vessels, redness, lividness, pallor, soft pains in the ribs »)\textsuperscript{400}.

\textsuperscript{396} Jori (1993), p. 160. This pernicious unevenness is in a way insinuated in Hippocrates \textit{Aph.} II 17 [IV p. 474, 8 – 9 K.].

\textsuperscript{397} This being the reason why Herodicus of Selymbria is credited with being the founder of Dietetics. Steckerl (1958), p. 67. Cfr. Grensemann (1975), pp. 8 – 9 fr. 6b. The author of \textit{Regime} I recognises that such correct balance depends on each individual, hence he claims that one might have a complete and exact knowledge of health for men if it were possible to discover the \micro e\textit{trōn} of food and the \μεσ\textit{r} of exercise for each individual. Cfr. Hipppocrates \textit{Vict.} I 2 [VI p. 470, 14 – 17 Li.]; Lloyd (1968), p. 75 n. 17.


The fragment above is of interest not only because of its furnishing us with an idea of how the “official medicine” coeval to Herodicus judged his therapeutical practices, but also because it is the only occurrence in the *Epidemics* where the procedures displayed by a physician are addressed to a proper name. This fact aside, the impression that one gains from the Hippocratic passage is that Herodicus’s method is counterproductive or indeed pernicious for the patient. As we shall show, such a pejorative stance will be the dominant one among the rest of the extant mentions of Herodicus in Greek literature. But, what is the real cause for the contempt raised in the *Epidemics VI*? To our mind the problem lies in the difference of therapeutical paradigms. The premises from which the author of the *Epidemics* and Herodicus departs are in actual fact divergent and conflict with each other; it is no accident then that the author of the *Epidemics VI* deems the whole of the procedures prescribed by Herodicus as erroneous. If Herodicus’s therapeutical method is undermined in the *Epidemics* it is because the physician of Selymbria pretends to restore the health of anyone down with fever by dint of exhausting workouts, baths, fights, and massages. Since a feverish patient suffers from a feeble and weak condition, according to the principles ruling Hippocratic medicine it is impossible that the health of the ailing person can get better by following prescriptions like those Herodicus suggests: weakness cannot be overcome with more weakness, nor by causing more fatigue. On the contrary, the most sensible course seems to be to prescribe rest in order to give the patient the opportunity of strengthening his general bodily condition.

The question lies therefore in a radical difference of perspectives, which leads in its turn to two possible explanations for the criticism that the Hippocratic author brings into discussion. In the first place, Herodicus fails by getting stuck to the general principle whereby any morbid process is

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401 Jori (1993), p. 161 n. 12. In the rest of the *Epidemics* one just finds generic references in this sense.

402 Though not belonging to the Hippocratic collection, perhaps Asclepiades of Bythnia (2nd - 1st century BC) is the most noticeable medical counterpoint to the trend that Herodicus inaugurates, which, to some extent, will be followed by the majority of ancient physicians. If we were to give credit to Galen, Asclepiades and his heirs « ἀλλ’ οἱ περὶ τὸν Ἀσκληπιάδην | τὰ γυµάσια μηδὲν ἐν ὑγείαν συντελοῦντα », indeed, they were firmly convinced that Herodicus’s theories were nothing but the distorted result of too much free time; so that, with great scholarship, the Methodist physicians devised all kind of arguments in order to show their contempt against Herodicus’s methods. Galen *De san. tuenda* I 8 [VI pp. 37, 11 – 14; 39, 3 – 5 K.].

403 It is perhaps worth remarking in this sense that, properly speaking, Galen will term ‘exercise’ only those vigorous movements that alter the respiration and increase the intrinsic warmth in the body. Galen *De san. tuenda* II 2 [VI p. 85, 9 – 10 K.]; II 9 [VI p. 137, 10 – 12 K.].

explained by virtue of an excess in the nourishment. Although such an overall rule might be true and might even work in some cases, it is inapplicable to all kind of possible diseases, this case being a clear example. In the second place, the author of Epidemics VI is of the firm opinion that the cure for this concrete case is to be found by way of allopathy (hence the famous dictum *contraria contrariis curantur*) and according to the application of treatments that will have the opposite effect from the present condition.

4. Herodicus According to Plato

In Plato the medical art presents two main aspects: gymnastic, whose aim is to attain and to preserve the sound condition of the body; and medical, whose major scope is that of reestablishing the health. By the former Plato does not only intend suitable exercises for the body, but also a sound hygienic regimen which aims at developing and maintaining states of health. Along with the diet, the regimen involves a progressive cure of the patient’s general condition by means of gymnastic exercises, rests, baths, massage sessions, a change of water and air if necessary, and the stress on the hygienic conditions of the ailing person.

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405 Galen affirmed that the Epidemics II, (IV), VI were the notes that Hippocrates wrote for himself (not for the public), and that such books represented an early and incomplete stage in Hippocrates’ medical practice and experience; therefore, those treatises were the last to be read. Cfr. Galen In Hipp. Epid. VI comment. III 2 [CMG V 10, 2, 2 p. 128, 8 – 16 Wenkebach - Pfaff]. Cfr. Roselli (1989), pp. 182 – 183. Besides Epid. II and IV, Epid. VI is said to have been written between 399-395 BC. Cfr. Zaragoza - Gonzalez (1989), p. 206.


408 Plato Phdr. 227d; R. III 406a – c, Prt. 316d – e.


410 Plato Ti. 24c 1 – 2; Euthd. 291e – 292a.

411 Jaeger (1945), pp. 26 – 31; King (1954), p. 39; Vegetti (1995c), p. 28. If we wish to be more precise about what Greek doctors understood by regimen (δίαιτα) over and above the principal triad of food, drink and exercise, we must add some secondary elements, in particular bathing and, sometimes, sexual relationships. Jouanna (2012e), p. 139.
In the *Protagoras* Herodicus of Selymbria is depicted as a sophist. Given that the textual evidence of sophistical activity is rather rare (reducible to a few fragmentary witnesses on papyrus), all that can be said about sophistry depends to a great extent on Plato’s opinion. The appearance of the sophists in the cultural arena of classical Greece is no new fact; what is new is the peculiar use of an extant old word (σοφιστής) that Plato picks up and takes out of its usual meaning to fasten it upon the eminent paid teachers of the Socratic age. That it is true one can learn by studying, for instance, the use of the term σοφιστής in *Ancient Medicine*, a book definitely earlier than Plato. In this concrete case the substantive ‘sophist’ is used as a synonym of ‘philosopher’, thereby completely rid of the dishonourable reputation that the notion will take in the Greek literature to come due to Plato’s forgery.

4.1 Herodicus the Sophist

In the *Sophist* Plato provides a corollary with all the necessary clues to make clear what he intends by ‘sophist’; up to six possible different meanings are acknowledged:

1) A paid hunter who pursues the young and wealthy.
2) A merchant in articles of knowledge for the soul.

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412 Plato *Prt*. 316 d – e.
417 Hippocrates *Vet. med. XX* [I p. 620, 7 Li.]: « ἰητροὶ καὶ σοφισταί ».
418 Jones (1984a), p. 5. Another subject is the contempt that the author of *Ancient Medicine* displays for the philosophers-sophists’s meddle in medical issues; but, for present purposes, it suffices to note that the writer of *Ancient Medicine* does not draw a distinction between philosopher and sophist.
419 Plato *Sph*. 231d – e.
420 Definitions 1) and 2) resemble the accusation of Socrates in Plato *Ap*. 24b – c: « Σωκράτης φησίν άδικείν τούς τε νέους διαθέρεινται καὶ θεοὺς ούς ἢ πόλις νομίζειν οὐ νομίζοντα, ἔτερα δὲ δαιμόνια καινά., (« — scil. the sworn statement — states that Socrates is a wrongdoer because he corrupts the youth and does not believe in the gods the state believes in, but in other new spiritual beings ») [Trans. Fowler (1960), p. 91]; Diogenes Laertius *Vitae philosophorum* ΙΙ 40 – 41 [Marcovich (1999a), pp. 119, 20 – 120, 1]: « άδικει δὲ καὶ τοὺς νέους διαφθείρων », (« impiety and corrupting the youth »). Trans. Hicks (1950a), p. 169.
3) A retailer of those same articles of knowledge.
4) A seller of his own productions of knowledge.
5) An athlete in contests of words, in the art of disputation (ἐριστικὴν τέχνην).
6) A purger of souls, who removes opinions that obstruct learning.

It turns out that in almost four of the definitions above Protagoras’s modus agendi (i.e. the sophist’s activity) is straightforwardly connected with business or with some commercial matter. More particularly, the last two definitions seem to be featuring the sophist the most. But the nub of Plato’s criticism is that the sophistical art is based on getting benefit by selling knowledge when, in reality, what is sold is not that. Herodicus is reputed to flatter his followers, and he tries to attract people to him by promising health and sound condition by means of gymnastics and diets, but his real aim is to obtain economic benefit from them. According to Plato, the true physician is a healer of the sick, not a moneymaker. From Plato onwards the history of philosophy will insist on the fact that true philosophical endeavour is clearly in conflict with economic benefit. Yet, what is the reason for this grudge against the fact that someone might earn money by teaching a particular body of knowledge?

At the root of the query there might be a particular philosophical conception of human life. In Antiquity to become a better man, and in general, to live a virtuous lifestyle was held to be contrary to a business and materialistic oriented life (ἀσχολή, negotium). Apart from this prejudice, perhaps the influence of Cratylus — a disciple of Heraclitus — is also relevant to the question. For Plato the sophist is by definition someone specially trained to be able to speak about everything. Sophistry consists in constructing a reliable opinion (φάντασµα) about any topic whatsoever by way of images, pictures, analogies, hypothesis and the like; contrarily,

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421 The word that Plato uses in the dialogue is κάπηλος, which is related to the Anglo-German stem shop / koop / Kaufen, the Scandinavian Koven, or the Slavonic kopáть; all this altogether in turn related to the Latin voice caupo, -nis. Cfr. OLD (1968), p. 288.
422 Cfr. e.g. Plato Prot. 328b.
424 Plato R. I 341c.
427 Cfr. DK Heraclitus 22[12]Β 40[16] [Diels (1951), p. 160]: « πολυµαθή νόον ἐξειν οὐ διδάσκει », (« Much learning does not teach understanding»). Trans. Kahn (1979), p. 37. This pejorative regard towards the πολυµαθία is found elsewhere in Plato, for instance, at Lg. 811b 4 – 5; 819a 5 – 6, and although its spurious nature, also in Alc. 2 146e – 147a.
philosophy is conceived by Plato as committed to the discovery of the real nature of something already in existence.

The portrait that Plato gives of the sophist is that of someone who seeks money\textsuperscript{428}; the sophist tries to get some benefit by deceiving the young affluent aristocrats of Athens\textsuperscript{429}. It is by dint of science, a false reputation for erudition, or the different arts involved in virtue that the sophist attempts to gain the confidence and the favour of the well-positioned youth; the sophist seeks thus to sell learning, in the case of Herodicus, the selling of promises of wellbeing and health.

4. 2 *Herodicus, that Risible Creator of Idle People*

Now, turning to some other Platonic dialogues in connection with Herodicus, we should deal first with the *Phaedrus*. The mention of Herodicus in the *Phaedrus*\textsuperscript{430} is minimal, no more than an ironical comment, but serves anew to reinforce the ridiculous and the counterproductive of the methods proposed by Herodicus.

It remains to speak about Plato’s pillar work of political ideas. In *Republic*\textsuperscript{431} Plato puts Herodicus’s therapeutics down and condemns Herodicus’s method as alien to the medical procedures of the Asclepiadians theretofore\textsuperscript{432}; Plato underscores moreover the pernicious effect of the practices introduced by Herodicus on his patients and on the wellbeing of the polis. In Plato’s view the cluster of rules and indications that Herodicus prescribes neither cure his patients — on the contrary\textsuperscript{433}, just serve to lengthen their unhealthy condition (νοσοτροφία) — nor are of assistance in the development and prosperity of the State. As a result, Herodicus’s therapeutics yield an increasing number of unproductive people. If Plato is unsympathetic to Herodicus that is because the methods of the latter fail to attain the ancillary role of the medical art to politics and the needs of the State. As hygienist, Herodicus’s methods aimed to rule over the population, but not to heal the


\textsuperscript{429} Plato *Sph.* 223b.

\textsuperscript{430} Plato *Phdr.* 227d. The passage is collected in Grensemann (1975), p. 17 fr. 8. 7.

\textsuperscript{431} Plato *R.* III 406a – c. The passage is extracted from Grensemann (1975), p. 18 fr. 8. 8.

\textsuperscript{432} Jouanna (1993), p. 65. At *R.* III 405c – 408b the pharmacological medicine of the ancients is considered by Plato as more valuable and effective than the new Dietetics of his time. This notwithstanding, in *Ti.* 89a – d Plato seems to be for a natural and dietetic medicine, which in a way contradicts what he himself expounds in the *Republic*.

citizenship. Herodicus’s prescriptions were apparently oriented to a social elite, to people who in being free from any obligation to work had therefore full time to take care of their health.434

5. Herodicus According to Aristotle

Once, and only briefly, in one of his books Aristotle also makes an allusion to a personage called Herodicus. The characteristics of the citation, it is true, do not yield much. In short, for Aristotle health amounts to a δύναμις, that is to say, to being capable of developing and carrying out a particular activity or faculty without imposing pain on the body.436 In Aristotle’s opinion, the sheer abstinence of pleasure is incompatible with the true, sound condition of the body; for health abides in a moderated mixture which comprises also some pleasure.437 From this remark it follows that Aristotle is presumably referring to the exaggerated workouts and the iron discipline that Herodicus of Selymbria is credited with prescribing to his patients and followers.

6. Conclusions

The most general conclusion to be drawn from all the points above is that the Anon. Lond. proves one more time to be a valuable testimony. In contrast with the rest of Greek literary sources that make mention of Herodicus, the papyrus provides a sketch of Herodicus in which the Selymbrian is not merely and uncritically dismissed; the description provided by the scribe in the papyrus is, in a manner, the most neutral and impartial438 of all those examined. Considering the way

434 In the Hippocratic treatise entitled Regimen such distinction stands, for its author distinguishes between two audiences, on the one hand the majority of people who do not choose their food or drink due to the needs of their profession, and on the other hand, the minority of those who are able to refrain from other occupations so as to not neglect their health. Jouanna (2012e), p. 151.


436 Aristotle’s conception of health is in this wise very similar to Galen’s view in De san. tuenda. I 5 [VI p. 18, 9 – 10 K.]: « ἐν ἧ λήμετρα δυνάμει μήτε ἐν ταῖς κατὰ τὸν βίον ἐνεργείαις ἐμποδίζομεθα, καλολοίμαν ἱκάνον », (« — scil. health — is that condition in which we do not suffer pain and are not impeded in the activities of life »). Trans. Green (1951), p. 15.


the other physicians are portrayed and reviewed in the second section of the *Londiniensis* papyrus, the scribe’s impartiality speaks this time about his aim of offering an objective and aseptic account of the doctrines he expounds.

Another pertinent conclusion ensuing from the Platonic depictions of Herodicus is that, despite not belonging to a strict medical ambience, Herodicus was able to introduce his method into the world of professional therapeutics. With Herodicus a path starts in ancient Greek medicine whereby hygiene, gymnastics, and therapeutics will become entangled. However it might be, Plato sees in Herodicus the materialisation of the dietetic turn that the medicine of his days was taking, this being the reason why Plato derides and ridicules Herodicus with irony. According to Plato’s description, such a new turn consisted in a senseless and inefficient mass of practices with no social benefit at all, indeed, were intended to lengthen the illness.

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440 This situation will last almost until Galen, since it is the physician of Pergamon who will set out the boundaries between the specialist in applied physiology, the expert in exercise, and the professional concerned with healing. In Galen we see what could be considered a linguistic explanation for Herodicus’s interference in the medical field. At *De san. tuenda* II 8 [VI pp. 135, 14 – 136, 6 K.] Galen wrote: « εἴπερ γὰρ ἅπαντες οἱ τεχνῖται παρωνύμως ὄνομάζονται τῶν τεχνῶν, ὡς μεταφραζόμεθα, πρόδηλον, ὡς τὸν υγιεινὸν τέχνην μετεργάσομενος υγιεινὸς ἄν εἰλόγους προσηγορεῖτο, καθάπερ καὶ ὁ τὴν περὶ τὰ γυμνασία μόνον γυμναστής καὶ ὁ περὶ τὰς ἱάσεις ἱατρός. εἰ δὲ τὶς ἡ γυμναστήν ἢ ἱατρὸν ὄνομαξε τὸν υγιεινὸν δὴ τοῦτον, ἀπὸ μέρους τοὺς προσηγορεῖτο τὸ σώματι καὶ οὐ κύριως, ἀλλ’ ἐκ καταχρήσεως ἢ ἐπὶ διαστάσεως ἢ δος ἀν τὶς θέλη καλεῖν, οὕτω ποιεῖται τὴν προσηγορίαν. αὕτων δὲ τοῦτο τά, μίας οὐσίς τῆς περὶ τὸ σῶμα τέχνης, ἦρ’ ἄλλας αὐτῆς ὄνομα μηδὲν τετάχθαι κύριων ». (« For if all artisans are named paronymously from the crafts which they practice, it is clear that he who practises the art of hygiene should properly be called a hygienist, just as he who is concerned with gymnastics alone is called a gymnast, and he who is concerned with healing is called a physician. But if anyone calls the hygienist either a gymnast or a physician, he names him altogether in part and not correctly but he will make the appellation by misuse, or ambiguously, or however otherwise anyone may wish to term it. And the reason for this is that, since there is only one art concerned with the body, no appropriate name has been established for the whole of it). Trans. Green (1951), p. 80. We should add that Galen does not use the word *παρωνύμως* in the technical sense that Aristotle concedes in the *Categories* (i. e. things that are said by way of derivation, more particularly, when the meaning of a word results altered by way of the slight modification in the grammatical declension). Cfr. Aristotle *Cat*. 1, 12 – 15.

1. *Plato, the Physician*

It is generally agreed that, surpassing the efforts and the ability of the physicians of his own day, in the *Timaeus* Plato attempted the first comprehensive account of the body as a unified anatomical-physiological structure. In the *Timaeus* we find for the first time the submission of the medical art to natural science in a systematic way. However, given that scholars have attributed scant value to Plato’s scientific views, very little heed has been paid to the medical section in the *Timaeus*. In this sense, the all-pervasive teleology of the *Timaeus* is often mentioned as being one of its main unscientific features. There is furthermore the common claim that whatever natural science Plato did was, in any event, unoriginal; so that his account of natural phenomena and processes is an amalgam of the ideas of his predecessors and contemporaries. Yet quite apart from Plato’s reputation among subsequent historians of medicine, all this remains always superset to Critias’s comment on the privilege he concedes to Timaeus to be the first in speaking. Far from being a possible fable, the status of the matters recounted thereafter — including the medical section in the *Timaeus* — apparently stands for the ultimate answer given by the greatest astronomer of the time to the causes of disease, and should therefore be taken seriously.

In the light of the medical doctrines expounded in the *Timaeus* it seems that there are several places where they are probably in part at least original. Plato’s pathological views were not based on first-hand experience, but by judging some of the contents in the medical passages in the *Timaeus* what we see is a supposed non-medical man, Plato, using ideas that were at the forefront...

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442 Vegetti (1995c), pp. XII, XXII.
444 Lloyd (1968), p. 81. Here we shall not go into discussing whether Plato’s natural philosophy is imbued with teleology, but Lloyd’s position is seemingly prescinded from some passages where Plato clearly aims at giving a plain account of the phenomena on the basis of the “Physics” and the medicine of his time. It becomes plain, for instance, if it is examined the explanation that Timaeus gives to epilepsy. Cfr. Plato *Ti.* 79e 10 – 80a 9; 81a 2 – b 5; 85a 5 – b 2.
446 Almost a half of the text of the *Timaeus* is devoted to physiology; it is in fact one of the largest and most important physiological tracts that has survived from classical times. Horne (1963) pp. 321 – 322.
447 A remark that could bias the reader against such claim can be found in Miller (1962), p. 176: « No one would maintain that Plato had any specialized or direct knowledge of his own in the field of medicine ».
of medical debate of the time. Some believe that in fact in the *Timaeus* Plato expounds his own medical opinions. To take two examples, there is first what has been called “the psychopathology of Plato.” It is true that the idea that certain disorders of the psyche (especially madness) arose from physical origins had appeared in various previous contexts and in many earlier writers, notably among some Hippocratic authors; but the account in the *Timaeus* of the ‘diseases of the soul that are due to the disposition of the body’ is remarkable not only due to its being comparatively full and detailed, but also for the fact that Timaeus explicitly refers to the three regions of the soul, and suggests that there may be somatic causes for lust and for cowardice, for example (which are, presumably, disorders of the τὸ ἐπιθυμητικόν and of τὸ θυμοειδές) as well as for forgetfulness and stupidity (where τὸ λογιστικόν is presumably affected). If the notion that some of the disorders of the soul may be due to physical causes is not entirely new, what is — or appears to be — original in the version in the *Timaeus* is that Plato combines this doctrine with his own developed psychology, the doctrine of the tripartite soul in the *Republic*.

A second interesting feature of Timaeus’s pathological theories is that when he describes diseases that arise from the corruption of the ‘secondary structures’ in the body (e.g. marrow, bone, flesh etc.) Timaeus incorporates his theory of the ultimate structure of matter. He interprets some of the changes that he supposes to take place in the body (the interpenetration of one substance by another, the disintegration of one substance by another) in terms of the structure and properties of the basic triangles of which they are composed. While the idea that diseases may arise from the disorder of the component substances in the body was a commonplace of Greek medical theory, Plato seems to have taken care to combine this doctrine with, and adapt it to, his own physical

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448 In this sense, Eryximachus’s speech in *Smp.* 186a – 188e is at all a parodical entertainment by Plato; in the *Phdr.* 268a we learn from Plato that Eryximachus was a renowned doctor of the time. Cfr. Vegetti (1995c), p. 68.


450 Plato *Ti.* 86b ff.

451 Plato *Ti.* 87a 3 – 4.

452 Cfr. e.g. Plato *Ti.* 41d, 82b – c.
theory\textsuperscript{453}. In addition, the use of technical terms in the \textit{Timaeus}\textsuperscript{454} could be another proof of the fact that Plato could have had at his disposal an anatomical knowledge of a more detailed slant. In the same way, Timaeus’s unified theory of all three physiological processes (respiration, digestion, and nutrition)\textsuperscript{455} is a good deal more complex than any other preceding Plato, and cannot be paralleled in any earlier investigator.

2. \textit{Plato and Hippocrates}

Galen, who wrote a commentary on the biological sections of the \textit{Timaeus}, was convinced that Plato had studied medicine with Hippocrates\textsuperscript{456}, and that Plato’s view of the body could reveal much more about Hippocrates’ teaching than one could get from the Corpus Hippocraticum. The bonds and boundaries as well as the mutual interdependence between philosophy and medicine in Classical Greece, and in particular, between Plato and Hippocrates, have been the object of controversy. Many have drawn attention to the several medical analogies in the Corpus Platonicum, or to the reasons for the privileged position of medical art in Plato’s philosophy. This notwithstanding, the references by name to Hippocrates in Plato are less than a handful; namely two\textsuperscript{457}. It should be remembered moreover that, in contrast to Aristotle, Plato is imprecise and vague


\textsuperscript{454} More concretely the occurrences ‘τὰ νεῦρα’ and ‘τοὺς ἐπιτόνους’ in the same sentence at \textit{Ti}. 84e 5 – 6. Cfr. Burgess (1998), p. 27. By the same token, the expression « καὶ φ(ατοξυκότις)τὰς μ[ε]]ξικοπαθείας νεῦρ[ὴν] (εἶναι) τῶν πράξεων » in col. II, 20 – 22 is said to dwell on a Platonic metaphor consisting of comparing both, the body and its actions, to a puppet which is moved by a higher divine instance. Plato \textit{Lg}. 1 644d 9; \textit{R}. III 411b. Cfr. Ricciardetto (2014), p. 43; Dorandi (2016), p. 203 n. 24. It is worth noting that at Plato’s time the word νεῦρα had yet to take on the technical meaning that it will have in the Hellenistic period. Thus, after Erasistratus’s investigations in the field of medical anatomy, the word νεῦρα will experience a significant semantic shift; from meaning ‘tendon’, ‘ligament’, and ‘sinew’ νεῦρα would go on to acquire the concrete meaning of ‘nerve’. Wilson (1959), p. 295; Longrigg (1993), pp. 208, 210; Nutton (2004), p. 77. Along the same lines, Plato ignored the distinction between the conjunctive and the voluntary motion nerves (\textit{υνδετικά ἤ προαιρετικά νεῦρα}), insofar as such a distinction is due to Herophilus, whose anatomical investigations yielded the first description of the nervous system as it stands (or is represented) in modern medicine. Vegetti (1993), p. 92; French (2000), p. 91. As to Aristotle, he had no knowledge of the nervous system as such. Praxagoras believed that the heart was the source of the nerves (the Coan physician conceived of the nerves as fine and thin prolongations of the arteries); hence the bounds between arteries, \textit{pneuma} and mobility/motion in Praxagoras’s anatomical and physiological system. Nutton (2004), p. 126.

\textsuperscript{455} Plato \textit{Ti}. 77e ff.

\textsuperscript{456} Galen \textit{De usu part.} I 8 [III p. 16, 7 – 9 K.]. There have been signalled many parallelisms and resemblances between the Hippocratic treatise entitled \textit{Regimen} and the \textit{Timaeus}, but in point of fact the first work is generally held as spurious or pseudoHippocratic. On the influence that Hippocrates exerted on Plato see Jouanna (2012i), p. 332 n. 20.

at the time to give direct quotations\textsuperscript{458}, so that what could be inferred on Hippocrates from Plato’s dialogues is rather unreliable or offers little room for confidence. Plato was doubtlessly aware of the fame that Hippocrates gained in Athens as a teacher of medicine\textsuperscript{459}, the high interest the physician of Cos attracted among a great number of disciples\textsuperscript{460} did not pass unnoticed to Plato. He knew likewise of the existence of different (and rival) medical trends\textsuperscript{461}. In the Republic\textsuperscript{462} the traditional medicine (surgical and pharmacological) is contrasted with the abusive and useless methods set out in medical dietetics, especially by Herodicus of Selymbria\textsuperscript{463}. Between these two tendencies, in another dialogue\textsuperscript{464} Plato allows a third one — in apparent agreement with the principles expounded in the Phaedrus — which seems to point to Hippocrates of Cos as the ultimate reference of the good practices of the medical art\textsuperscript{465}. Yet, beside these facts, almost nothing else comes out in this regard. Adding even more complication to the issue, it is very difficult to tell what is properly Hippocratic from what is not in the 60 or so books figuring in the Corpus Hippocraticum; wherefore, the purported influence that Hippocrates’ ideas could have exerted on “the medical sections”\textsuperscript{466} in Plato’s Timaeus appears practically unsolvable\textsuperscript{467}.


\textsuperscript{460} Jouanna (1993), pp. 6 – 7, 12; Vegetti (1995c), p. XIV.


\textsuperscript{462} Plato R. III 406a.

\textsuperscript{463} Cfr. supra ch. IV § 4.


\textsuperscript{465} As regards these good medical practices according to Plato’s criterium, at Thet. 166e 3 – 167a 4 Protagoras describes the doctor as the person who is able to turn a worse situation into a better one with the help of the right administration of drugs and remedies.

\textsuperscript{466} The whole last part of the Timaeus (i.e. Ti. 69 ff.) is devoted to biological or medical theories of one sort or another; it has been also the portion of the work most sharply criticised.

\textsuperscript{467} The same difficulty arises when it comes to the assessment of the method alluded at Phdr. 270c – d, that is, whether or not such a procedure corresponds to any particular passage in the Corpus Hippocraticum. Vegetti (1995c), pp. 103 ff., 106 – 107 n. 5. For an extended bibliography on this subject see Jouanna (2012c), p. 39 n. 3. By means of a thorough comparative study of the use of the concept δύναµες in the Hippocratic collection and in Plato, H. von Staden has come to the conclusion that Plato was directly or indirectly familiar with at least some of the divergent traditions (no longer extant) represented in the Hippocratic collection. Cfr. von Staden (1998), p. 272. J. Jouanna has stated moreover: « I know of no other text in pre-Platonic literature that is so close to the Timaeus as that of Regimen ». Jouanna (2012g), p. 225.
2. The Mention of Hippocrates in the Phaedrus

The reference to Hippocrates at Phaedrus 269c – 272a, the second to the Coan physician after the Protagoras, is linked to a particular method which Phaedrus endorses as a necessary condition for scientific knowledge. The value of such method resides in the fact of its being applicable to the knowledge of any object (φύσις) whatsoever; and as far as the medical art is concerned, then also to the body. What does this method consist of? Many scholars have provided insight into this query looking for the cornerstones of Plato’s epistemology. In short, it is agreed that the backbone of the procedure abides in the division or diaeresis (διαίρεσις). The task is basically bound to the decomposition of the body, to divide the body in its different εἴδη, this meaning “typologies” or “kinds”. The method ascribed to Hippocrates is to do with the classification of the different constitution types in order to establish a coherent causal link between such constitutions and the kinds of food or remedies that suit each one the most. Therefore Hippocrates’s method in the Phaedrus is neither meteorological nor cosmological, but causal.

468 The first attestation of the word φύσις in Greek literature occurs in the Odyssey X 304, and it is directly related to the medical art. Cfr. Jouanna (2012), pp. 325, 328. For the variety of meanings that the term φύσις takes on Plato’s dialogues see Kranz (1944), p. 195. The passage from the Phaedrus apparently means that it is impossible to obtain true knowledge of the body prescinding from that of the whole universe (ἄνευ τῆς τοῦ ἄνθρωπον φύσεως). The sentence yields a double interpretation: a meteorological reading (more leant towards medicine), and a cosmological one (more bent on speculative reasoning). As to this second interpretation, the essential point to note is that the creation of the human body is not carried out by the Demiurge, but by some minor subordinate entities to which the Begetter commands the task. Apart from this difference, the assemblage of the human body is made according to the physical principles employed in the construction of the world body (e.g. Ti. 42e); hence the correspondence between the cosmos and the body. However, as J. Jouanna has contended, both interpretations could be mistaken, for Jouanna is of the opinion that neither interpretations suit the real intended meaning of φύσις in the Phaedrus. Cfr. Jouanna (1977), pp. 15 – 16, 22; (1992), p. 89.

469 Beside medicine, rhetoric is deemed as the τέχνη for excellence. Steckerl (1945), p. 166. In the Phaedrus both arts are constantly intertwined; thus, medicine works on bodies precisely the same way that rhetoric does on souls. Kranz (1944), p. 196; Schuhl (1960), p. 76; Jouanna (2012c), p. 39.

470 Jouanna (1993), p. 64.

471 Likewise, the participants in Plato’s Sophist take the decision of applying the method based on the diaeresis with a view to finding a definition (ὁρισµός) of what, by contrast to ‘philosopher’ and to ‘politician’, should be intended by ‘sophist’. Since being applicable to whatever subject-matter, the partakers in the dialogue consider the method of division as the proper procedure to attain true knowledge.

472 At Phdr. 271a 7 Plato claims that the body is πολυειδές. Such claim raises the question about what did Plato mean by εἴδη in that particular context (presumably something like “type, constitution type, etc.”). Jouanna (1977), p. 25. It is worth reporting what Galen wrote on this point, since he put the majority of healing failures down to the ignorance of his contemporary colleagues at classifying in species and genres the different ailments: « καὶ μὲν γς ὡς ἐκ τοῦ μη γνωσθέντος κατ’ εἴδη τε καὶ γένη διαμείθει τα νοσήματα, συμβαίνει τοῖς ιατροῖς ἀμαρτάνειν τῶν θεραπευτικῶν σκοπῶν ». Galen Quod opt. med. [1 p. 54, 7 – 9 K.].

473 This topic has been addressed earlier in Phdr. 268a – c apropos of the fake physician who knows about the remedies and their properties but ignores to whom those should be administered, precisely because he is not acquainted with the different constitution types.

The moot point in the passage is the verisimilitude in the description given by Phaedrus; that is to say, to clarify how far Plato’s mention of the method followed by Hippocrates is actually represented in the Hippocratic collection. From a skeptical position it has been objected, on the one hand, that none of the books in the Corpus Hippocraticum conveys the methodology assigned to Hippocrates at *Phaedrus* 270 c – d. The reference to Galen is believed, on the other, to be an allusion to the book entitled *The Nature of Man*. W. D. Smith and F. Kudlien have suggested that Plato’s reference to Hippocrates is possibly bound up with *Regimen*. On this argument there are some who maintain, following É. Littré, that in the *Phaedrus* one may see the traces of *Ancient Medicine* (especially ch. XX), or likewise, that the method praised by Plato presents points in common with other treatises in the Hippocratic collection. At this juncture, the only sure things are that Hippocrates’s method was famous enough during his lifetime as to be mentioned by Socrates’ interlocutor; and for the present purpose, that there is also an evident parallelism between the method of division that Plato attributes to Hippocrates and the procedure that the author of the *Londiniensis* follows when, in the first section of the papyrus, he sets himself the task of classifying the different kinds of affections.

3. *Plato’s Views in the Anonymus Londiniensis Papyrus*

We should like to consider some points that D. Manetti already noted: as such, the long passage dealing with Plato within the second section in the *Londiniensis* papyrus can be taken as a

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475 Jaeger (1957), p. 54. Thus, in the *Phaedrus* Hippocrates could be just « a name without works ». Jouanna (1977), p. 17. Plato is credited with having deliberately written arguments containing mistakes or missed opportunities for rebuttals; these gaps are usually explained on grounds of the supposition that Plato wanted to draw readers in and to encourage them to correct his mistakes. Prince (2014), p. 913.


separate instance. Given that the paraphrase on the *Timaeus* transmitted in the *Anon. Lond.* is earlier than Galen’s commentary, then, besides Cicero’s translation of the dialogue, the *Anonymus Londiniensis* constitutes one of the oldest pieces of evidence of a direct use of the *Timaeus* in Antiquity.

For the scribe of the *Londiniensis* papyrus Plato serves as an introductory and salient example of the latter cluster of authorities described in the second section of the papyrus, that is, the group embracing the physicians who attributed the causation of disease either to the elements in us or to their uneven combination. As the first to be mentioned, Plato comes before Philolaos, Polybus, Menecrates, Petron, and Philistion. Given that to the scribe they all share close etiological views, in the *Londiniensis* papyrus we find them accordingly cast in one and the same group. The attention paid to Plato in the papyrus is, by far, greater than to any other author in the same subsection and passes over the chronological order that the scribe apparently displays in the second subsection. Thus, by way of example, Philistion — who is credited with exerting considerable influence on Plato’s medical views — occupies the last place in the second subsection (cols. XX, 25 – XXI, 8?) when in reality he should precede Plato. It should also be taken into consideration that while the author of *Anon. Lond.* takes issue with the majority of the authors he reviews, Plato is never criticised in the papyrus; this probably owes to the fact that the

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483 CPF Plato 129T, p. 547.

484 Col. XIV, 11.

485 Judging by what the scribe deems to be Hippocrates’ theory (cols. VI, 43 – VII, 1) in the previous subsection (cols. IV, 28 – XIV, 6), it could be that the first author mentioned in the *Londiniensis* who, to some extent, put the causes of disease down to the elements in us was Hippocrates, and not Plato. Although lacunar, the fragment at the basis of our claim (cols. VI, 43 – VII, 12) is as follows: « Ως δὲ δεξαμενός ἑνακράτης λέγει γιαν(νες)θ(α) τός νόσοι(ους)45 [± 2] ν. 4(5) ..... ( ) ἐρι φωσε(κο) [||άνθ(ροπ- λέ)]γιε δι[ ] ἢ ὤκ[ ] [.].φηγούλε καὶ φλέγαια[τ]ος, γ[ ] ταῦτα, ἐπειδὴ γιγαμένοις [ ] καὶ οὐκ εὐνοῦσσ[τυ] ηδή[ ] ἐκάκη[γ]ου[παρόντος εἰλι], [κτί[τος][].α.[ ] ὑπερκεῖναν ἐν ἡμῖν κ(ατά) φάεν τό ἀγα[ς το [θερμιστ(ατον)]τόν [ν]γρόν, ». For space reasons the long illegible blanks in the papyrus are not included.


487 This points to the fact that the scribe of the *Londiniensis* outlined the second subsection by bearing in mind a gradual complexity in the theories he wanted to expound; accordingly, one could assume that in the scribe’s eyes Plato was who gave the most puzzled explanation to the causation of disease.

opinions the scribe expresses in the third section are indebted to or in agreement with Plato. The amount of time focused on Plato suggests that for the section devoted to the Timaeus in the papyrus the author had to hand a wide array of materials, or else more than a nosological doxography.

As the scribe is at this point dealing wholly with the issue of the causation of illness, he adduces for that purpose an explanation based on the mixture, this being the main reason why the author of the Londiniensis dwells on Plato’s Timaeus. In the papyrus the content regarding Plato’s views (Πλάτων) closely follows the text in the Timaeus. The passages in the Timaeus paraphrased in the Londiniensis papyrus correspond, more concretely, to Ti. 42e, and 73b – 84e.

As far as the general lay-out is concerned, the paraphrase of the Timaeus is arranged according to the discussion of three main topics: the body, the soul, and the causes of disease. For the sake of concision, the second tenet in Platonic psychology cannot be studied in the present

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489 In general one gets the impression that the author of the Anon. Lond. has Plato and Aristotle in high esteem, while takes Erasistratus, Herophilus, and Asclepiades as dialectical adversaries. Cfr. Manetti (1996a), pp. 298, 300; (1999), p. 141; Ricciardetto (2016), pp. CXIV – CXVII. Manetti considers the contents in the columns devoted to Plato as belonging to the Platonic-Academic tradition in a wide sense, and in some way, also as connected with the medical dogmatic tradition, which traces, in turn, a line that extends to Herophilus. Cfr. Manetti (2003), p. 336.


491 Cfr. cols. XIV, 12, 27; XVIII, 7.

492 The argument starts with the constitution of the animated bodies (Τι. 42e – 43a), afterwards it follows a synthesis on human anatomy and physiology (Τι. 73b ff.), and it finishes with the causes of ailments (Τι. 82a ff.). Cfr. CPF Plato 129T, p. 548. Two traits of exception have been signalled. The first is the description of the material κράσις, which has primacy in respect to the description that accounts for the functions of the parts of the body. The second feature lies in the scribe’s apparent aim of distributing the whole report on Plato in two further minor subsections, one dealing with the body and another with the soul. Cfr. CPF Plato 129T, p. 549. This second trait remains somehow obscure because in the Timaeus the creation of the body precedes that of the soul.

493 In disagreement with H. Diels — who put col. XIV, 12 – 15 in reliance with Τι. 82a — Manetti proposes Τι. 32b 9 – c 4 (or even Τι. 42e – 43a) as the passages that the scribe could have taken into account. Cfr. CPF Plato 129T, p. 551.

494 Cols. XIV, 12 – XVIII, 8. The long passage devoted to Plato in the Londiniensis papyrus was edited, translated into Italian, and commented on by D. Manetti in CPF Plato 129T, pp. 528 – 579. Cfr. supra Comment. on cols. XIV, 12 – XVIII, 8; Ricciardetto (2014), pp. XLII – XLIII.

495 Cols. XIV, 12 – XVI, 32.

496 Cols. XVI, 33 – XVII, 11.

497 Cols. XVII, 11 – XVIII, 8. Along with this threefold structure, in the exposition of Plato’s medical theories in the Anonymus D. Manetti has individualised a kind of formal scheme that can be applied to the descriptions of Polybus, Menecrates, Petron (and perhaps also of Philistion). The pattern consists of three different steps: 1) description of the bodily elements according to every author; 2) identification and enumeration of the cause(s) of disease; 3) description of the differences between diseases. Cfr. Manetti (1990), p. 223.
chapter\textsuperscript{498}; but according to the stated arrangement in the paraphrase we shall go into the details of some concerns regarding, first, the formation of the body, and secondly, the causes of disease.

3. 1 Epigenesis and Stoichiology in Plato’s Timaeus in the Light of the Anonymus Londiniensis

In col. XIV, 39 – 44\textsuperscript{499} the scribe of the Londiniensis undertakes the study of the marrow, its composition, and its preponderance in relation to the body (the topic is addressed right through until col. XV, 25). Hence, the writing in the papyrus is at this point taking into account Timaeus 73a – 74a\textsuperscript{500}. In the Anon. Lond. the spinal marrow is featured with the comparative κυριώτερος\textsuperscript{501}, which is hardly surprising if it is borne in mind that to Plato the marrow is the primordial and the original substance in our body\textsuperscript{502} — to the point that the divine (θείον) part of the soul is placed in the head whereas the mortal one (θηντόν) is said to abide in the marrow\textsuperscript{503}. As to the formation of the bodily tissues\textsuperscript{504}, not only is the generation of the marrow the ἀφρῇ for all the other tissues, but the marrow is also composed of the primary triangles of fire, water, air, and earth mixed symmetrically\textsuperscript{505}. From the Timaeus we learn that the semi-divine instances (οἱ παῖδες τῆς τοῦ πατρὸς)\textsuperscript{506} to whom the demiurge commands the construction of the human body begin to perform their task by forming

\textsuperscript{498} Yet it is necessary a brief comment on the expression « τὸ μὴν λογικά κοινεύοντας, ὡς ὁ μικρὸς ὁμοιότατος καὶ τὸν τετελεσθέντας εἰς καιρὸν τοῦ ἑνήμην, καταλήλατον, καὶ ναῦσσας ὑποθέτοντες ἐν τῷ ἐκτίθεμεν.» in col. XV, 28. Plato distinguished three different kinds of soul: an immortal one — placed in the brain (τὸ λογικά κοινεύοντας) and created by the Demiurge, and two other mortal types of soul, which he considered as created by lesser divinities: the so-called irascible soul (τὸ κυριώτερος) placed in the thorax, and the appetitive soul (τὸ επιθυμητικόν), to which Plato assigns the task of vitalising the abdominal viscera. Cfr. Plato Ti. 70d. In the light of the contents in Ti. 91a – d, Plato could have even hypothesised a “a genital soul”, a fourth type of soul which is said to preside during the sexual intercourse.

\textsuperscript{499} « Ἅγιος ἡ μήν φυσικών, ὃς ὁ μικρὸς ὁμοιότατος καὶ τὸν τετελεσθέντας εἰς καιρὸν τὸν ἑνήμην, καταλήλατον, καὶ ναῦσσας ὑποθέτοντες ἐν τῷ ἐκτίθεμεν.»

\textsuperscript{500} Diels (1893a), p. 22.

\textsuperscript{501} Plato Ti. 84c 3 – 7.

\textsuperscript{502} Abel (1957), pp. 112 – 114; Burgess (1998), pp. 21, 30. If the marrow is the primordial part of the body, it naturally follows that the most dangerous and deadly diseases overcome when the marrow is sized by an affection. Plato Ti. 84c 3 – 7. Fedorova (1998), p. 76 n. 1.

\textsuperscript{503} Plato Ti. 73b 6 – d 7.

\textsuperscript{504} Plato Ti. 73b 1 – c 2.

\textsuperscript{505} Miller (1962), p. 183 n. 27.

\textsuperscript{506} Plato Ti. 42e 6.
first the substance of the marrow, then the structure of the body is built outwards from this point and around the marrow\footnote{Plato \textit{Ti}. 73a 10 – 74a 5.}

In contrast to Plato’s opinion about the nature and function of the bones, — to which the philosopher assigns the role of securing either the marrow or the sperm\footnote{Plato \textit{Ti}. 73d 7; 74a 4 – 7.}, the scribe of \textit{Anon. Lond.} approaches the position\footnote{Cfr. col. XV, 30 – 33.} from another angle. He insists on the fact that the presence of bones is mainly due to the fact that they are to bear the weight of the whole body. In this particular, the scribe seems to drift away from Plato and come closer to Aristotle\footnote{Aristotle \textit{PA} II 9, 655a 10 – b 1. Col. XVII, 35 – 40.}. Such a shift towards Aristotelianism applies also to his interpretation\footnote{Plato \textit{Ti}. 82d 1 – e 3.} of the role and the nature of fat ($\pi\mu\epsilon\lambda\iota$), for, by stating that fat is integrated in the bones and has a nutritive function, the scribe of \textit{Anon. Lond.} distances himself again from the Platonic text\footnote{Plato \textit{Ti}. 73b 1 – d 2.} and adheres to an Aristotelian view\footnote{Aristotle \textit{PA} II 5, 651a 20.}. The epigenetic primacy of the marrow in Plato brings up the origin of sperm\footnote{Aristotle \textit{HA} III 17, 520a 8; \textit{PA} II 5, 651a 20.}, a common subject-matter where philosophy merged with medicine\footnote{Debru (1999), p. 464.}. One could distinguish three different spermatogenic paradigms in Antiquity: the encephalogenic\footnote{Plato \textit{Ti}. 73d 7 or 74a 4 – 7 one is prompted to assume that, regarding the origin of human seed, Plato also held a pangenic view. Aristotle was sharply critical of pansomatism, since he offered numerous grounds for his rejection of the theory: matter is not self-organizing, pansomatism fails to explain observed facts of resemblance or dissimilarity, etc. Cfr. Aristotle \textit{G4} I 17, 721b 12 – 18, 724a 13; 20, 729a 6.}, the pangenic\footnote{That is to say, the theoretical assumption whereby it is said that the sperm arises from the brain. This was the belief of Alcmaeon of Croton and Diocles of Carystus. Wellmann (1901), p. 211. Apropos of the high rate of infertility among the Scythes see Hippocrates \textit{Aer}. XXII [II pp. 78, 5 – 14 Li.].} and the
haematogenic. In connection with this, in assigning the origin of human seed not to the brain but to the spinal marrow, Plato is credited with holding an encephalomyelogenic theory, that is, a slight variation of the encephalogenic paradigm. Yet, in considering the remarks that J. Jouanna has made in this respect, such a tripartite scheme (or derived) seems ill-founded or imprecise. Jouanna argues that it is a mistake to suppose that there was an encephalogenic theory as such; he contends instead that encephalogenesis is a misleading variation of the pangenic theory. Hence, according to Jouanna, in the ancient medical and philosophical texts what we find is only a pangenic theory that was read and interpreted in many different ways. Properly speaking, there is room for neither an encephalogenic nor for an encephalomyelogenic theory; hence, Plato’s spermatogenic theory would be neither peculiar nor as genuine as scholarly tradition in general claims.

Now, in another order of things, the third major section in Timaeus’s speech is largely about the formation and organisation of the human body, which is said to be made up of four kinds or elements (earth, fire, water, and air). Just before expounding the theory of disease and health, Timaeus explains the formation of some parts of the body such as flesh, muscle, hair, and nails; afterwards he will address such issues as respiration, circulation of blood, old age, and natural death. As regards the composition of the flesh and the sinews, — a topic in which Plato is far from being clear (indeed, giving contradictory versions), the scribe of the Anonymus papyrus moves again towards Aristotle’s view, so that on the basis of an Aristotelian interpretation of the facts the paraphrase in the Londiniensis papyrus corrects in a way the confusion of the Platonic text.


522 Plato Ti. 82a – 86a.

523 Plato Ti. 74e – 76e.

524 Plato Ti. 77c – 80c.

525 Plato Ti. 81b – e.

526 Cfr. e.g. Plato Ti. 74c – d alongside 82c 8 ff. CPF Plato 129T, p. 575.

527 Aristotle PM II 3, 650b 14.
At *Timaeus* 83a 5 – e 1 Plato proceeds to a fuller description of the humours. A classification of the different kinds and species of bile, serum, and phlegm is given beside their specific origin, colour, and major characteristics. As to blood, it is named « the stream of nutriment on which the flesh and the whole body feed »528. At the end of the description Plato sums up by saying that all these humours become agents (ὄργανα) of disease529.

3. 2 Plato’s Nosological Views and the Etiology Assigned to Him in the Londiniensis Papyrus

In *Timaeus* 81e – 86a, near the end of his discourse on the creation of the cosmos, Timaeus outlines a theory of bodily health530 and disease. He begins his speech saying: « How diseases originate is, I take it, obvious to all »531. As Timaeus presumably goes too far in the assumption, perhaps a reasoned explanation of Plato’s views might be of assistance.

Part of the problem presented hereafter has possible roots in the fact that, whereas in the *Timaeus* we are told about typologies of disease, the author of the *Anonymus* papyrus is concerned with the causes of disease. Although both fields are certainly entwined they are not identical, this difference being what might have prompted some of the variants that one comes across in reading one text in the light of the other and vice versa. The theory of bodily diseases in the *Timaeus* is grounded in three major kinds:

1) Diseases that arise when an element increases or decreases unnaturally (παρὰ φύσιν), when elements change places, or when the wrong variety of an element is present532. This first cause lies in Philistion’s views. Disease is conceived either as a deficiency (ἐνδεία), an excess (πλεονεξία)533, or a wrong (re)placement (μετάτασσες) of the constitutive elements of the body534.

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528 Plato *Ti.* 80d 7 – 81a 2.
529 Plato *Ti.* 83c 2.
530 In the *Grg.* 504b Plato describes the physical sound condition in terms of a harmonious state of the body. The definition of health that Plato gives at *R.* IV 444d 1 – 5 runs as follows: « Ἐστι δὲ τὸ μὲν ὑγίειαν ποιεῖν τὰ ἐν τῷ σώματι κατὰ φύσιν καθιστάναι κρατεῖν τε καὶ κρατεῖσθαι ὑπ’ ἄλληλου, τὸ δὲ νόσον παρὰ φύσιν ἄρχειν τε καὶ ἄρχεσθαι ἄλλο ὑπ’ ἄλλου. », (« to produce health is to establish the elements in a body in the natural relation of dominating and being dominated by one another, while to cause disease is to bring it about that one rules or is ruled by the other contrary to nature »). Trans. Shorey (1953), p. 419. Cfr. also Frere (1988), p. 56.
531 Plato *Ti.* 81e 6.
532 Plato *Ti.* 82a 1 – b 7.
533 To Plato the majority of ailments are actually derivative from excess. Cfr. also Hippocrates *Aph.* II 17, 51 [IV pp. 474, 8 – 9; 484, 9 – 12 K.].
2) Diseases that arise when generation is reversed. Since generation has several stages, its reversal can produce several kinds of disease\textsuperscript{535}.

3) Diseases that arise due to air (\(\pi νεύ\ματος\))\textsuperscript{536}, phlegm (\(φλέγματος\)), and bile (\(χολῆς\))\textsuperscript{537}. 

Plato’s explanation of bodily diseases constantly emphasises the primary physical causes of disease and attributes them to the constitutive elements of man’s \(φύσις\). Underlying the whole theory of causation of disease is the conception of the natural \(σόστασις\) and \(τάξις\) of the primary elements and the tissues of the body, and the principle of the regularity and uniformity of the motions of the constituent elements in the flux and change of the body\textsuperscript{538}. From the three aforementioned types of bodily disease it seems that Plato mainly likens disease to a disordered movement\textsuperscript{539}, inasmuch as such disordered motion is in conflict with the regular movement in virtue of which it is recounted that the world has been created. Thus, disease might correspond either to unnatural movements within the body, to unnatural movements into the body, or to the failures in moving substances out of the body\textsuperscript{540}. It is in the second distinction (2) where Plato introduces the notion of ‘secondary structures of the body’\textsuperscript{541}. On that view, disease is the result of the dissolution of the proper teleology of the body, a disruption that is ultimately caused by its very corporeality. In other words, at level (2) bodily diseases arise when the body is incapable of maintaining its proper teleological organisation against the disruptive attacks from outside\textsuperscript{542}. Since the body, with its tissues and structures, is composed of the four elements in various proportions, it is by its very nature liable to the disintegrative action of the motions of the elements when it suffers contact with them\textsuperscript{543}. In fact, Timaeus views disease agents, and diseases themselves, in terms of

\textsuperscript{535} Plato \textit{Ti.} 82b 8 – 84c 7. \textit{Ti.} 82b 9 – d 1 is more precisely linked to col. XVII, 25 – 44.

\textsuperscript{536} Timaeus’s conviction is that air can unchain countless diseases. Plato \textit{Ti.} 84d 2 – e 2.

\textsuperscript{537} Plato \textit{Ti.} 84c 8, 84d 1 – 86a 8. We shall not go into consider, in the way B. D. Prince does, whether the relation of 1) in regard to 2) and 3) resembles the relationship that there might have a particular genus with its species. Cf. Prince (2014), pp. 909 – 910, 914 – 916. In the \textit{Ti.} 71b, 83c Plato recalls to the reader that ‘bile’ is the name which tallies the most with the diversity of the constitutive elements in us. Cf. Schuhl (1960), p. 78.

\textsuperscript{538} Miller (1962), p. 186.


\textsuperscript{540} Grams (2009), p. 162.

\textsuperscript{541} Cf. supra § 1.

\textsuperscript{542} Plato \textit{Ti.} 77a, 82b. That is why the cosmos, a living being that has a body after all, is unaging and unperishing; for there is nothing out of cosmos that may interfere with its arrangement. Plato \textit{Ti.} 31a, 33a.

\textsuperscript{543} Miller (1957), p. 109.
living organisms submitted to the principles ruling the process of coming-to-be and corruption. To our mind, the point to be realised is that Timaeus’s views can easily give place to a theory where disease becomes possible when things enter or leave the body, this being one of the main topics in the third section of the papyrus. The principle of constant change and flux which profoundly characterises the body of man as subject to inflow and outflow (as well as all else in the phenomenal world) is Plato’s deepest apprehension of the nature of the body, and it is quite logically the foundation upon which he proceeds to explain the causation of disease.

As regards the third typology above signalled, rather than with those involving the elements or the tissues of the body, Plato is here mainly dealing with diseases affecting various organs or parts (or with the body as a whole); yet it is still the conception of the τάξεως of the body and its parts, and their orderly functioning, which is essential to his explanations. The pneuma may be a cause of illness only in connection with some other substance, with the rheumata arising from phlegm, or with the phlegm or the bile resulting from the disintegration of the flesh. That is why the pneuma is logically included with bile and phlegm in the narration of the third type (εἶδος) of disease. In what follows we shall speak about them in the same order, and by contrasting the Platonic text with the portrayal of Plato in the London papyrus we shall try to make out the controversial points in-between.

3. 2. 1 The Air as Cause of Disease; a Comparative Approach

Plato’s account of air as disease begetter lies in the disruption of the regular supply of pneuma throughout the body. In the Timaeus it is assumed that some diseases occur when the passage of the pneuma through the pores of the skin is impeded. The doctrine of a pan-somatic respiration (καθ᾽ὅλον τὸ σῶµα) bridges medical thought and pre-Socratic philosophy. Plato’s

544 Plato Ti. 89b – c.
545 Cfr. supra ch. I § 2 n. 17.
546 Plato Ti. 43a 6 – 7.
547 Plato Ti. 84c 8 – d 2: « Τρίτον δ’, αὐτοὶ νοσημάτων εἴδος τριχῇ διέ διανοοῦσθαι γιγνόμενον, τὸ μὲν ὑπὸ πνεύματος, τὸ δὲ φλεγμάτος, τὸ δὲ χολῆς. ». (« A third class of diseases takes place in three ways, being due partly to air, partly to phlegm, and partly to bile »). Trans. Bury (1961), pp. 228 – 229. Plato addresses this third type of cause at Ti. 84c 8 – 86b 2. Cfr. also Abel (1957), pp. 111 – 112; Miller (1962), p. 184.
explanation of respiration as taking place through the ‘pores of the skin’\textsuperscript{551}, through the mouth, and through the nose\textsuperscript{552} is doubtlessly rooted in Empedocles\textsuperscript{553} or in the vein of others who, like Philistion\textsuperscript{554}, appertained to Empedoclean tradition\textsuperscript{555}.

However, a far more interesting and puzzling question is the odd confusion between πνεῦμα and φύσα\textsuperscript{556} when the scribe turns to the third class of disease (3) examined in the Timaeus. The πνεῦματος mentioned in the Timaeus is substantially and radically different to the φύσας in the Anon. Lond. While the former notion is directly connected with the lungs and their role in the process of respiration, in the Anonymus papyrus such air is to do with the process of digestion, or more concretely, with its final step. In this latter case, it is a matter of the gases (φύσας) that rise from the residues\textsuperscript{557} of the food. Thus, in the Timaeus the most similar explanation that one can find to the version given in the papyrus is the description of a certain pathological air (still called πνεῦμα) within the body, which is said to arise from the disintegration of the flesh\textsuperscript{558}; hence the supposed origin of such air is neither external nor in breath. Yet, then, an issue of classification arises, for, inasmuch as it results from the putrefaction of the flesh that air can never be considered as pertaining to the third type of disease mentioned above (3), but should rather belong to the second one (2). The confusion could be explained by the close and complex relationship between

\textsuperscript{551} As opposed to the respiration taking place through the mouth (ἀναπνοή), Galen specifically terms this process διαπνοή. Cfr. Galen In. Plat. Tim. comm. III 17 [CMG Suppl. I pp. 22, 9 – 23, 13].

\textsuperscript{552} Plato Ti. 78e – 79e.


\textsuperscript{555} The most representative text in this specific matter is the likeness of Empedocles’ theory of respiration that Aristotle reports at Resp. VII 473b 9 – 474a 6. Cfr. DK Empedocles 31[21]B 100 [Diels (1951), pp. 347 – 349]; Kirk - Raven (1957), pp. 341 – 342 fr. 453. Aristotle recollects this passage in order to address a sharp criticism against Empedocles’ views. The papyrus known as Empedocles of Strasbourg (P. Strasb. gr. inv. 1665 – 1666) has nothing to contribute to this particular concern.

\textsuperscript{556} At Plato Ti. 84d 1 we read « ὑπὸ πνεῦματος », while in the Londiniensis (col. XVII, 46) the third cause is attributed to « παρὰ τὰ φώσας ». Trans. Jones (1947), p. 71. Terms like πνεῦμα or φύσα not always are clearly delimited, hence the problems that both words often put from a semantic point of view. By judging the immediate context, in the Anon. Lond. it is suggested that φύσα is a gas that results from the process of digestion; whereas by φύση Plato and Hippocrates meant the air that comes in the body along with food. Hippocrates Flat. VII [VI pp. 98, 21 – 100, 5 Li. ] = [CMG I 1 pp. 94, 23 – 95, 11 Heiberg].

\textsuperscript{557} Col. XVII, 44 – XVIII, 1: « Παρὰ [δὲ] τὰ περιττῶματα συνίσταται τρίχωςιν νόσου, ἢ παρὰ τὰ φώσας τὰς ἐκ τῶν πελατίτησιν ἄρτουν », (« Residues produce diseases in three ways: because of the gases arising from the residues »).
nosology and etiology, and secondly, by the effect of some nosological views forged in the Aristotelian system.  

3. 2. 2 *Bile and Phlegm as Causes for Disease; a Comparative Approach*  

The more general conclusion that one can learn from reading *Anon. Lond.* col. XVII, 44 ff. in connection with the third type of disease described in the *Timaeus* is that the scribe of the *Anonymus* papyrus considered bile and phlegm as residues. The scribe’s position looks unambiguous in this respect inasmuch as in col. XVII, 11 – 14 it is clearly stated that Plato posited three different types of disease, a tripartite typology whereby the constitutive elements of the body are considered as the first kind of cause and residues the third kind. In this way, Plato’s position again seems unique, at least from two different stances. It is different to some ancient stoichiologic paradigms wherein the constituents (στοιχεῖα) of the body are believed to be only two (bile and phlegm) and not four. On the other hand, Plato’s view on this subject does not really chime either with what is clear from the second section of *Anon. Lond.* For, while among the physicians who put the causation of disease down to the residues of the food (περιττῶματα) the presence of bodily fluids is generally regarded as a pathological sign, in introducing the other group in the doxographical section Plato should, contrariwise, consider the bile (a fluid in the last term) as a plain constituent of the body; but that belies the account in the *Timaeus* and in the *Anonymus* papyrus.

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559 Cfr. supra ch. II § 5.  
560 In col. XVII, 35 – 40 we see expounded in detail the putrefaction of the flesh and the resultant morbific humours that ensue from that process. Cfr. Plato *Ti.* 82d 1 – 83c 6; CPF Plato 129T, p. 576. All the different kinds of bile and phlegm which are there reviewed are considered residues (περιττῶματα). In the light of Somn. *Vig.* III 458a 2 – 5, Aristotle could have upheld a very similar view regarding phlegm.  
561 Plato *Ti.* 81e ff.  
562 Cfr. supra *Comment.* on col. XII, 8 – 11. In this sense *Anon. Lond.* seems to be in accordance with Plato *R.* VIII 564b – c. It should be stressed, however, that in the Hippocratic collection this criterium is far from being monolithic. Thus, for example, according to the author of the treatise titled *Regimen* — which seems highly improbable that was written after the *Timaeus*, man, like all living beings, is formed of two other basic principles: water and fire. Cfr. Jouanna (2012b), pp. 200, 214. In other treatises the constitutive principles are said to be three in number (phlegm, bile and blood); so that the quaternary humoral scheme (blood, phlegm, black bile, and yellow bile expounded in *Nat. hom.* IV-V) is, as such, unattested in the majority of books of the Hippocratic collection. The only sure thing is that in the Hippocratic writings it is avoided all kind of monistic view.
In relation to Plato’s consideration of bile either as non-constitutive element\(^{563}\) or as pathological agent\(^{564}\) it is worth recalling two other authors also reviewed in the *Anon. Lond.*: Dexippus of Cos and Petron of Aegina (5\(^{th}\) century BC?). From the portrait of their respective opinions about the causes of disease, it follows that for Dexippus (who belongs to the first group) bile is a residue from nutriment\(^{565}\); whereas for Petron\(^{566}\) (who is placed among the authors in the second group) bile is a non-constitutive element of the body, being rather the result of a pathological process\(^{567}\); so that in Petron’s view a body in sound and good health lacks bile\(^{568}\). Dexippus’s and Petron’s stances help to make clear the apparently transitional position that Plato occupies in what is generally accepted to be the doxographical section of the *Anon. Lond.* papyrus.

Of no minor import, and in relation to the same issues, cols. XVII, 44 – XVIII, 1 in the *Anon. Lond.* disclose another concern which has to do with the usage of the term περίττωμα to delineate part of Plato’s etiology. A look at an index whatsoever of the *Timaeus* reveals that περίττωμα (a typical Aristotelian lexical item)\(^{569}\) does not occur in any Platonic dialogue. Why then does it occur in the papyrus? Is it another telling example accounting for the scribe’s indirect access to the authors with whom he was dealing? Or, is it another argument for the autographical nature of the London papyrus? On this point, we should add that when in the *Parts of Animals*,\(^{570}\) Aristotle takes up ‘bile’ as subject-matter he declares that while bile is present in some animals, it is absent in others. According to Aristotle, bile is a residue formed when the blood is not as pure as it should be;

\(^{563}\) Plato affirms that bile is naturally formed from old blood. *Ti.* 85d 6 – 7: « χολῆ φύσει παλαιῶν αἵμα γεγονοῦσα ». By contrast, in Hippocrates (Menon) *Nat. hom.* XV [VI p. 66, 10 Li.] we see stated that most fevers come from bile «Οἱ πλεῖστοι τῶν πυρετῶν γίνονται ἀπὸ χολῆς ».

\(^{564}\) Because of essentially being a residue from old blood, the gravest diseases occur when bile is mixed with pure blood. Cfr. Plato *Ti.* 85c 2.

\(^{565}\) Col. XII, 8 – 11: « ὁ Δέξιππος οὖσαν χολήν καὶ παλαιῶν γίνονται. Τὰς νόσους ἀπὸ τῆς τροφῆς περίττωμά τινα πρέπει νὰ κατακαταλέγομεν.»

\(^{566}\) Col. XX, 17 – 20: « Περὶ δὲ τῆς χολῆς ἰδιώτατον παθολογεῖ. Φθορὰ τῆς νόσους εὶ συνεχεῖται δύο ἡμέραι...»

\(^{567}\) Col. XX, 21 – 24: « Καὶ συγκαταλέγομεν τὸν Φιλόλαοκσερίται μὴ ἐν χολῃ περιττωματίνα. Καὶ καὶ τοῦτο συνεχόμεθαν τὸν Φιλόλαοκσερίται μὴ ἐν χολῃ περιττωματίνα.»

\(^{568}\) Petron is of the opinion that bile is a non-constitutive humour, a kind of matter which arises παρὰ φύσιν (so too for Plato). Cfr. Miller (1962), p. 185; Jones (1984a), p. XLIX.

\(^{569}\) Col. XX, 21 – 24: « Καὶ συγκαταλέγομεν τὸν Φιλόλαοκσερίται μὴ ἐν χολῃ περιττωματίνα. Καὶ καὶ τοῦτο συνεχόμεθαν τὸν Φιλόλαοκσερίται μὴ ἐν χολῃ περιττωματίνα.»


\(^{570}\) Aristotle *Ph* IV 2, 676b 17 – 677b 12.
but as such bile does not serve any particular purpose nor does it have any finality (οὐκ ἐνεκά τινός), it is just that sometimes nature uses such residues for its own convenience. In Plato, by contrast, phlegm and bile have no natural function in the structures and processes of the body because they are humours which arise unnaturally (παρὰ φύσιν). Hence Plato believed that these humours, unless they are purged with comparatively minor effects upon the body, cause disorder and disease in whatever part of the body they may happen to attack.

Timaeus goes on to say that all the inflammations in the body are caused by bile, and describes a kind of “contest” between the bile and the fibrins (ἰνῶν) in the blood. The fibrins tend to congeal and thicken the blood, while the bile tends to heat and thin it. In Plato’s opinion, whichever of the agents “wins” depends largely on how much bile enters the blood at once. Each substance “acts” in a characteristic way, so predicting the results of their interactions amounts to figuring out which substance will be the “stronger.” In the papyrus, the scribe takes the part where Plato deals with the fibrins in exactly the opposite way intended by Plato. Thus, whereas Plato affirms that the fibrins help in the maintenance of the liquid state of the blood in the right balance, neither too liquid nor too solid (so as to become coagulated), the scribe of the *Londiniensis* claims that the removal of the fibrins prevents the blood from coagulating.

Another point of dissension ensuing from a comparison of both texts consists in the ambivalence of the properties attributed to bile and to phlegm. In Plato, the humour with a hot and burning nature is assigned to bile, while in the *Londiniensis* papyrus that property is ascribed to phlegm. In that way, according to the report that the scribe gives of Philolaus of Croton — the

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573 Plato *Ti*. 85b 5 – 7. Previously, in *Ti*. 85a, Plato has addressed a disease which he deems to be caused by white phlegm.
574 Plato *Ti*. 82d, 85c – 86a. For an Aristotelian perspective on the topic cfr. e.g. *PA* II 3, 650b 18 – 4, 651a 12.
576 CPF Plato 129T, p. 574.
577 Plato *Ti*. 85c – e.
578 Col. XVII, 30 – 32.
physician that follows Plato in the doxography — one is to find an evident connection between phlegm (φλέγμα) and its alleged burning power (φλέγειν)\(^{581}\). Such a word game was first posited by Democritus\(^{582}\), and it fits with the philological turn taken by the medicine of the Imperial period. However, if contrasted with “Hippocrates”, both Plato’s and Philolaos’s opinions on the subject look quite irregular. In the Hippocratic book *The Nature of Man* phlegm is considered the coldest constituent in our body, wherefore its presence becomes noticeably increased in winter\(^{583}\). How then can one explain the inflammatory power of phlegm on the basis of its cold nature? A possible argument to which one could turn to explain the paradoxical fact that the coldest of the elements in us actually possesses a burning power is in the fact that there seems to be no difference between something extremely hot and something extremely cold.

As regards phlegm, lastly, we learn from Timaeus that it is essentially acid and saline. In the *Timaeus* there is also the description of a particular kind of such bodily residue, the so-called ‘white phlegm’\(^{584}\). Somewhat contrasting it with the black type of bile (μελαίνης χολῆς), Timaeus underlines that white phlegm is a kind of serum\(^{585}\) that results from the decomposition of soft tissue in combination with air. White phlegm becomes a nosological agent when it gets caught up in some part of the body (through not finding a proper way out). In such a case the white phlegm is acted upon by the air that forms bubbles due to its enclosure in the body\(^{586}\), and from the combined action of both factors white scabs, eczemas, or tetters come about. We are told, however, that it is when white phlegm mixes with black bile in the head that the situation worsens, since that mixture might even cause epileptic fits if the affected person is awake.

\(^{581}\) Col. XVIII, 44: « ἀπὸ γ(ὰρ) τοῦ φλέγειν φλέγμα εἰρήθ(α)ι ». Diels (1893a), p. 33; (1893b), p. 419. Cfr. supra *Comment*. on col. XVIII, 44.


\(^{583}\) Hippocrates *Nat. hom*. VII [VI p. 46, 1 – 3 Li.]. The same idea can be found in Hippocrates *Salubr*. V [VI p. 78, 4 – 5 Li.]. In taking under consideration the influence of the “phomena up above” (μετέωρα) on health and disease, this type of medicine was known as *metereologica*. Cfr. Jouanna (1993), pp. 29 – 30, 52.

\(^{584}\) E.g. Plato *Ti*. 83d 6, 85a 1: « λέυκον φλέγμα ».

\(^{585}\) Plato *Ti*. 83c 7 – d 6. At *Mete*. IV 7, 384a 31 – 32 Aristotle considers the sickly blood as a kind of serum made from phlegm and water.

4. Conclusions

The *Anon. Lond.* provides an extended and serious treatment of the medical ideas contained in the *Timaeus*. An analysis of the scribe’s position on a number of tenets discussed in the dialogue reveals that, if he really did so, the author of *Anon. Lond.* read Plato from a perspective akin to that of Aristotle. Although perhaps insufficient to allow us to reach any firm conclusion, and notwithstanding the significant confusion between πνεῦμα and φῦσα described above, other additional and combined facts apparently point towards an indirect knowledge of the *Timaeus* by the scribe, or else at the perusal of a doxographical source strongly imbued with Aristotelianism. Some of these hints are the alteration of the chronological order as regards Plato’s position in the doxographical section, the absolute silence about the title of the dialogue (a recurrent trait in the papyrus), or the usage of a notion alien to Plato in the section devoted to the philosopher.
The Paraphrase on Aristotle’s De somno et vigilia

in the Anonymous Londiniensis Papyrus

1. The Paraphrase on De somno et vigilia in the Anonymous Londiniensis Papyrus

1.1 Description and General Traits

Aristotle’s influence on the Anon. Lond. is plain beyond doubt from cols. XXIII, 42 – XXIV, 9 where the scribe makes an excursus on On Sleep and Waking.587


(« And sleep, as Aristotle says, is brought about in this way. The heart is by nature hot, and on it heat depends, while the brain is cold, the consequence being that there gathers about the brain moisture brought up from the heart by the heat, which gathers, cools and sinks again out of the (...) not being able, because of the cold, to remain in these places, to the heart (...) and by the mixing, heat. In this way sleep takes place, while waking occurs when the heat is in great abundance because the moisture about the brain is being all expended. And yet Aristotle praises himself because he, in contrast to the others, gives the reason for both sleep and waking, whereas they give the reason for sleep only, not for waking. »)590

The paraphrase is placed almost at the end of the explanation about the administration (διοίκησις) of the air (πνεῦμα) in the body which, besides that of food, constitutes one of the two principal


588 Col. XXIII, 50 – 52 clearly grounds on Aristotle Somn. Vig. III 457b 31 – 458a 10.


591 Cols. XXIII, 12 – XXIV, 19.
topics discussed in the third section of the Anonymus papyrus. The paraphrase\textsuperscript{592} preserved in the Anon. Lond. is one of the first references to On Sleep and Waking (and in general, to the Parva Naturalia\textsuperscript{593}) after Andronicus of Rhodes’s editorial project\textsuperscript{594}. Judging by some passages in the papyrus, at certain points the Anon. Lond. looks like a collection of notes taken by the scribe while reading and reflecting on different treatises and works\textsuperscript{595} (Hippocrates\textsuperscript{596}, the Timaeus\textsuperscript{597}, the Stoics\textsuperscript{598} etc.), and what is more significant in this case, on some fragments from the Parva Naturalia\textsuperscript{599}. The excursus on On Sleep and Waking in the Londiniensis papyrus apparently reflects a direct knowledge of the Aristotelian treatise by the scribe.

According to Aristotle, both sleep and waking are affections (πάθη)\textsuperscript{600} commonly found in all kinds of animal that have sense perception (αἴσθησις) or are endowed with the sensitive part\textsuperscript{601}. Aristotle also declares that everything which possesses matter must have an opposite, so that for the sake of this very kind of natural law based on the necessity and interdependence of opposites\textsuperscript{602}, sleep and wakefulness complement each other and serve to keep the animal alive and in sound condition.


\textsuperscript{593} Since some elements in the passage are apparently drawn from (or comparable to) Aristotle Juv. IV 469b 7.

\textsuperscript{594} Cfr. supra ch. II § 1.

\textsuperscript{595} The main doxographical part of the Anonymus Londiniensis (i.e. the second section) corresponds to a collage made of several parts of different treatises. Manetti (1990), pp. 219, 221; (1996a), p. 295.

\textsuperscript{596} Cfr. supra ch. II § 5.

\textsuperscript{597} Cols. XIV, 12 – XVIII, 8.

\textsuperscript{598} Manetti (1990), p. 220.

\textsuperscript{599} Ricciardetto (2014), p. XXVIII n. 121; (2016), pp. CIII – CIV.

\textsuperscript{600} Aristotle Somn. Vig. II 455a 26; Insomn. III 460b 31 – 32.

\textsuperscript{601} ‘Sensibility’ is in its turn defined as « a movement of the soul through the agency of the body ». Aristotle Somn. Vig. I 454a 9 – 10. This definition should be contrasted with the view expounded in Hippocrates’ Insomn., particularly in ch. 86, 88 [VI pp. 640, 1 – 14; 642, 11 – 644, 11 Li.]. The Hippocratic treatise conceives a sui generis form of dualism in which the soul just plays an ancillary role in regard to the body when this latter is awaken, but when the body is sleeping the soul becomes wholly autonomous and performs all the acts of the body; therefore, the soul performs all the functions of body and of soul during sleep. Cfr. infra § 2. 3 n. 637.

1. 2 A Reason for the Excursus

The question now arises why, before undertaking the description concerning the distribution and the assimilation of the aliment in the body, the scribe of the *Londiniensis* decides to dwell more on the administration of the air by bringing *On Sleep and Waking* into discussion. In light of the immediate context, and considering the scribe’s purported knowledge of Aristotle, it can be assumed that the theories of the latter exerted some influence on the discourse of the former. In fact, we learn from Aristotle that the theory of smoky exhalation is analogous (and can be therefore likened) to the theory of emanations. In view of this, our contention is that the scribe found in such analogy the theoretical clue that permitted him to pass from one of the main topics in the third section to the other. Furthermore, the scribe shifted his attention to Aristotle’s *On Sleep and Waking* in so far as he deemed such a treatise also as the appropriate text which to base the theory of emanations expounded in the third section.

2. The Paraphrase on De somno et vigilia. Some Doctrinal and Linguistic Features

2.1 To Say What Is not Said

The scribe starts with a general and well-known belief in Antiquity: air is by definition a cold element. Yet, immediately afterwards he stresses that while the air we breathe in is cool the air we breathe out is warm, or at least warmer than the air we take in; how is that possible? The question comes with two further concerns. Firstly, inasmuch as the air’s main attribution is changed

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603 Aristotle *Sens.* V 443b 1 – 2: « ἄτι ἄναθημίας ὁμοίως λέγεται ταῖς ἁπορροίαις », (« Further the smoky exhalation theory is like the theory of emanations »). Trans. Hett (1957), p. 251. For an Aristotelian description of the bodies which are likely to emit exhalations see Aristotle *Mete.* IV 9, 387a 22 – 28. It should be noted nevertheless that such emanations seem not to be equable to the emanations (ἀπορροιαῖς) that Aristotle attributes to Democritus when he discusses the possible causes of prophecy in dreams. Cfr. Aristotle *Div. Somn.* II 464a 5 – 18. Cfr. also Jouanna (2012g), p. 212. According to Aristotle, in the explanation given by Democritus the organs of the sense perception can actually be acted upon by the emanations arising from the objects of the phenomenal world. Thus, Democritus’s account, though lying in an obvious physical assumption, is taken in a gnoseological clue — i.e. how can we “elaborate” representations (that will become indeed eventually accomplished) regardless of the cause of such representations (our mind) is in suspension or inactive (sleeping) — which appears to be a further epistemological development of the assumption. Anyhow, Aristotle dismisses the argument, as he believes that Democritus’s theory does not solve the issue called into question. I know no evidence that any contribution might have provided insight into Aristotle’s account in *Div. Somn.* and its possible relationship with Hippocrates’ *Insomn.* [VI pp. 640 – 662 Li.] At any rate, Atomistic views brought about significant repercussions at the epistemological level; for example, the so-called ‘intromission (visual) theory’, or the theory of ἀναρμος ἄγκοι (solidae moles) by Heraclides of Pontus. Cfr. Gottschalk (1980), p. 37.

604 Aristotle *Somn.* Vigi. III 456b 1 – 2; 458a 15 – 17.

it is obvious that something must happen in the body. This observation is explained on the grounds of belief in the qualitative alteration or transformation (ἀλλοίωσις) of a substance either through assuming the properties of the substances that it touches, or through being acted upon by the places through or in which it passes or remains. In the second place, the fact that in the process of respiration some air is always exhaled in turn that not all the inhaled air is actually administered and assimilated. The scribe states that some air exhaled from the body is added to the air we breathe in, so that he apparently acknowledges the existence of a certain innate breath or connatural pneuma (σύμφωνον πνεύμα).

2.2 Sleep and Waking: a Matter of Cooling and Heating

We should like to discuss this point in more detail. It should be stressed first that, in essence, the position held by most of the later commentators on the On Sleep and Waking agree with the scribe’s interpretation, for both he and they consider the cause of sleep to be the cooling of the warmth of the heart. Accordingly, in the description of the action of inhaled air upon the innate heat, Aristotle expounds the opinions of Aristotle concerning Hippocrates we see this tenet somehow assumed: « τὸ γὰρ πνεῦμα ἑτεροτήτων ἐκπέμπεται, ἀπὸ δῆς φερόμενον σώματ(ον) θερμοῦ. », (« The breath, cold to begin with, is exhaled warm, inasmuch as it is borne through warm bodies »). Trans. Jones (1947), p. 91. The same theoretical principle can be found in col. XXIII, 39 – 48. Aristotle assigns such kind of argument to « the old natural philosophers (physiologists) », and it is an explanation that he also adopts. Cfr. e.g. Aristotle Sens. IV 441b 1 – 8; Resp. XXI 480b 5 – 6 respectively.

This notion, as such, does not occur in the Amon. Lond.; yet it is no less true that in col. VI, 14 – 16 (where the scribe expounds the opinions of Aristotle concerning Hippocrates) we see this tenet somehow assumed: « τὸ γὰρ πνεῦμα ἑτεροτήτων ἐκπέμπεται, ἀπὸ δῆς φερόμενον σώματ(ον) θερμοῦ. », (« even so to the breath certain additions are made, and these too greater than the amount lost, which make the exhaled breath actually greater than the inhaled. »). Trans. Jones (1947), p. 91.

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In the first draft of this chapter, I criticised Ricciardetto’s translation in col. XXIII, 33 – 36: « τῶι πνευματι τινα π(ρο)στὶθεται ἀπὸ τ(ῶν) σώματ(ον) καὶ πλειονά γε, ἧπιν(α)καὶ πλειον ἀποτελεῖ τὸ ἐκπεμμένον πνεύματι. », (« even so to the breath certain additions are made, and these too greater than the amount lost, which make the exhaled breath actually greater than the inhaled. »). Trans. Jones (1947), p. 91.

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in the heart it is assumed that respiration serves to quench (κατακβέννυοι)⁶¹¹ the high temperature in the heart.

Yet, such departing premise does not seem to fit with Aristotle's claim in On Sleep and Waking in which it is affirmed that nature supplies breathing and the power of cooling by moisture⁶¹² with a view to the conservation of the heat in the heart. In this passage, respiration is equated to the action of a pair of bellows⁶¹³, and the general conclusion that one might draw from the picture is that, by breathing, the air blown into the heart prevents the consumption of the natural heat and keeps alive the natural fire in the heart⁶¹⁴.

However, the reader will soon realize that a supposed expansion of the heat by breathing would flatly bely the final cause ascribed to respiration⁶¹⁵, for the general opinion that Aristotle maintained on this matter is that the object of respiration is to avoid the body becoming completely consumed by its inner fire (heat)⁶¹⁶. Therefore, to Aristotle the air we breathe in is a cold flow whose function is to cool the heat in the heart. In addition, the preceding interpretation gives rise to some difficulty when it comes to getting the sense of the passage dealing with this issue in the Londiniensis papyrus. The scribe passes over or ignores the counterargument above, and broaches his explanation by affirming that it is by means of breathing that the body does not end up entirely dried out because of the heat. Col. XXIII, 39 – 41⁶¹⁷ in the Anon. Lond. makes it clear that the

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⁶¹¹ Col. XXIII, 40: « κατακβέννυοι ». Cfr. supra Comment. on col. XXIII. Non prefixed forms of σβέννυομι (or preceded by the preposition ἀπό) are widely attested in the Corpus Aristotelicum. By contrast, the compound with κατα — which confers, as is the case, an intensive meaning to the verb — is exceptionally rare (attested only once at HA V 19, 552b 17).

⁶¹² As we shall see, this second natural process will be fundamental in Aristotle's enquiry on the physical causes of sleep and waking.


⁶¹⁴ This interpretation could stand if the scribe were at this point discussing Herophilus's views on respiration, since for Herophilus respiration is not intended to suffocate the heat of the body, but to refurnish it with the right amount of pneuma. Cfr. Vegetti (1993), p. 94. It is clear, however, that the scribe is paraphrasing Aristotle, that is, not addressing the issue from a Herophilean perspective.


⁶¹⁶ Hence our translation into Italian: « Per cui viene detto certamente che la respirazione si produce al fine di soffocare il caldo eccessivo [che c’è] intorno al cuore e affinché i corpi non si compattino col consumarsi ». I want to express my thankfulness to Dr. R. Medda (Università degli Studi di Cagliari) for his valuable remarks and patience while revising the Italian translation of the Anon. Lond.
In Aristotle’s writings one finds, furthermore, another kind of argument to reject the claim above in virtue of which respiration could serve to warm up the whole body or the brain; for, so far as the causation of sleep is concerned, neither seems to be the case. In Aristotle’s view, the cause of the expansion or extension of the heat is not breathing, but food\textsuperscript{619}. While it is fine for the brain to remain cold according to its own nature, the grey matter must be heated\textsuperscript{620} by the warm vapours rising from the heart (\textit{ἀπὸ καρδίας})\textsuperscript{621} during digestion so as to allow sleep. In this way, it is precisely the contrast in the overall bodily temperature — resulting from the heat of digestion meeting the cold in the head — which brings about sleep, and on account of this factor the respiration seems to bear little or no relation to the whole process.

2. 3 Aristotelian Physiology and the Contents in the Paraphrase

Having said this, one cannot accept uncritically the apparently incongruous components in the account at hand; for what kind of relationship might air then have with digestion\textsuperscript{622}, the heart, and sleep? In what follows we shall try to make this point clearer.

To Aristotle, the digestive process consists of different steps where heat\textsuperscript{623} and air play a primordial, interwoven role\textsuperscript{624} as to the transformation of food into blood\textsuperscript{625}. Digestion (or nutrition)
could well be compared to a complex alchemic process in virtue of which raw matter becomes suitable for the growth and the longevity of the body by means of the combined agency of air and heat. From the general portrait of the process\textsuperscript{626}, it turns out that Aristotle conceived the body as a big complex cauldron\textsuperscript{627} made of different departments specially designed to transform matter into blood. For Aristotle, the heart is like a gushing express pot where ingested food, although arriving highly elaborated, comes out absolutely fit for purpose as a consequence of the last mixing (as if it were a “pasteurization”) to which the nutriment is subject\textsuperscript{628}. Therefore, insofar as the process whereby the body makes the most of the solid and liquid matter it takes in, the digestive process is accomplished in the heart, not in the stomach; so that it is properly in the heart where the core of the concern should be placed.

Warm air results from the successive refinement of food, and according to the “principle of the natural places”, by virtue of its warmth such resultant air tends to ascend\textsuperscript{629}. Once this hot air reaches the head, whose main organ (the brain) is the coldest and the most humid part of the body\textsuperscript{630}, the confluence between the heat and the cold produces a condensation-like process (\textit{κυνταμένη})\textsuperscript{631}; and it is the dominance of humidity in the head which leads us to fall asleep\textsuperscript{632}. Contrarily, the reheating of the head when all the moisture therein is exhausted is the reason for waking and the recovery of conscious sensibility. This up-down thermic imbalance is cyclic\textsuperscript{633} and repeated on a daily basis. Given that Aristotle states that sleep comes mainly after eating, the regular

\textsuperscript{626} Cfr. supra ch. II § 5.

\textsuperscript{627} Jouanna (1993), p. 50.

\textsuperscript{628} For another instance of the theory of \textit{οἰκεῖος τόπος} see col. XXXIV, 45 – 49.

\textsuperscript{629} Cfr. Aristotle \textit{Mete.} I 4, 341b 7 – 13; \textit{PA} II 7, 653a 30 – 32; \textit{de An.} I 3, 406a 27 – 30. Such principle has deep roots and is widespread in Greek speculation, but it can be found explicitly formulated at Plato \textit{Ti.} 79d 5 – 6: « τὸ θερμὸν δὴ κατὰ φύσιν εἰς τὴν αὑτοῦ χώραν ἐξο πρὸς τὸ συγγενὲς διομολογητέον ἔξων· », (« heat, by Nature’s law, goes out into its own region to its kindred substance »). Trans. Bury (1961), p. 213.

\textsuperscript{630} The expression in col. XXIII, 46: « τὸ ἡμεροῦ δὲ ἔγκεφαλος ψυχρὸν » presumably reflects Aristotle \textit{Sens.} II 438b 29 – 439a 4; V 444a 10, 31.

\textsuperscript{631} « βαρύνει » in Aristotle \textit{PA} II 7, 653a 14.

\textsuperscript{632} We see this same idea at Aristotle \textit{PA} II 7, 653a 10 – 16. Cfr. Wiesner (1978), p. 262.

\textsuperscript{633} Aristotle \textit{Insomn.} III 461a 4 – 9: « γίνεσθαι τὴν τοῦ θερμοῖο παλάρροιαν », (« the reflux/reverse of the heat »). Kirk - Raven (1957), p. 189 fr. 203: « (scil. Heraclitus said that) the path up and down is one and the same ». Cfr. also Hippocrates \textit{Vict.} I 5 [VI p. 476, 12 – 13 Li.].
intakes figure notably in the process. So far, thus, the heat in the body achieves its paroxysm in the heart, whose rhythmic movement resembles the burble of a boiling pan. The hottest air in the body raises from that place up to the head, and in confronting the coldness and humidity therein it gets condensed and precipitates downwards.

As to this second part of the process, in col. XXIV, 6 – 9 the scribe of Anon. Lond. emphasises that Aristotle himself boasts (ἐστὶν ἕγγειρα) that, in contrast to the rest (scil. of preceding or contemporary physicians), he has attempted to give an explanation for sleeping and waking, whereas the others have solely enquired into the causes of sleep, in complete disregard for those of being awake. As H. Diels well noted in his edition (followed by later translators) such endorsement cannot be found in the text of On Sleep and Waking, nor the verb αἰτιολογεῖ. Somehow, in line with its widespread usage in the Hellenistic period (from Epicurus onwards, above all), in the Londiniensis papyrus αἰτιολογεῖ is used twice in two consecutive sentences; but, as has been pointed out, αἰτιολογέω (and its kindred nominal forms) is unattested in Aristotle’s extant writings. Wherefore, apart from other possible explanations, it could be an addition resulting from the scribe of Anon. Lond. in col. XXIV, 6 – 9.

Col. XXIV, 6 – 9. Though interdependent and reciprocally necessary, Aristotle lays much stress on affirming that sleep and waking cannot be given at once, for the first affection precludes the second and vice versa. We would like to point out in this effect that, although the supposed observations in cetaceans of his own day (e.g. Aristotle Resp. XII 476b 20 – 21), Aristotle’s claim would be in conflict with the so-called Unihemispheric Slow-wave Sleep observed in many species, including mammals like dolphins. The difference in the explicative paradigms does not permit a straight rejection of Aristotle’s view (it must be borne in mind that to Aristotle sleep is mainly to do with the heart, and to a lesser extent, with the brain); but, for our present interest, we should add that modern biology has proved that in some species both, sleep and waking, can take place simultaneously.

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634 The elusion of the topic of digestion in the paraphrase is one of the main divergences between the account in the Londiniensis and the Aristotelian text. Aristotle regards sleep as an affection that comes of the evaporation which takes place in the body due to food. Cfr. Somn. Vig. III 456b 18 – 20; 457b 7 – 8. Sleep mostly occurs after having got food or heavy meals because the evaporation produced during digestion is greater, so the draw of heat and matter upwards to the head (and its subsequent shift downwards). Aristotle Somn. Vig. III 457b 7 – 10. The difference of temperature within the body during sleep and waking is a factor that the Aristotelians took into consideration (e.g. Pseudo - Aristotle Pr. II 16, 867b 32 – 33), a subject-matter that they could have drawn from Hippocrates Epid. VI 4, 12 [V p. 310, 6 – 7 Li.]. Cfr. Bertier (1989), pp. 262 [T. 10], 266. The long and deep hibernation into which some species fall in winter could be likewise explained by the same token. In taking no food, as cold passes to dominate their whole body, in such animals the process of cooling and heating is drastically interrupted; so that the state of wakefulness becomes then impossible.

635 Aristotle Resp. XXI 480b 17 – 18.

tοι » in ll. 5 – 6 as καί τοι. Anyway, ever since Homer this particle has been employed to introduce or to mark a personal objection. Cfr. Liddell - Scott (1996), p. 860 s.v. καί τοι.

637 Col. XXIV, 6 – 9. Though interdependent and reciprocally necessary, Aristotle lays much stress on affirming that sleep and waking cannot be given at once, for the first affection precludes the second and vice versa. We would like to point out in this effect that, although the supposed observations in cetaceans of his own day (e.g. Aristotle Resp. XII 476b 20 – 21), Aristotle’s claim would be in conflict with the so-called Unihemispheric Slow-wave Sleep observed in many species, including mammals like dolphins. The difference in the explicative paradigms does not permit a straight rejection of Aristotle’s view (it must be borne in mind that to Aristotle sleep is mainly to do with the heart, and to a lesser extent, with the brain); but, for our present interest, we should add that modern biology has proved that in some species both, sleep and waking, can take place simultaneously.


639 Cfr. supra ch. 1 § 5. 1. 3.
from the scribe’s free will — an addition that would serve to increase the multiple arguments for the autographical nature of the *Anon. Lond.* — or else the addition might indicate that the scribe was reading a (now lost) source actually containing such remark.

3. *The Paraphrase on De somno; a Convenient Item for Further Discursive Purposes*

To summarise the main points argued in this section, as the scribe decided to dwell on the *On Sleep and Waking* it is because he might have found in it a special focus on how air is administered in the body: first, because of being a very special kind of air (warm, since originating in the body and not inhaled), and secondly because the natural mechanism governing such air was believed to bring about a twofold repercussion of the utmost value: sleep and waking. In addition, the physiology of digestion that the scribe could have read in Aristotle permitted him to bridge in satisfactory theoretical terms the passage between two of the main concerns addressed in the third section of the *Londiniensis*, and to nail down thereafter his firm belief in the existence and the import of the pores in our body.

The scribe of the *Anonymus* was not concerned with the cause of sleep in itself, but rather interested in the *On Sleep and Waking* for the sake of his own argumentative purposes. This becomes plain if it is taken into account that neither sleep nor being awake are pathological affections, but necessary ones; wherefore, the study of the topic by the scribe could perfectly bear some relation to answering a question like: « how is sleep produced? » in the aforementioned trial called προβλήματα. The perusal of *On Sleep and Waking* evinces, moreover, that the displacement of warmth is only a partial answer to Aristotle’s query on the causes of sleep. Later in the account given in the *On Sleep and Waking*, Aristotle presents — perhaps due to the influx of Sicilian medical tradition — the argument of the mixed condition of the blood (its thinness and purity) as the clue that seemingly solves the whole thing. In actual fact, it is because the blood stands in greater need of discrimination after the absorption of food that sleep occurs.

640 Cfr. supra ch. I § 2.
643 Cfr, supra ch. I § 5.
1. A Striking Resemblance

In the third section of the Anon. Lond. — provided that the writing is divided in three sections and not in two — the scribe of the papyrus deals, as we have seen, with a series of topics concerning different physiological processes. To do so he analyses the anatomical places supposedly involved in each one (the stomach in digestion, the lungs in respiration, the heart and the brain in sleep and waking etc.), and sometimes presents the views maintained by earlier authorities — each identifiable to a greater or less extent645 — with regard to the process at issue, this being the case we are about to study in the present chapter.

In cols. XXIX, 50 – XXX, 40 the scribe takes into consideration the role played by the bladder in the formation of urine, and in the middle of the query he makes reference to a particular group, the Ancients646, whose opinion about the matter is featured with an image that, as will be shown, proves fruitful from many points of view. Cols. XXIX, 50 – XXX, 40 read as follows:


645 In so far as sometimes their names are clearly stated (e.g. Erasistratus, Herophilus, Alexander Philalethes etc.) but sometimes these remain anonymous because only a generic denomination is given (e.g. the Empirics, the Ancients, the Stoics etc.).

646 As opposite to οἱ νεῦτεροι (i.e. the Stoics). Cfr. Diels (1893a), p. 114.
π[(ρος)φερομ(ἐν)ου]|ὑγρὸν ἀποκρίνεται κατὰ τά ε[ῶματα]|ὑγρὸν δριμὸ τε καὶ ἀλμυρὸν. Κ[αὶ] τἀῦτα μ(ἐν)]—περὶ τῆς διοικήσεως τῆς κ(ατὰ) τῆν [κοήσιν.]»

(« first is the section dealing with what is evacuated by way of the bladder, concerning which there has been a special controversy even among the old scientists. For some have said that in the fluid taken a dual nature exists of the following kind. Fluid they say contains both the beneficial and the bad, of which the beneficial is absorbed through the pores and is added to our bodies, while the bad is carried below and by urination is excreted outside. Others have said that all fluids is homogeneous, and only on its being taken is a part absorbed and added to our bodies, while that which is not absorbed is carried to the parts about the region of the bladder, whence, being changed by the power that is inherent in these parts, it becomes pungent and salt and is excreted. For clearly which is not absorbed is carried to the parts about the region of the bladder, whence, being changed by the power that is inherent in these parts, it becomes pungent and salt and is excreted. For clearly the urine is pungent and salt just because the bladder sucks it through these parts. With regard to that matter is must be said that it is to the first option here indicated that the majority of the ancients incline. As an analogous case bearing upon the point they make use of the sea and the sun. For the sun, by reason of being an intelligent ball of fire out of the sea, is nourished from the nutritious part in the sea, taking in the part that is fine, but leaving in the sea the more sluggish, the grosser an the salt portion. In a similar manner from the fluid that we take in there is taken away the parts that nourish us. For from this fluid the nutritive and fine part is absorbed into our bodies, while the inferior and more sluggish becomes refuse and is eliminated outside through the bladder. With this exposition of the matter, we are still at a loss and cannot say for certain about the fluid that is eliminated as urine, whether the eliminated part is the unsuitable part, which was originally present in the fluid and is thought to be present as a naturally useless fluid; or whether it is that which, when it gets into the bladder, changes for the worse. But this we do say, that from he fluid taken in there is excreted from our bodies a fluid that is pungent and salt. So much for the physiology of the bladder »)

Before coming to grips with the details in the passage, we should like briefly to emphasise something that to our knowledge — as far the Anonymus is concerned — nobody has signalled, and that is the notable resemblance between the above passage in the Anonymus and the next one:

« ὁμοίως δὲ γελοῖον κἂν εἰ τις εἰπὼν ἱδρῶτα τῆς γῆς εἶναι τὴν θάλατταν οίεται τι σαφές εἰρηκέναι, καθάπερ Ἐμμεδοκλῆς· πρὸς ποίησιν μὲν γὰρ οὕτως εἰπὼν ἱερές εἰρηκένει ἱκανός (Ἰ ἡ γὰρ μεταφορά ποιήθηκεν), πρὸς δὲ τὸ γνώναι τὴν φύσιν οὐχ ἱκανός· οὐδὲ γὰρ ἐνταθά δῆλον πῶς ἐκ γλυκεῖος τοῦ πόματος ἀλμυρὸς γίγνεται ὁ ἱδρῶς, πότερον ἀπελθόντος τινὸς μόνον οἶνον τοῦ γλυκυτάτου, ἦ συμμειχθέντος τινός, καθάπερ ἐν τοῖς διὰ τῆς τέφρας ἰδρύμην τοῦτος ἡδανίσην. φαίνεται δὲ τὸ ἀτόνον ταῦτα καὶ περὶ τὸ εἰς τὴν κύστιν περίττωσιν συλλεγόμενον· καὶ γὰρ ἐκείνῳ πικρῶν καὶ ἀλμυρῶν γίγνεται τοῦ πινομένου καὶ τοῦ ἐν τῇ τροφῇ ὑγρῶν γλυκέος ὄντος. εἰ δὲ ὅσπερ τὸ διὰ τῆς κοινας ἠθυμώμενον ἴδωρ γίγνεται πικρῶν, καὶ ταῦτα, τὸ μὲν σὺρω συγκαταφερμένης τοιαύτης τινός δυνάμεως οία καὶ φαίνεται ὑφισταμένη ἐν τοῖς ἄγγελοις ἀλμυρίς, τὸ δ’ ἱδρύτης συνεκκρινομένης ἐκ τῶν σαρκῶν, οἶνον καταπλύνοντος τὸ τοιοῦτον ἐκ τοῦ σώματος τοῦ ἔξιόντος ὑγροῦ, δῆλον ὅτι κἂν


It is equally absurd for anyone to think, like Empedocles, that he has made an intelligible statement when he says that the sea is the sweat of the earth. Such a statement is perhaps satisfactory in poetry, for metaphor is a poetic device, but it does not advance our knowledge of nature. For it is by no means clear how salt sweat is produced in the body from sweet drink — whether, for example, it is simply by the loss of its sweetest constituent or whether it is due to the admixture of something else, as in the case of waters strained through ashes. The cause appears to be the same as that which makes the residue that collects in the bladder bitter and salty though our drink and the liquid in our food is sweet. If then the cause in both cases is the same as that which makes water filtered through ashes bitter, and if some substance like the salty deposit we see in chamber-pots is carried through the body with the urine, and secreted in sweat from the flesh, being washed out of the body as it were by the water on its way out, then the admixture of some substance from the earth must be responsible for the saltiness of the water in the sea also. Now in the body the sediment of food caused by failure to digest is such a substance.

We do not claim that cols. XXIX, 50 – XXX, 40 in the *Anonymus* depend entirely on this passage from Aristotle’s *Metereologica*, but it cannot be denied nevertheless that in contrasting and comparing their respective contents what comes out is a strong air of familiarity between one and the other: Empedocles plays the role of the Ancients in the papyrus, the salt in the sea can be equated to the saltiness of sweat; likewise, if the image of the sun and the sea on which the Ancients draw to give an account of the phenomenon is for the scribe unhelpful in explanatory terms, Aristotle also considers the Empedoclean metaphor absurd since it contributes nothing to the progress of knowledge. The sun, that is true, does not appear in Aristotle; its place is occupied instead by the earth.

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649 Aristotle *Mete.* II 3, 357a 24 – b 9. This fragment is collected in DK Empedocles 31[21]B 55 [Diels (1951), p. 332]. The separation of the heavy from the light by virtue of the forces governing the cosmos could perfectly have been a tenet addressed by Empedocles. For instance, at *On the Face Which Appears in the Orb of the Moon* XII, 926e 1 – 11 [Pohlenz (1955), p. 46] Plutarch wrote: (« So look out and reflect, good sir, lest in rearranging and removing each thing to its ‘natural’ location you contrive a dissolution of the cosmos and bring upon things the ‘Strife’ of Empedocles — or rather lest you arouse against nature the ancient Titans and Giants and long to look upon that legendary and dreadful disorder and discord <when you have separated> all that is heavy and <all> that is light: The sun’s bright aspect is not there described, Nor, nor the shaggy might of earth, nor sea as Empedocles says. »). Trans. Cherniss - Helmbold (1957), p. 83.


651 The scribe of the *Londiniensis* neither assent nor share the opinion of those who bring up such poetical argument to the explanation.

652 Apart from the cited passage above, Aristotle notes elsewhere that Empedocles expressed himself in verses. Aristotle *Mete.* II 1, 353b 12 – 14. At *Mete.* II 3, 357a 5 – 9 Aristotle states that those who, like Empedocles, maintain that the sea is what remains of humidity on the earth do not take account of the original cause for the saltness of the sea.
2. The Simile of the Sun and the Sea in Aristotle’s On Sleep and Waking

In *On Sense and Sensible Objects* Aristotle provides a preliminary description of the digestive process in plain material terms, that is, deprived of every kind of metaphor. There, Aristotle talks about the expansion of heat and explains that this very heat modifies the food in such a manner that it extracts from it what is light and leaves behind what is harsh and bitter owing to its own weight. As regards digestion, thus, in the first instance the account given by Aristotle is no doubt built up on mere physical categories (heat, expansion, attraction, heaviness etc.); but when he goes on to set out the natural causation of sleep and waking then — somehow belying what he has stated in the above-mentioned passage drawn from the *Metereologica* — Aristotle has recourse to a simile with an evident poetical turn (perhaps because he found it formulated in that way in some source concerning Heraclitus).

A closer look at the picture as it is presented by Aristotle reveals that the philosopher underpins his account of the digestive process by way of analogy. In brief: the bodily heat is able to get nutrients from raw food in the same manner as the heat of the sun acts upon matter in the sea. The key term featuring Aristotle’s description is ἀναθυμίασις, that is to say, ‘exhalation’. There

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653 Aristotle *Sens.* IV 442a 5 – 8.

654 Aristotle *Somn.* V Ig 457b 30 – 458a 6. I. Tacchini is of the opinion that the image could have been borrowed from Hippocrates *Aer.* VIII [II pp. 32, 19 – 34, 10 Li.]. Cfr. Tacchini (1996b), p. 94. The fact remains that the term ἀναθυμίασις is unattested in the Corpus Hippocraticum; we should add that it is deemed to be an Aristotelian term. Cfr. Debru (1996), p. 189; Jouanna (2012d), p. 132. What is undeniable is that the same image is taken in Aristotle *PA* II 7, 652b 33 – 653a 22. Cfr. Wiesner (1978), p. 260.

655 Col. VI, 32. This notion (and kindred ones) is used in Aristotle *Somn.* V Ig 456b 4, 19, 20, 34; 457a 26, 29; 457b 14, 458a 3, 7, 10. The term ἀναθυμίασις occurs only in books posterior to *Metereologica* I - III (it should be remembered that *Metereologica* IV could have preceded I - III). Pepe (1982), pp. 161, 168 n. 46. The stem of the substantive ἀναθυμίασις is -θυμ, which is in turn related to the Latin fumus. The concept ἀναθυμίασις is a good example of the way the ancient Greek formed abstract nouns by adding the suffix -σις. The Greek action nouns in -σις are of two kinds: nouns of object or instrument, and nouns of action. While those of the first type are concrete nouns, those of the second type are said to be abstract nouns which correspond to hidden but active forces. Apart from the names built on the addition of the suffix -μα, the addition of -σις is the main procedure used in Ionian Greek to give account of an abstract action or the result (materialization) of an abstract action. As regards the first possibility, ἀναθυμίασις could take the meaning of “action of going upwards of a substance by taking a smoky appearance (i.e. evaporation)”, whereas if we consider the second possibility, ἀναθυμίασις — by way of a metonymic shift — would rather take the meaning of “object into which the action of going upwards by taking a smoky appearance is materialised (i.e. vapor)”. In contrast to those in -μα (with a much more resultative value), the nouns in -σις are always closer to the sense of development of the verbal action, what confers a progressive and continuous nuance to the substantive. Cfr. López Eire (1996), pp. 385, 387 – 389; Jouanna (2012g), p. 226.

656 At Mete. 14, 341b 7 – 13 Aristotle expounds that there are two main kinds of exhalation, one vapour-like and another more air-like. What interests us here is that in the light of the details that Aristotle recounts at Mete. IV 9, 387a 22 – 387b 14, the translation of ἀναθυμίασις as ‘evaporation’ could be inaccurate. According to Aristotle only those bodies which contain humidity can emit exhalations, and when they are acted upon by heat or fire it happens that humidity is not evaporated separately from the body itself, rather it seems that Aristotle believes that a change of physical state takes place; so that Aristotle makes a distinction between evaporation and exhalation. Cfr. supra *Comment.* on col. XXXVII, 32 – 46 regarding the anecdote about Democritus during the Thesmophoria.
is a strong likelihood that Aristotle borrowed this notion from Heraclitus, though the Stagirite assigned to the concept the physiological nuance we actually read in *On Sleep and Waking*. Aristotle might have found it useful at the time to expound on how he imagined sleep to come about. However it might be, it turns out that sleep and waking reproduce in small scale what occurs and can be observed in the atmosphere.

3. The Simile of the Sun and the Sea in the Anonymous Londiniensis

As to the use of the same simile in the *Anonymus* papyrus, the scribe remarks that the image under consideration is not genuine at all, even though quite ancient. This notwithstanding, what matters here is that, in contrast to Aristotle’s in *On Sleep and Waking*, in the *Londiniensis* the metaphor based on the action of the heat of the sun upon the sea is used not with a view to explaining sleep (and waking) but to portraying the way that waste matter is expelled after the digestive process, once the body has obtained and taken in the nutrients from the food.

The scribe of *Anon. Lond.* underlines in the first place the extant disagreement among ancient philosophers regarding the qualities they attribute to liquids and the way they recounted...
that the intake and distribution of liquids in the body takes place\textsuperscript{664}. From the report in the \textit{Londiniensis}\textsuperscript{665} it follows that while some authors posited that every liquid consisted of a valuable and a useless part\textsuperscript{666}, others stated that every liquid was entirely profitable, it being only the excess that is finally expelled\textsuperscript{667}. To this description the latter further added that urine got its corrosive and salty properties on the way through the places it passed. The scribe stresses that most of the ancient philosophers are for the first explanation and remarks as well that to support their position on this concern the philosophers, physicians, or physicists in the former group often used to set forth the simile of the reciprocal influx between the sun and the sea.

We should like to draw attention to another fact about the issue the scribe addresses. While in the \textit{Londiniensis} it is definitely admitted that the air we breathe out is warm by virtue of the heat in the places it passes through\textsuperscript{668}, the scribe does not make any definite statement when the time comes to extrapolate the argument to the particular case of liquids and urine. The author of \textit{Anon. Lond.} is somewhat reluctant to accept the existence of a certain power (δόναμις)\textsuperscript{669} in the body accounting for the mutation in the qualities of the liquids we ingest; he does not affirm either in this effect that

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\textsuperscript{664} Cfr. supra Comment. on col. XXIII, 14.

\textsuperscript{665} Cols. XXIX, 50 – XXX, 39.


\textsuperscript{667} Cols. XXX, 7 – 13: « Οἱ δὲ ἔρασαν πᾶν μ(έν)[τὸ] ὄγρον φ.[…] ἕτ[τ]εν αὐτῶι (εἶναι), ἢ[ῆ] δὲ κατὰ [τὸς] προσφερ[ή]σι[τού] τὸ μ(έν) ἀναδίδο[σι] καὶ π(ρος)[τὸιο]ς[τὶ]ς[τὸς] σῶμας, τὸ δὲ κ[ατὰ] τὴν κύστιν [τόπους καὶ διὰ] τῆς ἐν τούτως ἐνσάρξ[ες] δο[νάμ]ους ἐν[θ][νίασι]κρί[νεται] δριμό τὸ κ[αὶ] ἅλμηρον., (« Others have said that all is homogeneous, and only on its being taken is apart absorbed and added to our bodies, while that which is not absorbed is carried to the parts about the region of the bladder, whence, being changed by the power that is inherent in these parts, it becomes pungent and salt and is excreted »). Trans. Jones (1947), p. 115.

\textsuperscript{668} Col. XXIII, 36 – 38. Cfr. supra ch. VI § 2. 1.

\textsuperscript{669} Manetti (2003), p. 337. As regards this “epistemological device”, which consists in explaining a phenomenon by virtue of the purported property (ιδιότης) intervening in a particular anatomical place, it is also used by the scribe of the \textit{Londiniensis}. Thus, for instance, as to the formation of the excrements and the sperm, the scribe admits that it is the specific faculty residing in the colon and in the seminal ducts what operates in the food (τροφή) that has not been absorbed, this respectively being transformed into stool or into seed according to the place where the nourishment may be. \textit{Anonymus Londiniensis} col. XXV, 40 – 43: « δὲ δὴ π(ρος)ς[τῆς] ἐν[τὸ]ι[κ]όλ[ο]ιοι ιδιότης[ς] ἀποκοπροῦ[ται]., (« (scil. a small part of the nutriment) passes out as excrement owing to the peculiar characteristic of the colon »); or in l. 43: « π[ρος]ς[τῆς] Ἰοδόμενος[τῆς] ἐν[τὸ]ι[κ]όλ[ος]ιο[ς](οι)η[δό[ρ]ους. », (« (scil. the sperm) is brought about by the peculiar characteristic in the spermatic passages »). Trans. Jones (1947), p. 99.
the transformation is actually *in rebus* due to the very nature of the liquids\textsuperscript{670} — as it seems that ‘most of the ancient (scil. philosophers)’\textsuperscript{671} believed. Either way, the scribe refrains from taking sides, rather contenting himself with giving a “phenomenological” description of the situation, so that in the papyrus the question remains obscure and is left in a fog. If we were expecting a physical cause accounting for the change in the qualities of the liquids we take, what we shall find instead is just the can that the scribe has kicked down the road: from the liquid we take another liquid with different properties is expelled, being almost impossible to state, in the scribe’s opinion, whether it is because of the liquid as such or due to some faculty allegedly in the bladder\textsuperscript{672}.

If we were asked for an answer other than the foggy unknown factor with which the scribe leaves us at this point, we could give two almost completely different ones, the first older than the writing in the *Anonymus* and the second later. The first explanation is to be found in the fragment from *Meteorologica* quoted in the beginning of this chapter; the second is expounded in subsection 4 below.

From the description in the *Metereologica* it is clear that Aristotle’s contention is that every liquid is entirely valuable, its excessive quantity being what will eventually be expelled. Accordingly tears, sweat, urine, or whatever other salty residual liquid the body might produce is said to get such characteristic by virtue of the property inherent to the part of the body in which the excretion is collected or released, as the case may be. Aristotle’s position in this regard might have easily given place to the opinion held by those who in the *Anonymus* papyrus are classed as the philosophers constituting a second group of opinion.

3. 1 *Who Are ‘the Ancients’?*

Now, from the *Londiniensis* we have learned that the change experienced in liquids we take in was accounted for in two major ways. We would like to make a further point in light of the supposed link between Aristotle and the partisans of the second kind of explanation, those who

\textsuperscript{670} In col. XXIX, 34 ff. the scribe of the *Londiniensis* contends that not the whole food we ingest actually becomes assimilated, but that a kind of selection between what is suitable and what is rejectable in the food operates along the digestive process, the rejectable part being transformed into excrements. It is likely that the scribe introduces at this point an abridged version of the description of the formation of urine according to Asclepiades — a theory that Galen strongly refuted and bitterly criticised in *De fac. nat.* I 13 [II pp. 30, 6 – 44, 11 K.]. Cfr. Manetti (2003), p. 343 n. 18.

\textsuperscript{671} Col. XXX, 17: « οἱ πλείου∙∙∙ ἀρχαί ν». \textsuperscript{672} Col. XXX, 31 – 40.
believed that all fluid is homogeneous and is transformed by the inherent power in the parts of the body where the liquid is collected before being excreted.

The analysis of the state of affairs is at this juncture a bit complicated, but we shall strive to present it as clearly as possible. First, we depart from the single certain premise in the papyrus: in the first section of the *Londiniensis* the scribe equates a group that he terms ‘the Young Ones / the Moderns’ with the Stoics. In the first section of the *Anon. Lond.* the scribe disregards the Stoics. There seem to be several reasons for the contempt he shows for the Stoics, but in the first section the main one appears to be that he does not seem really concerned with the Stoic classification of the affections, rather he gives the impression that such a question is an insignificant detail to be dispatched brusquely, leaving the matter for the Stoics themselves.

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673 I.e. in col. II, 22: « [ο] ἰ. δὲ νεώτεροι, τ[ο]ῦ[το]ῦ[τ]’ (ἐκτιν) οἱ Στοικοὶ, » Cfr. also col. II 30, 39. Diels (1893a), p. 115. However, as T. Dorandi has well noted, this not suffices to make clearly whether it is a reference to the Stoics in a block, to the contemporary Stoics of the scribe, or, indeed, to the contemporary Stoics of the source(s) that the scribe used. Dorandi (2016), p. 205. Of course, such appellation always depends on the temporal line. Thus, for instance, in *The Obsolescence of Oracles* XLVII 436d – e by the expression « οἱ δὲ νεώτεροι » Plutarch clearly makes allusion to the first pre-Socratic physicians (φυσικοὶ), for, on the immediate context, they are considered the young generation that comes after the first theologians and poets who did not enquire on the natural causes. But, when Aristotle addresses the theoretical principle of the qualitative transformation of a substance, either through assuming the properties of the substances that it touches, or through being acted upon by the places through or in which it passes or remains (as we see it expounded, for instance, in *Anon. Lond.* col. XXIV, 39 – 48), Aristotle assigns such kind of argument to « the old natural philosophers (physiologists) ». Cfr. e.g. Aristotle Sens. IV 441b 1 – 8; Resp. XXI 480b 5 – 6 respectively. I am thankful to Dr. Michael Meeusen (King’s College, London) for having made me reflect on this point.

674 In the third section, for example, the scribe’s disdain for the Stoics could have roots in the fact that the belief in the sole presence of *pneuma* in the arteries — which is false in the eyes of the author of *Anon. Lond.* — is grounded in Stoic philosophy. Manetti (1999), p. 133.

675 In this sense, it is significant the contrast in the use of the first person of the plural by the scribe just after having expounded the view of the Stoics in col. II, 30 – 31: « ἀλλ(λά) τα[δ<τα>] το[ι]ο[ι]ς μ[ι]ν μεληματ[ή]μ[αι δ][ε [λ][α][κ][τ][ο][ν] », (« but the point must be left to the younger school. We, however, must »). Trans Jones (1947), p. 27. Jouanna’s remark about the use of the grammatical person serves him to shore up his firm conviction that the scribe was a doctor. Thereby, after having summarily expounded the way the Stoics classified the affections, the scribe writes apropos of this that he leaves the concern to the Stoics, and he goes on to ratify that he is only concerned with those affections relevant to medicine. Jouanna (2016), p. 5. Cfr. also supra ch. I § 2 n. 34. In light of this, however, we should add that the scribe of the *Londiniensis* apparently ignores the interest taken in the soul by the author of *Anon. Lond.* — is grounded in Stoi philosophy, and the main one appears to be that he does not seem really concerned with the Stoic classification of the affections, rather he gives the impression that such a question is an insignificant detail to be dispatched brusquely, leaving the matter for the Stoics themselves.
On the other hand, the Stoics are placed in opposition to another group, ‘the Ancients’, who, by contrast, deserve all the scribe’s respect given that he openly states that he is following their methodology. As a matter of fact, the antipathy between the Ancients and the Moderns is a kind of *locus communis* in the philosophical discussions from the 1st century BC to the 2nd century CE. In the *Anon. Lond.* the expression ‘the Ancients’ refers to an indeterminate group of authorities who are generally opposed to ‘the Young ones / the Moderns (ones)’ (i.e. the Stoics); but, who in fact are ‘the Ancients’ in the first section?

It is believed that it is a term used to designate the Peripatetics, yet whereas the scribe identifies unequivocally the ‘Young ones/Moderns’ with the Stoics, the equation of ‘the Ancients’ with Aristotle or the Peripatetics is in a narrow sense hypothetical because in the first section the scribe never reveals to whom he is referring by the appellation «[τῶν ἀρχαίων]». In this way, for example, in the *Anonymus Parisinus* — the codex that has transmitted a medical work almost coeval to the *Anonymus papyrus* — by the expressions «οἱ ἀρχαῖοι», «οἱ παλαιοὶ», or «κατὰ τοὺς τέκεσαρα» is meant ‘according to the opinion of Erasistratus, Diocles, Praxagoras, and Hippocrates’. In Galen the expressions «πολλοῖς ἄλλοις τῶν παλαιῶν» or «οἱ παλαιοὶ» are used to make reference in a quite indistinct way to ‘Hippocrates, Plato, Aristotle, Praxagoras, and Diocles’, or to ‘Hippocrates, Plato, Aristotle, Diocles, Praxagoras, and Philotimus’. Another significant expression used also by Galen but this time applied to ‘Empedocles, Parmenides,...
Melissus, Alcmaeon, and Heraclitus’ is « τῶν παλαιῶν φιλοσόφων »

In this passage the works of these five Ancient philosophers are confronted to Epicurus, the founder of another post-Socratic school. Anyhow, the only firm statement that can currently be given is that in the first section two philosophical trends are mentioned and opposed: ‘the Young ones/the Moderns’ (indubitably equated to the Stoics) and ‘the Ancients’, which is — and regrettably this can only be a guess —, a collective noun for the Peripatetics.

The point in question now is whether ‘the Ancients’ in the first section of the Anonymus are the same as or constitute a group other than « τοῖς ἀρχαίοις τῶν φιλοσόφων » (i.e. the ancient philosophers) in the third section. It is generally deemed that they are not, that there is no coincidence in this sense since constituting an almost identical denomination for two different groups. The paradoxical and striking point in this respect is that according to the Anon. Lond. the use of the simile based on the effect of the sun on the sea is an argument typically adduced by the majority of ancient philosophers, more concretely, those who affirmed that ingested fluid has a dual nature, but as a matter of fact such simile is attested in several passages from the Stoics, this being contradictory to the way the Stoics are term in the papyrus (i.e. oi νεώτεροι, as opposite to ‘the Ancients’). In view of this, the expression ‘the ancient philosophers’ can barely be taken or understood as referring neither to the Peripatetics nor to the Stoics. Moreover, we have seen in the fragment from Aristotle’s Metereologica above that Empedocles was ridiculed because, in presenting things in a metaphorical way, he could not make any effective contribution to the explanation of the phenomena. It has been demonstrated furthermore that the image in question is deeply rooted in Heraclitus’s philosophy. Thereby, unless we admit that the scribe made a


687 Col. XXIX, 52, perhaps also in col. XXX, 17.

688 Ricciardetto (2016), p. CVII.


691 Cfr. supra. § 2.
mistake or simply disclosed categories in an inaccurate way, the analysis of the facts apparently heads towards the next provisional conclusions:

1) The reaffirmation that the collective termed « τοῖαρχαίοιτα(ῶν)φιλοσόφον » in col. XXIX, 52 (and perhaps also in col. XXX, 17) might not necessarily coincide with the so-called « τ(ῶν)αρχαίον » in col. II, 18.

2) Given that, apropos of the nature of urine, the scribe of the Anonymus does not align with the Ancients nor with the others but suspends judgement and avoids siding with either; the scribe’s indetermination in this subject accounts anew for his “doctrinal independence”.

3) The expression « τοῖαρχαίοιτα(ῶν)φιλοσόφον » could be then a way to make reference to those who in contemporary terminology are called ‘pre-Socratic philosophers’, i.e. physicians in the original sense of the term, that is, those ancient authorities in whose theories medical practice, physics, and speculation were still indissolubly intermingled. More concretely, to sharpen our hypothesis a little, since the metaphor based on the sun and the sea is attributed indistinctly to both, the expression could refer either to Heraclitus or to Empedocles.

4. The Issue’s Further Fortune; Galen on the Formation of Urine

As has been pointed out, another possible answer to the origin and the formation of urine was provided by Galen a couple of generations after the writing in the Londiniensis. The physician of Pergamon treated in detail this subject in his work On the Natural Faculties. According to Galen, the separation of the blood from the urine takes place in the kidneys, and this is not by means of any filtering in the kidneys but by a proper faculty in the organism. Apart from Erasistratus and Asclepiades, Galen particularly criticises the opinion advanced by Lycos of Macedonia to whom urine was the superfluity of nutriment in the kidneys. Galen is manifestly reluctant to admit such a position, and he argues that most of the liquid we ingest — prescinding from what is excreted with the dejections, the sweat, and the invisible transpiration (perspiration) — is expelled in the form of urine. Leaving out of consideration the fact that Galen introduces the primordial role of

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692 Cfr. supra ch. II § 2.
693 Galen De fac. nat. I 17 [II pp. 70, 4 – 71, 16 K.].
the kidneys in the process, in considering his remarks and objections it looks as if Galen’s view concerning this particular question is closer to Aristotle and to the theory that in the Anonymus is ascribed to ‘the Ancients’.

In the same Galenic treatise⁶⁹⁵ we find the thorough narration of a vivisection in order to demonstrate the role played by the bladder and the ureters in the origin and formation of urine. The text is as follows:

« διελεῖν χρὴ τὸ πρὸ τὸν οὐρητήρων περιτόναιον, εἶτὰ βρόχους αὐτοῦς ἐκλαβεῖν κάπετι· ἐπιδήσαντας ἔδαι τὸ ζῷον· οὐ γὰρ ἄν οὐρήσειν ἔτι. μετὰ δὲ ταῦτα λύειν μὲν τοὺς ἐξωθεὶς δεσμοὺς, δεικνύναι δὲ κενὴν μὲν τὴν κύστιν, μεστοὺς δ’ ἰκανοὺς καὶ διατεταμένους τοὺς οὐρητήρας καὶ κινδυνεύοντας ῥαγῆναι κάπετα τοὺς βρόχους αὐτῶν ἀφελόντας ἄρα ὑδὴ πληρουμένην οὐρῆν τὴν κύστιν. ἐπὶ δὲ τοῦτο ἑ ταννείτι, πρὶν οὐρῆσαι τὸ ζῷον, βρόχον αὐτοῦ περιβαλεῖν χρῆ τῷ αἴδοιῳ κάπετα θλίβειν πανταχόθεν τὴν κύστιν. οὐδὲ γὰρ ἂν οὐρήσειν ἔτι διὰ τῶν οὐρητήρων ἐπανέλθοι [ποτὲ] πρὸς τοὺς νεφροὺς. κὰν τοῦτω δὴλον γίγνεται τῷ μη μὸνον ἐπὶ τεθνεῶτος ἀλλὰ καὶ περιόντος ἑτὶ τοῦ ζῶου καλύθησαι μεταλαμβάνειν αὖθις ἐκ τῆς κύστεως τοὺς οὐρητήρας τὸ οὖρον. ἐπὶ τούτοις ὀφθεῖσιν ἐπιτρέπειν ἴδια τὸ ζῷον οὐρεῖν λύοντας αὐτοῦ τὸν ἐπὶ τῶν αἴδοιων βρόχον, εἰτ’ αὖθις ἐπιβαλεῖν μὲν θατέρῳ τῶν οὐρητήρων, ἔδαις δὲ τὸν ἔτερον εἰς τὴν κύστιν συρρεῖν καὶ τίνα διαλυπόντας χρόνον ἐπιδεικνύειν ἤδη, πῶς ἂν μὲν ἔτερος αὐτῶν ὁ δεδεμένος μεστὸς καὶ διατεταμένος κατὰ τὰ πρὸς τῶν νεφρῶν μέρη φαίνεται, ἐτ’ ἔτερος ὁ λελυμένος αὐτὸς μὲν γαλαρὸς ἐστί, πεπλήρωκε δ’ οὖρον τὴν κύστιν. εἰτ’ αὖθις διατεταμένος πρῶτον μὲν τὸν πλήρη καὶ δεῖξαι, πῶς ἐξακοντίζεται τὸ οὖρον ἐξ αὐτοῦ, καθάπερ ἐν ταῖς φλεβοτομίαις τὸ αἷμα, ».

( « One has to divide the peritoneum in front of the ureters, then secure these with ligatures, and next, having bandaged up the animal, let him go (for he will not continue to urinate). After this one loosens the external bandages and shows the bladder empty and the ureters quite full and distended — in fact almost on the point of rupturing; on removing the ligature from them, one then plainly sees the bladder becoming filled with urine. When this has been made quite clear, then, before the animal urinates, one has to tie a ligature round his penis and then to squeeze the bladder all over; still nothing goes back through the ureters to the kidneys. Here, then, it becomes obvious that not only in a dead animal, but in which is still living, the ureters are prevented from receiving back the urine from the bladder. These observations having been made, now one loosens the ligature from the animal’s penis and allows him to urinate, then again ligatures one of the ureters and leaves the other to discharge into the bladder. Allowing, then, some time to elapse, one now demonstrates that the ureter which was ligatured is obviously full and distended on the side next to the kidneys, while the other one — that from which the ligature had been taken — is itself flaccid, but has filled the bladder with urine. Then, again, one must divide the full ureter, and demonstrate how the urine spurts out of it, like blood in the operation of venesection (…) »)⁶⁹⁶.

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5. Conclusions

To sum up, we saw in the first place that structural analysis revealed surprising coincidences between a passage in Aristotle’s *Metereologica* and the simile based on the sun and the sea in *Anonymus* cols. XXIX, 50 – XXX, 40. Albeit we cannot be certain of a straightforward textual dependance between the Aristotelian text and the papyrus, the account in the *Anonymus* could well have been written under the influence of the *Metereologica*.

The study also revealed that the same metaphor was used to explain two different but connected physiological processes, both involving digestion: while Aristotle used the metaphor of the sun and the sea to bolster his theory of the natural causation of sleep and waking\textsuperscript{697}, it was utilised by the scribe of the *Londiniensis* to expound the opinion held by the majority of the “ancient philosophers” about the way they envisaged the nature of urine. Afterwards, we have shown how the matter was later handled by Galen.

Lastly, after having compared and contrasted some feasible referents to the expression ‘the Ancients’ in the first and third sections of *Anon. Lond.* alongside its corresponding occurrences in *Metereologica* and the *On Sleep and Waking*, we showed that the denomination « τοῖ ἄρχαίοις τ(ῶν) φιλοσώφων » in the third section could be a way to designate a group other than the Peripatetics; the pre-Socratic philosophers in general, and Empedocles and his heirs in particular.

\textsuperscript{697} Aristotle *Somn. Vig.* III 458a 21 – 25.
General Bibliography:


1) **Editions, Partial Editions, and Translations of the Anonymus Londiniensis:**


2) Editions and Translations of Classical Authors, Compilations of Ancient Sources and Papyri:


Catégories, Les Belles Lettres, Paris 2001².

¹ Titles are given in alphabetical order.


Problemi di medicina, text, translation and comments by G. Marenghi, Istituto editoriale italiano, Milano 1965. = [Marenghi (1965)].


CELSUS, De medicina (libri I-VIII), denuo recensuit ab C. Daremberg, Bibliotheca Teubneriana, Leipzig 1891. = [Daremberg (1891)].

CICERO, Tusculanae disputationes, revised by M. Pohlenz, Bibliotheca Teubneriana, Stuttgart 1965². = [Pohlenz (1965)].


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2 Titles are given according to the pagination and the volumes of C. G. Kühn’s edition. Works subject to later editions in CMG are given below Kühn’s edition.


3 Titles are given according to the pagination and the volumes of É. Littré’s edition. Works subject to later editions in CMG are given below Littré’s edition. Littré did not have access to all the manuscripts transmitting *De la nature de l’homme* (*The Nature of Man*) and *Du régime salutaire* (*Regimen in Health*). Recent trends consider *Regimen in Health* as an unitary work along with *The Nature of Man*. É. Littré considered the *De la nature de l’homme* as an independent work, yet, in the line of Galen, modern scholars tend to attribute *Regimen in Health* to Polybus of Cos.


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⁴ Titles are given in alphabetical order. Both Alcibiades II and Epistle II are in general considered spurious works.


Moralia vol. IV, recensuit et emendavit C. Hubert, Bibliotheca Teubneriana, Leipzig 1971. = [Hubert (1971)].


XENOPHON, Memorabilia, C. Hude (ed.), Bibliotheca Teubneriana, Stuttgart 1934. = [Hude (1934)].
3) Studies, Monographs, Articles, Papers, and Notes:


POSCHENRIEDER (1887) = F. Poschenrieder, Die naturwissenschaftlichen Schriften des Aristoteles in ihrem Verhältnis zu den Büchern der hippokratischen Sammlung, Programm der königlichen Studienansalt Bamberg, Bamberg 1887.


