

ON THE GREEK CHIROMANTIC FRAGMENT: AN UPDATE*

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Abstract. This paper provides an update to Roger Pack's 1972 article "On the Greek Chiromantic Fragment" (*TAPA* 103: 367-380). The discovery of several new witnesses to the text warrants a reconsideration of the scholarly questions about Greek chiromancy. This paper presents the results of recent scholarship on the Greek chiromantic fragment, alongside a new edition of the text and a survey of its reception.

1. INTRODUCTION

The title of this paper refers explicitly to an article by Roger Pack, published in 1972,¹ which dealt with the sole surviving witness to chiromancy (or palmistry) written in ancient Greek. Surveying the recent scholarship on Greek astronomical texts led me to detect further witnesses to the text. The latter are provided in manuscripts preserved in

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¹ Pack 1972.

European libraries, and I have collated the new witnesses. As the new text-variants are significant in comparison to the last edition (1908), it was necessary to establish a new critical text. In this paper, I not only provide a new edition of the Greek chiromancy, but also present a discussion of the variants and the editorial principles. The philological side of this survey also sheds new light on questions pertaining to the date and provenance of the text, as well as the problem of its authorship and reception. As we will see below, renowned humanists such as Pico della Mirandola and Regiomontanus took this text into consideration when conducting their own studies.

The Greek chiromantic text was discovered by the renowned German philologist Franz Boll, who published the first edition in 1908 in the 7th volume of the *Catalogus Codicum Astrologorum Graecorum*.² His edition was established by collating two manuscripts: the *Parisinus Graecus* 2506 (14th century) and the *Erlangensis* 1227 (89) (mid-15th century). No expositions of this non-conventional subject had previously come to light, and this discovery received no scholarly attention before R. Pack had his article published in 1972. Boll's discovery opened up an area of general interest for the history of astrology and chiromancy, for his findings showed – as both Boll and Pack noted – that the union between these two methods of inquiry could have occurred in antiquity and not in the 16th century, as had been hitherto supposed.³

Pack commented on the text by comparing it with some published and unpublished Latin chiromantic treatises.⁴ As he noticed, chiromancy (or investigations of the hand) was not new to Greek tradition. Indeed, in his introduction to the Greek text, Boll had already included a number of references to chiromancy, taken from classical literature. These references were also taken up by Pack in his own comparative study. In addition, Pack wrote a paper on the indirect sources of ancient Greek palmistry in 1978.⁵ Briefly, it is clear that the hand was

² CCAG, 236-244.

³ CCAG, 236-237.

⁴ Pack 1972, 370-380.

⁵ Pack 1978.

seen as a special part of the human body, and was deemed to be a particularly important area of speculation for what was later called *physiognomy*. As no further evidence about the chiromantic tradition in ancient Greek sources has been discovered, I shall omit details of the Greek chiromantic tradition and direct the reader to Pack's paper of 1978.

The current paper provides an updated account of extant Greek chiromancy from a philological perspective and on the basis of the evidence uncovered by studies into the text's reception. The paper sheds new light on the text, its composition, its possible author, and its reception. Witnesses to the text will be analysed and collated, and the principles for the edition will also be given (sections 2 and 3); section 4 will contain the edition with *apparatus criticus*; a commentary will be offered in section 5; the text's reception will be discussed in section 6; and finally, section 7 will draw some conclusions.

2. TEXT WITNESSES

Greek chiromancy is extant in the following manuscripts. As previously discovered by Boll, the text witnesses are:

E *Erlangensis* 1227 (89), ff. 192v-196r

P *Parisinus graecus* 2506, ff. 188v-190v

A survey of Greek astronomical texts allowed me to discover further witnesses, who were already revealed in published catalogues:

L *Laurentianus graecus* 28.13, ff. 17r-19r

J *Laurentianus graecus* 28.16, ff. 20v-23r

M *Marcianus graecus* Z. 336, ff. 28r-30r

N *Ambrosianus N* 284 sup., ff. 56r-60r

Q *Ambrosianus Q* 13 sup., ff. 247r-252v

The text of L was composed no later than 1374, for the manuscript on f. 1r contains a horoscope casted for the year 6882 from the creation of the world, a year that corresponds to A.D. 1374.⁶ The scribe is the Byzantine mathematician and astronomer Isaac Argyros; its hand was

⁶ Gentile 1994, 88-94.

recognized by Brigitte Mondrain.⁷ The Greek chiromancy is transcribed as the last chapter of a handbook on how to use a set of Persian astronomical tables, entitled *Παράδοσις εἰς τὸν περσικὸν κανόνας τῆς ἀστρονομίας* (*Instructions for the Persian Tables of Astronomy*).⁸ Both texts are anonymous.

The witness J, composed no later than A.D. 1382, copies the aforementioned astronomical handbook alongside the chiromancy.⁹ The scribe was recognized by Alexander Turyn as a collaborator of the Byzantine astrologer John Abramios.¹⁰ From J derives the witness M, which stems from the first half of the 15th century.¹¹ In this instance too, the chiromancy is added to the astronomical handbook.

The witness E is part of a selection of Greek astrological texts copied by the astronomer Regiomontanus in the second half of the 15th century.¹² No attribution to an author is provided.

P copies the text into a selection of physiognomic-astrological texts. I could not recognize the scribe, but this hand is certainly no older than 14th century.

Both N and Q are 16th-century copies. The former provides the text in a carefully written minuscule style in a miscellaneous volume among selections from rhetorical and philosophical texts. The scribe is unknown.¹³ The latter is transcribed from an unknown hand in a selection of astrological and physiognomic texts.¹⁴

⁷ Mondrain 2012.

⁸ Tihon 2009, 406; Bardi 2018.

⁹ Turyn 1972, 245-248.

¹⁰ On the scribe, see Turyn 1972, 245-248; On Abramios, see Pingree 1971.

¹¹ Mioni 1985, 77-83.

¹² Thurn and Stählin 1980, 24-28.

¹³ See Martini and Bassi 1906, 674-675.

¹⁴ Martini and Bassi 1906, 747-751.

3. EDITION PRINCIPLES

The following table provides a comprehensive view of the most significant text variants in all the witnesses. The columns identify manuscripts; while the rows indicate the paragraphs adopted in the critical text (see section 4). The sign = stands for coincidence of *lectiones*, the second term of the relationship is the manuscript on the right-hand side of the sign.

6	μερῶν τῆς παλάμης	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	<i>om.</i>
7	τὸ δὲ μεταξὺ τούτων	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	<i>post τούτων add.</i> ὑποκοιλὸν
9	ἄπο τοῦ μετὰ τὸ θέναρ	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	ἄπο τοῦ μεταθέναρος (lectio difficilior)
9-10	τὸ δὲ μετὰ τὸ θέναρ οὐ τόπος ἐστιν οὐ από τοῦ τέλους τοῦ ληγανοῦ	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	μεταθέναρος ὁ ἐστιν οὐ ἀπό τοῦ τελ. τ. ληγ. τόπος
11	ἐπὶ πλευτον	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	εἰς τὸ πλευτον
13	τοῦτον	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	<i>om.</i>
15-16	ὅτε ... ὅτε	$\equiv L$	ὅτε ... ποτὲ	$\equiv M$	$\equiv M$	$\equiv L$	$\equiv L$
17	χειρὸς πολλάκις ὑποκαταβατίουσιν	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	χειρὸς αὐτὴ πολλάκις ὑποκαταβατίουσα

20	παρακέμενα μέρη τῶν τῆς χειρὸς ὑψηλῶν	$\equiv L$	περικέμενα μέρη αυτῶν τῇ χειρὶ ύψελά				
25	ὁ δὲ ἀντίχειρ δικτυολοπόδα	$\equiv L$	<i>post</i> ἀντίχειρ <i>add.</i> τὸν				
26	τὸν μεσοδάκτυλον ἔχει μόνον	$\equiv L$	<i>post</i> μεσοδάκτυλον <i>add.</i> αὐτὸν : <i>om.</i> μόνον				
26-27	ὄπου σημεῖον τῷ υ στοιχεῖῳ παραπλήσιον ἔστι	$\equiv L$	ὄπου σημεῖον τῷ υ στοιχεῖον παραπλήσιο ν ἔστι				
28	οἱ μὲν οὖν τῆς χειρὸς κατάδεσμος	$\equiv L$	<i>post</i> οὖν <i>add.</i> καὶ				
30	τὸ μεταστήθον καὶ αἱ γραμμαί	$\equiv L$	τὸ μεταστήθον καὶ (<i>om.</i> αἱ) γραμμαί				
31	μετὰ θέναρ	$\equiv P$	$\equiv L$	$\equiv L$	$\equiv L$	$\mu \epsilon \tau \dot{a} \tau \dot{o}$ θέναρ	μεταθέναρ

31	ό πρῶτος λεγόμενος δέκατός τοῦ Διός	$\equiv L$	<i>om. τοῦ</i>	$\equiv M$	$\equiv L$	$\equiv L$
37	τοὺς ὄρῶντας	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$
37	πάλιν τε	$\pi\acute{u}\lambda\nu$	<i>ante πάλιν add.</i> καὶ	$\equiv M$	$\equiv L$	$\equiv L$
38	γὰρ	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\tau\varepsilon$
						<i>ροι πείσται add.</i> κέντρα : <i>om.</i> καὶ οὗτος (κέντρο, <i>quod inhere</i> <i>pro φάσει dictum,</i> Boll)
38	τούτῳ πάσχεται καὶ οὗτος	$\equiv L$	$\equiv L$	$\equiv L$	<i>om. οὗτος</i>	$\equiv L$
49	σωνεξηγμένος	$\equiv L$	$\equiv L$	$\equiv L$	$\sigma \omega \eta \xi \eta \mu \nu$ (sic.)	$\equiv L$
50-51	ἐξενθέρος δὲ καὶ κληρονομίας ἀπολήψεται	$\equiv L$	<i>ἐξενθέρος δὲ</i> (<i>om. καὶ</i>) κληρονομίας ἀπολήψεται	$\equiv M$	$\equiv L$	<i>ἐξενθέρος δὲ</i> κληρονόμος ἐκλειψεται

55	τοῦ τοῦ Ἐριοῦ δακτυλόποδος γραμμές μηνυμάτων	καὶ τῆς τοῦ δάκτυλοποδοῦ ος γραμμές μηνυμάτων	≡ L ≡ J ≡ L	≡ L ≡ L ≡ L	≡ L ≡ L ≡ L	τῶν Ἐριοῦ δακτυλόποδοι μηνυμάτων
56	δύνεται οὐτοις ἔσονται	≡ L	≡ L	≡ L	≡ L	om.
56	δλέθροις	≡ L	≡ L	≡ L	≡ L	ξσ. οἱ τοιοῦτοι
57	ἐν βίφ	≡ L	≡ L	≡ L	≡ L	λάθριοι
58	πάτεροντες	≡ L	≡ L	≡ L	≡ L	βίοι
58	ἀστέρι	≡ L	≡ L	≡ L	≡ L	παρέχοντες
59	ἀντούμως	≡ L	≡ L	≡ L	≡ L	θεῷ
59	անտօնմաշ	≡ L	≡ L	≡ L	≡ L	πուրագ
70	ներթանի	≡ L	≡ L	≡ L	≡ L	անթրօնից
70	τόνδε τὸν ἀστέρα	≡ L	≡ L	≡ L	≡ L	նորի
71	ωτήν τωτήν	≡ L	τηνδε ωτήγν	≡ M	≡ L	τήνδε τὴν θεάν
73	καὶ μὴ ἔχονταν	≡ L	καὶ (om. μὴ) ἔχονταν	≡ M	≡ L	≡ L
						≡ M

76-77	Ἐὰν – δηλοῖ	$\equiv L$	$\equiv L$	$\equiv M$	$\equiv L$	$\equiv L$	bis	$\equiv L$
79	εἰς μέσον	$\equiv L$	ἐπὶ μέσον	$\equiv M$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$
85	ἐπενηγμένα οὐτῷ ἥγουν	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	νόπο τῆς εἰμαρένης οὐτῷ ἐπικλωσθέντα οἶν	
89	σιδήρῳ	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\delta\delta\rho\varphi$	$\equiv L$
92	εὑρῆς γραμμὴν	$\equiv L$	γραμμὴν εὕρης	$\equiv M$	$\equiv L$	$\equiv L$	$\varepsilon\iota\hbar\tau\eta$	$\equiv L$
99	τὸ μῆν	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\tau\mu\eta\eta$	$\equiv L$	
101	διακλαίουσα	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	διακλάνουσα τοῦτο τὸ σημεῖον	
102	τοντὶ τὸ σημεῖον	$\equiv L$	τουδέτε	$\equiv M$	$\equiv L$	$\tau\eta\tau\tau\tau\tau$	λέγε οὖν καὶ τῷ μηδέμῳ (sic) ἐπειρωτώντο ὅτι περιβοήσεται τὸν πόδα	
102- 103	εἰ δὲ μὴ πεπήρωται, πηροθήσεται τὸν πόδα	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	ἰσχυροὺς ἔστεθαι σημάνει	
105	ἰσχυροὺς σημάνει ἔστεθαι	ἰσχυροὺς οημ. ἔσ.	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	ἰσχυροὺς ἔστεθαι σημάνει	

107	ἐλικοεῖδῆς ἢ καὶ μελανοεἰδῆς	$\equiv L$	$\equiv L$	$\equiv M$	$\equiv L$	$\equiv L$	$\equiv L$	$om.$	\dagger
122	ἔστατη	$\equiv L$	λέγε	$\equiv M$	$\equiv L$	$\equiv L$	$\equiv L$		$\equiv L$
124	δίκτων	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	δίκτων	
124	ἔφαπτομένας αὐτῶν	$om.$	$\equiv L$	$\equiv L$	$om.$	$\equiv L$	$\equiv L$		$\equiv L$
127-	σημανόμενον	$\equiv L$	$\equiv L$	$\equiv L$	ὑπέρειχα pro ὑπέριχα	$\equiv L$	$\equiv L$	πεπρομένον ἐκ μοίρας πάντως γάρ ἀφεκτος καὶ ἀπαρίθματο τὰ ἐκ ταύτης	
128	ὑπέριχα έσται								
136	ἀποτελούσας	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	$\equiv L$	ἀποτελοῦσαν	
136-	σιδήρῳ σίδυντῷ				σιδήρῳ	σιδήρῳ	σιδήρῳ	σιδερό	
137	τυπθήσεται		τυπθήσεται	τυπθήσεται	τυπθήσεται	τυπθήσεται	τυπθήσεται	τυπθήσεται	τυπθήσεται
	αἰφνιδίῳ ἢ ἐνδείᾳ				αἰφνιδίῳ ἢ	αἰφνιδίῳ ἢ	αἰφνιδίῳ ἢ	αἰφνιδίῳ ἢ	
	τροφῆς δὲ στατι				ἐνδείᾳ	ἐνδείᾳ	ἐνδείᾳ	τροφῆς	
139	προστιθησαν	προτιθησαν	$\equiv J$		$\equiv J$	$\equiv J$	$\equiv J$	$\equiv L$	

τόξῳ ἐσκυνθῶν ἔχῃ γραμμὴν καὶ τοῦτο ἔχῃ ἐπὶ τὸν βραχίονα βέπουν	141-	142	τόξῳ εἰκελον ἔχῃ γεραμμένον καὶ τούτο βέπηται ἐπὶ τὸν βραχίονα
144 ό δή	144 ἔτερον μέρος	144 μέρος	144 ωτό
≡L ≡L ≡L ≡L	≡L ≡L ≡L ≡L	≡L ≡L ≡L ≡L	≡L ≡L ≡L ≡L
τὸ δὲ <i>post μέρος add. ωτῆς</i>	γένη		ωτός
149 κατὰ μέρος	151 ἢ διατεκριμένον	152 ζ. εἰρημένον κοινῷς κοινῷς	156 ἐπὶ τὸν τοῦ Κρονού δάκτυλον
≡L ≡L ≡L ≡L	≡L ≡L ζ. κοινῷς (<i>om. εἰρ.</i>)	≡L ≡L ≡L ≡L	≡L ≡L ≡L ≡L
κατὰ μέσον διατεκριμένον	διατεκριμένον	εἰρημένος κοινῷς	εἰρημένον τὸν τοῦ Κρονού δάκτυλον
161 οἱ	162 τὰ ἀναγκαῖα	162 περισσεύσομεν	162 περισσεύει
≡L ≡L ≡L ≡L	≡L ≡L ≡L ≡L	≡L ≡L ≡L ≡L	≡L ≡L ≡L περισσεύει

165	ἐλαττωθέντα	≡ L	≡ L	≡ L	≡ L	ἐλαττώματα
	ἐάν τις ἀστέρα ἔχῃ μεταξὸν τῆς ἀναγκαῖος καὶ τῆς ζόητρον, ἔσται δίκαιος καὶ εὐσεβής <i>ex loco 111 hic repetita, ut vidit</i> Boll.					
168		≡ L	≡ L	non repetit	non repetit	≡ L
171	ἐκτρέψων	≡ L	≡ L	≡ L	om.	ἐκτρέψων
171	ἐντίμους	≡ L	≡ L	≡ L	om.	ἐντίμος
171- 173	ἐκτρέψων – δάκτυλον	≡ L	≡ L	≡ L	om.	≡ L
174	om.	om.	om.	om.	om.	οὖν
174	ἔσται	≡ L	≡ L	om.	≡ L	≡ L
174 175	ἐγκεκλημένην	≡ L	≡ L	≡ L	≡ L	ἐγκεκλεσμένην

It is evident that L, J, M, E, N, and Q share a consistent amount of variants. This shows that they constitute a family of manuscripts, whose head is the witness L. This family consists of direct copies from L, as outlined by the following sequence: L > J, L > M, M > E, J > N, and E > Q.

Significant variants are provided by P, which indicate that P does not belong to the family of L. Variants of P not shared by L and its apographs are provided in the passages listed here (see the table above): 1, 3, 4, 5, 6, 7, 9, 9-10, 11, 13, 17, 20, 25, 26, 28, 30, 31 ($\mu\epsilon\tau\alpha\theta\acute{e}v\alpha\varrho$), 37 (see *om.*), 38, 50-51, 55, 56, 57, 58, 59, 70, 85, 101, 102, 102-103, 107, 124, 127-128, 136, 137, 141-142, 144, 149, 151, 156, 161, 165, 171, 174, 175.

Compared to them, the variants shared by P and the L family are few: 15-16, 26-27, 31, 37, 71, 79, 92, 105, 122, 168, 171-173, 174.

In the family of L, the following relationships were detected by analyzing variants. The witness J shares all of the above listed readings except the variants 31, 37, 105, 120, 136-137, 139, and the omissions 38, 55, 124. Moreover, it transcribes the chiromancy directly after the astronomical handbook like L. In this position, the text was also copied by M, which shares with J the omission 55 and provides its own variants at 2, 15-16, 31, 50-51, 71, 73, 79, 92, 102, 122, 136-137, 152, and its own omissions at 31 and 152, as well as an addition at 152. All of this demonstrates that L is their common antigraph.

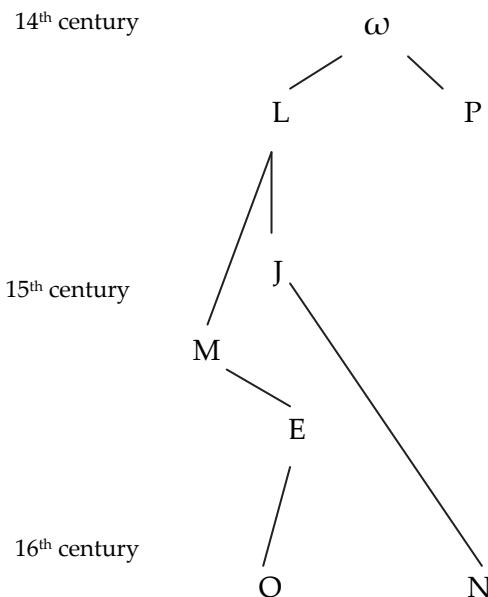
The witness E shares with J and M the variant 55. It is an apograph of M because it transcribes all the variants and omissions carried by M, which M does not share with J and L, see: 15-16, 31, 37, 50-51, 71, 73, 79, 92, 102, 122, 136-137, 152. Moreover, E provides its own variants at 3, 26-27, and it does not repeat the sentence at 168, which is copied from line 111. As this sentence is coherent in both sections, I would not describe it as an error; as such, I left it in place within the critical text. However, the scribe of E understood this as a double occurrence.

Witnesses N and Q share a significant amount of common variants with the other manuscripts of the family of L. This makes it difficult to detect their stemmatic relationships. The small title $\ddot{o}\rho\omega\iota$ (line 2) of N speaks in favour of a transcription from L or J. A transcription from J

is confirmed by the omission at 124, shared only by J and N. Moreover, N does not copy the sentence from 111 at 168, a common variant with E and Q. The scribe of Q transcribes from E, for it is the only witness that adopts διορίζεται (3) as incipit. Q contains notably more errors than the other witnesses. The most evident are the repetition of the sentence 76-77 and the omission at 171-173, a “saut du même au même.”

The stemmatic relationships can be summarized in the following stemma.

Stemma Codicum



At this point, only L and P should be considered for the *constitutio textus*. There are several reasons to take L as the collation manuscript: it is an antigraph of several witnesses; it is as old as P; and it contains a “good text.” Its *lectiones* are not always better than those of P, and the latter might sometimes be closer to the original. In the following I provide the most significant cases in which I have preferred P:

7) ὑπόκοιλον P : *om.* L. In this passage, there is clearly a missing word.

10) μεταθέναρος P] μετὰ τὸ θέναρος L. P provides a *lectio difficilior*.

85-86) τὰ ύπὸ τῆς είμαρμένης αὐτῷ ἐπικλωσθέντα οὖν P] τὰ ἐπενηγμένα αὐτῷ ἢ L. The reference to the είμαρμένη (“what is decreed by the fate”) is in accordance to the reference to the fate at 128 (see below) and it is evidence of an ancient vocabulary.

128) τὸ πεπομένον ἐκ μοίρας· πάντως γὰρ ἀφευκτος καὶ ἀπορᾶβατα τὰ ἐκ ταύτης P] τὸ σημαινόμενον ύπέρμεγα ἔσται L. The reference to unavoidable fate makes more sense. It is also in accordance with what the scribe of P wrote at 85-86 (see above).

149) κατὰ μέσον P] κατὰ μέρος L. The variant of L does not make sense; it is clearly a mistake.

As far as the *mise en page* of the critical text is concerned, I took the freedom to organize the text into paragraphs following the coherence of the topics treated in the discourse. From line 61, the text is basically a list of conditional clauses based on the model “if → then.” As such, I decided to give each sentence a paragraph. The main clauses of the conditional phrase are always separated by commas.

4. EDITION

Προγνωστικὸν ἀπὸ τῶν ἐν τῇ παλάμῃ γραμμῶν¹⁵

Ὄροι¹⁶

Τὶ ὄριζειν¹⁷ χρὴ καὶ καλεῖν τὸ ἀπὸ τῶν γραμμῶν μέρος τῶν πρὸς τῷ καρπῷ μέχρι τῶν δακτύλων ὅλων ἀκρόχειρα,¹⁸ καλοῦσι δ' οἱ πλεῖστοι τοῦτο καὶ παλάμην¹⁹ τὸ δὲ μετὰ τὰς (5) γραμμὰς εὐθὺς μέρος ὁίζα βραχίονος²⁰ καὶ χειρὸς λέγεται, τὸ δὲ μετὰ τὴν ὁίζαν²¹ ὑψηλοτέρων μερῶν τῆς παλάμης,²² τὸ μὲν πρὸς τῷ μεγάλῳ δακτύλῳ στήθος ἀντίχειρος ὀνομάζεται, τὸ δὲ κάτω μέρος στήθος τῆς χειρός, τὸ δὲ μεταξὺ τούτων ὑπόκοιλον,²³ ὅπου γραμμαί τινες εἰώθασιν εἶναι, μεταστήθιον· ὄριζεται δὲ τὸ στήθος τοῦ μεγάλου δακτύλου γραμμῆ τῇ ληγούσῃ μὲν ἐπὶ τὸ μεταστήθιον, ἀρχομένῃ δὲ ἀπὸ τοῦ μεταθέναρος,²⁴ ἥτις ὀνομάζεται (10) χρονική· τὸ δὲ μετὰ τὸ θέναρον ὁ τόπος ἐστὶν ὁ ἀπὸ τοῦ τέλους τοῦ λιχανοῦ²⁵ μέχρι τῆς ὁίζης τοῦ ἀντίχειρος· ἀπὸ δὲ τούτου μέσου γραμμῇ τις ἀρχομένη καὶ ἐπὶ πλείστον²⁶ τῆς χρονικῆς ἐφαπτομένη, κατὰ τὴν ὁίζαν δι' αὐτῆς δὲ ἀπολυθεῖσα φέρεται διὰ τοῦ κοίλου τῆς χειρός, αὕτη προσαγορεύεται ζωηφόρος· τὸ δὲ μεταξὺ ταύτης τε καὶ τῆς χρονικῆς καλεῖται τρίγωνον· τῶν δὲ δύο τούτων²⁷ γραμμῶν τῆς τε χρονικῆς καὶ

¹⁵ Προγνωστικὸν – γραμμῶν *rubro pictum*] υCγ' Περὶ τῆς ζωηφόρου *rubro pictum* P

¹⁶ *supra lineam* L: *om.* P

¹⁷ Τὶ ὄριζειν] οἰορίζειν P

¹⁸ ἀκρόχειρα] ἀκρόχειρον P

¹⁹ καλοῦσι – παλάμην *om.* P

²⁰ ὁίζα βραχίονος] ὁίζαι καὶ βραχίονος P

²¹ τὴν ὁίζαν] τὰς χειρας P

²² μερῶν τῆς παλάμης *om.* P

²³ ὑπόκοιλον *om.* L

²⁴ μεταθέναρος] μετὰ τὸ θέναρον L

²⁵ τὸ – λιχανοῦ] μετάθεναρ ὁ ἐστι ὁ ἀπὸ τοῦ τελ. τ. λιχ. τόπος P

²⁶ ἐπὶ τὸ πλείστον] εἰς τὸ πλείστον P

²⁷ τούτων *om.* P

τῆς ζωηφόρου τὰ μέρη ἐκεῖνα καθ' ἄ (15) προσάπτονται ἀλλήλων καὶ ἔνοῦνται συναφὴ καλείσθω ταύτην δὲ τὴν συναφήν ὅτε μὲν οὐδαμῶς ἐστὶ συνιδεῖν τῶν γραμμῶν ἀπ' ἀλλήλων ἀφεστηκυῖν, ὅτε δὲ ἀπὸ τοῦ θέναρος ἀντοῦ μέχρι τοῦ κοίλου τῆς χειρὸς²⁸ πολλάκις ὑποκαταβαίνουσα²⁹. ἀναγχαίαν δὲ λέγομεν γραμμὴν τὴν ὑποκλᾶσαν τοὺς τρεῖς δακτύλους, Κρόνον λέγω καὶ Ἡλιον καὶ Ἐρμῆν, διὰ τὸ ἀπὸ τῆς ἐπικλάσεως τῶν δακτύλων φυσικῶς ἀνατετυπῶσθαι τὸ δὲ μεταξὺ ταύτης καὶ τῆς (20) ζωηφόρου τετράγονον ὄνομάζομεν· στήθη δὲ δακτύλων ὄνομάζομεν τὰ παρακείμενα μέρη τῶν τῆς χειρὸς ὑψηλῶν³⁰ τὸ δὲ στήθος αὐτῆς τῆς χειρὸς ὁρίζεται ταῖς ὁζαῖς τοῦ βραχίονος ταῖς ὑπὸ τῆς χρονικῆς γραμμῆς ὑποκειμέναις καὶ τῇ ἀναγκαίᾳ, προσεικὸς κοιλίᾳ (κοιλίᾳ γὰρ λέγεται χειρὸς διὰ τὸ μικρῶς παραγκῶσθαι). τριῶν δὲ ὄντων ἐν τοῖς δακτύλοις φαλαγγίων ἔσται τὸ μὲν ἐπιπεφυκὸς τῇ χειρὶ καὶ διορίζον τὴν χειρὰ δακτυλόπους ἥ ὁζοδάκτυλος· τὸ δὲ (25) δεύτερον μεσοδάκτυλος· τὸ δὲ τρίτον, ὅπερ ἔστιν ὄνυχοφόρον, ἀκροδάκτυλον ἥ μετόνυχον· ὁ δὲ ἀντίχειο³¹ δακτυλόποδα καὶ τὸν μεσοδάκτυλον ἔχει μόνον³² ἀστήρ δὲ λέγεται, ὅπου σημεῖον τῷ υ στοιχείῳ παραπλήσιόν ἔστι γίνεται δὲ ὅπου ἀν τύχοι, οὐκ ἀφωρισμένως.

Ο μὲν οὖν τῆς χειρὸς κατάδεσμος τοιοῦτός τίς ἐστιν, ὡς ἐν συντόμῳ φάναι, καὶ τὰ τῶν γραμμῶν τῶν ἐν αὐτῇ ὄνόματα ταῦτα· ἐπὶ δὲ τὸ φράζειν τοὺς τόπους τῶν ἀστέρων καὶ τὰς (30) δυνάμεις αὐτῶν ἴωμεν· Σελήνης τὸ μεταστήθιον καὶ αἱ γραμμαί· Αφροδίτης ὁ ἀντίχειο· τὸ δὲ μεταθέναρ³³ καὶ ἡ ζωηφόρος Ἄρεως· ὁ δὲ λιχανὸς καὶ ὁ πρῶτος λεγόμενος δάκτυλος τοῦ Διός· Κρόνου δὲ ὁ μέσος· Ἡλίου δὲ ἥ Απόλλωνος ὁ παράμεσος· ὁ δὲ μικρὸς Ἐρμοῦ.

²⁸ *post χειρὸς add. αὐτὴ P*

²⁹ *ὑποκαταβαίνουσα] ὑποκαταβαίνουσιν L*

³⁰ *τῶν – ὑψηλῶν] αὐτῶν τῇ χειρὶ ὑψελά P*

³¹ *post ἀντίχειο add. τὸν L*

³² *ἔχει μόνον] αὐτὸν ᔁχει P*

³³ *μετὰ Θέναρ L*

Ἐπισκέπτεσθαι μὲν οὖν χρὴ τὰς γραμμὰς τῆς δεξιᾶς χειρός, χρὴ δὲ καὶ πολλὰς ὄρāν χεῖρας τὸν σπουδαῖον, ἐντεῦθεν γὰρ ἡ πεῖρα τῆς προρρήσεως προβαίνοι ἀν ἐπὶ τὸ ἀσφαλές.

(35) Οἱ τῆς σεληνιακῆς γενέσεως μετειληχότες ἔξουσιν ἐν τῷ τετραγώνῳ τῆς χειρὸς σημεῖον παραπλήσιον τῷ χ στοιχείῳ ἐν τῇ πρώτῃ οὖν ἡλικίᾳ ὃ τοιοῦτος πέντης ἔσται, ἐν τῇ μέσῃ δὲ εὐπρόησει παρ' ἐλπίδα, ὥστε ἐκπλήττεσθαι τοὺς ὄρῶντας,³⁴ πάλιν τε εἰς τὸ αὐτὸν ἀναλύσει, εἰς δὲ ἣν ἐν τῇ πρώτῃ ἡλικίᾳ ὅμοια γὰρ τῷ ἀστέρι τούτῳ πείσεται³⁵ καὶ οὗτος³⁶ αὐξόμενός τε³⁷ καὶ κατὰ τὴν τύχην λήγων.

(40) Οἱ δὲ τῆς τοῦ Ἡλίου γενέσεως μετειληχότες ἔξουσιν γραμμὰς λεπτὰς ἐπὶ τοῦ δακτυλόποδος αὐτοῦ οίονεὶ ἀμυχάς: ἔσονται δὲ οἱ τοιοῦτοι εὐφυεῖς, μιμηταὶ παντὸς ἔργου, ἀ οὐκ ἔμαθον ταῦτα πράττοντες, οὐδέποτε δὲ λείψει τοῖς τοιοῦτοις οὐδὲν τῶν ἐν τῷ βίῳ τούτῳ καὶ οἱ μὲν πάνυ συνήθεις καὶ φίλοι αὐτοῖς καὶ οἱ παρ' αὐτοῖς λειτουργοῦντες ἀχαριστοῦσιν, οἱ δὲ πόρρω προσφιλέστατοι γίνονται.

(45) Οἱ δὲ τῆς τοῦ Κρόνου γενέσεως μετειληχότες ἔσονται ἀγαθοὶ ἄνδρες τε καὶ γυναῖκες, κοινοὶ φίλοις, ἀπλοὶ τε καὶ τὰ ἄριστα συμβουλεύοντες, βαρεῖς τῇ διανοίᾳ, οὐ ταχὺ συνιέντες, εὐχερῶς πιστεύοντες τοῖς πράγμασι, βλάπτονται δὲ οἱ τοιοῦτοι μάλιστα ὑπὸ τῶν ἴδιων τέκνων, γῆρας δὲ λιπαρὸν ἔξουσι.

Τῆς Ἄρεως δὲ εἴ τις ἔσται γενέσεως, ἐὰν μὲν ἔχῃ τὰς δύο γραμμὰς ταύτας συνεζευγμένας, τὴν (50) τε χρονικὴν καὶ τὴν ζωηφόρον, δοῦλος μὲν ὃν ἐλευθεροθήσεται, ἐλευθερος δὲ κληρονομίας ἀπολήψεται³⁸ ἐὰν δὲ ἀπεζευγμένας ἔχῃ ταύτας καὶ μηδεμίαν λεπτὴν ἐκτρέχουσαν καὶ παρεκκλίνουσαν, δοῦλος μὲν ὃν οὐδέποτε ἐλευθεροθήσεται, ἐλευθερος δὲ ἐνδεής ἔσται: ἔσονται δὲ οἱ τοιοῦτοι ἄνδρειοι

³⁴ τοὺς ὄρῶντας *om.* P

³⁵ *post* πείσεται *add.* κέντρα P

³⁶ καὶ οὗτος *om.* P

³⁷ τε *om.* P

³⁸ ἐκλείψεται P

ἐπίπονοι, ἄσκνοι, διὰ παντὸς κακοπαθοῦντες· ἔνεκα δὲ ἐφημέρου τροφῆς τούτοις οὔτε λείψει οὔτε περισσεύσει.

(55) Οἱ δὲ ἐπὶ τοῦ τοῦ Ἐρμοῦ δάκτυλόποδος γραμμὰς ἔχοντες ἀμυχαῖς³⁹ παραπλησίους καὶ τῆς τοῦ⁴⁰ Ἐρμοῦ γενέσεως ὄντες οὔτοι⁴¹ ἔσονται κλέπται, ὀλέθριοι,⁴² ἄκριτοι, ἀπεδεῖς, ἀπορσφιλεῖς, ἐπιθέται, ψεῦσται οἱ τοιοῦτοι οὐδὲ στάσιν ἐν βίῳ⁴³ ἢ θεμέλιον ἔξουσιν οὐδέποτε, παραπλήσια πάσχοντες⁴⁴ τῷ ἀστέρι⁴⁵ τούτῳ καὶ γὰρ οὕτος ἀστάτῳ φύσει ἀποτόμως⁴⁶ γένεσιν αὐτοῖς⁴⁷ κακήν ἐργάζεται.

(60) Περὶ τῆς ἀναγκαίας

Ἐὰν δέ τις τὴν ἀναγκαίαν γραμμὴν ἀποτείνουσαν ἔχῃ, ἐπὶ τὸν τοῦ Διός δάκτυλον ἡ καὶ ἐγκεκλιμένην ἐπ’ αὐτὸν τὸν δάκτυλον, Διὸς οὗτος γενέσεως ἐστίν, ἀλλ’ ἦν μὲν ὁρθῶς ἔχῃ, κρείττων ἡ γένεσις τούτου ἔσται, ἦν δὲ ἐγκεκλιμένη, ἤττον καλή. Οἱ οὖν ταύτης ὄντες τῆς γενέσεως ἔσονται εύτυχεῖς, ἀμέριμνοι, ἀμελεῖς διὰ τὰ ἀγαθά, ἀλαζόνες, οὐδὲν πικρὸν ἔχοντες (65) ἐν ἑαυτοῖς, εὐχερῶς ἀπατώμενοι ὑπὸ τῶν γυναικῶν.

Ἡν δέ τις τὴν ἀναγκαίαν γραμμὴν ἔχῃ ἄνω νεύουσαν ἐπὶ τὸν τοῦ Διός ςίζοδάκτυλον καὶ ἐν τοῖς τοῦ θέναρος ςόροις στηρίζουσαν ἐπικλασθέν τε αὐτῆς τὸ ἄκρον ἐπὶ τὸν τῆς Αφροδίτης ςίζοδάκτυλον, οὗτος ἔσται ἐπαφρόδιτος, ὥστε καὶ ύφ’ ὅν ποτε ἔδοξεν ἡδικῆσθαι γυναικῶν, ὑπὸ τούτων εὐεργετηθῆναι· ἐὰν δὲ ἡ αὐτὴ γραμμὴ ἔως τοῦ μεσοδακτύλου στηρίζῃ καὶ μὴ (70) ὑπερβαίνῃ τοῦτον, ἔξει μὲν τὸνδε τὸν

³⁹ τοῦ¹ – ἀμυχαῖς] τῶν Ἐρμοῦ δάκτυλόποδι ἔχοντες γραμμὰς ἀμηχανῶν P

⁴⁰ καὶ τῆς τοῦ om. P

⁴¹ ὄντες οὔτοι] οἱ τοιοῦτοι P

⁴² λάθριοι P

⁴³ ἐν βίῳ] βίου P

⁴⁴ παρέχοντες P

⁴⁵ θεῷ P

⁴⁶ ἀποτόμως] ποτόμως P

⁴⁷ ἀνθρώποις P

ἀστέρα⁴⁸ ἀρωγόν, οὐκ ἔσται δὲ ἐπαφρόδιτος· τὴν δὲ αὐτὴν ταύτην γραμμήν, λέγω δὴ τὴν ἀναγκαῖαν, ἐάν τις ἔχῃ ἐγκεκλιμένην, εὐκαταφρόνητος ἔσται πρὸς πάντων καὶ τῶν ἐλαχίστων, ἐπιβουλευόμενός τε καὶ ἀδικούμενος· οὐ δὲ τὴν αὐτὴν ταύτην γραμμήν ἐπιτεταμένην ἔχων ὅρθην καὶ μὴ⁴⁹ ἔχουσαν ὅζους μεγάλους ἀπὸ τῆς ὁίζης δυσκόλως βλα-βήσεται ύπο ἀντιδίκου.

(75) Περὶ τῆς ζωηφόρου⁵⁰

Ἐὰν δὲ ἡ ζωηφόρος γραμμὴ συσταλῇ, πολυχρονίους δηλοῖ, καὶ ὅσῳ ἀν συνεσταλμένῃ ὑπάρχῃ, πολυχρονιωτέρους δηλοῖ.

Ἐὰν δὲ ἡ ζωηφόρος πάλιν παρεκτείνῃ ἑαυτὴν ὡς ἐπὶ τὸν μικρὸν δάκτυλον καὶ ύποσημαίνουσαν μονὴν ποιήσῃ εἰς μέσον τὸν τοῦ Ἐρμοῦ δάκτυλον, ὀλιγοχρονίους δηλοῖ.

(80) Ἐὰν δὲ τις μὴ ἔχῃ τὴν ζωηφόρον τελείαν, αἱφνιδίᾳ όπτῃ πληγεῖς ἀπολεῖται ἀναισθήτως.

Ἐὰν δέ τις εἰς μέσην τὴν γαστέρα τῆς ζωηφόρου ἔχῃ κύκλον παραπλήσιον τῷ ο στοιχείῳ, ἐὰν μὲν εὐγραφμὸν ἥ καὶ εὐρυθμὸν, ὁ τοιοῦτος κινδυνεύσας ύπο θηρίων ἀπολεῖσθαι σωθήσεται, ἐὰν δὲ ἀρρυθμός, προφανώς ύπο θηρίων ἀπολεῖται.

Ἐὰν δὲ ἀπὸ τῆς ζωηφόρου νεύσῃ τις γραμμὴ ἐπὶ τὸν τοῦ Διὸς δάκτυλον καὶ στηρίζῃ εἰς τὸν (85) δακτυλόποδα αὐτοῦ, περὶ τὴν πρώτην ἡλικίαν στήσεται τὰ ύπο τῆς είμαρμένης αὐτῷ ἐπικλωσθέντα οἷον⁵¹ δίκαια ἥ δεσμά ἥ θάνατος· ἐὰν δὲ εἰς τὸν τοῦ Κρόνου, περὶ μέσην ἡλικίαν ἐὰν δὲ εἰς τὸν τοῦ Ἐρμοῦ ἥ Ήλιού, ἐν γήρᾳ.

Ἐὰν ἐπὶ τῷ τέλει τῆς ζωηφόρου δύο γραμμαὶ ὥσιν δὲ⁵² ἐξεχόμεναι τε ἀλλήλων ἥ παρακείμεναι, τρωθήσεται ὁ τοιοῦτος σιδήρω.

⁴⁸ τὴνδε τὴν θεὰν Ρ

⁴⁹ μὴ om. P

⁵⁰ *rubro pictum*.

⁵¹ τὰ ύπο τῆς είμαρμένης αὐτῷ ἐπικλωσθέντα οἷον] τὰ ἐπενηγμένα αὐτῷ ἥ L

⁵² δὲ om. P

(90) Ἐάν τις τὴν ζωηφόρον ἔχῃ διεσπασμένην εἰς τὰ κάτω μέρη, εἰς ἐσχάτην ἥξει καὶ ύγειαν καὶ πραγμάτων εὐδαιμονίαν.

Ἐαν ἐν τῇ δεξιᾷ χειρὶ ἀπὸ τῆς ζωηφόρου γραμμήν εύρης ἐπὶ τὴν χρονικὴν φέρουσαν καὶ ταύτη συνάπτεται ἡ καὶ διαιρῆ αὐτήν, τρωθήσεται ἡ κινδυνεύσει τρωθῆναι.

Ἐάν ἡ ζωηφόρος γραμμὴ ὑπὸ πλαγίων γραμμῶν διαιρῆται, ὅσαι ἀν ὁσιν αἱ διαιροῦσαι τὴν (95) τοιαύτην γραμμήν, τοσαῦται σωματικαὶ ἀσθένειαι τὸν τοιοῦτον θλίψουσιν· αἱ δὲ ἐλικοειδεῖς οὖσαι ἀηδίαιν ἡ νοσήματα δηλοῦσι τούτων δὲ αἱ μὲν περὶ τὰ ἄνω μέρη γινόμεναι καὶ διαιροῦσαι ταύτην περὶ κεφαλῆν καὶ τράχηλον δηλοῦσι τὰ νοσήματα, αἱ δὲ περὶ τὰ μέσα, περὶ θώρακα καὶ γαστέρα ἡ νῶτα ἡ ἰσχία· αἱ δὲ περὶ τὰ κάτω τούτων, περὶ τὰ γόνατα ἡ τοὺς πόδας.

Ἐάν ἡ ζωηφόρος χωρὶς ἐλαττώματος ἡ καὶ παντὸς σίνους ἀπολελυμένη μὴ τέ τινα ἔχῃ τὸ μὴν (100) ἐν ἑαυτῇ, οὔτ' ἐνόσησεν ὁ τοιοῦτος οὔτε νοσήσει.

Ἐάν ἡ ζωηφόρος ἐπὶ τῷ τέλει διακλαίουσα⁵³ ὑπάρχῃ, χωλείαν σημαίνει. Σκόπησον οὖν τὴν τοῦ χωλοῦ χείρα καὶ πάντως εὑρήσεις ἔχοντα τούτι τὸ⁵⁴ σῆμειον· εἰ δὲ μὴ πεπήρωται, πηρωθήσεται τὸν πόδα.⁵⁵

Ἐάν ἡ ζωηφόρος ἡ μείζων τοῦ δέοντος καὶ ἐπικλᾶται ὑπάρχῃ τε κλαδαρὰ οἷον ἴμάς, (105) ἰσχιακούς σημαίνει ἔσεσθαι.

Ἐάν ἡ ζωηφόρος ὑγιὴς ἡ καὶ εὐθεῖα καὶ κάτω νεύη, μὴ δὲ σκαμβή τις ἡ, τοιοῦτοι φαίνοντ' ἀν δὴ καὶ οἱ τρόποι τοῦ ἀνθρώπου· ἐάν δὲ ἐλικοειδής καὶ μελανοειδής ἡ,⁵⁶ φαῦλοί τε καὶ σκαιοί καὶ κακότροποι.

Ἐάν ἡ ζωηφόρος ἐπὶ τὸν βραχίονα νεύη, οὗτος ἔσται φιλάργυρος, ἀλλοτρίων ἐπιθυμῶν, (110) αἰσχροκερδής.

⁵³ διακλίνουσα P

⁵⁴ τούτι τὸ] τοῦτο τὸ P

⁵⁵ εἰ δὲ μὴ πεπήρωται, πηρωθήσεται τὸν πόδα] λέγε οὖν καὶ τῷ μηδέμω (*sic*) ἐπειρωμένω ὅτι πειρωθήσεται τὸν πόδα P

⁵⁶ ἡ om. P

Ἐάν τις ἀστέρα ἔχῃ μεταξὺ τῆς ζωηφόρου καὶ τῆς ἀναγκαίας, ἔσται δίκαιος καὶ εὐσεβής.

Ἐάν τις διεστώσας ἔχῃ ἀπ' ἀλλήλων τὴν τε ζωηφόρον καὶ τὴν χρονικὴν καὶ μηδεμίᾳ αὐτῶν μεταξὺ συνδέουσα αὐτὰς, ἔσται ὁ τοιοῦτος ἀπάνθρωπος, ἀναιδής, ψεύστης, ἀπρόκοπος, ἀποστερητής, ὄκνηρός, κοῦφος.

(115) Ἐὰν δὲ διεστώσας μὲν ἔχῃ τὰς γραμμάς, μεταξὺ δὲ αὐτῶν οίον σκυτάλιον, μηδεμίᾳς αὐτῶν ἐφαπτόμενον, ἀλλὰ καθ' ἑαυτὸν ἀπολελυμένον, οἰνόφλυξ ἔσται καὶ καπηλοδύτης.

Ἐὰν δὲ ἀπὸ τοῦ θέναρος τῆς χειρὸς ἐκ τῶν ἄνωθεν μερῶν συνάπτωνται αἱ γραμμαὶ ἀλλήλαις ἢ τε ζωηφόρος λέγω καὶ ἡ χρονική, ἐλεύθερος μὲν ᾧν εὐτυχήσει καὶ ἀνεπίληπτον βίον διάξει, δοῦλος δὲ ᾧν ἐλευθερωθήσεται καὶ ἑαυτὸν ἐλευθερώσει· καὶ θᾶττον δέ, ἐὰν ἐπὶ τὸν τοῦ Διὸς (120) δάκτυλον τὴν συναφήν ποιῶνται, βραδίον δέ, ἐὰν ἐπὶ τὸν τοῦ Κρόνου (κάτοχος γὰρ ὁ ἀστήρ). Ἐὰν δὲ μὴ συνάπτωνται ἀλλήλαις αἱ εἰρημέναι γραμμαί, ἀλλ' ἀπολείπωσι τὸν μεταξὺ αὐτῶν τόπον καθαρόν, τὰ ἐναντία ἔσται περὶ τὸν τοιοῦτον, δοῦλος μὲν γὰρ ᾧν, οὐδέποτε ἐλευθερωθήσεται, ἐλεύθερος δὲ ἐνδεής ἔσται.

Ἐὰν δὲ ὥσπερ δίκτυον⁵⁷ γραμμὰς ἔχωσι λεπτὰς ἐφαπτομένας αὐτῶν καὶ περικλειούσας αὐτάς, (125) ἔξει ἐπὶ τὰ βελτίονα βίον ἐκ χειρόνος ἐπὶ τέλους δὲ τῆς ζωῆς εὐτυχήσει εἰ μή τις ἀπὸ τοῦ βραχίονος εἰστρέχουσα γραμμὴ παράπτοιτο αὐτῶν, δηλοὶ γὰρ ταχεῖαν ἀμειψιν, οἰκέτη μὲν ἐλευθερίαν, πένητι δὲ πλοῦτον, πλουσίῳ δὲ ἡ βασιλεῖ εὐτυχίαν ἐκάστω γὰρ τὸ πεπρωμένον ἐκ μοίρας· πάντως γὰρ ἄφευκτος καὶ ἀποράβατα τὰ ἐκ ταύτης.⁵⁸

Ἐάν τις ἔχῃ τὴν ζωηφόρον οίονει φοίνικι παραπλησίαν, οὗτος μεγάλως εὐτυχήσει.

⁵⁷ δίκτυα P

⁵⁸ τὸ πεπρωμένον ἐκ μοίρας· πάντως γὰρ ἄφευκτος καὶ ἀποράβατα τὰ ἐκ ταύτης] τὸ σημαινόμενον ύέρμεγα ἔσται L

(130) Ἐάν τις πρὸς τοῖς κάτω μέρεσι τῆς ζωηφόρου καὶ τῆς χρονικῆς ἔχῃ πλαγίαν γραμμήν, ἀγαθὰς ἐλπίδας προσδεχέσθω.

Ἐάν ἡ ζωηφόρος εἰς τὸ ἄνω μέρος ἐπικαμφθεῖσα τῆς ἀναγκαίας ἄψηται, μεγάλην ζημιάν ἔσεσθαι σημαίνει.

Ἐάν τις ἔχῃ τὰς δύο γραμμάς, τὴν τε χρονικὴν καὶ τὴν ἀναγκαίαν, ἀλλήλαις συναπτούσας⁵⁹ (135) καὶ συνδεούσας ὅνπερ τρόπον ἡ ζωηφόρος καὶ ἡ χρονική, τὴν συναφὴν ἐπὶ τῷ μέσῳ θέναρι ἀποτελούσας,⁶⁰ τῆς μέντοι ζωηφόρου ἐστερημέναι ὁσι, σιδήρῳ αἰφνιδίῳ τιμηθήσεται αἰφνιδίως ή⁶¹ ἐνδείᾳ τροφῆς ὀλεῖται.

Περὶ τῆς χρονικῆς γραμμῆς⁶²

Ἐάν τις ἀπὸ τῆς χρονικῆς γραμμῆς εὐθεῖαν ἔχῃ γραμμὴν προσιούσαν ἐπὶ τὸν τοῦ Ἐρμοῦ (140) δάκτυλον καὶ οίονεὶ ἀπολελυμένην, κινδυνεύσει ἡ σιδήρω τρωθήσεται.

Ἐάν τις μεταξὺ τῆς χρονικῆς καὶ τῆς ζωηφόρου πρὸς τοῖς κάτω μέρεσιν αὐτῶν τόξῳ ἐοικυῖαν ἔχῃ γραμμὴν καὶ τοῦτο ἔχῃ ἐπὶ τὸν βραχίονα χρέον,⁶³ οἱ ἔχων αὐτὸν τυφλὸς ἔσται.

Ἐάν τὰς δύο γραμμάς, τὴν τε⁶⁴ χρονικὴν καὶ τὴν ζωηφόρον, διακόπτη τις ἄλλη γραμμὴ κυρτὴ ὁμοίᾳ τόξῳ, τὸ δὲ⁶⁵ ἐτερον⁶⁶ μέρος⁶⁷ τὸν βραχίονα,⁶⁸ οἱ ἔχων αὐτὸν⁶⁹ πηρωθήσεται τὴν ὄρασιν.

⁵⁹ *ex συναπτούσαις corr.* L

⁶⁰ ἀποτελούσας] ἀπολελούσιν P

⁶¹ *post ἡ add.* ἀλλήλαις συνερείδουσαι P

⁶² Περὶ – γραμμῆς *rubro pictum* P : *om.* L

⁶³ τόξῳ ἐοικυῖαν ἔχῃ γραμμὴν καὶ τοῦτο ἔχῃ ἐπὶ τὸν βραχίονα χρέον] τόξῳ εἴκελον ἔχῃ γε γραμμένον καὶ τούτῳ χρέη ἐπὶ τὸν βραχίονα P

⁶⁴ τε *om.* L

⁶⁵ τὸ δὲ ὁ δὴ P

⁶⁶ *post δὲ add.* αὐτῆς P

⁶⁷ γένη P

⁶⁸ τὸ – βραχίονα *locus corruptus videtur*

⁶⁹ αὐτός P

(145) Έὰν ἐν τῇ δεξιᾷ χειρὶ ἀπὸ τῆς χρονικῆς γραμμῆς εύρεθῇ γραμμὴ φέρουσα ἐπὶ τὴν ζωηφόρον καὶ ταύτη συνεφάπτηται ἡ καὶ διαιρῆ αὐτήν, τρωθήσεται ὁ ἔχων ἡ κινδυνεύσει τρωθῆναι.

Ἐὰν ἀπὸ τῆς χρονικῆς ἐπὶ τὴν ζωηφόρον κλάδοι νεύοντες εύρεθῶσι, ζημίαν ἡ δούλον ἔσεσθαι ἐπισημαίνουσιν.

Ἐὰν ἡ χρονικὴ κατὰ⁷⁰ τὴν κεφαλὴν ἐπὶ τὴν ζωηφόρον ἡ κατὰ μέσον⁷¹ νεύῃ, ἀμεμπτον βίον (150) καὶ ἀκέραιον βιώσεται ὁ τοιοῦτος.

Ἐὰν δέ τι μὴ ἐπὶ ταύτης τῆς γραμμῆς, λέγω δὴ τῆς χρονικῆς, ἡ διακεκριμένον⁷² ἐκ τῶν ἐν τῇ ζωηφόρῳ εἰρημένων κοινῶς περὶ δύο γραμμῶν μεταφέρων τεκμαίρουν.

Περὶ τῆς ἀναγκαίας γραμμῆς⁷³

Ἐάν τις ἔχῃ τὴν ἀναγκαίαν γραμμὴν βλέπουσαν ἐπὶ τὴν ζωηφόρον, οὗτος εἰς μέγιστον φόβον (155) καὶ κίνδυνον ἥξει θανάτου, οὐδὲν δὲ πείσεται κακόν.

Ἐάν τις ἔχῃ τὴν ἀναγκαίαν γραμμὴν ἐγκλίνουσαν κατὰ τὴν κεφαλὴν ἐπὶ τὸν⁷⁴ τοῦ Κρόνου δάκτυλον, οὐδέποτε αὐτὸν λείψουσι δίκαιοι καὶ ἀηδίαι.

Ἐὰν ἡ ἀναγκαία γραμμὴ οἷον κλάδους ἔχῃ, χαρίεντας, φιλοκάλους,⁷⁵ μαθηματικούς, εὐέλπιδας, ἀγαθοὺς συμβούλους ὑπάρχειν δηλοῖ.

(160) Ἐάν τις ἔχῃ τὴν ἀναγκαίαν γραμμὴν ὄρθην καὶ μὴ ὑπερορίζουσαν τὸ τοῦ Κρόνου δάκτυλον, ὡς ὅρνις τὸν ἐφήμερον βιώσεται βίον μετὰ κόπου καὶ μόχθου καὶ οὔτε⁷⁶ λείψουσιν αὐτὸν τὰ ἀναγκαῖα⁷⁷ οὔτε περισσεύσουσιν.⁷⁸

⁷⁰ addidi κατὰ ut Boll, cf. *infra* 156.

⁷¹ κατὰ μέσον] κατὰ μέρος L

⁷² ἡ διακεκριμένον] διακέκριπται P

⁷³ Περὶ – γραμμῆς *rubro pictum* P : *om.* L

⁷⁴ ἐπὶ τὸν] αὐτῆς εἰς τὸν P

⁷⁵ φιλολόγους P

⁷⁶ οὐ L

⁷⁷ τὰ ἀναγκαῖα *om.* P

Ἐάν τις ἔχῃ τὴν ἀναγκαίαν γραμμήν κατὰ τὰ ἄνω μέρη εἰς ὁξὺ λήγουσαν, ἐλαττώσει ὁ τοιούτος τὴν οὐσίαν. Ἐάν δὲ ἐκ τῶν κάτωθεν μερῶν ἡ πλατεῖα καὶ εὐρεῖα καὶ ἀσφαλῶς (165) βεβηκυῖα, ἀναλήψεται τὰ ἐλαττωθέντα⁷⁹ καὶ ἀποκαταστήσει.

Ἐάν ἡ ἀναγκαία γραμμή ἐπιστρέφηται καὶ ἐπινεύῃ ἐπὶ τὸν τῆς Αφροδίτης δάκτυλον, παρὰ γυναικῶν ἡ διὰ γυναικῶν κέρμα ἀποίσεται, ἐφ' ὧ χαρήσεται μεγάλως.

Ἐάν τις ἀστέρα ἔχῃ μεταξὺ τῆς ἀναγκαίας καὶ τῆς ζωηφόρου, ἔσται δίκαιος καὶ εὐσεβῆς.⁸⁰

Ἐάν ἡ ἀναγκαία γραμμή ἐπὶ τὸν τοῦ Κρόνου δάκτυλον ἐπιστρέφηται, ὑπὸ τῶν οἰκείων οὗτος (170) βλαβήσεται.

Ἐάν κλάδοι τινὲς τῆς ἀναγκαίας γραμμῆς ἐπὶ τὸν τοῦ Διὸς δάκτυλον ἐκτρέχωσιν,⁸¹ ἐντίμους⁸² ποιοῦσιν.

Ἐάν τις τὴν ἀναγκαίαν γραμμήν ἀνατείνουσαν ἔχῃ ἐπὶ τὸν τοῦ Διὸς δάκτυλον ἡ ἐγκεκλιμένη⁸³ ὑπ' αὐτόν, ἦν μὲν οὖν⁸⁴ ὅρθην ἔχῃ, ιρείττων ἡ γένεσις ἔσται τούτου, ἦν δὲ (175) ἐγκεκλιμένη,⁸⁵ καὶ οὔτως⁸⁶ καλή, οἱ γὰρ⁸⁷ ἔχοντες τοῦτο ἔσονται εὐτυχεῖς, ἀμέριμνοι, ἀμελεῖς, διὰ τὰ ἀγαθὰ ἀκόπως ζῶντες, εὐχερῶς ἀπατώμενοι ὑπὸ γυναικῶν.

⁷⁸ περισσεύσει P

⁷⁹ ἐλαττώματα P

⁸⁰ sententia ex loco 111 hic repetita

⁸¹ ἐκτρέχουσιν P

⁸² ἐντίμως P

⁸³ ἐγκεκλεισμένην P

⁸⁴ οὖν om. L

⁸⁵ ἐγκεκλεισμένην P

⁸⁶ οὔτως om. P

⁸⁷ γοῦν P

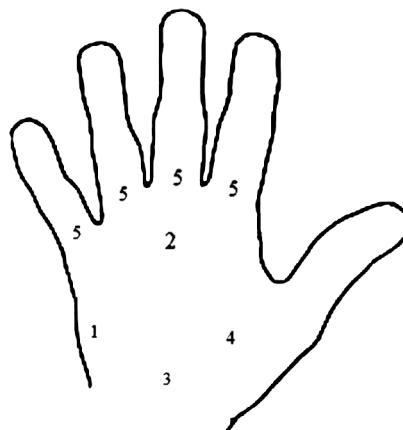
5. COMMENTARY

The edited chiromantic text is an application of astrological theories to the hand, providing a system for astrological prognostication from the study of a person's palm. The hand is read as a microcosm of the sky, which is seen through the eyes of an astrologer. The connection between the sky and the fate of human beings is probably rooted in sympathetic theories, which can be traced back to the philosopher Posidonius of Apamea (see, for instance, Cic. *Div.* 1.125-127). This would be no surprise. The variants of P concerning fate (see section 3) are in accordance with such philosophical views.

The frequency of rare and technical terms is unusually high. As this text is unique among the extant Greek sources (to date at least), I will leave the task of producing a good English translation to further studies.

The following graphics offer a summary of the topographical description of the hand.

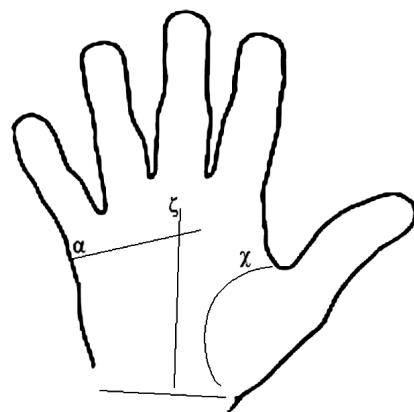
Sections of the Palm



1 = στῆθος τῆς χειρός ("mount of the hand"); 2 = μετάθεναρ ("middle palm"); 3 = μεταστήθιον ("hollow between the mounts"); 4 = στῆθος ἀντίχειρος ("mount of the thumb"); 5 = στῆθη δακτύλων ("mounts of the fingers").

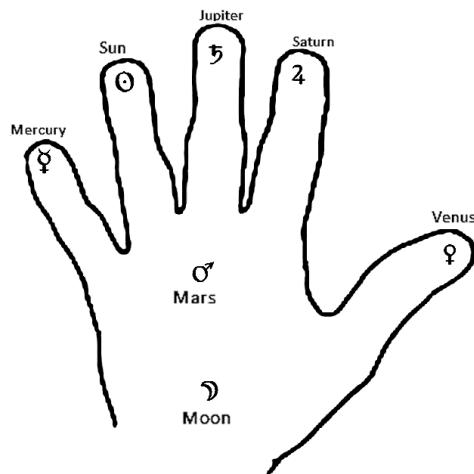
On the discussion of the term μετάθεναρ see Pack 1972, 372-373: θέναρ is equivalent to παλάμη; I therefore propose *middle palm*.

Main Lines of the Palm



α = ή ἀναγκαία γραμμή ("the line of necessity"); ζ = ή ζωηφόρος γραμμή ("the line of life"); χ = ή χρονική γραμμή ("the line of time").

The Planetary Domains



The commentary provided by Pack⁸⁸ offers a translation of chiromantic Greek terms and compares the text with Latin chiromancies, which, for the most part, remain unpublished. This survey has not found any details that would substantively add to what Pack reported in his contribution. I will leave the discussion of the vocabulary to future and more in-depth studies.

6. RECEPTION

Inspecting the manuscripts containing the text prompts a new hypothesis concerning the author and the provenance of the Greek chiromancy. The analysis of section 3 allows the hypothesis of a lost original text. Two branches stem from the original witness (ω). The P branch shows that the text was incorporated in a collection of physiognomic texts. By contrast, the L branch shows that it was at first integrated as a chapter of an astronomical handbook; the copyist of E then copied it as an independent text. This format was still successful in the 16th century, as shown by witnesses N and Q: both provide the chiromantic fragment as an independent text. This puts into question the nature of the text. It could well be that it exists as part of a wider opus of physiognomy or astrology for prognostication, but in the 15th and 16th centuries, the Greek chiromancy was chiefly perceived as an independent text.

All the witnesses provide an anonymous text. The oldest of them is L, which was written before the year A.D. 1374 by Isaac Argyros (1300-1375).⁸⁹ Given the productivity of this Byzantine scholar in astronomy, it would have been no stretch for him to make astrological predictions – a common practice among scholars in 14th-century Byzantium. He could be the author of the horoscope on f. 1r of the ms L. As this casts a horoscope in favour of Manuel II (his proclamation as emperor in 1373), this goes against Andronicus IV Palaiologos, and could explain why Argyros did not mention his name in the folia directly after that.⁹⁰ On this account, further investigation into Argyros's

⁸⁸ Pack 1972.

⁸⁹ On Argyros, see *PLP*, entry 1285.

⁹⁰ Pingree 1971, 193.

astrological activity is required. However, he is not the author of the Greek chiromancy, although a Byzantine scholar active in astrology might well have been its first composer. In this respect, Franz Boll erroneously surmised that the religious beliefs reflected in the text are such as to exclude Byzantine authorship.⁹¹ Recent scholarship on astrology in the Eastern Roman Empire shows that such practice was common among Byzantine scholars. In particular, it has been shown that astronomers used to practice astrology.⁹²

In addition, the manuscript L provides further useful data for the reception of the Greek chiromancy. A notable figure within the scientific community of the 15th century, namely Pico della Mirandola (1470-1533), borrowed the manuscript in 1493.⁹³ There is no evidence to suggest that he consulted the Greek chiromancy properly, for his notes are provided on the folia 99r-v (identification by Sebastiano Gentile), but his interest in astrology and his criticism of astrological practice is well known. Moreover, Pack reports that Pico redacted a treatise against chiromancers printed in 1507 in Strasbourg.⁹⁴ Therefore, it is likely that he had read the Greek chiromancy in a preliminary phase in view of the composition of his pamphlet against chiromancers.

Again from L, the bilingual titles on f. 2r and f. 247r *Πρόχειρον Περσικόν* (*Tabulae Persarum*) show that this codex could have originated from Manuel Chrysoloras' library.⁹⁵ This scholar was invited by the scholar Coluccio Salutati to Florence to teach the Greek language, and he stayed there from 1397 to 1400 for that purpose.⁹⁶ There is no evidence that Chrysoloras took this manuscript with him to Italy. Demetrios Triboles⁹⁷ could also have possessed this manuscript. The private library of the Medici family acquired the manuscript from Tribolo-

⁹¹ See CCAG 1908, 236.

⁹² Tihon 2006.

⁹³ Gentile 1994, 88-89.

⁹⁴ Pack 1978, 127-130.

⁹⁵ Mercati 1926, 98-99; Pontani 1995, 374; Rollo 2002a, 92, 95, 101 n. 64; Zorzi 2002, 108.

⁹⁶ Rollo 2002b, 47 n. 21.

⁹⁷ PLP 29298.

les' collection. In fact, the Byzantine scholar John Laskaris⁹⁸ reports that in 1491, during a trip to Greece in order to search for manuscripts on behalf of Lorenzo de' Medici, he found a manuscript in the library of Triboles in Arta. The content of that manuscript is very similar to L. After having been acquired for the Medici collection, it was borrowed by Giovanni Pico della Mirandola on 2 October 1493.⁹⁹ It was then discovered by Zanobi Acciaioli, as reported in his note on f. 1v: *Olim Petri de Medicis, repertus inter libros Comitis Iohannis Mirandulanj* ("once of Pietro de' Medici, found among the book of the Earl John of Mirandola."). In sum, the oldest witness to the Greek chiromancy was brought to Italy either by Manuel Chrysoloras or by John Laskaris.

The manuscript J was transcribed by the Byzantine scholar John Abramios and one of his collaborators. Although not a renowned personality, Abramios was very active in astrology, and as such, he might have studied and made use of the text.¹⁰⁰

The manuscript E reports the Greek chiromancy as an independent text for the first time. The treatise appears among Greek astrological texts, which were all copied by the renowned German astronomer Regiomontanus in the second half of the 15th century, between 1461-1467. His antigraphs were the *Marcianus graecus* Z 335 and the above-mentioned M.¹⁰¹ During those years, Regiomontanus was working on behalf of Bessarion in order to accomplish a primer on the *Almagest*, i.e., the renowned *Epitoma Almagesti*, an opus aimed at correcting the errors introduced by the translations of Ptolemy's *magnum opus* into Latin.¹⁰² On this account, Regiomontanus had to strive to improve his knowledge of Greek, in order to read the original text of the *Almagest*. The astrological texts he copied from M to E are evidence of his exercise in learning how to write in Greek. This is confirmed by the several Latin annotations in the margins, by the slow *ductus* he adopted and

⁹⁸ PLP 14536.

⁹⁹ Gentile 1994, 88-89.

¹⁰⁰ Pingree 1971, *passim*.

¹⁰¹ Rigo 1991, 75 n. 173.

¹⁰² Zinner 1968, 51-55, 213-214. See also Shank 2017, 87-98.

by the style of his writing habit: all of this suggests a scribe not well versed in Greek writing. This is also evidence of Regiomontanus' interest in the Greek chiromancy: since he could select the texts for his transcription, he chose the chiromancy out of personal interest. In addition, we can be sure that the codex is his personal copy, for he took it with him later when he settled in Hungary (1467-1471), and then in Nürnberg, Germany (1471-1475), and it was inventorized as part of his estate upon his death. Regiomontanus' astrological interests, as well his practice of astrology, need to be investigated in greater depth. His estate includes some renowned astrological works, such as commentaries on Alcabitius, Manilius's *Astronomica*, and Ptolemy's *Tetrabiblos*.¹⁰³ Furthermore, some astrological methods are ascribed to the astronomer of Königsberg (e.g., the casting of the astrological houses): Valentin Naibod's *Enarratio Elementorum Astrologiae* is an indirect source of the astrological methods of Regiomontanus (cf. *Enarratio* 115–122, 138). Moreover, two Latin chiromancies are attributed to Regiomontanus.¹⁰⁴ Such interests are not surprising: it is well known that all the astronomers of his age practiced astrology so as to make a living. On this account, it is very likely that he paid attention to the Greek chiromancy.

The manuscript N inserts the chiromancy into a selection of rhetorical and philosophical texts, copied by the Byzantine scholar Michael Sophianos¹⁰⁵ and the Italian humanist and collector Gian Vincenzo Pinelli,¹⁰⁶ both active in 16th-century Italy. The scribe of the chiromancy, as yet unrecognized, might be a collaborator of theirs, and this may also suggest the interest of an important Renaissance scholar like Pinelli in the Greek chiromancy.

7. FINAL REMARKS

Although the author of the Greek chiromantic fragment remains anonymous, the opus might originate from antiquity, but nothing ex-

¹⁰³ Zinner 1968, 254.

¹⁰⁴ Craig 1916, xxvi–xxvii.

¹⁰⁵ Meschini 1981.

¹⁰⁶ Grendler 1981.

cludes the possibility that it might be a Byzantine composition – a hypothesis that Boll rejected. The astrological and philosophical knowledge provided in the text does not conflict with the cultural background of Byzantine scholars such as Argyros and Abramios.

Studying the text's reception demonstrates that the Greek chiromancy was considered amid the debates on astrology and chiromancy generated by Italian humanism. For sure, the text piqued the interest of one of the most important astronomers of the 15th century. The dual nature of chiromancy is reflected in its reception: P inserts the text into a selection of physiognomic texts, while L and its family transcribe the text into selections of astronomical and astrological texts.

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BIBLIOGRAPHY

- Bardi, Alberto. 2018. "The *Paradosis* of the Persian Tables. A Source on Astronomy between the Ilkhanate and the Eastern Roman Empire." *Journal for the History of Astronomy* 49.2: 239-260.
- CCAG = Boll, Franz, ed. 1908. *Catalogus Codicum Astrologorum Graecorum*. VII: *Codices Germanicos*. Brussels: Lamertin.
- Craig, Hardin, ed. 1916. *The Works of John Metham: Including the Romance Amoryus and Cleopes*. EETS o.s. 132.
- Gentile, Sebastiano. 1994. "Pico e la biblioteca medicea privata." In *Pico, Poliziano e l'Umanesimo di fine Quattrocento. Biblioteca Medica Laurenziana*, 4 novembre - 31 dicembre 1994, ed. Paolo Viti, 85-101. Firenze: Olschki.
- Grendler, Marcella. 1981. "Book Collecting in Counter-Reformation Italy: The Library of Gian Vincenzo Pinelli (1535-1601)." *Journal of Library History* 16.1: 143-151.
- Martini, Emidio, and Domenico Bassi, eds. 1906. *Catalogus Codicum Graecorum Bibliothecae Ambrosianae*. Tomus II. Mediolani: Hoepli.
- Mercati, Giovanni. 1926. *Scritti d'Isidoro, il cardinale Ruteno e i codici a lui appartenuti che si conservano nella Biblioteca Apostolica Vaticana*. Roma: Biblioteca Apostolica Vaticana.

- Meschini, Anna. 1981. *Michele Sofianòs*. Padova: Liviana.
- Mioni, Elpidio. 1985. *Bibliothecae Divi Marci Venetiarum: Codices Graeci Manuscripti*. Vol. II: *Thesaurus Antiquus. Codices 300-625*. Roma: Instituto Poligrafico e Zecca dello Stato, Libreria dello Stato.
- Mondrain, Brigitte. 2012. "La lecture et la copie de textes scientifiques à Byzance pendant l'époque Paléologue." In *La produzione scritta tecnica e scientifica nel Medioevo: libro e documento tra scuole e professioni. Atti del Convegno internazionale di studio dell'Associazione italiana dei Paleografi e Diplomati*, Fisciano-Salerno, 28-30 settembre 2009, ed. Giuseppe De Gregorio and Maria Galante, 607-632. Spoleto: CISAM.
- Pack, Roger A. 1972. "On the Greek Chiromantic Fragment." *TAPA* 103: 367-380.
- . 1978. "Aristotle's Chiromantic Principle and Its Influence." *TAPA* 108: 121-130.
- Pingree, David. 1971. "The Astrological School of John Abramios." *DOP* 25: 189-215.
- PLP = Trapp, Erich, Rainer Walter, and Hans-Veit Beyer, eds. 1976-1996. *Prosopographisches Lexikon der Palaiologenzeit*. 1-12. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Pontani, Anna. 1995. "Primi appunti sul Malatestiano D.XXVII.1 e sulla biblioteca dei Crisolora." In *Libraria Domini. I manoscritti della Biblioteca Malatestiana: testi e decorazioni*, ed. Fabrizio Lollini and Piero Lucchi, 353-386. Bologna: Grafis.
- Rigo, Antonio. 1991. "Bessarione, Giovanni Regiomontano e i loro studi su Tolomeo a Venezia e Roma (1462-1464)." *Studi Veneziani* 21: 49-110.
- Rollo, Antonio. 2002a. "'Titoli bilingui' e la biblioteca di Manuele Crisolora." *ByzZeit* 95.1: 91-101.
- . 2002b. "Problemi e prospettive della ricerca su Manuele Crisolora." In *Manuele Crisolora e il ritorno del greco in Occidente. Atti del Convegno internazionale (Napoli, 26-29 giugno 1997)*, ed. R. Maisano and Antonio Rollo, 31-85. Napoli: C.I.S.C.S.F.

- Shank, Michael. 2017. "Regiomontanus and Astronomical Controversy in the Background of Copernicus." In *Before Copernicus: The Cultures and Contexts of Scientific Learning in the Fifteenth Century*, ed. Rivka Feldhay and F. Jamil Ragep, 79-109. Montreal, London, Chicago: McGill-Queen's University Press.
- Thurn, Hans, and Oto Stählin. 1980. *Die griechischen Handschriften der Universitätsbibliothek Erlangen*. Wiesbaden: O. Harrassowitz.
- Tihon, Anne. 2006. "Astrological Promenade in Byzantium in the Early Palaiologan Period." In *The Occult Sciences in Byzantium*, ed. Paul Magdalino and Maria Mavroudi, 265-290. Geneva: La Pomme d'or.
- 2009. "Les sciences exactes à Byzance." *Byzantion* 79: 380-434.
- Turyn, Alexander. 1972. *Dated Greek Manuscripts of the Thirteenth and Fourteenth Centuries in the Libraries of Italy*. I. Urbana: University of Illinois Press.
- Zinner, Ernst. 1968. *Leben und Wirken des Joh. Müller von Königsberg, genannt Regiomontanus*. Osnabrück: Zeller.
- Zorzi, Niccolò. 2002. "I Crisolora: personaggi e libri." In *Manuele Crisolora e il ritorno del greco in Occidente. Atti del Convegno internazionale (Napoli, 26-29 giugno 1997)*, ed. Riccardo Maisano and Antonio Rollo, 87-132. Napoli: C.I.S.C.S.F.