

Doctoral Dissertation

**DISCOURSES OF SCIENCE AND PHILOSOPHY IN THE LETTERS OF  
NIKEPHOROS GREGORAS**

by

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*Ο άνθρωπος είναι φτιαγμένος για τα δύσκολα.*

*На моето семейство*

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## LIST OF ABBREVIATIONS

## NIKEPHOROS GREGORAS' WORKS

<i>Phlorentios</i>	Gregoras, Nikephoros. <i>Fiorenzo o intorno alla sapienza</i> . Edited by Pietro Luigi Leone. Byzantina et Neo-Hellenica Neapolitana 4. Napoli: Università di Napoli. Cattedra di filologia bizantina, 1975.
<i>History</i>	<i>Nicephori Gregorae Byzantina historia</i> . Edited by Ludwig Schopen and Immanuel Bekker. 3 vols. CSHB 6-8. Bonn: Weber, 1829–1855.
<i>Letters</i>	<i>Nicephori Gregorae epistulae</i> . Edited by Pietro Luigi Leone. 2 vols. Martino: Tipografia di Martino, 1982–1983.
<i>ONS</i>	<i>On the Number Seven</i> . Sbordone, Francesco. “L’ebdomadario di Niceforo Gregora.” <i>Rivista indo-greco-italica</i> 20 (1936): 125–42.
<i>Solutions</i>	<i>Solutions to Philosophical Problems</i> . Leone, Pietro Luigi. “Nicephori Gregorae ‘Antilogia’ et ‘Solutiones quaestionum.’” <i>Byz</i> 40 (1970): 471–516.

## OTHER COMMONLY CITED TEXTS

<i>Op.</i>	<i>De opificio mundi</i> . Joannis Philoponi <i>De opificio mundi libri vii</i> . Edited by Walther Reichardt. Leipzig: B.G. Teubner, 1897; Philo. <i>On the Account of the World’s Creation Given by Moses</i> . Translated by F. H. Colson and G. H. Whitaker. Reprint 2004. Vol. I. LCL 226. Cambridge, MA: Harvard University Press, 1929.
<i>ThA</i>	<i>Theologoumena arithmētikēs</i> . Iamblichus. <i>Theologoumena arithmeticae</i> . Edited by Vittorio de Falco. Leipzig: Teubner, 1922.

## BIBLIOGRAPHICAL ABBREVIATIONS

<i>ArchPont</i>	Ἀρχεῖον Πόντου
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BHG	Halkin, François, ed. <i>Bibliotheca Hagiographica Graeca</i> . Subsidia Hagiographica, 47. Bruxelles: Société des bollandistes, 1969.
BMCR	<i>Bryn Mawr Classical Review</i>
BMGS	<i>Byzantine and Modern Greek Studies</i>
Byz	<i>Byzantion</i>
BZ	<i>Byzantinische Zeitschrift</i>
CAG	<i>Commentaria in Aristotelem Graeca</i>
CCAG	<i>Catalogus Codicum Astrologorum Graecorum</i>
CCSG	<i>Corpus Christianorum, Series graeca</i>
CAB	<i>Corpus des Astronomes Byzantins</i>
CQ	<i>Classical Quarterly</i>
CR	<i>Classical Review</i>
CSHB	<i>Corpus Scriptorum Historiae Byzantinae</i>
DNP	Cancik, Hubert, and Helmuth Schneider, eds. <i>Der neue Pauly: Enzyklopädie der Antike</i> . 16 vols. Stuttgart: J.B. Metzler, 1996.
DOP	<i>Dumbarton Oaks Papers</i>
DOS	<i>Dumbarton Oaks Studies</i>
DOT	<i>Dumbarton Oaks Texts</i>
EEBS	Ἑπετηρίς Ἑταιρείας Βυζαντινῶν Σπουδῶν
GRBS	<i>Greek, Roman, and Byzantine Studies</i>
Hell	Ἑλληνικά
JHA	<i>Journal for the History of Astronomy</i>
JÖB	<i>Jahrbuch der Österreichischen Byzantinistik</i>
LCL	<i>Loeb Classical Library</i>

<i>Maked</i>	<i>Μακεδονικά</i>
<i>MEG</i>	<i>Medioevo Greco. Rivista di storia e filologia bizantina</i>
<i>ODB</i>	Kazhdan, A. P., ed. <i>The Oxford Dictionary of Byzantium</i> . 3 vols. New York: Oxford University Press, 1991
<i>PG</i>	Migne, Jacques-Paul, ed. <i>Patrologiae cursus completus, series graeca</i> . 161 vols. Paris: J.-P. Migne, 1857
<i>Pinakes</i>	Pinakes: Textes et manuscrits grecs database ( <a href="http://pinakes.irht.cnrs.fr">http://pinakes.irht.cnrs.fr</a> )
<i>PLP</i>	Trapp, Erich, Rainer Walther, Hans-Veit Beyer, and Christian Gastgeber. <i>Prosopographisches Lexikon der Palaiologenzeit CD ROM Version</i> . Vienna: Verlag der Österreichische Akademie der Wissenschaften, 2001.
<i>REB</i>	<i>Revue des Études Byzantines</i>
<i>REG</i>	<i>Revue des Études Grecques</i>
<i>RGK</i>	Gamillscheg, Ernst, Dieter Harlfinger, and Herbert Hunger, eds. <i>Repertorium der griechischen Kopisten, 800-1600</i> . 3 vols. Veröffentlichungen der Kommission für Byzantinistik. Vienna: Verlag der Österreichischen Akademie der Wissenschaften, 1981– .
<i>RSBN</i>	<i>Rivista di Studi Byzantini e Neoellenici</i>
<i>Script</i>	<i>Scriptorium</i>
<i>SeT</i>	<i>Segno e Testo</i>
<i>TAPS</i>	<i>Transactions of the American Philosophical Society</i>
<i>Tusc.</i>	Buchwald, Wolfgang, Armin Hohlweg, and Otto Prinz, eds. <i>Tusculum-Lexikon griechischer und lateinischer Autoren des Altertums und des Mittelalters</i> . Darmstadt: Wissenschaftliche Buchgesellschaft, 1982.
<i>WBS</i>	Wiener Byzantinistische Studien
<i>ZRVI</i>	<i>Zbornik Radova Vizantološkog Instituta</i>



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## INTRODUCTION

For us the description of the almond tree blossomed,  
 <The description> which teems with certain novel grace of style,  
 Delivering sweetness at the right time  
 To those who suffer strongly from a rather bitter phlegm.  
 For with the purity of its design  
 And with the sweetness of its arguments  
 It spouted Thasian milk against debility,  
 Removing the rather bitter disease of the flesh.  
 The sweet Nikephoros <is> truly a Galen,  
 As he is refreshing the weak with wise reasoning.<sup>1</sup>

Gregory Akindynos composed this short verse in praise of the encomium of the almond tree written by the Constantinopolitan scholar Nikephoros Gregoras (d. ca. 1360), a prominent figure on the fourteenth-century Byzantine intellectual scene, whose views on mathematics, astronomy, and philosophy are the subject of the present dissertation. Gregoras is well-known to modern scholars as the author of a major work on Byzantine history for the period from 1204 until ca. 1359. Recently, more attention has been brought to his saints' lives and homiletic works, as Gregoras was also one of the most prominent Palaiologan writers of hagiography.<sup>2</sup> Theologians recognize him as a determined opponent

<sup>1</sup> Silvio Giuseppe Mercati, "Sulle poesie di Niceforo Gregora," in *Collectanea Byzantina*, by Silvio Giuseppe Mercati, vol. 1 (Bari: Edizioni Dedalo, 1970), 151, lines 1-10: Ἀμυγδαλῆς ἦνθησεν ἡμῖν ἡ φράσις/ καινὴν τινα βρύουσα λέξεως χάριν,/ τὴν κατὰ καιρὸν ἀποδιδούσα δρόσον/ πάσχουσι δεινῶς ἐκ δριμυτέρας ὕλης/ τῷ γὰρ καθαρῷ τῶν ἐπιτηδευμάτων/ καὶ τῷ γλυκασμῷ τῶν ἐπιχειρημάτων/ ἀκрасίας [sic] ἔβλυσε θάσιον γάλα,/ ἔμπικρον ἐξαίρουσα σαρκίου νόσον./ ὧντως Γαληνὸς ὁ γλυκὺς Νικηφόρος/ σοφοῖς λογισμοῖς ἀσθενεῖς ἀναψύχων. Throughout the dissertation I use square brackets to denote omissions from the quoted source text and angle brackets to indicate my own insertions in the original. In the case of quotations from secondary literature in modern languages, additions for the sake of clarification are inserted in square brackets.

<sup>2</sup> Iliana Paraskeuopoulou, *Το Αγιολογικό και Ομιλητικό Έργο του Νικηφόρου Γρηγορά, Βυζαντινά κείμενα και μελέτες* = Byzantine Texts and Studies 59 (Thessaloniki: Κέντρο Βυζαντινών Ερευνών, 2013); Martin Hinterberger, "Les vies des saints du XIV<sup>e</sup> siècle en tant qu'œuvre littéraire: l'œuvre hagiographique de Nicéphore Grégoras," in *Les vies des saints à Byzance. Genre littéraire ou biographie historique? Actes du II<sup>e</sup> colloque international philologique "ΕΡΜΗΝΕΙΑ" Paris, 6-7-8 juin 2002 organisé par l'E.H.E.S.S. et l'Université de Chypre*, ed. P.

of Palamism, while philosophers emphasize the skeptical tendencies he inherited from his mentor Theodore Metochites. Indeed, he was also a prolific letter-writer and one of the few scholars in early Palaiologan Byzantium competent in mathematics and astronomy. Remarkably, however, despite the preservation of his large œuvre and the availability of critical editions a number of aspects of Gregoras' thought remain under-researched. Notably, his epistolary corpus, though edited rather recently (in 1982–1983), still lacks a comprehensive study. In addition, even those parts of Gregoras' œuvre that were examined more thoroughly, such as his astronomical works, for instance, have usually been approached from a single perspective, mostly as valuable source material for the history, intellectual or else, of Palaiologan Byzantium. Therefore, it is the goal of the present dissertation to examine the corpus of Gregoras' letters and on their basis, to reevaluate the existing scholarly perspectives on his intellectual legacy. Importantly, my analysis focuses on Gregoras' preoccupations with mathematical sciences and philosophy and the integration of his specialized knowledge with epistolary rhetoric.

Science and philosophy in Palaiologan Byzantium lacked the institutional framework, established educational curriculum, and system of specialized literary genres which were provided in the west of medieval Europe by the existence of universities and the rise of scholasticism.<sup>3</sup> Thus, the study of Byzantine discourse of knowledge, scientific and philosophical, presents a number of methodological difficulties. As far as mathematics, astronomy, and harmonic theory are concerned, the specificity of the subject matter and

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Odorico and P. A. Agapitos, *Dossiers Byzantins 4* (Paris: Centre d'études byzantines, néo-helléniques et sud-est européennes, École des Hautes Études en Sciences Sociales, 2004), 281–301; Alice-Mary Talbot, "Hagiography in Late Byzantium (1204–1453)," in *The Ashgate Research Companion to Byzantine Hagiography*, ed. Stephanos Efthymiadis, vol. 1: Periods and Places, 2 vols., Ashgate Research Companion (Farnham, Surrey, England; Burlington, VT: Ashgate, 2011), 173–95.

<sup>3</sup> Costas Constantinides, *Higher Education in Byzantium in the Thirteenth and Early Fourteenth Centuries (1204 - ca. 1310)*, Texts and Studies of the History of Cyprus, XI (Nikosia: Cyprus Research Centre, 1982); Anne Tihon, "Enseignement scientifique à Byzance," *Organon* 24 (1988): 89–108; Sophia Mergiali, *L'enseignement et les lettres pendant l'époque des paléologues*, Kentron Ereunēs Vyzantiou 5 (Athens: Hetaireia tōn Philōn tou Laou, 1996); Daniele Bianconi, "Eracle e Iolao. Aspetti della collaborazione tra copisti nell'età dei Paleologi," *BZ* 96 (2003): 521–58.

the required technical expertise render the selection of source material easier than in the case of philosophy. At the same time, however, though very useful for the history of science, Byzantine technical astronomical treatises rarely include substantial discussions concerning the status of astronomy as a branch of knowledge, its importance or the value of its object of study.<sup>4</sup> That is to say, based on technical discussions alone, it is rather difficult to explore Byzantine attitudes towards scientific knowledge. Bearing in mind the revival of mathematical astronomy and astrology, the increased production of scientific books, as well as the scholarly debates on astronomical issues during the Palaiologan period, it is important to examine further the status of the sciences and the discourse of astronomy in particular, in order to achieve a fuller understanding of the Palaiologan intellectual culture.<sup>5</sup>

Astronomy examined part of the natural world and thus, its subject matter overlapped with those of physics and cosmology, both part of the larger philosophical discourse. Therefore, in my inquiry, I have found appropriate to juxtapose Gregoras' astronomical and philosophical letters with respect to one of the main research questions my dissertation intends to answer, namely, what Gregoras' epistemological position was. Gregoras considered the natural world and the realm of human affairs as unsteady and chaotic, easily influenced by chance and fortune and thus, characterized by randomness. Therefore, according to him, human knowledge of the natural world was limited and

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<sup>4</sup> One notable exception being the *Elements of Astronomy* by Nikephoros Gregoras' mentor Theodore Metochites. See Börje Bydén, *Theodore Metochites' Stoicheiosis Astronomike and the Study of Natural Philosophy and Mathematics in Early Palaiologan Byzantium*, *Studia Graeca et Latina Gothoburgensia* 66 (Göteborg: Acta Universitatis Gothoburgensis, 2003).

<sup>5</sup> On the revival of the mathematical sciences in Palaiologan Byzantium, see David Pingree, "Gregory Chionides and Palaeologan Astronomy," *DOP* 18 (1964): 133–60; David Pingree, "The Astrological School of John Abramius," *DOP* 25 (1971): 189–215; Anne Tihon, "L'astronomie byzantine à l'aube de la Renaissance (de 1352 à la fin du XV<sup>e</sup> siècle)," *Byz* 66 (1996): 244–80; David Pingree, "Some Fourteenth-Century Byzantine Astronomical Texts," *JHA* 29 (1998): 103–8; Bydén, *Theodore Metochites' Stoicheiosis Astronomike*; Anne Tihon, "Astrological Promenade in Byzantium in the Early Palaiologan Period," in *The Occult Sciences in Byzantium*, ed. Paul Magdalino and Maria Mavroudi (Geneva: La Pomme d'or, 2006), 265–90; Paul Magdalino, *L'orthodoxie des astrologues: la science entre le dogme et la divination à Byzance, VII<sup>e</sup>-XIV<sup>e</sup> siècle* (Paris: Lethielleux, 2006); Anne Tihon, "Les sciences exactes à Byzance," *Byz* 79 (2009): 380–434.

uncertain. At the same time, however, in his epistolary discussions of astronomy and friendship, he emphasized occurrences of certainty within the realm of the creation. The object of astronomical studies, for instance, the heavenly bodies and their movements, were seen as suitable for achieving true knowledge, as they moved regularly and their positions could be predicted with the help of mathematical calculations. With regard to maintaining the bond of friendship, a relationship which according to the epistolary convention was based on the equality and similarity of the correspondents, Gregoras argued that the friends could resist the tyranny of the changing fortune and, thus, remain united. Finally, the possibilities for acquiring knowledge and certainty, in Gregoras' view, were strengthened by the regulating role of divine providence which counterbalanced the influence that spontaneity and fortune could effectuate on human freedom of choice.

It is important to note that all of Gregoras' letters which discuss astronomical matters are polemical. Thus, *Part II: Justifications of Astronomy* of the present dissertation inquires into the status of astronomical studies in the early Palaiologan period and discusses various strategies Gregoras employed in order to justify the value of this mathematical science. In this section, in addition to the analysis of the relevant letters, I also introduce a little-known arithmological work by Gregoras, namely *On the Number Seven*, whose content and structure reflect his preoccupation with demonstrating the value and usefulness of astronomical knowledge.

The second major line of inquiry in the present dissertation explores the integration of epistolary and philosophical discourses and experiments with a novel definition of the 'philosophical letter'. None of Gregoras' letters is a philosophical essay in letter form. In addition, only two of them can be read, at least partially, as didactic philosophical letters. Thus, *Part III: Letters and Philosophy* begins by reevaluating the existing scholarly approaches to philosophical letter-writing in Byzantium. It proceeds by analyzing Byzantine epistolary theory and unravels philosophical premises inherent to its canon and related to Byzantine

theory of friendship. Finally, based on three case studies of Gregoras' letters, it demonstrates different strategies Gregoras employed in order to problematize both the premises of epistolography and theory of friendship, thus in fact, integrating rhetorical and philosophical discourses. Importantly, the third case study is based on a mathematical letter which is a letter of friendship and not a polemical one. Thus, its example illustrates not only a particular epistolary strategy, but also the integration of technical scientific material with the epistolary discourse of friendship as opposed to the characteristics of an invective in a letter form as the missives discussed in *Part II* do.

Finally, in order to contextualize and complement the inquiry concerning Gregoras' scientific and philosophical positions with respect to knowledge and friendship, the present dissertation also surveys Gregoras' epistolary corpus as a whole. Thus, in *Part I: Nikephoros Gregoras' Epistolary Collection* I discuss the manuscript tradition of Gregoras' letters and raise a number of questions concerning its modern editions. In addition, Gregoras' epistolary corpus is contextualized within the framework of Gregoras' 'library' and I offer a survey of the manuscripts which illustrate Gregoras' readership of scientific and philosophical texts.

It has been frequently stated in studies of medieval letter-writing that in addition to the study of individual letters, either single letters or groups of such, in the immediate, i.e. original context of their composition, one should also focus on their newly acquired, secondary context and function, following the act of their publication, after revision, and in the form of epistolary collection.<sup>6</sup> In addition to this approach, in the present study I consider Gregoras' individual letters in the context of and as an integral part of his literary corpus. This method is further justified by the fact that Gregoras' letters do not appear as a systematic collection in the fourteenth-century manuscripts that transmit them. On the

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<sup>6</sup> See, for instance, Alexander Riehle, "Funktionen der byzantinischen Epistolographie. Studien zu den Briefen und Briefsammlungen des Nikephoros Chumnos (ca. 1260–1327)," PhD diss. (Ludwig Maximilian University, 2011).

contrary, they are intermingled with the remainder of his writings and are seemingly treated equally, i.e. as a literary product in each individual case. Thus, if a letter is not necessarily distinguished as such, its treatment as an epistolary text requires a justification. I address this issue in my discussion of Gregoras' *Hortatory Letter Concerning Astronomy* which, unlike other epistles which were transmitted both independently and as part of Gregoras' *Roman History*, was not included in the modern critical edition of Gregoras' correspondence.

Letter-writing in Byzantium served a range of practical purposes and social objectives.<sup>7</sup> Letters usually accompanied gifts, or were themselves perceived as a gift.<sup>8</sup> They were used to establish and sustain various types of social relationships; they promoted the interests of an individual or a group, served as instructional texts or simply demonstrated their authors' erudition and gracious rhetorical style.<sup>9</sup> Then, one wonders, how a letter, fully devoted to a discussion of a mathematical problem could perform some of these functions? Gregoras did not spare his addressees either the intricacies of Platonic cosmology or the errors of Aristotelian philosophy, or the details concerning the

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<sup>7</sup> Stratis Papaioannou, "Letter-Writing," in *The Byzantine World*, ed. Paul Stephenson, Routledge Worlds (London; New York: Routledge, 2010), 188–99.

<sup>8</sup> On practice of gift-giving in Byzantium and the role of the accompanying letters, see Apostolos Karpozilos, "Realia in Byzantine Epistolography XIII–XV c.," *BZ* 88, no. 1 (1995): 68–84; Floris Bernard, "Exchanging *Logoi* for *Aloga*: Cultural Capital and Material Capital in a Letter of Michael Psellos," *BMGS* 35, no. 2 (2011): 134–48; Floris Bernard, "Gifts of Words: The Discourse of Gift-Giving in Eleventh-Century Byzantine Poetry," in *Poetry and Its Contexts in Eleventh-Century Byzantium*, ed. Floris Bernard and K. Demoen (Farnham; Burlington: Ashgate, 2012), 3–15.

<sup>9</sup> On the various social and literary functions of letter-writing, see for instance Apostolos Karpozilos, "The Correspondence of Theodoros Hyrtakenos," *JÖB* 40 (1990): 275–94; Margaret Mullett, *Theophylact of Ochrid: Reading the Letters of a Byzantine Archbishop*, Birmingham Byzantine and Ottoman Monographs, vol. 2 (Aldershot; Brookfield, Vt.: Variorum, 1997; Franz Tinnefeld, "Zur Entstehung von Briefsammlungen in der Palaiologenzeit," in *Polypheuros nous: Miscellanea für Peter Schreiner zu seinem 60. Geburtstag*, ed. Cordula Scholz and Georgios Makris, *Byzantisches Archiv* 19 (Munich: Saur, 2000), 365–81; Franz Tinnefeld, *Die Briefe des Demetrios Kydones: Themen und literarische Form*, Mainzer Veröffentlichungen zur Byzantinistik, 11 (Wiesbaden: Harrassowitz, 2010); Alexander Riehle, "Funktionen der byzantinischen Epistolographie. Studien zu den Briefen und Briefsammlungen des Nikephoros Chumnos (ca. 1260–1327)"; Niels Gaul, *Thomas Magistros und die spätbyzantinische Sophistik: Studien zum Humanismus urbaner Eliten der frühen Palaiologenzeit*, Mainzer Veröffentlichungen zur Byzantinistik 10 (Wiesbaden: Harrassowitz, 2011); Stratis Papaioannou, *Michael Psellos: Rhetoric and Authorship in Byzantium* (Cambridge: Cambridge University Press, 2013).

calculation of a solar eclipse or the solution of a mathematical problem. How does one praise a friend when talking about the number five? And how does one reconnect with an old friend by disagreeing with Aristotle's theory of friendship?

The present dissertation aims also to answer a more general question which has been formulated by Morello and Morrison: "What purpose is served by casting any text in epistolary form and what epistolary features make the letter form especially attractive wherever another form might be available to the writer?" This question is even more pertinent if one takes into account the set of prescriptions concerning the epistolary style and topics, formulated by Demetrius, in his treatise *On Style*, composed probably around the first century BCE and subsequently carried over and eventually applicable to the majority of the Byzantine letters. Demetrius writes that:

We must [...] remember that there are epistolary topics, as well as an epistolary style. If anybody should write of *logical subtleties* or *questions of natural history* in a letter, he writes indeed, but not a letter. A letter is designed to be the heart's good wishes in brief; *it is the exposition of a simple subject in simple terms*. Its beauty consists in the expressions of friendship and the many proverbs which it contains. *This last is the only philosophy admissible in it, the proverb being common property and popular in character.*"<sup>10</sup>

Indeed, Gregoras was not the first to break Demetrius' rule and to include more than proverbs in his letters. For instance, as Kiapidou has shown with respect to Michael Glykas' collection of ninety-five texts (the twelfth century), Demetrios Chomatenos' *Ponemata diaphora*, and Photios' epistles, even though the authors in question were aware of the requirements of the epistolary genre, they, nevertheless, often neglected the criterion for conciseness and composed lengthy, treatise-worthy letters.<sup>11</sup>

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<sup>10</sup> W. Rhys Roberts, ed., *Demetrius On Style: The Greek Text of Demetrius' De elocutione*, trans. W. Rhys Roberts (Cambridge: Cambridge University Press, 2010): lines 230-233. [italics mine]

<sup>11</sup> Eirini-Sophia Kiapidou, "Chapters, Epistolary Essays and Epistles. The Case of Michael Glykas' Collection of Ninety-Five Texts in The 12<sup>th</sup> Century," *Parekbolai* 3 (2013): 45-64.



Within the conceptual framework of the present study, I refer to a number of Gregoras' letters as astronomical. This designation is based on their subject matter and does not take into account the literary features of the letter. None of Gregoras' astronomical and philosophical letters could be classified as 'purely' didactic or as epistolary essays. In fact, as the examples discussed in *Part II: Justifications of Astronomy* illustrate Gregoras' astronomical letters either employ rhetoric of praise or are composed as invectives against rival scientists. Nevertheless, they also refer to technical astronomical knowledge and often mention details of Gregoras' calculations of lunar and solar eclipses. Finally, they include discussions concerning the importance of astronomy and the relevance of its objects and methods of inquiry. On such grounds, I classify as astronomical the following letters, in addition to the *Hortatory Letter* to Metochites and the letter to Kabasilas concerning the date of Easter: *Letter 28* to a friend *Against Those Who Calumniate Astronomy*; *Letter 40* to Pepagomenos which features a discussion of incorrect astronomical predictions; *Letter 53* to John Chrysoloras on the study of past and future solar eclipses; *Letter 69* to an unknown addressee which discussed the influence of the heavenly phenomena on the terrestrial events; *Letter 103* to Michael Kaloeidas which provides a prediction of solar eclipses; *Letter 114* to Michael Kaloeidas which mentions Gregoras' proposal for reform of the calendar; *Letter 140* addressed either to Leontios or to Kleodemos in which Gregoras stated the value of astronomy, and *Letter 148* to Demetrios Kabasilas which incorporates a section of the nature of the sun and of fire Gregoras inserted also in his *Solutions to Philosophical Problems* (Λύσεις ἀποριῶν).<sup>12</sup> As for mathematical letters, only one of Gregoras' preserved epistles addresses a mathematical subject, namely, *Letter 6* to an

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<sup>12</sup> For other categorizations of Gregoras' astronomical letters, see Nikephoros Gregoras, *Rhomäische Geschichte. Historia Rhomaike*, trans. Jan Louis van Dieten, vol. 1, 6 vols., Bibliothek der griechischen Literatur, 4 (Stuttgart: Anton Hiersemann, 1973), 50-53. See also Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, ed. Anne Tihon and Joseph Mogenet (Louvain: Éditions Peeters, 1977); Nikephoros Gregoras, *Calcul de l'éclipse de Soleil du 16 juillet 1330*, ed. Joseph Mogenet, Anne Tihon, Robert Royez, and Anne Berg, CAB 1 (Amsterdam: J.C. Gieben, 1983). For the edition of the *Solutions to Philosophical problems*, see Pietro Luigi Leone, "Nicephori Gregorae 'Antilogia' et 'Solutiones quaestionum,'" *Byz* 40 (1970): 471-516. (Hereafter: Gregoras, *Solutions*.)

unknown correspondent which deals with the relationships between two consecutive square numbers and discusses the nature of the gnomon.

The second major group of letters studied in the present dissertation are Gregoras' philosophical letters. In *Part III: Letters and Philosophy* I have discussed at length both the existing scholarship and my own position of the relationship between philosophical and epistolary discourses and I have clarified how a philosophical letter is defined for the purposes of the present study. Thus, here I limit myself to the list of Gregoras' letters I read as philosophical: *Letter 3* to an unknown correspondent concerning the divine names and written in the context of Gregoras' anti-Palamite polemic which is also a valuable source for Gregoras' reading of Plotinus and Pseudo-Dionysios the Areopagite; *Letter 12* to Matthew Kantakouzenos which features a digression concerning the harmonic articulation of the creation through juxtaposition of same and different; *Letter 34* to Maximos Magistros and *Letter 42* to Helena Kantakouzene Palaiologina, both dealing with the topic of spontaneity and fortune; finally, *Letter 46* to Joseph the Philosopher and *Letter 134* to Ignatios Glabas in which Gregoras addresses the Aristotelian theory of friendship.<sup>13</sup>

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<sup>13</sup> For other categorizations of Gregoras' philosophical and theological letters, see Nikephoros Gregoras, *Rhömäische Geschichte*, vol. 1, 50-53; Nikephoros Gregoras, *Antirrhetika I*, ed. Hans-Veit Beyer, WBS 12 (Vienna: Österreichische Akademie der Wissenschaften, 1976). (Hereafter: Gregoras, *Antirrhetika I*.)

## PART I: NIKEPHOROS GREGORAS' EPISTOLARY COLLECTION

The main intention of *Part I* is to provide the necessary contexts for the detailed analysis of Gregoras' astronomical and philosophical letters which is developed in *Parts II* and *III*. To that objective, it is structured in four sections. The first two chapters provide the necessary historiographical surveys of Gregoras' biography and of his œuvre. *Chapter 3* outlines a reconstruction of Gregoras' 'library', that is it lists the relevant manuscripts associated with Gregoras' activity as a copyist, reader, compiler, and commentator. Therefore, it intends to illustrate the educational and intellectual background which informed Gregoras' own scholarly production. Consequently, its footnotes feature detailed information as to the pertaining palaeographical and codicological research related to Gregoras and his involvement in manuscript production and annotation. The final fourth chapter narrows down onto Gregoras' epistolary corpus, its own manuscript tradition and its modern editions. Its intention is to assess critically some of the editorial choices associated with Gregoras' letters, but also to serve as a prelude to the in-depth discussion of the epistolary discourses of science and philosophy in *Parts II* and *III* respectively.

### Chapter 1: Nikephoros Gregoras. Biographical Sketch

Nikephoros Gregoras (ca. summer 1293/June 1294–1358/1361)<sup>14</sup> was born in Hērakleia

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<sup>14</sup> PLP 4443; *Tusc.*, 134-136; ODB II, 874-875; RGK II 416; RGK III 491. For arguments concerning the dates of Gregoras' life, see Hans-Veit Beyer, "Eine Chronologie der Lebensgeschichte des Nikephoros Gregoras," *JÖB* 27 (1978): 127-55. See also V. Grecu, "Das Geburtsjahr des byzantinischen Geschichtsschreibers Nikephoros Gregoras," *Académie Roumaine, Bulletin de la Section historique* 27 (1946): 56-61. For a comprehensive, though outdated, account of Gregoras' life, see Rodolphe Guiland, *Essai sur Nicéphore Grégoras: l'homme et l'œuvre* (Paris: P. Geuthner, 1926). One of the most useful biographical accounts, however, as well as a catalogue and concise description of Gregoras' works is found in Nikephoros Gregoras, *Rhomäische Geschichte*, vol. 1, 1-62. For useful bibliography of primary source literature, though omitting the ONS, see Dimitrios Moschos, *Πλατωνισμός ή χριστιανισμός; Οί φιλοσοφικές προϋποθέσεις του Άντισυγχασμού του Νικηφόρου Γρηγορά (1293-1361)* (Athens: Ekdoseis Parousia, 1998). For updated bibliography on Gregoras, see A. G. Dunaev, "Nicephorus Gregoras," in *Hesychasm: An Annotated Bibliography*, ed. Sergey S. Horujy (Moscow: Izdatel'skiy Sovet Russkoy Pravoslavnoy

Pontikē in Asia Minor (today's Karadeniz Ereğli) and, orphaned at an early age (since at least 1304), received his initial education by his maternal uncle John, metropolitan of Hērakleia.<sup>15</sup> After John's death in 1328, Gregoras wrote his *Life*.<sup>16</sup> Praises of his *patris*, Hērakleia, feature frequently in Gregoras' letters, and he maintained correspondence with some of his compatriots, for instance, with Maximos, the *hēgoumenos* of the Chortaïtes monastery<sup>17</sup> near Thessaloniki,<sup>18</sup> the addressee of four of Gregoras' letters (*Letters* 20ab, 21, 36 and 100ab<sup>19</sup>). In addition, Gregoras composed a eulogy of Hērakleia Pontikē.<sup>20</sup> Around

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Tserkvi, 2004), 369–76. Bydén dates Gregoras' birth to ca. 1293 or 1294, while Paraskeuopoulou refers to a dating around ca. 1295 in one of the most recent publications dealing with Gregoras' hagiographical and homiletic works. See Börje Bydén, "The Criticism of Aristotle in Nikephoros Gregoras' *Florentius*," in *ΔΩΠΟΝ ΡΟΔΟΠΟΙΚΙΛΑΟΝ: Studies in Honour of Jan Olof Rosenqvist*, ed. Denis M. Searby, Ewa Balicka-Witakowska, and Johan Heldt, Acta Universitatis Upsaliensis. Studia Byzantina Upsaliensia 12 (Uppsala: Uppsala Universitet, 2012), 107–22; Paraskeuopoulou, *Το Αγιολογικό και Ομιλητικό Έργο του Νικηφόρου Γρηγορά*.

<sup>15</sup> PLP 8609. On John of Hērakleia, see Vitalien Laurent, "La personnalité de Jean d' Héraclée (1250–1328), oncle et précepteur de Nicéphore Grégoras," *Hell* 3, no. 2 (1930): 297–315.

<sup>16</sup> Vitalien Laurent, "La vie de Jean, Métropolitte d' Heraclée du Pont," *ArchPont* 6 (1935): 29–63.

<sup>17</sup> Though the foundation date of the monastery is unknown, lead seals associated with the monastery are preserved. For instance, iconographic similarities suggest that the seal of Euthymios, dated either to the eleventh or to the twelfth century, belonged to a monk from the Chortaïtes monastery. See John W. Nesbitt and Nicolas Oikonomidès, eds., *Catalogue of Byzantine Seals at Dumbarton Oaks and in the Fogg Museum of Art*, Dumbarton Oaks Catalogues (Washington, D.C: Dumbarton Oaks Research Library and Collection, 1991), no. 120. Dendrochronological analysis has dated samples from the Chortaïtes monastery to 1377. See Peter Ian Kuniholm and Cecil L. Striker, "Dendrochronological Investigations in the Aegean and Neighboring Regions, 1977–1982," *Journal of Field Archaeology* 10, no. 4 (1983): 416. Chortaïtes was in fact an imperial foundation and it held various properties in the region of Macedonia and in Thessaloniki. Records of property exchanges between Chortaïtes and the Athonite monastery of Ivron are preserved in one incomplete act signed ca. 1320, as well as in a chrysobull from 1351 issued to the monastery of Ivron. See Alexander Kazhdan, "The Italian and Late Byzantine City," *DOP* 49 (1995): 14; Christophe Giros, "Présence Athonite à Thessalonique, XIII<sup>e</sup>-XV<sup>e</sup> Siècles," *DOP* 57 (2003): 265–78. It is also known that the monastery supported a *metochion* on the north-east side of Thessaloniki. See Raymond Janin, *Les églises et les monastères des grands centres byzantins: Bithynie, Hellespont, Latros, Galèsios, Trébizonde, Athènes, Thessalonique*, Géographie ecclésiastique de l'Empire byzantin, 2 (Paris: Institut français d'études byzantines, 1975), 414.

<sup>18</sup> PLP 16785.

<sup>19</sup> *Nicephori Gregorae Epistulae*, ed. Pietro Luigi Leone, 2 vols. (Matino: Tipografia di Matino, 1982–1983). (Hereafter: Gregoras, *Letters*.) From *Letters* 20ab and 21 it becomes clear that both Maximos and Gregoras originate from Hērakleia Pontikē. *Letters* 20a, 21 and 36 address the topics of love towards the fatherland, its praise, its glory as well as the life far from it. Notably, in *Letter* 21 Gregoras named Maximos one of Hērakleia' jewels, a notable man who by his actions glorified his fatherland just like Pythagoras, Orpheus, Lykourgos, and Minos. Since Maximos was *hēgoumenos* of the Chortaïtes at some point around the period between 1321 and 1328, one may assume that the four letters Gregoras sent to him were presumably written during that time.

1314 or 1315, i.e. around the age of twenty, Gregoras had already moved to Constantinople in order to continue his studies. His teacher of logic and rhetoric was the future patriarch John XIII Glykys (12 May 1315–11 May 1319)<sup>21</sup>, while by 1316, his mentor became the *megas logothetēs* Theodore Metochites (1270–1332)<sup>22</sup>. Though initially reluctant, Metochites eventually initiated Gregoras in the study of astronomy.

During the 1320s, besides tutoring Metochites' children, with the patronage of emperor Andronikos II (r. 1282–1328)<sup>23</sup> and the support of his prime minister Metochites, Gregoras began studying Ptolemy (fl. mid-second century CE) and at some point between 1322 and 1325, most probably in 1324, he proposed to Andronikos II a calendar reform related to the calculation of the date of Easter,<sup>24</sup> similar to the one adopted in 1582 by Pope Gregory XIII. David Pingree pointed out, however, that Gregoras' observations “merely confirmed a parameter which had been known in Byzantium for at least two and a half

<sup>20</sup> Cf. Constantin Sathas, “Nicéphore Grégoras, éloge de la ville d'Héraclée du Pont, d'après Memnon, etc.; texte inédit,” REG 14 (1880): 217–24.

<sup>21</sup> PLP 4271.

<sup>22</sup> PLP 17982.

<sup>23</sup> PLP 21436.

<sup>24</sup> For an introductory overview of Byzantine calendar, as well as for a partial list of solar eclipses observed in Byzantium, see Robert Russell Newton, *Medieval Chronicles and the Rotation of the Earth* (Baltimore: Johns Hopkins University Press, 1972), 515–559. Concerning the importance of calculating the date of Easter, see Pavel Kuzenkov, “Correction of the Easter Computus: Heresy or Necessity? Fourteenth Century Byzantine Forerunners of the Gregorian Reform,” in *Orthodoxy and Heresy in Byzantium. The Definition and the Notion of Orthodoxy and Some Other Studies on the Heresies and the Non-Christian Religions*, ed. Antonio Rigo, Quaderni di Néa 'Ρώμη 4 (Rome: Università degli Studi di Roma “Tor Vergata,” 2010), 147–58. On the dating of Gregoras' proposal for a calendar reform, see Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 151; Theodore Metochites, *Two Poems*, ed. and trans. Ihor Ševčenko and Jeffrey Featherstone (Brookline, MA: Hellenic College Press, 1981), 7. Krumbacher has dated the reform proposal to 1325, while Nikolaides pins it to 1326. See Karl Krumbacher, *Geschichte der byzantinischen Litteratur: von Justinian bis zum Ende des oströmischen Reiches, 527-1453*, Handbuch der klassischen Altertumswissenschaft 9, 1 (Munich: Beck, 1897), 293–294; E. Nikolaides, *Science and Eastern Orthodoxy: From the Greek Fathers to the Age of Globalization*, Medicine, Science, and Religion in Historical Context (Baltimore, Maryland: Johns Hopkins University Press, 2011), xvi. For more secondary literature accounts on the same subject, see Efstratios Th. Theodossiou, Vassilios N. Manimanis, Milan S. Dimitrijević, and Emmanuel Danezis, “Nicephoros Gregoras: The Greatest Byzantine Astronomer,” *Astronomical & Astrophysical Transactions* 25, no. 1 (2006): 1; Basil Tatakis, *Byzantine Philosophy*, trans. Nicholas J. Moutafakis (Indianapolis, IN: Hackett, 2003), 215–216.

centuries.”<sup>25</sup>

Six or seven years after coming to Constantinople, in 1321, Gregoras presented to Andronikos II three encomia he had dedicated to him.<sup>26</sup> Soon after, Gregoras was offered the office of *chartophylax*<sup>27</sup> of Hagia Sophia, which he subsequently rejected. In 1326, he participated in an embassy to the court of the Serbian king Stefan Uroš III Dečanski<sup>28</sup>, which seems to be the last time he left the Byzantine capital until the end of his life.<sup>29</sup> During the 1320s, Gregoras started forming a scholarly circle at the monastery of Chora where he taught the disciplines of the quadrivium (arithmetic, geometry, astronomy, and music), as he himself related in his *Letter* 114 addressed to Kaloeidas<sup>30</sup>, while establishing his network and gaining prestige at court. After 1324 and before 1328, he had already composed the first redaction of his treatise on the construction of the astrolabe.<sup>31</sup> Moreover, the *megas logothetēs* Metochites bequeathed his personal library to the Chora monastery and publicly appointed Gregoras as its “defender and protector” in his *Poem* 4, probably composed in the

<sup>25</sup> Pingree, “Gregory Chioniades and Palaeologan Astronomy,” 139.

<sup>26</sup> Pietro Luigi Leone, “Nicephori Gregorae ad imperatorem Andronicum II Palaeologum orationes,” *Byz* 41 (1971): 497–519. According to Ševčenko and Paraskeuopoulou, Gregoras’ presentation at the court of Andronikos II took place in 1322. See Theodore Metochites, *Two Poems*, 7; Iliana Paraskeuopoulou, *To Αγιολογικό και Ομιλητικό Έργο του Νικηφόρου Γρηγορά*, 29.

<sup>27</sup> This high ecclesiastical official performed archival and notary duties and since the tenth century was serving as principal assistant to the patriarch and main intermediary between the latter and the clergy.

<sup>28</sup> *PLP* 21181.

<sup>29</sup> On Gregoras’ diplomatic mission, see Peter Schreiner, “Die Gesandtschaftsreise des Nikephoros Gregoras nach Serbien (1326/27),” *ZRVI* 38 (1999–2000): 331–41; Schreiner, “Viaggiatori a Bisanzio: il diplomatico, il monaco, il mercante,” in *Columbeis*, vol. 5 (Universita di Genova, Facolta di Lettere, 1993), 29–39; Apostolos Karpozilos, “Η Μακεδονία κατά την εποχή των Παλαιολόγων,” in *Η Μακεδονία στην επιστολογραφία του 14ου αιώνα* (Thessaloniki: Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης, 2002), 133–41.

<sup>30</sup> Gregoras, *Letter* 114, lines 55–63: Ἐφόδια δέ μοι πρὸς τοῦργον αἱ συχναὶ τῶν πολλῶν συνωθήσεις καὶ ἰκεσίαι γεγέννηται τά τε ἄλλα προτείνουσαι δίκαια καὶ ὅτι καθάπαξ πάντας ὁ χρόνος φθάσας παρείλετο καὶ οὐδαμῇ γε οὐδένά τῶν καθ’ ἡμᾶς ἀφῆκεν Ἑλλήνων, ὃς τὸ κυριώτατον τῆς φιλοσοφίας, τὴν τῶν μαθημάτων δηλαδὴ τετρακτύν, ἀκοαῖς ἀνθρώπων παράσχοι καὶ ψυχὰς πεινώσας ἐμπλήσειε, καὶ κίνδυνον ἐντεῦθεν μάλα πρόχειρον εἶναι ζημιοῦσθαι τὸ γένος, χρῆμα πάντων χρημάτων, ὅποσα γῇ παρέσχευ ἡλίῳ θεᾶσθαι τὸ κάλλιστον. διὰ τοι τοῦτο καὶ διδασκαλεῖον αὐτὸς ἀνέφξα καὶ κόποις ἐκδέδωκα ἑμαυτὸν [...] See also Bydén, *Theodore Metochites’ Stoicheiosis Astronomike*, 37.

<sup>31</sup> Ihor Ševčenko, “Some Autographs of Nicephorus Gregoras,” *ZRVI* 8 (1964): 435–50; Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 151.

mid 1320s.<sup>32</sup> *Poem 4* informs us that the monastery of Chora was indeed Metochites' residence and the depository of his books, as well as the place where Gregoras assisted his mentor and pursued his own studies:

Therefore fulfil my/ desire in this matter, too, and be you an unshakable/  
keep (chora) for my offspring, that my dearest ones/ may remain forever in  
safety, whilst you dwell in this/ beautiful Keep (Chora) Monastery of mine,  
which I/ built as a pleasant and calm heaven for you. You/ it shelters from all  
storms and griefs throughout your/ earthly life; here you abide,/ free from  
all annoyances, in/ devotion to wisdom.<sup>33</sup>

Metochites' *Poem 4* offers, in addition, a survey of the late Byzantine advanced educational curriculum. The first part of the poem discusses all the areas of knowledge Gregoras should keep pursuing in future, emphasizing their importance and specifying their proper order: first rhetoric, then philosophy, finally mathematics and astronomy. Gregoras had already completed his education in rhetoric under John XIII Glykys, so Metochites advised him to keep practicing:

Therefore/ one must persist in study and must be engaged, through/  
constant intercourse with those men who are best at/ Oratory, in habitual  
practice of eloquence.<sup>34</sup>

Philosophy was next and, according to Metochites, one had to pay special attention to Aristotle and his logics and physics:

[...] later, as you proceed/ along the way, labor you upon the works of/

<sup>32</sup> Theodore Metochites, *Two Poems. Poem 4*, lines 1-3: Φίλα Νικηφόρε μοι κεφαλά, τὸν ἔγωγ' εἴραμαι κατ' ἄρ' ἐμᾶς σοφίης, ἥτις ποτ' ἂν ἔη, λιπέσθαι ἐξ ἄρα διάδοχον [...]; cf. Gregoras, *History*, vol. 1, 309, lines 6-11; Metochites, *Two Poems*, 13.

<sup>33</sup> Metochites, *Two Poems. Poem 4*, lines 340-348: τῷ γ' ἄρα κἀνθάδε τόνδ' ἔρον ἀπόπλησον ἐμεῖο, χώρα τέ μοι γένε' ἄσυλος ἀμφὶ τεκέεσσ' ἀμεδαποῖς, ὥς κ' ἐν ἄρ' ἀσφαλεῖ μενέειν τάμ' ἀφίλτατ' ἐς αἰεῖ, Χώραν ἐμὴν περικαλλέα τάνδε σὺ ναίων μουνὰν ἦν ἄρ' ἐγὼ σοι αἴσιον ἰδρυσάμην κατάπαυμα εὐδιόον τ', ἀπὸ πάντα χεῖματα πάντα δὲ λυγρὰ σεῖ' ἀπερύκουσαν ἀνὰ βίοτον αἰεῖ τόνδε· ἢ σύ γ' ἀπότροπον ἀπ' ἄρα πάντων ὄχλων ζωὴν ἀμβιόεις, ἄμ' ἀτειρέ' ἄσכולον ἀμφὶ σοφίῃ.

<sup>34</sup> *Ibid.*, lines 75-77: τοῦνεκα δὴ συνεχιζέμεν εἰν μελέτησι χρειώ, ἀδινά τ' ἐξ ἄρ' ἐθιζέμεν ἀνδρῶν ἐντεύξιος εὖ μάλα φωνὰν ἀρίστων εὐεπίης ἄσκησιν·

philosophers concerning the Theory of Being [...] and/ devote yourself especially to Aristotle, adding as much as/ may be possible of your own by means of your productive mind. [...] All the works this man composed [...] I charge you,/ learn well each and every one of them. But give [...]/ particular attention to his works on Logic/ and Physics [...]<sup>35</sup>

Finally, following Metochites' prescriptions, Gregoras should have continued his studies with mathematics and astronomy:

[...] afterwards, devote your labor also to the careful learning/ of the Four Books of Mathematics, which you long/ after, and again especially those of all-precious and/ glorious Astronomy, which you have learnt from me, and/ whereby you have become famous among wise men.<sup>36</sup>

In 1328, following the abdication of Andronikos II on May 28, Gregoras shared the downfall of the elderly emperor and his senior minister Metochites. As a supporter of Andronikos II in the civil war of 1321–1328, his possessions were confiscated. He was, nevertheless, allowed to remain in the capital, unlike his mentor Metochites who was exiled to Didymoteichon whence he returned to Constantinople in 1330 and ended his life as the monk Theoleptos at the monastery of Christ Saviour of Chora two years later. It is in the late 1320s and early 1330s that Gregoras started seeking new patrons, such as the *megas domestikos* John Kantakouzenos, the future emperor John VI<sup>37</sup>, to whom he probably dedicated his commentary on Synesios' *On Dreams* at some point between 1330 and 1332.<sup>38</sup>

<sup>35</sup> Ibid., lines 83–85, 136–138, 147–150: ἀτὰρ ἔπειτα διῶν πρόσθεν ὁδοῦ, πόνε' ἀμφὶ θεωρίαν ἐξῆς ὄντων φιλοσόφων ἀνδρῶν σπουδάσμασι, [...] ἄσχολον ἱφί νόον προσίσχων καὶ τ' Ἀριστοτέλει πλέον, ἅμα τ' οἴκοθεν αὐτὸς ὅτι κεν ἐξῇ προστιθεὶς γονίμῳ ρέα νοῦφ. [...] ἦτοι τοῦδε μὲν ἄ συντάξαθ' ἅπαντα [...] σέ γ' ἕκαστ' ἐπιτέλλομ' ἅπαντ' εἶ μαθεῖν τὰνδρός· ἀτὰρ ὅσα Λογικ' ἀμφεπονήσατο καὶ τε Φυσικὰ [...]

<sup>36</sup> Ibid., lines 165–169: [...] ἔπειτα ποιοίης ἀμφὶ τ' αὖ τεττάρων βιβλίων Μαθηματικῶν εὐμαθίαν, ὧν κεν μάλ' ἔρασαι, τῶν δ' αὖ μάλιστ' Ἀστρονομίης πουλυτίμοιο, μεγαλυνύμου, τὴν ἄρ' ἐμεῖο ἐκδεξάμενος ἀν σουφοῖσι γένου περίφραμος.

<sup>37</sup> PLP 10973.

<sup>38</sup> The dating of Gregoras' commentary on Synesios' *On Dreams* proposed by Ševčenko, namely between 1330 and 1332, is still accepted by existing scholarship. For Ševčenko's arguments, see Ševčenko, "Some Autographs of Nicephorus Gregoras." Importantly, in a forthcoming publication Börje Bydén revisits Ševčenko's identification of the original dedicatee of Gregoras' commentary as John Kantakouzenos and, consequently, proposes an earlier *terminus post quem* for the composition of the commentary, namely before



From his dedicatory letter, it becomes clear that Gregoras sent the commentary to Kantakouzenos as a potential patron, while at the same time begging him for a horse in exchange.<sup>39</sup>

Later in the 1330s, Gregoras succeeded in establishing himself as the leading philosopher and astronomer at the court of Andronikos III (r. 1328–1341)<sup>40</sup>, Andronikos II's grandson. During this period he composed his treatise on calculating the solar eclipse of July 16, 1330.<sup>41</sup> Previously, Gregoras had calculated the longitudes of the seven planets (the Sun, Moon, Mercury, Venus, Mars, Jupiter, and Saturn) for September 23, 1329<sup>42</sup> and had established that there would be no solar eclipse during the summer and autumn of 1329.<sup>43</sup> In addition, Gregoras had predicted two contemporary lunar eclipses, that of January 5, 1330<sup>44</sup> and that of June 30, 1330.<sup>45</sup> He also calculated that there would be a solar eclipse on November 30, 1331.<sup>46</sup> At some point between 1332 and 1335 Gregoras published the second redaction of his work on the construction of the astrolabe.<sup>47</sup> Importantly, in the 1330s

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May 1328. I am grateful to the author for providing me with a copy of his chapter. For Bydén's arguments in favour of an earlier dating, see Börje Bydén, "Nikephoros Gregoras' Commentary on Synesius, *De insomniis*," in *Synesius, De insomniis. Text, Translation and Introductory Essays*, ed. Heinz-Gunther Nesselrath and Donald Russell, SAPERE (Göttingen, forthcoming), 161–86.

<sup>39</sup> *Nicephori Gregorae Explicatio in librum Synesii De insomniis: Scholia cum glossis*, ed. by Paolo Pietrosanti, Pinakes 4 (Bari: Levante, 1999) (Hereafter: Gregoras, *Synesios*). On the dating of Gregoras' commentary and its dedication, see Ševčenko, "Some Autographs of Nicephorus Gregoras."

<sup>40</sup> PLP 21437.

<sup>41</sup> Gregoras, *Calcul de l'éclipse de Soleil du 16 juillet 1330*. On the dating of the treatise, see Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 151, 153. On the wrongly reproduced date (July 30, 1330) in some editions, see Gregoras, *Calcul de l'éclipse de Soleil du 16 juillet 1330*, 27, note 23.

<sup>42</sup> Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 153; Gregoras, *Calcul de l'éclipse de Soleil du 16 juillet 1330*, 15.

<sup>43</sup> Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 153; Rodolphe Guillard, *Correspondance de Nicéphore Grégoras*, Collection Byzantine (Paris: Société d'édition "Les Belles lettres," 1927), 78, note 1. Ševčenko stated incorrectly that the date of September 23, 1329 designates the first solar eclipse Gregoras is known to have predicted, see Metochites, *Two Poems*, 13.

<sup>44</sup> Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 153; Metochites, *Two Poems*, 13.

<sup>45</sup> Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 153.

<sup>46</sup> *Ibid.*, 154.

<sup>47</sup> To be found in *Vat. gr. 1087* with the accompanying preface on ff. 312v–313v. On the dating, see for instance Ševčenko, "Some Autographs of Nicephorus Gregoras," 441.

Gregoras composed and circulated his Platonizing dialogue *Phlorentios, or, On Wisdom*<sup>48</sup> (ca. 1337)<sup>49</sup>, this dialogue being, as well as Gregoras' correspondence, the major witness for the debate over astronomical and philosophical issues between the latter and Barlaam the Calabrian.<sup>50</sup> A number of scholars have viewed the dialogue *Phlorentios*, together with the other dialogue authored by Gregoras, namely the *Philomathēs, or, On Arrogant People*,<sup>51</sup> as well as the calculations of lunar and solar eclipses, such as the solar eclipse of May 14, 1333,<sup>52</sup> the *Response to Those who Claim that There Is No Humility Among Men*, better-known as *Antilogia*,<sup>53</sup> a number of Gregoras' letters dealing with astronomical matters, and parts of the *History* as evidence for the polemic over astronomy, harmonics, philosophy between Gregoras and Barlaam the Calabrian and have dated the texts correspondingly. The public debate between the two erudites held at the palace of the *megas domestikos* John Kantakouzenos which allegedly took place<sup>54</sup> and was later reported by Gregoras in the *Phlorentios* has been

<sup>48</sup> Nikephoros Gregoras, *Fiorenzo o intorno alla sapienza*, ed. Pietro Luigi Leone, Byzantina et Neo-Hellenica Neapolitana 4 (Napoli: Università di Napoli. Cattedra di filologia bizantina, 1975). (Hereafter: Gregoras, *Phlorentios*.)

<sup>49</sup> Bydén, "The Criticism of Aristotle in Nikephoros Gregoras' *Florentius*."

<sup>50</sup> The generally accepted dating of the dialogue in recent scholarship is the summer of 1337. See Ioannis Polemis, "Η πρὸς Βαρλαάμ διένεξις τοῦ Γρηγορά. "Η Ἀντιλογία", *Hell* 18 (1964): 61; Börje Bydén, "The Criticism of Aristotle in Nikephoros Gregoras' *Florentius*"; Gregoras, *Phlorentios*, 29. Polemis points to 1337, while Bydén and Leone specify that the most probable time for composing the dialogue was the summer. Variant datings have been provided previously. Ierodiakonou, for instance, dates the *Phlorentios* to ca. 1330; Tihon and Mogenet mention a date of 1331 and afterwards; Leone in his edition indicated as *terminus post quem* for the *Phlorentios* the summer of 1332; and Ševčenko referred to the date of 133. See respectively, Katerina Ierodiakonou, "The Anti-Logical Movement in the Fourteenth Century," in *Byzantine Philosophy and Its Ancient Sources*, ed. Katerina Ierodiakonou (Oxford, New York: Clarendon Press, 2002), 221; Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 152; Gregoras, *Phlorentios*, 29; Ihor Ševčenko, *Études sur la polémique entre Théodore Métochite et Nicéphore Choumnos. La vie intellectuelle et politique à Byzance sous les premiers Paléologues* (Bruxelles: Byzanthion, 1962), 171-172, note 3.

<sup>51</sup> Pietro Luigi Leone, "Ἡ Φιλομαθὴς ἢ περὶ ὑβριστῶν δι' Niceforo Gregoras," *RSBN* 8-9 (1971-1972): 171-201. (Hereafter: Gregoras, *Philomathēs*.)

<sup>52</sup> Tihon, "Les sciences exactes à Byzance," 380-434; Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 156; Bydén, "The Criticism of Aristotle in Nikephoros Gregoras' *Florentius*."

<sup>53</sup> Pietro Luigi Leone, "Nicephori Gregorae 'Antilogia' et 'Solutiones quaestionum,'" *Byz* 40 (1970): 471-516. (Hereafter: Gregoras, *Antilogia*.)

<sup>54</sup> On whether the debate between Gregoras and Barlaam actually happened, see Gregoras, *Phlorentios*, 32. While Leone considers the *Phlorentios* purely fictional, Medvedev disagrees. Igor P. Medvedev, *Vizantijskij gumanizm XIV-XV vv.* (Saint Petersburg: Nauka, 1976), 15.

generally dated to the period between 1329 and 1332.<sup>55</sup> A more precise dating to the winter of 1331–1332 has prevailed in recent scholarship.<sup>56</sup> Thus, Gregoras' *Antilogia* and *Philomathēs*, which are written before the *Phlorentios*, but within the context of the polemic with Barlaam, have been dated to the period between 1328 and 1331: the *Antilogia* was probably written in the spring of 1331,<sup>57</sup> while the *Philomathēs* was, in all likelihood, composed in the summer of 1331.<sup>58</sup> Finally, during the 1330s Gregoras calculated the date of one more solar eclipse, namely that of March 3, 1337<sup>59</sup> and notably emended and commented on Ptolemy's *Harmonics*.<sup>60</sup> Subsequently, Gregoras provided an account of these events in the first part of his *History*, namely books I–XI, noting in addition the appearance of numerous astronomical phenomena such as comets, solar and lunar eclipses. Though Gregoras does not give any

<sup>55</sup> This dating is based on Mogenet' and Tihon's reconstruction of the chronology of Gregoras' polemical pamphlets (*Antilogia*, *Philomathēs*, and *Phlorentios*) and letters against Barlaam. See Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 156. Nikolaides follows this trend by suggesting a dating to ca. 1330, see Nikolaides, *Science and Eastern Orthodoxy*, xvi.

<sup>56</sup> Bydén, "The Criticism of Aristotle in Nikephoros Gregoras' *Florentius*." Paraskeuopoulou also points to a date of 1331, see Paraskeuopoulou, *Το Αγιολογικό και Ομιλητικό Έργο του Νικηφόρου Γρηγορά*, 30.

<sup>57</sup> Gregoras, *Phlorentios*, 27. The most recent dating is by Tihon and Mogenet and according to them the *Antilogia* was written in the spring of 1329. While in 1971–1972, Leone had proposed the same dating, in his commentary to his edition of the *Phlorentios*, he dated the *Antilogia* to the spring of 1331. Finally, in his own edition of the text, predating the studies by Leone, Tihon, and Mogenet, Polemis has dated it soon after 1330, thus being in agreement with Leone's dating from 1975. See respectively Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 152; Gregoras, *Philomathēs*: 175–177; Polemis, "Ἡ πρὸς Βαρλαάμ διένεξις τοῦ Γρηγορά. "Ἡ Ἀντιλογία", 56–57.

<sup>58</sup> Gregoras, *Phlorentios*, 27. In his edition of the *Philomathēs* from 1971–1972, Leone dates the dialogue to the summer of 1329. This dating is supported also by Tihon and Mogenet. Gregoras, *Philomathēs*: 175–177; Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 152. Polemis dated the dialogue to 1331. Polemis, "Ἡ πρὸς Βαρλαάμ διένεξις τοῦ Γρηγορά. "Ἡ Ἀντιλογία", 58.

<sup>59</sup> Gregoras, *Calcul de l'éclipse de Soleil du 16 juillet 1330*, 11.

<sup>60</sup> For the edition of Ptolemy's *Harmonics*, as well as of Gregoras' additions to it, see Ptolemy, *Die Harmonielehre des Klaudios Ptolemaios*, ed. by Ingemar Düring, Göteborgs Högskolas Årsskrift, 36, 1930: 1 (Göteborg: Elanders boktryckeri aktiebolag, 1930). For an English translation and a commentary, see Ptolemy, *Harmonics*, trans. by Jon Solomon, Mnemosyne, Bibliotheca Classica Batava, 203 (Leiden; Boston: Brill, 2000). Compare it with the translation and commentary in Andrew Barker, *Greek Musical Writings*, vol. 2, Cambridge Readings in the Literature of Music (Cambridge; New York: Cambridge University Press, 1984), 276–391. For a German translation and commentary, see Ingemar Düring, ed., *Ptolemaios und Porphyrios über die Musik*, Göteborgs Högskolas Årsskrift, 40, 1934: 1 (Göteborg: Elanders boktryckeri aktiebolag, 1934). On the dating of Gregoras' emendations, see Anne Tihon, "Numeracy and Science," in *The Oxford Handbook of Byzantine Studies*, ed. Elizabeth Jeffreys, John F. Haldon, and Robin Cormack (Oxford: Oxford University Press, 2008), 809.

indication as to the time when he started writing his *History*, van Dieten's careful reconstruction argues that the text of the first eleven books was already complete by 1344, while their publication probably took place at some point in 1347.<sup>61</sup>

Another major event in Gregoras' life during the 1330s was his appointment in 1334 as the lead interlocutor in the negotiations with the papal legates, the Dominicans Francesco da Camerino, archbishop of Bosphorus, and Richard of England, bishop of Chersonesus.<sup>62</sup> In addition, following the deaths of Andronikos II Palaiologos on February 13, 1332 and of Theodore Metochites on March 13, 1332, Gregoras wrote funeral orations for his former patrons. A year later, in 1333, he wrote a consolation speech which he addressed to Andronikos III on the occasion of the death of his mother Rita (Maria) of Armenia. Finally, ca. 1339, Gregoras wrote an encomium also of Andronikos III and in June 1341 performed a funeral oration for the deceased emperor.<sup>63</sup>

In the last two decades of his life, Gregoras entered the so-called 'Hesychast' controversy, a theological, political and social phenomenon, thus leaving its mark on mid- and late fourteenth-century Byzantium and having subsequent repercussions in the development of Orthodoxy up until today.<sup>64</sup> During the civil war of 1341–1347, Gregoras

<sup>61</sup> Nikephoros Gregoras, *Rhömäische Geschichte. Historia Rhomaike*, trans. Jan Louis van Dieten, vol. 2, 6 vols., Bibliothek der griechischen Literatur, 8 (Stuttgart: Anton Hiersemann, 1979), 16.

<sup>62</sup> Paraskeuopoulou, *To Αγιολογικό και Ομιλητικό Έργο του Νικηφόρου Γρηγορά*, 30–31. On the participation of Barlaam the Calabrian in the negotiations with the papal envoys in 1334/1335, see Tia M. Kolbaba, "Barlaam the Calabrian. Three Treatises on Papal Primacy: Introduction, Edition, and Translation," *REB* 53, no. 1 (1995): 41–115.

<sup>63</sup> Paraskeuopoulou, *To Αγιολογικό και Ομιλητικό Έργο του Νικηφόρου Γρηγορά*, 30. On the funeral orations written by Gregoras, see Alexander Sideras, *Die byzantinischen Grabreden: Prosopographie, Datierung, Überlieferung, 142 Epitaphien und Monodien aus dem byzantinischen Jahrtausend*, WBS 19 (Vienna: Verlag der Österreichische Akademie der Wissenschaften, 1994), 60–61, 291–297.

<sup>64</sup> On hesychasm and the anti-palamite controversy, see John Meyendorff, *Introduction à l'étude de Grégoire Palamas*, *Patristica Sorbonensia* 3 (Paris: Éditions du Seuil, 1959); John Meyendorff, *Byzantine Hesychasm: Historical, Theological and Social Problems: Collected Studies* (London: Variorum Reprints, 1974); John Meyendorff, *St. Gregory Palamas and Orthodox Spirituality* (St Vladimir's Seminary Press, 1974); John Meyendorff, "Is 'Hesychasm' the Right Word? Remarks on Religious Ideology in the Fourteenth Century," *Harvard Ukrainian Studies* 7 (1983): 447–57; Carmelo Giuseppe Conticello and Vassa Contoumas-Conticello, *La théologie byzantine et sa tradition*, CCSG 2 (Turnhout: Brepols, 2002); N. Russell, "Palamism and the Circle of Demetrius Cydones," in

supported John Kantakouzenos' party and kept a neutral stance as to the theological dispute between Gregory Palamas<sup>65</sup>, on the one hand, and the supporters of Barlaam the Calabrian and Gregory Akindynos on the other. Despite the condemnations of Barlaam and Akindynos in 1341, Gregoras openly stated his views against Palamism only after 1346. In 1347, he became the chief of the anti-Palamite party and opposed the newly-crowned emperor John VI Kantakouzenos. It is in 1347 that Gregoras composed his *First Antirrhetics* against Palamas.<sup>66</sup> Despite his opposition to Palamism and to John VI, in 1349, following the death of patriarch Isidore, Gregoras was proposed to ascend the patriarchal throne. Nevertheless, Gregoras refused and was subsequently condemned at the local Constantinopolitan council of 1351, shortly after taking monastic vows. As a result, Gregoras was placed under house arrest at the monastery of Chora until the fall of 1354. In the summer of 1354, Gregoras engaged in a public dispute with Palamas in the presence of John V Palaiologos<sup>67</sup> and the papal legate Paul Tagaris. By 1356 or 1357, Gregoras had already written his *Second Antirrhetics* against Palamas, which the latter subsequently refuted. Around 1357, towards the end of his life, Gregoras revisited some of the themes he had debated with Barlaam during the 1330s, when he composed the *Solutions*, a collection of small philosophical works dealing with problems of natural philosophy.<sup>68</sup> Meanwhile, Gregoras continued writing his *History* and one of the last events he described was the death of his opponent Palamas which took place in 1359. Thus, the date of Gregoras' death has been established most probably ca. 1359 or 1360. He died in Constantinople and

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*Porphyrogenita: Essays on the History and Literature of Byzantium and the Latin East in Honour of Julian Chrysostomides*, ed. Judith Herrin (Aldershot, Hants, England; Burlington, VT, USA: Ashgate, 2003), 153–74; Antonio Rigo, ed., *Gregorio Palamas e oltre: studi e documenti sulle controversie teologiche del XIV secolo bizantino*, *Orientalia Venetiana* 16 (Florence: L.S. Olschki, 2004); Dirk Krausmüller, "The Rise of Hesychasm," in *The Cambridge History of Christianity*, ed. Michael Angold, vol. 5 (Cambridge: Cambridge University Press, 2006), 101–26; Juan Nadal Cañellas, *La résistance d'Akindynos à Grégoire Palamas: enquête historique, avec traduction et commentaire de quatre traités édités récemment* (Peeters Publishers, 2006).

<sup>65</sup> PLP 21456.

<sup>66</sup> Ierodiakonou, "The Anti-Logical Movement in the Fourteenth Century," 221.

<sup>67</sup> PLP 21485.

<sup>68</sup> Guiland, *Correspondance*.

according to the testimony of John Kyparissiotes,<sup>69</sup> after his death, his corpse was mocked and dragged through the streets of Constantinople.<sup>70</sup>

## Chapter 2: Nikephoros Gregoras' Works

Nikephoros Gregoras, the main events of his life, his affiliations respectively with emperors Andronikos II, and John VI Kantakouzenos, and finally with the anti-Palamite party after 1346–1347, as well as his contributions to Byzantine mathematical astronomy, philosophy, theology, and notably his major historiographical project, the *History* are quite well-known to modern readers and scholarship. Correspondingly, early-twentieth century scholarship, as well as studies from the 1970s and 1980s have produced a number of ‘emotional’ evaluations of Gregoras’ character as allegedly reflected in his literary production. First and foremost, scholars have emphasized Gregoras’ prolific writing, his great learning and wide range of intellectual pursuits. Ihor Ševčenko, for instance, succinctly summarized the numerous roles of power and authorship Gregoras embodied: “a friend or enemy of three emperors,” “a teacher either as a professor in a school of his own, [...] or as a preceptor of imperial and high society ladies,” “author of imperial Encomia, Funerary Speeches, and of dialogues reflecting squabbles among intellectuals,” “astronomer and computist,” “tireless letter writer, hagiographer, anti-Palamite theologian, and, above all, historian.”<sup>71</sup> Basil Tatakis, in turn, labelled Gregoras “philosopher by accident,” “man of exceptional learning,”<sup>72</sup> “subtle theologian,” “fine dialectician,”<sup>73</sup> and finally “a brilliant representative of the Byzantine renaissance” on account of his “diverse and extensive knowledge, his wit,

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<sup>69</sup> *PLP* 13900.

<sup>70</sup> John Kyparissiotes, “Palamiticae transgressioniones,” in *PG*, vol. 152 (Paris, 1857), 733, 736. See also Russell, “Palamism and the Circle of Demetrius Cydones,” 158.

<sup>71</sup> Metochites, *Two Poems*, 6.

<sup>72</sup> Tatakis, *Byzantine Philosophy*, 215.

<sup>73</sup> *Ibid.*, 216.

his talent as a dialectician, his force of character, and his love of Greek science and literature.”<sup>74</sup>

Nevertheless, Gregoras’ contribution to Byzantine scholarship was often viewed as an imperfect reflection of his mentor Theodore Metochites’ intellectual achievements. In his classic monograph, *Scholars of Byzantium*, Nigel Wilson deemed Gregoras’ activity and works as epigonic to the ‘greater’ previous generation of scholars such as Maximos Planoudes, Demetrios Triklinios, and Theodore Metochites. Wilson noted, following Tatakis, that “in general it has to be said that he [i.e. Gregoras] does not seem to possess the rare insight of his master. [...] While Gregoras does not appear to be original his sound appreciation of principles [of scholarly method] does him credit.”<sup>75</sup> As far as his astronomical studies are concerned, scholarship has deemed Gregoras’ contributions as somewhat worthier. He has been even dubbed “the greatest Byzantine astronomer,”<sup>76</sup> but generally the more balanced position has been to recognize his scientific expertise and his role in the revival and preservation of Ptolemaic astronomy.

Besides the lack of insight and originality, however, modern scholars have accused Gregoras of much worse faults of character. He has been described as “unscrupulous and conceited, unbalanced in his judgment on men and unreliable in his statements of fact”<sup>77</sup>, vain,<sup>78</sup> obscure, and even a mythomaniac.<sup>79</sup> In contrast, the present study has no intention to evaluate Gregoras’ character, conduct, personal ambitions, and scholarly contributions in

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<sup>74</sup> Ibid., 213.

<sup>75</sup> Nigel Guy Wilson, *Scholars of Byzantium* (Baltimore, Md.: Johns Hopkins University Press, 1983), 266. See also, Tatakis, *Byzantine Philosophy*, 212: “[Gregoras] [...] though lacking the former’s [Theodore Metochites’] breath of spirit, was no less a scholar.”

<sup>76</sup> Theodossiou, Manimanis, Dimitrijević, and Danezis, “Nicephoros Gregoras: The Greatest Byzantine Astronomer,” 1–14.

<sup>77</sup> David Balfour, “Palamas’ Reply to Gregoras’ Account of Their Debate in 1355,” *JÖB* 32, no. 4 (1982): 247.

<sup>78</sup> Pietro Luigi Leone, “A proposito di una lettera del protonotario Nicola Lampeno a Niceforo Gregora,” *Byz* 43 (1973): 358: “Gregora, la cui vanità era pari alla sua grandezza, cominciò a temere per il suo prestigio [...]”

<sup>79</sup> Gregoras, *Calcul de l’éclipse de Soleil du 16 juillet 1330*, 22: “Par ses allusions sybillines, ses réticences à publier ses découvertes et une tendance certaine à la mythomanie, Grégoras a rendu particulièrement difficile la tâche de l’exégète moderne.”

terms of ‘good’ or ‘bad’, ‘original’ or not, ‘conceited’, ‘arrogant’ or ‘the greatest’ in Byzantium. My aim is rather to present an impartial description of Gregoras’ work and to showcase its multifaceted character by unravelling both the ways through which he adopted, employed and reworked the scientific and philosophical authoritative material available to him, on the one hand, and on the other, the importance and the impact the literary expressions of his intellectual curiosity had in the context of the early Palaiologan scholarship. To set off the inquiry, one could supplement the observation of previous scholarship concerning Gregoras’ prolific literary output. Indeed, he composed numerous works in a variety of genres the majority of which are now available in more or less accurate critical editions. Gregoras wrote progymnasmata,<sup>80</sup> encomia,<sup>81</sup> orations addressed to the emperor (*basilikoi logoi*),<sup>82</sup> funeral orations (preserved in his *History*) and epitaphs, proems to chrysobulls, to patriarchal sigillia, and to testaments, as well as complete testaments,<sup>83</sup> as well as poetry<sup>84</sup> and model prayers.<sup>85</sup> He was one of the most prolific Palaiologan writers of hagiographic<sup>86</sup> and homiletic texts.<sup>87</sup> As far as the mathematical

<sup>80</sup> Pietro Luigi Leone, “Nicephori Gregorae opuscula nunc primum edita,” *Annali della Facolta’ di lettere e filosofia* 3–4, no. 2 (1970–1971): 729–82.

<sup>81</sup> Pietro Luigi Leone, “L’encomio di Niceforo Gregora per il re di Cipro (Ugo IV di Lusignano),” *Byz* 51 (1981): 211–24.

<sup>82</sup> Leone, “Nicephori Gregorae ad imperatorem Andronicum II Palaeologum orations.”

<sup>83</sup> Leone, “Nicephori Gregorae opuscula nunc primum edita.”

<sup>84</sup> Mercati, “Sulle poesie di Niceforo Gregora,” vol. 1, 144–51.

<sup>85</sup> Leone, “Nicephori Gregorae opuscula nunc primum edita.”

<sup>86</sup> Ștefan Bezdechi, “La Vie de sainte Basilisse par Nicéphore Grégoras,” *Mélanges d’histoire générale* 1 (1927): 78–85; Stéphane Binon, ed., “Eloge de s. Mercure par Nicéphore Grégoras (BHG 1277),” in *Documents grecs inédits relatives à s. Mercure de Césarée*, trans. Stéphane Binon, Université de Louvain. Recueil de travaux publiés par les membres des Conférences d’histoire et de philologie 2, 41 (Louvain: Bureaux du recueil, Bibliothèque de l’Université, 1937), 41–91; Nikephoros Gregoras, *Encomium in Michaellem Syncellum*, “Kahrié-Dzhami,” ed. Th. N. Schmitt, *Izvestija Russkago Archeologiceskago Instituta v Konstantinopole* 11 (1906): 260–79; *Nicephori Gregorae Vita Constantini*, ed. Pietro Luigi Leone, *Studi e ricerche dei “Quaderni Catanesi”* 1 (Catania: CULC, 1994); Nikephoros Gregoras, “Zwei griechische Texte über die Hl. Theophano, die Gemahlin Kaisers Leo VI,” in *Mémoires de l’Académie Impériale des sciences de St.-Petersbourg*, ed. Eduard Kurtz, vol. 3, 2, Classe des sciences historico-philologiques 8 (Saint Petersburg: Prodaetsia u komissionerov Imperatorskoj akademii nauk, 1898), 25–45; B. Laourdas, “Εἰς τὸν ἅγιον μεγαλομάρτυρα καὶ μυροβλήτην Δημήτριον,” in *Βυζαντινά καὶ μεταβυζαντινά ἐγκώμια εἰς τὸν Ἅγιον Δημήτριον*, Μακεδονικά 4 (Thessaloniki: Εταιρεία Μακεδονικῶν Σπουδῶν, 1960), 83–96; Laurent, “La vie de Jean, Métropolitte d’ Heraclée du Pont,” 29–63; Pietro Luigi Leone, “La ‘Passio Sancti Codrati’ di



sciences are concerned, Gregoras left scholia to Nikomachos of Gerasa's *Introduction to Arithmetic* (not edited), Euclid's *Elements*,<sup>88</sup> Ptolemy's *Harmonics*<sup>89</sup> and Porphyry's commentary to the latter,<sup>90</sup> while he emended and edited both. In addition, he composed a short work on harmonics entitled *The Perfect System Attuned According to the Harmonic Canon* (Τοῦ φιλοσόφου τοῦ Γρηγοῤῥᾶ τὸ ἡρμοσμένον τοῦ ἀρμονικοῦ κανόνος τέλειον σύστημα)<sup>91</sup> and authored an unfinished arithmological treatise *On the Number Seven*.<sup>92</sup> As a result of his astronomical studies, he annotated a number of manuscripts containing treatises on Ptolemaic astronomy and himself wrote a hortatory discourse concerning astronomy (transmitted also independently as a letter to Theodore Metochites<sup>93</sup>), a treatise on the calculation of the date of Easter,<sup>94</sup> a treatise on the construction of the astrolabe (in two

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Niceforo Gregora," *EEBS* 47 (1989 1987): 275–94; Pietro Luigi Leone, "La 'Vita Antonii Cauleae' di Niceforo Gregora," *Nicolaus: Rivista di teologia ecumenico-patristica* 11, no. 1 (1983): 3–50; Iliana Paraskeuopoulou, "An Unpublished Discourse of Nikephoros Gregoras on Saints Demetrios, George and Theodore (BHG 2427). A Critical Edition," *Parekbolai* 2 (2012): 49–76.

<sup>87</sup>Pietro Luigi Leone, "Nicephori Gregorae de sanctissimae Deiparae nativitate praesentatione atque educatione Oratio," *Quaderni Catanesi di cultura classica e medieval* 3 (1991): 1–31; Pietro Luigi Leone, "Nicephori Gregorae Oratio in Annuntiationem Sanctissimae Deiparae," *Δίπτυχα* 4 (1987 1986): 312–41; L. G. Westerink, "Nikephoros Gregoras, Dankrede an die Mutter Gottes," *Helikon* 7 (1967): 259–71.

<sup>88</sup> Nikephoros Gregoras, "Νικηφόρου τοῦ Γρηγοῤῥᾶ πρόβλημα," in *Elements (Elementa)*, by Euclid, ed. I. L. Heiberg and E.S. Stamatis (Leipzig: Teubner, 1977), 349–50.

<sup>89</sup> Nikephoros Gregoras, "Προσθήκαι εἰς τὰ κεφάλαια τοῦ Πτολεμαίου," in *Die Harmonielehre des Klaudios Ptolemaios*, by Ptolemy, ed. Ingemar Düring, Göteborgs högskolas årsskrift 36, 1 (Göteborg: Elanders boktr. aktiebolag, 1930), 109–21.

<sup>90</sup> Porphyry, *Porphyrios Kommentar zur Harmonielehre des Ptolemaios*, ed. Ingemar Düring, Göteborgs Högskolas Årsskrift XXXVIII, 1932: 2 (Göteborg: Elanders boktryckeri aktiebolag, 1932).

<sup>91</sup> Unedited. See PLP 4443. For a list of manuscripts preserving the treatise, see Gregoras, *Rhomäische Geschichte*, vol. 1, 50. According to van Dieten, the text is preserved in four manuscripts, namely *Par. gr.* 1846, f. 185v (1340–1350); *Rossianus* 16 (now 986), f. 239v (the fifteenth century); *Vat. gr.* 209, f. 182r–v (the fourteenth century, it contains also George Chrysokokkes' *Persian Syntax*, ff. 1r–31v); and *Vat. gr.* 1693, f. 159v (the fourteenth–fifteenth centuries). For the only description of the treatise's content and accompanying diagram, see Guiland, *Essai sur Nicéphore Grégoras*, xvii, xxxiii, and especially 275. On codd. *Vat. gr.* 209 and *Par. gr.* 1846, see also Inmaculada Pérez Martín, "Un esolío de Nicéforo Gregorás sobre el alma del mundo en el "Timeo" (*Vaticanus graecus* 228)," *MHNH, Revista internacional de investigación sobre magia y astrología antiguas* 4 (2004): 209.

<sup>92</sup> Francesco Sbordone, "L'ebdomadario di Niceforo Gregora," *Rivista indo-greco-italica* 20 (1936): 125–42. (Hereafter: Gregoras, *ONS*.)

<sup>93</sup> *Nicephori Gregorae Byzantina historia*, ed. Ludwig Schopen and Immanuel Bekker, vol. 1, 3 vols., CSHB 6–8 (Bonn: Weber, 1829). (Hereafter: Gregoras, *History*).

<sup>94</sup> Gregoras, *History*, vol. 1, 364, line 13–372, line 18; Nicephori Gregorae Epistulae XC," ed. Ștefan Bezdechi,

redactions),<sup>95</sup> and an exposition of the calculation of a solar eclipse (that of July 16, 1330).<sup>96</sup>

Gregoras displayed his knowledge on philosophy,<sup>97</sup> as well as his views on nature, knowledge, and metaphysics in his commentary to Synesios' *On Dreams*,<sup>98</sup> his two Platonizing dialogs *Phlorentios*<sup>99</sup> and *Philomathēs, or, On Arrogant People*,<sup>100</sup> as well as in the *Response to Those who Claim that There Is No Humility Among Men* better-known as *Antilogia*, and in his *Solutions*.<sup>101</sup> He also composed two short texts *On the Forms, Universal and by Themselves, That Are Contemplated Only by the Intellect* and *On the ideas, That Are Observed Together with the Accidents*,<sup>102</sup> and reportedly authored a now lost philosophical text entitled *Interpretations of the Sayings by the Ancients Concerning the More Mysterious*.<sup>103</sup> On a different note, Gregoras' theological position, in particular in the context of his anti-Palamite stance, is most prominently professed in his *First*<sup>104</sup> and *Second* (unedited) *Antirrhetics* against Gregory Palamas.

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*Ephemeris Dacoromana* 2 (1924): 239–377.

<sup>95</sup> Nikephoros Gregoras, "Astrolabica A," in *Anecdota Atheniensia et alia*, ed. Armand Delatte, Bibliothèque de la Faculté de philosophie et lettres de l'Université de Liège 88 (Liège, Paris: Faculté de philosophie et lettres, 1939), vol. 2, 195–212; Nikephoros Gregoras, "Astrolabica B," in *Anecdota Atheniensia et alia*, ed. Armand Delatte, Bibliothèque de la Faculté de philosophie et lettres de l'Université de Liège 88 (Liège, Paris: Faculté de philosophie et lettres, 1939), vol. 2, 213–35.

<sup>96</sup> Gregoras, *Calcul de l'éclipse de Soleil du 16 juillet 1330*.

<sup>97</sup> For catalogs of Gregoras' philosophical works, see Herbert Hunger, *Die hochsprachliche profane Literatur der Byzantiner*, vol. 1, Handbuch der Altertumswissenschaft 12, 5 (Munich: Beck, 1978), 52–53. A more recent list is available in John A. Demetracopoulos, "Nikephoros Gregoras," ed. Henrik Lagerlund, *Encyclopedia of Medieval Philosophy: Philosophy between 500 and 1500* (Dordrecht; New York: Springer, 2011), 897–899. Demetracopoulos renders the titles of Gregoras' works as follows: *Commentary on the "De insomniis" of Synesios of Cyrene*, *Against Those Who Do Not Recognize the Vile Character of Human Nature*, *Lover of Learning or on Arrogant Men*, *Florentios or on Wisdom*, *Solutions to the Physical Problems Posed by Helena Palaiologina*, *On the Form Visible Only Through the Intellect*, and *on the Form That Is Seen Along with Accidents*.

<sup>98</sup> Gregoras, *Synesios*.

<sup>99</sup> Gregoras, *Phlorentios*.

<sup>100</sup> Gregoras, *Philomathēs*: 171–201.

<sup>101</sup> Gregoras, *Antilogia* and *Solutions*.

<sup>102</sup> Hans-Veit Beyer, "Nikephoros Gregoras als Theologe und sein erstes Auftreten gegen die Hesychasten," *JÖB* 20 (1971): 171–88.

<sup>103</sup> Now lost, see the PLP 4443 where it is classified as a philosophical text. See also Gregoras, *Rhomäische Geschichte*, vol. 1, 60. Gregoras mentioned the treatise in *History*, vol. 2, 901, lines 15–16.

<sup>104</sup> Gregoras, *Antirrhetika I*.

Notably, Gregoras is perhaps best known for his *Historia Rhōmaikē* or *Roman History*.<sup>105</sup> The *Historia Rhōmaikē* was written and circulated in Constantinople in several installments since the 1340s and is preserved in more than forty manuscripts. Finally, Gregoras was also a prolific letter-writer and his epistolary corpus is one of the largest preserved from the Byzantine millennium.<sup>106</sup> Moreover, we are fortunate to be in possession also of some of the letters addressed to him by his contemporaries. Gregoras' collection of letters is the main source corpus the present study explores.

### Chapter 3: Reconstruction of Nikephoros Gregoras' 'Library'

The present inquiry focuses on Gregoras' epistolary corpus and in particular, on his mathematical, astronomical, and philosophical letters. Their style, rhetoricity, as well as the discipline-related content, however, borrow from and in turn inform the whole of Gregoras' literary output. Therefore, in the course of my analysis in *Part II: Justifications of Astronomy* and *Part III: Letters and Philosophy I* contextualize and explore Gregoras' views on mathematical sciences, friendship, the limitations of human knowledge, and the role of fortune as interfering with human actions and relationships, based on a selection of relevant letters, as well as on a number of short treatises pertinent to the subject of inquiry. Additionally, in the present chapter, I provide further context to Gregoras' intellectual background by reconstructing his 'library' as it were, that is, by surveying the manuscript witnesses of Gregoras' activity as a reader, scribe, compiler, and 'editor'. In this section I rely on the existing paleographical research concerning Gregoras' role in contemporary book production. The scholarship is abundant and increasing by the day; its results are, however, rarely delivered systematically and comprehensively so as to facilitate a reader

<sup>105</sup> Gregoras, *History*. A modern critical edition is still missing (currently underway at Leipzig).

<sup>106</sup> Gregoras, *Letters*; "Nicephori Gregorae Epistulae XC," ed. Ștefan Bezdechi; Guiland, *Correspondance*.

specifically interested in Gregoras' 'library'.<sup>107</sup> More often than not, the studies in question are concerned with the examination of a single manuscript or with the manuscript transmission of an authoritative text Gregoras read and glossed. Thus, the present chapter surveys the manuscripts associated with Gregoras as a reader and available to him at the Chora monastery and discusses them in thematic groups, with an emphasis to his preoccupation with scientific and philosophical texts.

### Mathematics

Gregoras' preoccupation with mathematics is attested first and foremost by his scholia to Nikomachos of Gerasa' *Introduction to arithmetic* and by the mathematical problem he added to Book X of Euclid's *Elements*. The scholia in *Nicomachi Introductionem* are preserved in two manuscripts only (none of them dating to the fourteenth century) namely in Rome, Biblioteca Angelica, *Angel. gr.* 1 (f. 9r-v, the fifteenth century) and Firenze, Biblioteca Nazionale Centrale, *Magliabecchi* II.III.037 (ff. 12r-13r, the sixteenth century). Gregoras' mathematical problem, however, was published in 1888 by I. L. Heiberg in the fifth volume of his edition of Euclid's *Elements* together with the spurious Books XIV and XV, as well as around 1500 Greek scholia and four appendices.<sup>108</sup> It was later reprinted in volume 5, 2 of the subsequent Teubner edition revised by E. S. Stamatis in 1977.<sup>109</sup> Here Gregoras' text was published at the end of the third appendix (*Appendix scholiorum* III) as number 10 and under

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<sup>107</sup> One notable exception is the research done by Daniele Bianconi on the 'library' available to Gregoras at the monastery of Chora. See Daniele Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," *SeT* 3 (2004): 392–438; Daniele Bianconi, "La 'biblioteca' di Niceforo Gregora," in *Actes du VI<sup>e</sup> Colloque International de Paléographie Grecque (Drama, 21-27 septembre 2003)*, ed. B. Atsalos and N. Tsironi, vol. 2, 3 (presented at the VI<sup>e</sup> Colloque International de Paléographie Grecque (Drama, 21-27 septembre 2003), Athens: Société Hellenique de Reliure, 2008), 225–33, 1049–59.

<sup>108</sup> Euclid, *Works (Euclidis Opera omnia)*, edited by I. L. Heiberg, H. Menge. Vol. 5 *Elementorum qui feruntur libri XIV-XV et scholia in Elementa* [graece] cum prolegomenis criticis et appendicibus edidit I. L. Heiberg (Teubner: Leipzig, 1888).

<sup>109</sup> Euclid, *Elements (Elementa)*, post I. L. Heiberg, ed. E.S. Stamatis. Vol. 5, 2 *Scholia in libros VI-XIII cum appendicibus* (Teubner: Leipzig, 1977).

the title Νικηφόρου τοῦ Γρηγοῤῥᾱ πρόβλημα.<sup>110</sup> According to the editorial note at the beginning of the section, the texts assembled in it cannot be labeled as proper scholia to the *Elements*. Nevertheless, they are connected to them by at least some necessity and for that reason they are added in the Euclidian codices.<sup>111</sup> As indicated by the editor, Gregoras' mathematical problem is preserved in three manuscripts:<sup>112</sup> 1) cod. *Par. gr.* 2345 (codex **r** in Heiberg's edition), second half of the thirteenth century, where at the end of *Book IX* there is a marginal note stating that it would be fitting to insert this excerpt, namely Gregoras' mathematical problem in *Book X* of the *Elements*. There is no further indication as to the specific part of *Book X* the author of the marginal note had in mind; 2) cod. *Arundel* 548, f. 178r (first quarter of the sixteenth century); and 3) cod. *Riccard. gr.* 22, f. 249v (the sixteenth century).

Cod. *Riccard. gr.* 22 contains Euclid's *Elements* (ff. 1r–244v) with scholia, as well as additions to Euclid and to the scholia (ff. 244v–249r). Gregoras' *Problem* is preserved on f. 249v.<sup>113</sup> Cod. *Arundel* 548 contains the text of Euclid's *Elements* on ff. 1r–173r. The text is, however, incomplete. It lacks *Book III*, propositions 24–37; *Books IV* and *V*; *Book VI*, propositions 1–26; *Book XI*, propositions 35–39; and *Book XII*, propositions 1–11. It contains extensive marginal scholia. F. 178r contains Gregoras' mathematical problem.<sup>114</sup> Above the problem by Gregoras we find the same note as in *Par. gr.* 2345, namely “it is fitting to put [this problem] in the tenth book,” written in red ink.

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<sup>110</sup> Ibid., 349–350.

<sup>111</sup> Ibid., 337, note (s/n, but the first below the line).

<sup>112</sup> Ibid., 349, note s/n.

<sup>113</sup> *Catalogi codicum graecorum qui in minoribus bibliothecis italicis asservantur*, ed. Christa Samberger, vol. 1 (Zentral-Antiquariat der Deutschen Demokratischen Republik: Leipzig, 1965), 488.

<sup>114</sup> For the full description of the manuscript, see T. S. Pattie & S. Mckendrick, The British Library, *Summary Catalogue of Greek Manuscripts*, vol. 1 (London, 1999), 24. The digitized manuscript is available in the British Library Digitised Manuscripts Database: [http://www.bl.uk/manuscripts/FullDisplay.aspx?index=2&ref=Arundel\\_MS\\_548](http://www.bl.uk/manuscripts/FullDisplay.aspx?index=2&ref=Arundel_MS_548) [last accessed on November, 29, 2012]

Cod. *Paris. gr.* 2345 contains scholia to Euclid's *Elements* (ff. 1r–5r) and the *Elements* themselves accompanied by marginal scholia (ff. 6r–239r). The manuscripts belonged subsequently to Nikephoros Gregoras, Manuel Chrysoloras and cardinal Niccolo Ridolfi (1501–1550). It includes Gregoras' addition to Euclid's *Elements*, namely the problem concerning the construction of a parallelogram, inserted in the codex by a collaborator of Gregoras. The case in point is an addition at the end of *Book IX* and at the beginning of *Book X*. Next to the problem by Gregoras, the collaborator has added "it is fitting to put [this problem] in the tenth book." According to Pérez Martín, this is an indication by the author himself which was reproduced by his scribe.<sup>115</sup> Further, Fonkitch described *Paris. gr.* 2345 as a scholarly book, apparently in active use during the fourteenth and fifteenth centuries, which contains multiple scholia. Traces of Gregoras' interventions in the text are identified on ff. 4v, 5r–6r, 89v, 118v, 121r, 121v, 130r, 179v, 239v and on many other folios.<sup>116</sup> Bianconi added other possible identifications of Gregoras' hand in the codex *Parisinus*: ff. 4r, 7r, 17v, 43r, 46v, 51v, 69v–70v, 78v, 80v, 83r, 97r, 99v, 101v–102r, 103v–104r, 107v–108r, 109r, 113v–114r, 122r, 123v–125v, 132v, 133v, 165r, 180r, 210r, 211v, 233r, and 237v.<sup>117</sup> The manuscript was traced back to Gregoras also by Brigitte Mondrain.<sup>118</sup>

Another manuscript worth mentioning here is Venezia, Biblioteca Nazionale Marciana, *gr. Z. gr.* 320. The philosophical and scientific miscellany dates to the 1320s–1330s and includes texts by Nikomachos of Gerasa, Aristotle, Plutarch, Iamblichus, John Lydus, and Michael Psellos, among others. Gregoras' annotated extensively Nikomachos' *Introduction to Arithmetic* (ff. 19r–92v) as scholia by his hand have been identified on ff. 19r–36r, 56v, 62r, 63v, 65r, 70r, 77v, 81v, and 83r–v. His handwriting was recognized also on (ff.

<sup>115</sup> Inmaculada Pérez Martín, "L'écriture de l'*Hypatos* Jean Pothos Pédiasimos d'après ses scholies aux *Elementa* d'Euclide," *Script* 64, 1 (2010): 110, and notes 7 and 8.

<sup>116</sup> Boris Fonkitch, "Novye avtografiy Nikifora Gregory," in *Gretcheskie rukopisi evropejskich sobranij* (Moscow, 1999), 71.

<sup>117</sup> Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 414.

<sup>118</sup> Brigitte Mondrain, "La constitution de corpus d'Aristote et de ses commentateurs aux XIII<sup>e</sup>–XIV<sup>e</sup> siècles," *Codices manuscripti* 29 (2000): 19.

40r–v, 46v, 48v, 93r–v; 96r, 97r–v). According to Bianconi, ff. 17r and 19r–97r (transmitting works or excerpts by Iamblichus, Nikomachos of Gerasa, Aristotle, Plutarch and John Lydus) represent the original core of the manuscript and were penned by three hands which collaborated on unequal basis. One of them, namely Gregoras’ hand, appears as primary and perhaps was predominant in the preparation of the codex and in the coordination of the other scribes. Gregoras not only participated in the copy of the texts, but also supervised their quality, introduced corrections, variants, inserted ancillary writings, added scholia and annotations of various origins (most of all in ff. 19r–36r, but also in ff. 56v, 62r, 63v, 65r, 70r, 77v, 81v, and 83r–v).<sup>119</sup> Folio 17r and the Iamblichean fragment it contains are of particular importance. This folio, though foreign to the original project, seems to refer back to the environment of Chora monastery. Gregoras added the following heading: “from the works of Iamblichus the great philosopher concerning the Pythagorean philosophy.” He also transcribed the last line on the recto and the first four lines on the verso. Thus, according to Bianconi, it is almost certain that *Marc. gr.* 320 was prepared at Chora.<sup>120</sup>

Another manuscript from Gregoras’ ‘library’ which contains two arithmetical treatises by Nikomachos is *Vat. gr.* 198 which was probably written in the third quarter of the fourteenth century. Additionally, it contains Gregoras’ redactions of Ptolemy’s *Harmonics* and of Porphyry’s commentary to them and it is associated with Gregoras’ readership of Photios’ *Bibliotheca*, therefore, I will discuss it in the following section, namely *Harmonic theory*. One could also argue that in all likelihood Gregoras was also acquainted with Maximos Planoudes’ edition of Diophantos’ *Arithmetic*, as well as with Planoudes’ own *Great Calculation According to the Indians*, since Planoudes’ autograph edition of both texts, *Ambrosianus* & 157 sup.,<sup>121</sup> was most likely still available at the library of Chora in Gregoras’ time.

<sup>119</sup> Bianconi, “La ‘biblioteca’ di Niceforo Gregora,” vol. 2, 228.

<sup>120</sup> Ibid., vol. 2, 229.

<sup>121</sup> Inmaculada Pérez Martín, “Al calor del texto antiguo: la lectura de textos matemáticos en Bizancio,” in

*Harmonic theory*

In the period between the third and eleventh centuries in the eastern Roman empire, the curriculum on music theory included Ptolemy, Kleonides, Aristoxenos, and Aristides Quintilianus.<sup>122</sup> The total number of Byzantine musical codices preserved from the period between the eleventh and the thirteenth centuries is seventeen (one from the eleventh, four from the twelfth, and twelve from the thirteenth century), while twenty-three new musical codices date to the fourteenth century.<sup>123</sup> Out of the twelve thirteenth-century manuscripts and the twenty-three fourteenth-century volumes, six could be traced back to Gregoras' library with greater or lesser certainty, namely *Parisinus gr.* 1671 (1296),<sup>124</sup> *Parisinus gr.* 1672 (the thirteenth century),<sup>125</sup> and codd. *Parisinus gr.* 2450, *Parisinus Coislin.* 173, *Vat. gr.* 176, and 198 (the fourteenth century). The fact that a number of codices containing treatises on harmonic theory can be collocated among the holdings of Gregoras' 'library' and related to his scribal and editorial activities is not surprising as, among scholars of Greek music theory, he is best known as the author of redactions of both Ptolemy's *Harmonics* and Porphyry's commentary to the latter.

Barbera noted that Gregoras "not only corrected what he felt were errors but also composed a couple of chapters to fill the lacuna near the end of the treatise."<sup>126</sup> As Mathiesen also pointed out, several versions of a Byzantine scholion to the final part of

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*Relegados al margen: marginalidad y espacios marginales en la cultura medieval* (Madrid: Consejo Superior de Investigaciones Científicas, 2009), 64, 66, note 72.

<sup>122</sup> Thomas J. Mathiesen, "Hermes or Clio? The Transmission of Ancient Greek Music Theory," in *Musical Humanism and Its Legacy: Essays in Honor of Claude V. Palisca*, ed. Nancy Kovaleff Baker and Barbara Russano Hanning, Festschrift Series, 11 (Stuyvesant, NY: Pendragon Press, 1992), 6-7.

<sup>123</sup> For a list of the Byzantine manuscripts produced after the eleventh century containing treatises on music theory, see *Ibid.*, 23.

<sup>124</sup> *Ibid.* See also Aubrey Diller, "Codices Planudei," *BZ* 37, no. 2 (1937): 296.

<sup>125</sup> Mathiesen, "Hermes or Clio?," 23. Manton dates the manuscript soon after 1302. See G. R. Manton, "The Manuscript Tradition of Plutarch *Moralia* 70-7," *CQ* 43, 3/4 (1949): 97-104.

<sup>126</sup> André Barbera, *The Euclidean Division of the Canon: Greek and Latin Sources: New Critical Texts and Translations on Facing Pages, with an Introduction, Annotations, and Indices Verborum and Nominum et Rerum*, Greek and Latin Music Theory (Lincoln: University of Nebraska Press, 1991), 103.



Ptolemy's *Harmonics* state that the treatise was never finished by Ptolemy as he passed away in the meantime.<sup>127</sup> Whether true or not, this statement gave grounds for the respective reworking and emendations of the *Harmonics* executed by Gregoras and his disciple Isaac Argyros.<sup>128</sup> Gregoras redacted the entire treatise and inserted two missing chapters towards the end of *Book III*, namely chapters fourteen and fifteen, so that his version of the text consisted of three books, each of them containing sixteen chapters.<sup>129</sup> Gregoras also moved a marginal annotation to *Book III*, chapter 9, found in some manuscripts to the end of the *Harmonics*, thus transforming it in chapter III. 16.<sup>130</sup> In turn, the most prominent feature of Argyros' redaction is the completion of an apparent lacuna in *Book II*, chapter 14.<sup>131</sup> Wilson labelled Gregoras' edition of Ptolemy's *Harmonics* as "perhaps the most striking item of his other work," that is besides his religious writings and, in particular, his *Second Antirrhetics*.<sup>132</sup> Wilson's assessment of Gregoras' 'editorial' work was that "[h]is performance, if not brilliant, must be considered respectable."<sup>133</sup>

Gregoras' emendations to Ptolemy's *Harmonics* and the addition of chapters 14 and 15, as well as the reassignment of the text to chapter 16 of *Book III*, in particular, were followed up by Barlaam of Calabria's critical response. Among other things, Barlaam did not accept that the annotation's text that Gregoras converted into a proper chapter was

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<sup>127</sup> Transcriptions of the scholion in its different versions are available in Ptolemy, *Die Harmonielehre des Klaudios Ptolemaios*, lxxx-lxxxii. Before the publication of Düring's edition, Mountford published two scholia referring to the incompleteness of the *Harmonics* and to Gregoras' emendations. Three manuscripts transmit both scholia (the first is found at the beginning of the treatise, while the second is located at the beginning of *Book III*, chapter 14 of the *Harmonics*): *Par. Coisl.* 172, *Vat. gr.* 176, and *Vat. gr.* 185. See James Frederick Mountford, "The *Harmonics* of Ptolemy and the Lacuna in II, 14," *Transactions and Proceedings of the American Philological Association* 57 (1926): 71–95.

<sup>128</sup> Thomas J. Mathiesen, *Apollo's Lyre: Greek Music and Music Theory in Antiquity and the Middle Ages*, Publications of the Center for the History of Music Theory and Literature, 2 (Lincoln: University of Nebraska Press, 1999), 431.

<sup>129</sup> *Ibid.*, 433.

<sup>130</sup> For a summary of Ptolemy's *Harmonics*, *Book III*, chapters 14, 15, and 16 and for assessment of Gregoras' emendations, see *Ibid.*, 490–494.

<sup>131</sup> *Ibid.*, 433.

<sup>132</sup> Wilson, *Scholars*, 266.

<sup>133</sup> *Ibid.*, 266–267.

befitting this purpose as its style suggested that it was in itself incomplete.<sup>134</sup>

In 1930, Ingemar Düring published his edition of Ptolemy's *Harmonics* which remains the most relevant critical edition of the text up until today.<sup>135</sup> Düring listed altogether eighty-four manuscripts containing the treatise and based his reconstruction of the text on thirty of them which proved to be useful for the purpose. Düring categorized the manuscript evidence in four groups (**m**, **f**, **g**, and **A**), where groups **g** and **A** represent Nikephoros Gregoras' and Isaac Argyros' respective redactions of the text.<sup>136</sup> According to Düring, while Gregoras used the readings of groups **m** and **f** and favored those of **m**, the three manuscripts associated with Argyros' activity<sup>137</sup> stemmed out of Gregoras' redaction and favored the readings of **f**.<sup>138</sup> In his introduction to the edition, Düring suggested that chapter III. 16 (chapters III. 14 and III. 15 were added by Gregoras) is a genuine work of Ptolemy. Mountford has found Düring's arguments in favor of this attribution convincing.<sup>139</sup> However, in his paper entitled *Ars critica and fata libellorum: The Significance of Codicology to Text Critical Theory* which he delivered in 1987, Thomas Mathiesen criticized Ingemar Düring's stemma, on which the latter's edition of Ptolemy's *Harmonics* was based, by showing that it is codicologically impossible.<sup>140</sup>

<sup>134</sup> The text of Barlaam's *Refutation of the three additional chapters of Ptolemy's Harmonics* was published in Ptolemy, *Die Harmonielehre des Klaudios Ptolemaios*, ed. Ingemar Düring. Göteborgs Högskolas Årsskrift 36, 1 (Göteborg: Elanders boktr. aktiebolag, 1930), 112-200; Mathiesen, *Apollo's Lyre*, 433-434; Tihon, "Numeracy and Science," 809.

<sup>135</sup> Ptolemy, *Die Harmonielehre des Klaudios Ptolemaios*.

<sup>136</sup> Mathiesen points out that the total number of the manuscripts which contain a full or partial version of the *Harmonics* is ninety-two; eighty-four contain a complete version of the text, and one preserves the treatise twice. See Mathiesen, *Apollo's Lyre*, 431.

<sup>137</sup> Düring's group **A** includes *Vaticanus gr. 176* (the fourteenth century), *Norimbergensis gr. Cent. V app. 38* (the fourteenth century), and *Parisinus Supplementarius gr. 449* (the fifteenth century). See also Mathiesen, *Apollo's Lyre*, 433.

<sup>138</sup> Mathiesen, *Apollo's Lyre*, 431.

<sup>139</sup> J. F. Mountford, "The Harmonica of Ptolemy. Review of the *Die Harmonielehre des Klaudios Ptolemaios*. By Ingemar Düring (Göteborgs Högskolas Årsskrift XXXVI., 1930: 1). Pp. Cvi + 147. Göteborg: Elander, 1930. Paper, Kronor 10," *CR* 44, no. 6 (1930): 242.

<sup>140</sup> On the same occasion, André Barbera referred to Gregoras' emendations to Ptolemy's *Harmonics*, which he saw as aiming at improving the text of the treatise. For a summary of the contents of Mathiesen's and

While it is largely accepted that Gregoras and Argyros intervened in the text of Ptolemy's *Harmonics*, it is debatable whether the Byzantine edition of Porphyry's commentary is due to Gregoras himself.<sup>141</sup> During questions this hypothesis due to the fact that Gregoras makes no mention of the edition of the commentary in his letters, while he mentioned his work on Ptolemy's treatise, among others.<sup>142</sup> It is, however still a probable inference, as Mountford states. In addition, however, Düring claims that Gregoras used *Marcianus* app. cl. VI/10 for his edition of Porphyry's commentary, while Mountford suggests that Gregoras had at his disposal a manuscript very closely related to the *Marcianus*, but now lost, which contained the full text of the commentary.<sup>143</sup>

For his edition of Porphyry's commentary,<sup>144</sup> Ingemar Düring collated seventy manuscripts which he divided in four groups (**m**, **g**, **A**, and **h**).<sup>145</sup> Group **g** contains the principal Byzantine edition of the text dated to probably ca. 1335 based on the assumption that the driving force behind it was Nikephoros Gregoras. In Mathiesen's classification, group **g** includes forty-two manuscripts.<sup>146</sup> Its main representative, according to Düring, is *Vat. gr.* 198. The Byzantine edition relied on one or more lost manuscripts from group **m**. Group **A** which includes only two manuscripts, namely *Par. suppl. gr.* 59 and *Vat. gr.* 176, presents the subsidiary edition by Gregoras' close associate Isaac Argyros.<sup>147</sup>

Six manuscripts from the thirteenth and fourteenth centuries containing treatises on harmonic theory relate to Gregoras' 'library' with higher or lesser certainty and these

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Barbera's papers, see James W. McKinnon, "Music Theory and Its Sources: Antiquity and the Middle Ages Department of Music and Medieval Institute Notre Dame University 30 April–2 May 1987," *The Journal of Musicology* 6, no. 2 (1988): 261. The proceedings of the conference were subsequently published as André Barbera, ed., *Music Theory and Its Sources: Antiquity and the Middle Ages*. Notre Dame Conferences in Medieval Studies 1 (Notre Dame, Indiana: University of Notre Dame Press, 1990).

<sup>141</sup> J. F. Mountford, "Porphyry's Musical Commentary," *CR* 47, no. 2 (1933): 70–71.

<sup>142</sup> Gregoras, *Letter* 142.

<sup>143</sup> Mountford, "Porphyry's Musical Commentary," 71.

<sup>144</sup> Porphyry, *Porphyrios Kommentar zur Harmonielehre des Ptolemaios*.

<sup>145</sup> According to Mathiesen, the total number of the manuscripts preserving Porphyry's commentary is seventy-one. See Mathiesen, *Apollo's Lyre*, 511.

<sup>146</sup> *Ibid.*, 513.

<sup>147</sup> *Ibid.*, 512.

are codd. *Parisini graeci* 1671, 1672, 2450, *Par. Coislin.* 173, *Vat. gr.* 176, and 198. Two of them, that is, *Par. gr.* 1450 and *Par. Coislin.* 173 bear Gregoras' autograph interventions. *Par. gr.* 2450 is dated to the fourteenth century<sup>148</sup> and transmits the text of Ptolemy's *Harmonics*.<sup>149</sup> Gregoras' hand has been identified in marginal and interlinear interventions with dark red ink on ff. 57r, 59r, 71v, 72v, 73r, 74v.<sup>150</sup>

*Par. Coislin.* 173<sup>151</sup> contains Ptolemy's *Harmonics* and *Almagest*. It preserves also an autograph note by Gregoras at the beginning of the text of the *Harmonics*. The note explains that there is need for emendation of the text and that according to Gregoras, Ptolemy died before he completed the treatise. In addition, Gregoras' hand is found in the texts by Porphyry and Ptolemy, namely on ff. 173r, 196v-197v, and in marginalia on ff. 31v-143v.<sup>152</sup> Another identified hand is that of the scribe John, who collaborated also with Planoudes on *Vindob. phil. gr.* 21 and again with Gregoras on *Vat. gr.* 1087.<sup>153</sup>

As it was already stated, according to the editor of Ptolemy's *Harmonics* and of Porphyry's respective commentary, *Vat. gr.* 198 is the main representative of Gregoras' redaction of both treatises.<sup>154</sup> The manuscript was probably produced in Constantinople during the third quarter of the fourteenth century and it also transmits chapter 187 from Photios' *Bibliotheca* (f. 1r), which introduced an arithmetical treatise by Nikomachos of Gerasa. The manuscript's contents list also Manuel Bryennios' *Harmonics* and Ptolemy's *Almagest*.<sup>155</sup> In addition, the codex features citations from Gregoras (f. 88v) and from Nikolaos Kabasilas Chamaëtos<sup>156</sup> (fol. 318r) penned by the primary scribal hand. On ff. 468v, 516v, a secondary hand put down notes referring to the year 6882 (1373–1374). While Diller

<sup>148</sup> Daniele Bianconi, "La controversia palamitica. Figure, libri, testi e mani," *SeT* 6 (2008): 337-376.

<sup>149</sup> *Ibid.*, 340.

<sup>150</sup> *Ibid.*, 340, note 7.

<sup>151</sup> Mathiesen and Düring, however, date this manuscript to the fifteenth century.

<sup>152</sup> *RGK* II 416.

<sup>153</sup> Brigitte Mondrain, "Maxime Planude, Nicéphore Grégoras et Ptolémée," *Paleoslavica* 10, no. 1 (2002): 322.

<sup>154</sup> Mathiesen, *Apollo's Lyre*, 433.

<sup>155</sup> *Ibid.*

<sup>156</sup> *PLP* 30539.

and Düring thought that the manuscript was produced within Gregoras' circle, Heiberg believed it was produced on Mt. Athos.<sup>157</sup>

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The remaining three codices, *Par. gr.* 1671, *Par. gr.* 1672 and *Vat. gr.* 176 cannot be linked with certainty to Gregoras' 'library.' As part of the Planoudean library at Chora and the scribal activity of Gregoras' student Argyros, there is a possibility that they could have been available to Gregoras.<sup>158</sup> This inference would not be crucial in defining our understanding of Gregoras' preoccupation with harmonic theory. The question whether Gregoras had access to *Par. gr.* 1671, however, is important for us to understand his reading of Plutarch's *Parallel Lives* and *Moralia*. The year 1296 marks one of the best known episodes in the transmission of Plutarch's œuvre. In this year Maximos Planoudes (d. ca. 1305) executed an edition of all surviving works of Plutarch, dividing the existing textual corpus into the *Lives* and ethical treatises or *Moralia*. This edition, or cod. *Par. gr.* 1672,<sup>159</sup> remained and was used together with other Plutarchian codices in the library of Chora monastery in Constantinople. According to Pérez Martín, it is possible that the codex remained at the

<sup>157</sup> Aubrey Diller, "Photius' "Bibliotheca" in Byzantine Literature," *DOP* 16 (1962): 392-3, 392, note 26.

<sup>158</sup> For comprehensive account on both Planoudes' connection with Chora and the cooperation between Gregoras and Argyros, see most recently Raúl Estangüi Gómez, "Saint-Sauveur de Chôra. Un monastère catholique à Constantinople dans le troisième quart du XIV<sup>e</sup> siècle," *Estudios bizantinos* 1 (2013): 140-97. See also Inmaculada Pérez Martín, "La 'escuela de Planudes': Notas paleográficas a una publicación reciente sobre los escolios euripideos," *BZ* 90 (1997): 73-96; Mondrain, "Maxime Planude, Nicéphore Grégoras et Ptolémée," 312-22; Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 392-438.

<sup>159</sup> M. Manfredini, "Un famoso codice di Plutarco: il *Par. gr.* 1672," *Studi Classici e Orientali* 39 (1989) 127-131: 129; Max Treu, *Zur Geschichte der Überlieferung von Plutarchs Moralia*, 3 vols. (Breslau: Druck von O. Gutschmann, 1884), vol. 1, 5-6. See also Wilson, *Scholars*, 235-236. According to Wilson, *Par. gr.* 1672 which is the only manuscript containing all the seventy-eight extant *Moralia* is wrongly attributed to the Planudean scriptorium, which had been the opinion of Manton. See Manton, "The Manuscript Tradition of Plutarch *Moralia* 70-7," 97. Based on the analysis of the script, Wilson points out that *Par. gr.* 1672 was copied long after Planoudes' death.

Chora monastery one century after Planoudes moved to the Akataleptos monastery.<sup>160</sup>

The Planudean enterprise was carried on by Theodore Metochites who praised extensively the usefulness and encyclopedic scope of Plutarch's work and aimed at imitating and emulating the wise man from Chaeronea in his own scholarly production.<sup>161</sup> As Metochites' student and intellectual heir, Gregoras continued exploring Plutarch's legacy as he showed a particular interest in the latter's *On the Generation of Soul in the Timaeus*, a commentary on *Timaeus* 35a1–36b5. Gregoras had in his possession and partially annotated at least six manuscripts containing Plutarch's works (*Vat. Barb. gr.* 182, *Vat. gr.* 138, *Laur.* 69, 6, probably *Par. gr.* 1671, *Par. gr.* 1672, *Marc. gr.* 320, and *Laur.* 70, 5). *Vat. Barb. gr.* 182 is a tenth-century codex, which belonged to Metochites' library at Chora.<sup>162</sup> *Vat. gr.* 138 dates to the same period and was part of Metochites' library as well. Gregoras' hand has been identified in explicative notes to Plutarch's texts.<sup>163</sup> *Laur.* 69, 6 was completed in 996 by Gregory *kouboukleisios*<sup>164</sup> and Menchelli identified Gregoras' hand in several marginal notes.<sup>165</sup> Bianconi, however, though he agreed that the codex has passed through Gregoras'

<sup>160</sup> Inmaculada Pérez Martín, "Planudes y el monasterio de Acatalepto. A propósito del *Monacensis gr.* 430 de Tucídides (ff. 4-5 y 83-5)," *Erytheia* 10, no. 2 (1989): 305 note 15; Martín, "La 'escuela de Planudes,' 75.

<sup>161</sup> For an edition and English translation of Metochites' essay no. 71 *On Plutarch*, see *Theodore Metochites on Ancient Authors and Philosophy: Semeioseis gnomikai 1-26 & 71, a Critical Edition with Introduction, Translation, Notes, and Indexes*, ed. Karin Hult. *Studia Graeca et Latina Gothoburgensia* 65 (Göteborg: Acta Universitatis Gothoburgensis, 2002), 218-243. See also Börje Bydén, "The Nature and Purpose of the *Semeioseis gnomikai*: The Antithesis of Philosophy and Rhetoric," in *Theodore Metochites on Ancient Authors and Philosophy: Semeioseis gnomikai 1-26 & 71*, 269-273.

<sup>162</sup> Inmaculada Pérez Martín, "La geografía erudita de Constantinopla," in *Elogio de Constantinopla*, ed. Miguel Cortés Arrese (Cuenca: Ediciones de la Universidad de Castilla-La Mancha, 2004), 76, note 104.

<sup>163</sup> Ibid. See also Bianconi, "La 'biblioteca' di Niceforo Gregora," vol. 2, 233; Inmaculada Pérez Martín, "Nuevos códices planudeos de Plutarco," in *Plutarco y la historia. Actas del V Simposio Español sobre Plutarco (Zaragoza, 20-22 de Junio de 1996)*, ed. C. Schrader, V. Ramón, and J. Vela, *Monografías de Filología Griega* 8 (Zaragoza, 1997), 402 and note 78.

<sup>164</sup> M. Manfredini, "Sulla tradizione manoscritta dei 'Moralia' 70-77," in *Sulla tradizione manoscritta dei "Moralia" di Plutarco. Atti del Convegno Salernitano del 4-5 dicembre 1986*, ed. I. Gallo, Quaderni del Dipartimento di Scienze dell'Antichità 2 (Salerno: Università degli Studi di Salerno, 1988,) 125-126; Manfredini, "Un famoso codice di Plutarco: il *Paris. gr.* 1672," 129; Pérez Martín, "Nuevos códices planudeos de Plutarco," 401.

<sup>165</sup> Mariella Menchelli, "Appunti su manoscritti di Platone, Aristide e Dione di Prusa della prima età dei Paleologi. Tra Teodoro Metochite e Niceforo Gregora," *Studi Classici e Orientali* 47 (2000): 205-206, 208 e plate XIX.

hands, disputed Menchelli's attributions. In turn, he identified two other annotations as executed by Gregoras' hand, namely a note in the outer margin of f. 35v and another one in the outer margin of f. 36r.<sup>166</sup>

Three of the Plutarchian manuscripts Gregoras consulted include *On the Generation of Soul in the Timaeus*, namely *Laur.* 70, 5, *Par. gr.* 1671, and *Par. gr.* 1672.<sup>167</sup> Besides the fact that it transmits Plutarch's partial commentary on the *Timaeus*, the *Laurentianus* functions as a collection of historical works and excerpts and it is an important testimony of Gregoras' reading of Diodoros of Sicily and of Photios' *Bibliotheca*. Diller determines ca. 1335 as a *terminus post quem* for the production of the codex. A citation and a reworded quotation from chapter 224 (229b28-35) of the *Bibliotheca* which is to be found on ff. 226v-229v of the *Laurentianus* and which transmits Memnon's history of Hērakleia, occurs in Gregoras' *Letter* 21.<sup>168</sup> Interventions by Gregoras' hand have been identified by Mazzuchi on ff. 1r, 5r, 217r, 230r, and 248r.<sup>169</sup> Mazzuchi enumerated Gregoras' interventions in another manuscript preserving Diodoros of Sicily's history, namely the tenth-century codex *Marc. gr.* 375 which formed part of Metochites' library at Chora.<sup>170</sup> While Mazzuchi marked Gregoras' notes on ff. Iir, 2r, 92v, 165v, and 238r, Bianconi added those on ff. 44r, 49v, 51v, 61r, 62v, 63v, 80v, 89r,

<sup>166</sup> Bianconi, "La 'biblioteca' di Niceforo Gregora," vol. 2, 232.

<sup>167</sup> See also Wilson, *Scholars*, 235-236. According to Wilson, *Par. gr.* 1672 which is the only manuscript containing all the seventy-eight extant *Moralia* is wrongly attributed to the Planudean scriptorium, which has been the opinion of Manton. Manton, "The Manuscript Tradition of Plutarch *Moralia* 70-7," 97. Based on the analysis of the script, Wilson points out that *Par. gr.* 1672 was copied long after Planoudes' death. Bianconi has identified Gregoras' hand in the margin of f. 750r. See Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 414; Bianconi, "Eracle e Iolao. Aspetti della collaborazione tra copisti nell'età dei Paleologi," 553, note 130.

<sup>168</sup> Diller, "Photius' "Bibliotheca," 394, 394 note 43.

<sup>169</sup> C. M. Mazzucchi, "Leggere i classici durante la catastrofe (Constantinopoli, maggio-agosto 1203): le note marginali al Diodoro Siculo *Vaticano gr.* 130," *Aevum* 68 (1994): 210; C. M. Mazzucchi, "Leggere i classici durante la catastrofe (Constantinopoli, maggio-agosto 1203): Le note marginali al Diodoro Siculo *Vaticano gr.* 130," *Aevum* 69 (1995): 257.

<sup>170</sup> Pérez Martín, "La geografía erudita de Constantinopla," 76, note 104; Mazzucchi, "Leggere i classici durante la catastrofe," *Aevum* 68 (1994), 209, 211; Mazzucchi, "Leggere i classici durante la catastrofe," *Aevum* 69 (1995), 257.

98v, 120r, 125r, 193v, 232r, 267r, 269v, 282r, and 289v.<sup>171</sup>

Three more codices transmitting Diodoros' text formed part of Gregoras' 'library', namely *Par. gr.* 1665, *Vat. gr.* 130, and *Vat. gr.* 996. The *Parisinus* dates to the tenth century and contains a note on f. 146r identified as penned by Gregoras' hand.<sup>172</sup> *Vat. gr.* 130 which also dates to the tenth century was part of Metochites' library.<sup>173</sup> In this manuscript, Diodoros' history is introduced by the text of chapter 70 from Photios' *Bibliotheca* copied by Gregoras on f. 1v.<sup>174</sup> Finally, in the twelfth-century codex *Vat. gr.* 996, Gregoras' hand is identified on f. 2r in Diodoros' text.<sup>175</sup> One ought to add Gregoras' interventions identified on ff. 314r and 316r-v.<sup>176</sup>

In addition to Diodoros Sikeliotes, Gregoras read a number of other historians such as Thucydides (as attested by the example of *Laur. Plut.* 69, 30, but also of *Lond. British Library, Egerton* 2624, and *Neap.* III B 10<sup>177</sup>), Herodotus (*Laur. Plut.* 70, 3<sup>178</sup>), Xenophon (*Vat. Pal. gr.* 140<sup>179</sup>), Polybius (*Vat. Urb. gr.* 102<sup>180</sup>), Appian (*Par. gr.* 1672), Procopius of Caesarea, and Zosimos (*Vat. gr.* 156<sup>181</sup>).<sup>182</sup> Moreover, in preparation for writing of his *History* and especially for its biographical sections, Gregoras used as models not only Plutarch's *Parallel Lives*, but also Philostratus' *Life of Apollonius of Tyana*<sup>183</sup> which was available to him in at least two manuscripts, namely the tenth-century *Laur. Plut.* 69, 33<sup>184</sup> and the late-thirteenth- or early-

<sup>171</sup> Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 413.

<sup>172</sup> *Ibid.*, 414.

<sup>173</sup> Pérez Martín, "La geografía erudita de Constantinopla," 76, note 104.

<sup>174</sup> Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 415.

<sup>175</sup> *RGK* III 491.

<sup>176</sup> Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 416-417.

<sup>177</sup> *Ibid.*, 413-414.

<sup>178</sup> *Ibid.*, 412.

<sup>179</sup> Bianconi, "La controversia palamitica," 340, note 8.

<sup>180</sup> Daniele Bianconi, "La 'biblioteca' di Niceforo Gregora," vol. 2, 231.

<sup>181</sup> *RGK* III 491; Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 415; Pérez Martín, "La geografía erudita de Constantinopla," 76, note 104.

<sup>182</sup> Bianconi, "La controversia palamitica," 342.

<sup>183</sup> *Ibid.*, 341.

<sup>184</sup> *Ibid.*, 340.



fourteenth-century codex *Laur. Plut.* 69, 30.<sup>185</sup>

### Astronomy

Eleven astronomical manuscripts (codd. *Marc. gr.* 312, 314, 325, *Z.* 330, VI.10, *Par. gr.* 2396, codd. *Vat. gr.* 182, 1087, 1365, 1594, and Oxford, Bodleian Library, MS *Savile* 52) can be safely associated with Gregoras' inquiries into mathematical astronomy. Additionally, three more codices can be traced to the library of Chora and one could hypothesize whether Gregoras had them at his disposal (*Laur.* 28, 26,<sup>186</sup> codd. *Vat. gr.* 177,<sup>187</sup> and 202<sup>188</sup>).

*Marc. gr.* 312 transmits a copy of Ptolemy's *Almagest* Gregoras owned and annotated.<sup>189</sup> His autograph notes are identified throughout the codex, notably on ff. 1r-60r, but also on ff. 65r, 66v, 81r-82r, 83r, 84r-85v, 86v-87r, 107r-108r, 126r, 211r.<sup>190</sup> *Marc. gr.* 314 transmits Theon of Alexandria's commentary to Ptolemy's *Almagest*.<sup>191</sup> The production of this codex is associated with the activity of the so-called *Metochitesschreiber*, identified by Erich Lamberz as Michael Klostomalles, notarios in the imperial chancery.<sup>192</sup> According to Bianconi's observation, very often the only autograph intervention recorded in the codices

<sup>185</sup> *Ibid.*, 342.

<sup>186</sup> Daniele Bianconi, "La 'biblioteca' di Niceforo Gregora," vol. 2, 231; I. Spatharakis, "Some Observations on the Ptolemy Ms. *Vat. gr.* 1291: Its Date and the Two Initial Miniatures," *BZ* 71, no. 1 (1978): 41-49.

<sup>187</sup> Pérez Martín, "Planudes y el monasterio de Acatalepto," 304-305; Wendel, C., "Planudea," *BZ* 40 (1940): 406-410; Constantinides, *Higher Education in Byzantium in the Thirteenth and Early Fourteenth Centuries (1204 - ca. 1310)*, 68; Diller, "Codices Planudei," 295-301; Oswald Ashton Wentworth Dilke, "Cartography in the Byzantine Empire," in *The History of Cartography*, ed. J. B. Harley and David Woodward, vol. 1: *Cartography in prehistoric, ancient, and medieval Europe and the Mediterranean* (Chicago: Chicago University Press, 1987), 268, 271, 273.

<sup>188</sup> Pérez Martín, "Planudes y el monasterio de Acatalepto," 304, note 10; Ihor Ševčenko, "Theodore Metochites, the Chora, and the Intellectual Trends of His Time," in *The Kariye Djami*, ed. Paul Atkins Underwood, 4 (London: Routledge & Kegan Paul, 1975), 42.

<sup>189</sup> Mondrain, "Maxime Planude, Nicéphore Grégoras et Ptolémée," 321, note 24; Ševčenko, "Some Autographs of Nicephorus Gregoras," note 1, 447, and fig. 7; Ševčenko, "Theodore Metochites, the Chora," 22, note 24.

<sup>190</sup> Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 413.

<sup>191</sup> Bianconi, "La 'biblioteca' di Niceforo Gregora," vol. 2, 230.

<sup>192</sup> *Ibid.*, 231.

which formed part of Gregoras' 'library' is his addition of a work's title.<sup>193</sup> In the same fashion, Gregoras' added the following title at the upper margin of f. 235r: "Introductory remarks by Theon of Alexandria to Ptolemy's *Great Syntax*." *Marc. gr.* 325 dates to the fourteenth century<sup>194</sup> and preserves Gregoras' copy of Theon's *Handy Tables*.<sup>195</sup> A number of Gregoras' autograph notes are preserved on f. 9r. According to Ševčenko, one of them may be referring to the year 1331, and another resembles a passage from Gregoras' *On the Construction of the Astrolabe*.<sup>196</sup> Finally, as Mogenet and Tihon observed, the Marcianus is the only manuscript that preserves Gregoras' calculation of the solar eclipse of July 16, 1330 (ff. 1r-8v).<sup>197</sup> *Marc. gr.* VI.10 is a collection of astronomical texts dated to the twelfth century. Gregoras wrote a pinax and inserted titles and chapters' numbers on ff. 1r-23r, and 23v.<sup>198</sup>

According to Mondrain's analysis, *Par. gr.* 2396 is constituted by three parts that can be attributed to three different stages of composition: the thirteenth century (ff. 3r-76v), the first half of the fourteenth century (ff. 77r-86r), and the last third of the fifteenth century (ff. 87r-92r).<sup>199</sup> The codex is entirely dedicated to Ptolemy; it contains two folia with astronomical tables (canons with the anomalies of the sun and the moon), Theon of Alexandria's commentary of Ptolemy's *Almagest* (Books I, II, and IV), preceded by a brief introduction without a title on f. 3r. From f. 87r a new anonymous text starts, a commentary on the *Almagest* and the *Handy Tables*.<sup>200</sup> Mondrain argues that most probably the oldest section of the *Parisinus* was copied in 1292–1293 in the Chora monastery by Maximos Planoudes.<sup>201</sup> Moreover, the manuscript seems to be directly related to Gregoras'

<sup>193</sup> Bianconi, "La controversia palamitica," 341.

<sup>194</sup> Gregoras, *Calcul de l'éclipse de Soleil du 16 juillet 1330*, 14.

<sup>195</sup> Ševčenko, "Theodore Metochites, the Chora," 22, note 24.

<sup>196</sup> Ševčenko, "Some Autographs of Nicephorus Gregoras," 447.

<sup>197</sup> Gregoras, *Calcul de l'éclipse de Soleil du 16 juillet 1330*, 14.

<sup>198</sup> Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 413.

<sup>199</sup> Mondrain, "Maxime Planude, Nicéphore Grégoras et Ptolémée," 312.

<sup>200</sup> *Ibid.*, 313.

<sup>201</sup> *Ibid.*, 314, 320.

circle and Gregoras was using it several decades after it was copied by Planoudes.<sup>202</sup> As for Gregoras' interventions in the text, first they are attested between ff. 28v and 29r where a small piece of paper was inserted into the codex. On it Gregoras wrote astronomical calculations which complemented other notes written by him in the margin of f. 29r.<sup>203</sup> In the margin of f. 31v Gregoras wrote a note concerning Theon's edition of Euclid's *Elements*.<sup>204</sup> Further, Gregoras emended the title of Book IV of Theon's commentary on f. 73r. In the upper margin, he specified the content of the following exposition.<sup>205</sup> In the middle of f. 76v, Gregoras added a chapter title in red ink<sup>206</sup> and on f. 86v he wrote two additional lines.

It has been hypothesized that the original part of *Par. gr.* 2396 could have been part of a manuscript with a different composition and thus, connections have been drawn between the *Parisinus* and two other scientific manuscripts which form part of Gregoras' 'library', namely *Vat. gr.* 1087 and *Ambrosianus* & 157 sup. *Vat. gr.* 1087 is a collection of astronomical texts executed under Gregoras' direction.<sup>207</sup> It contains Gregoras' *Hortatory Letter Concerning Astronomy*<sup>208</sup> copied in Gregoras' own hand, as well as the second redaction of his *On the Construction of the Astrolabe* in a partial autograph. The Vaticanus is also one of eighteenth known manuscripts of Theon's commentary of the *Almagest*.<sup>209</sup> It transmits Books VIII-XIII of the *Commentary* with lacunae, but also Theodore Metochites' *Elements of Astronomy*. Metochites' astronomical treatise is preserved in at least three other manuscripts which feature Gregoras' autograph interventions, namely *Vat. gr.* 1365, *Vat. gr.*

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<sup>202</sup> Ibid., 319, 320.

<sup>203</sup> Ibid.

<sup>204</sup> Ibid.

<sup>205</sup> Ibid., 319.

<sup>206</sup> Ibid., 319, 320.

<sup>207</sup> Ibid., 322.

<sup>208</sup> Hereafter, I refer to the independently transmitted text as *Hortatory Letter* or *Paraklētikē*, whereas I denote the version transmitted as part of Gregoras' *History* as *Hortatory Discourse*.

<sup>209</sup> Ševčenko, "Theodore Metochites, the Chora," 22, note 24.

182, and *Marc. gr. Z. 330*.<sup>210</sup> *Vat. gr. 1365* belongs to the edition of Metochites' collected works supervised by Gregoras,<sup>211</sup> while *Vat. gr. 182* represents the first of two volumes, comprising the astronomical works of Metochites (the second volume is *Vat. gr. 181*).<sup>212</sup>

Gregoras' hand was identified in numerous notes throughout *Vat. gr. 1087*, for instance on ff. 1rv, 101v-102r, 312v-313r, 315v-320v, and in marginalia on f. 150r.<sup>213</sup> The hands of two other scribes have been recognized, that is the scribe John<sup>214</sup> and the so-called Hand m2.<sup>215</sup> John collaborated also with Planoudes on *Vindobonensis phil. gr. 21* and on another instance with Gregoras on *Parisinus Coislin. 173*.<sup>216</sup> The so-called scribe m2 copied ff. 123r-147r in the *Vaticanus* (Theon's *Commentary*) and according to Adolphe Rome he also executed ff. 77r-86r in *Par. gr. 2396*. Further, Rome hypothesized that *Vat. gr. 1087* and *Par. gr. 2396* belonged to the same codex whose middle has been lost.<sup>217</sup> Mondrain confirmed that m2 copied ff. 123r-147r of *Vat. gr. 1087*,<sup>218</sup> ff. 77r-86r of *Par. gr. 2396*, as well as a dogmatic discourse by Gregoras in *Par. gr. 1276*, ff. 165r-176r.<sup>219</sup> This scribe was a frequent collaborator of Gregoras because one finds his hand again in *Guelferbytanus Gudianus gr. 85* which Fonkitch associated with Gregoras' activity.<sup>220</sup> Mondrain, however, questioned Rome's hypothesis that *Vat. gr. 1087* and *Par. gr. 2396* once formed parts of the same codex, as the *Vaticanus*' format is smaller than that of the *Parisinus*. Instead, Mondrain argued that ff. 123r-147r copied by m2 were not originally part of the *Vaticanus*, but were extracted from another manuscript in the first half of the fourteenth century in order to be incorporated

<sup>210</sup> Bydén, *Theodore Metochites' Stoicheiosis Astronomike*, 386.

<sup>211</sup> Ibid. See also Ševčenko, "Theodore Metochites, the Chora, and the Intellectual Trends of His Time," 37 and note 142.

<sup>212</sup> Bianconi, "La 'biblioteca' di Niceforo Gregora," vol. 2, 229.

<sup>213</sup> RGK II 416; RGK III 491.

<sup>214</sup> See also Martín, "La 'escuela de Planudes,' 80-83.

<sup>215</sup> Collective, "Membra disjecta," *Revue bénédictine* 39 (1927): 188-189.

<sup>216</sup> Mondrain, "Maxime Planude, Nicéphore Grégoras et Ptolémée," 322.

<sup>217</sup> Collective, "Membra disjecta."

<sup>218</sup> Mondrain, "Maxime Planude, Nicéphore Grégoras et Ptolémée," 318.

<sup>219</sup> Ibid.

<sup>220</sup> Fonkitch, "Novye avtografiy Nikifora Gregory," 62-77, plate 15.

in the *Vat. gr.* 1087.<sup>221</sup>

In addition, Mondrain inquired into the possible association of *Par. gr.* 2396 with *Ambrosianus* & 157 sup., a Planoudean manuscript, possibly copied around 1292–1293, that preserves a fragmentary version of Pseudo-Iamblichos' *Theologoumena arithmeticae* (ff. 1r-3r, 5r, 7r, 21r), Planoudes' edition of Diophantos' *Arithmetic* with his marginal scholia (ff. 8r, 9r, 13r-20r), Planoudes' *Great Calculation According to the Indians* (ff. 4r, 6v, 10r-12r, 11bis, 12bis), as well as Psellos' *On Plato's Generation of the Soul* (f. 6r).<sup>222</sup> Indeed, in terms of their measurements, the *Ambrosianus* and the *Parisinus* (the portion containing Theon of Alexandria's *Commentary*) are equal. Nevertheless, there is no sufficient evidence to argue that they used to form part of the same manuscript. It is, however, evident, according to Mondrain, that both codices were elements of the same astronomical-mathematical corpus assembled by Maximos Planoudes.<sup>223</sup>

In order to conclude the survey of the astronomical manuscripts associated with Gregoras' readership, one has to mention two more manuscripts, namely the well-known *Vat. gr.* 1594 and Oxford, Bodleian Library, MS *Savile* 52. *Vat. gr.* 1594 dates to the middle of the ninth century, formed part of Metochites' library and, notably, transmits Ptolemy's *Almagest*. It also preserves the anonymous *Introduction to the Almagest* which has been variously attributed to a number of authors such as Diophantos, Theon, Pappus, and others.<sup>224</sup> In the case of the *Vaticanus* it is Gregoras who added on f. 1r the following note –

<sup>221</sup> Mondrain, "Maxime Planude, Nicéphore Grégoras et Ptolémée," 322.

<sup>222</sup> Ibid., 316. See also Wilson, *Scholars*, 233; Iamblichus, *Theologoumena arithmeticae*, ed. Vittorio de Falco (Leipzig: Teubner, 1922), x-xi; Pérez Martín, "Al calor del texto antiguo," 64, 66, note 72; André Allard, "L'*Ambrosianus* Et 157 sup., un manuscrit autographe de Maxime Planude," *Script* 33, no. 2 (1979): 219, 223, 226; Brigitte Mondrain, "Traces et mémoire de la lecture des textes: les marginalia dans les manuscrits scientifiques byzantins," in *Scientia in margine: études sur les marginalia dans les manuscrits scientifiques du moyen âge à la renaissance*, ed. Danielle Jacquart and Charles S. F. Burnett, Hautes études médiévales et modernes 88 (Geneva: Droz, 2005), 1–25; Alexander Turyn, *Dated Greek Manuscripts of the Thirteenth and Fourteenth Centuries in the Libraries of Italy*, 2 vols (Urbana: University of Illinois Press, 1972), plate 57, 78–81; Emidio Martini and Domenico Bassi, *CCAG*, vol. 3 (Brussels: H. Lamertin, 1901), 21, no. 36.

<sup>223</sup> Mondrain, "Maxime Planude, Nicéphore Grégoras et Ptolémée," 316.

<sup>224</sup> Ibid., 321.

“Introductory remarks to Ptolemy’s *Great Syntax* by Theon and other wise men and mathematicians” – thus attributing the *Introduction*’s authorship to Theon of Alexandria.<sup>225</sup> Oxford, Bodleian Library, MS Savile 52 (the fourteenth–sixteenth centuries) contains a copy of Kleomedes’ *On the Circular Motions of the Celestial Bodies*, John Philoponos’ *On the Use of the Astrolabe*, as well as Aristotle’s *History of Animals* and Theon of Alexandria’s *Commentary on Ptolemy’s Handy Tables*. Gregoras penned marginal notes containing observations on chronology to Kleomedes’ and Philoponos’ treatises.<sup>226</sup>

Before proceeding to the final section of the present survey, namely of the philosophical manuscripts associated with Gregoras’ library, I shall discuss briefly one more manuscript which contains predominantly Gregoras’ writings,<sup>227</sup> but might also be viewed as an important witness to Gregoras’ preoccupation with Platonic ideas of cosmic harmony, Pythagorean mathematics, the creation of the world’s soul, and number symbolism. Vat. gr. 116 dates to the first half of the fourteenth century<sup>228</sup> and it is one of the most important codices preserving Gregoras’ epistolary corpus. Gregoras’ works are preserved on folia 54–56v, 62–157 and 228v–232 and their list includes *Letters* 28, 44, 25, *Hortatory Letter concerning*

<sup>225</sup> Ihor Ševčenko, “Gleanings 5–6. One More New Autograph of Nikephoros Gregoras,” *Paleoslavica* 8 (2000): 349–354; Mazzucchi, “Leggere i classici durante la catastrofe,” *Aevum* 68 (1994), 211, note 196; Mazzucchi, “Leggere i classici durante la catastrofe,” *Aevum* 69 (1995), 257. See also Pérez Martín, “La geografía erudita de Constantinopla,” 76, note 104; Bianconi, “La ‘biblioteca’ di Niceforo Gregora,” vol. 2, 230; Bianconi, “La biblioteca di Cora tra Massimo Planude e Niceforo Gregora,” 418.

<sup>226</sup> Wilson, *Scholars*, 266, note 6; Bianconi, “La controversia palamitica,” 337–376.

<sup>227</sup> For a detailed description of the codex, see Giovanni Mercati and Pius Franchi de’ Cavalieri, eds., “Vat. gr. 116,” in *Codices vaticani graeci*, Bibliothecae Apostolicae Vaticanae codices manu scripti recensiti (Rome: Typis Polyglottis Vaticanis, 1923), 143–148. For a detailed summary of Nikephoros Gregoras’ works preserved in Vat. gr. 116, see Jan Louis van Dieten, *Entstehung und Überlieferung der Historia Rhomaike des Nikephoros Gregoras: insbesondere des ersten Teiles: Lib. I–XI* (Cologne: Dieten, 1975), 114–115. For descriptions of the codex interested in the Planudean translation of Cicero’s *Somnium Scipionis* and its commentary by Macrobius, as well as in their transmission, see Μάξιμου Πλανούδη (1255–1305) του υπομνηματος εις τον “Ονειρον του Σκηπίωνος” του Μακροβίου μετάφραση, ed. Anastasios Megas (Thessaloniki: Γραφικές Τέχνες, 1995), xiii, xx–xxi, xxxi–xxxii; and M. Tullii Ciceronis *Somnium Scipionis in graecum translatum*, ed. Annamaria Pavano, Bibliotheca Athena 29 (Rome: Gruppo Editoriale Internazionale, 1992), xii. I owe thanks to Ivana Dobcheva for sharing with me her knowledge on the Latin manuscript tradition of Macrobius’ *Commentary* and especially, as to the characteristic use of diagrams which traditionally accompany the copies of Macrobius’ text.

<sup>228</sup> Van Dieten, *Entstehung*, 114.

*Astronomy, Letters 27, 23, 108, 109, 43, 42, 30, 110, 32, 45, 34, 36, 21, 20, 58, 33, 113, 24, 67, 114, 115, 41, 51, 52, 50, 48, 47, 57, An Oration before Andronikos II in Ionian dialect, Letters 62, 100, 56, 69, 59, 53, 55, 59, 49, 103, 105, 46, 16, 9, 11, 132, 119, 19, 118, An Oration before Andronikos III, Letters 54, 65, 29, 37, A Letter by Protonotarios Lampenos to Gregoras (ad Gregoram 1), A Letter by Zarides to Gregoras (ad Gregoram 2), Funeral Oration for Andronikos II, Funeral Oration for Metochites, Letter 124, Philomathēs or on Arrogant People, Praise of the Almond Tree, A letter to the wisest Kabasilas concerning the date of Easter (Letter XX in Bezdechi's edition), Speech of the Plataean Envoys before the Spartans, Apology to Andronikos II Concerning the Reasons for Refusing the Office of Chartophylax, Response to Those who Claim that There Is No Humility Among Men (Antilogia), An Oration before Andronikos II: On Practical Wisdom and Eloquence, An Oration before Andronikos II, Whose Pretext is the Emperor's Love for Plato, Letters 117, 157, Life of John of Hērakleia, Letter 46 iterum, Letter 120, a fragment of the Life of John of Hērakleia.*

The *Vaticanus*, however, also preserves Maximos Planoudes' translation into Greek of Cicero's *Somnium Scipionis* (ff. 1r-4r) and Macrobius' commentary of the latter (ff. 4r-54r, 57r-61r).<sup>229</sup> Interestingly, Macrobius' text is interrupted and ff. 54r-56v are the last three folia of the seventh and final quire of the first part of the manuscript. These three folia transmit the following writings by Gregoras and according to van Dieten, were copied by Gregoras himself:<sup>230</sup> *Letter 28 Against those who calumniate of astronomy*<sup>231</sup> (f. 54r-v); *Letter 44 to Lepentrenos in Cyprus* (ff. 55r-56r); *Letter 25 to the megas logothetēs* (f. 56r-v); f. 61v is left blank; *Hortatory Letter Concerning Astronomy* (ff. 62r-63r). Out of the four letters inserted at the end of the quire and in between the chapters of Macrobius' text, two (*Letters 28 and the Hortatory Letter*) are written in defense of astronomy and an argument could be made for their subject matter's relevance to Macrobius' text. More importantly, however, I shall

<sup>229</sup> Modern critical editions of Planoudes' translations of both texts are available. See *M. Tullii Ciceronis Somnium Scipionis in graecum translatus*, ed. Pavano and Μάξιμου Πλανούδη (1255-1305) του υπομνηματος εις τον "Ονειρον του Σκηπίωνος," ed. Megas.

<sup>230</sup> Van Dieten, *Entstehung*, 114-115.

<sup>231</sup> Gregoras, *Letter 28*.

proceed by focusing on the readership of Macrobius' *Commentary* itself. Throughout the treatise, one finds continuous use of σημείωσαι signs through which the Byzantine reader of the text indicated noteworthy passages. The first such 'bookmark' we find in the lower left margin on f. 9v, right above a lambda diagram used to illustrate the creation of the world's soul by the demiurge as discussed by Plato in his *Timaeus*. Both the σημείωσαι sign and the lambda diagram are located next to Macrobius' *Commentary* I 6, 2-3 in which the latter summarizes the account of the creation of the worlds' soul from the *Timaeus*. Thus, they follow closely Macrobius' *Commentary* I 6, 1 which is a discussion of the number seven. Though I cannot prove that the marginal bookmark and diagram are penned by Gregoras' hand, he was certainly in possession of *Vat. gr. 116* and read Macrobius as Sbordone has shown in his analysis of the influences on Gregoras' short arithmological treatise *ONS*.<sup>232</sup> One also ought to remember that Gregoras had access to other texts dealing with the creation of the world's soul such as Plutarch's *On the Generation of Soul in the Timaeus* (via *Laur. 70, 5, Par. gr. 1671*, and *Par. gr. 1672*) and Psellos' *On Plato's Generation of the Soul* (via *Par. gr. 2356*).

Further, for a second time a σημείωσαι sign appears in the left margin of f. 10v in proximity to Macrobius' *Commentary* I 6, 14-15 where the first paragraph deals with the numerical symbolism of seven- and nine-month pregnancies, the latter being an argument Gregoras would make use of in his *ONS*. The third 'bookmark' left by the Byzantine reader is in the left margin of f. 12v, at the beginning of Macrobius' *Commentary* I 6, 45 which is the start of a long discussion of the properties of the seventh number. Next, in the upper left margin of f. 15v, the fourth σημείωσαι sign indicates Macrobius' *Commentary* I 6, 79-80 in which the seven corporeal tissues and the seven visible parts of the body are enumerated. Finally, the fifth occurrence of the σημείωσαι sign in *Vat. gr. 116*, in the outer margin of f.

<sup>232</sup> Gregoras, *ONS*. I am grateful to András Németh and Inmaculada Pérez Martín who shared with me their observations on the σημείωσαι signs in the *Vat. gr. 116* as well as on the possible attribution of any of the scribal hands in the manuscript to Gregoras.



20v, refers to certain teaching concerning the structure of the cosmos summarized in Macrobius' *Commentary* I 11, 6. According to this view, the universe is divided in two parts: an immutable part (from the sphere of the fixed stars to the beginning of the lunar sphere) and a changeable part (the lunar sphere and the earth). One could find a similar description in Gregoras' *Letter* 28, lines 27-31 and I shall discuss it in detail in the final section of *Part II: Justifications of Astronomy*. In addition, it is noteworthy that, according to Bydén, a number of scholia on ff. 46v, 47r, 47v, 49r and 61r, all of which but the last were not published by Megas, are, in fact, in Gregoras' hand. Thus, Bydén argues, not only Gregoras read Macrobius' commentary, but also demonstrated a particular interest in Macrobius' discussion of immortality.<sup>233</sup>

### *Philosophy*

In terms of his philosophical studies, Gregoras read Plato and Aristotle and correspondingly, the contents of his 'library' include at least six philosophical manuscripts. First, Gregoras inherited from Metochites the well-known Ms. *E. D. Clarke* 39 (895) which preserves twenty-four dialogues by Plato.<sup>234</sup> Two other Platonic codices display the interventions of Gregoras' hand, namely codd. *Vat. gr.* 228 and 1029. In addition to Plato's works, *Vat. gr.* 228 also preserves Gregoras' *Letter* 5 which, interestingly, has been copied by a scribe who collaborated with Gregoras also in *Palat. Heidelberg. gr.* 129 and *Vat. gr.* 116.<sup>235</sup> The fourteenth-century *Vat. gr.* 1029 preserves a pinax completed by Gregoras and a number of marginal notes and remarks concerning textual variants he recorded.<sup>236</sup>

Further, Gregoras was acquainted with Aristotle's works on natural philosophy at

<sup>233</sup> Bydén, *Theodore Metochites' Stoiceiosis Astronomike*, 97–98, note 146.

<sup>234</sup> Pérez Martín, "La geografía erudita de Constantinopla," 76, note 104; Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 414.

<sup>235</sup> Pérez Martín, "La geografía erudita de Constantinopla," 76, 79.

<sup>236</sup> Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 417.

least through Metochites' paraphrases of the latter. Two manuscripts preserve Metochites' commentaries and Gregoras' respective notes. Gregoras added a marginal note on f. 227r in the fourteenth-century *Marc. gr.* 239<sup>237</sup> and in *Vat. gr.* 303, he wrote the inscriptions on ff. 1r and 2v, added σημείωσαι signs on ff. 175v-177r, 191v, and 321v, penned a title on f. 517r, and so forth.<sup>238</sup> Finally, Gregoras penned a σημείωσαι signs also on ff. 1r, 230r<sup>239</sup> in *Vat. gr.* 506, a codex that transmits Aristotle's *History of Animals*.<sup>240</sup>

#### Chapter 4: Gregoras' Letters. Manuscript Evidence and Editorial Approaches

During Gregoras' lifetime the majority of his letters, alongside other works of his, were collected in at least four volumes, namely *codd. Vat. gr.* 1085, 1086, 116, and 1898. While inscriptions and notes in *Vat. gr.* 1085,<sup>241</sup> 1086,<sup>242</sup> 116,<sup>243</sup> and 1898<sup>244</sup> designate that they were apparently treated as volumes of a collection of Gregoras' works,<sup>245</sup> another notice in *Vat. gr.*

<sup>237</sup> Bianconi, "La 'biblioteca' di Niceforo Gregora," vol. 2, 229-230; Inmaculada Pérez Martín, "El scriptorium de Cora: un modelo de acercamiento a los centros de copia bizantinos," in *Ἐπίγειος οὐρανός. El cielo en la tierra: estudios sobre el Monasterio Bizantino*, ed. Pedro Bádenas de la Peña, A. Bravo García, and Inmaculada Pérez Martín, Nueva Roma 3 (Madrid: CSIC, 1997), 213, note 33; Bianconi, "Eracle e Iolao. Aspetti della collaborazione tra copisti nell'età dei Paleologi," 521-58; Ševčenko, "Theodore Metochites, the Chora," 37, note 143.

<sup>238</sup> Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 416. See also Ihor Ševčenko, "Some Autographs of Nicephorus Gregoras," 446.

<sup>239</sup> Bianconi, "La controversia palamitica," 340, note 6.

<sup>240</sup> *Ibid.*, 339-340.

<sup>241</sup> *Vat. gr.* 1085, f. 1r: ποιήματα νικηφόρου τοῦ γρηγοῤῥᾶ βιβλίον α'. *Vat. gr.* 1085, f. 140v: ἕως ὧδε τὰ ἐκ τοῦ πρώτου βιβλίου τοῦ γρηγοῤῥᾶ. *Nicephori Gregorae epistulae*, ed. Pietro Luigi Leone, vol. 1, 2 vols. (Matino: Tipografia di Matino, 1983), 21.

<sup>242</sup> *Vat. gr.* 1086, f. 2v: τῶν τοῦ νικηφόρου τοῦ γρηγοῤῥᾶ ποιημάτων βιβλίον δεύτερον. *Vat. gr.* 1086, f. 221v: ἕως ὧδε πληροῦνται τὰ τοῦ δευτέρου βιβλίου ποιήματα νικηφόρου τοῦ γρηγοῤῥᾶ. τὰ δ' ἐξῆς ἔστιν ἃ ἔγραψαν ἕτεροι πρὸς αὐτόν. *Nicephori Gregorae epistulae*, ed. Pietro Luigi Leone, vol. 1, 2 vols. (Matino: Tipografia di Matino, 1983), 18.

<sup>243</sup> *Vat. gr.* 116, f. 134r: νικηφόρου τοῦ γρηγοῤῥᾶ βιβλίον β<sup>(ov)</sup>.

<sup>244</sup> *Vat. gr.* 1898, f. 218r: νικηφόρου τοῦ γρηγοῤῥᾶ βιβλίον β<sup>(ov)</sup>.

<sup>245</sup> Importantly, out of the four codices only one, *Vat. gr.* 1085, bears a designation as a 'first volume', while the other three all contain a note that they are featured in the 'second volume' of Gregoras' works. Looking at the present measurements of the four manuscripts (**A** = *Vat. gr.* 1086, 235 x 165 mm; **B** = *Vat. gr.* 1085, 290 x 205 mm; **C** = *Vat. gr.* 116, 260 x 177 mm; **D** = *Vat. gr.* 1898, 239 x 163 mm), however, only codices **A** and **D**, both designated as parts of the 'second volume', have comparable measurements.

116<sup>246</sup> labels it as a collection of his ἐπιστολαὶ καὶ προσφωνήματα καὶ λόγοι.<sup>247</sup> Alongside the letters, all four codices include rhetorical exercises, speeches, dialogues, sermons, saints' lives, and/or poetry authored by Gregoras.

Instead of being arranged together as a coherent epistolary collection, Gregoras' letters were intermingled with the other writings authored by him (model testaments, speeches, prooimia to imperial chrysobulls, and so forth) and were seemingly treated equally, i.e. as any literary text with chiefly rhetorical purpose, though as the note in the *Vat. gr. 116* indicates, the scribe who inserted it was aware that texts of different genres or with different functions had been put together. Moreover, according to the modern editor of Gregoras' letters, Pietro Luigi Leone, criteria used in contemporary fourteenth-century letter-collections, such as ordering the letters chronologically or according to the addressee, were not observed<sup>248</sup> in the case of *Vat. gr. 1086*, while the letters in *Vat. gr. 1085* were partially arranged according to their addressee. Therefore, the present chapter focuses on some of the methodological problems related to the editing and, by extension, to the study of Gregoras' letters.

The letter-collection, as it was edited by Leone in 1982,<sup>249</sup> includes 159 letters written by Gregoras, and twenty-two letters addressed to him by fourteen contemporaries. The letters included in the collection cover the period from the early 1320s to the mid-1350s with letters from the 1330s and 1340s being the most numerous. Gregoras addressed at least sixty-eight (to seventy-three) different addressees, designated in the collection

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<sup>246</sup> *Vat. gr. 116*, f 62r.

<sup>247</sup> For a detailed description of the codex, see Mercati and Franchi de' Cavalieri, eds., "Vat. gr. 116," 143–148. For a detailed summary of Nikephoros Gregoras' works preserved in *Vat. gr. 116*, see van Dielen, *Entstehung*, 114–115. Concerning autograph notes and interventions by Gregoras, see Ševčenko, "Some Autographs of Nicephorus Gregoras," 435–450.

<sup>248</sup> Pietro Luigi Leone, "Per l'edizione critica dell'epistolario di Niceforio Gregora," *Byz* 46 (1976): 29. Karpozilos describes Theodore Hyrtakenos' letter-collection in a similar manner. Its compiler attempted to observe a chronological order but not systematically. At the same time some letters are seemingly grouped according to their subject matter. See Apostolos Karpozilos, "The Correspondence of Theodoros Hyrtakenos," 279.

<sup>249</sup> Gregoras, *Letters*.

either by name or by title. For thirty-nine letters, the addressee is unknown.

Gregoras' correspondence, though fully edited in 1982, remains rather neglected by scholarship and only individual letters have been analyzed.<sup>250</sup> The only comprehensive view of Gregoras' letter-collection, as well as of the larger body of his texts, remains Rodolphe Guiland's *Essai sur Nicéphore Grégoras: l'homme et l'œuvre* written in 1926. Gregoras' epistolary corpus clearly displays his numerous connections to most of the prominent Byzantine figures active during the first half of the fourteenth century.<sup>251</sup> Among others, Gregoras wrote letters to two emperors – Andronikos II and Andronikos III, to the *megas domestikos* and future emperor John Kantakouzenos (who is in fact the person most frequently addressed in the collection), to the scholar and rhetorician Joseph the Philosopher,<sup>252</sup> to the *megas logothetēs* Theodore Metochites, his mentor, also to Nikephoros Choumnos,<sup>253</sup> Gregory Akindynos,<sup>254</sup> George Lapithes,<sup>255</sup> Manuel Gabalas,<sup>256</sup> and so forth. For the standards of its time, it is a substantial collection in terms of the number of letters it includes. For the sake of comparison it is worth mentioning that out of the 280 Greek letter-collections, preserved from the period between the fourth and fifteenth centuries, only 70 contain more than 15 letters, and out of those 70, only 24 contain more than 100 letters, Gregoras' collection being one of them.<sup>257</sup> In terms of the letters' outreach, circulation and impact, the number of addressees alone (between 68 and 107) is quite telling. Moreover, one has to bear in mind

<sup>250</sup> See, for instance, Pietro Luigi Leone, "Un' epistola di Nicola Pepagomeno a Niceforo Gregora," *Byz* 42 (1972): 523–31; Leone, "A proposito di una lettera del protonotario Nicola Lampeno a Niceforo Gregora."

<sup>251</sup> For a full list of Gregoras' addressees, see *Appendix II*. The most addressed person in Gregoras' epistolary corpus is John Kantakouzenos (20 letters). On how the selection of Gregoras' epistolary addressees reflects the political changes in Byzantium between the 1320s and 1360, see Alexander Riehle, "Epistolography, Networks and Intellectual Discourse (1261–1453)," in *Companion to the Intellectual Life in the Palaiologan Period*, ed. Sofia Kotzabassi (Leiden: Brill, forthcoming).

<sup>252</sup> *PLP* 9078.

<sup>253</sup> *PLP* 30961.

<sup>254</sup> *PLP* 495.

<sup>255</sup> *PLP* 14479.

<sup>256</sup> *PLP* 3309.

<sup>257</sup> Michael Grünbart, *Epistularum byzantinorum initia*, Alpha-Omega 224 (Hildesheim; New York: Olms-Weidmann, 2001).

that a letter-collection represents only partially the author's letter-production, since it only renders those letters he or she valued worthy of preservation and "publication."

The circulation of Gregoras' letters is attested, as well as the fact that they were performed at public gatherings.<sup>258</sup> Gregoras' contemporary and frequent correspondent Gregory Akindynos<sup>259</sup> provided a description of the public performance of one of Gregoras' letters on astronomy:

Indeed, what learned man here was not stirred by the letter which you have just sent me, not to mention anything else? And while it was being read, what praise did the listeners not offer you, for many persons were present all over the place! Who did not leap up? Who did not clap? Thereupon, since I could not talk to you, I said this to the letter: "Am I the only one to admire the excellent Gregoras?" And the letter all but cried out, saying: "On the contrary, not only you, but all those who happen to come in contact with the man, however little!"<sup>260</sup>

<sup>258</sup> An account of public letter-performance in a *theatron* is given by Michael Psellos. Stratis Papaioannou, "Letter-Writing," 191. On *theatra* in the Palaiologan period in general, see Herbert Hunger, "Klassizistische Tendenzen in der byzantinischen Literatur des 14. Jahrhunderts," in *Actes du XIVe Congrès International des Études Byzantines, Bucarest, 6-12 Septembre 1971*, ed. M. Berza and E. Stănescu, vol. 1, 3 vols. (Bucharest: Editura Academiei Republicii Socialiste România, 1989), 139–51; Igor P. Medvedev, "The so-Called *Theatra* as a Form of Communication of the Byzantine Intellectuals in the 14<sup>th</sup> and 15<sup>th</sup> Centuries," in *Η επικοινωνία στο Βυζάντιο: πρακτικά του Β Διεθνούς Συμποσίου, 4-6 Οκτωβρίου 1990*, ed. N. G. Moschonas (Athens: Κέντρο Βυζαντινών Ερευνών - EIE, 1993), 227–35; Ida Toth, "Rhetorical *Theatron* in Late Byzantium: The Example of Palaiologan Imperial Orations," in *Theatron: Rhetorische Kultur in Spätantike und Mittelalter = Rhetorical Culture in Late Antiquity and the Middle Ages*, ed. Michael Grünbart, Millennium-Studien zu Kultur und Geschichte des ersten Jahrtausends n. Chr., Millennium Studies in the Culture and History of the First Millennium C.E 13 (Berlin; New York: Walter de Gruyter, 2007), 429–48; Przemysław Marciniak, "Byzantine *Theatron* – A Place of Performance?," in *Theatron: Rhetorische Kultur in Spätantike und Mittelalter = Rhetorical Culture in Late Antiquity and the Middle Ages*, ed. Michael Grünbart, Millennium-Studien zu Kultur und Geschichte des ersten Jahrtausends n. Chr., Millennium Studies in the Culture and History of the First Millennium C.E 13 (Berlin; New York: Walter de Gruyter, 2007), 277–85; Niels Gaul, *Thomas Magistros und die spatbyzantinische Sophistik*.

<sup>259</sup> Leone's edition includes one letter Gregoras addressed to Akindynos (*Letter* 99) and six letters the latter addressed to the former (*Letters ad Gr.* 4, 5, 6, 7, 8, and 9). Akindynos also dedicated three poems to Gregoras, one of them referred in particular to Gregoras' *Praise of the Almond Tree*. For an edition of the latter, see Silvio Mercati, "Sulle poesie di Niceforo Gregora," vol. 1, 151. The other two poems were edited by Leone together with Gregoras' letters. For an edition of Gregoras' *Praise of the Almond Tree*, see Leone, "Nicephori Gregorae opuscula nunc primum edita," 745–751.

<sup>260</sup> Gregory Akindynos, *Letters of Gregory Akindynos: Greek Text and English Translation*, ed. & trans. by Angela Constantinides Hero, DOT, 7 (Washington, D.C.: Dumbarton Oaks Research Library and Collection, 1983), *Letter* 2, lines 60–68: τίνα γὰρ τῶν παρ' ἡμῖν περὶ λόγους ἔχόντων ἦν νῦν ἡμῖν ἐπεπόμεναι ἐπιστολὴν οὐκ ἔδωκεν

The circulation of Gregoras' writings in general is attested by his *Letter* 1 addressed to a certain Pepagomenos. This letter, dated by Rodolphe Guiland to ca. 1330–1335,<sup>261</sup> relates that Gregoras had circulated a volume containing his works. Pepagomenos had requested that Gregoras sent him said book, but as it was being passed around among Gregoras' friends, it took some time before the latter was able to forward it to Pepagomenos. Finally, Gregoras sent the volume to Pepagomenos as a confirmation of their friendship and the accompanying letter, i.e. *Letter* 1, requested that Pepagomenos returned the book as soon as possible:

Since often, on many occasions, you have praised and marveled at my writings to a great extent and you have searched for the book which contains them, I am gladly sending it to you, as you see, knowing the purpose of your inquiry to be none other but the desire to have more material for praises of me. And if I fulfill my promise late, please forgive, most excellent one; for since <being given> sometimes to these, sometimes to those of the friends who asked <for it> in turns, while the book revelled and thus somehow sold the time to the admirers, not little time escaped unnoticed while it was wearing off in their possession; you, reproaching them for such actions, strive to return it to me as quickly as possible.<sup>262</sup>

Similarly, *Letter* 16, possibly addressed to a certain Kalarchon,<sup>263</sup> mentions a volume with

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(ἵνα τᾶλλα παρῶμεν); τί δ', ἐπειδήπερ ἀνεγινώσκετο, μὴ τῶν εὐφημίαν ἔχόντων ἡνέχθη σοι πρὸς τῶν ἀκρωμένων, πολλῶν ἀπαντησάντων καὶ πολλαχῇ; τίς δ' οὐκ ἐπήδησε; τίς δ' οὐκ ἐκρότησεν; ἔνθα πρὸς τὴν ἐπιστολήν, ἐπειδήπερ οὐκ ἦν μοι πρὸς σέ, τουτὶ διελέχθην· “ἄρ' οὖν ἐμὸν μόνου Γρηγορᾶν θαυμάζειν τὸν ἄριστον”; ἡ δὲ μόνον οὐκ ἠφίει φωνήν, ὡς “οὐμενοῦν,” εἶπεῖν, “ἔστι τοῦτό γε, ἀλλ' ὅποσους ἂν καὶ ὀπωσοῦν πεῖραν τάνδρὸς εἰληφέναι συμβαίη.”

<sup>261</sup> Guiland, *Correspondance*, 93.

<sup>262</sup> Gregoras, *Letter* 1, lines 9-18: Ἐπεὶ δ' ἐπὶ πολλῶν πολλακίς ἐπὶ μέγα ἄρας τε καὶ θαυμάσας τὰμὰ συγγράμματα σὺ καὶ τὴν ἔχουσαν ταῦτα βίβλον ἐζήτηκας, ἄσμενοι ταύτην σοι πέμπομεν, ὡς ὀρᾷς, οὐκ ἄλλην εἰδότες εἶναί σοι τῆς ζητήσεως τὴν ὑπόθεσιν ἢ τὸ μακροτέραν ἔχειν ἐθέλῃν ὕλην τῶν καθ' ἡμῶν ἐγκωμίων. εἰ δὲ ὑπερήμερον τὴν ὑπόσχεσιν ταύτην ἡμεῖς πεποιήμεθα, σὺ δὲ σύγγνωθι, βέλτιστε πρὸς γὰρ ἄλλοτε ἄλλους τῶν φίλων ζητούντων ἐκ διαδοχῆς ἡ βίβλος κωμάζουσα καὶ τὴν ὥραν οὕτωσί πως ἀπεμπολῶσα τοῖς ἐρασταῖς, ἔλαθεν οὐ μικρὸν ἐπὶ τούτοις τρίψασα χρόνον· σὺ δ' ἔργοις αὐτοῖς ἐλέγχων αὐτούς, τὴν ταχίστην ἡμῖν αὐτὴν ἀποδοῦναι σπούδασον.

<sup>263</sup> PLP 92255. Guiland dated this letter c. 1330–1340. See Guiland, *Correspondance*, 105.

Gregoras' works that the addressee had previously borrowed and not returned on time, thus provoking complaints by other members of Gregoras' circle who wished to receive the book as well:

Dionysios, the tyrant of Sicily, did not withhold for such a long time Plato, whom he summoned in the past from Athens [...], as much as you yourself are withholding my works <you> sent for. [...] know that you make yourself odious to not a few of the friends... But you <who are> of the Asclepiads [...], apply 'soothing medicines' upon the suffering, as you return the book to me, who gave it, without delay.<sup>264</sup>

In an article published in 1976,<sup>265</sup> six years before editing Gregoras' letters himself, Pietro Luigi Leone reviewed all previous partial editions of Gregoras' correspondence. The two most important publications in this regard were Ștefan Bezdechi's edition comprising altogether ninety letters (1924)<sup>266</sup> and Rodolphe Guiland's useful summaries of all of Gregoras' letters, accompanied by an edition and a translation into French of twenty-one missives (1927).<sup>267</sup> In his edition Bezdechi was not concerned with the chronology of the letters or with their addressees. He arranged the letter-sequence in the order it followed in the manuscripts, namely in *codd. Vat. gr.* 1086, 116, and 1085.<sup>268</sup> In addition to the letters, Bezdechi included several other works, such as the *On the Correction of the Date of Easter* (letter XX),<sup>269</sup> the dialogue *Philomathēs* (letter LXXXII),<sup>270</sup> the *On the Soul*,<sup>271</sup> as well as orations

<sup>264</sup> Gregoras, *Letter* 16, lines 1-4, 8, 11-12: Οὐδὲ Διονύσιος ὁ τῆς Σικελίας τύραννος ἐπὶ τοσοῦτον κατέσχε πάλαι μεταπεμψάμενος Ἀθήνηθεν Πλάτωνα... ἐφ' ὅσον κατέσχεσ αὐτὸς τοὺς ἐμοὺς μεταπεμψάμενος λόγους [...] ἴσθι σαυτὸν οὐκ ὀλίγοις τῶν φίλων ἐπίφθονον σὺ καθιστάμενος, [...] ἀλλ' Ἀσκληπιαδῶν σύ γε [...], ἥπια φάρμακα' {{φέρων}} ἐπιτίθει τῷ πάθει, τοῖς δοῦσιν ἡμῖν ὑπερθέσεως ἄνευ τὴν βίβλον ἀποδιδούς.

<sup>265</sup> Leone, "Per l'edizione critica dell'epistolario di Niceforio Gregora," 13-47.

<sup>266</sup> "Nicephori Gregorae Epistulae XC," ed. Ștefan Bezdechi.

<sup>267</sup> Guiland, *Correspondance*.

<sup>268</sup> Of the three, Bezdechi considered *Vat. gr.* 1086 the best witness, followed by *Vat. gr.* 116 and 1085. He also consulted *Barb. gr.* 174, *Vat. gr.* 228, and *Urb. gr.* 137.

<sup>269</sup> "Nicephori Gregorae Epistulae XC," ed. Ștefan Bezdechi: 330-336.

<sup>270</sup> *Ibid.*, 356-364.

<sup>271</sup> *Ibid.*, 354.

addressed to emperor Andronikos II (letters VII, IX, and X).<sup>272</sup> Interestingly, in 1924, Bezdechi treated all of them, except *Philomathēs*, as letters.<sup>273</sup> Leone, however, criticized Bezdechi for mixing the letters with the small tracts and for labelling the latter as missives.<sup>274</sup> For instance, in the case of the *On the Soul*, Leone edited it as one of Gregoras' *Solutions*,<sup>275</sup> whereas Bezdechi continued to view it as a letter in his own publication of the *Solutions* from 1938.<sup>276</sup>

As far as Guiland's partial edition is concerned, suffice it to note one curious detail. Guiland listed altogether 161 letters. In 1976, Leone followed the French scholar in his claim that Gregoras' collection amounted to 161 missives. In his 1982 edition, however, Leone edited a total of 159 letters. The difference came from the omission of one letter and the recategorization of another. The two missives in question are to be found towards the end of *Vat. gr.* 1086, namely on ff. 233v-234r and ff. 236r-236v. Though Guiland himself noted that ff. 222r-234r comprise only letters addressed to Gregoras,<sup>277</sup> he still considered the first letter as penned by the latter and in his summary of the text, indicated that the probable addressee could be the *megas logothetēs* Theodore Metochites. According to Leone, ff. 233v-234r represent only a fragment of a letter, "probably not authored by Gregoras,"<sup>278</sup> thus he excluded the text from his edition, and correspondingly, decreased the total number of the letters in the collection. Finally, in the case of the second letter on ff. 236r-236v, though described by Guiland as penned by Gregoras, it is in fact addressed to him by

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<sup>272</sup> *Ibid.*, 340, 364-369, 369-372.

<sup>273</sup> Though Gregoras' dialogue was given a number in Bezdechi's edition (LXXXII), it was not included in the total sum of the letters, that is, Bezdechi's publication includes ninety-one texts, but bears the title of *Ninety Letters of Nikephoros Gregoras*, thus excluding the *Philomathēs*.

<sup>274</sup> Leone, "Per l'edizione critica dell'epistolario di Niceforio Gregora," 22.

<sup>275</sup> Gregoras, *Solutions*.

<sup>276</sup> Ștefan Bezdechi, "Un manuel de philosophie à l'usage des dames. Un échantillon d'arithmetica geometrica," *Anuarul Institutului de Studii Clasice* 3 (1938): 1-28.

<sup>277</sup> Guiland, *Essai sur Nicéphore Grégoras*, xxiv.

<sup>278</sup> Gregoras, *Letters*, vol. 1, 20, note 10. It has to be noted, however, that in an earlier publication Leone described the content of ff. 233v-234r as containing *Letter* 143 (according to Guiland's numeration). See Leone, "Per l'edizione critica dell'epistolario di Niceforio Gregora," 28.



Matthew of Ephesos and thus, it was edited by Leone in a different section of his edition.<sup>279</sup>

It is noteworthy that the so-called fragment of a letter is copied by the same hand that copied the previous missive, one addressed to Gregoras by Athanasios Lepentrenos.<sup>280</sup>

Though Gregoras' letters are preserved in a number of manuscripts,<sup>281</sup> in the present chapter I am interested in two codices in particular: *codd. Vat. gr. 1085* and *1086. Vat. gr. 1085* preserves seventy-three letters.<sup>282</sup> *Vat. gr. 1086*, on the other hand, transmits seventy-four letters.<sup>283</sup> Taking into account the letters appearing in both manuscripts, as a two-volume collection *codd. Vat. gr. 1085* and *1086* transmit altogether ninety-eight letters of Gregoras. Both manuscripts date to the fourteenth century and are copied by multiple hands. The first section of *Vat. gr. 1085* (ff. 1r-140v) contains only works by Gregoras.<sup>284</sup> In addition to seventeen letters addressed to Gregoras by his correspondents, *Vat. gr. 1086* also comprises solely Gregoras' works. Both manuscripts, as it has been noted by Guiland, Ševčenko and Leone, include two notes each indicating that the codex in question represents a respective volume of Gregoras' œuvre.<sup>285</sup> In both codices the chronology of the letters is not observed and only in the case of *Vat. gr. 1085*, Gregoras' missives are partially organized according to their addressee.

Importantly, both codices feature corrections made by Gregoras himself.<sup>286</sup> In *Vat. gr. 1086*, one finds Gregoras' emendations of titles and sentences, corrections written in the

<sup>279</sup> Guiland's *Letter 144* corresponds to Leone's *Letter 19* addressed to Gregoras.

<sup>280</sup> *PLP 14743*.

<sup>281</sup> Leone counted twenty-four codices. I include also *Vat. gr. 1087*, since I argue that the opening hortatory letter should have been added to Leone's edition.

<sup>282</sup> Seventy-three letters by Gregoras of which two were copied twice; as well as one letter addressed to Gregoras.

<sup>283</sup> Seventy-four letters by Gregoras of which three were copied twice; as well as and seventeen letters addressed to Gregoras.

<sup>284</sup> The manuscript contains 237 *folia in toto*.

<sup>285</sup> Leone, "Per l'edizione critica dell'epistolario di Niceforio Gregora," 29-30.

<sup>286</sup> As Karpozilos observed "[b]y the late thirteenth and fourteenth century it was common practice for men of letters to arrange personally their works for publication." See Apostolos Karpozilos, "The Correspondence of Theodoros Hyrtakenos," 275, note 1.

margin and within the main body of the text.<sup>287</sup> One of his autograph corrections (f. 151r) can be dated to shortly after 1351. In addition, as Leone pointed out, three of the scribes of *Vat. gr.* 1086 also participated in the production of *Vat. gr.* 116<sup>288</sup> and two of them, in particular, copied Gregoras' letters.<sup>289</sup> Similarly, two of the scribes who copied the folia containing Gregoras' works in *Vat. gr.* 1898 (ff. 217v, 218r-v) participated in the production of *Vat. gr.* 1086.<sup>290</sup> Moreover, Leone observed, a marginal note in *Vat. gr.* 1086, in the upper margin of f. 3r, indicates that the selection of the letters could have been made by Gregoras himself. In fact, Leone also allowed for the possibility that the note was executed by Gregoras' own hand.<sup>291</sup> The same marginal note mentions that the letters included in the volume are similar to small encomia, since they are written to persons of greatness and honour.<sup>292</sup> Such a statement, to my mind, emphasizes the rhetorical nature of the collection and the fact that the letters it includes are viewed rather as encomiastic speeches, than as epistolary texts *per se*. Moreover, both volumes, i.e. *codd. Vat. gr.* 1085 and 1086, do not include all of Gregoras' letters we know of, that is, the editor(s) had a purpose different from that of collecting everything he ever wrote.<sup>293</sup> Comprehensiveness, on the other hand, is precisely the intention behind the modern edition of his letters by Leone, namely his aim was to collect and to prepare a critical edition of all extant letters from and to Gregoras.

Gregoras' letters have been approached comprehensively or less so by three modern

<sup>287</sup> For examples of Gregoras' autograph corrections and notes in *Vat. gr.* 1086, see Gregoras, *Phlorentios*, 37; Leone, "Per l'edizione critica dell'epistolario di Niceforio Gregora," 27; Ševčenko, "Some Autographs of Nicephorus Gregoras," 445-446; Anthony Littlewood, "An 'Ikon of the Soul': The Byzantine Letter," *Visible Language* 10 (1976): 204; Gregoras, *Calcul de l'éclipse de Soleil du 16 juillet 1330*, 15-16, among others. On Gregoras' autograph intervention in *Vat. gr.* 1085, see Leone, "Per l'edizione critica dell'epistolario di Niceforio Gregora," 29.

<sup>288</sup> Leone, "Per l'edizione critica dell'epistolario di Niceforio Gregora," 27.

<sup>289</sup> *Ibid.*, 31.

<sup>290</sup> *Ibid.*, 31-32.

<sup>291</sup> *Ibid.*, 29.

<sup>292</sup> *Vat. gr.* 1086, f. 3r: αἱ πλείους τῶν ἐνταῦθα ἐπιστολῶν προσφωνήματά εἰσι καὶ οἷον ἐγκώμια μικρὰ διὰ τὸ πρὸς ἔνδοξα καὶ μέγεθος ἔχοντα πρόσωπα γράφεσθαι. Gregoras, *Letters*, vol. 1, 20.

<sup>293</sup> A significant number of letters, however, overlap in between *codd. Vat. gr.* 1085 and 1086, thus, presumably they have not been intended as complimentary volumes.

scholars: Bezdechi, Guiland, and Leone. Out of the three, Guiland was the most imposing, so to speak, by collecting only Gregoras' letters and those addressed to him, and by arranging them according to their dating. Both Bezdechi and Leone, on the other hand, relied on the letter arrangement they found in the manuscripts. They have been more inclusive as well. For instance, Bezdechi edited the dialogue *Philomathēs* and Gregoras' orations to emperor Andronikos II as letters. Nevertheless, his "mistake" was an honest one, since those texts in fact belong to the collection of literary works preserved in *codd. Vat. gr.* 1085, 1086, and 116. Leone was inclusive as well, because he edited as an appendix the poems Gregory Akindynos dedicated to Gregoras which were preserved at the end of *Vat. gr.* 1086. Finally, Leone was at the same time exclusive, because he omitted the *Parakletikē* and the letter to Demetrios Kabasilas concerning the date of Easter from his edition.

## PART II: JUSTIFICATIONS OF ASTRONOMY

In the words of Robert Browning, “polymathy is a distinctive feature of Byzantine culture” and moreover one “not unconnected with the predominant role played by rhetoric.”<sup>294</sup> And indeed scholars have often labeled members of the Byzantine educated elite as polymaths (notably Photios, Michael Psellos, and Theodore Metochites among others), based on the range and variety of their scholarly pursuits and literary production. Thus, polymathy appears to be a label with self-evident and straightforward meaning, ascribed to those well versed in various or all disciplines of the *trivium* and *quadrivium*. The intersection of scientific knowledge and rhetoric, which the notion of polymathy indicates, however, is in my opinion far from self-explanatory and consequently, it is scrutinized in the present chapter.

The transposition and use of philosophical or scientific material in a letter raises questions related to the interaction between content and genre; for instance, in what ways did Gregoras modify the technical mathematical or astronomical discussions in order to meet the literary conventions of the epistolary genre? More importantly, the change of literary form, i.e. of the means of rendering the material, entails a difference in the intention(s) and purpose(s) of the text and possibly a different audience. As Gregory Akindynos reported, Gregoras’ astronomical letters were performed publicly in Thessaloniki; there is also evidence that they were circulating among the circles of *pepaideumenoι* in Constantinople and Cyprus. Therefore, it is necessary to examine the motivation behind Gregoras’ rhetorical strategy of incorporation of philosophical and scientific elements in letters. Did it aim at maintaining an intellectual discussion? Did it perform a didactic and/or polemical function? What role did it play in establishing connections and in accumulating social prestige and achieving social promotion (these

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<sup>294</sup> Robert Browning, “Byzantine Literature,” CR 30, no. 2. New Series (1980): 270–271.

goals being not mutually exclusive)?

In addition, by comparing scientific letters and treatises, I aim to reconstruct the implicit epistemological paradigms underlying the main thematic concerns of Gregoras' letters. Though notorious for his radical skepticism concerning the possibilities for human reason to achieve firm knowledge,<sup>295</sup> Gregoras, nevertheless, studied mathematics and astronomy with remarkable zeal and seriousness which are also reflected in his letters. Worth mentioning is a group of six astronomical letters (*Letters* 28, 40, 53, 83, 103, and 114) the immediate context of which is the astronomical controversy Gregoras was engaged in during the 1330s. Despite their polemical character, the letters implicitly deal with the question of how the natural world should be examined and, by extension, with the definition of science and scientific truth.

*Letter* 12 offers another example of reflection on the methodological aspects of the scientific work and the proper methods for conducting it. *Letter* 6, on the other hand, employs a detailed mathematical discussion about the way two square numbers are related, in order to demonstrate the principles of friendship. Thus, the main objective of the present chapter consists first, in analysis of the intertextual relations between Gregoras' scientific letters and related scientific texts. Thus, my inquiry examines the "translation" of technical scientific material into a scientifically informed rhetorical discussion. Second, the present chapter provides a much needed comprehensive discussion of Nikephoros Gregoras' mathematical and astronomical letters, in relation to his general philosophical, cosmological and epistemological position.

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<sup>295</sup> Bydén, "The Criticism of Aristotle in Nikephoros Gregoras' *Florentius*"; Michele Trizio, "On the Byzantine Fortune of Eustratios of Nicaea's Commentary on Books I and VI of the Nicomachean Ethics," in *The Many Faces of Byzantine Philosophy*, ed. Katerina Ierodiakonou and Börje Bydén, Papers and Monographs from the Norwegian Institute at Athens 1 (Athens: The Norwegian Institute at Athens, 2012), 199–224; and Demetracopoulos, "Nikephoros Gregoras."

## The Mathematical Sciences in Byzantium: An Overview

Before I proceed to the close reading and analysis of Gregoras' scientific letters and related treatises, I shall make some general remarks with respect to their theoretical background, that is, the mathematical sciences in Byzantium,<sup>296</sup> mathematics and astronomy in particular.<sup>297</sup> There are four major points one ought to emphasize with respect to the history of science in Byzantium. First, the mathematical sciences were studied and practiced as theoretical rather than experimental sciences, whence the certainty and truthfulness of their results were derived. Other types of knowledge, such as medicine, pharmacology, and alchemy relied much more on experience, observation, and practice. Second, scientific study and production grew out of the classical heritage of Greek science and aimed at its preservation, clarification and emendation.<sup>298</sup> A case in point is the period

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<sup>296</sup> By 'mathematical sciences' I refer to the sciences of the *quadrivium*, the τετρακτὺς τῶν μαθημάτων or the four methods defined by Nikomachos of Gerasa, i.e. arithmetic, geometry, music and astronomy.

<sup>297</sup> Two classical surveys of the history of Greek mathematics are Thomas Little Heath, *A History of Greek Mathematics*, 2 vols. (Oxford: Clarendon Press, 1921) and Paul Tannery, *La géométrie grecque* (Hildesheim: Georg Olms, 1988). See also J. L. Heiberg, *Geschichte der Mathematik und Naturwissenschaften im Altertum*, Handbuch der Altertumswissenschaft, 1. Abt., 5 Bd., 2 Hälfte (Munich: C. H. Beck, 1960) which treats also Byzantine authors, including Gregoras, as well as, N. Stuloff, "Mathematik in Byzanz," *Algorismus* 1 (1988): 39–62 and Bydén, *Theodore Metochites' Stoiheiosis Astronomike*, 216–262. Similarly, comprehensive background information on the history of ancient astronomy can be found in Paul Tannery, *Recherches sur l'histoire de l'astronomie ancienne* (Hildesheim; New York: G. Olms, 1976), while Mercier offers a collection of informative articles dealing with medieval astronomy in Raymond Mercier, *Studies on the Transmission of Medieval Mathematical Astronomy*, Variorum Collected Studies Series (Burlington, VT: Ashgate, 2004). For general introduction to Byzantine mathematical sciences, see Tihon, "Numeracy and Science"; Tihon, "Les sciences exactes à Byzance," 380–434; Tihon, "Astrological Promenade in Byzantium in the Early Palaiologan Period," 265–90; Anne Tihon, "Certainty, Doubt, and Errors in Byzantine Astronomy," *Early Science and Medicine* 7, no. 3 (2002): 292–93, as well as Nikolaides, *Science and Eastern Orthodoxy*. On the textual transmission and readership of Byzantine mathematical texts, see Pérez Martín, "Al calor del texto antiguo." On late Byzantine astronomy and astrology, see Pingree, "Gregory Choniades and Palaeologan Astronomy," 133–60; Pingree, "The Astrological School of John Abramius," 189–215; Pingree, "Some Fourteenth-Century Byzantine Astronomical Texts," 103–8, and Magdalino, *L'orthodoxie des astrologues*. Finally, an integrated perspective regarding the developments in science and philosophy in Byzantium, during the Palaiologan period in particular, is offered by Mergiali, *L'enseignement et les lettres pendant l'époque des paléologues* and by Michel Cacouros and Marie-Hélène Congourdeau, *Philosophie et sciences à Byzance de 1204 à 1453: les textes, les doctrines et leur transmission: actes de la table ronde organisée au XXe Congrès international d'études Byzantines, Paris, 2001* (Peeters Publishers, 2006).

<sup>298</sup> See Pérez Martín, "Al calor del texto antiguo," 57; Anne Tihon, "Les sciences exactes à Byzance," 381.

after 1204, famously characterized by the increased production of compilations of scientific works whose chief purpose was the preservation of ancient knowledge on the subject, as well as the renewal of its circulation. It is in this period of proliferation of collections and compilations that a codification of a “canon of authorities” took place: Nikomachos of Gerasa (fl. ca. 100) together with Diophantos of Alexandria (fl. ca. 250) became the main reference for those interested in arithmetic, Euclid (fl. ca. 300 BCE) for the study of geometry, Heron of Alexandria (the first century CE) and Ptolemy (fl. ca. 130–175) for music and astronomy.<sup>299</sup> It is noteworthy that the period after 1261 until the fall of Constantinople in 1453 is the period most saturated with scientific production during the Byzantine millennium.<sup>300</sup> Third, one has to bear in mind the lack of institutionalization and support on behalf of the Byzantine imperial government for the study and practice of the higher mathematical sciences. This was not the case with medicine, for instance, since the Byzantine emperors invested in the creation and maintenance of medical schools and hospitals. The fourth main feature characterizing Byzantine science in particular, as well as Byzantine learned culture in general, consists in the lack of specialization on behalf of the scholars.<sup>301</sup> Higher education in Byzantium was not university-based and did not follow an established curriculum.<sup>302</sup> Thus, those educated Byzantines, who dedicated themselves to mathematics, typically left their contributions also in the fields of music, astronomy, and philosophy.<sup>303</sup>

Byzantine epistemic discourse inherited both the premise expressed at the beginning of Aristotle’s *Metaphysics* – namely, “[a]ll men by nature desire to know”<sup>304</sup> – and its association with a number of classical Greek concepts related to the acquisition of

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<sup>299</sup> Pérez Martín, “Al calor del texto antiguo,” 62.

<sup>300</sup> Tihon, “Les sciences exactes à Byzance,” 383.

<sup>301</sup> Pérez Martín, “Al calor del texto antiguo,” 57.

<sup>302</sup> See also Constantinides, *Higher Education in Byzantium in the Thirteenth and Early Fourteenth Centuries (1204 - ca. 1310)*.

<sup>303</sup> Pérez Martín, “Al calor del texto antiguo,” 57.

<sup>304</sup> Aristotle, *Metaphysics*, I, 1, 980a21.

knowledge and denoting desire for learning, philosophical pursuit of wisdom, and erudition or, reversely, inquisitiveness, meddlesomeness, and nosiness, e.g. πολυμάθεια, φιλομάθεια, and πολυϊστορία; or πολυπραγμοσύνη, φιλοπραγμοσύνη, and περιεργία. While the strife after knowledge was considered accordant to human nature, its intensification and excessiveness, and their respective ethical implications introduced additional epistemic discourses such as the determination of licit and illicit fields of study, as well as of useful and useless types of inquiry.<sup>305</sup> Thus, the two most commonly used terms that express Byzantine attitude towards learning, be it properly scientific (e.g., mathematics, harmonics, and astronomy), or quasi-scientific (e.g., astrology, magic, and dream interpretation), namely φιλομάθεια and πολυμάθεια, denote multiple meanings: from the positive zeal for learning (φιλομάθεια) to the sometimes objectionable and unhealthy curiosity (πολυμάθεια is generally meant positively, but on occasion it can be synonymous with περιεργασία and πολυπραγμοσύνη. Moreover, the latter can also be employed in its meaning of a pursuit of understanding). Though their meaning varies, they both indicate general and all-encompassing knowledge rather than specialized learning.<sup>306</sup>

Scientific works differed not only in terms of their topic, but also in terms of their literary style. There are, generally speaking, two major groups of scientific texts with respect to the register they were written in, namely those composed in classicizing Greek and those written in the vernacular.<sup>307</sup> The first group usually deals with the so-called ‘noble’ matters, i.e. the advanced theoretical levels of the mathematical sciences. The second group includes practical and ‘reader-friendly’ manuals such as botanical lists, astrological prescriptions, and collections of arithmetical problems. The rough division of

<sup>305</sup> Cf. Matthew Leigh, *From Polypragmon to Curiosus: Ancient Concepts of Curious and Meddlesome Behaviour* (Oxford: Oxford University Press, 2013), 197.

<sup>306</sup> John Duffy, “Reactions of Two Byzantine Intellectuals to the Theory and Practice of Magic: Michael Psellos and Michael Italikos,” in *Byzantine Magic*, ed. Henry Maguire (Washington, D.C: Dumbarton Oaks Research Library and Collection; Distributed by Harvard University Press, 1995), 91.

<sup>307</sup> Tihon, “Les sciences exactes à Byzance,” 384.



the Byzantine scientific texts according to style should be complemented by the addition of the category of translated works, e.g. from Arabic or Persian. Many times the Byzantine translations rendered the original word by word and in the case of foreign technical vocabulary, they preserved it in transliteration instead of providing an equivalent Greek term.

The mathematical sciences in Byzantium inherited their material and methods from the Greek mathematics of antiquity and were subsequently influenced by the developments in Arabic, Persian, Latin, and Jewish science. Mathematics was the foundation of astronomy, astrology, the computus (i.e. the calculation of the date of Easter), of financial transaction and architectural construction. Most influential in the studies of the mathematical sciences in Byzantium were the works of Euclid, Nikomachos of Gerasa, Diophantos of Alexandria, Apollonios of Perge (d. ca. 190 BCE), Archimedes (d. 212 BCE), Ptolemy, Pappos (fl. ca. 320), Theon of Alexandria (fl. ca. 360–380), and Heron. Nikomachos famously circumscribed the cycle of the four mathematical disciplines or *tetraktys tōn mathēmatōn*, namely arithmetic, geometry, music and astronomy. The works of Euclid, in turn, provided the basis for the study of geometry and were continuously read throughout the Byzantine millennium. Evidence for Gregoras' preoccupation with studying Euclid is the fact that he emended Book X of Euclid's *Elements* by inserting an additional mathematical problem concerning the construction of a parallelogram.

The importance of Euclidean mathematics in Byzantium is comparable only to the influence Ptolemaic astronomy exerted on its medieval Greek counterpart. The systematic exposition of mathematical astronomy in Ptolemy's *Almagest* and *Handy Tables*, as well as Theon's commentaries were read continuously in Byzantium, and though during the thirteenth century the study of the higher mathematical sciences was interrupted for about a hundred years, astronomy was revitalized and reintroduced towards the end of this

period.<sup>308</sup>

Gregoras' astronomical activity, as well as the literary production stemming out of it, were an intrinsic part of one out of two trends characteristic for the development of astronomical studies during the Palaiologan period. On the one hand, Ptolemaic astronomy was consciously reintroduced in practice and publicized by several generations of scholars, most of them connected to the Chora monastery in Constantinople. The main driving force behind this enterprise was Theodore Metochites (d. 1332), though his work was already prepared by the efforts of Manuel Bryennios (fl. ca. 1300), Maximos Planoudes (ca. 1255–ca. 1305)<sup>309</sup> and George Pachymeres (1242–ca. 1310). Nikephoros Gregoras continued Metochites' efforts and then handed over the task to his own students, notably to Isaac Argyros (d. ca. 1375).<sup>310</sup> On the other hand, an alternative trend in the study and practice of astronomy emerged under the influence of Islamic astronomical works coming mainly from Tabriz and introduced to Byzantium by Gregory Chioniades (d. ca. 1320) and later on popularized by scholars such as George Chrysokokkes (fl. ca. 1335–1350), Theodore Meliteniotes (d. 1393), and John Abramios (fl. 1370–1390).<sup>311</sup> Moreover, through the court of Hugh IV of Lusignan (r. 1324–1359) those who maintained connection with Cyprus, like Nikephoros Gregoras, had access also to Latin astronomical treatises.<sup>312</sup>

Importantly, the revival of Ptolemaic astronomy in Palaiologan Byzantium occurred in parallel with at least two other, to my mind, potentially significant events. First, it is in

<sup>308</sup> In Anne Tihon's words, Ptolemaic astronomy in Palaiologan Byzantium appeared much more alive than it had been in late antique Alexandria. See Tihon, "Enseignement scientifique à Byzance," 107.

<sup>309</sup> Planoudes made an autograph copy (Edinburgh, *Advocates' Library* 18.7.15) of Cleomedes and Aratus. See Wilson, *Scholars*, 232.

<sup>310</sup> *PLP* 1285. On Argyros' activity, see also Mondrain, "Traces et mémoire," 1–25; Mondrain, "Les écritures dans les manuscrits byzantins du XIV<sup>e</sup> siècle. Quelques problématiques," 157–96; Bianconi, "La controversia palamitica. Figure, libri, testi e mani," 337–76; Inmaculada Pérez Martín, "El 'estilo Hodegos' y su proyección en las escrituras constantinopolitanas," *SeT* 6 (2008): 389–458; Estangüi Gómez, "Saint-Sauveur de Chôra. Un monastère catholique à Constantinople dans le troisième quart du XIV<sup>e</sup> siècle," 140–97.

<sup>311</sup> Paul Magdalino, "The Byzantine Reception of Classical Astrology," in *Literacy, Education and Manuscript Transmission in Byzantium and beyond*, ed. Catherine Holmes, Judith Waring (Leiden: Brill, 2002): 33–57.

<sup>312</sup> David Pingree, "The Byzantine Version of the 'Toledan Tables': The Work of George Lapithes?," *DOP* 30 (1976): 85–132.

the late thirteenth-early fourteenth century that one of the seminal Latin medieval cosmological texts was translated into Greek by Maximos Planoudes, namely Macrobius' commentary on Cicero's *Somnium Scipionis*.<sup>313</sup> In her critical edition of Planoudes' translation of Cicero's *Somnium Scipionis*, Annamaria Pavano listed seven fourteenth-century manuscripts transmitting the translation in question: *Vat. gr.* 116, 1r-4r and 57r-61r; *Par. suppl. gr.* 1101, ff. 71r-75v; *Par. gr.* 1000, ff. 268r-274r; *Marc. gr.* Z 508 (the fourteenth-fifteenth centuries), ff. 1r-7r; *Monac. gr.* 439 (the fourteenth-fifteenth centuries), ff. 59r-74v; *Monac. gr.* 495 (the fourteenth-fifteenth centuries), ff. 204v-210v; *Vat. gr.* 115 (the fourteenth or fifteenth centuries), ff. 1r-10r.<sup>314</sup> Three of them render also Planoudes' translation of Macrobius' commentary: *Vat. gr.* 116, *Marc. gr.* Z 508, and *Vat. gr.* 115. *Vat. gr.* 116, as it was discussed earlier, is Gregoras' autograph and contains predominantly his writings. Thus, Gregoras was familiar with Planoudes' translations and, as Sbordone has shown, he further appropriated them in his short arithmological treatise dedicated to the number seven.

Secondly, it ought to be mentioned that the Palaiologan Ptolemaic revival, regarding astronomy, closely followed the translation of Ptolemy's *Almagest* into Latin, first from Greek in 1160 and then, from Arabic by Gerard of Cremona around 1175. Thus, the Ptolemaic planetary system of eccentrics and epicycles came to the fore of Latin astronomy only in the thirteenth century,<sup>315</sup> that is, less than a century before it was revisited in Byzantium. Thus, it is worth exploring to what extent the Palaiologan revival of Ptolemy

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<sup>313</sup> See Wilson, *Scholars*, 230. Planoudes translated also Cicero's *Somnium Scipionis*. On translations of philosophical texts from Latin to Greek in the thirteenth century, see Börje Bydén, "Strangle Them with These Meshes of Syllogisms!": Latin Philosophy in Greek Translations of the Thirteenth Century," in *Interaction and Isolation in Late Byzantine Culture: Papers Read at a Colloquium Held at the Swedish Research Institute in Istanbul, 1-5 December, 1999*, ed. Jan Olof Rosenqvist, Swedish Research Institute in Istanbul Transactions 13 (Stockholm, London, New York: Swedish Research Institute in Istanbul, 2004), 133-57. Modern critical editions of Planoudes' translations of both texts are available. See *M. Tullii Ciceronis Somnium Scipionis in graecum translatum*, ed. Pavano and Μάξιμου Πλανούδη (1255-1305) του υπομνηματος εις τον "Ονειρον του Σκηπίωνος," ed. Megas.

<sup>314</sup> *M. Tullii Ciceronis Somnium Scipionis in graecum translatum*, xii-xiv.

<sup>315</sup> Gabriela Ilnitchi, "Musica Mundana,' Aristotelian Natural Philosophy and Ptolemaic Astronomy," *Early Music History* 21 (2002): 50-51.

was motivated by the parallel developments in the west.<sup>316</sup>

Finally, one also ought to bear in mind that the increased interest in Ptolemaic astronomy during the Palaiologan period happened simultaneously to the rediscovery of Ptolemy's *Geography* in the end of the thirteenth century.<sup>317</sup> The driving force behind the revival of Ptolemaic geography in Palaiologan Byzantium was, once again, the activity of Maximos Planoudes who in 1295 successfully acquired and reedited Ptolemy's treatise. Worth mentioning are two codices containing the *Geography*: 1) *Vat. gr. 177*, dated to the end of the thirteenth century, which was in Planoudes' possession while he was residing at the monastery of Christ Saviour in Chora; 2) and *Vat. gr. 191*, a thirteenth or fourteenth-century manuscript containing in addition a number of astronomical works. Both manuscripts do not include any maps; however, they both contain notes indicating that the codices were supposed to comprise twenty-six or twenty-seven maps respectively. The three oldest manuscript witnesses of Ptolemy's *Geography* containing maps date to the late thirteenth century and are also associated with Planoudes' editorial activity, namely *codd. Urbinae gr. 82* with twenty-seven maps, *Seragliensis 57*, and *Fragmentum Fabricianum Graecum*. In sum, Maximos Planoudes was actively engaged not only in reestablishing the mathematical sciences in Byzantium, but he was also behind the restored interest in Ptolemy, not only as an authority on astronomy, but also as a supreme example of geography and cartography. Finally, Planoudes actively translated Latin texts into Greek, and, although his translations of Augustine's *On the Trinity* and Boethius' *The Consolation of Philosophy* are considered of larger significance, for the purposes of the present study, most important is his rendition of Cicero's *Somnium Scipionis* and Macrobius' relevant commentary.<sup>318</sup> Planoudes' scholarly

<sup>316</sup> For some remarks on the subject, see Bydén, "Strangle Them with These Meshes of Syllogisms!," 135-137.

<sup>317</sup> Dilke, "Cartography in the Byzantine Empire," 258-275.

<sup>318</sup> On Planoudes' translation of Cicero's *Somnium Scipionis*, see Wolfgang O. Schmitt, "Lateinische Literatur in Byzanz. Die Übersetzungen des Maximos Planudes und die moderne Forschung," *Jahrbuch der österreichischen byzantinischen Gesellschaft* 17 (1968): 127-48; Annamaria Pavano, "Caratteri stilistici della traduzione planudea del *Somnium Scipionis*," *Sileno* 14 (1988): 157-69; Elisabeth Fisher, "Planoudes, Holobolos, and the Motivation for Translation," *GRBS* 43 (2002): 77-104.

projects are significant not only because part of his library remained at Chora and consequently was available to Metochites and Gregoras, but also because the results of his work on astronomy in combination with his translations of Cicero and Macrobius may have influenced later Byzantine cosmological theories.

## Chapter 1: The *Hortatory Letter concerning Astronomy*

In order to study the configurations of the fixed stars, the movements and conjunctions of the five planets, the positions of the two luminaries, the sun and the moon, with respect to the earth and to each other, one would use an astrolabe, an astronomical instrument known probably since the second century CE<sup>319</sup> which converted with the help of stereographical projection the three-dimensional celestial sphere visible from a defined geographical latitude into a dynamic two-dimensional map of the sky projected on the equatorial plane. Though only one Byzantine astrolabe survives today,<sup>320</sup> there are descriptions of the instrument, depictions, as well as treatises and diagrams dedicated to its construction and usage preserved in numerous Byzantine codices.<sup>321</sup> One such description, a favorite among

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<sup>319</sup> Otto Neugebauer, "The Early History of the Astrolabe. Studies in Ancient Astronomy IX," *Isis* 40, 3 (1949): 240.

<sup>320</sup> Nikolaides, *Science and Eastern Orthodoxy*, 88: "In effect, the only Byzantine instruments that have been conserved to our day are an astrolabe of Persian inspiration, constructed in 1062, and fragments of another astrolabe."

<sup>321</sup> The treatise on the astrolabe composed by John Philoponos (d. ca. 570), as well as the earlier description of the instrument by Synesios (d. ca. 413), served as models for Palaiologan contributions on the subject such as Nikephoros Gregoras' *On the Construction of the Astrolabe* (in two redactions), as well as the works by Isaak Argyros and Theodore Meliteniotes. The actual observational use of astronomical instruments in Byzantium is also attested. One such instance is contained in a lengthy marginal note on f. 275r in codex *Laurentianus* 28, 16, authored probably in 1389 in Constantinople, by the astronomer and astrologer John Abramios. John mentioned that with the help of a diopter, he observed one of the fixed stars, namely the Southern Crown, and calculated its longitude. Then, he reported adjusting his astrolabe accordingly and calculating the time of night when his observation was recorded. The estimation of the precise hour was confirmed by the sound of a clock. Gregoras also made use of the astrolabe. As Ševčenko pointed out, Gregoras inserted a correction in the margin of f. 159v of *Vat. gr.* 165 in which he suggested a different value regarding the spring equinox of March 17, according to what he had determined with the help of an astrolabe. See Ševčenko, *Études*, 117, note 2.

scholars discussing shadow projection with respect to Byzantine art, comes from the works of Nikephoros Gregoras:

The delineation of a sphere on a flat plane is similar to painting. For just as the painters seek to imitate objects exactly, not according to their true properties, but [...] so as to make them visually more plausible, so, too, the geometricians and astronomers delineate on a flat plane solid objects, such as octahedrons and cubes and all spherical bodies, like stars, the heavens, and the earth.<sup>322</sup>

The excerpt comes from the second redaction of Gregoras' treatise on the construction of the astrolabe, published by Delatte in 1939.<sup>323</sup> For his edition Delatte used one fifteenth-century manuscript, namely *Baroccianus* 166 (ff. 230r-236v) which contained also the first redaction of Gregoras' treatise. The second redaction, however, is preserved also in a fourteenth-century manuscript, namely *Vat. gr.* 1087 (ff. 312v-320v), which was unknown to Delatte at the time. Codex *Vat. gr.* 1087 has gained considerable attention recently mostly due to the fact that it is one of the very few illuminated Byzantine astronomical manuscripts.<sup>324</sup> For the purposes of the present study, the *Vaticanus* is important, since it is also an example of Nikephoros Gregoras' editorial practice. The miscellaneous astronomical codex was assembled during the first half of the fourteenth century and Gregoras, assisted

<sup>322</sup> Cyril Mango, ed. and transl., *Art of the Byzantine Empire: Sources and Documents*, Englewood Cliffs, 1972, 254. Gregoras, *Astrolabica B*, line 19-29: ζωγραφία γάρ τίς ἐστὶν ἢ ἐν ἐπιπέδῳ τῆς σφαίρας καταγραφὴ· ὥστε οὖν οἱ ζωγράφοι τὴν μὲν μίμησιν ἀκριβῆ τῶν πραγμάτων ἐπείγονται οὐ καθ' ὅσον πεφύκασιν ἔχοντα, ἀλλ' ὅσον ἐπιγινώσκουσιν τοὺς βλέποντας κατὰ τὸ ἐφικτὸν ἀνθρωπίνῃ φύσει καὶ νῦν μὲν τὰ τῶν ὑψιστεγῶν οἰκιῶν μήκη, νῦν δὲ τὰ πλάτη δεικνύουσι συστελλόμενά πως καὶ πρὸς ἑαυτὰ συνιζάνοντα κατὰ τε τὸ χρειῶδες τῆς τέχνης καὶ ἅμα τῆς ἐς ὅψιν πιθανωτέρας συγκαταθέσεως, οὕτω καὶ γεωμέτραι καὶ ἀστρονόμοι τὴν τῶν στερεῶν ἐν ἐπιπέδῳ ποιοῦνται καταγραφὴν, ὀκτάεδρά φημι καὶ κύβους, ἀστέρας τε καὶ οὐρανὸν καὶ γῆν καὶ πάντα ὅσα τῶν σωμάτων σφαιρικά.

<sup>323</sup> Gregoras, "Astrolabica B."

<sup>324</sup> See for instance Fabio Giudetti and Anna Santoni, eds., *Antiche stelle a Bisanzio: Il codice Vaticano greco 1087*, Seminari e convegni, 32 (Pisa: Edizioni della Normale, 2013), a monograph that resulted from a conference organized by the Illuminated Astronomical Manuscripts research group at the Scuola Normale Superiore in Pisa in February 2012 and dedicated to this same manuscript.

by members of his scholarly circle, was the driving force behind its production.<sup>325</sup> Both the choice and the arrangement of the texts confirm it, as well as the numerous autographical notes and corrections Gregoras inserted in the margins.<sup>326</sup>

### *Manuscript Tradition*

The *Vaticanus* clearly is the result of an editorial effort to create a collective volume dedicated to the study of astronomy. It opens with an introductory letter, Gregoras' *Hortatory Letter concerning Astronomy*,<sup>327</sup> addressed to his mentor Theodore Metochites. Right after, follows Metochites' own major astronomical opus, namely *Stoicheiosis Astronomikē* (*Elements of Astronomy*).<sup>328</sup> Some of the fundamental astronomical texts used in Byzantium were included next, e.g. Theon of Alexandria's commentary on Ptolemy's *Almagest*, and finally, the edition was completed by the second redaction of Gregoras' treatise on the construction of the astrolabe. The latter was meant to amend his first attempt to tackle the subject and indeed, though sections of the first redaction were included, their order was reshuffled, further corrections were made and an entirely new passage was included at the end of the work, once again written in Gregoras' own hand on f. 320v. The *Vaticanus*, I argue,

<sup>325</sup> Inmaculada Pérez Martín has dated the autograph *Vat. gr.* 1087 to the 1330s, based on the identification of the hand of the scribe John who collaborated with Gregoras in a number of manuscripts dating to this particular decade. According to Ihor Ševčenko and his dating of Gregoras' second redaction of his treatise *On the Construction of the Astrolabe*, namely the one preserved in *Vat. gr.* 1087, the *Paraklētikē*'s date of publication should be established at some point after 1332 (the death of emperor Andronikos II) and before 1335 (before Andronikos II was "forgotten"). For dating and comprehensive codicological description of the *Vaticanus*, see Mariella Menchelli, "Struttura e mani del *Vat. gr.* 1087 (con osservazioni palaeografiche sul copista C e il *Marc. gr.* 330)," in *Antiche stelle a Bisanzio: il codice Vaticano greco 1087*, ed. by Fabio Giudetti and Anna Santoni, *Seminari e Convegni*, 32 (Pisa: Edizioni della Normale, 2013), 17–56.

<sup>326</sup> Daniele Bianconi, "La "biblioteca" di Niceforo Gregora," in *Actes du VI<sup>e</sup> Colloque International de Paléographie Grecque (Drama, 21-27 septembre 2003)*, ed. by B. Atsalos and N. Tsironi (presented at the VI<sup>e</sup> Colloque International de Paléographie Grecque (Drama, 21-27 septembre 2003), Athens: Société Hellenique de Reliure, 2008), 417.

<sup>327</sup> Hereafter, I refer to the independently transmitted text as *Hortatory Letter* or *Paraklētikē*, whereas I denote the version transmitted as part of Gregoras' *History* as *Hortatory Discourse*.

<sup>328</sup> Bydén, *Theodore Metochites' Stoicheiosis Astronomike*.

intended, among other things, to preserve Metochites' astronomical oeuvre and to reaffirm its monumentality by incorporating it in the canon of Ptolemaic astronomy. Gregoras framed the volume's contents by his own works, executed fully or partially in his hand, thus inserting his authorial presence and scientific expertise in close proximity to the authoritative texts he had assembled. Moreover, by putting his mentor's astronomical oeuvre, as well as his own treatise, together with seminal ancient works on astronomy, Gregoras ensured the preservation and the wider circulation of the Palaiologan texts as they would profit from the scholarly demand for the former.<sup>329</sup> Subsequently, Gregoras incorporated the introductory *Hortatory Letter* in Book VIII, 7 of his *Historia Rhōmaikē*.<sup>330</sup> This section of the *History*, perhaps the most saturated with scientific discussions, included another short astronomical discourse inserted in Book VIII, 13, namely Gregoras' exposition on the date of Easter addressed to Demetrios Kabasilas.<sup>331</sup>

The inclusion of a number of interpolated treatises, orations and letters is characteristic for Gregoras' *History*. Thus, each of those texts is preserved through at least two distinct lines of transmission: independently and as part of the *History*. The *Hortatory Letter* Gregoras addressed to Theodore Metochites makes no exception. Needless to say, numerous manuscripts transmit it as part of the *History*. I am aware, however, of only four fourteenth-century manuscripts that transmit it independently. Three of them were listed by Rodolphe Guiland: 1) *Vat. gr.* 1085 (ff. 49v-51r);<sup>332</sup> 2) *Vat. gr.* 1086 (ff. 123r-124v);<sup>333</sup> and 3) *Vat. gr.* 1087 (f. 1r-v).<sup>334</sup> One ought to add 4) *Vat. gr.* 116 (ff. 62r-63r).<sup>335</sup> Guiland observed that

<sup>329</sup> According to Bianconi, similar result was intended by Gregoras' interventions on ff. 2v and 4r in *Vat. Urb. gr.* 102 whose objective was to ensure the continuity of the newly (in the fourteenth century) added excerpts to Polybius' *Excerpta antiqua* on ff. 1r-2r, which were to circulate together with the tenth-century body of the codex. See Bianconi, "La 'biblioteca' di Niceforo Gregora," vol. 2, 231.

<sup>330</sup> Gregoras, *History*, vol. 1, 322, line 19-327, line 5.

<sup>331</sup> *Ibid.*, vol. 1, 364, line 13-372, line 18.

<sup>332</sup> Guiland, *Essai sur Nicéphore Grégoras*, xxi.

<sup>333</sup> *Ibid.*, xxiii.

<sup>334</sup> According to Maurizio Paparozzi's transcription of the respective entry from David Colville's catalogue (namely, on *Ambrosianus* Q 114 sup.) that lists the manuscripts at the Real Biblioteca at El Escorial preserving



the version of the text preserved in the three manuscripts listed by him is identical to the one transmitted as Book VIII, 7 of Gregoras' *History*, the major difference being that while *codd. Vat. gr.* 1085 and 1086 render the text as a speech, *Vat. gr.* 1087 transmits the text as a letter.<sup>336</sup> *Vat. gr.* 116 transmits the *Hortatory Letter* under the title of τῷ μεγάλῳ λογοθέτῃ παρακλητικῇ περὶ τῆς ἀστρονομίας (f. 62r), i.e. the superscription does not include the indicator ἐπιστολή as in the *Vat. gr.* 1087 (f. 1r), but similarly to the copies in *Vat. gr.* 1085 (f. 49v) and *Vat. gr.* 1086 (f. 123r), it mentions Metochites as the addressee of the *Paraklētikē*. In his introduction to Schopen's edition of Gregoras' *History*, Jean Boivin also mentioned the *Paraklētikē* and its function as an introductory letter to Metochites' astronomical oeuvre preserved in *Vat. gr.* 1087. He was also aware that the part of the *History*, VIII, 7, preserved as a discourse addressed to the *megas logothetēs* in *Vat. gr.* 1086, had an identical beginning as the introductory letter and thus, hypothesized that they could be one and the same text.<sup>337</sup>

Due to the fact that the version preserved in *Vat. gr.* 1087 is Gregoras' autograph, no more attention was devoted to the copies of the text in the other three Vatican manuscripts. The *Paraklētikē* was mentioned by Karl Krumbacher and Herbert Hunger as an unpublished letter of recommendation (*Empfehlungsbrief*) for astronomy, intended to serve as a preface to Metochites' *Elements of Astronomy*.<sup>338</sup> In his catalogue of Gregoras' writings, van Dieten listed the so-called *Bitte um Einweihung in die Astronomie* included in Gregoras'

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Gregoras' works, the *Paraklētikē* was transmitted independently also by *cod. Escor. A. VI. 16*, lost after the infamous fire in 1671 and nowadays *cod. Upsaliensis gr.* 8, dated to the 1480s. It has been most recently described in Eva Nyström, *Containing Multitudes: Codex Upsaliensis Graecus 8 in Perspective* (Uppsala: Uppsala Universitet, 2009). See an earlier description of the codex in Sofia Torallas Tovar, "De codicibus Graecis Upsaliensibus olim Escorialiensibus," *Erytheia*, 15 (1994): 224-242. For Paparozzi's transcription of Colville's entry, see Maurizio Paparozzi, "Nota sul perduto codice escorialense degli "Antirrhetici Posteriores" di Niceforo Gregoras," *Aevum* 48 (1974): 375-376.

<sup>335</sup> For a complete list of the manuscripts that transmit the *Hortatory Letter* independently, see Van Dieten, *Entstehung*, 138-139.

<sup>336</sup> Guillard, *Essai sur Nicéphore Grégoras*, xxiv.

<sup>337</sup> See Boivin in Gregoras, *History*, vol. 1, xlvii.

<sup>338</sup> Karl Krumbacher, *Geschichte der byzantinischen Litteratur: von Justinian bis zum Ende des oströmischen Reiches, 527-1453*, Handbuch der klassischen Altertumswissenschaft 9, 1 (Munich: Beck, 1897), 623; Hunger, *Die hochsprachliche profane Literatur*, vol. 2, 250.

*History* among Gregoras' rhetorical writings.<sup>339</sup> Then, he noted the latter's letter to Metochites preserved in *Vat. gr.* 1087, i.e. the *Paraklētikē*, as one of his astronomical treatises.<sup>340</sup> Though van Dieten indicated that in terms of their content both texts are the same, he nevertheless, did not fail to reflect their different contexts and corresponding functions (rhetorical and scientific respectively).<sup>341</sup> Nyström also attempted to categorize the Ἐπιστολὴ Γρηγοῤῥᾶ πρὸς τὸν σοφώτατον μέγαν λογοθέτην παρακλητικὴ περὶ τῆς ἀστρονομίας preserved on ff. 299v-301v of *cod. Upsaliensis gr.* 8 (c. 1480s). While acknowledging the astronomical subject matter of the text, she collocated it among the rhetorical or oratory texts transmitted by the *Upsaliensis*.<sup>342</sup>

### *Editorial Approaches*

Transmitted independently, the *Hortatory Letter* is conceived as a letter – an introductory epistle to a collected volume of astronomical works in the particular case of *Vat. gr.* 1087. It, however, remains unedited as such, and thus, formally “excluded” from the modern edition of Gregoras' letter-collection. Moreover, Leone made the same choice regarding Gregoras' letter to Demetrios Kabasilas,<sup>343</sup> concerning the date of Easter, which was published by Bezdech as *Letter XX* and was partially inserted in Gregoras' *History*. Leone's omission may be due to the fact that an almost identical version of the *Paraklētikē* was already available in Schopen's edition of Gregoras' *History*. It is also possible that the *Paraklētikē* was not understood as a letter by Leone. It could be read either as an introduction in epistolary

<sup>339</sup> Gregoras, *Rhomäische Geschichte*, vol. 1, 46.

<sup>340</sup> *Ibid.*, vol. 1, 50.

<sup>341</sup> Nikephoros Gregoras, *Rhomäische Geschichte. Historia Rhomaike*, trans. Jan Louis van Dieten, vol. 2, 6 vols., Bibliothek der griechischen Literatur, 8 (Stuttgart: Anton Hiersemann, 1979), 151, note 74. According to Van Dieten, “[w]as Gregoras hier als “Vortrag” vor dem Großlogotheten präsentiert, ist außerhalb des Geschichtswerkes als Brief an Metochites oder auch als Vorwort zu dessen Grundriß der Astronomie überliefert.”

<sup>342</sup> Nyström, *Containing Multitudes*, 133-134.

<sup>343</sup> PLP 92223.

form (the function it serves in the *Vat. gr.* 1087) or as a hortatory discourse, a speech inserted by Gregoras in his *History*.

Both Leone and Guiland, in their respective studies of the manuscript tradition of Gregoras' letters relied heavily on the evidence provided by *codd. Vat. gr.* 1085, 1086, and 116, the first two being perceived as two volumes of Gregoras' collected works.<sup>344</sup> Letters, funerary orations, eulogies, dialogues, *meletai* and other literary works penned by Gregoras alternate in the three codices. Such an arrangement of Gregoras' letters in three of the most important manuscript witnesses of his epistolary corpus, i.e. letters and other rhetorical texts by the same author are intermingled, raises a number of questions. For instance, why is the *Paraklētikē* not considered a letter and rather a discourse, since first, *Vat. gr.* 1087 already transmits it as such, and second, *codd. Vat. gr.* 1085, 1086, and 116 transmit it before, after, or in between a group of Gregoras' letters and at the same time preserve the indication of its addressee (i.e. the *megas logothetēs*), as well as the feminine form “παρακλητική” <sc. ἐπιστολή>, as opposed to “παρακλητικός” <sc. λόγος>? In fact, the same arguments in favour of the epistolary nature of the *Paraklētikē* can be put forward having in mind its copy transmitted in the *Upsaliensis gr.* 8. According to Nyström, however, “the text shows very few signs of adhering to the epistolary genre”<sup>345</sup> and if it were not for its heading, Ἐπιστολὴ Γρηγοῤῥᾶ πρὸς τὸν σοφώτατον μέγαν λογοθέτην παρακλητική, “one would never have suspected it to be a letter at all.”<sup>346</sup> She goes further in stating that the most suitable place for Gregoras' oration, “considering its adulatory appeal and high-flown rhetoric,”<sup>347</sup> would be the one it occupies in *Vat. gr.* 1087, namely that of an introduction to

<sup>344</sup> Possibly, *Vat. gr.* 116 also resulted from an attempt to collect Gregoras' works. According to the description in Mercati and Franchi de' Cavalieri, eds., “*Vat. gr.* 116,” 146, the following note in the upper margin of f. 134r was deleted: “Νικηφόρου τοῦ Γρηγοῤῥᾶ βι(βλίον) β(ον).” Moreover, identical note is found on f. 218r in *Vat. gr.* 1898. See also *Nicephori Gregorae epistulae*, ed. Pietro Luigi Leone, vol. 1, 2 vols. (Matino: Tipografia di Matino, 1983), 24.

<sup>345</sup> Nyström, *Containing Multitudes*, 133-134.

<sup>346</sup> *Ibid.*, 134.

<sup>347</sup> *Ibid.*

Metochites' astronomical œuvre.<sup>348</sup> One ought to mention also that in the codex *Upsaliensis*, the *Paraklētikē* is transmitted in a codicological unit comprising a selection of letters (by Basil the Great, Libanios, and Gregory of Nazianzos) and of two speeches excerpted from Josephus' *The Jewish War*.<sup>349</sup> Thus, the compiler of the unit, Theodore, could have perceived Gregoras' *Paraklētikē* either as letter or as an oration, both options being equally plausible.

In fact, the *Paraklētikē*'s highly rhetorical style does not prove or disprove its adherence to the epistolary canon. A comparison of the *Hortatory Letter* to the rest of the letters Gregoras addressed to Theodore Metochites (especially *Letters* 24a and 26), renders the style of the *Paraklētikē* very much similar to the rest of the missives. The three texts in question share and develop two common rhetorical lines. First, they are all written in order to praise their distinguished addressee. *Letter* 26 describes Gregoras' search for "all wisdom" which he holds in higher esteem than "all happiness in the past." Gregoras' quest for all-encompassing knowledge finds its resolution with the help of divine providence, as it were, when he makes Metochites' acquaintance:

God, the one who widens the narrow straits and demonstrates the things difficult to procure <to be> easy, gave me the desired thing, providing it without any trouble. The *logos* hints at you in every way and <I am> so much more full of hope, so much that I would not be able to find <another such person> not even if I go around the entire earth together with the sea. Thus, I exhorted myself to present myself at your gates in future, as a hopeful suppliant, wishing very much to enjoy to satiety the feast of your mind.<sup>350</sup>

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<sup>348</sup> For the sake of comparison, see a different interpretation of the 'indication-of-an-addressee' criterion in Kiapidou, "Chapters, Epistolary Essays and Epistles. The Case of Michael Glykas' Collection of Ninety-Five Texts in The 12<sup>th</sup> Century," 55, 57. In her analysis of Michael Glykas' ninety-five-texts collection, Kiapidou borrows I. Sykoutris' methodological principle that "neither the length of a text nor its content suffices to justify whether it is a piece of writing addressed to a specific person or an epistle. The basic distinctive feature is the introductory form of address. In the essays addressed to a person the name of the recipient is given in the first line of the text. This is not the case in the epistles: the name of recipient already appears in the title [...]"

<sup>349</sup> Nyström, *Containing Multitudes*, 98.

<sup>350</sup> Gregoras, *Letter* 26, lines 5-12: θεὸς δὲ ὁ τὰ τε στενὰ πλατύνων καὶ εὖπορα δεικνὺς τὰ δυσπόριστα, τὸ ποθοῦμενον ἄπονον φέρων μοι δίδωσιν. σὲ δὲ πάντως ὁ λόγος αἰνίττεται καὶ τοσούτῳ πλεον τῆς ἐλπίδος, ὅσον

Thus, Metochites' image is construed as a source of all wisdom and consequently, the second rhetorical intention of the letter is developed, namely Gregoras' plea to partake in Metochites' learning in order to quench his thirst for knowledge. *Letter 24a* as well is a full-blown panegyric of Metochites which once again emphasizes his all-encompassing knowledge. Gregoras stresses his mentor's multiple and diverse talents and occupations, thus underlining the vastness and comprehensiveness of the latter's knowledge of rhetoric, poetry, astronomy, politics, and philosophy. Furthermore, Gregoras states that "Homer, Plato, Ptolemy, and Plutarch, together with those who were great disciples of wisdom, are resurrected to be united now in the single body of yours [i.e. of Metochites]."<sup>351</sup> Similar rhetoric of praise, with a focus on Metochites' all-pertaining wisdom, in this case, however, embodied in his *Elements of Astronomy*, one finds also in Gregoras' *Letter 23*.<sup>352</sup>

Returning to Gregoras' *Hortatory Letter*, one of the main intentions of the *Paraklētikē* as an independent work was also, like in *Letter 26*, to praise Metochites' excellence in the practice of astronomy, as well as to appeal to him to share his knowledge on the subject, thus complying with the universal law of friendship. The *Hortatory Letter* follows roughly the following line of reasoning: 1) The pleasant things in life are by nature distributed unevenly. 2) This inequality preconditions the existence of mutual affinity between those who lack and those who possess, those who ask for something and those who provide it:

If the nature were able to distribute all the pleasures in the life equally to all, their inquiry would have been perhaps unlovely and not painstaking and henceforth, then it would happen easily that the relations of mutual love be

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οὐκ ἂν, οὐδ' εἰ πᾶσαν ἂν περιήλθον γῆν ὁμοῦ τε καὶ θάλατταν, εἶχον εὐρεῖν. ταύτη τοι καὶ πρὸς ταῖς σαῖς τοῦ λοιποῦ καθῆσθαι θύραις ἐμαυτῷ παρήνεσα, πάνυ τοι σφόδρα ἰκέτην εὐέλπιδα τῆς σῆς λογικῆς ἀπολελαυκέναι τραπέζης ἐς κόρον βεβουλημένος.

<sup>351</sup> Gregoras, *Letter 24a*, lines 41-44: [...] Ὅμηρον καὶ Πλάτωνα καὶ Πτολεμαῖον καὶ Πλούταρχον καὶ ὁμοῦ τοὺς ὅσοι μεγάλης θιασῶται σοφίας ὑπῆρξαν, ἀναστάντας ἐν ἐνὶ τῷ σῷ ξυνεληλυθέναι σώματι νῦν [...]

<sup>352</sup> For a partial English translation of the relevant passage from *Letter 23*, see *Theodore Metochites on Ancient Authors and Philosophy*, 270-271.

severed. Now, since it was necessary that the pleasures be mixed again with the sorrows [...]; and on the one hand, this one asks for, that one gives, on the other, and vice versa; and both <happen> through all time; and this becomes a law of friendship and a bond [...]<sup>353</sup>

The interactions between the one in need and the one satisfying it express the law of friendship which permeated not only human society, but also bonded the land, the sea and the rivers. If someone blessed with good abstained from distributing it, he committed injustice and moreover, he was establishing the evil as a law. For, “nothing good comes to no one from the providence for the sake of a single person to receive it, namely, as the light does not <come> to the sun so that it alone would profit from it.”<sup>354</sup> If things were to exist permanently and people were to be immortal, one could think otherwise with respect to sharing the good. This not being the case, however, some people were concerned with perpetuating their name. In an age “barren” (αἰὼν ἄκαρπον) and “void of wisdom” (ἔρημὸν τε σοφίας ἀπάσης), as Gregoras described it, Metochites appeared as an “excellent image of nature” (κρατίστην εἰκόνα φύσεως), “a moon among stars and a fire in frost and winter” (σελήνην ἐν ἀστράσι καὶ ζώπυρον ἐν κρυμῷ καὶ χειμῶνι); also “a great aid for all, inasmuch as <he was> helping the great emperor, just like those who observe the pole star and the Great Bear <help> the steersmen.”<sup>355</sup> Since even the glory of the great men of the past faded away quickly, Gregoras was concerned with the preservation of Metochites’ memory. Thus, he appealed to him “to give a share of <his> adornment to the motherland like the likes of Lykourgos and Solon; <to> honor this famous city like the likes of Socrates and Plato

<sup>353</sup> *Vat. gr.* 1087, f. 1r, my own transcription: εἰ μὲν ἐπίσης ἅπασιν ἅπαντα τὰ τοῦ βίου τερπνὰ διανέμειν εἶχεν ἡ φύσις, ἀνέραστος ἂν ἦν δήπου γε καὶ ἀταλαίπωρος ἡ τούτων ζήτησις καὶ ῥᾶστα δὴ τούντεῦθεν τῆς φιλαλληλίας ὑποτέμνεσθαι ξυνέβαινε τοὺς λόγους. νῦν δ’ ἐπειδὴ ἔδει ἀνακεκρᾶσθαι τοῖς λυπηροῖς τὰ ἡδέα [...] καὶ ζητεῖ μὲν οὗτος, δίδωσι δ’ ἐκεῖνος· καὶ τούναντίον αὐτῆς καὶ διὰ παντὸς ἐκάτερον· καὶ νόμος τοῦτο γίνεται φιλίας καὶ δεσμὸς [...]

<sup>354</sup> *Vat. gr.* 1087, f. 1r, my own transcription: [...] μηδὲν μηδενὶ παρὰ τῆς προνοίας ἀγαθὸν παραγίγνεσθαι δι’ ἓνα γέ τινα τὸν εἰληφότα· ὥς ἄρα οὐδ’ ἡλίῳ τὸ φῶς, ἵν’ αὐτὸς ἀπολαύει μόνος.

<sup>355</sup> *Vat. gr.* 1087, f. 1rv, my own transcription: καὶ μέγα μὲν τ’ ἂν ὄφελος εἶναί σε τοῖς κοινοῖς [f. 1v] ὁμολογοῖμεν ἅπαντες, ἅτε τῷ μεγάλῳ βασιλεῖ συναιρόμενον, ὅσα καὶ κυβερνήταις οἱ τὸν πόλον καὶ τὴν Ἑλίκην διασκοπούμενοι.

<honored> Athens in the past.”<sup>356</sup> More importantly, Metochites should “show more clearly who is the governor of the universe and of what character then is its harmonious arrangement.”<sup>357</sup> For no one of those who Gregoras had met, managed to disperse his doubts concerning the matter. In addition, it would be a shame if “on the one hand, the heavens resonating around the entire earth describe God’s glory, while on the other, we turn a deaf ear not paying attention to the things they say.”<sup>358</sup> Finally, Gregoras stated the motivation behind his appeal, namely his concern that time would eventually conceal the good that Metochites and his knowledge represented.

As part of *Book VIII* of Gregoras’ *History*, the *Hortatory Discourse* followed much the same line of thought. Gregoras, however, introduced a handful of modifications. First, the *Hortatory Discourse* was presented as a speech delivered before Metochites, whose intention, besides the preservation of the prime minister’s memory, was to persuade him that Gregoras was prepared and worthy of being instructed in the matters of astronomy. Second, besides adding an introduction in order to contextualize the text, some small stylistic corrections were made and a few passages were elaborated further. Three claims were strengthened in the *History*’s narrative: 1) the description of the contemporary epoch as barren; 2) the concern with the preservation of Metochites’ memory; 3) finally, the motivation for Gregoras’ appeal to Metochites was stated more explicitly as concern for Metochites’ future glory.

The *Paraklētikē* comes down to us both as a letter and as a hortatory speech incorporated in a historical narrative, thus the question of whether it is in fact a letter or not, in my opinion, lacks substance. What I have problematized in the present chapter is

<sup>356</sup> *Vat. gr.* 1087, f. 1v, my own transcription: μετάδος τοῦ σοῦ κόσμου τῇ θρεψαμένῃ, καθάπερ Λυκοῦργοι καὶ Σόλωνες τίμησον τὸ διαβόητον ἄστρῳ τουτὶ, καθάπερ τὴν Ἀθηναίων πάλαι Σωκράτεις καὶ Πλάτῳνες.

<sup>357</sup> *Vat. gr.* 1087, f. 1v, my own transcription: δεῖξον ἐναργέστερον τίς ὁ τοῦ παντὸς ἀρμοστής καὶ ποία ποθ’ ἡ τούτων παναρμόνιος σύνταξις.

<sup>358</sup> *Vat. gr.* 1087, f. 1v, my own transcription: [...] οὐρανοὺς μὲν διηγείσθαι δόξαν θεοῦ περιηχοῦντας πᾶσαν γῆν, ἡμᾶς δὲ κωφεύειν οὐκ ἐπαῖοντας ἅττα φασὶν [...]

rather the strategies modern editors adopted when faced with a text that could or could not be read as epistolary. Such cases, as my discussion of the *Paraklētikē* showed, raise the fundamental question as to what the guiding principles of text-selection and arrangement should be when editing a medieval letter-collection. In the particular case of Gregoras' *Hortatory Letter concerning Astronomy*, I argue that the reasons to recognize any other letter transmitted by *codd. Vat. gr.* 1085, 1086, and 116 as letter *per se*, such as epistolary form and style, a superscription indicating the addressee, transmission within a cluster of letters, and so forth, are equally applicable to the *Paraklētikē* in its independent version. Thus, any analysis of Gregoras' epistolary corpus ought to take the *Paraklētikē* in consideration, even though it was not included in Pietro Luigi Leone's critical edition.

#### *Praise of Astronomy*

I shall proceed by discussing the two most explicit, in my opinion, intentions of Gregoras' *Hortatory Letter*, namely to praise his mentor and to persuade him to share his astronomical knowledge. In the case of the introductory letter, such a discourse introduced Metochites' *Elements of Astronomy* and emphasized its excellence, its rarity, and its importance for the emperor, for the city, and for the people. In this context, the appeal for instruction in astronomy was just a formality, since the reader received immediately, already on the next folio, the knowledge Gregoras had requested. Thus, Gregoras not only made sure that Metochites be remembered for his astronomical pursuits, but he also cleverly claimed his own role in the transmission of said knowledge. After all, thanks to Gregoras' humble and concerned petition, Metochites' legacy was assembled and presented to the public. In the case of the hortatory speech included in the *History*, while the remembrance of Metochites' scientific legacy is reiterated as main motivation for Gregoras' appeal, the focus of the reader shifted to the actual occasion for the discourse's delivery, namely it represented a



demonstration of the fact that Gregoras was prepared and fitting the position of Metochites' disciple. When Gregoras delivered his second astronomical discourse within the framework of *Book VIII*, 13, namely the one concerning the calculation of the date of Easter, it was first delivered in front of the emperor himself and second, it employed a very technical vocabulary regarding the correct calculation of the date of the vernal equinox. To me, such a progression of the narrative, in combination with the numerous mentionings of other astronomical phenomena, such as comets and eclipses, was designed to demonstrate that Gregoras had acquired the specialized astronomical knowledge, but also that he was, in a way, granted the special "license" to address an issue of great importance, both liturgical and political, requiring a high level of specialized expertise, namely the computus.

I would like to address an additional third intention of the *Paraklētikē's* text, which, I argue, one finds both in the case of its rendition as an introductory letter and in the case of the hortatory discourse, namely to implicitly justify the study of astronomy and Gregoras' own position as its practitioner. In his letters, as well as in the *ONS* and the *On the Construction of the Astrolabe*, Gregoras frequently emphasized the interconnectedness between the heavenly and the earthly domains. Moreover, he interpreted the heavenly bodies, their movements and conjunctions as governed by divine providence and consequently, as divine signs people ought to learn to interpret. The second redaction of Gregoras' treatise on the construction of the astrolabe was not only meant to amend the first and thus, to defend Gregoras against criticism, but also to bridge a significant gap in the tradition of similar texts, since the only two Greek models known at the time were Synesios' discussion concerning the nature and preparation of the instrument and John Philoponos' treatise concerned primarily with its use. In this way, Gregoras continued Metochites' effort of systematizing and codifying the cannon of Ptolemaic astronomy in Palaiologan Byzantium and, by extension, solidified further the grounds of the science, as well as his own privileged position as the one invested in it.

Moreover, in the introduction of his *History*, he brought the necessity of the study of celestial phenomena to an equal ground as the study of history. History told the story not only of people, cities and empires, but also of the heavenly movements and thus, provided knowledge of the past, which in turn, together with the ability to read the celestial signs divine providence furnished, assured that people could make predictions about the future: “But now it <history> makes those who come next prophets [...], since they guess the future events based on the past.”<sup>359</sup>

Gregoras has often been singled out in modern scholarship for his skeptical epistemological position. Rarely, however, have scholars pointed out the importance he attributed to divine forethought, as well as to the regularity and consistency of the celestial bodies and their movements. History, in Gregoras’ view, performed a double duty: not only it related the occurrences of heavenly phenomena, but also interpreted their meaning with respect to contemporary events. It proved that there are things to be known, not only about the past, but also in the future and, thus, it provided a historical justification for the study and practice of astronomy.

## Chapter 2: *On the Number Seven*

Number symbolism found multiple uses in Byzantine culture as it was a popular device employed by rhetoricians, philosophers, politicians, writers, artists, and architects. Byzantine number symbolism inherited its main principles from the Pythagorean and Neoplatonic philosophy, as well as from the subsequently developed Christian exegesis and theology, since both doctrines needed to explain the origin of multiplicity in a world with a monadic beginning. Particular significance was ascribed to various numbers, such as one (e.g. God is one, and so is the emperor), two (e.g. concerning the two natures in Christ,

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<sup>359</sup> Gregoras, *History*, vol. 1, 5, lines 14-16: ἀλλὰ νῦν γε πρὸς τούτοις καὶ προφήτας [...] τοὺς μετιόντας ποιεῖ, ἐκ τῶν φθασάντων στοχαζομένους τὰ μέλλοντα.

namely divine and human), and three (e.g. with respect to the Trinitarian doctrine of God's one substance and three hypostases, or referring to the angelic hierarchy being structured into three orders).<sup>360</sup> Besides a rhetorical and allegorical device, number symbolism was the subject matter of a specific literary genre, the so-called *theologoumena arithmētikēs* or 'theology of arithmetic.' At least three different *theologoumena* are preserved, though partially: 1) by Nikomachos of Gerasa (ca. 60–ca. 120 CE); 2) by Anatolios of Laodikeia (the third century CE); 3) and by an author from the circle of Iamblichos (d. ca. 325).<sup>361</sup> They were very well received in Byzantium and continued to be copied and reused, as Christian examples and exegesis were introduced into the corpus. The *theologoumena* were structured as brief textbooks of ten chapters. Each chapter was dedicated to one of the numbers in the decade. The interpretation of a given number's symbolic meaning included material from mathematics, musical theory, astronomy, medicine, grammar, and so forth. The present chapter examines the *ONS*, an arithmological treatise authored by Gregoras.

#### *Authorship and Manuscript Tradition*

Gregoras' short treatise on the number seven was edited by Francesco Sbordone and has remained neglected by scholarship ever since its publication in 1936.<sup>362</sup> Beside the occasional mentionings referring to its existence, no revised edition is available, nor a translation of the text into a modern language. Its reading, however, is facilitated by Sbordone's commentary in Italian. The treatise was mentioned in the 1829 introduction by

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<sup>360</sup> Alexander Kazhdan and Anthony Cutler, "Number Symbolism and Theory," *ODB* (Oxford University Press, 1991). See also David H. van Daalen, "Number Symbolism," *The Oxford Companion to the Bible* (Oxford University Press, 1993), and Edmund Reiss, "Number Symbolism and Medieval Literature," *Medievalia et Humanistica* (1970): 161–173.

<sup>361</sup> Joel Kalvesmaki, "Introduction to the Early Christian Theology of Arithmetic," presented at the NASGEM national meeting, Philadelphia, November 19, 2002. <http://www.kalvesmaki.com/Arithmetic/NASGEM.htm>: 5.

<sup>362</sup> Gregoras, *ONS*.

Jean Boivin to Ludwig Schopen's three-volume edition of Gregoras' *History*.<sup>363</sup> There, the treatise is indicated by the Latin title *Numerum septenarium multis nominibus sacrum esse* and listed in the company of a group of small philosophical works, the so-called *Solutions*<sup>364</sup> dedicated to the *basilissa* Helena Kantakouzene Palaiologina<sup>365</sup> and discussing mainly problems of natural philosophy. Boivin indicated that ONS can be found in one manuscript, namely Oxford, Bodleian Library, MS Barocci 48.<sup>366</sup> The *Baroccianus* is in fact the best witness not only for the ONS, but also for the text of the *Solutions*.<sup>367</sup> The relevant section of the manuscript (ff. 1r-19v) dates, according to Parpulov, ca. 1360 based on the paper's watermark.<sup>368</sup> Besides Gregoras' *Solutions* (ff. 1r-13v) and the ONS (ff. 15r-18r), it contains also a short excerpt by Synesios' *Ad Paeonium de dono astrolabii* 4, 5-13<sup>369</sup> (f. 13v), an excerpt from the *Apocalypse of John* (f. 18r-v) and a short text on the Ark of the Covenant (f. 19r-v). Another manuscript preserving Gregoras' text is the former codex *Vindobonensis Suppl. gr.* 69, now *Neapolitanus gr.* 18, dated to the fifteenth century.<sup>370</sup> Here, the relevant folia containing the treatise in question are 44v-50r.

Gregoras dedicated the *Solutions* to *basilissa* Helena Kantakouzene Palaiologina (1333–1396), daughter of John VI Kantakouzenos and wife of John V Palaiologos. Based on the dedication of the *Solutions*, one may establish as their *terminus post quem* May 1347 when

<sup>363</sup> Gregoras, *History*, vol. 1, 47.

<sup>364</sup> Gregoras, *Solutions*.

<sup>365</sup> PLP 21365.

<sup>366</sup> Gregoras, *Solutions*, especially 474 and 474, note 1.

<sup>367</sup> Georgi Parpulov, "The Study of Byzantine Book Illumination: Past, Present, and Future," *Palaeoslavica* 21, no. 2 (2013): 211, note 55.

<sup>368</sup> Ibid.

<sup>369</sup> MS Barocci 48, f. 13v: 'Ἡ ἀστρονομία φησὶν ὑπέρσεμνός ἐστιν ἐπιστήμη, καὶ τάχ' ἀναβιβασμὸς ἐπὶ τι πρεσβύτερον γένοιτ' ἂν· ἦν ἐγὼ προσεχὲς ἡγοῦμαι πορθμεῖον τῆς ἀπορρήτου θεολογίας. ὕλην τε γὰρ ὑποβέβληται τὸ μακάριον οὐρανοῦ σῶμα, οὗ καὶ τὴν κίνησιν νοῦ μίμησιν εἶναι τοῖς κορυφαιοτάτοις ἐν φιλοσοφίᾳ δοκεῖ· καὶ ἐπὶ τὰς ἀποδείξεις οὐκ ἀμφισβητησίμως πορεύεται, ἀλλ' ὑπηρετίσι χρῆται γεωμετρία τε καὶ ἀριθμητικῇ, ἃς ἀστραβῇ τῆς ἀληθείας κανόνα τις εἰπὼν οὐκ ἂν ἀμάρτοι τοῦ πρέποντος. For a critical edition of the text, see N. Terzaghi, *Synesii Cyrenensis opuscula*. Rome: Polygraphica, 1944.

<sup>370</sup> The manuscript dates to the beginning of the sixteenth century, according to E. Mioni, *Catalogus codicum graecorum Bibliothecae Nationalis Neapolitanae*, vol. I, 1 Indici e Cataloghi, Nuova Serie VIII (Rome: Ministero per i beni culturali e ambientali, 1992).

the fourteen-year old Helena was crowned empress of the Romans. Rodolphe Guiland has dated the text to an even later date, *ca.* 1357, without providing any explanation for his choice; the question of the dating of the *Solutions* has remained untouched ever since. Having in mind the dating of MS *Barocci* 48 proposed by Parpulov, a *terminus ante quem* for the ONS should be posited *ca.* 1360, that is, at the very end of Gregoras' life.

One third of the manuscripts preserving the *Solutions* transmit the ONS as part of the same corpus. That is, they transmit altogether nine *Solutions*: namely, 1) *How to explain that sometimes the animals behave as if they are endowed with reason?* 2) *Demonstration concerning the vision; that it does not cross over to the visible objects, but it becomes receptive of them;* 3) *Concerning the air, that it is cold by nature;* 4) *Concerning the rivers and the sea and that the nature of the water is moist;* 5) *Concerning the sun, that it is hot by nature;* 6) *On the soul;* 7) *Concerning the relatives, that they are correlative by nature;* 8) *Concerning the earth, that it is dry and spherical;* 9) *Concerning the number seven, that it is often considered revered.* The association of the ONS with the *Solutions* has influenced the scholarly opinion on its authenticity and dating. Here, I would like to summarize the state of research on the matter and to propose dissociating the ONS from the *Solutions* altogether, which, in my opinion, nullifies the arguments against Gregoras' authorship of the work.

In his catalogue of Gregoras' writings (1829),<sup>371</sup> Boivin listed ONS together with the other seven solutions to philosophical problems as he found them in the *Baroccianus*, without questioning the authenticity of its authorship. In 1926, almost a hundred years later, Rodolphe Guiland, in his *Essai sur Nicéphore Grégoras*,<sup>372</sup> by means of introduction to the manuscript tradition of the *Solutions*, listed one more manuscript containing ONS alongside the *Barroccianus*, namely cod. *Synod. gr.* 238 (*Vlad.* 462), ff. 115v-120r,<sup>373</sup> a seventeenth-century manuscript that according to Guiland appears to be a copy of MS

<sup>371</sup> Gregoras, *History*, vol. 1, 44-96.

<sup>372</sup> Guiland, *Essai sur Nicéphore Grégoras*.

<sup>373</sup> See Archimandrit Vladimir, ed., *Sistematicheskoe opisanie rukopisej moskovskoj sinodal'noj (patriarshej) biblioteki*, vol. 1 (Moscow: Sinodal'naya Tipografiya, 1894), 700.

*Barocci* 48, where *ONS* also appears under Gregoras' name.<sup>374</sup> Unlike his predecessor, however, Guiland disputed the authenticity of the text and based on the study of its style, he dismissed Gregoras' authorship without further elaboration.<sup>375</sup> Eight years later, in 1938, another editor of Gregoras' letters, the Romanian scholar Ștefan Bezdechi published the first edition of the text of Gregoras' eight *Solutions*, accompanied by a French translation, without including the short treatise on the number seven.<sup>376</sup> Bezdechi mentioned MS *Barocci* 48 as a representative of a group of codices transmitting nine vs. eight *Solutions*, i.e. including the *ONS*. He added two more codices to this group: *Vat. gr.* 1444 (the sixteenth century)<sup>377</sup> and *Barb. gr.* 174 (the seventeenth century), a copy of the *Vaticanus*, both of which according to Bezdechi, contain the treatise, though they transmit the *Solutions* in an order different from the one in the *Baroccianus*.<sup>378</sup> Bezdechi was however, misled by the assumption that the *Barberinianus* was a faithful copy of the *Vaticanus*. In fact, *Barb. gr.* 174 does not contain the *ONS* as was pointed out by Leone in 1970.<sup>379</sup> Though familiar with Guiland's work, Bezdechi did not discuss the former's objection to the authenticity of the treatise. He seemed to regard it as genuine and limited himself to the remark that there were at least three classes of manuscripts preserving the *Solutions*, among them one that transmits the *ONS* as one of altogether nine short treatises.<sup>380</sup> Finally, though he edited the

<sup>374</sup> Guiland, *Essai sur Nicéphore Grégoras*, 219.

<sup>375</sup> *Ibid.*: "Grégoras n'en est pas l'auteur, comme le montre l'étude du style. Il reste donc, comme étant de lui les huit questions, que les manuscrits sont unanimes à transmettre sous son nom."

<sup>376</sup> Bezdechi, "Un manuel de philosophie à l'usage des dames."

<sup>377</sup> According to the entry in the *Pinakes*. Bezdechi refers to a dating to the fifteenth century.

<sup>378</sup> In the *Baroccianus* we find the following arrangement: 1) *How to explain that sometimes the animals behave as if they are endowed with reason?* (ff. 1r-5v); 2) *Demonstration concerning the vision; that it does not cross over to the visible objects, but it becomes receptive of them* (ff. 5v-8r); 3) *Concerning the air, that it is cold by nature* (ff. 8r-9r); 4) *Concerning the rivers and the sea and that the nature of the water is moist* (ff. 9r-12r); 5) *Concerning the sun, that it is hot by nature* (ff. 10r-12r); 6) *On the soul* (ff. 12r-12v); 7) *Concerning the relatives, that they are simultaneous by nature* (f. 12v); 8) *Concerning the earth, that it is dry and spherical* (f. 13r-v).

<sup>379</sup> Joseph Mogenet, Paul Canart, and Julian Leroy, eds., *Codices Barberiniani Graeci*, vol. 2. *Codices* 164–281. *Bibliothecae Apostolicae Vaticanae Codices Manuscripti Recensiti* (Città del Vaticano: Bibliotheca Vaticana, 1989), 10–11.

<sup>380</sup> Bezdechi, "Un manuel de philosophie à l'usage des dames," 1, 2.

one concerning the soul, he appears to have considered it a letter rather than a treatise as is suggested by the fact that he included it in his edition of Gregoras' correspondence.<sup>381</sup> In 1936, Sbordone, as it was already mentioned, edited the *ONS* and just like Bezdechi considered it an authentic work by Gregoras and did not pick up on Guiland's comment about the style of the work. In 1973, Jan Louis van Dieten remarked that many works transmitted by codd. *Vindob. theol. gr.* 274 and *Barrocc.* 48 were mistakenly attributed to Gregoras.<sup>382</sup> It is possible that he referred to the *ONS*, as he did not include it in his list of Gregoras' works. Nonetheless, van Dieten provided a couple of examples of wrong attribution and did not indicate the *ONS* as a case in point, nor did he justify the exclusion of the arithmological treatise from the catalogue of Gregoras' œuvre.

Finally, in 1970, the editor of the most recent edition of Gregoras' letter-collection, Pietro Luigi Leone, reedited Gregoras' *Solutions*.<sup>383</sup> Leone listed altogether four codices that transmit *ONS*, all of them already mentioned by his predecessors: MS *Barocchi* 48, *Neapolitanus gr.* 18, *Vat. gr.* 1444,<sup>384</sup> and *Synod. gr.* 238 (*Vlad.* 462).<sup>385</sup> Leone mentioned two other codices he used as base for his edition of the *Solutions* which do not include the *ONS*: cod. *Neapol. gr.* XXII, 1<sup>386</sup> (ff. 186r-193r) and *Barb. gr.* 174<sup>387</sup> (ff. 1r-50v). Leone made only a brief notice concerning the contested authenticity of the *ONS*. Unlike Bezdechi, Leone stated that in his

<sup>381</sup> Ibid., 2, note 1 and "Nicephori Gregorae Epistulae XC," ed. Ștefan Bezdechi: 239–377.

<sup>382</sup> Gregoras, *Rhomäische Geschichte*, vol. 1, 61.

<sup>383</sup> Gregoras, *Solutions*.

<sup>384</sup> According to Leone, *ONS* is preserved on ff. 173v-174v, and 166rv of the *Vaticanus*, as the order of the folia has been disturbed.

<sup>385</sup> Gregoras, *Solutions*, 474-5, note 1.

<sup>386</sup> There is a typo in Leone's manuscript description, namely he indicated the *Neapolitanus* as "XXI, 1" instead of "XXII, 1." Additionally, one ought to note that the dating given by Leone in Gregoras, *Solutions*, 475 is different from the one in the *Pinakes*. Leone marks a fourteenth-fifteenth century dating, whereas *Pinakes* suggests fifteenth century only.

<sup>387</sup> Gregoras, *Solutions*, 475, note 4. Leone points out that codex *Barberinus* is entirely dependent on condex *Vat. gr.* 1444, an observation made earlier also by Bezdechi. If indeed so, how can one explain the fact that, while the *Vaticanus* transmits the *ONS*, the *Barberinus* does not? (The *Vaticanus* is the earlier codex (the sixteenth century); the *Barberinus* dates to the seventeenth century and contains only Gregoras' *Solutiones*, followed by a short excerpt from Synesius' *Ad Paeonum de dono astrolabi*.)

opinion, it would be unfair to strip off Gregoras' authorship from *ONS*. Moreover, Leone argued, not only MS *Barocci gr. 48*, but also the other codices preserving the treatise transmit it under Gregoras' name.<sup>388</sup>

Clearly, there has not been a proper scholarly discussion of Gregoras' authorship of the *ONS*. Most scholars accepted it as a given and only one, Guiland, has argued against it based on the fact that the style of the treatise is different than the style of the other *Solutions*. True, the other *Solutions* preserve the form of an answer, while the *ONS* has an entirely different structure: it is a collection of arguments proving number seven's venerable nature, much in the tradition of Greek arithmological literature, rather than that of solutions to problems. One could argue that based on the "style" criterion, *On the Soul* does not fit the *Solutions'* corpus either. It is not by chance that Bezdechi considered it a letter rather than an answer to an *aporia*. Nevertheless, *On the Soul*, just like the other seven *Solutions*, engages in a critical dialogue with certain Aristotelian theory, something that *ONS* does not, at least not as explicitly. In sum, the style of the arithmological treatise in question, as well as its topic, is indeed different and does not fit the program of the *Solutions*. Though I agree with Guiland on this point, I cannot see why the difference of style and topic prove that the *ONS* is not authored by Gregoras. I would argue that these differences rather prove that the *ONS* is not part of the *Solutions*. Moreover, the manuscript evidence does not contradict such an assumption.

The treatise is preserved in altogether four manuscripts: 1) MS *Barocci 48*, ff. 15r-18r; 2) *Neapolitanus gr. 18*, former *Vindobonensis suppl. gr. 69*, 44v-50r; 3) *Vat. gr. 1444*, 173v-174v, and 166rv; 4) *Synod. gr. 238* (*Vlad. 462*), ff. 115v-120r. Two of the later manuscripts, the *Neapolitanus* (the sixteenth century) and the *Mosquensis* (the seventeenth century) transmit the *On the Number Seven* on its own. The earliest and the best codex, the *Baroccianus* (ca. 1360), lists the *ONS* after the *Solutions*, similarly to the *Vaticanus* (the sixteenth century). It

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<sup>388</sup> Gregoras, *Solutions*, 474, note 1.



is, however, important to note that after the last of the *Solutions*, namely *Concerning the earth, that it is dry and spherical* which ends on f. 13v, one finds, first, the excerpt from Synesios (f. 13v); second, on f. 14r a full-page diagram of the solar system featuring the earth, the moon and the fixed stars and their respective spheres; then, a blank f. 14v, and finally, on f. 15r the first paragraphs *ONS*.<sup>389</sup> In other words, while the *Solutions* follow each other in an uninterrupted order, the *ONS* is separated by the insertion of the Synesian excerpt and of the diagram. In addition, there exist two other codices preserving Gregoras' *Solutions* which do not include the *ONS*: 1) *Neapol. gr.* XXII, 1, ff. 186r-193r;<sup>390</sup> 2) *Barb. gr.* 174, ff. 1r-50v (the seventeenth century). In sum, at least one group of manuscripts transmits the *Solutions* and *ONS* as separate treatises. All manuscripts, however, unanimously attribute the authorship of the latter to Gregoras.<sup>391</sup> In order to reassess and interpret the position of the *ONS* within Gregoras' oeuvre, I shall proceed with a summary of its contents and structure in juxtaposition with its sources.

### *Structure, Sources, and Content*

As Sbordone observed, *ONS* is an unfinished treatise. As far as one can judge, its content is organized in two general parts: paragraphs 1-19<sup>392</sup> introduce arguments in support of

<sup>389</sup> Moreover, while the second quire finishes at f. 13v, i.e. with the Synesian excerpt, the diagram on f. 14r marks the beginning of the third quire and thus, the *ONS* belongs to a new codicological unit. This observation does not necessarily prove that the *ONS* was conceived by Gregoras as a separate treatise. One reason to discuss the manuscript arrangement of ff. 1r-19v with caution is that this section has clearly been rebound at some point in time. This is evident by the fact that f. 17r-v has been misplaced and wrongly collocated in its current position. The portion of the *ONS* it contains should have been inserted between ff. 15v and 16r. The current f. 17r-v has suffered damage as it misses partially its upper and outer margins and it is sown in the middle. In addition, one can still see parts of the inner margin of the misplaced folio in between ff. 15v and 16r.

<sup>390</sup> According to the *stemma codicum* established by Leone in 1970, the *Neapolitanus* dates to the fifteenth century and represents a different branch of the manuscript tradition.

<sup>391</sup> I am grateful to Foteini Spingou who shared with me in an oral communication her impressions concerning MS *Barocci* 48 and her conviction that a marginal note in the manuscript is executed in Gregoras' hand.

<sup>392</sup> In my analysis of the *ONS* I refer to the paragraph division introduced by Sbordone in his edition. It is

number seven's revered nature collected from ancient sources, whereas paragraphs 20-21 represent the beginning of the second part of the exposition whose purpose was to introduce arguments drawn from Christian authorities. Here I shall briefly outline the structure of the text and the types of arguments Gregoras adduced in the first part of the treatise. Paragraph 1 deduces number seven's venerability from the etymology of its designation in Greek (ἑπτὰ but also σεπτάς).<sup>393</sup> Paragraph 2 presents the concordance between musical accords and more specifically, between the octave, the most perfect musical accord containing seven tones, and the heavenly movements of the eight heavenly spheres. The intervals between the planetary spheres and the sphere of the fixed stars are seven, thus the number seven is deemed responsible for the primary heavenly movement. Through the movement of the eight spheres the musical scale is completed and it comprises the intervals of a perfect fourth and a perfect fifth.<sup>394</sup> Paragraph 3 picks up on the closing sentence of paragraph 2 and continues the topic of the perfect fourth and perfect fifth. When put together they result in the number seven, that is, they form an octave whose structural principle are the heavenly orbits and their arrangement.<sup>395</sup> Paragraph 4 indicates that number seven expresses symbolically the human nature as it represents the sum of the soul's parts (3) and the total of the body's elements (4).<sup>396</sup>

In order to approach this group of arguments more effectively, I shall first briefly

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noteworthy that the fourteenth-century version of the text preserved in MS *Barocci* 48 also features a 'paragraph division' of sorts. In the manuscript, sections in the text are marked with red dots with an extra space allowed on its sides between an end of a sentence and the beginning of the next sentence. In the cases in which the beginning of the next sentence does not fall at the beginning of a new line, the first word of that sentence which opens a new line is furnished with a small red initial positioned in the margin. This principle, however, is not applied consistently throughout the text. Most of the section divisions marked in the manuscript coincide with Sbordone's paragraph divisions, for instance, between paragraphs 4 and 5, 5 and 6, 6 and 7, 7 and 8, 8 and 9, 9 and 10, 11 and 12, 12 and 13, 13 and 14, 14 and 15, 15 and 16, 16 and 17, 19 and 20; paragraphs 20 and 21 are separated by several blank lines. Thus, Sbordone's paragraph division reflects for the most part the sectioning of the text preserved in the *Baroccianus*.

<sup>393</sup> Gregoras, *ONS*, 125, lines 3-4.

<sup>394</sup> Gregoras, *ONS*, 125, lines 10-13.

<sup>395</sup> Gregoras, *ONS*, 126, lines 1-5.

<sup>396</sup> Gregoras, *ONS*, 126, lines 6-8.

introduce the Greek tradition in the science of harmonics and its main principles with a special emphasis on what pertains to the idea of musical ratios underlying the structure of heavens and their movement.<sup>397</sup> Two major tendencies were predominant in Greek harmonics between the sixth century BCE and the fourth century CE, namely, the so-called ‘Aristoxenian’ and ‘Pythagorean’ traditions.<sup>398</sup> In order to understand Gregoras’ ONS better, we need to be acquainted with the basic tenets of the so-called ‘Pythagorean’ take on harmonic theory<sup>399</sup> and more precisely, with what are most likely to be Gregoras’ models: Plato’s *Timaeus* (especially 34c-36d) and Ptolemy’s *Harmonics*.<sup>400</sup> The so-called Pythagorean understanding of harmonics boils down to the following: first, musical tones and intervals can be expressed mathematically; and second, the mathematical relations between them (ratios and proportions) form a coherent and concordant system. This system, consequently, is taken to exemplify the structure of the universe, that is, the world is also perceived as an intelligible system of mathematical relations. Finally, the perfection of the human soul can be achieved and depends on the level of the soul’s assimilation to the mathematical order of the cosmos.<sup>401</sup>

The ‘Pythagorean’ tradition views harmonics as one of the mathematical sciences, thus its practice is usually connected with the study of other such sciences, e.g. of astronomy. The first group of arguments in favor of number seven’s venerable nature (§2-§3) Gregoras put together, as well as the general order of the arguments within the ONS,

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<sup>397</sup> For the purposes of the present study, I have employed the following definition of Greek harmonics borrowed by Andrew Barker: “Greek harmonics, broadly conceived, is the study of the elements out of which melody is built, of the relations in which they can legitimately stand to one another, of the organized structures (e.g., scalar systems) formed by complexes of these relations and of the ways in which different structures are generated by combinations or transformations of others.” See Barker, *Greek Musical Writings*, 3.

<sup>398</sup> Both of these labels should be used with caution, since none of the two traditions is a monolithic one.

<sup>399</sup> Barker, *Greek Musical Writings*, 3-6.

<sup>400</sup> For the edition of Ptolemy’s *Harmonics*, as well as of Gregoras’ additions to it, see Ptolemy, *Die Harmonielehre des Klaudios Ptolemaios*. For an English translation and a commentary, see Ptolemy, *Harmonics*. Compare it with the translation and commentary in Barker, *Greek Musical Writings*, 276-391. For a German translation and commentary, see Ingemar Düring, ed., *Ptolemaios und Porphyrios über die Musik*, Göteborgs Högskolas Årsskrift, 40, 1934: 1 (Göteborg: Elanders boktryckeri aktiebolag, 1934).

<sup>401</sup> Barker, *Greek Musical Writings*, 6.

reflects this idea, as well as the general premise that the mathematical structure at the basis of a harmonic musical scale is the same as the structure of the heavens or that of the soul. Thus, for instance, paragraphs 2 and 3 describe the correspondence, between the musical scale and the heavenly spheres and their movements,<sup>402</sup> essentially based on their hebdomadic nature:

§2. On many instances and in many ways and based on diverse testimonies, trustworthy and credible in themselves, its revered <nature> is demonstrated: for also among the musical accords, the octave, being the best and also the most perfect, is completed by seven <musical> notes, which surely is the strongest evidence for the reverent <character> of <the number> seven, inasmuch as it is a representation and vague likeness of this greatest and heavenly movement. For also, on the one hand, the spheres of the entire cosmic body lying one under the other are eight after the starless sphere and, on the other, the intervals in between them <the starry spheres> are seven, thus the number seven becomes of the reason for the primary heavenly movement, through which <movement> also that melodic scale (μέλος) is accomplished, namely the one embracing all musical scales, compounded by the *epitritos* (the 4:3 ratio, corresponding to the perfect fourth) and the *hēmīolios*<sup>403</sup> (the 3:2 ratio, corresponding to the perfect fifth).<sup>404</sup>

§3. The first *epitritos*, on the one hand, is understood as the <number> four to the three, and the first *hēmīolios*, on the other, is the three to the two, together <they result in> seven: for when three and four are put together, it becomes the number seven, which has as a principle and a root the three and the four, through which the most beautiful accord of all is composed, the

<sup>402</sup> For instance, the octave is called “a representation and vague likeness of this greatest and heavenly movement” See Gregoras, *ONS*, 125, lines 6-9.

<sup>403</sup> Here Gregoras employs the technical terms for the mathematical ratios, as opposed to the names for the intervals, i.e. *dia tessarōn* and *dia pente*.

<sup>404</sup> Gregoras, *ONS*, 125, lines 5-13: Δείκνυται δὲ πολλαχόθεν καὶ πολυτρόπως καὶ πολυειδῶν μαρτυριῶν ἀξιοπίστων καὶ αὐτοπίστων τὸ σεβάσιμον αὐτοῦ· καὶ γὰρ ἐν ταῖς μουσικαῖς συμφωνίαις ἢ διὰ πασῶν ἀρίστη τε καὶ τελεωτάτη ὑπάρχουσα δι’ ἑπτὰ χορδῶν ἀπαρτίζεται, ὃ δὴ κράτιστόν ἐστι μαρτύριον τῆς τοῦ ἑπτὰ σεβασμιότητος, ἅτε μιμήματος ὄντος καὶ ἀμυδρᾶς εἰκασίας τῆς μεγίστης ἐκείνης καὶ οὐρανίας κινήσεως. καὶ γὰρ καὶ τοῦ κοσμικοῦ παντὸς σώματος μετὰ τὴν ἄναστρον σφαῖραν ὁκτὼ μὲν εἰσιν ἐφεξῆς ὑποκείμεναι σφαῖραι, τὰ δὲ μεταξὺ τούτων διαστήματα ἑπτὰ, ὡς αἴτιον γίνεσθαι τὸν ἑπταδικὸν ἀριθμὸν τῆς πρώτης ἐκείνης οὐρανίας κινήσεως, δι’ ἧς καὶ τὸ μέλος ἐκεῖνο τελεῖται τὸ παναρμόνιον, συγκείμενον ἔκ τε ἐπιτρίτου καὶ ἡμιολίου λόγου.

most perfect and called octave, and the revered <character> of the number seven is manifested, having <its> beginning in the first place and straight from the heavenly orbits.<sup>405</sup>

Furthermore, paragraph 4 goes on to show that the human nature, that is man's soul and body, can also be represented by the number seven. Following the same logic, Gregoras proceeded by unveiling the hebdomadic articulation of the heavenly spheres and the lunar cycles, as well as their influence on terrestrial phenomena, thus virtually 'closing the cycle' and demonstrating the analogical mathematical construct, inherent for all the realms of the creation. The demonstrable role of number seven in each one of them serves to confirm its venerable nature.

Paragraph 5 returns to the topic of the heavenly spheres, this time focusing only on the planetary spheres and excluding the sphere of the fixed stars. It is emphasized that they influence terrestrial phenomena:

§5. Not only that, but the astronomers also claim that the order of the seven spheres, that is, of the sun and the moon and the five planets, running in an opposite direction with primary and swift movement, governs all the earthly <phenomena>; they (i.e. the astronomers) attribute the venerable <nature> to the seventh number further and greatly.<sup>406</sup>

The scope of paragraph 6 is even narrower. It deals only with the moon and its cycle of four times seven days, twenty-eight in total, and once again, the influence the moon exercises on terrestrial events is emphasized:

<sup>405</sup> Gregoras, ONS, 126, lines 1-5: "Ἔστι δ' ἐπίτριτος μὲν πρῶτος ὁ τέσσαρα πρὸς τὸν τρία θεωρούμενος, πρῶτος δ' ἡμιόλιος ὁ τρία πρὸς τὸν δύο, ὁμοῦ ἑπτὰ συντιθεμένου γὰρ τοῦ τρία καὶ τέσσαρα, γίνεται ὁ ἑπτὰ ἀριθμός, ἔχων ἀρχὴν καὶ ρίζαν τὸν τε τρία καὶ τὸν τέσσαρα, δι' ὧν ἡ καλλίστη πασῶν ἀρμόζεται συμφωνία, τελειοτάτη δὲ καὶ διὰ πασῶν καλουμένη, καὶ δείκνυται τὸ τοῦ ἑπτὰ σεπτὸν ἀριθμοῦ, πρῶτον εὐθὺς ἐξ οὐρανίων ἀντύγων ἀρξάμενον.

<sup>406</sup> Gregoras, ONS, 126, lines 9-12: οὐ μὴν ἀλλὰ καὶ τὴν τῶν ἑπτὰ σφαιρῶν τάξιν, ἡλίου φημι καὶ σελήνης καὶ τῶν πέντε πλανωμένων, ἀστρονόμοι φασίν, ἀντίδρομον οὔσαν τῇ πρώτῃ καὶ ὀξείᾳ κινήσει, κυβερνᾶν τὰ ἐπίγεια πάντα, ἥδη καὶ τοῦτο πολὺ τὸ σεβάσμιον δίδωσι τῷ ἑβδοματικῷ ἀριθμῷ.

§6. Moreover, the moon completes the course of its own cycle in twenty-eight days: for four times seven is twenty-eight, through which it (i.e. the moon) also makes the circumspect administering of the earthly <phenomena> rather manifold and diverse.<sup>407</sup>

Paragraphs 7-9 build on well-known principles of ancient number symbolism. In a gradual progression, Gregoras describes how the number seven relates mathematically to different cosmological levels. Seven can be generated by three different numerical pairs that always consist of an even (female) and an odd (male) number. Firstly, seven is the product of one and six, that is, of the monad and the first perfect number (§7).<sup>408</sup> Gregoras states that the monad, the principle of every number, which has no different beginning before itself, or another end after itself, is referred back to the first intellect, i.e. towards God. By extension, here he alludes to the number seven's relation to the first intellect, seven being the product of the coupling of one and six.<sup>409</sup> Next, in paragraph 8, number seven is seen in correspondence to the highest levels of the creation, i.e. the intelligible substances and the heavens. Here seven is introduced as the sum of two and five. Two originates from the unity, just like a line originates from the point and in this way it signifies the intelligible but not corporeal beings, such as the mathematical concepts.<sup>410</sup> Five, on the other hand, defines the five spheres of the heavens (two tropics, two arctic spheres and the celestial equator)

<sup>407</sup> Gregoras, ONS, 126, lines 13-15: "Ἐτι καὶ ἡ σελήνη δι' ὀκτώ καὶ εἴκοσιν ἡμερῶν ἀπαρτίζει τὸν τοῦ ἰδίου κύκλου δρόμον· τετράκις γὰρ τὰ ἑπτὰ εἰκοσιοκτώ, δι' ὧν καὶ μᾶλλον πολύτροπον καὶ ποικίλην παρέχει τοῖς ἐπιγείοις τὴν προμηθευτικὴν διοίκησιν αὕτη.

<sup>408</sup> Six is the only number in the decade which is "equal to the product of its factors (i.e.  $1 \times 2 \times 3$ )," and it is "made up of the sum of them (i.e.  $1 + 2 + 3$ ). See Philo, *On the Account of the World's Creation Given by Moses*, trans. F. H. Colson and G. H. Whitaker. Vol. 1. reprint 2004, LCL 226 (Cambridge, MA: Harvard University Press, 1929), 13. (Hereafter: *Op.*)

<sup>409</sup> Gregoras, ONS, 126, lines 16-22: "Ἐτι σύγκειται κακ τῶν δύο πρωτίστων εἰδῶν τοῦ ἀριθμοῦ ὁ ἑπτὰ κατὰ πολύτροπον σχέσιν ἐξεταζόμενος, ἀρτίου λέγω καὶ περιττοῦ, οἷον ἐκ μονάδος πρώτον καὶ ἑξάδος, ὧν ἡ μὲν ἑξὰς τέλειος ἀριθμός, μόνος ἐντὸς τῆς δεκάδος ἐκ τῶν οἰκείων μερῶν συνιστάμενος· ἡ δὲ μονάς ἐστι ρίζα καὶ ἀρχὴ παντὸς ἀριθμοῦ, μήτ' ἀρχὴν ἄλλην ἔχουσα πρὸ αὐτῆς, μήτ' ἄλλο μεθ' αὐτὴν τέλος, διὸ καὶ εἰκότως πρὸς τὸν πρῶτον ἀναφέρεται νοῦν, τὸν Θεόν. καὶ ταῦτα μὲν ἀρκεῖ περὶ τῆς συνιστώσης τὸν ἑπτὰ ἀριθμὸν πρώτης συζυγίας.

<sup>410</sup> Gregoras, ONS, 126, lines 23-25.

and their respective counterparts, the five zones of the earth.<sup>411</sup> Finally, paragraph 9 brings forth number seven's relation from the two-dimensional intelligible mathematical realities and the heavenly zones to the three-dimensional corporeality. Seven is the result of the union of three and four where three are the dimensions of a body (length, width, and depth) and four are the mathematical terms (point, line, surface, and mass) separated by three intervals. In addition, the elements are also four in number (earth, water, air, and ethereal fire) and from them all corporeal nature is compounded.<sup>412</sup>

To conclude the summary of the *ONS*'s contents, I ought to note that the remaining paragraphs 10-19 discuss, generally speaking, two main topics: 1) the generative power of the number seven and its effects on crucial points in human life, such as pregnancy, birth, physical development, aging and so forth (§10-§15); 2) the moon's influence on terrestrial phenomena, such as the spates and ebbs of the ocean and the development of a disease (§17-§19). Paragraph 16 makes an exception, separating in a way the other two thematic formations: it states that among the letters, seven vowels are to be found. In Philo's *De opificio mundi* the same example is given to support the claim that the number seven "exerts its influence [...] in those noblest of sciences, grammar and music."<sup>413</sup>

One possible reason for Gregoras' paragraph arrangement could be the fact that he was following the order of examples in one of the main sources for the *ONS*, that is, the *Theologoumena aritmeticae*,<sup>414</sup> a compilation concerning the symbolic meaning of all numbers from the decade, based largely on Nikomachos of Gerasa's lost *Theologoumena arithmeticae* and Anatolios' *Peri dekadōs*.<sup>415</sup> The *ThA* uses the example of the seven vowels twice. In the first instance the argument is immediately succeeded by another example attributed to

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<sup>411</sup> Gregoras, *ONS*, 126, lines 25-27.

<sup>412</sup> Gregoras, *ONS*, 126, line 34-127, line 2.

<sup>413</sup> *Op.*, XLII, 126.

<sup>414</sup> Iamblichus, *Theologoumena arithmeticae*, ed. Vittorio de Falco (Leipzig: Teubner, 1922), 1-87. (Hereafter: *ThA*.)

<sup>415</sup> R. A. H. Waterfield, "Emendations of [Iamblichus], *Theologoumena arithmeticae* (De Falco)," *CR* 38, no. 1. New Series (1988): 215.

Hippokrates, namely the division of human lifetime into seven ages.<sup>416</sup> Gregoras couples the same two arguments, though in reverse order. The second mentioning of the seven vowels in the *ThA* is a comparison between the seven sounds used in human speech and the seven tones produced by musical instruments which, in turn, correspond to the “sounds” of the seven heavenly bodies.<sup>417</sup> It is possible, then, that Gregoras thought it befitting to incorporate the seven vowels example as well since it was related to two of the major topics of the *ONS*, namely the musical harmony and the structure of the heavens. Needless to say, the validity of such a hypothesis largely depends on whether Gregoras actually knew the *ThA*, and further, if he was indeed acquainted with it, what version of it he did know. I shall address this question in what follows, as I discuss the possible sources and influences on Gregoras’ treatise.

None of Gregoras’ arguments for the revered nature of the number seven are novel. He borrowed them from a variety of sources and modified them, when necessary, in order to achieve agreement with the prevalent doctrines of his time. For instance, despite the general Platonizing spirit of the text (one can detect the undertones of the cosmological theory of the *Timaeus* and the *Epinomis*), when discussing the planetary spheres, Gregoras followed the Ptolemaic planetary model of nine heavenly spheres vs. eight in Plato: these are the spheres of the five planets, the sun and the moon, the sphere of the fixed stars that in this model is responsible for the precession of the equinoxes, and finally, the so-called “starless sphere”.

The two main sources for Gregoras’ exposition are Philo’s *Op.* §89-128 (first century CE) and the chapter dedicated to the hebdomad in Pseudo-Iamblichus’ *ThA* (fourth century CE). In addition to the textual parallels between the three texts, paleographical evidence also confirms that Gregoras read, at least partially, Philo’s *Op.* and the *ThA*. Gregoras’ hand has been identified in the *Escorialensis* X.I.13, a fourteenth-century manuscript containing

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<sup>416</sup> *ThA*, 55, lines 12-13.

<sup>417</sup> *ThA*, 71, lines 13-18.



part of Philo's treatise (f. 226r).<sup>418</sup> Second, one of only two manuscripts predating the fifteenth century and preserving the *ThA*, i.e. *Ambrosianus* & 157 sup., is Maximos Planudes' autograph copy and in all likelihood, was available in Chora's library when Gregoras was writing the *ONS*.<sup>419</sup> Moreover, the *Ambrosianus* is only a fragmentary copy of the *ThA*, preserving none other but the chapter dedicated to the heptad.<sup>420</sup>

The first part of *ONS* comprises nineteen arguments, out of which thirteen are to be found, completely or partially, in the *ThA*, and ten in the *Op*. Despite the strong dependence on material drawn from preexisting works, Gregoras did not replicate in any way the arguments' order as found in his main sources. Moreover, he did not include all the possible examples in support of number seven's revered nature that the sources offered to him. His selection includes three main groups of arguments: 1) discussions of the structure and order of the heavens represented by the musical harmonic scale, whose mathematical basis is the number seven; 2) proofs that the same hebdomadal structure is in the foundation of human nature and of the three-dimensional world; 3) based on the concordance of heaven (first group of arguments) and earth (second group of arguments), Gregoras listed examples of the influence celestial phenomena exercise on terrestrial beings and events.

### *The Ptolemaic Planetary Model*

For also, on the one hand, the spheres of the entire cosmic body lying one under the other are eight after the starless sphere and, on the other, the intervals in between them <the starry spheres> are seven, thus the number

<sup>418</sup> Inmaculada Pérez Martín, "El Escorialensis X.I.13: Una fuente de los extractos elaborados por Nicéforo Gregorás en el Palat. Heidelberg. gr. 129," *BZ* 86–87, no. 1 (1994): 20–30.

<sup>419</sup> Planoudes' residence in Chora monastery is demonstrated by a colophon in *Marc. gr.* 481 and by a possession note in *Vat. gr.* 177. See Wilson, *Scholars*, 230.

<sup>420</sup> On the *Ambrosianus* Et 157 sup., see Pérez Martín, "Al calor del texto antiguo"; Mondrain, "Maxime Planude, Nicéphore Grégoras et Ptolémée," 312–22; Allard, "L'*Ambrosianus* Et 157 sup.," 219–234; Mondrain, "Traces et mémoire"; *ThA*; Turyn, *Dated Greek Manuscripts*, plate 57, 78–81; Martini and Bassi, *CCAG*, vol. 3, 21, no. 36.

seven becomes the reason for the primary heavenly movement [...]<sup>421</sup>

Gregoras postulated eight celestial spheres after “the starless sphere,” or nine spheres in total. These were the spheres of the seven planets, i.e. Moon, Mercury, Venus, Sun, Mars, Jupiter, and Saturn<sup>422</sup> followed by an unnamed eighth sphere and “the starless sphere.” The identification of the eighth sphere proved problematic for Sbordone. After having rejected the possibility that the sphere Gregoras had in mind was that of the fixed stars (according to Sbordone, this one would be the ninth sphere in Gregoras’ scheme), Sbordone concluded that the Byzantine author represented an autonomous tradition which was not based on any of the sources Sbordone had identified previously as pertinent to this section of *ONS* (Pseudo-Iamblichus, *ThA* and Philo, *Op.*, among others) and which, according to Sbordone, were all dependent on a common source, that is, on a lost commentary on Plato’s *Timaeus* by the Stoic Posidonios.<sup>423</sup> The predicament Sbordone faced, however, finds its solution if one turns to an author Gregoras studied most faithfully, namely to Ptolemy.<sup>424</sup> A comparison with Ptolemy’s *Almagest* would correct Sbordone’s misunderstanding that the ninth sphere, i.e. the starless sphere is in fact the sphere of the fixed stars (a statement

<sup>421</sup> Gregoras, *ONS*, 125, lines 9-12: καὶ γὰρ καὶ τοῦ κοσμικοῦ παντὸς σώματος μετὰ τὴν ἄναστρον σφαῖραν ὀκτὼ μὲν εἰσὶν ἐφεξῆς ὑποκείμεναι σφαῖραι, τὰ δὲ μεταξὺ τούτων διαστήματα ἑπτὰ, ὡς αἴτιον γίνεσθαι τὸν ἐπταδικὸν ἀριθμὸν τῆς πρώτης ἐκείνης οὐρανίας κινήσεως [...] Compare with Ptolemy’s *Harmonics Book III.8*, 100.28: “First, therefore, is that both notes and the motions of the heavens are brought about by intervallic movement alone, since none of the modulations altering the substance are attendant upon it.” See Ptolemy, *Harmonics*, trans. Jon Solomon, 153.

<sup>422</sup> According to the medieval usage of the Ptolemaic system, the two luminaries, the Sun and the Moon, are included among the planets. For Gregoras’ endorsement of this view, see his *The Sun is Hot by Nature* in Ștefan Bezdechi, “Un petit manuel byzantin de philosophie à l’usage des dames,” *Anuarul Institutului de Studii Clasice* 3 (1936-1940): 16, lines 19-24. See also the most recent edition in Gregoras, *Solutions*, 506-510.

<sup>423</sup> Gregoras, *ONS*, 130: “Niceforo rappresenta una tradizione autonoma rispetto alla fonte commune dei testi suddetti, che, com’ è noto, provengono a gran distanza da un comment perduto dello stoico Posidonio al Timeo di Platone.”

<sup>424</sup> *Marc. gr.* 312 represents Gregoras’ annotated copy of Ptolemy’s *Almagest*. *Vat. gr.* 1594, on the other hand, contains on f. 1r Gregoras’ autograph annotation “introductory remarks to Ptolemy’s Great Syntax by Theon and other wise men and mathematicians.” On Gregoras’ interventions in the *Marcianus*, see Ševčenko, “Some Autographs of Nicephorus Gregoras,” 446, note 41. On Gregoras’ interventions in the *Vaticanus*, see Ševčenko, “Gleanings 5-6: 349-354.

contradictory in itself). To my knowledge, Gregoras mentioned the so-called starless sphere at least once more. In his commentary to Synesios' *On Dreams*, he clarified the mention of τῶν σφαιρῶν as follows: "Here, by 'spheres' one should understand all those from the first and starless one up to the lunar sphere."<sup>425</sup> Otherwise, a snippet view of his understating of the planetary model and his assumptions concerning the size and velocity of the different spheres, for instance, of the solar and lunar spheres, as well as, of the sphere of the fixed stars, can be reconstructed based on the discussion we find in Gregoras' *Letter 148*, which is subsequently repeated in his fifth *Solution*, namely *Concerning the sun, that it is hot by nature*.

Book I. 8, 26-29 of Ptolemy's *Almagest* discusses two kinds of primary celestial movements, the first one being the diurnal motion of the heavens, that is of the celestial sphere and all the heavenly bodies attached to it. In Gregoras' model of the heavens, this corresponds to the starless sphere and its movement. In the Ptolemaic system, on which I argue Gregoras is dependent here, the celestial sphere moves uniformly (with the same speed and in the same way, while preserving the relative angular positions of the heavenly bodies) from east to west around a fixed north-south axis piercing through the earth's poles. One full revolution of the celestial sphere is completed in twenty-four hours. In addition to the diurnal movement of the heavens Ptolemy postulates a second primary movement, that of the sphere of the fixed stars, which is responsible for the phenomenon of precession of the equinoxes, that is, for the slow apparent movement of the sphere of the fixed stars.

The second primary motion, according to Ptolemy, proceeds in a direction opposite to the first.<sup>426</sup> Since the precession of equinoxes implied that the fixed stars moved in a direction opposite to the uniform movement of the heavens, Ptolemy employed the distinction between the starless sphere and the sphere of the fixed stars, introduced by

<sup>425</sup> Nikephoros Gregoras, *Commentary of Synesios' On Dreams*, 138 B 157, 09, lines 10-11: τῶν σφαιρῶν. σφαίρας ἐνταῦθα νοητέον τὰς ἀπὸ τῆς πρώτης καὶ ἀνάστρου πάσας μέχρι τῆς σεληνιακῆς.

<sup>426</sup> Ptolemy, *Almagest*, Book I. 8, 27.

Hipparchos, hereby increasing the number of the celestial spheres by one.<sup>427</sup> That is, the Ptolemaic celestial model postulates the existence of nine spheres instead of eight in order to account for the phenomenon of precession.<sup>428</sup>

Plato's cosmology, which was equally authoritative for Gregoras and his milieu, offered in turn a model of a universe structured through eight moving heavenly circles – seven circles of the five planets, the Sun and the Moon, and the sphere of the heavens or the fixed stars. The planetary circles and the heavenly sphere moved in opposite directions. Plato labeled the two heavenly motions “the movements of the Same,” that is the movement of the sidereal equator, and “the movements of the Other” or the movement the Zodiac along the ecliptic, obliquely positioned with respect to the equator.<sup>429</sup> While the Same moves to the right representing the daily (apparent) movement of the heavens from east to west,<sup>430</sup> the Other moves in an opposite sense signifying the yearly (apparent) movement of the sun along the ecliptic from west to east.<sup>431</sup> In addition, while the circle of the Same preserved its entirety, the circle of the Other was split into seven separate concentric bands of uneven breadth – the orbits of the Moon, Sun, Venus, Mercury, Mars, Jupiter, Saturn – which all lie on the plane of the ecliptic.<sup>432</sup>

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<sup>427</sup> On the classical Greek idea that the heavenly sphere is the one moving and “carrying” the celestial object with itself, while the latter is at rest relatively to the sphere, see A. E. Taylor, *A Commentary on Plato's Timaeus*, Greek & Roman Philosophy 41 (New York: Garland, 1987), 148.

<sup>428</sup> On the Alexandrian distinction between the so-called first moving sphere and the sphere of the fixed stars in order to account for the precession of equinoxes, see Taylor, *A Commentary on Plato's Timaeus*, 152, note 1. On the idea of the existence of a ninth sphere as the one accountable for the movement of precession and its treatment in Ptolemy's *Planetary Hypotheses*, see Bernard R. Goldstein, “The Arabic Version of Ptolemy's *Planetary Hypotheses*,” *TAPS* 57, no. 4. New Series (1967): 3–55.

<sup>429</sup> Plato, *Timaeus* 36c.

<sup>430</sup> According to Taylor, Plato's account in the *Timaeus* speaks not of spheres, but of circular orbits only, while the notion of heavenly “spheres” was introduced for the first time in Greek astronomy by Plato's contemporary Eudoxos of Knidos. See Taylor, *A Commentary on Plato's Timaeus*, 151–152. Of importance for my argument here, however, is the Byzantine, Ptolemaic by inspiration, reception of Plato's cosmological theory that uniformly accepted and applied the concept of heavenly spheres rather than that of circular orbits.

<sup>431</sup> These observations are valid if one is watching the sky and the movement of the heavenly bodies from any point of the northern hemisphere while facing south. See Taylor, *A Commentary on Plato's Timaeus*, 150–151.

<sup>432</sup> Plato, *Timaeus*, 36d.

The late antique commentators John Philoponos and Simplicios were aware of the existence of the ninth, starless, sphere, and they were equally conscious of the fact that the mathematicians and philosophers before Hipparchos were not familiar with it.<sup>433</sup> Philoponos in his *De aeternitate mundi contra Proclum* stated that Plato did not know the ninth sphere, the starless sphere thought of by Ptolemy, but he (i.e. Plato) claimed that there were altogether eight, as Philoponos had shown on the basis of Plato's *Timaeus*.<sup>434</sup> Simplicios, on the other hand, in his commentary on Aristotle's *De caelo* mentions that, as it seems, in Aristotle's times, there was no knowledge of the starless sphere that encompassed all the rest.<sup>435</sup> Moreover, Christian authors identified the ninth starless sphere with the first heaven mentioned in *Gen. 1:1*.<sup>436</sup> This identification was made by Philoponos in his *De opificio mundi*<sup>437</sup> and in the thirteenth century, following Philoponos, by Nikephoros Blemmydes in his *Epitome physica*.<sup>438</sup> Another remark by the Alexandrian commentator is taken up later by Blemmydes, namely that most philosophers were ignorant of the starless sphere.<sup>439</sup> Other Byzantine authors were also acquainted with the notion of the starless sphere, though they applied it in different contexts. For instance, George Pachymeres invoked the image of the starless sphere as a limit of the universe in his commentary on Aristotle's *Physics* 203b22, in the context of a discussion of the infinite.<sup>440</sup>

<sup>433</sup> Bydén, *Theodore Metochites' Stoicheiosis Astronomike*, 179.

<sup>434</sup> John Philoponos, *De aeternitate mundi contra Proclum*, Bibliotheca scriptorum graecorum et romanorum Teubneriana (Leipzig: Teubner, 1899), XIII. 18, lines 7-10. In his commentary to the *Timaeus*, Proclus defended the same view, namely that he would need to be persuaded that Plato knew of the existence of a starless sphere. See Proclus, *Procli Diadochi in Platonis Timaeum commentaria*, ed. E. Diehl (Leipzig: Teubner, 1906) (repr. Amsterdam: Hakkert, 1965), vol. 3, 187, lines 19-20.

<sup>435</sup> Simplicios, *In Aristotelis De caelo commentaria*, ed. I. L. Heiberg, CAG 7 (Berlin: G. Reimer, 1894), II, 8, 462, 24-25.

<sup>436</sup> Bydén, *Theodore Metochites' Stoicheiosis Astronomike*, 179. See Bydén for further references.

<sup>437</sup> John Philoponos, *De opificio mundi libri vii*, ed. W. Reichardt (Leipzig, Teubner: 1897), 113, lines 15-16.

<sup>438</sup> Bydén, *Theodore Metochites' Stoicheiosis Astronomike*, 179.

<sup>439</sup> *Ibid.*

<sup>440</sup> Michael Psellos, *Kommentar zur Physik des Aristoteles*, ed. L.G. Benakis, Corpus Philosophorum Medii Aevi, Commentaria in Aristotelem Byzantina 5 (Athens: Academia Atheniensis, Institutum Litterarum Graecorum et Latinorum, 2008), 3.14, lines 8-10. For Golitsis' arguments in favour of Pachymeres' authorship of the

Not only were the late antique and Byzantine authors aware of Plato's ignorance concerning the existence of a ninth sphere, but also they knew very well of the discrepancy between the Platonic model of the universe and the predominant in their time, Ptolemaic model. Though Aristotle's authority on the issues of natural philosophy was generally accepted by Christian Greek writers, his account on the composition of the heavens was contested, while Plato's view as presented in the *Timaeus* held much more importance for the Byzantine scholars under the influence of some of the late antique commentators such as John Philoponos and Proklos.<sup>441</sup> Moreover, Gregoras' teacher in astronomy, Theodore Metochites and his contemporary Nikephoros Choumnos, were both involved in a dispute which was essentially about the differences in terms of number of planetary spheres (eight vs. nine) and of the sense of their corresponding movements, according to Plato and Ptolemy. Choumnos questioned Metochites' astronomical expertise as the latter adhered to the Ptolemaic view of the cosmos, thus ignoring what was commonly known from Plato's *Timaeus* and the pseudo-Platonic dialogue *Epinomis*.<sup>442</sup>

#### *Concordance of Authoritative Opinions*

Both Metochites and Gregoras attributed great importance and prestige to the mathematical sciences and especially to astronomy. For one thing, their subject matter was conceived as something stable and intelligible, thus offering the possibility of obtaining true knowledge about the creation. Consequently, what brought additional prestige to mathematical astronomy was the concordance of the authoritative opinions.<sup>443</sup> The urge for

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commentary, see Pantelis Golitsis, "Un commentaire perpétuel de Georges Pachymère à la *Physique* d'Aristote, faussement attribué à Michel Psellos," *BZ* 100, no. 2 (2007): 637–76.

<sup>441</sup> Bydén, *Theodore Metochites' Stoicheiosis Astronomike*, 109–110; 177–178; and 171–199 for the whole discussion on the composition of the heavens in Palaiologan Byzantium.

<sup>442</sup> Ševčenko, *Études*, 89–94.

<sup>443</sup> Bydén, *Theodore Metochites' Stoicheiosis Astronomike*, 70.

harmonization of planetary models was not made explicit in the *ONS*. Indeed, Gregoras introduced rather subtly a Ptolemaic postulate within a generally Platonicizing text. The importance of concordance of planetary models, this time Ptolemy's and Aristotle's, is, however, directly discussed in Gregoras' *Letter 22*, addressed to the Thessalonian Joseph the Philosopher or Rhakendytes (d. 1330), a member of the scholarly circle around emperor Andronikos II (r. 1282–1328) and author of the so-called *Encyclopedia*, a handbook which served for instruction in rhetoric, logic, physics, physiology, psychology, mathematics, ethics and theology.<sup>444</sup>

Gregoras' epistolary corpus includes two or possibly three letters Gregoras addressed to Joseph: *Letters 22, 46 and 51* (addressed either to Joseph or to Thomas Magistros<sup>445</sup>). Gregoras also dedicated a treatise on the method for calculating the date of Easter to Joseph, as attested by its superscription in *Vat. gr. 1086, f. 75r* and by the letters of another of Gregoras' correspondents, namely Gregory Akindynos:

Besides this I have collected many other products of your noble thought and speech, and I hold them in admiration; that is, if in fact you remember (for this happened two years ago) what you sent to that most wise Joseph of blessed memory, with the divine and wise Palamas. When Palamas found that the philosopher had gone near to Him for Whom he had yearned for so long – and he apparently knew that I am an ardent lover of your works and that if he should bring me the book, he would do me the greatest favor – he brought and handed it to me saying most generously, “Take the book that you fell in love with!” In return, he won from me no trivial gratitude, but such as he could not complain about.”<sup>446</sup>

Finally, it should also be mentioned that Joseph maintained epistolary correspondence with both Theodore Metochites, Gregoras' mentor, and with Thomas Magistros, member of the learned Thessalonian elite Gregoras kept close contact with.

<sup>444</sup> On Metochites' attempts for harmonization of the Platonic and Ptolemaic planetary models, see Ševčenko, *Études*, 95–100.

<sup>445</sup> *PLP* 16045.

<sup>446</sup> Akindynos, *Letter 1*, lines 28–38.

*Letter 22* is an example of continuous engagement of at least two generations of Byzantine scholars with the question of how to interpret the existing cosmological accounts and astronomical theories, how to explain the differences between them and how to bring them to agreement, an agreement which guaranteed the epistemic nature of the science of astronomy and the validity of its conclusions. In his missive, Gregoras appealed to Joseph to develop further the scientific and philosophical project started by Theodore Metochites. According to Gregoras, Metochites' scholarly enterprise needed two additions in order to be brought to perfection: a treatment of the logical treatises of Aristotle, i.e. the *Organon*, and of the *Metaphysics*. Metochites had omitted them and Gregoras urged Joseph not to do the same in order to be able to demonstrate ultimately that Aristotle's cosmological assumptions were in agreement with the postulates of Ptolemy:

Therefore now, when you are also completing the planned task, do not omit, you as well, the treatises I have mentioned like some kind of appendage, do not put them in a secondary position, neither [leave out] the other issues outside of [your] great effort, in order for you to show those many harmonious elements in the treatises of the wise Ptolemy and in what in Aristotle is conceived about the planetary spheres.<sup>447</sup>

Gregoras envisaged Joseph as the missing final link in a chain of authorities, with respect to the specific task he encouraged Joseph to accomplish, that is, demonstrating the concordance between Aristotle and Ptolemy. Thus, Gregoras described the transmission of astronomical/cosmological knowledge from Kallippos and Eudoxos to Aristotle, followed by the wise Ptolemy:

[Aristotle] goes in detail through substances, unmovable principles and numerous spheres, referring to up to fifty-five of them and he calls them spheres that have regular movement and retroactive spheres, having

<sup>447</sup> Gregoras, *Letter 22*, lines 105-109: Φέρε τοίνυν καὶ σὺ τὸ σὸν ἐκτελῶν προμηθές, μὴ καὶ αὐτὸς παραδράμῃς τὰ εἰρημένα καθάπερ τι ἐφόλκιον μὴδ' ἐν παρέργῳ θῆς, ὅτι μὴ περὶ πλείονος τῆς σπουδῆς τὰ τε ἄλλα καὶ ἵνα σύμφωνα τοῖς τοῦ σοφοῦ Πτολεμαίου δείξῃς ὅσα καὶ Ἀριστοτέλει διείληπται περὶ τῶν πλανωμένων σφαιρῶν.



received those terms, as he says, from Kallippos and Eudoxos. These two were astronomers and were active before Aristotle. And the wise Ptolemy transmitted to us a much lesser number of spheres, still, undoubtedly, it is absolutely clear to everyone that the statements of the man are very sound, and it is likely that those men who have so advanced of great wisdom did not speak nonsense, neither the son of Nikomachos, nor those from whom he received these terms.<sup>448</sup>

This being the case, it was Joseph's task, claimed Gregoras, to show that "the things which seem discordant are in agreement."<sup>449</sup>

### *Celestial Influence on Terrestrial Phenomena*

It is well-known that Ptolemaic astronomy was revitalized during the early Palaiologan period and it is not surprising that its achievements dominate our understanding of Byzantine mathematical sciences at large. It is perhaps less known that early Palaiologan astronomers tend to appear in need of justification of pursuing such a course of study. The existence of a unified authoritative tradition presented one such justification. As Paul Magdalino suggested, both Maximos Planoudes and George Pachymeres felt the need to justify and reestablish the study of the mathematical sciences, while Metochites, in particular, strove to demonstrate the superiority of astronomy within the sciences of the *quadrivium*, as well as with respect to physics, thus possibly motivating the reintroduction, after more than a century of interruption, of the study of astronomy in the higher

<sup>448</sup> Gregoras, *Letter* 22, lines 109-119: ὁ μὲν γὰρ οὐσίας καὶ ἀρχὰς ἀκινήτους καὶ σφαίρας διέξεισι πλείστας ὁ Νικομάχου μέχρι καὶ ἐς πέντε καὶ πεντήκοντα ἀναφέρων αὐτὰς καὶ τὰς μὲν φερούσας, τὰς δ' ἀνελιττούσας καλεῖ, παρὰ τε Καλλίππου καὶ Εὐδόξου τὰς τοιαύτας, ὡς φησι, φωνὰς ἐκδεξάμενος. ἀστροθεάμονες δ' ἦσθιν οὗτοι πρὶν ἢ Ἀριστοτέλην γενέσθαι ἀκμάσαντε· ὁ δέ γε σοφὸς Πτολεμαῖος πολλῶν γε ἡττοῦς ἡμῖν τὰς τοιαύτας παραδίδωσι σφαίρας, δῆλον δὲ {{καὶ}} δήπου τοῖς ἅπασιν πάντως, ὡς πάνυ τοι ἀσφαλῆ τὰ εἰρημένα τάνδρι, εἰκὸς δ' αὖ μὴδ' ἐκείνους ληρεῖν σοφίας οὕτω μεγάλης προήκοντας ἄνδρας, οὔτε τὸν Νικομάχου οὔτε τοὺς ἐξ ὧν ἐκεῖνος τὰς τοιαύτας παρειλήφει φωνάς.

<sup>449</sup> Gregoras, *Letter* 22, lines 119-120: δεῖ δὲ μεγαλοφουοῦς τῷ πράγματι διανοίας, ἵνα ξύμφωνα τὰ δοκοῦντα μὴ ξύμφωνα ἀποφῇ.

educational curriculum.<sup>450</sup> Demonstrating the strong dependence of the earthly events on their celestial counterparts, something Gregoras also did in the *ONS*, offered another such justification. The third group of arguments demonstrating the revered character of the hebdomad concentrated on examples of the influence celestial phenomena exercise on terrestrial beings and events. The majority of Gregoras' examples deal with the influence of the moon and its cycle of four hebdomads. For instance:

§17. Moreover, the ocean itself follows this seventh number with respect to its spates and ebbs [...] For when the moon is born, the ocean also starts increasing at once, displaying little by little <its> greater size until the seventh day, on which the moon also becomes half-full and from that moment it in turn starts to abate back little by little; and the ocean also sinks down until the second period of seven days [...] and similarly once more the third week has effects resembling the first, and the fourth - the second, and forever and ever in a similar manner.<sup>451</sup>

§18. But also <scholars like> Hippokrates and Galen... held the opinion that the attacks of diseases are distinguished in periods pertaining to the number seven. [...] The transitions of the moon during every period of seven days are the cause of these <events>, <transitions> that <the moon> does according to its distance from the sun.<sup>452</sup>

<sup>450</sup> Magdalino, *L'orthodoxie des astrologues*, 142, 144, 146-147.

<sup>451</sup> Gregoras, *ONS*, 127, lines 33-37-128, lines 1-6: "Ἐτι καὶ Ὠκεανὸς αὐτὸς τῷ ἑπταδικῷ τούτῳ ἀριθμῷ κατὰ τὰς πλημμυρίδας καὶ ἀμπώτιδας ἔπεται, καὶ τοῦτο δῆλον μάλιστα· πάντων γίνεται τοῖς προσοικοῦσι ταῖς Ἡρακλέους στήλαις ἐκατέρωθεν περὶ τὸν τῶν Γαδεῖρων πορθμὸν Λίβυσί τε καὶ Ἰβηρσι, προωθούμενον βλέποντες ἔνδοθεν ἐκ τοῦ ὠκεανείου καὶ ἀτλαντικοῦ πελάγους πρὸς τὴν ἔξω καὶ ἡμετέραν θάλασσαν ταύτην. γενομένης γὰρ τῆς σελήνης, εὐθὺς αὐξεσθαι καὶ αὐτὸς ἄρχεται, κατὰ βραχὺ μείζονα τὸν ὄγκον δεικνὺς ἕως ἑβδόμης ἡμέρας, ἐν ᾗ καὶ διχότομος ἡ σελήνη γίνεται, καὶ τοῦμπαλιν ἐκεῖθεν αὖθις ἄρχεται λήγειν κατὰ βραχὺ καὶ αὐτὸς καὶ ὑφίζανειν ἕως τῆς δευτέρας αὖθις ἑβδομάδος, ὅτε καὶ πανσέληνος ἡ δαδοῦχος ἐκείνη καὶ αἰθερία φαίνεται γινομένη λαμπάς, καὶ ὁμοίως ἡ τρίτη πάλιν ἑβδομάς τὰ τῇ πρώτῃ ποιεῖ παραπλήσια, ἡ δὲ τετάρτη τὰ τῇ δευτέρᾳ, καὶ ὁμοίως αἰεὶ τὸν πάντα αἰῶνα.

<sup>452</sup> Gregoras, *ONS*, 128, lines 7-15: Ἀλλὰ καὶ τὰς τῶν νοσημάτων ἐπαγωγὰς ἑπταδικαῖς περιόδοις κρίνεσθαι ἀπεφῆγαντο Ἱπποκράτης καὶ Γαληνοὶ καὶ ὅσοι τῶν Ἀσκληπιαδῶν ἐγένοντο κράτιστοι. ταύτῃ γὰρ τῶν ἡμερῶν ἡ φύσις, πρὸς Θεοῦ τὸ ἐνδόσιμον εἰληφυῖα, πεπαίνειν ὠρίσατο, τὰς πρὸ αὐτῆς ἀπάσας ἡμέρας εἰκότι λόγῳ διαμερισμένη καθ' ἕκαστα, καὶ νείμασα τὴν τε γένεσιν καὶ αὕξησιν τῶν ἄλλοι' ἄλλως τακταῖς περιόδοις πορευομένων τοῦ βίου πραγμάτων, τῶν τε ὑγιαίνοντων δηλαδὴ καὶ χαιρόντων, καὶ ὅσα νόσοι καὶ λῦπαι παντοδαπαὶ καὶ φθοραὶ διαβόσκειν ἔλαχον κατὰ βούλησιν τῆς ἄνωθεν περιούσης προνοίας τάπιγεια. τούτων δ' αἴτιον αἰ καθ' ἑβδομάδα μεταβολαὶ τῆς σελήνης, αἱ κατὰ τὰς πρὸς ἥλιον ἀποστάσεις αὕτη ποιεῖται.

§19. For <the moon> is full when it is away from the sun, in opposition. <It is> half-full when it stands in a quartile to it (i.e. the sun) [...] it is bulging on both sides whenever it is in trine to <the sun>; it is crescent when it is in a sextile. [...] and in the time of the new moon, not being able to appear before, <it causes> the clear transitions to produce effect on the earth.<sup>453</sup>

Gregoras' selection and arrangement of material in his *ONS*, I argue, was motivated by his intention to emphasize the interconnectedness between the heavenly and earthly domains, and the consequential influence heavenly bodies and their movements exert on terrestrial phenomena. Such a position is in agreement with explicit statements on the matter Gregoras incorporated in his *History*, as well as in his letters. It is worth noting that the above quoted arguments concerning the effects the moon has on the earth are paralleled and elaborated further in Gregoras' *Letter 69*:

[...] if it <the moon> meets one of the favourable stars, the result will be good when it <the moon> occupies the tetractile position or one of the other positions of the same type. If the case is the opposite, the result will be bad. Its hebdomadal transitions, the phases in which it is full and in which it is in the first or the last quarter, in the physicians' opinion, influence the diseases [...] It is above all the sick people who feel the most clearly the changes of the moon, for example the epileptics. They can feel particularly the changes in the atmosphere when the moon is in conjunction with the sun.<sup>454</sup>

<sup>453</sup> Gregoras, *ONS*, 128, lines 16-23: Πανσέληνος μὲν γὰρ γίνεται ὅταν μετὰ τὴν συνοδικὴν συζυγίαν κατὰ διάμετρον ἀποστᾶσα τοῦ ἡλίου γένηται διχότομος δ' ὅτε κατὰ τετράγωνον αὐτῷ σταίῃ σχηματισμόν, λεπτομερέστερον δ' ἔτι φήναι· ἀμφικυρτός μὲν γίνεται, ἐπειδὴν κατὰ τριγωνικὸν γένηται τούτῳ σχηματισμόν· μηνοειδὴς δὲ ὅταν καθ' ἑξαγωνικόν. ὀξείας μὲν οὖν καὶ σφόδρα ταχείας ποιεῖται τὰς μεταβολὰς ὅταν κατὰ διάμετρον στᾶσα πανσέληνος γένηται· βραδυτέρας δὲ ὅταν κατὰ κάθετον αὐτῷ γενομένη, συνοδικὴν αὐτῷ ποιῇται τὴν κίνησιν καὶ τὸν τῆς κρύψεως χρόνον ὁλόκληρον σχεδὸν ζωδίου ὑπάρχοντα, μὴ δυναμένη, πρὶν φανῆναι, σαφεῖς τὰς μεταβολὰς ἐργάζεσθαι πρὸς τὴν γῆν.

<sup>454</sup> Gregoras, *Letter 69*, lines 74-80; 98-101: [...] εἰ καθ' ἓν ὁποιοῦν εὐρεθείη παροδεύουσα τῶν ζωδίων ἡ σελήνη ὅπῃ καὶ τῶν πλανήτων ἔτυχέ τις ὣν ὅποσοι ἀγαθοί, χρηστὸν αὐτοῖς ἀπαντὰ τὸ τέλος, ὅποτε καθ' ὅσα τετράγωνον ἢ ἄλλην τινὰ τῶν ἀνηκουσῶν ποιεῖται τὴν στάσιν· εἰ δὲ τοῦναντίον, ἀνιαρόν. αἱ γὰρ μὴν ἑβδομαδικαὶ περίοδοι ταύτης καὶ αἱ διχόμενοι καὶ διχότομοι φάσεις καὶ ἱατρῶν παισὶν ἀνύσιμοι ὡμολόγηται εἶναι ἐς τὰ νοσήματα [...] καὶ οἱ μάλιστα νοσοῦντες ἐκδηλότερον αἰσθάνονται ἂν ὅποσα τῆς σελήνης μεταβολαί, ὥσπερ καὶ ὅσοι ἐπίληπτοι. μᾶλλον γὰρ τῶν τοῦ ἀέρος αἰσθάνονται ἂν οὗτοι μεταβολῶν ἐν τῇ πρὸς τὸν ἥλιον τῆς σελήνης συστάσει.

Gregoras viewed heavenly phenomena as closely linked to earthly events. The two were bound through a natural harmonic relation, which was sometimes perceived as causal and therefore justified their study. Gregoras' views are much in tune with the medieval understanding of celestial causation<sup>455</sup> and *Letter* 69 offers more examples in support of this argument:

You did not limit the boundaries of your thinking to the grass, to the flocks of sheep, to the frontiers of the earth, but you went up to the vault of the sky, studying the relation which naturally <unites> the celestial and terrestrial phenomena, the secondary causes of those, and whence the principles of generation descend, <the principles> <that> mystically nurture the terrestrial beings.<sup>456</sup> [...] I shall collect for you from elsewhere the remaining <things> like in a bright *theatron*, so that you know from there how the earthly phenomena are linked to the celestial and <that> the same concordance and arrangement unites them at each end in one and the same thing like in perfection.<sup>457</sup>

In the light of the discussion so far, one may conclude that, as the examples drawn from the *ONS* and Gregoras' letters illustrate, he strove to provide justification for his astronomical pursuits. Needless to say, in addition to its relevance for understanding the events on earth and with the support of concordant authoritative opinions, the study of the natural world, of the celestial phenomena in particular, found other venues of justification. The regularity of the heavenly movements and the mathematical foundation of their realm

<sup>455</sup> On theories of celestial influence in Latin medieval cosmology, see J. North, "Medieval Concepts of Celestial Influence: A Survey," in *Astrology, Science, and Society: Historical Essays*, ed. Patrick Curry (Woodbridge, Suffolk; Wolfeboro, N.H: Boydell Press, 1987), 5–17.

<sup>456</sup> Gregoras, *Letter* 69, lines 30–35: οὐ γὰρ ἄχρι χλόης καὶ ποιμνίων καὶ ὅποσα γῆς ὅρια τοὺς ὄρους ὠρίσω τῆς σῆς διανοίας, ἀλλ' ἄχρι καὶ οὐρανίων ἀψίδων ἀνῆλθες, τὴν κοινωνίαν εὐφυῶς τῶν ἄνω καὶ κάτω ζητῶν καὶ τὰ μετὰ τὸ πρῶτον αἷτια τούτων καὶ ὅθεν οἱ τῆς γενέσεως κατιόντες λόγοι βόσκουσι μυστικῶς τὰ ἐπίγεια.

<sup>457</sup> Gregoras, *Letter* 69, lines 45–48: ἐγὼ σοι λοιπὸν λαμπρὸν ἐτέρωθεν συγκροτήσω τὸ θέατρον, ἵν' ἐντεῦθεν γνοίης ὅπως τοῖς οὐρανίοις συνάπτεται τὰ ἐπίγεια καὶ μία τις ἁρμονία καὶ σύνταξις ἐκατέρωθεν ἐς ἑνὸς τινος ἔργου συνίσταται τελεσφόρημα.

counterbalanced the changeability of the world below. One has to bear in mind also that for Byzantine scholars there was yet another agent of stability beyond the created universe, i.e. its Creator, God and his omniscient providence, whose role and significance for Gregoras' thought I discuss in *Part III.4: Knowledge of the Creation. Spontaneity, Fortune, and Divine Providence*.

### Chapter 3: Letters and Astronomy

Gregoras' astronomical letters either emphasized the importance of the study of the celestial phenomena, or described the conditions of composition of his treatises and in some cases accompanied them, or finally, the letters bore the marks of Gregoras' active involvement in 'astronomical' controversies. In a commentary written sometimes between 1330 and 1332<sup>458</sup> on Synesios' *On Dreams*, Gregoras elaborated on the well-known mythical story of Ikaros:

Ikaros also was a human himself: he wanted to study astronomy and the paths of the stars. As he was unable to comprehend easily the demonstrations of the computations, he gave up in the midst of <his> education; and for this reason the story goes that he attached to himself waxen wings, in order to fly towards the sky. In the middle of the flight, since the sun was striking him more severely, the wings dissolved, and he fell in [...] the sea, [...] and as he fell, he drowned in the sea.<sup>459</sup>

In a letter written within the same time frame (*Letter 28*), i.e. between 1330 and 1331,<sup>460</sup>

<sup>458</sup> Dating according to Ševčenko and more recently Pietrosanti. See Ševčenko, "Some Autographs of Nicephorus Gregoras"; and Gregoras, *Synesios*.

<sup>459</sup> Gregoras, *Synesios*, 154 C 186, 03, lines 6-16: ἱκάρου. ὁ δὲ ἱκάρου ἄνθρωπος ἦν καὶ αὐτός | ἡβουλήθη δὲ τὴν ἀστρονομίαν μαθεῖν, καὶ τοὺς τῶν ἀστέρων δρόμους. μὴ δυνάμενος δὲ ῥαδίως τὰς τῶν λόγων ἀποδείξεις συνιέναι, ἀπέπεσε μετὰ τῆς μαθήσεως καὶ διὰ τοῦτο ἐμυθεύθη ὅτι προσεκόλλησεν ἑαυτῷ κήρινα πτερὰ, ἵνα πετασθῇ πρὸς οὐρανόν. | μετὰ δὲ τῆς πτήσεως τοῦ ἡλίου προσβαλόντος αὐτῷ σφοδρότερον, ἐτάκησαν μὲν τὰ πτερὰ, αὐτὸς δὲ ἐπεπτώκει ἐν ᾧ μέρει τῆς θαλάσσης [...] καὶ πεσὼν ἐπνίγη ἐν τῇ | θαλάσσῃ.

<sup>460</sup> Dating according to Leone. See Gregoras, *Letters*, vol. 2.

Gregoras invoked the image of Ikaros again, this time providing a more predictable interpretation of the story. He presented Ikaros as a fool equipped with excessive insolence who did not want to walk the earth any longer and therefore, desired something beyond his nature, namely to fly. His means, however, were “perilous and far from what is considered to be of a sensible person.”<sup>461</sup> In the case of *Letter* 28, Ikaros’ story served, in fact, as an opening of an invective in epistolary form against those who insult the study of astronomy. The two renderings of the Ikaros myth, therefore, the former more explicitly than the latter, both referred to those who despite their desire to advance in the astronomical studies did not possess the right mind for it and their consequent downfall only proved their misfortune, foolishness, and even arrogance. In order for this observation to be meaningful, one has to bear in mind Gregoras’ active involvement in the astronomical debates of the 1330s. It is equally important to consider his role in the revival of Ptolemaic astronomy during the early Palaiologan period, a scholarly “project” that involved erudites from the two preceding generations, notably Maximos Planoudes and Theodore Metochites.

In a letter written between the solar eclipses of November 1331 and the one of May 1333<sup>462</sup> Nikephoros Gregoras described his involvement in an on-going ‘debate’ on astronomical matters and more precisely, on the accuracy of the calculation of the solar eclipse’s date. Gregoras described the relations between him and his adversaries in the following way:

Therefore, having made those people aware that there will be another eclipse of the sun, after that one, whose date and hour, and measure it is necessary to determine, then, I continued being dedicated to silence for a whole one year, up to the present day. By announcing such news, I seemed to those similar, as it were, to someone who had thrown a precious stone into the deep sea. Thus I imposed on them, diving into the sea, to search for the

<sup>461</sup> Gregoras, *Letter* 28, lines 5-6: ἀλλ’ ἦν ταῦτα ἐφόδια τάνδρῃ σφαλερὰ καὶ πρόσω ἢ ὥστε καὶ σωφρονοῦντος εἶναι δοκεῖν.

<sup>462</sup> Anne Tihon dates *Letter* 103 to 1332 or the start of 1333. See Tihon, “Astrological Promenade in Byzantium in the Early Palaiologan Period,” 283.

place in the abyss, at the bottom of the sea, where the thrown stone lies. But such a task is not at all similar; on the contrary it is to such extent easier as it is for a small child to take up in its hands a bundle of stalks.<sup>463</sup>

The passage comes from Gregoras' *Letter* 103 addressed to the sebastos Michael Kaloeidas.<sup>464</sup> Constantinides Hero has suggested that this letter received the attention of another of Gregoras' addressees, namely Gregory Akindynos' who alluded to it in a letter written during the summer of 1333, after the solar eclipse of May 14.<sup>465</sup> According to Hero, not only Akindynos, but also Barlaam of Calabria (ca. 1290–1348)<sup>466</sup> was acquainted with the content of the very same letter, and moreover he was Gregoras' actual opponent, though Gregoras did not mention him by name. Here Hero follows Tihon and Mogenet who agree with such identification.<sup>467</sup>

In sum, since *Letter* 103 was circulated, it engaged at least three individuals from Gregoras' circle. First, it was addressed to Michael Kaloeidas who was interested in astronomy and, as it seems from the letter, asked Gregoras to break his silence and to give a more accurate explanation concerning the coming solar eclipses (in 1333 and 1337 respectively).<sup>468</sup>

Second, it engaged Akindynos whose interest in astronomy reached only to the point of reading and praising highly Gregoras' works:

[...] in fact, it is not your works which proclaim you, nor is it just those men

<sup>463</sup> Gregoras, *Letter* 103, lines 57–64: Ὅθεν μετεωρίσας αὐτοὺς ὥς ἔσται καὶ ἄλλη μετὰ τὴν ἐπισκότησιν ταυτηνὶ τοῦ ἡλίου, ἥς ἡμέραν καὶ ὥραν καὶ ποσότητα δέον εὐρεῖν, εἶτα σιγῇ θύων διήγαγον μέχρι καὶ ἐς τὴν τήμερον ὅλον ἐνιαυτόν· οἷς ὁμοιος ἔδοξα ταῦτ' εἰπὼν ὥσπερ ἂν εἰ λίθον πολυτελεῖ κατὰ μεγάλης θαλάττης ἀφείς, εἶτα ἐπέταττον οὗ τῆς ἀβύσσου καὶ τῶν θαλαττίων πυθμένων ἐκεῖνος κεῖται ῥιφεῖς, καταδύντας ζητεῖν. τόδ' ἦν οὐχ ὅμοιον ἀλλὰ τοσοῦτο τῶν κουφοτάτων, ὅσον καὶ σμικρῷ παιδί καλάμης φάκελλον ἀνὰ χεῖρας λαβεῖν.

<sup>464</sup> PLP 10569.

<sup>465</sup> Akindynos, *Letters*, 309 and 312.

<sup>466</sup> PLP 2284.

<sup>467</sup> Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 156–157.

<sup>468</sup> Gregoras, *Letter* 103, lines 68–71: καίτοι σοῦ γε εἵνεκα, οὐκ ἂν λόγων τῶν προσηκόντων ἄνευ ἐκῶν γε εἶναι ἔγωγε ἐβουλόμην διεξιέναι, ἀλλ' ὥσπερ αἰ τοὺς τε τρόπους καὶ τὰς αἰτίας τοῖς πράγμασι συγκεραννὺς τὴν ἔφεσιν ἔτρεφον τὴν σὴν, οὕτω καὶ νῦν μοι ἐθέλοντι ἦν.

who have savored and relished your divine sayings, but now even the celestial bodies, the very sun and the moon and the stars which under your guidance hide from us and appear again, moving as they do.<sup>469</sup>

Akindynos was compelled to discuss the exceptionality of Gregoras' astronomical knowledge in order to establish a friendly relationship with him, especially since Gregoras praised his letter in front of the emperor Andronikos III (r. 1328–1341) as attested in Akindynos' second letter to Gregoras: "But when you say that he listened to you praising my letter, about this, permit me to say, I can hardly believe you. For neither is my letter such as to be presented to the Emperor, nor would he lend an ear to it."<sup>470</sup> Akindynos' second letter also attests to the public reading of one of Gregoras' astronomical missives which could very well be *Letter 103*.<sup>471</sup> Finally, Barlaam was also acquainted with the letter since it seems that he took upon the challenge posed by Gregoras in it, namely he calculated the eclipses of May 14, 1333 and March 3, 1337.

In order to address the main questions this chapter poses, namely what was the scientific and political importance of astronomy during the Palaiologan period and how did it connect with philosophy, as far as one can infer from Gregoras' correspondence and from *Letter 103* in particular, I have divided my exposition in three parts. First, I will discuss how the astronomical debate is presented, how the image of Gregoras' adversary is constructed and whether the latter's identification with Barlaam is accurate. Second, I will analyze the nature of the 'challenge' and I will introduce the general characteristics of Palaiologan astronomy. Finally, I will deal with the relation between astronomy and philosophy and how astronomy profits from it in terms of its role in the process of acquiring certain social promotion.

*Letter 103* starts with a long introduction that outlines the setting of the so-called

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<sup>469</sup> Akindynos, *Letters*, 7.

<sup>470</sup> *Ibid.*, 10. *Letter 2*, lines 88–99.

<sup>471</sup> According to Constantinides Hero, Akindynos' second letter should be dated to the summer of 1333, posterior to the eclipse of May 14, 1333.



‘astronomical’ controversy and the relations between Gregoras and his opponents. The debate, one can assume, started at least one year prior to the writing of the letter.<sup>472</sup> One of its main features, as presented by Gregoras, consisted in the contrary understanding of science the two factions professed. While Gregoras stated that he couldn’t allow for dubious conclusions to be proclaimed as scientific knowledge, he accused his opponents of playing games of science (τὰ τῆς ἐπιστήμης παίγνια). Moreover, he denoted his adversaries as sophists (σοφιστῶν οἱ πολλοὶ), characterized by foolishness (φλυαρία), thoughtlessness (ἀφρόνη) and great ignorance (ἀμαθία μεγίστη) as opposed to the wise and sensible men (ἐχέφρονες) such as Gregoras’ himself.

Through the first two thirds of the letter Gregoras displayed and employed five parallel antitheses through which he constructed both his own image as a ‘true’ scholar who practices science in the correct manner, according to its principles, and thus, reaches true conclusions; and the image of his adversaries portrayed as mischievous, proud, daring, and foolish magicians and readers of signs whose ignorance is even more blinding than the shining sun. The aim of the literary construction Gregoras employs here is not merely to draw a clear line between him and his opponents. Each of the five analogies also indicates various ways in which Gregoras could have acted or could act in relation to his opponents.

First, Gregoras compared himself to Pythagoras, both of them being wise men surrounded by fools. Pythagoras, however, demonstrated their foolishness by addressing them directly, while Gregoras has chosen the prolonged and more difficult solution of being silent. As Gregoras and Pythagoras acted differently in a similar situation, one might think that this analogy only gives a ‘negative’ description of Gregoras, i.e. it says what he did not and would not do. Nevertheless, placed at the very beginning of the letter, it immediately situates the audience in the subject matter discussed: Pythagoras’ figure is not merely employed as a general model of a wise man, but moreover, it invokes a paradigm inherited

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<sup>472</sup> Either in 1330 or in 1332.

from the Platonic tradition which ascribes all the achievements of Presocratic astronomy to him. Whence, although Gregoras does not state it explicitly in the beginning of his letter, astronomy is indicated as the science he is referring to.

The second analogy presents Gregoras as another Homer. It invokes the passage from Pseudo-Herodotus' *Life of Homer* which informs about the way Thestorides of Phocaea, after having put Homer's poems into writing, claimed them to be his own and was performing them with great success on the island of Chios. This second comparison adds another characteristic to the image of Gregoras' opponents – besides being ignorant of the astronomical matters, they are also plagiarizers appropriating Gregoras' achievements and fame.

The third analogy compares Gregoras' adversaries to the Titans who in their anger revolted against Zeus.<sup>473</sup> However, further below in the text Gregoras will specify that unlike Zeus he does not dispose of lightning and he will not attack his enemy in a like manner. The fourth analogy equals the adversaries to the mythical Telchines, usually perceived as spiteful sorcerers. Here the opposition between mathematical astronomy, as an exact science, and magic is invoked in order to emphasize again that the attempts of Gregoras' adversaries to deal with astronomy have no validity and could not reach true, that is, scientific conclusions since they were based on divinations and not on scientific reasoning.

The final, fifth analogy compares Gregoras to Odysseus in terms of the ability of the latter to recall a person to his senses (σωφρονίζειν). The allusion refers to the famous episode from the *Iliad* where Odysseus beat Thersites with Agamemnon's scepter. Gregoras claims that unlike Odysseus he does not have the staff with which to urge a certain someone to come to his senses.<sup>474</sup>

In four of the five analogies (all but the one involving the Telchines) Gregoras

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<sup>473</sup> Gregoras' adversaries are compared also to the Cyclopes. Cf. Gregoras, *Letter* 103, line 45.

<sup>474</sup> Though in reverse order and not referring to Gregoras himself but to those angered by Barlaam's insolence, the same two analogies (namely, not having a scepter like Odysseus, nor a thunderbolt like Zeus) are employed also in the Gregoras, *Phlorentios*, lines 555-563.

opposed his attitude towards his adversaries (i.e. being silent) to an altogether active position: Pythagoras addressed the fools, Homer went to Chios and sought out Thestorides, Zeus overthrew the Titans with the power of his lightning, Odysseus beat Thersites with Agamemnon's sceptre. The paradigm consisting of these four figures is being gradually intensified alongside the parallel paradigm of the image of Gregoras' adversaries. Therefore, when he renounces his dedication to silence and for the first time addresses the question of the solar eclipses and their calculation directly, one may recognize two main elements of the narrative. The first is the climax of the narrative gradation, the aim of which is to convince the audience of the foolishness of Gregoras' opponents. The second embodies the turning point in Gregoras' argumentation and is expressed on lines 57-64 of *Letter* 103. It places the start of the controversy at the time of the announcement of an eclipse by Gregoras (identified on the one hand, by Guiland as the eclipse of July 16, 1330 which Gregoras calculated,<sup>475</sup> and on the other, as the eclipse of November 30, 1331 by Tihon and Mogenet<sup>476</sup>). It is not the aim of the present chapter to discuss the grounds for this identification. My objective is to deal with the other two eclipses Gregoras announced in his letter to Kaloeidias – namely the eclipse of the May 14, 1333 and the one of the March 3, 1337. While he mentions the precise hour, date and measure of the first one (namely, it will take place around the twelfth hour on May 14, in the first indiction and it will be the fullest among all eclipses he had observed until now), concerning the second, he just states that it is going to occur. He promises to be silent about its characteristics on account of his adversaries and of his students, the first being amateurs in astronomy, the second still not initiated in its craft.

The announcement of the occurrence of these two eclipses has been largely interpreted by the modern day readers of Gregoras' letters as posing a challenge towards

<sup>475</sup> Guiland, *Correspondance*, 150, note 1. Cf. Nikephoros Gregoras, *Calcul de l'éclipse de Soleil du 16 juillet 1330*.

<sup>476</sup> Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 155. Ševčenko and Polemis have suggested alternative dating, 1333 or 1337 respectively. See Ševčenko, *Études* and Polemis, "Ἡ πρὸς τὸν Βαρλαάμ διένεξις τοῦ Γρηγοῤῥᾶ. Ἡ Ἀντιλογία," 44-72.

Barlaam. The truth is, in all four of Gregoras' letters which relate directly to the astronomical controversy, he never named his opponents.<sup>477</sup> Barlaam was identified as his chief adversary based on otherwise well attested rivalry between the two erudites<sup>478</sup> as well as on the fact that the eclipses of May 1333 and March 1337 that Gregoras' announced in *Letter* 103 are precisely the ones Barlaam calculated.<sup>479</sup> If one takes into account Barlaam's arrival in Constantinople (1330) and his almost immediate popularity which was roughly coincidental with the fall of Andronikos II (r. 1282–1328), the exile of Theodore Metochites (1270–1332; he was sent to exile in 1330) and the related downfall of his disciple and protégé Nikephoros Gregoras, one might see the two intellectuals as “natural” rivals for imperial attention (note the famous public dispute between Barlaam and Gregoras described both in Gregoras' *History*<sup>480</sup> and in his dialogue *Phlorentios*<sup>481</sup>). One might assume then, that it is Barlaam whom Gregoras targeted in the letter to Kaloeidas. The Calabrian monk seems to be the one diving in the deep waters of the sea in search of the precious stone Gregoras has thrown.

The two, however, were adversaries on many grounds, e.g. musical theory and philosophy. Then, “Why argue over astronomy?” is a question that immediately comes to mind. In order for me to offer an answer, I shall have to clarify what the nature of Palaiologan astronomy was and what its status was. When I refer to Palaiologan astronomy in the present chapter, I have in mind the mathematical aspect of the astronomical science and not its physical one. Simplicius (the sixth century CE) illustrated the difference, which, I argue, is relevant for the Palaiologan period too, by the following example:

Now in many cases the astronomer and the physicist will propose to prove

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<sup>477</sup> Gregoras, *Letters* 40, 53, 83 and 103.

<sup>478</sup> See Gregoras' dialogues *Phlorentios*, *Philomathēs*, the allusions in Gregoras' and Akindynos' correspondence, as well as Gregoras' *History*.

<sup>479</sup> Cf. Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*.

<sup>480</sup> Gregoras, *History*.

<sup>481</sup> Gregoras, *Phlorentios*.

the same point, e.g., that the sun is of great size or that the Earth is spherical, but they will not proceed by the same road. The physicist will prove each fact by considerations of essence or substance, or force, of its being better than things should be as they are, or of coming into being and change; the astronomer will prove them by the properties of figures or magnitudes, or by the amount of movement and the time that is appropriate to it.<sup>482</sup>

Astronomy as one finds it in the calculation treatises of Gregoras and Barlaam is merely a calculation of the precise date of a past/future conjunction of celestial bodies and a description of its aspects, both executed according to the guidelines of Ptolemy's *Almagest* and *Handy Tables*. One finds the clearly delineated borders of mathematical astronomy not only in Barlaam's and Gregoras' calculation treatises but also in the astronomical pursuits of their common correspondent George Lapithes, an erudite member of the circle of Hugh IV (r. 1324–1359), king of Cyprus<sup>483</sup> who dealt both with philosophy and astronomy as attested by Barlaam's *Solutions*<sup>484</sup> (1336) – answers to five philosophical problems (ἀπορίαι) posed to the Calabrian by Lapithes –, as well as by the latter's correspondence with Gregoras. An example of Lapithes' interest in improving the *Handy Tables* of Ptolemy is recorded in his letter to Gregoras (written between 1330–1340):

With what sort of astronomical tables do you make your calculations? [...] For I don't believe that you use the Ptolemaic tables, since they have become inaccurate due to the length of time [elapsed since their epoch]. Also: whom do you trust when you make astrological predictions – Ptolemy alone or one

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<sup>482</sup> Translation by T. L. Heath in his *Aristarchus of Samos* (Oxford: Clarendon Press, 1913), 276. Cf. F. Jamil Ragep on Ptolemy in F. Jamil Ragep, "Freeing Astronomy from Philosophy: An Aspect of Islamic Influence on Science," *Osiris, Second Series* 16 (2001): 58: "Ptolemy [...] refers to physics and metaphysics as "guesswork" and proclaims that "only mathematics can provide sure and unshakeable knowledge to its devotees. One would assume that he would therefore try to avoid physical and metaphysical principles in his astronomy, and, indeed, in the introductory cosmological sections of the *Almagest*, he generally establishes such things as the sphericity of the heavens and the Earth, the Earth's centrality and its lack of motion, according to observational and mathematical principles, in contrast to the more physical means used by Aristotle in, say, *De Caelo*."

<sup>483</sup> PLP 92561 (15069).

<sup>484</sup> Robert Sinkewicz, "The Solutions addressed to George Lapithes by Barlaam the Calabrian and their Philosophical Context," *Mediaeval Studies* 43 (1981): 151-217.

of the others? For the Italians among whom we happen to live hardly use Ptolemy at all in both branches [of the celestial science] (I mean, the theoretical and the practical), but trust more recent [astronomers] more. For they are not satisfied with the Arabic tables alone, which begin from Muhammad, but utilize many others as well. Therefore, teach me these things clearly. And, if it is possible, order the computational canons (for thus the Latins call the rules for computing) to be copied and sent to me so that I may compare them with theirs.<sup>485</sup>

From the astronomical treatises written by Lapithes only one is preserved, namely the Byzantine translation of the *Toledan Tables* identified as Lapithes' work by David Pingree in 1976.<sup>486</sup> Once again, the *Toledan Tables* is also a strictly technical treatise, that is, an aid for more precise calculations, and it does not bear traces of cosmology, physics or metaphysics.

Though astronomy was clearly separated from natural philosophy, by its nature it was its derivative. The Ptolemaic astronomy which the Byzantines preserved and practiced was based in some of its assumptions on Plato's cosmology and Aristotle's physics, as well as on the subsequent Neoplatonic commentary tradition. It is precisely because of their inherent relatedness that they had to be differentiated. Aristotle's natural philosophy described the world in terms that seemed contradictory, such as the introduction of the fifth element (*aether*) which, as Börje Bydén has shown,<sup>487</sup> occupied not only Gregoras, but also his predecessors Nikephoros Choumnos and Theodore Metochites. Astronomy as well as physics had as its object the heavens, the celestial bodies and their movements. That is, both types of argumentation aimed at explaining the creation and the way it is, i.e. they

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<sup>485</sup> Translation by Pingree in Pingree, "The Byzantine Version," 89. See the edition of the Greek text of the letter in Gregoras, *Letter ad Gr.* 14, lines 28-41: [...] διὰ ποίων κανόνων τὰς ψηφηφορίας περαίνεις [...] οὐ γὰρ οἶμαί σε χρῆσθαι τοῖς Πτολεμαϊκοῖς, τῷ τοῦ χρόνου πλήθει τῆς ἀκριβείας ἐκπίπτουσιν· - ἔτι δὲ τὰς τῶν ἀποτελεσμάτων κρίσεις τίνι πιστεύων ἐκτίθης πότερον Πτολεμαίῳ μόνῳ ἢ καὶ τῷ τῶν ἄλλων. Ἴταλοι γάρ, οἷς ἐλάχομεν συνοικεῖν, καὶ κατ' ἄμφω τὰ μέρη, τὸ θεωρητικόν φημι καὶ τὸ πρακτικόν, ἐλάχιστα τῷ Πτολεμαίῳ χρώμενοι τὰ πλείω τοῖς νεωτέροις πιστεύουσιν· οὐ γὰρ τοῖς Ἀρραβικοῖς μόνοις ἀρκοῦνται κανόσιν, ἐκ τοῦ Μωαμεθ ἡργμένοις, ἀλλὰ πολλοῖς καὶ ἄλλοις προσχρῶνται. ταῦτά τε οὖν σαφῶς ἐκδίδασον, καὶ εἴπερ οἷόν τε τοὺς τῆς ψηφηφορίας κανόνας - οὕτω δὲ τὰ παραγγέλματα τοῦ ψηφηφορεῖν καλοῦσι Λατῖνοι - κέλευσον μετεγγραφέντας σταλῆναί μοι, ὥς ἂν ἔχω τούτους τοῖς ἐκείνων παραβαλεῖν.

<sup>486</sup> Pingree, "The Byzantine Version."

<sup>487</sup> Bydén, *Theodore Metochites' Stoicheiosis Astronomike*.

had the same subject matter. According to Gregoras, the heavens were that part of the creation on which one could rely in order to understand the events happening on earth: “And indeed we are not deprived in any way from having a clear explanation of the events here on earth. Why? For we know the book of God, the celestial arrangement, upon which everything that is and will be has been engraved.”<sup>488</sup> That is, astronomy explained a part of the world which had a specific status: the knowledge of the heavens’ construction led to the knowledge of the earthly events and therefore, it was essential (e.g. when relating the circumstances of Andronikos II’s death, Gregoras enumerated the occurrence of a solar and a lunar eclipses as well as an earthquake which, according to him, foretold the near end of the emperor’s life<sup>489</sup>). Importantly, astronomy dealt with the heavenly realm, i.e. a part of the Creation with a specific ontological status. In a Ptolemaic cosmological framework, such as the one employed by Gregoras, the harmonic structure of the heavens and the movements of the heavenly bodies represented the embodiment of the underlying perfect mathematical order, whereas physics dealt primarily with the sublunar world where becoming, perishing, and change were attested constantly. Thus, the astronomical subject matter was both perceptible, that is, one could observe the celestial phenomena, and intelligible, since mathematical principles lay in its foundation. Thus, Magdalino argued, Palaiologan scholars perceived astronomy not only as part of philosophy, but also, together with astrology, as a bridge to the contemplation of the divine, a point of access to the realm

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<sup>488</sup> Gregoras, *Letter* 53, lines: 116-118: καίτοι οὐδ’ ἡμῖν παντάπασιν ἀπηγόρευται δῆλωσιν ἐκεῖθεν εἶναι τῶν ἐπιγείων. πῶς γάρ, οἷ βιβλίον ἴσμεν θεοῦ, τὴν οὐράνιον διακόσμησιν, ἣ γεγόμενον καὶ ἐσόμενον ἅπαν ἐγγέγραπται;

<sup>489</sup> Gregoras, *History*, vol. 1, 460, lines 4-9: Καίρως δὲ ἤδη καὶ περὶ τῆς τοῦ γηραιοῦ βασιλέως διεξεληθεῖν τελευτῆς, ἣν θεοσημεῖται πολλὰ προεμήνυσαν· αἱ ἦσαν τοιαῖδε. ἐπισκότησις πρῶτον ἡλιακή, τοσαύτας ἡμέρας προειληφύα τὴν αὐτοῦ τελευτὴν, ὅσα καὶ αὐτὸς ἦν ἔτη τὰ πάντα βεβιωκώς. ταύτην τὴν ἡλιακὴν ἐπισκότησιν ἔκλειψις διεδέξατο σεληνιακή. See also Maria Mavroudi, “Exchanges with Arabic Writers during the Late Byzantine Period,” *Byzantium, Faith and Power (1261-1557): Perspectives on Late Byzantine Art and Culture*, ed. Sarah T. Brooks, The Metropolitan Museum of Art Symposia (New York; New Haven and London: The Metropolitan Museum of Art; Yale University Press, 2007), 70; Mergiali, *L’enseignement et les lettres pendant l’époque des paléologues*, 70.

of metaphysics that would eventually rival Christian asceticism.<sup>490</sup>

Astronomy, however, differed from physics in another way, not according to its subject matter, but according to its methodology. Namely it relied on mathematical, that is, apodictic, methods of inquiry and therefore, its conclusions expressed an eternal and necessary truth.<sup>491</sup> The differentiation between physics and astronomy, and in particular, the shift in value between the two sciences, that is, singling out astronomy as the superior science, has been discussed by Magdalino as a distinctive feature of Theodore Metochites' intellectual agenda<sup>492</sup> and in all likelihood, was inherited and appropriated by his disciple Gregoras.

One can still find instances in Barlaam's and Gregoras' works that betray the existence of a certain connection between astronomy and natural philosophy. Such is the case with the only implicit connection to natural philosophy and physics one finds in the opening paragraphs of both of Barlaam's treatises.<sup>493</sup> There he states that in order to determine precisely and understand *the first principles and causes* of the celestial phaenomena one must follow Ptolemy. Gregoras would say something similar in his letter

<sup>490</sup> Magdalino, *L'orthodoxie des astrologues*, 139, 151, 160-162.

<sup>491</sup> A comparison with the status of astronomy in thirteenth- and fourteenth-century Islamic societies might be worthy of subsequent research. See, for instance, the works of the Islamic astronomer Nasir al-Din al-Tusi (1201-1274) and the differentiation he proposed between "proofs of the fact" (that simply establish their existence using observations and mathematics) and "proofs of the reasoned fact" (that "convey the necessity of that existence" using physical and/or metaphysical principles). Cf. Ragep, "Freeing Astronomy from Philosophy," 59: "Furthermore, Tusi himself made clear in the *Tadhkira* that an astronomer should prove most cosmological matters using "proofs of the fact" (that simply establish their existence using observations and mathematics) rather than "proofs of the reasoned fact" (that "convey the necessity of that existence" using physical and/or metaphysical principles); the latter kind of proofs, he tells us, are given by Aristotle in *De Caelo*. In other words, the astronomer should avoid dealing with ultimate causes and instead establish the foundations of his discipline by employing the apodeictic tools of mathematics."

<sup>492</sup> Magdalino, *L'orthodoxie des astrologues*, 146-147.

<sup>493</sup> Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 52. *L'éclipse de 1333*, lines 4-6: Αἱ μὲν αἰτίαι καὶ αἱ πρῶται ἀρχαὶ [italics mine] τῶν κατ' οὐρανὸν γινομένων συμπτωμάτων αἱ τε τούτων διακρίσεις καὶ καταλήψεις ἄριστα καὶ ὥς ἔνι μάλιστα ἀκριβῶς τῆς προσηκούσης ἔτυχον παρὰ τοῦ Πτολεμαίου διαρθρώσεως. See also Ibid., 62. *L'Éclipse de 1337*, lines 4-6: Αἱ μὲν αἰτίαι καὶ αἱ πρῶται ἀρχαὶ [italics mine] τῶν κατ' οὐρανὸν γινομένων συμπτωμάτων αἱ τε τούτων διακρίσεις καὶ καταλήψεις ἄριστα καὶ ὥς ἔνι μάλιστα ἀκριβῶς τῆς προσηκούσης ἔτυχον παρὰ τοῦ Πτολεμαίου ἀκριβείας.



to Kaloeidas: “[...] but as if always I kept nourishing your appetite by attaching ways and causes to the objects of inquiry, and now, in the same way, this keeps being my desire.”<sup>494</sup>

Gregoras will also use a similar expression when describing Lapithes’ scientific pursuits in his *History*:

Whatever goes beyond the limits of the sacred laws and stretches its foot into alien territory he (George Lapithes) shook off and spat upon as being useless to those who desire to be pious, but *whatever pertains correctly to the causes of things* he gladly accepted in their entirety.<sup>495</sup>

Though differentiated from natural philosophy, during the Palaiologan period, astronomy was still considered part of philosophy. The only residue from the philosophical roots of astronomy I encountered in the texts the present chapter is concerned with were the rather formulaic opening paragraphs of Barlaam’s calculation treatises and the few instances in Gregoras’ correspondence and in his *History* where astronomy is treated as the inquiry after the causes and first principles of the movements in the heavens. In sum, the role astronomy acquired in the intellectual setting of mid-fourteenth century Byzantium was first of all, preconditioned by its original connection with philosophy. Second, it was connected with the special status of its subject matter (the celestial realm signified stability and moreover, moving under the guidance of divine providence, the conjunctures of the heavenly bodies influence, explained, or even predicted terrestrial events, such as the death of an emperor). Finally, it lay in the method it employed, what one may call astronomy’s apodictic ‘power.’ Astronomy could unmistakably predict the occurrence of an event and its qualities (such as degree and measure of a solar eclipse), as it relied on undisputable

<sup>494</sup> Gregoras, *Letter* 103, lines 69-71: [...] ἀλλ’ ὥσπερ αἰεὶ τοὺς τε τρόπους καὶ τὰς αἰτίας τοῖς πράγμασι [italics mine] συγκεραννὺς τὴν ἔφεσιν ἔτρεφον τὴν σήν, οὕτω καὶ νῦν μοι ἐθέλοντι ἦν.

<sup>495</sup> Translation by Pingree in Pingree, *The Byzantine Version*. See also Gregoras, *History*, vol. 3, 32-33: [...] καὶ ὅποσα μὲν ὑπὲρ τὰ ἐσκαμμένα τοῖς εὐσεβέσι νόμοις καὶ ὑπερόριον τείνει πόδα, ταῦτα δ’ ἀπεσεῖετό τε καὶ διέπτυνεν ὡς ἄχρηστα τοῖς εὐσεβεῖν ἐθέλουσιν· ὅσα δ’ εἰς τοὺς δημιουργικοὺς τῶν ὄντων ὑγιῶς ἐπορεύετο λόγους, ταῦτα δ’ ἀσμένως παντάπασι μάλα προσίετο. [italics mine]

mathematical principles. That is, by its method, astronomy was a tool equal to logic and while logic dealt with the incorporeal language and thought constructions, astronomy procured that the physical world could also be rationalized and that its phenomena could be given truth value. Furthermore, together with its corollary disciplines, namely harmonics and astrology, it brought to the fore the concept of the *cosmic sympathy*, that is, the originally Stoic idea of the close connection between everything in the world as a part of the world as a whole.<sup>496</sup> Examinations of the sympathetic relationship between different parts of the creation, notably, between heavenly and terrestrial, as well as, between sensible and intelligible, were carried by the Stoics, the Platonists, and the Neoplatonists, in order to be eventually appropriated by the Byzantines and applied in order to provide an explanation of divination.<sup>497</sup>

In this present *Part II*, my main objective was to illustrate the specific phenomenon of defending astronomical studies in the early Palaiologan period. Building upon the scholarly and editorial effort of Maximos Planoudes and continuing the intellectual legacy of Theodore Metochites, Nikephoros Gregoras obtained the technical expertise in mathematical astronomy and applied it to his proposal of a calendar reform, his calculation of solar and lunar eclipses, and in his attempt to rejuvenate the Greek tradition of treatises on the construction and usage of the astrolabe. In addition, he strove to preserve and disseminate knowledge on Ptolemaic astronomy as his role in the composition of the astronomical miscellany *Vat. gr. 1087* and his correspondence with George Lapithes, among others, suggest. Throughout his astronomy-related œuvre, as I have shown in the preceding pages, the constant decisiveness to defend and justify the need for studying astronomy manifests itself repeatedly in a variety of writings. The *Hortatory Letter concerning Astronomy* underlined that studying the heavens, i.e. the harmonious arrangement of the world, was in fact paying due respect to God's glory which they related to mankind, thus one was not

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<sup>496</sup> Magdalino, *L'orthodoxie des astrologues*, 154-155.

<sup>497</sup> Ierodiakonou, "The Greek Concept of *Sympatheia* and Its Byzantine Appropriation in Michael Psellos."

only obliged to know astronomy, but once being instructed in it, also to share his or her knowledge.

The *ONS*, being an unfinished arithmological treatise, did not explicitly engage in praising or defending the importance of astronomy, but as the selection and structuring of its subject matter suggest, it emphasized the interrelatedness of heavenly and terrestrial phenomena, thus implicitly suggesting that the knowledge of mathematical and ‘practical’ astronomy, i.e. astrology, was indeed relevant for the inhabitants of the sublunar world. A number of Gregoras’ letters as well as parts of his *History* elaborated further on the connection between heavenly and terrestrial and, in addition, they engaged in a polemic against those who either practiced the science of astronomy erroneously, bragged about it without right, or simply were not fitted for the task. In order to conclude the present part of the dissertation, I would like to turn the reader’s attention to one final example of Gregoras’ effort to justify the pursuit of astronomical studies, namely his *Letter 28* entitled *Concerning Those who Insult the <Study> of Astronomy*.<sup>498</sup>

I began *Part II.3: Letters and Astronomy* by referring to two slightly different interpretations of the myth of Ikaros Gregoras incorporated in his commentary on Synesios’ *On Dreams* and in his *Letter 28*. In the commentary Gregoras presented Ikaros’ attempt to fly, as well as his consequent fall, as motivated by two factors: Ikaros’ desire to study astronomy and his inability to understand the demonstrations it employed.<sup>499</sup> In *Letter 28* the reference to Ikaros’ myth is again employed in a polemical context, i.e. Gregoras’ uses Ikaros’ figure as a symbolic representation of excessive insolence and arrogant behavior. Had it not been for the letter’s title, however, the addressees of Gregoras’ invective, namely certain calumniators of astronomy, would have become clear only in the second half of the letter.<sup>500</sup>

<sup>498</sup> Gregoras, *Letters*, vol. 2, 93-95.

<sup>499</sup> Gregoras, *Synesios*, 154 C 186, 03, lines 6-16.

<sup>500</sup> Gregoras, *Letter 28*, lines 22-34: Ἐμὲ δὲ καὶ μάλα ἐπῆρε θαυμάζειν τοῦ τὰ πάντα ἀνεζητηκότος σοφοῦ

In terms of its narrative, *Letter 28* is organized according to a tripartite structure where the first (lines 1-22) and the last (lines 46-53) sections of the text share similar stylistics and thus, frame the middle section (lines 22-45). While, generally speaking, all three parts and their respective subdivisions present a succession of rhetorical arguments the aim of which is to expose the foul character of those who insult astronomy, the first and third sections make use of similar literary devices such as metaphor, allegory, antithesis, analogy, and so forth, and are informed by a generic literary discourse, that is, they could easily be inserted in any kind of invective text, against any addressee. For instance, Gregoras made use of the same metaphor of Ikaros one finds at the beginning of *Letter 28* in a very similar wording in his *First Antirrhetics*.<sup>501</sup> This time, however, Ikaros was compared to those who attempt to apply logic in order to achieve knowledge of the divine.<sup>502</sup> That is, the employment of Ikaros' myth and its reading as an allegory for insolence, arrogance, and lack of reason appears to be a relatively common feature of Gregoras' invectives irrespective of their occasion. Finally, the first section of *Letter 28* formulates one after the other altogether four accusations against those who insult astronomy, namely, they are accused of being arrogant, ignorant, similar to madmen, and envious. The third section wraps up this enumeration by adding one more allegation to the list, namely, shamelessness.

Following the reference to the well-known mythical story, Gregoras employed another stylistic device characteristic for Byzantine letter-writing, namely he inserted and

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Πτολεμαίου, ὅπως ἄρα ἐλελήθεισαν αὐτὸν πλάνητες ὄντες καπὶ τῆς γῆς φαύλως διαμετροῦντες καὶ ἀντιστρατευόμενοι τοῖς ἐν οὐρανῷ καὶ κατὰ τῆς ἄνω φρουαττόμενοι λήξεως. ἀλλ', ὡς ἔοικεν, ἐκὼν γε εἶναι τοῦτο παραλέλοιπε σιγῇ· ὧν γὰρ ἄλογος ἡ φορὰ τε καὶ κίνησις ἐρμηνέα λόγον οὐκ οἶδε. Φαέθοντες μὲν γὰρ καὶ Ἑωσφόροι καὶ Στίλβοντες τεταγμένην ἔχουσι τὴν πλάνην καί, ὡς εἶπεῖν, ἀπλανῇ καὶ προσέτι μυστικαῖς τισι δυνάμεσι τὰ ἐπίγεια βόσκουσιν. οὗτοι δὲ σκοτεινὴν τινα καὶ ἀτακτοῦσαν καὶ οἶαν οἱ ὑπὸ τὴν τῆς σελήνης σφαῖραν διάττοντες φέρονται. τὸ δὲ τοῦ Πλάτωνος μεγαλόψυχον εἶπερ ποτὲ καὶ νῦν δ' ἐν τοῖς μάλιστα ἔγωγε ἄγαμαι, ὅτι μήτε διανέστη τὸ σύνολον μήτε δίκας τῆς εἰς αὐτὸν βλασφημίας ἀπήτησε, τοὺς τὰ ἐκείνου βωμολοχοῦντας καὶ ξὺν οὐδενὶ κόσμῳ διαξάινοντας·

<sup>501</sup> Gregoras, *Antirrhetika I*, 281, 2, 3, 6, lines 1-14.

<sup>502</sup> Ierodiakonou, "The Anti-Logical Movement in the Fourteenth Century," 222.

developed a familiar proverb, as he compared the unnamed calumniators to such people who “place Olympus upon the Caucasus, so to speak, and as they add to this moreover the highest Parnassus, in order to pull the heavens down from there, a spectacle which is painful for them and spreads their great ignorance.”<sup>503</sup> That is, those irrational people Gregoras is reproaching either attempt to fly towards the heavens or to climb towards it and to pull it down, as it were, thus proving themselves arrogant and ignorant. “For,” Gregoras claims, “they did not know as they engaged in things above their possibilities and <there was> a rather easy risk that thereupon they end badly.”<sup>504</sup> The reason for the danger is the fact that in addition to their lack of common sense and their insolence, the calumniators are also compared to madmen whose spite and aggression is, in fact, harming themselves:

For like in fact those suffering from madness, when they taste their own flesh, they think they are hurting their neighbors, in this way also the fine company of those mimes attempts these things, <and> as they hurt themselves the most, they do not perceive the damage at all.<sup>505</sup>

The letter’s first section, whose aim is to enumerate the faults of character of those against whom Gregoras is writing in defense of astronomy, concludes with one final stylistic feature, namely after the introduction of a mythical story and of a proverb, Gregoras inserts a Biblical example:

“A sensitive heart <is> a moth in the bones,”<sup>506</sup> the admirable Solomon says.

<sup>503</sup> Gregoras, *Letter* 28, lines 7-11: οὔτοι ποιοῦσι τὰ νῦν, τῷ Καυκάσῳ ἐπιτιθέντες τὸν Ὀλυμπον, ὡς εἶπεῖν, καὶ τούτῳ αὖ τὸν ὕψιστον προσεπάγοντες Παρνασόν, ἵνα δὴ τὸν οὐρανὸν ἐκεῖθεν κατασπάσῃσι, πονηρὸν αὐτοῖς καθιστάμενον θέαμα καὶ πολλὴν τὴν ἀμαθίαν κατασκεδάζον αὐτῶν.

<sup>504</sup> Gregoras, *Letter* 28, lines 11-12: λελήθασι γὰρ ἑαυτοὺς τῶν ὑπὲρ δύνανιν ἡμένοι καὶ κίνδυνός γε μάλα ῥάδιος αὐτοὺς κακῶς ἐντεῦθεν ἀπαλλάττειν.

<sup>505</sup> Gregoras, *Letter* 28, lines 12-16: ὥσπερ γὰρ τοὺς μανίαν νοσοῦντας εἰκὸς τῶν οἰκείων σαρκῶν ἀπογευομένους οἷσθαι βλάπτειν τοὺς πέλας, οὕτω δὴ καὶ ἡ καλὴ φατρία τούτων τῶν μίμων, οἷς ἐγχειροῦσιν αὐτοὶ ἑαυτοὺς τὰ μέγιστα βλάπτοντες οὐδὲ μικρὰ τῆς βλάβης ἐπαΐουσι.

<sup>506</sup> Septuagint, *Proverbs* 14:30: πρᾶϑυμος ἀνὴρ καρδίας ἰατρός σῆς δὲ ὀστέων καρδία αἰσθητική. English translation according to NETS: <http://ccat.sas.upenn.edu/nets/edition/25-proverbs-nets.pdf>

But today I observe the opposite, <namely that> rather in the bones, a moth <is> in the insensitive heart. For as a piece of wood is easily exhausted and pervaded by a worm, so also the insensitive heart of these friends of envy both dissolves the substance of the bones and plants itself in the very “marrow of the soul,” so to speak.<sup>507</sup>

The line of thought from section one is continued in section three, thus framing the letter. After having exposed the ignorance of the calumniators of astronomy, first, by comparing them to those who wish to pull down the heavens from the top of the highest mountains, and then, by exploring their lack of specialized knowledge of astronomy and philosophy (in the middle section of the letter), Gregoras concludes the letter by inferring that ignorance is always followed by lack of shame. That is, the final accusation against those who insult astronomy is that they not only pretend to be wise, whereas in fact they are ignorant, but also that they shamelessly showcase their lack of wisdom:

But ignorance is shameless and commonly for the most part uses every effort to make up for the defect of nature through over-boldness, like the maimed often make up for the rest of the foot with a wooden foot. For what is right is to hide and to blush, but these have no shame and wish to compare themselves with the wise men, doing something similar as those who place side by side yellow-colored litharge and genuine gold.<sup>508</sup>

Though the middle section of *Letter 28* pursues the same objective as the first and the third, it differs significantly in terms of its discourse. Namely, it targets the scientific and philosophical incompetence of the calumniators of astronomy. In its three subdivisions

<sup>507</sup> Gregoras, *Letter 28*, lines 16-21: ‘σὴς ὁστέων καρδία αἰσθητική’, φησὶν ὁ θαυμάσιος Σολομῶν. ἐγὼ δὲ τήμερον τούναντίον ὁρῶ σῆτα μᾶλλον ὁστών καρδίας ἀναισθητούσας· ὥς γὰρ ὑπὸ σκώληκι ξύλον ῥαδίως ἐκδαπανᾶται καὶ ὑπορρεῖ, ὥς δὲ καὶ τοῖς τοῦ φθόνου φίλοις τούτοις ἡ ἀναισθητος καρδία τήκει καὶ ὁστών οὐσίαν καὶ ἐς αὐτούς, ἴν’ εἴπω, τοὺς ‘μυελοὺς τῆς ψυχῆς’ διαβαίνει.

<sup>508</sup> Gregoras, *Letter 28*, lines 46-52: ‘Ἀλλὰ ἀναίσχυντον ἡ ἀμαθία καὶ φιλεῖ γε ὥς τὰ πολλὰ τὸ τῆς φύσεως ἐλλιπὲς τῇ θρασύτητι διασφάζειν βιάζεσθαι, καθάπερ οἱ χωλεύοντες τὸ λείπον τοῦ ποδὸς ξυλίνῳ διασφάζουσι ποδὶ πολλακίς. δέον γὰρ καταδύεσθαι καὶ ἐρυθριᾶν, οἱ δὲ καὶ ἀναισχυντοῦσι καὶ σφᾶς αὐτοὺς παραβάλλειν ἐθέλουσι τοῖς σοφοῖς, ὅμοιον ποιοῦντες ὥσπερ οἱ τὰ χολοβάφινά τε καὶ λιθαργύρινα τοῖς χρυσοῖς τε καὶ ἀκιβδήλοις παρατιθέμενοι·

Gregoras' argumentation in the middle section of *Letter 28* follows the following order: first, he ridicules his opponents by comparing them to “planets on earth,” thus crafting a word-play based on the literal meaning of the Greek *πλάνης*, i.e. “wanderer,” someone or something that moves irregularly. Gregoras likens the calumniators of astronomy to bodies with irrational motion that not only do not belong to the terrestrial sphere, but also, as their chaotic movements show, do not conform in their actions to the universal laws governing the heavens. Moreover, Gregoras remarks, it is perhaps on purpose that Ptolemy did not study these “earthly planets” since it is impossible to deliver an interpretation of something irrational:

And it motivated me greatly to wonder at the wise Ptolemy who investigated it all, namely, how had it escape his notice that there are “planets” also on earth and since they measure badly, they both wage war against the <phenomena> in the heavens and are contemptuous against the sphere above. But, as it seems, he had allowed this to remain in silence on purpose. For he (i.e. Ptolemy) did not know an interpretation for those whose motion and movement are irrational. For Jupiter, Venus, and Mercury have a regular course and, as they say, fixed and besides <they> nurture the terrestrial events with the help of some mystical powers. These <people> <have> some obscure and irregular <motions>, such as the shooting stars beneath the lunar sphere carry with themselves.<sup>509</sup>

One finds the same word-play concerning the existence of “earthly planets” both in Gregoras' *Letter 40*<sup>510</sup> and in his dialogue *Phlorentios*.<sup>511</sup> While in *Letter 40* whoever it refers to

<sup>509</sup> Gregoras, *Letter 28*, lines 22-31: Ἐμὲ δὲ καὶ μάλα ἐπῆρε θαυμάζειν τοῦ τὰ πάντα ἀνεζητηκός τοιοῦτο Πτολεμαίου, ὅπως ἄρα ἐλελήθεισαν αὐτὸν πλάνητες ὄντες κατὰ τῆς γῆς φαύλως διαμετροῦντες καὶ ἀντιστρατευόμενοι τοῖς ἐν οὐρανῷ καὶ κατὰ τῆς ἄνω φρουαττόμενοι λήξεως. ἀλλ', ὡς ἔοικεν, ἐκὼν γε εἶναι τοῦτο παραλέλοιπε σιγῇ· ὧν γὰρ ἄλογος ἡ φορὰ τε καὶ κίνησις ἐρμηνέα λόγον οὐκ οἶδε. Φαέθοντες μὲν γὰρ καὶ Ἑωσφόροι καὶ Στίλβοντες τεταγμένην ἔχουσι τὴν πλάνην καί, ὡς εἰπεῖν, ἀπλανῆ καὶ προσέτι μυστικαῖς τις δυνάμεσι τὰ ἐπίγεια βόσκουσιν. οὗτοι δὲ σκοτεινὴν τινα καὶ ἀτακτοῦσαν καὶ οἷον οἱ ὑπὸ τὴν τῆς σελήνης σφαῖραν διάττοντες φέρονται.

<sup>510</sup> Gregoras, *Letter 40*, lines 38-40: [...] βραχέ' ἅττα τῶν μεσημβρινῶν τουτωνὶ λήρων ἐξελέγξωμεν, ἢ μᾶλλον εἰπεῖν, τῶν γῆινων πλανήτων καὶ τὰ πλεῖστα τῆς ἄνω λήξεως καταψευδομένων [...]

<sup>511</sup> Gregoras, *Phlorentios*, lines 1712-1719: εἰ δὲ καὶ Πτολεμαῖος τότε παρῆν, οἶμαι, ἐθαύμασεν ἂν ὅπως ἄρα ἐλελήθεισαν αὐτὸν πλάνητες ὄντες κατὰ τῆς γῆς φαύλως κατὰ τῆς ἄνω γαυρούμενοι λήξεως ἀλλ' ὡς ἔοικεν

is unnamed similarly to *Letter 28*, in the *Phlorentios* it is clearly used in reference to Xenophanes, that is, the alias Gregoras created for Barlaam the Calabrian.<sup>512</sup> Thus, one might suggest quite reasonably that the calumniator of astronomy and the “earthly planet” Gregoras ridiculed in *Letters 28* and *40* is in fact Barlaam the Calabrian.<sup>513</sup> More important, however, regarding the discussion in the dissertation’s *Part II* is the omission of a part of the passage from *Letter 28* that was later incorporated by Gregoras in the *Phlorentios*.<sup>514</sup> *Letter 28* states:

For Jupiter, Venus, and Mercury have a regular and, as they say, fixed course and besides <they> nurture the terrestrial events with the help of some mystical powers. These <people> <have> some obscure and irregular <motions>, like the shooting stars beneath the lunar sphere.<sup>515</sup>

In the *Phlorentios*, the clause “and besides <they> nurture the terrestrial events with the help of some mystical powers” is omitted and what constitutes two sentences in the letter is collapsed into one in the dialogue:

For Jupiter, Venus, and Mercury have a regular and, as they say, fixed course, but these <people> <have> irregular <motion>, such as the shooting stars

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έκων γε εἶναι παραλέλοιπε τοῦτο σιγῇ· ὧν γὰρ ἄλογος ἡ φορὰ τε καὶ κίνησις, ταῦθ' ἐρμηνέα λόγον οὐκ οἶδε. Φαέθοντες γὰρ καὶ Ἑωσφόροι καὶ Στίλβοντες τεταγμένην ἔχουσι τὴν πλάνην καὶ ὡς εἶπεῖν ἀπλανῇ, οὗτοι δ' ἀτακτοῦσαν καὶ οἶαν οἱ ὑπὸ σελήνην διάττοντες.

<sup>512</sup> Gregoras, *Phlorentios*, lines 1719-1724: ἐπεὶ δὲ καθάπερ οἱ πίθηκοι τὰ τῶν ἀνθρώπων πολλάκις ὑποκρινόμενοι, πίθηκοι πάλιν ὄντες ἐλέγχονται, οὕτω καὶ Ξενοφάνης ὁ Θρασυμάχου ‘πολλὰς καὶ παντοδαπὰς’ ἐπιτετηδευκῶς τῶν ὕβρεων τὰς ἐπιβουλάς κατὰ Νικαγόρου καθ’ ἑαυτοῦ ‘κινῶν’ ἐφαίνετο τὸν ‘ἀνάγυρον’ καὶ ἀμαθὴς εἶναι πολλαχόθεν ἠλέγχετο [...]

<sup>513</sup> In the case of *Letter 40*, such identification was suggested by Guillard following Boivin. See Guillard, *Correspondance*, 74, note 3.

<sup>514</sup> Leone dated *Letter 28* to the period between 1330 and November 30, 1331. See Gregoras, *Letters*, vol. 2, 93. Polemis, Leone, and Bydén date *Phlorentios* to 1337. See Polemis, “Ἡ πρὸς Βαρλαάμ διένεξις τοῦ Γρηγοῦρα. “Ἡ Ἀντιλογία,” 61; Gregoras, *Phlorentios*, 29; Bydén, “The Criticism of Aristotle in Nikephoros Gregoras’ *Florentius*.”

<sup>515</sup> Gregoras, *Letter 28*, lines 27-31: Φαέθοντες μὲν γὰρ καὶ Ἑωσφόροι καὶ Στίλβοντες τεταγμένην ἔχουσι τὴν πλάνην καὶ, ὡς εἶπεῖν, ἀπλανῇ καὶ προσέτι μυστικαῖς τισι δυνάμεσι τὰ ἐπίγεια βόσκουσιν. οὗτοι δὲ σκοτεινὴν τινα καὶ ἀτακτοῦσαν καὶ οἶαν οἱ ὑπὸ τὴν τῆς σελήνης σφαῖραν διάττοντες φέρονται.



beneath the lunar sphere carry with themselves.<sup>516</sup>

The idea, as expressed in *Letter 28*, that in addition to their regular motions (namely, the phenomenon studied by mathematical astronomy), the heavenly bodies also influence, or in Gregoras' wording, "nurture" or "maintain" the terrestrial events through mystical powers (that is, the realm astrology is dealing with), resonates with the examples of the influence exerted by the celestial bodies on the earthy phenomena Gregoras inserted, for instance, in his *ONS* or in his *Letter 69*.

With respect to the three subdivisions of the middle section of *Letter 28* it remains to be mentioned that after ridiculing his opponent, Gregoras proceeds, first, by justifying his invective, and second, by debilitating a particular argumentative strategy employed by the calumniator, namely relying on Plato's philosophy. Gregoras emphasizes that if he were attacked personally, he, like Plato, would not react and would not defend himself. But fighting on behalf of someone else, in this case, on behalf of astronomical science, Gregoras deems necessary.<sup>517</sup> The insulters of astronomy also attempt to follow Plato and to use his theories. They are, however, similar to monkeys that try to imitate humans, thus the calumniators expose once again their ignorance and stupidity, this time in the field of philosophy.<sup>518</sup>

<sup>516</sup> Gregoras, *Phlorentios*, lines 1716-1719: Φαέθοντες γὰρ καὶ Ἑωσφόροι καὶ Στίλβοντες τεταγμένην ἔχουσι τὴν πλάνην καὶ ὡς εἶπεῖν ἀπλανῆ, οὗτοι δ' ἀτακτοῦσαν καὶ οἶαν οἱ ὑπὸ σελήνην διὰττοντες.

<sup>517</sup> If indeed I admire Plato's greatness of soul now more than ever, because neither did he raise up/excite at all, nor did he require judgments of the slander against him with regard to those who were mocking his theories and shredding <them/him> without any shame. He was much fairer being able to stand aloof now than at the time when the likes of Anytos and Melitos calumniated Socrates, he remained absolutely insensible to pain and idle. But, as it seems, he considered the fight on behalf of others necessary, but to <fight> for himself, this for him was not quite needed. Gregoras, *Letter 28*, lines 31-38: τὸ δὲ τοῦ Πλάτωνος μεγαλόψυχον εἶπερ ποτὲ καὶ νῦν δ' ἐν τοῖς μάλιστα ἔγωγε ἄγαμαι, ὅτι μήτε διανέστη τὸ σύνολον μήτε δίκας τῆς εἰς αὐτὸν βλασφημίας ἀπήτησε, τοὺς τὰ ἐκείνου βωμολοχοῦντας καὶ ζῶν οὐδενὶ κόσμῳ διαξαίνοντας ὅς γε καὶ μάλα μᾶλλον δίκαιος ὢν διαναστῆναι νῦν ἢ ὅτε γε Σωκράτην Ἄνυτοι καὶ Μέλιτοι διέβαλλον, ὁ δ' ἀνάληγτος ἔμεινε τὸ παράπαν καὶ ἐρραθυμημένος· ἀλλ', ὡς ἔοικε, τὸ μὲν ἄλλων ὑπερμαχεῖν ἔκρινε δεῖν, αὐτὸς δ' ἑαυτοῦ, τοῦτο δ' οὐ πάνυ τοι δεῖν.

<sup>518</sup> For like the monkeys desire to mimic the human habits, even if as they are not able <to do it>, they expose themselves once again that they are monkeys, just so then also those who put on the mask of Plato and utter

In sum, Gregoras' *Letter 28* exemplifies at least three of the main topics outlined in *Part II: Justifications of Astronomy*. First, as its title indicates, it is motivated by certain people's misunderstanding and misuse of the astronomical science. Moreover, it should be perceived not as a defense of Gregoras' himself, but as an attempt to guard astronomy. That is, *Letter 28* is a further example of the 'program' of justifying the scientific study of the heavenly bodies and their movements Gregoras was engaged in sustaining. Second, *Letter 28* is a polemical letter, possibly written in the context of the astronomical controversies between Gregoras and Barlaam the Calabrian, thus, it adds more substance to my discussion of the significant social and political importance astronomical and philosophical debates had in fourteenth-century Byzantium. Finally, *Letter 28* provides one more example for the emphasis Gregoras put in his writings on the influence celestial bodies effectuate on earthly events, in order to further justify the relevance of mathematical and practical astronomy.

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moderately whichever of his words and yet, before having touched the wise man's thinking, they try to shoot at those they are grieved with by sending forth some arrows and sordid <words>, just as the Trojans, after they were already enclosed, discharged against those noble heroes from the city-wall with an unstable and intoxicated with fear, as it were, hand. Gregoras, *Letter 28*, lines 38-45: ὥσπερ δὲ/γὰρ οἱ πίθηκοι τὰ τῶν ἀνθρώπων ἔθιμα ποθοῦσιν ὑποκρίνεσθαι, εἴτ' ἀδυνατοῦντες ἀπελέγχονται καὶ αὖθις ὄντες πίθηκοι, ὡσαύτως δὴ καὶ οὗτοι τὸ Πλάτωνος προσωπεῖον ὑποδύμενοι καὶ μέτρι' ἄττα τῶν ἐκείνου ῥημάτων ἀνασπῶντες, ἔπειτα πρὶν ἢ ψαῦσαι τῆς τοῦ σοφοῦ διανοίας πειρῶνται ἀποτοξεύειν οἷς ἄχθονται κωφά τινα πέμποντες βέλη καὶ ἀγεννῆ καὶ οἷα κατὰ τῶν γενναίων ἐκείνων ἡρώων οἱ Τρῶες συγκλεισθέντες ἤδη ἀπέλυον ἐκ τοῦ τείχους ἀστατούση γέ τι καὶ ὥσπερ ὑπὸ δέους μεθυούση τῇ χειρί.

## PART III: LETTERS AND PHILOSOPHY

I understand, on the one hand, somehow, from afar, through the mirror of your letters, as it were, that you were disposed in a friendly manner towards our <affairs>, as <you> commend greatly my wisdom, whichever it may be, which you claim to have been able to see in my letters. On the other hand, I cannot discern clearly in any way whether you also love me. For it is possible both that someone is good as a sculptor, while not being a good person, and in turn the opposite, that while an excellent man, <not> an excellent sculptor; and that someone is loved because of <his> mastery of science, but in turn, that the same one is hated because of the lack of agreement of opinion; and it follows, like in the way of a riddle, that the same person is simultaneously a friend and not a friend.<sup>519</sup>

This excerpt from Nikephoros Gregoras' *Letter 7* forms part of a letter-exchange between the author and an unnamed correspondent Gregoras did not know in person but strove to establish a relationship with. We are told that letters had been exchanged on both sides and that while Gregoras' letters demonstrated his wisdom and mastery of science, subsequently admired by the addressee, whether the two had become friends remained yet unclear. As Gregoras pointed out, it is possible that one is admired for one's intellectual achievements, while at the same time being hated on account of one's character. This claim pursues primarily a rhetorical objective, namely, to persuade the addressee that Gregoras' chief concern was not whether his knowledge would be recognized and appreciated, but rather obtaining the friendship of his correspondent. Thus, the letter aims at reaffirming Gregoras' intentions, as well as at securing the addressee's response to the question whether he loved Gregoras as a friend or not. In order to fulfill its rhetorical intentions,

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<sup>519</sup> Gregoras, *Letter 7*, lines 4-13: ξυννοῶ μὲν πως καὶ πόρρωθεν ὡς δι' ἐνόπτρου τῶν σῶν γραμμάτων φιλικῶς διατεθῆναι σε πρὸς τὰ ἡμέτερα καὶ διὰ μεγάλων ἄγειν ἐπαίνων τὴν ἐμὴν σοφίαν, ἥτις ποτ' ἄρ' εἶη, ἢ ἐν τοῖς ἐμοῖς ξυνεωρακέναι φάσκεῖς γράμμασι, οὐκ ἔχω δ' οὕτω μαθάνειν σαφῶς εἰ καμὲ φιλεῖς. ἐνδέχεται γὰρ καὶ τέκτονα μὲν τινα εἶναι καλόν, ἄνθρωπον δ' οὐ καλὸν τὸν αὐτόν, καὶ τοῦναντίον αὐθις ἄνθρωπον μὲν ἀγαθόν, τέκτονα δ' οὐκ ἀγαθόν, καὶ φιλεῖσθαι μὲν τινα διὰ γε τὸ τῆς ἐπιστήμης κράτος, μισεῖσθαι δ' αὖ διὰ τὸ τῆς γνώμης μηδαμῇ γε ὁμοδοξοῦν, καὶ συμβαίνειν ὡς ἐν αἰνίγματος τρόπῳ φίλον ἅμα καὶ μὴ φίλον εἶναι τὸν αὐτόν.

Gregoras' claim, namely, that a person can be appreciated 'professionally,' while being disliked personally, is likened to a riddle, that is, it is structured as a paradox: it is possible that the same person simultaneously is and is not a friend. In absolute terms, this statement is, of course, logically impossible. One is either a friend or not. Hence, should both actually be the case, we are presented with a riddle. The puzzle's solution has already been provided by Gregoras, namely, the same person could be loved for one reason and hated for another. If one is both loved and hated, however, it is not clear whether one is ultimately treated as a friend, therefore it is also unclear whether the parties involved share the same ethical and, by extension, epistolary code.<sup>520</sup> There is an additional problem that arises from the peculiar concept of epistolary friendship portrayed by Byzantine authors as the union of the correspondents' souls. Namely, the assumption that one may be partially loved and admired, with reference to a fragment of his or her personality or on account of one of his or her various activities, implies that the two related individuals are in no way united and correspondingly, that they are not friends. Moreover, Gregoras emphasizes, without enough information to tip the balance to one side or the other (to friendship or to the lack thereof), whatever is claimed lacks substance. Only maintaining an intensive correspondence over an extended period of time can lead to friendship:

[...] I do not have anything solid of my lips to bring forth at present. But it would happen, after a long time and by means of a greater number of your letters, from afar, equally that we gain an understanding capable to supersede precisely those disputable things and to offer the steady gift of

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<sup>520</sup> Here and throughout the present chapter I am not using the concepts of "code" and "decoding" literally, that is, as in the case of finding a solution to a riddle or a puzzle, something that could be considered undesirable in a Byzantine letter. See Margaret Mullett, "Epistolography," in *The Oxford Handbook of Byzantine Studies*, ed. Elizabeth Jeffreys, John W. Barker, and Robin Cormack (New York: Oxford University Press, 2008), 884. When I write about "code" and "decoding" I am in fact building upon Roland Barthes' definition of "cultural codes," namely, "references to a science or a body of knowledge." Roland Barthes, *S/Z*, trans. Richard Miller (Malden, MA; Oxford: Blackwell, 1990), 20. It is my understanding that Byzantine letters, through their elaborated rhetorical style and intricate ceremonial of address, are employing and relying on a number of cultural codes, essentially elements of *paideia*, shared by its author and recipient(s) in order to be understandable and effective.

friendship.<sup>521</sup>

The excerpt from Gregoras' *Letter 7* introducing this present part bears witness to an important function of the epistolary genre, namely the dissemination and display of knowledge and wisdom. According to Gregoras, his correspondent claims to have discerned Gregoras' wisdom in his letters. Here, the "wisdom" allegedly apparent to Gregoras' addressee may be understood simply as a generic qualification. However, it may also denote a specific, e.g. philosophical or scientific, expertise Gregoras demonstrated in his correspondence. Both perspectives are indicative for the direction I pursue in the present chapter, namely to examine the interrelatedness of epistolary and cognitive discourses in Gregoras' letters, or in other words, to explore where, how and why the epistolary and the cognitive intersect and influence each other.

In order to facilitate the inquiry into Byzantine epistolography as a vehicle to express philosophic ideas, as well as the clear presentation of the selected case studies from Gregoras' corpus of letters, *Part III: Letters and Philosophy* is structured into four chapters. The first section sketches briefly the historical development of the philosophical letter in Byzantium. It also provides an overview of preexisting theoretical discussions of the epistolary genre and its subdivisions and it focuses on the sub-category allotted to the philosophical letter. The second chapter extrapolates and scrutinizes the philosophical premises of Byzantine letter-writing, that is, the dialectical structures of singularity and multiplicity, sameness and otherness, presence and absence, all of which are consistently featured in Byzantine epistolary discourse. This analysis continues in the third chapter in which I approach the construction of epistolary friendship in Gregoras' letters as the rhetorical, social, cultural, and political manifestation of the internalized dynamic philosophical constructs of self and otherness. Here I analyze three case studies based on

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<sup>521</sup> Gregoras, *Letter 7*, lines 17-21: [...] οὐκ ἔχω βέβαιον οὐδὲν τῶν χειλέων ἐπὶ τοῦ παρόντος ἐξενεγκεῖν. γένοιτο δ' ἂν ὅψῃ διὰ πλειόνων γραμμάτων σῶν καὶ πόρρωθεν ἴσως νοῦν ἡμᾶς εἰληφέναι δυνάμενον ἀποχειροτονεῖν τὰ τῆς ἀμφισβητήσεως ταυτησὶ καὶ ἀπλανὲς παρέχειν τὸ τῆς φιλίας φιλότιμον·

Gregoras' *Letters* 134, 34, and 6 as examples of Gregoras' deconstruction and reconstruction of fundamental premises of Byzantine epistolography and the theory of friendship inherited from the ancient philosophical tradition. Further, Gregoras portrays the dialectic of same and different, as well as of self and other, as influenced by principles such as spontaneity, fortune or divine providence. The latter, however, together with human free will determines to a degree the human process of cognition. Thus, the final fourth chapter of *Part III* investigates Gregoras' epistemological position and revisits, in particular, its commonly accepted interpretation as highly skeptical. In sum, *Part III* investigates the various ways in which philosophy and epistolography are integrated, as well as the relationship between the philosophical and the rhetorical elements in a letter. Special attention is being paid to the meaning created by the interaction of philosophy and epistolography.

Byzantine philosophical literature, just like its ancient and late antique predecessors, as well as its humanist and modern successors, explored topics such as the human condition, issues of natural philosophy and cosmology, the nature and limitations of human knowledge, human free will and further, the universe and its principles, as well as the role of its creator. In addition, Byzantine instructors in philosophy were preoccupied with the study of Aristotelian and Stoic logic and educated their students to devise and apply argumentatively sound reasoning. Finally, practical philosophy also had its place in Byzantium, as it aimed at providing moral instruction and political advice through its discussions of the nature of good and evil, of virtue, responsibility, and justice. In sum, Byzantine philosophical literature addressed a wide range of problems from the realms of logic, ethics and politics, physics and natural philosophy, cosmology and metaphysics.<sup>522</sup>

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<sup>522</sup> For comprehensive study of Byzantine philosophy, see Basile Tatakis, *La philosophie byzantine* (Paris: Presses Universitaires de France, 1949); Gerhard Podskalsky, *Theologie und Philosophie in Byzanz*. *Byzantinisches Archiv* 15 (München: Beck, 1977); Georgi Kapriev, *Philosophie in Byzanz* (Würzburg: Königshausen & Neumann, 2005). Very useful collective volumes outlining current research in Byzantine philosophy are Katerina Ierodiakonou, *Byzantine Philosophy and Its Ancient Sources* (Oxford, New York: Clarendon Press, 2002); Cacouros and

One ought to mention that twentieth-century scholarship of philosophy in Byzantium, ever since the publication of Basil Tatakis' seminal study in 1949, has been largely invested in arguing for the so-called 'autonomy' of philosophical thought in Byzantium with respect to Byzantine theology, and consequently in circumscribing its 'essence' and methods.<sup>523</sup> It has been argued that the "inextricable continuity with ancient philosophy [...] chiefly justifies treating Byzantine philosophical discourse as philosophical"<sup>524</sup> and that "the interaction between Byzantine and ancient philosophy is at the heart of the problem concerning the philosophical status of the works of Byzantine thinkers."<sup>525</sup> Linos Benakis defined the Byzantine philosopher as "a sort of encyclopedic teacher of philosophy who kept in touch with the sciences of the Quadrivium (arithmetic, geometry, astronomy and music) and other disciplines and set the philosophical tone of the scientific curricula."<sup>526</sup> Finally, Benakis also related the autonomy of Byzantine philosophical thought to its preoccupation with the production of commentaries to ancient philosophical works, as well as with engaging in a sometimes polemical dialogue with ancient philosophical doctrines.<sup>527</sup> Importantly, in addition to its relations and interaction with the ancient tradition it inherited and developed, Byzantine philosophical thought has

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Congourdeau, *Philosophie et sciences à Byzance de 1204 à 1453*; and Katerina Ierodiakonou and Börje Bydén, eds., *The Many Faces of Byzantine Philosophy*, Papers and Monographs from the Norwegian Institute at Athens 4, 1 (Athens: The Norwegian Institute at Athens, 2012).

<sup>523</sup> For reliable summaries of the scholarly discussion, see the introductions to the volumes edited by Ierodiakonou and Bydén, *Byzantine Philosophy and Its Ancient Sources*, 1-13; and *The Many Faces of Byzantine Philosophy*, 1-22. For critical assessment of modern scholarship of Byzantine philosophy, see Filip Ivanović, "Byzantine Philosophy and Its Historiography," *Byzantinoslavica* 1-2 (2010): 369-80; Michele Trizio, "Byzantine Philosophy as a Contemporary Historiographical Project," *Recherches de théologie et philosophie médiévales* 74, no. 1 (2007): 247-94.

<sup>524</sup> Ierodiakonou, "Byzantine Philosophy Revisited (a Decade After)," 7.

<sup>525</sup> *Ibid.*, 11.

<sup>526</sup> Linos Benakis, *Byzantine Philosophy*, in: Routledge Encyclopedia of Philosophy, ed. E. Craig, vol. 2, London – New York 1998, 160-165.

<sup>527</sup> Benakis, *Current Research in Byzantine Philosophy* in: *Byzantine Philosophy and its Ancient Sources*, ed. K. Ierodiakonou, Oxford 2002, 287.

been approached from the perspective of its (in)compatibility with Orthodoxy.<sup>528</sup> Little attention has been paid, however, to political philosophy in Byzantium, a research perspective that, in my opinion, will bring forth the importance of epistolography as source-material for the study of Byzantine philosophical thought.<sup>529</sup>

More important for the purposes of the present study is another revision of the problem concerning the autonomy of philosophy in Byzantium, namely, the examination of the relationship, in terms of subject matter, methods, choice of genres, context of composition and authorial intentions, between philosophy and rhetoric in Byzantium. Only recently and mainly thanks to the research on Michael Psellos by Stratis Papaioannou has this problem been outlined as substantial for the understanding of Byzantine philosophical literature from the eleventh century onwards.<sup>530</sup> In a nutshell, Papaioannou's survey of the

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<sup>528</sup> Most recently by Pantelis Golitsis, "A Byzantine Philosopher's Devoutness toward God: George Pachymeres' Poetic Epilogue to His Commentary on Aristotle's Physics," in *The Many Faces of Byzantine Philosophy*, ed. Katerina Ierodiakonou and Börje Bydén, Papers and Monographs from the Norwegian Institute at Athens 4, 1 (Athens: The Norwegian Institute at Athens, 2012), 109–28 and Anthony Kaldellis, "Byzantine Philosophy inside and out: Orthodoxy and Dissidence in Counterpoint," in *The Many Faces of Byzantine Philosophy*, ed. Katerina Ierodiakonou and Börje Bydén, Papers and Monographs from the Norwegian Institute at Athens 4, 1 (Athens: The Norwegian Institute at Athens, 2012), 129–52.

<sup>529</sup> On political philosophy in Byzantium, most recently Dimitar Angelov, "Classifications of Political Philosophy and the Concept of Royal Science in Byzantium," in *The Many Faces of Byzantine Philosophy*, ed. Katerina Ierodiakonou and Börje Bydén, Papers and Monographs from the Norwegian Institute at Athens 4, 1 (Athens: The Norwegian Institute at Athens, 2012), 23–50 and Dominic J. O'Meara, "Political Philosophy in Michael Psellos: The Chronographia Read in Relation to His Philosophical Work," in *The Many Faces of Byzantine Philosophy*, ed. Katerina Ierodiakonou and Börje Bydén, Papers and Monographs from the Norwegian Institute at Athens 4, 1 (Athens: The Norwegian Institute at Athens, 2012), 153–70. Anthony Kaldellis has also made the point that the study of Byzantine philosophical thought should not be based solely on the examination of commentaries of ancient philosophical treatises or otherwise specialized technical philosophical writings. See Kaldellis, "Byzantine Philosophy inside and out," 129–52.

<sup>530</sup> Stratis Papaioannou, "Language Games, Not the Soul's Beliefs: Michael Italikos to Theodoros Prodromos, on Friendship and Writing," in *Byzantinische Sprachkunst: Studien zur byzantinischen Literatur gewidmet Wolfram Hörandner zum 65. Geburtstag*, ed. Martin Hinterberger and Elisabeth Schiffer, Byzantinisches Archiv, 20 (Berlin; New York: Walter de Gruyter, 2007), 218–33; Papaioannou, "Michael Psellos: Rhetoric and the Self in Byzantine Epistolography," in *L'épistolographie et la poésie épigrammatique: projets actuels et questions de méthodologie: actes de la 16<sup>e</sup> table ronde organisée par Wolfram Hörandner et Michael Grünbart dans le cadre du XX<sup>e</sup> Congrès international des études byzantines, Collège de France, Sorbonne, Paris, 19-25 août 2001*, ed. Wolfram Hörandner and Michael Grünbart, Dossiers Byzantins 3 (Paris: Centre d'études byzantines, néo-helléniques et sud-est européennes, École des hautes études en sciences sociales, 2003), 75–83; Papaioannou, "Rhetoric and



Byzantine literary tradition showed that after Synesios of Cyrene, the “careful appropriation of rhetoric for the philosopher’s self-representation will not be repeated in Byzantine writing for some time,”<sup>531</sup> at least not until Michael Psellos purposefully reconfigured the status of rhetoric from “preparatory, supplementary, or just superfluous” to “central to the philosopher’s social persona.”<sup>532</sup> Moreover, Papaioannou advanced an important hypothesis, namely that in Psellos’ writings “[f]or the first time in the history of the philosophico-rhetorical debate, the combination of philosophy with rhetoric is imagined as the ideal philosopher’s unified and single discursive practice.”<sup>533</sup> Finally, Papaioannou demonstrated that by the second half of the twelfth century “Psellos’ insistence on the mixture of philosophy with rhetoric became a topos” for those Byzantines engaged in the study and production of philosophy-related scholarship.<sup>534</sup>

Papaioannou’s observations and the thereby derived argument for the standardization of the mixture of rhetoric and philosophy in post-eleventh-century Byzantium are of major significance for the analysis of the problems late Byzantine philosophical thought was chiefly inquiring into. Moreover, their appropriation by modern scholarship on philosophy in Byzantium would necessarily entail a revision of our categorization of the so-called ‘philosophical literature.’ I am referring to the process of recognizing a given Byzantine text as philosophical. The leading criterion is usually the subject matter the text is delivering, that is, if we determine that a text is approaching a problem identified as philosophical, we tend to read it as a philosophical text and to eliminate from our analysis the discussion of its literary, and moreover, of its rhetorical features. Further, discussions of philosophical problems tend to appear in certain types of

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the Philosopher in Byzantium,” in *The Many Faces of Byzantine Philosophy*, ed. Katerina Ierodiakonou and Börje Bydén, Papers and Monographs from the Norwegian Institute at Athens 1 (Athens: The Norwegian Institute at Athens, 2012), 171–97 and most significantly, Papaioannou, *Michael Psellos: Rhetoric and Authorship in Byzantium*.

<sup>531</sup> Papaioannou, “Rhetoric and the Philosopher,” 179.

<sup>532</sup> Ibid., 187.

<sup>533</sup> Ibid., 183.

<sup>534</sup> Ibid., 191.

texts, thus, we distinguish a number of genres as traditionally ‘philosophical’, such as Platonic dialogues or commentaries to a philosophical treatise. The exclusive focus on subject matter and on the application of discipline-specific methodology, on the one hand, and the acknowledgement of only those literary features we have become accustomed to find in discipline-related literary genres, on the other, diminishes, in my opinion, our sensitivity to the ‘philosophical’ when it is delivered in a noncanonical literary form.<sup>535</sup> To put it simply, the more rhetorical a Byzantine text is, the less likely we read it as a philosophical one. Moreover, when faced with an example of the mixture of philosophy with rhetoric, we are prompted to deem the act of philosophizing incidental.

Byzantine epistolography in particular has not been considered as a particularly rich source-pool for the study of Byzantine philosophical thought. For instance, according to Ierodiakonou and Zografidis who explore the main topics, genres, authors and methodological issues in studying early Byzantine philosophy (seventh to eleventh centuries), philosophical thought manifests itself in a variety of textual forms, such as compendia, commentaries, treatises, dialogues, texts in question and answer form, but also in letters.<sup>536</sup> In Ierodiakonou’s and Zografidis’ opinion, however, the interaction of philosophy and letter-writing comes about “*only incidentally*.”<sup>537</sup> Nevertheless, they enumerated a number of letter-collections as particularly important for the early Byzantine period, such as the letters of Theodore the Stoudite, Photios, Arethas, Nikolaos I

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<sup>535</sup> A notable exception is offered by Ramato and Ramelli in Eugenio Ramato and Ilaria Ramelli, “Filosofia *rhetorica* in Niceforo Cumno: l’inedito trattato *Sui corpi primi e semplici*,” *MEG* 6 (2006): 12-15. In the preface to their edition of Choumnos’ short philosophical treatise, Ramato and Ramelli note rhetoric’s “letteraturizzazione e pervasività” which, ever since the imperial period is present in the philosophical production as well, a phenomenon they see represented in Byzantine philosophical literature and in Choumnos’ works in particular. Thus, in the introduction to their edition Ramato and Ramelli see it fit to outline the instances of rhetoric’s application to philosophy. Indeed, the two Italian scholars perceive the integration of rhetoric and philosophy in Byzantium as a consequence of the limitations Christian doctrine imposed on philosophical thought.

<sup>536</sup> Katerina Ierodiakonou and George Zografidis, “Early Byzantine Philosophy,” in *The Cambridge History of Philosophy in Late Antiquity*, ed. Lloyd P. Gerson, vol. 2 (Cambridge, New York: Cambridge University Press, 2010), 850-851.

<sup>537</sup> *Ibid.*, 851. [italics mine]

Mystikos, Niketas David Paphlagon, the ‘anonymous schoolmaster’, and those of Niketas Magistros.<sup>538</sup> In a different paper,<sup>539</sup> Ierodiakonou provided a similar list of the genres of philosophical writing the Byzantines employed in order to study and rework the legacy of the ancient thinkers. In addition to paraphrases, extended commentaries, commentaries in question-and-answer form, small handbooks, and treatises on specific topics, she mentioned also “letters and orations with philosophical content.”<sup>540</sup> Finally, as Börje Bydén and Katerina Ierodiakonou state in their short encyclopedic entry on Byzantine philosophy, in some of their letters the Byzantines “occasionally dealt with philosophical questions,”<sup>541</sup> as for instance Michael Psellos’ *Letter to Xiphilinos*<sup>542</sup> or Theodore Prodromos’ short essay *On ‘Great’ and ‘Small’*<sup>543</sup> demonstrate.<sup>544</sup> Similarly to Prodromos’ anti-Aristotelian epistolary discussion in defense of the view that ‘great’ and ‘small’ should be viewed as quantities rather than relatives, another Psellian letter also treated a logical problem as its subject matter,<sup>545</sup> namely, his examination of the problem of homonymy and synonymy which he delivered in a letter addressed to the *logothetēs tou dromou*.<sup>546</sup> In addition, Bydén and Ierodiakonou briefly outlined Barlaam the Calabrian’s so-called *First Greek Letter*, which discusses the substantial principles innate in our souls, but also raises the issue of applying

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<sup>538</sup> Ibid., 851-852.

<sup>539</sup> Katerina Ierodiakonou, “Byzantium,” in *The Cambridge History of Medieval Philosophy*, ed. Robert Pasnau and Christina van Dyke, vol. 1, 2 vols. (Cambridge; New York: Cambridge University Press, 2010), 39.

<sup>540</sup> Ibid.

<sup>541</sup> Ierodiakonou and Bydén, “Byzantine Philosophy.” [italics mine]

<sup>542</sup> Ugo Criscuolo, ed., *Michele Psello, Epistola a Giovanni Xifilino*, trans. Ugo Criscuolo, *Hellenica et Byzantina Neapolitana* 14 (Naples: Bibliopolis, 1990).

<sup>543</sup> Theodore Prodromos, “Théodore Prodrome sur le grand et le petit,” ed. Paul Tannery, *Annuaire de l’association pour l’encouragement des études grecques en France* 21 (1887): 104-19.

<sup>544</sup> Katerina Ierodiakonou and Börje Bydén, “Byzantine Philosophy,” in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, 2014, <http://plato.stanford.edu/archives/spr2014/entries/byzantine-philosophy/>.

<sup>545</sup> Katerina Ierodiakonou, “Byzantine Logic,” ed. Henrik Lagerlund, *Encyclopedia of Medieval Philosophy: Philosophy between 500 and 1500* (Dordrecht; New York: Springer, 2011), 695; Börje Bydén and Katerina Ierodiakonou, “Greek Philosophy,” in *The Oxford Handbook of Medieval Philosophy*, ed. John Marenbon (Oxford University Press, 2012), 14-17.

<sup>546</sup> Michael Psellos, “Opusculum 6,” in *Michaelis Pselli Philosophica minora*, ed. John M. Duffy, vol. 1 (Leipzig: B.G. Teubner, 1992), 17-22.

demonstrative argumentation with respect to the divine.<sup>547</sup> Regarding Gregoras, Bydén and Ierodiakonou limit themselves to the statement that “[s]ome of his letters and a few passages of his *Roman History* touch upon philosophical subjects.”<sup>548</sup> That is, not only philosophizing in letters has been deemed incidental and occasional, but the philosophical substantiality of Gregoras’ thought has been brought into question in the past. For instance, though Tatakis acknowledged Gregoras’ “diverse and extensive knowledge, his wit, his talent as a dialectician, his force of character, and his love of Greek science and literature,”<sup>549</sup> he, nevertheless, deemed him “philosopher *by accident*.”<sup>550</sup> In the present part of my study, it is my objective to disprove the following two fallacies, namely, first, that the more rhetorical a letter is (following Papaioannou’s hypothesis, I am referring to Byzantine letters written after the twelfth century), the less philosophical it becomes, and second, that the engagement with philosophical issues in Gregoras’ epistolary corpus should be characterized as incidental. In pursuit of my research goals, I have organized my argumentation in four chapters. *Chapter 1: Philosophical Letter-Writing in Byzantium* starts off by exploring the typology modern scholarship employed when categorizing Byzantine letters and questions its relevance for the study of the so-called ‘philosophical’ letter in late Byzantium. *Chapter 2: Byzantine Epistolography and Its Philosophical Premises* focuses on the philosophical meta-structures, such as the relations between one and many, self and other, and same and different, and argues that they underline and inform the epistolary discourse. *Chapter 3: Constructing Epistolary Friendship* argues that the rhetorical constructions of friendship in Byzantine epistolography manifest the conceptual dichotomies discussed in *Chapter 2*. The focus of the discussion in *Chapter 3* is the interplay

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<sup>547</sup> Barlaam de Seminara, *Epistole greche; i primordi episodici e dottrinari delle lotte esicaste*, ed. Giuseppe Schirò, Testi e monumenti pubblicati da Bruno Lavagnini. Testi 1 (Palermo, 1954); Barlaam Calabro, *Epistole a Palamas*, ed. Antonis Fyrigos (Rome: Catholic Book Agency - Officium libri catholici, 1975).

<sup>548</sup> Ierodiakonou and Bydén, “Byzantine Philosophy,” in *The Stanford Encyclopedia of Philosophy*. [italics mine]

<sup>549</sup> Tatakis, *Byzantine Philosophy*, 213.

<sup>550</sup> *Ibid.*, 215. [italics mine]

of the notions of sameness and otherness and the ways in which Gregoras exploited their various relations in order to deconstruct and reconstruct conceptual premises traditional for Byzantine epistolography. Whereas *Chapters 1, 2, and 3* argue against the wrong assumption that a highly rhetorical genre such as the letter is less likely to contain a substantial philosophical discussion, *Chapter 4: Knowledge of the Creation. Spontaneity, Fortune, and Divine Providence* discusses Gregoras' epistemological views, thus questioning the idea that the lack of systematic philosophical exposition, delivered moreover, in a suitable literary form, should be labelled as 'incidental' or 'occasional' philosophizing.

### Chapter 1: Philosophical Letter-Writing in Byzantium

It has been stated that letter-writing in Byzantium continued and developed the classical tradition of appropriation of the epistolary form for the purposes of transmission of, instruction in, and practice of philosophy<sup>551</sup>. Furthermore, when treating a philosophical, or theological for that matter, subject, Byzantine letters did not conform to Demetrius' (the first century BCE) and Gregory of Nazianzos' requirements of brevity, conciseness and choice of an 'epistolary' subject (technical subjects, such as science or logic were not considered epistolary),<sup>552</sup> as the letters of Maximos the Confessor or Photios illustrate. Therefore, one would expect that Byzantine philosophical letters were primarily concerned

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<sup>551</sup> Littlewood, "An "Ikon of the Soul," 197: "Byzantine epistolographic concepts are a natural development of the concepts of classical antiquity, and especially of the Second Sophistic, that were adapted to fit the requirements of Christian ontology." See also Ibid.: 198: "A form of letter that served as a vehicle for chiefly philosophical ideas developed during the fourth century and was partly responsible for the forgery of letters purporting to be of famous men that became popular in the last two centuries BC."

<sup>552</sup> W. Rhys Roberts, ed., *Demetrius On Style: The Greek Text of Demetrius' De Elocutione*, trans. W. Rhys Roberts, 175, 177: "We must [...] remember that there are epistolary topics, as well as an epistolary style. [...] If anybody should write of logical subtleties or questions of natural history in a letter, he writes indeed, but not a letter. A letter is designed to be the heart's good wishes in brief; it is the exposition of a simple subject in simple terms. Its beauty consists in the expressions of friendship and the many proverbs which it contains. This last is the only philosophy admissible in it, the proverb being common property and popular in character." Gregory of Nazianzos, *Lettres*, ed. and trans. Paul Gallay, 2 vols., Collection des universités de France (Paris: Les Belles lettres, 1964); Mullett, "Epistolography," 883-884; Littlewood, "An "Ikon of the Soul," 220.

with providing knowledge and guidance concerning philosophical problems, as they complied with the requirements of the philosophical-letter genre established early on through the epistolary corpora of Plato, Aristotle, and Epicurus<sup>553</sup> and later on developed in the anthologies of philosophical letters by Synesios, Libanius, Basil of Caesarea or Gregory of Nazianzos. That is, a traditional approach to studying the entanglement of epistolography and philosophy in Byzantine literature relies on circumscribing the philosophical letter as a genre and in determining its place in the epistolary canon. A useful example of a definition of the philosophical-letter genre as a phenomenon which started at least with Epicurus and flourished during the early Imperial period (Seneca), as well as during the fourth century (Julian, Libanius, Basil of Caesarea, Gregory of Nazianzus) is formulated by John Dillon and Wolfgang Polleichtner in the preface to their publication of the letters of Iamblichus of Chalcis (ca. 245–ca. 320):

The philosophic letter, as a genre, is really a short philosophical (usually moral) essay, given a lively and personalized slant by being addressed to a particular recipient, usually a friend or student of the author, but sometimes a patron or other public figure. The subject matter of the epistle should doubtless be tailored to some extent to the position or role in life of the recipient (e.g., letters on ruling we might expect to be addressed to senior imperial administrators, or at least local grandees; letters on dialectic to other practicing philosophers), but this need not necessarily be so, if the letter concerns a very general moral topic, such as justice or self-control.<sup>554</sup>

That is, as a genre, the philosophical letter is defined as a short philosophical essay or a discourse in epistolary form. This understanding is evident also in modern scholarly reconstructions of the Greek epistolary canon. The most recent attempt at classification of

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<sup>553</sup> The question of the authenticity of these letters, though predominantly addressed by modern scholarship is not relevant here since from the point of view of their Byzantine reception, the epistles of the ancient philosophers were considered genuine.

<sup>554</sup> Iamblichus of Chalcis, *Iamblichus of Chalcis: The Letters*, ed. and trans. John M. Dillon and Wolfgang Polleichtner, Society of Biblical Literature, Writings from the Greco-Roman World 19 (Atlanta: Society of Biblical Literature, 2009), xvii.

Greek letter-types (through the second century CE) was offered by Luther Stirewalt in 1993.<sup>555</sup> In his view, the philosophical-letter type is subsumed under the heading of *letter-writing in extended settings*, that is the case when the character of the letter's subject-matter is 'non-epistolary' and the letter is intended for a wider audience consisting of known and unknown people who are both interested in the topic of the letter.<sup>556</sup> In the case of the philosophical letter, the authorial intention may remain unclear, according to Stirewalt: "He may write on a philosophical theme using rhetorical forms or he may demonstrate his rhetorical ability using any subject including the philosophical."<sup>557</sup> The philosophical letter may serve to propagate the school's doctrine, but also to supplement existing writings or to prompt the author to address a related topic.<sup>558</sup> The letter-essay engaged in a professional or technical discussion and its primary function is "to supplement a previously published work or to substitute for a work projected but not executed because of lack of time or opportunity."<sup>559</sup>

An example of a letter-classification tailored specifically to the Byzantine material is Herbert Hunger's typology of Byzantine epistolography which distinguishes between four main types of letter-writing, namely 1) official letters (*amtliche Briefe*), 2) purely private letters (*reine Privatbriefe*), 3) literary letters (*literarische Briefe*), which Hunger further subdivided into 3.1) didactic (*didaktische Briefe*), 3.2) dedicatory (*Widmungsbriefe*) and interpolated (*eingelegte Briefe*), 3.3) mimetic (*mimetische Briefe*) and 3.4) model letters (*Klischeebriefe*), and 4) literary private letters (*literarische Privatbriefe*).<sup>560</sup> Thus, the genre of

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<sup>555</sup> M. Luther Stirewalt, "The Uses and Development of Greek Letter-Writing through the Second Century C.E," in *Studies in Ancient Greek Epistolography*, Resources for Biblical Study no. 27 (Atlanta, GA: Scholars Press, 1993), 1–26. For a critical view of the premises and implications of Stirewalt's epistolary classification, see Patricia A. Rosenmeyer, "Prologue," in *Ancient Epistolary Fictions: The Letter in Greek Literature* (Cambridge; New York: Cambridge University Press, 2001), 10.

<sup>556</sup> Stirewalt, "The Uses and Development of Greek Letter-Writing," 15.

<sup>557</sup> *Ibid.*, 16.

<sup>558</sup> *Ibid.*, 17, 22.

<sup>559</sup> *Ibid.*, 18.

<sup>560</sup> Hunger, *Die hochsprachliche profane Literatur*, vol. 1, 203–207.

the philosophical letter would be classified within the category of didactic letters. In fact, Hunger illustrated one of the didactic-letter types, namely the so-called epistolary lesson (*Lehrbrief*) by adducing the example of Gregoras' *Letter* 69 intended, in Hunger's understanding, to clarify an astronomical question.<sup>561</sup>

When applied to the corpus of surviving Byzantine epistolary literature, the so-defined and classified genre of the 'philosophical letter' appears to include a rather limited number of examples. The main reason for this is the fact that the definition of the 'philosophical letter' as a short philosophical essay or discourse in epistolary form is *hyper-exclusive*. A 'philosophical letter' is circumscribed as epistolary only in terms of its form, i.e. it is epistolary by convention. In terms of its subject-matter, intention(s), and function(s), a 'philosophical letter' should not be letter at all; it should be philosophical.<sup>562</sup> Defining the 'philosophical letter' as philosophical treatise that is formally epistolary diminishes its epistolary character to its presentation only, for the sake of emphasizing the philosophical message of the text. This procedure prevents the (modern) reader from exploring the letter's literariness and rhetoricity and does not allow them to recognize the specific meaning created by the integration of the epistolary and the philosophical. In brief, the traditional conceptualization of the 'philosophical-letter' genre understands the philosophical only as a subject-matter and the epistolary only as a form.

The study of classical and late antique letter-types, as well as the attempt to circumscribe and classify them and their appropriation in the research on Byzantine epistolography do indeed provide the modern reader with a limited perspective as to the

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<sup>561</sup> Ibid., vol. 1, 205.

<sup>562</sup> For an example of modern scholarly treatment of the philosophical content as non-epistolary, see Stirewalt, "The Uses and Development of Greek Letter-Writing," 3: "Under these influences extended settings provide the contexts in which writers publicize non-epistolary topics for a group of people, identified or unidentified, and known or assumed to be interested. Such activity is represented by letters on technical and professional subjects and for propaganda." See also Ibid., 15: "However the intentionally wider audience and non-epistolary character of the subject-matter are characteristics of the letters under this heading [i.e. letter-writing in extended settings]."



variety of ways in which epistolary and philosophical are integrated in a letter, particularly with respect to specific meaning created as a result of the integration. This statement is particularly valid for the study of Byzantine letter-writing during the Palaiologan period. Commenting on the tendencies within Byzantine letter-writing at large, Mullett noted that "the Palaiologan period is different: [...] Many [letter-collections] continue the themes of the middle period, others show the effect of politics [...], but in general letters are more open and descriptive [...]. Writers are closer to events than their predecessors, so there is a fusion between public and private in the correspondence."<sup>563</sup> What categorizations such as Hunger's and Stirewalt's or definitions such as the one formulated by Dillon and Polleichtner fail to reflect when applied to Greek epistolary literature with philosophical content composed from the fourth century onwards is the fact that the latter was inextricably intertwined with two of the main roles of Byzantine epistolography in general, namely to manifest the absent self of the author and to serve as a literary vehicle for sustaining relationships of friendship.<sup>564</sup> As I demonstrate in the following chapter, these two features of the epistolarity of any Byzantine letter when integrated with philosophical treatment of the topic of friendship result in an idiosyncratic discursive expression of the epistolary-philosophical that cannot be adequately circumscribed by the canonically understood 'philosophical-letter' genre. Nevertheless, modern scholarship's classification of ancient letter-types adept for transmitting a philosophical discussion has underlined the importance of the social setting a philosophical letter was produced in and it has noted the

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<sup>563</sup> Mullett, "Epistolography," 886-887.

<sup>564</sup> Papaioannou, "Letter-Writing," 192-193. On the medieval concept of epistolary friendship, see Margaret Mullett, "Byzantium: A Friendly Society?," *Past & Present*, no. 118 (1988): 3-24; Peter Hatlie, "Redeeming Byzantine Epistolography," *BMGS* 20 (1996): 213-48; Julian Haseldine, ed., *Friendship in Medieval Europe* (Stroud: Sutton, 1999); Margaret Mullett, "Friendship in Byzantium: Genre, Topos and Network," in *Friendship in Medieval Europe*, ed. Julian Haseldine (Stroud: Sutton, 1999), 166-84; Papaioannou, "Language Games, Not the Soul's Beliefs: Michael Italikos to Theodoros Prodromos, on Friendship and Writing," 218-33; Michael Grünbart and Margaret Mullett, eds., *Geschenke erhalten die Freundschaft: Gabentausch und Netzwerkpflege im europäischen Mittelalter: Akten des internationalen Kolloquiums Münster, 19. - 20. November 2009*, *Byzantinistische Studien und Texte* 1 (Berlin: Lit, 2011); Sofia Kotzabassi, "Scholarly Friendship in the Thirteenth Century: Patriarch Gregorios II Kyprios and Theodora Raoulaina," *Parekbolai* 1 (2011): 115-70.

ways in which the social, hierarchical or not, relationship between two correspondents related to the choice of subject-matter and shaped the style of the letter.

The letter, both ancient and medieval, performed simultaneously at least three acts.<sup>565</sup> First, it simply communicated a message from one party to another, overcoming a certain spatial distance between them. Second, since the letter represented its author and, when read, it rendered his or her physically absent persona and voice, it ought to express truthfully the writer's image, i.e. his or her character.<sup>566</sup> Since the letter was conceived and understood as an image of its author's soul, it created an illusion of his or her presence.<sup>567</sup> Not by chance, by the second century CE Greek rhetorical theory enlisted the letter in the category of delineation of character or *ethopoieia*.<sup>568</sup> Third, the letter represented also the character of the addressee, absent from the act of its writing, according to the type of relationship connecting the two (or more) correspondents. In other words, the letter represented a social situation of communication, shared by writer and reader(s), actual or desired. These three acts of (re)presentation define the type and function of the letter, and to some extent its content. Ancient and late antique philosophy, ethics and politics in particular, made ample use of the epistolary form in order to deliver instruction, advice, exhortation, consolation or admonition, among others.<sup>569</sup> The rhetorical delineation of character the letter-form subsisted on gave the opportunity for the philosopher as a letter-writer to offer model examples to his or her audience, by referring, for instance, to

<sup>565</sup> On the phenomenology of Byzantine letters with a specific emphasis on their role as "socio-texts," see Papaioannou, "Letter-Writing," 188–99.

<sup>566</sup> Littlewood, "An 'Ikon of the Soul,'" 216; Rosenmeyer, "Prologue," 3–4.

<sup>567</sup> Cf. Akindynos, *Letters*, 8, lines 60–68: "τίνα γὰρ τῶν παρ' ἡμῖν περὶ λόγους ἐχόντων ἦν νῦν ἡμῖν ἐπεπόμεναι ἐπιστολὴν οὐκ ἐδόνησεν (ἴνα τὰλλα παρῶμεν); τί δ', ἐπειδὴ περ ἀνεγινώσκετο, μὴ τῶν εὐφημίαν ἐχόντων ἡνέχθη σοι πρὸς τῶν ἀκρωμένων, πολλῶν ἀπαντησάντων καὶ πολλαχῇ; τίς δ' οὐκ ἐπήδησε; τίς δ' οὐκ ἐκρότησεν; ἔνθα πρὸς τὴν ἐπιστολὴν, ἐπειδὴ περ οὐκ ἦν μοι πρὸς σέ, τοῦτ' διελέχθη. 'ἄρ' οὖν ἐμὸν μόνου Γρηγοῦραν θαυμάζειν τὸν ἄριστον"; ἡ δὲ μόνον οὐκ ἡφίει φωνήν, ὡς "οὐ μενοῦν," εἶπεῖν, "ἔστι τοῦτό γε, ἀλλ' ὅποσοις ἂν καὶ ὁπωσοῦν πείραν τάνδρ' εἰληφέναι συμβαίη."

<sup>568</sup> Littlewood, "An 'Ikon of the Soul,'" 216.

<sup>569</sup> See Stanley Kent Stowers, *Letter Writing in Greco-Roman Antiquity* (Philadelphia: Westminster Press, 1986), 37, 39.

authoritative figures of the past, illustrious men and women of the present or even to him- or herself.<sup>570</sup> The examination of models of behavior, lifestyle or rulership, that is, topics characteristic for the ‘philosophical letter’, could be discussed in a variety of socially hierarchical situations including the author and the addressee. For instance, exhortation or advice was usually given by someone superior to someone inferior in the matters discussed. Such an epistolary situation produced a variety of letter-types suitable for philosophical discussions and attested since antiquity, for instance, protreptic, paraenetic, and letters of advice.<sup>571</sup> Philosophers employed letters to convert someone to the philosophical way of life or to confirm the addressee’s life-path as already virtuous. ‘Philosophical letters’ provided moral examples and based on their assumptions concerning human nature, showed what a good person, good statesman, good philosopher, and so forth, was or should be.<sup>572</sup> In sum, more often than not a ‘philosophical letter’ would treat ethical and political issues rather than problems of logic, natural philosophy or metaphysics, among others.

In the opposite case, namely whenever someone inferior addressed someone superior or more experienced in philosophical matters, the letter employed rhetoric of praise, but it could also include exhortation towards the master to transmit his or her wisdom, knowledge or science and to accept the author as his disciple. Cases in point are Nikephoros Gregoras’ letters addressed to his mentor, the *megas logothetēs* of emperor Andronikos II (r. 1282–1328) Theodore Metochites (1270–1332). The modern edition of Gregoras’ letter-collection<sup>573</sup> includes a total of five letters addressed to Metochites<sup>574</sup> filled with elaborate praises of his wisdom and scholarship. *Letter 24*, for instance, claims that Homer, Plato, Ptolemy and Plutarch are all reborn in the person of Metochites,<sup>575</sup> while in

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<sup>570</sup> Ibid., 38–39.

<sup>571</sup> Ibid., 37, 91–93, 96.

<sup>572</sup> Ibid., 38.

<sup>573</sup> Gregoras, *Letters*.

<sup>574</sup> Gregoras, *Letters* 23, 24ab, 25, 26, 27. Two versions of *Letter 24* are preserved.

<sup>575</sup> Gregoras, *Letter 24*, lines 38–44: ὥστε δὴ καὶ παρ’ ἡμῖν αὐτοῖς ἀρτίως εἰ μανίας τρόφιμοι ποιητικῆς ἐγίνοντο τινες, ἐν ἐξουσίᾳ τοῦ λέγειν καὶ πλάττειν τὰ τοιαῦτα καθιστάμενοι, ἀποφαίνεσθαι ἂν ἐκινδύνευσαν Ὅμηρον

another missive (*Letter 22*) addressed to Joseph the Philosopher or Rhakendytes (d. 1330), a member of the scholarly circle around emperor Andronikos II, Gregoras described the *megas logothetēs* as “the greatest champion of letters,”<sup>576</sup> “a hall for all wisdom, in as much as he examines precisely the celestial phenomena and as far as he describes the terrestrial events and what is below the earth and what is surrounding it.”<sup>577</sup> At the same time, in his *Hortatory Letter Concerning Astronomy* preserved on f. 1r-v of Vat. gr. 1087 and later on emended and incorporated in Gregoras’ *Historia Rhōmaikē*,<sup>578</sup> as well as in his *Letter 26*,<sup>579</sup> Gregoras appealed to Metochites to share his astronomical expertise and to initiate him in the study of celestial phenomena:

Thus, I exhorted myself to present myself at your gates in future, wishing very much to enjoy to satiety the feast of your reasoning as a hopeful suppliant. I think that as far as your bread which is taken away from our lips is concerned, it is necessary that you at least give delicacy to others, on the one hand, and on the other [...] to give a taste of your sweetness to the lips, to tease the palate and to kindle desire of your <thoughts> to a great extent.<sup>580</sup>

Open the eyelid of our mind; show more clearly who is the governor of the universe and of what character then is its harmonious arrangement; [...] by the necessity of the stars, according to the pagan accounts, or by the cause of the universe. For, for a long time, no mind encountered me at all, <me> who doubts many things, <to the effect that> it annuls the doubt from my soul.

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καὶ Πλάτωνα καὶ Πτολεμαῖον καὶ Πλούταρχον καὶ ὁμοῦ τοὺς ὅσοι μεγάλης θιασῶται σοφίας ὑπῆρξαν, ἀναστάντας ἐν ἐνὶ τῷ σῶ ξυνηληλυθέναι σώματι νῦν καὶ διατρίβειν αὐθις ἐν βίῳ, καθάπερ ὀλκάδι μυριοφόρῳ χρωμένους σοι.

<sup>576</sup> Gregoras, *Letter 22*, lines 75-76: “ὁ μέντοι μέγιστος οὗτος ἐν λόγοις ἦρως.”

<sup>577</sup> Gregoras, *Letter 22*, lines 76-78: ...τὸ πάσης πρυτανεῖον σοφίας, [[ὅση τε ἀκριβῶς ἐρευνᾷ τὰ οὐράνια καὶ ὅση δίδει τὰ ἐπίγεια καὶ ὑπόγεια καὶ περίγεια]] [...]

<sup>578</sup> Gregoras, *History*, vol. 1.

<sup>579</sup> Gregoras, *Letter 26*.

<sup>580</sup> Gregoras, *Letter 26*, lines 10-16: ταύτη τοι καὶ πρὸς ταῖς σαῖς τοῦ λοιποῦ καθῆσθαι θύραις ἐμαυτῷ παρήνεσα, πάνυ τοι σφόδρα ἰκέτην εὐέλπιδά τῆς σῆς λογικῆς ἀπολελαυκέναι τραπέζης ἐς κόρον βεβουλημένος. ἥκιστα οὖν χρῆναί σε οἶμαι τῶν ἡμετέρων χειλέων τὸν σὸν ἀφαιρούμενον ἄρτον, ἐτέροις μὲν διδόναι τρυφᾶν, ἡμῖν δὲ τὴν περιουσίαν ἐνδείας μητέρα ποιεῖν, καὶ γέυειν μὲν ἄχρι χειλέων τῆς σῆς γλυκύτητος, ὑπερώην δ’ ἐνοχλεῖν καὶ πρὸς πλείονα πόθον ἐκκρίνειν τῶν σῶν.

Thus if not for another reason, at least because of this single one, instruct.<sup>581</sup>

Further, when one examines the Byzantine philosophical letter as the result of the integration of the philosophical and the epistolary, one ought to consider which agent involved in the letter-exchange benefits from the conjunction of philosophy and epistolography and in what manner. The author and correspondents may benefit in a variety of ways, for instance in terms of receiving instruction or engaging in an intellectual discussion. More interestingly, the philosophical might also benefit from its conjunction with the epistolary. For instance, a letter is intended as an imitation of a conversation, thus its ‘dialogical’ character reinforces the formation of a specific philosophical meaning that is created only in relation to an addressee. Such is the case of Gregoras’ *Letter 42*, Gregoras’ scientific manifesto, a praise of his student, as well as a delivery of instruction on the topic of chance and spontaneity, which I analyze in detail in *Chapter 4: Knowledge of the Creation. Spontaneity, Fortune, and Divine Providence*. Finally, one ought to bear in mind also that an epistolary text enjoys a particular type of circulation and public performance, as opposed to a school-commentary for instance, thus facilitating the dissemination of the philosophical message according to a pattern specific for the circulation of letters.

## Chapter 2: Byzantine Epistolography and Its Philosophical Premises

### *Constructing Presence*

It is often emphasized that a letter is a written communication meant to overcome the

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<sup>581</sup> *Vat. gr.* 1087, f. 1v, my own transcription: ἄνοιξον ἡμῶν τὸ τοῦ νοῦ βλέφαρον· δεῖξον ἐναργέστερον τίς ὁ τοῦ παντὸς ἀρμοστής καὶ ποία ποθ’ ἡ τούτων παναρμόνιος σύνταξις [...] τῇ τῶν ἀστρων ἀνάγκῃ, κατὰ τοὺς θύραθεν λόγους, ἢ τῷ τοῦ παντὸς αἰτίῳ. ἐκ πολλοῦ γὰρ ὥς τὰ πολλὰ διαπορουμένῳ οὐδεὶς οὐδέπω μοι νοῦς ἀπηντήκει τῆς ἐμῆς ἀποχειροτονῶν ψυχῆς τὰμφιβαλλόμενον. ὥστ’ εἰ μὴ δι’ ἄλλο τι, διὰ γοῦν ἔν γέ τί τοῦτο δίδαξον.

distance between the two correspondents.<sup>582</sup> Suffice it to cite *Brill's New Pauly's* definition of epistle referring to the original meaning of the Greek ἐπιστολή: "A letter is a written message to an absent recipient."<sup>583</sup> In addition to overcoming distances, one of its main functions is to revoke a particular type of absence, that of a beloved friend, and to invoke the corresponding presence. Thus, Byzantine personal letters bristle with "expressions of longing for human contact: reason for writing, expectation of response, plans for a visit or for continued correspondence, and above all sensitivity to the felt presence of one for the other."<sup>584</sup> As a communicational act, as well as an expression of emotions, the letter annuls the absence of the correspondent by introducing the presence of a textual figure, a narrator and a narratee, to whom its message and emotional charge is addressed. A characteristic feature of epistolary writing is the fact that the absence of the other is conditioned both spatially and temporally.<sup>585</sup> The two correspondents are not physically present at the same geographical location and they are also separated in time, since the acts of writing and reading the letter are not simultaneous.<sup>586</sup> By inscribing the extratextual *here* and *now* of the acts of writing or reading the missive and subsuming them into the *here* and *now* of the narration, the letter reinforces the construction of the presence of the other. Gregoras' *Letter 2*, for instance, presents a suitable example of the Byzantine author's awareness of the emotional tension inherent to the act of letter-writing which is intended to confirm the intensity of the correspondents' friendship despite the limitations of physical space and time:

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<sup>582</sup> Patricia A. Rosenmeyer, "A Culture of Letter Writing," in *Ancient Epistolary Fictions: The Letter in Greek Literature* (Cambridge; New York: Cambridge University Press, 2001), 20. See also Constable's description of ancient and medieval perceptions of the letter as "half of a conversation or dialogue between the sender and the addressee" which "involved a quasi-presence and quasi-speech between the two." Giles Constable, *Letters and Letter-Collections*, Typologie des sources du Moyen Age occidental 17 (Turnhout: Brepols, 1976), 13.

<sup>583</sup> Herwig Görgemanns and Michaela Zelzer, "Epistle," ed. Hubert Cancik and Helmuth Schneider, *Brill's New Pauly* (Leiden, Boston: Brill, 2004), 1138.

<sup>584</sup> Stirewalt, "The Uses and Development of Greek Letter-Writing," 5.

<sup>585</sup> Patrizia Violi, "Letters," in *Discourse and Literature*, ed. Teun Adrianus van Dijk, Critical Theory, v. 3 (Amsterdam; Philadelphia: J. Benjamins, 1985), 155. See also Constable, *Letters and Letter-Collections*, 14.

<sup>586</sup> David Barton and Nigel Hall, "Introduction," in *Letter Writing as a Social Practice* (John Benjamins, 2000), 6.

If, on the one hand, some tyrannic necessity posited for those, who love, to write to those for whom at any time they nurture the same affection, and only this (i.e. writing) happened to be its (i.e. the condition's) measure and clear designation, you must accuse me, most noble one, of how I have not written to you for such a long time. If, on the other hand, it is possible both <that> those who write do not love and, in turn, <that> those who love do not write, and moreover, those who write the most love the least and in turn, those who love the most write the least, <then> perhaps it would not be fair that we believe writing to be the criterion and measure of love. For if we expect this to be made a criterion, <then>, “day and night,” I must always write to you: for I always marvel at you and love you both “day and night.” [...] For not even many books would be able to display the object of desire of my thought. Not even the rush of those who carry the letters by sea to this very place would be ever so fast, not even if the birds, the sailors of the heavens, had pledged an oath together <that the letters> be brought together to me with such care.<sup>587</sup>

With respect to the construction of absence and presence within an epistolary text, the letter of friendship operates in either of two general communicational settings. In the first case, the letter's function is to create something where there was nothing before, i.e. to initiate and establish an equal (friendship) or hierarchical relationship (parent-son, teacher-student) between strangers. For instance, in the case of Gregoras' *Letter 7* quoted above, one of the reasons for the epistolary exchange is to establish a connection between people who never met in person, or in other words, to start a conversation where before there was only silence. In the second case, the letter is a result and expression of the

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<sup>587</sup> Gregoras, *Letter 2*, lines 1-10, 15-19: Εἰ μὲν τις ἀνάγκη τύραννος ἔκειτο τοῖς φιλοῦσι γράφειν πρὸς οὓς ποτε τὴν τοιαύτην τρέφουσι σχέσιν, καὶ τοῦτο μόνον ταύτης ἐτύγχανε μέτρον καὶ σαφὲς γνῶρισμα, ἔγκαλεῖν ἡμῖν ἔδει σε, μεγαλοφύεστατε, πῶς τοσούτου σοι οὐ γεγράφαμεν χρόνου· εἰ δ' ἔστι καὶ γράφοντας μὴ φιλεῖν καὶ αὖ φιλοῦντας μὴ γράφειν καὶ ἔτι πλεῖστα γράφοντας οὐδ' ὀλίγα φιλεῖν καὶ αὖ πλεῖστα φιλοῦντας οὐδ' ὀλίγα γράφειν, οὐκ ἂν δῆπου δίκαιον εἶη οὐδ' ἡμᾶς κριτήριόν τε καὶ μέτρον τοῦ φιλεῖν τὸ γράφειν οἶεσθαι. εἰ γὰρ τοῦτ' ἐμέλλομεν ποιῆσθαι κριτήριον, ἔδει 'νύκτωρ καὶ μεθ' ἡμέραν' σοι γράφειν αἰεὶ· αἰεὶ γὰρ σε θαυμάζομεν καὶ φιλοῦμεν καὶ 'νύκτωρ καὶ μεθ' ἡμέραν'. [...] οὐδὲ γὰρ οὐδ' αἱ πολλαὶ βίβλοι δυνηθεῖεν ἂν ἐνδείξασθαι τὸ τῆς γνώμης ἡμῶν βουλόμενον. οὐ μὴν οὐδὲ γραμματοκομιστῶν φορὰ ναυστολούντων αὐτόσε γένοιτ' ἂν ποτε τόση, οὐ μέντ' ἂν οὐδ' εἰ οἱ ὄρνιθες οἱ αἰθέριοι πλωτῆρες συναίρεσθαι ἡμῖν τῆς τοιαύτης φροντίδος συνομωμόκεσαν.

preexisting friendship between addresser and addressee and its function is to sustain the friendship by means of making the writer and the reader present in its narrative, as it is in the case of *Letter 2*. When written, the letter invokes the presence of the absent friend in the mind of the author. Thus, an intended reader is constructed in the narrative and invoked, for instance, through the use of *you*.<sup>588</sup>

More importantly, the written letter projects a true image of the soul of the author. As Stratis Papaioanou noted “[l]etter writing is by definition the rhetorical genre of the self. Letters are for the Byzantines ‘icons of the soul’, bringing into the field of representation (as *icons*) the inner self (*soul*). Any study, therefore, of Byzantine epistolography cannot but begin with exploring how Byzantines understood the art of representation in writing, *i.e.* rhetoric, and how they perceived the self.”<sup>589</sup> When read, a letter renders its writer’s voice, thus, actualizing his or her presence, for example, through the use of the pronouns *I* and *we*, as well as of corresponding verbal forms in first person singular and plural.<sup>590</sup> As a result, though the addressee is absent from the communicational situation of sending a letter and the addresser from the situation of reading the missive, both the textual figures of narrator and narratee are constructed and inscribed in the epistolary text where they are co-present.<sup>591</sup>

The construction of presence and narrative time-space shared by the two correspondents, in combination with the adherence to the mimetic principles of Byzantine rhetoric,<sup>592</sup> enables the letter-writer to engage in a critical dialog with the past and, hence,

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<sup>588</sup> Barton and Hall, “Introduction,” 6.

<sup>589</sup> Papaioannou, “Michael Psellos: Rhetoric and the Self,” 75.

<sup>590</sup> Barton and Hall, “Introduction,” 6.

<sup>591</sup> Violi, “Letters,” 152.

<sup>592</sup> Papaioannou, “Michael Psellos: Rhetoric and the Self,” 80: “In medieval cultures, *mimesis* was perceived as the constitutive element of earthly and heavenly existence, moral and political life, of artistic expression, literature, and learning. Within this conceptual framework, as it is understood in modern scholarship, the self is conceived as a mere component of a larger cosmological web of mimetic analogies.” See also Herbert Hunger, “On the Imitation (ΜΙΜΗΣΙΣ) of Antiquity in Byzantine Literature,” *DOP* 23/24 (1969): 15–38.



produce a conception of time indiosyncratic for Byzantine epistolography.<sup>593</sup> Byzantine letters exist in the ethereal place of spring, union of souls,<sup>594</sup> where the silence of the correspondent, of the other, is long and grieves the author who is trying to overcome it by writing yet again and again. Byzantine letters float on the surface of time and space and especially after their publication, i.e. after being edited, amended and refined, as we always find them, we, as readers, could hardly pinpoint where and when the text was written. Of course, markers such as contemporary events, names of third persons, exchange of gifts, urgent book requests and others often fix the letter somewhere on the fabric of history and help us contextualize the texts in the cases where style only would leave us clueless.<sup>595</sup> The “intimate” correspondence between friends happens in the presence of God and the audience of the now circulated and publicly available letter. The audience, moreover, includes not only contemporaries to the author among whom the letter might have been circulated, but also the witnesses from the past, the author’s literary heroes – authorities such as Homer and Plato, or in the case of Nikephoros Gregoras, also Plutarch, Pythagoras and Ptolemy. There is a feeling of continuous dialogue back and forth in time, of belonging to a tradition, not just by being a follower, but as an active interlocutor, one who understands, converses and naturally maintains its evolvement.<sup>596</sup> For instance, in his *Letter* 22 Gregoras constructs an elaborate praise of Joseph Rhakendytes by suggesting that if time were just and not like the great rivers of Egypt and Arabia, it would flow and bring amazing deeds and facts not only from the past to the present, but also the opposite way, thus if the illustrious men of the past, such as Plato and Homer, could learn of Joseph’s

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<sup>593</sup> Papaioannou, “Michael Psellos: Rhetoric and the Self,” 79.

<sup>594</sup> Gregoras. *Letter* 88, lines 14-17: our friendship, though it was planted in the past, did not acquire an unseasonable principle of growth, but in a very suitable season both it blossoms and sprouts incessantly between the meadows of our hearts. ἡμῖν ἡ πάλαι φυτευθεῖσα φιλία οὐκ ἄκαιρον τὴν ἀρχὴν τῆς φυτείας ἐκτίσματο, ἀλλ’ ἐν ἀρμοττούσῃ σφόδρα τῇ ὥρᾳ καὶ ἀνθεῖ καὶ τέθηλε διηνεκῶς μεταξύ τῶν τῆς ἡμετέρας καρδίας λειμώνων.

<sup>595</sup> Mullett, “Epistolography.”

<sup>596</sup> Papaioannou, “Michael Psellos: Rhetoric and the Self.”

accomplishments, they would have found them more wonderful, than we find theirs:

And if it were a habit of time to wish to do things justly and like, while carrying the facts of the past, it sends them past our hearing, by virtue of counterbalance, while running back, it was rendering the fact of the present to the ears of wise men of old, [then] your deeds would appear to those [illustrious men] more wonderful than the deeds of those people appear to us. Now, exceedingly producing a certain flow from top, time carries down, together with Homer and Plato and other such men, also Thersites and Margitas and whoever is born by the same impression, it rather renounces to act otherwise: making [itself] like both the Nile for Egypt and the numerous rivers [that] flow around the wealthy Arabia. For people say that from some place up those [rivers] carry down something fragrant, [and that] they bring down, nonetheless, also both some white pebbles; and if even some sediment from the bottom, by virtue of counterbalance, they rather refuse to flow back in order to grant to those [people] up some of the good from down.<sup>597</sup>

In other words, *Letter 22* brings forth the topic of tradition. Although the letter serves a rather practical purpose, namely, to express interest in and support for Joseph's encyclopedic project and to offer recommendations how it should be executed, it does so through a rhetorical framework which emphasizes the role of time and its flow. Within this framework, Gregoras situates Joseph as the heir of two lines of tradition. On the one hand Joseph walks in the footsteps of Diogenes, Lykourgos, Solon, and Charondas, and finally Theodore Metochites. Diogenes exemplifies the praise a wise man receives (or not) by his contemporaries; Lykourgos, Solon, and Charondas are introduced as models of statesmen, "deemed worthy on this account by <their compatriots>, because they appeared useful for

<sup>597</sup> Gregoras, *Letter 22*, lines 34-47: εἰ δὲ τὰ δίκαια τῷ χρόνῳ ποιεῖν βουλομένων γε ἦν καὶ ὥσπερ τὰ πάλαι πράγματα φέρων ἡμῶν παραπέμπει ταῖς ἀκοαῖς, ἐξ ἀντιρρόπου καὶ τὰ νῦν πράγματα ταῖς τῶν πάλαι σοφῶν ἀκοαῖς ἀνατρέχων ἐδίδου, θαυμαστότερα ἂν ἐκείνοις ἐφάνη τὰ σὰ ἢ τὰ ἐκείνων ἡμῖν. νῦν δ' ἄνωθεν μὲν σφοδράν τινα ῥύμην ποιούμενος μεθ' Ὁμήρου καὶ Πλάτωνος καὶ τῶν τοιούτων κατάγει καὶ Θεοσίτας καὶ Μαργίτας καὶ ὅσοι τούτου τοῦ κόμματος ἐπεφύκεσαν, θάτερον δὲ καὶ μάλα ἀπείπατο ποιεῖν παραπλήσιον ποιῶν ὥσπερ καὶ ὁ πρὸς Αἰγύπτῳ Νεῖλος καὶ ὅσοι ποταμῶν τὴν εὐδαίμονα περικλύζουσιν Ἀρ(ρ)αβίαν. καὶ εὐδῶδῃ μὲν γάρ τινα ἄνωθεν ποθεν ἐκείνους κατάγειν φασί, κατάγειν δ' οὐχ ἦττον καὶ ἀργούς τινες κάχληκας καὶ εἴ τι τοῦ πυθμένος σκύβαλον, ἐξ ἀντιρρόπου δὲ καὶ ἀνάρρουν οὐ μάλα ἐθέλειν ποιεῖν, ἵνα τι καὶ τοῖς ἄνω τῶν κάτωθεν ἀγαθῶν χαρίζοιντο.

Spartans and Athenians, and Sicilians, for the common good and to individuals, and while they lived by their work, after they passed away by the laws they had established for them.”<sup>598</sup> The figure of Metochites is introduced last, representing the highest point in this ideal “parade” of great men, for he is described as “the greatest champion of letters.” That is, Metochites possesses jointly the characteristics of his predecessors: he devoted his life to both public service and scholarly pursuits, rendered himself useful to his country and received significant praise for his wisdom. He omitted dealing with certain philosophical problems, however, and here is precisely where Joseph should take his place completing the task carried down to him by the line of tradition.

### *Creation of Meaning*

The specifics of the communicative situation represented by a letter-exchange prerequisite the creation of particular meaning that results out of the epistolary setting and its conceptual framework. For instance, letter-writing in Byzantium was not always used to introduce oneself, but also to showcase one’s expertise. The latter action was not only always meant to impress the addressee and to promote the addresser, but also to establish an area of shared knowledge, an area where the competencies of the two correspondents would match. Thus, in a letter shared knowledge is often referred to or relied upon.<sup>599</sup> Sometimes, of course, a letter serves simply as a recommendation or an introduction. In some particular cases though, and Gregoras’ correspondence offers us various examples, the epistolary text is thus codified that only one as well-versed in it as the author himself or herself, could decode it. This kind of ‘intimacy,’ the ‘intimacy’ of shared language and most importantly, of shared expertise, assured the equality and the union of the friends-

<sup>598</sup> Gregoras, *Letter 22*, lines 62-65: τοῦ μεγάλου τούτοις ἐκρίθησαν ἄξιοι λόγου, ὅτι Σπαρτιάταις καὶ Ἀθηναίοις καὶ Σικελοῖς κοινῇ καὶ κατ’ ἄνδρα λυσιτελεῖν ἔδοξαν, καὶ ζῶντες οἷς ἔπραττον, καὶ μεταλλάξαντες οἷς νενομοθετήκεσαν.

<sup>599</sup> Barton and Hall, “Introduction,” 6

correspondents, two concepts fundamental to Byzantine letter-writing. It also gave them access to a certain degree of free speech. The mutual recognition, reconfirmed by the act of correspondence, gave the author the freedom to give out pieces of his knowledge, as well as to criticize and reproach other people's ignorance. Being part of a conversation, be it a public one or a private one to be, and maintaining that conversation was a way to create a bond and to share a relationship. So, exchanges of letters were both the means of public self-presentation and display, of creating networks and establishing relations of power, and on the other hand, a shared profession of an identity that one constructed, controlled and communicated to one's friends through the codes of writing style and specialized knowledge. In his analysis of epistolary discourses related to the apparent refusal of gifts and to the offering of the co-called 'gift of words' in the letters of eleventh-century Byzantine intellectuals, Bernard, for instance, observes that representations such as the offering of the immaterial 'gift of words' served the interests of the intellectual elite whose purpose was to distinguish itself from other social groups.<sup>600</sup> Moreover, Bernard argues that:

[t]he various arguments, playful or not, help to construct a code of behavior that is used to pursue the author's own social interests. This code attributes value to *logoi*, an asset that only these intellectuals can appropriate, and it sets off valuable friendships from ordinary ones and defines them as intellectual. It is perhaps no coincidence that in the theory about friendship that Psellos develops, friendship is said to be based on the shared characteristics of akin souls."<sup>601</sup>

Within the three case studies I examine in the present *Part III* I offer examples from Gregoras' letters which illustrate a similar idea, namely that Gregoras' sought either to emphasize what made the friends, for instance, him and his correspondent, similar to each other, or on the contrary, he aimed at justifying why friendship could be possible also between those who are different. Moreover, Gregoras employed a very specific epistolary

<sup>600</sup> Floris Bernard, "Gifts of Words: The Discourse of Gift-Giving in Eleventh-Century Byzantine Poetry," 3–15.

<sup>601</sup> *Ibid.*, 10.

‘code’ as it was not simply learned and classizing, but also well-grounded in ancient philosophy.

*Unity and Multiplicity, Sameness and Difference*

Finally, the juxtaposition of single and double is omnipresent in letters, be it a simple letter of recommendation or petition, or a sophisticated discussion of sameness and difference. The interrelated concepts of *self* and *other*, *same* and *different*, *single* and *double*, *unity* and *multiplicity* permeate every fiber of the Byzantine letter. A letter makes the two correspondents a single unit serving as vehicle for the union of their souls. The bodies of two friends are united in one soul; one action serves them both and benefits them equally. For instance, in two of his short letters, *Letters* 47 and 48, while appealing to the friend-addressee for a favour, either for himself or for a third party, Gregoras emphasized that performing the good deed would benefit everyone involved, that is the two correspondents, the third person, and even God, the witness of their friendship. *Letter* 48 inferred that since Gregoras and his correspondent are friends, as are Gregoras and the person he was recommending, therefore Gregoras’ addressee and his recommendee are also bound by the same kind of relationship: “He is my friend and also yours in every way; and should you do this for him, your benefit becomes double. For, on the one hand, you would gain praises from us, and on the other, <you would gain> pure rewards from God.”<sup>602</sup> *Letter* 47 in turn plays with a mock numerical progression that consists in the multiplication of the request based on the need of a single person into triple, and even quadruple, benefit:

The present person goes on a double path for a single request: for he knew to approach your kindness through me and through himself. Fulfilling the request, you will do a triple favour: for him with what <you do> to him; and

<sup>602</sup> Gregoras, *Letter* 48: Ἐμὸς οὗτος φίλος, πάντως δὲ καὶ σός· ὃ δὲ πράξεις εἰς αὐτόν, διπλῇ σοι γίνεται χάρις· ἐπαίνους {{μὲν}} γὰρ ἐξ ἡμῶν, ἐκ θεοῦ δ’ ἀκηράτους κομίζῃ μισθούς.

to me with what <you do> through him; and to God with what <you do> because of him.<sup>603</sup>

The fulfillment of a single request is pursued through the petitions of two people. The assistance of a third will render triple benefit to the petitioner, to his recommender and to God. Moreover, the implicit assumption is that Gregoras' addressee will benefit as well, since in fact Gregoras' benefit would consist in the good brought to his friend by the fulfillment of the petitioner's request.

The sameness of the friends plays the role of an ontological guarantee for the union of their souls and thus, is conceived as a feature of ideal friendship. This so-called "ontology of sameness"<sup>604</sup> is well-represented in the texts of the Cappadocian Fathers and inherited by the later Byzantine authors as theoretical and philosophical model for the epistolary discussions concerning the nature of friendship. For instance, as discussed by Stratis Papaioannou, in a letter<sup>605</sup> addressed to his friend Theodore Prodromos (ca. 1100–ca. 1156/1158?), Michael Italikos (ca. 1090?–before 1157) discussed in detail their friendship, first, through the prism of absolute unity, expressed in the absolute sameness, in order to subvert it in the second part of the letter by relating the existence and maintaining of the friendship to the act of writing, the materiality of the discursive action, and the multiplicity revealed by the latter.<sup>606</sup>

Similarly, Gregoras' letters provide several examples of the discursive horizon associated with the "ontology of sameness." Notably, in *Letter 34*, which I discuss in *Chapter*

<sup>603</sup> Gregoras, *Letter 47*: 'Ο παρών οὗτος πρὸς ἀπλὴν τινα ζήτησιν διπλὴν ποιεῖται ὁδόν· διὰ γὰρ ἐμοῦ τε καὶ ἑαυτοῦ προσιέναι σου ἔγνωκε τῇ χρηστότητι. σὺ δ' ἐκτελέσας τὴν ζήτησιν, τριπλὴν ποιήσεις τὴν χάριν· αὐτῷ τε γὰρ τῷ πρὸς ὄν, κάμοι τῷ δι' οὗ καὶ θεῷ τῷ δι' ὄν.

<sup>604</sup> Stratis Papaioannou, "Gregory and the Constraint of Sameness," in *Gregory of Nazianzus: Images and Reflections*, ed. J. Børtnes, T. Hägg (Copenhagen, 2006), 59. Papaioannou defines the discursive horizon of the "ontology of sameness" as "the dominant tendency of pre-modern Greek thought to define ontological sameness as that unity that underlies being, knowledge, representation, and ethics."

<sup>605</sup> The letter is dated after 1145.

<sup>606</sup> For a full English translation of the letter, as well as for a detailed analysis, see Papaioannou, "Language Games, Not the Soul's Beliefs: Michael Italikos to Theodoros Prodromos, on Friendship and Writing," 218–33.

3.2: *Friendship of the Same*, Gregoras explores the observable instances of sameness in the world, as well as the sameness of two of his correspondents. In both cases, the sameness plays the role of a guarantee of sorts: with respect to the world, it makes certainty possible and thus, facilitates the acquiring of true knowledge, while with respect to Gregoras' friends, it enables the latter to address them both, in one person as it were, and correspondingly, to rhetorically construct an epistolary friendship between them. At the same time, it is important to note that in most cases Gregoras discusses sameness and similarity in opposition to fortune (τύχη) and/or providence (πρόνοια). That is, while 'ideally' sameness and similarity would exist in the world, people would be equal and like each other and thus, friends would be one soul in two bodies and this relation would be discursively expressed in their letters, in fact, due to the interference of fortune (τύχη) and spontaneity (τὸ αὐτόματον), both things and people change their status and thus, one's possibility to know the former and to befriend the latter loses certainty. Thus, for instance, in the case of *Letters* 46 and 134, the case-studies examined in *Chapter 3.1: Friendship of the Different*, Gregoras launched an attack against Aristotle's theory of friendship, the latter being one of the conceptual premises of Byzantine letter-writing. Before I proceed to the analysis of Gregoras' criticism of the Aristotelian theory of friendship, however, I shall briefly discuss Gregoras' *Letter* 12, a letter addressed to Matthew Kantakouzenos (ca. 1325–1383)<sup>607</sup> on the occasion of his victory over an army of Turkish footsoldiers in 1348.<sup>608</sup> Interestingly, Gregoras digresses in a discussion of similarity and difference in order to justify his comparison of Matthew's military success with the triumphs of the "heroic men of old," such as Miltiades and Perikles:

I think that your father and emperor would least hold a grudge against us if

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<sup>607</sup> PLP 10983.

<sup>608</sup> Donald MacGillivray Nicol, *The Byzantine Family of Kantakouzenos (Cantacuzenus) ca. 1100-1460; a Genealogical and Prosopographical Study*, DOS 11 (Washington: Dumbarton Oaks Center for Byzantine Studies, trustees for Harvard University; [distributed by J. J. Augustin, Locust Valley, N.Y.], 1968), 111.

as he immediately added the subsequent triumph to your triumph, I attributed its causes to you; for Miltiades' victory did not let Themistokles sleep anymore, as they say, so that I myself shall also alter and say a little something in addition to the names as upon similar premises, *since also the entire course and condition of life and its affairs are customarily and continuously governed by such similarities and differences*. [...] Thus, the similarities of yours and your father's triumphs, which just happened, brought back our letter to the deeds of the heroic men of old and they persuaded me to introduce the likes of Miltiades and Perikles here in the narrative.<sup>609</sup>

In my reading, Gregoras' self-commentary here aims at a twofold justification of his writing. The first objective would be to explain the reasons for adducing ancient models of bravery and military success and for juxtaposing them with contemporary events and figures.<sup>610</sup> Second, Gregoras needed to explain why he chose to compare different, i.e.

<sup>609</sup> Gregoras, *Letter 12*, lines 30-37, 58-61: "Ἡκιστα δ' ἂν οἶμαι ἡμῖν τὸν σὸν νεμ<εσ>ῆσαι πατέρα καὶ βασιλέα, εἰ καὶ ὁ κατόπιν αὐτὸς ἐπὶ τῷ σῷ τροπαίῳ τρόπαιον εὐθὺς ἐπήνεγκε, σοὶ καὶ αὐτοῦ τὰς αἰτίας ἀναθεῖμεν· οὐ γὰρ εἶασε 'καθεύδειν' ἔτι Θεμιστοκλέα φάναι 'τὸ Μιλτιάδου τρόπαιον', ἵνα μικρὸν καὶ αὐτὸς τοῖς ὀνόμασι ὡς ἂν ἐφ' ὁμοίαις ταῖς ὑποθέσεσιν τι παραλλάξω καὶ παραφθέγωμαι, ἐπεὶ καὶ τοιαύταις τισὶ ταῖς ὁμοιότησιν τε καὶ ἐτερότησιν εἴωθε διοικεῖσθαι διηνεκῶς ἢ τοῦ βίου καὶ τῶν πραγμάτων πᾶσα ζωὴ καὶ κατάστασις. [...] οὕτως αἱ τῶν σοὶ τε καὶ τῷ σῷ πατρὶ γενομένων ἀρτίως τροπαίων ὁμοιότητες τὴν ἡμετέραν ἀνήνεγκαν ἐς τὰ πάλαι τῶν ἡρωϊκῶν ἀνδρῶν ἔργα καὶ Μιλτιάδας ἐκείνους καὶ Περικλέας ἔπεισαν ἐνταῦθα τοῦ λόγου παραιοκυκλεῖν [italics mine]"

<sup>610</sup> Interestingly enough, Gregoras used the same discussion of juxtaposing similarities and differences in his *First Antirrhetics* against Gregory Palamas. In this case, he provided justification for his comparison of Palamas and his teachings to some heretics of the past and their doctrines. Gregoras, *Antirrhetika I*, 271, line 13-273, line 18: Εἴωθε γὰρ ὡς τὰ πολλὰ τοῖς οὖσιν ἐπιπολάζειν τις ὁμοιότης ὡς διὰ κενοῦ φερομένη τῆς χρονικῆς πηλικότητος καὶ ὥσπερ ἐν κόλποις τισὶ κρυπτομένη τοῦ ἀφανοῦς, ἕως ἂν ἡ τῆς φύσεως ἄλλοτ' ἄλλως ἐπιρρέουσα κίνησις συγγενεῖα βίου καὶ γνώμης ἐντετυχηκυῖα διαγράψῃ τε, ὅσα μεταξὺ μὴ πάνυ τοι σφόδρα πρὸς συμφυῖαν ἀρμόττει, καὶ ἀναλάμψῃ πρὸς νεουργῇ τινα φλόγα ἀρετῆς ἢ κακίας καὶ πλείονος ἐπιλάβηται μοίρας, ὡς καὶ κραταιότερον ἀναφέρειν ἔχειν ἐντεῦθεν ἤδη τὴν μίμησιν εἰς τὰ ἀρχαιότερα καὶ τὴν κοινωνίαν μετέλκειν αὐτὸ ἐκεῖθεν εἰς τὰ παρόντα καί, ἃ χρόνος διέστησε, κοινωνία βίου καὶ τρόπων εὐφυῶς συνάπτειν εἰς ταυτότητα συμφωνίας, φύσιν ἐχούσης τῆς τῶν πραγμάτων φορᾶς καὶ γενέσεως νῦν μὲν συγχεῖν καὶ ταράττειν τὰς ὁμοιότητας, νῦν δὲ ἀναφέρειν καὶ παραπλέκειν εἰς ἀρμονίαν ταυτότητος, καθάπερ ἐν σηρικοῖς τισιν ὑφάσμασι καὶ πλέγμασιν, ὅποσα ποικιλία τις κοσμεῖ καὶ χρωμάτων σύνθεσις τε καὶ παράθεσις τὸ συνεχές τῆς πορφύρας καὶ τοῦ χρυσοῦ διακόπτουσαι διὰ τε τοῦ φοινικοβαφοῦς καὶ τοῦ κυανίζοντος ὑακίνθου, καὶ ὅσα τῇ θαλασίᾳ παρασπειρόμενα ἄλλοθι μὲν τὴν αὐτῶν συσκιάζει λαμπρότητα, ἄλλοθεν δ' ἀναδείκνυσιν λαμπροτέραν τε καὶ νεωρότεραν καὶ οἷον φάναι χλοάζουσιν καὶ ἀνθοῦσιν εἰς ἡρινῆς τινας ὥρας ἀνάλογον τέρψιν, ἐπίτηδες οὕτω μιμουμένης τῆς τῶν ἐριουργῶν τέχνης τὴν τῆς φύσεως γένεσιν καὶ φθορὰν καὶ ὥσπερ νεότητα ξένην τοῖς ἔργοις μηχανωμένης διὰ τῆς ἀεὶ συνεχοῦς παραλλάξ καὶ ἀμοιβαδὸν ἐμφανείας καὶ ἐπικρύψεως, ἢ καθάπερ νύκτα μεθ' ἡμέραν καὶ μετὰ σκότος ἡλίον. Ἴσασιν γάρ, ὡς τὸ ἀεὶ ἐν καὶ μονοειδὲς ἀηδῖαν τινὰ καὶ κόρον ἀπογεννᾷ καὶ τάχιστα ἀποκναίειν παρασκευάζει τὴν αἴσθησιν, τὸ δὲ ποικίλον καὶ ἄλλοτ' ἄλλως φαινόμενον ἀπόρρητόν τινα δαιμονίως ἐγγοητεύει τοῖς ἔργοις τὴν ἡδονήν, δι' ἧς κολακεύει δῆπουθεν



distant in time, figures and deeds (Matthew Kantakouzenos, Miltiades, and Perikles), when similar, i.e. contemporary and within the same family, military triumphs were available for him to juxtapose. Presented with these two choices, Gregoras' digression aimed to prove, first, that terms that seem uncomparable due to their chronology, can be successfully compared based on their similarities; second, that terms that seem comparable due to their genetic relation (direct blood relation in this case), can result being different rather than similar, due to their performance; third, that when comparing persons and their achievements, the similarity of their ways is a more appropriate base for comparison than the similarity in terms of kinship. For a fuller comprehension of Gregoras' motivation and respective self-exegetical remark, one ought to account for the Plutarchian reference in *Letter 12*, namely the phrase "for Miltiades' victory did not let Themistokles sleep anymore, as they say."<sup>611</sup> Here Gregoras referred to an episode from one of Plutarch's *Lives*, namely *Themistokles* III. 3-4:

It is said, indeed, that Themistocles was so carried away by his desire for reputation, and such an ambitious lover of great deeds, that though he was still a young man when the battle with the Barbarians at Marathon was fought and the generalship of Miltiades was in everybody's mouth, he was seen thereafter to be wrapped in his own thoughts for the most part, and was sleepless o' nights, and refused invitations to his customary drinking parties, and said to those who put wondering questions to him concerning

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ταῦτα τὴν ἀταμίευτον τῶν αἰσθήσεων φορὰν τε καὶ κίνησιν καὶ ῥᾶστα ἐφέλκεται τε καὶ οἰκιοῦται πρὸς ἑαυτά. Τὸν δὴ τοιοῦτον τρόπον καὶ αἱ τῶν τῷ Παλαμᾷ πεπραγμένων καὶ πραττομένων ὁμοιότητες τὴν ἡμετέραν ἀνήνεγκαν ἐς τὰ πάλαι τῶν δυσσεβῶν ἀνδρῶν ἔργα τε καὶ σπουδάσματα καὶ τοὺς τῶν εὐσεβῶν δογμάτων ἐξ ἀντιθέτου προστάτας ἐνταυθοῖ τοῦ λόγου παρειακυκλεῖν συνεχέστερον ἔπεισαν.

<sup>611</sup> Gregoras, *Letter 12*, lines 32-33: οὐ γὰρ εἶασε 'καθεύδειν' ἔτι Θεμιστοκλέα φάναι 'τὸ Μιλτιάδου τρόπαιον' [...]

his change of life that *the trophy of Miltiades would not let him sleep*.<sup>612</sup>

This anecdote<sup>613</sup> illustrates a trait of Themistokles' character Plutarch emphasized throughout the *Life*, namely Themistokles' φιλοτιμία, or, ambition, love of honour or of distinction. That is, Gregoras compared John Kantakouzenos' military success with Themistokles' achievements: while the latter strove to surpass Miltiades' previous triumphs, the older Kantakouzenos was, according to Gregoras, driven by his son's victory. Thus, Gregoras implied, though divided by centuries, Themistokles and John Katakouzenos are in fact similar in their ways and motivations. At the same time, Plutarch's account provided Gregoras with an additional example of dissimilarity between contemporary and comparable figures. Referring to the rivalry between Themistokles and Aristides, Plutarch remarks that "the dissimilarity in their lives and characters is likely to have increased their variance."<sup>614</sup> Plutarch's expression τῶν τρόπων ἀνομοιότης is, thus, echoed in Gregoras' τρόπων ἀλλοτριότης and provides the cue for the latter's fourth objective in *Letter* 12, namely, to demonstrate that to compare persons and deeds, similar in manner and separate in chronology, is in fact, a justified application of the esthetic principle of creating pleasing variety which, in turn, imitates the cosmological principle of incessant alternating of generation and corruption, of similarity and difference:

<sup>612</sup> Bernadotte Perrin, trans., *Plutarch's Lives. Themistocles and Camillus. Aristides and Cato Major. Cimon and Lucullus*, reprint, vol. 2, LCL 47 (Cambridge, MA; London, England: Harvard University Press, 2006), 11. For the edition of the Greek text, see K. Ziegler, "Themistocles," in *Plutarchi Vitae parallelae*, Fourth edition, vol. 1.1 (Leipzig: Teubner, 1969), 157–97. *Themistocles*, III. 3–4, line 4: λέγεται γὰρ οὕτω παράφορος πρὸς δόξαν εἶναι καὶ πράξεων μεγάλων ὑπὸ φιλοτιμίας ἐραστής, ὥστε νέος ὢν ἔτι, τῆς ἐν Μαραθῶνι μάχης πρὸς τοὺς βαρβάρους γενομένης καὶ τῆς Μιλτιάδου στρατηγίας διαβοηθείσης, σύννους ὁρᾶσθαι τὰ πολλὰ πρὸς ἑαυτῷ καὶ τὰς νύκτας ἀγρυπνεῖν καὶ τοὺς πότους παραιτεῖσθαι τοὺς συνήθεις, καὶ λέγειν πρὸς τοὺς ἐρωτῶντας καὶ θαυμάζοντας τὴν περὶ τὸν βίον μεταβολήν, ὡς καθεύδειν αὐτὸν οὐκ ἔφη τὸ Μιλτιάδου τρόπαιον. [italics mine]

<sup>613</sup> One finds references to the same episode in also in *Theseus* VI.9, *Moralia* 84C and 800B J. L. Marr, ed., *Life of Themistocles*, Classical Texts (Warminster: Aris & Phillips, 1998), 76.

<sup>614</sup> Perrin, trans., *Plutarch's Lives. Themistocles and Camillus. Aristides and Cato Major. Cimon and Lucullus*, 9. For the edition of the Greek text, see Ziegler, "Themistocles," 157–97. *Themistocles*, III. 2, lines 2–4: οὐ μὴν ἀλλ' ἡ τῶν βίων καὶ τῶν τρόπων ἀνομοιότης ἔοικεν αὐξῆσαι τὴν διαφοράν. [italics mine]

For it may be that the events time sets apart, the similarity of the deeds often joins together and the affairs blood unites, *the difference of manners* sets apart in various ways, since the force and origin of the circumstances are able by nature soon to confuse and disturb the similarities, soon to offer and weave *harmonies of sameness* like in certain silk-woven robes and plaited works, which a certain *variety* adorns [...]<sup>615</sup>

In sum, Gregoras argued that since everything in life, pertaining both to animate and inanimate beings, is always governed by similarities and differences, thus, similar events or individuals, though distant in time, may be compared and discussed together. Importantly, though the similarities may be stirred and mingled, their subsequent juxtaposition does not result being a chaotic and unadorned mixture of similar and different, but rather a structured, that is, ordered in a particular way harmonious weaving of sameness characterized by the esthetic appeal of variety. Gregoras' point is further demonstrated by a sequence of similes serving as further proofs of the 'natural', that is inherent to and omnipresent in life juxtaposition and interplay of similarity and difference.

The examples Gregoras listed pertain first, to the nature of woven fabric which manifests combinations of colours, different both in terms of hue and brightness, and second, to the alteration of day and night, i.e. of light and darkness. The art of weaving a fabric, then, is conceived as imitation of the processes of generation and corruption in nature. That is, the 'natural' juxtaposition of similarity and difference, illustrated by the processes of becoming and perishing, as well as by the change of day and night, is in this case imitated by the 'artificial' production of a textile. This process of imitation produces a harmony of sameness characterized by variety. The implication of this argument is that, in a similar way, Gregoras' literary technique of juxtaposing similarities and differences within his letter's narrative, aims at producing the same effect of harmonized variety which

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<sup>615</sup> Gregoras, *Letter 12*, lines 37-43: ἃ γὰρ χρόνος δήπου διέστησεν, ἔργων ὁμοιότης συνῆψε πολλάκις καὶ ἃ συνῆψεν αἶμα, τρόπων ἀλλοτριότης διέστησε πολλαχῇ, φύσιν ἐχούσης τῆς τῶν πραγμάτων φορᾶς καὶ γενέσεως νῦν μὲν συγχεῖν καὶ ταράττειν τὰς ὁμοιότητας, νῦν δ' ἀναφέρειν καὶ παραπλέκειν ἀρμονίας ταύτοτης, καθάπερ ἐν σηρικοῖς τισι ὑφάσμασι καὶ πλέγμασιν, ὅποσα ποικιλία τις κοσμεῖ [...] [*italics mine*]

should be understood as an imitation of the ‘natural’ combinations of similarities and differences just as much as in the case of the woven textile:

[...] like in certain silk-woven robes and plaited works, which a certain variety adorns, as well as combination and juxtaposition of colors, when they (i.e. the combination and juxtaposition of colors) break off the continuity of the purple and gold with the purple-dye and dark-colored blue, and since the <silk-woven robes and plaited works> are interspersed during the wool-spinning, <they>, on the one hand, obscure their brightness in one place, while on the other, <they> display in another place brighter and more youthful and, as they say for example, sprouting and blossoming enjoyment suitable in spring time; fittingly in this way the art of working with wool imitates the generation and corruption of nature, bringing about, as it were, youth foreign to the works, through the always continuous, alternately and correspondingly, manifestation and concealment or like <there is> night after the day, and after the darkness <there is> sun.<sup>616</sup>

In the final part of his argument in favour of inducing variety in an artifact, Gregoras states the rationale behind the technique of mixing and combining similarity and difference. Namely, he argues that while the eternal and uniform *one* wears out perception and creates the feeling of unpleasantness, the varied in terms of representation has the opposite esthetic effect and by “flattering the object” it manipulates the perception and attracts it easily:

For they know that *eternally one and uniform generates certain unpleasantness and satiety and prepares the perception to wear out quickly*, while the varied and diverse appearance marvelously induces to the works by charm an indescribable pleasantness, with whose help it (i.e. the varied) softens the

<sup>616</sup> Gregoras, *Letter 12*, lines 42-52: [...] καθάπερ ἐν σηρικοῖς τισι ὑφάσμασι καὶ πλέγμασιν, ὅποσα ποικιλία τις κοσμεῖ καὶ χρωμάτων σύνθεσις τε καὶ παράθεσις, τὸ συνεχὲς τῆς πορφύρας καὶ τοῦ χρυσοῦ διακόπτουσαι διὰ τε τοῦ φοινικοβαφοῦς καὶ τοῦ κυανίζοντος ὑακίνθου, καὶ ὅσα τῇ ταλασίᾳ παρασπειρόμενα, ἄλλοθι μὲν τὴν αὐτῶν συσκιάζει λαμπρότητα, ἄλλοθεν δ’ ἀναδείκνυσι λαμπροτέραν τε καὶ νεαρωτέραν καὶ οἷον φάναι χλοάζουσιν καὶ ἀνθοῦσιν εἰς ἡρινῆς τινος ὥρας ἀνάλογον τέρψιν, ἐπίτηδες οὕτω μιμουμένης τῆς τῶν ἐριουργῶν τέχνης τὴν τῆς φύσεως γένεσιν καὶ φθορὰν καὶ ὥσπερ νεότητα ξένην τοῖς ἔργοις μηχανωμένης διὰ τῆς αἰεὶ συνεχοῦς παραλλάξ καὶ ἀμοιβαδὸν ἐμφανείας καὶ ἐπικρύψεως ἢ καθάπερ νύκτα καὶ μεθ’ ἡμέραν καὶ μετὰ σκότος ἥλιον.

objects and it attracts easily the incontrollable rush and movement of the perception and appropriates <it> for them (the objects).<sup>617</sup>

Though it may seem rather unusual for an author, so often labelled as influenced by Platonic and Neoplatonic philosophy, to claim that *that which is forever one and uniform* (τὸ ἀεὶ ἓν καὶ μονοειδές) produces unpleasantness and satiety (ἀηδίαν τινὰ καὶ κόρον), one has to bear in mind that Gregoras is referring here to the esthetic effect monotony has on perception in particular. The same argument could not be made, for instance, with respect to the cognition pursued by the intellect with respect to *that which is forever one and uniform*, as the case of *Letter 34* illustrates. In fact, Gregoras inserts a similar self-commentatorial remark in his *History*, *Book XII*:

So such among the advantages of the history persuaded me as well to write the events that happened in my time, both to deliver stories great and worthy of earnest hearing to those men who love the beautiful and to inspire great comprehension with regard to what is suitable in those who desire to receive experience of ever newer affairs. For, in a way, also to me the deed brings not insignificant gratification in relation to a certain state of the character, as well as no small pleasure, when I pursue more extensively the *diverse and varied among the stories* from one to another [...]<sup>618</sup>

In conclusion, the discussion so far argued that Byzantine epistolary theory and the related understanding of epistolary friendship built upon a number of philosophical premises such as the problem of constructing the presence of the friends-correspondents within the narrative of the letter, as well as the dialectic relationships between singularity and

<sup>617</sup> Gregoras, *Letter 12*, lines 52-57: ἴσασι γὰρ ὡς τὸ ἀεὶ ἓν καὶ μονοειδές ἀηδίαν τινὰ καὶ κόρον ἀπογεννᾷ καὶ τάχιστα ἀποκναίειν παρασκευάζει τὴν αἴσθησιν, τὸ δὲ ποικίλον καὶ ἄλλοτ' ἄλλως φαινόμενον ἀπόρρητόν τινα δαιμονίως ἐγγοητεύει τοῖς ἔργοις τὴν ἡδονήν, δι' ἧς κολακεύει δῆπουθεν ταῦτα τὴν ἀταμίευτον τῶν αἰσθήσεων φορὰν τε καὶ κίνησιν καὶ ῥᾶστα ἐφέλκεται τε καὶ οἰκιοῦται πρὸς ἑαυτά. [italics mine]

<sup>618</sup> Gregoras, *History*, vol. 2, 576, lines 2-10: Τὰ δὲ τοιαῦτα τῶν τῆς ἱστορίας χρησίμων κάμει πρὸς τὸ γράφειν ὅσα ἐπὶ τῶν ἡμετέρων γέγονε χρόνων παρέπεισε, καὶ διηγήματα προστιθέναι τοῖς φιλοκάλοις ἀνδράσι μεγάλα τε καὶ σπουδαίας ἀκοῆς ἄξια, καὶ μεγάλην δυνάμενα σύνεσιν ἐντιθέναι τοῖς ὅσοι πραγμάτων ἀεὶ καινοτέρων ἐμπειρίαν συναγεῖν ποθοῦσι. φέρει γὰρ πως οὐχ ἥττον κάμοι τὸ πρᾶγμα χάριν τινὰ πρὸς ἡθους ῥυθμὸν καὶ ἡδονὴν οὐ μικρὰν, μετιόντι συχνότερον ἂν' ἐτέρων εἰς ἕτερα τῶν διηγημάτων πολυειδῆ καὶ ποικίλα·

multiplicity and sameness and difference. Thus, the axiomatic expressions of epistolary friendship in Byzantium, namely that ideal friendship is possible between those who are alike and that the friends are a single soul in two bodies, not only framed the epistolary discourse, but also when integrated with a critical philosophical approach to friendship problematized the relationship between author and addressee. Whenever due to the role of fortune and chance the relationship between the friends did not anymore comply with the requirements of the “ontology of sameness,” the epistolary discourse was constructed so as to justify the new state of the relationship or to restore it to its previous condition, and both strategies are illustrated in the following chapter in which I discuss three case studies from Gregoras’ letters.

### Chapter 3: Constructing Epistolary Friendship

In *Letters* 6, 34 and 134 Nikephoros Gregoras elaborated on the nature of friendship invoking on the one hand, in *Letters* 6 and 34, the notion of sameness (ταυτότης), a Platonic concept which was later carried over into the Neoplatonic and Byzantine traditions. In *Letter* 134, on the other, Gregoras related the concept of friendship to the notion of similarity (ὁμοιότης) and argued against Aristotle’s theory of friendship. The present chapter contains three case studies whose purpose is to illustrate in which way the dialectic of similarity and difference and of sameness and difference determines the discourse on friendship in Gregoras’ *Letters* 134, 34, and 6. Gregoras addressed the *Letter* 134 to Ignatios Glabas, metropolitan of Thessaloniki from 1336 to 1341<sup>619</sup> and *Letter* 34 was addressed to Maximos Magistros<sup>620</sup>, a monk and later archimandrite of the Chortaïtes monastery located near Thessaloniki.<sup>621</sup> Both letters were allegedly written during the same period: according

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<sup>619</sup> PLP 4222.

<sup>620</sup> PLP 16048.

<sup>621</sup> On the Chortaïtes monastery, see Raymond Janin, *Les églises et les monastères des grands centres byzantins*, 414-

to Pietro Luigi Leone, *Letter* 134 dates back to the period between 1336 and 1341<sup>622</sup> and Rodolphe Guiland has dated *Letter* 34 between 1335–1340.<sup>623</sup> Finally, *Letter* 6, dated by Guiland to the period between 1330 and 1340,<sup>624</sup> presents a different perspective on the problem posed in *Letter* 134, namely how can different people become or stay friends and thus, be united as a single soul in two bodies, according to the epistolary convention. *Letter* 6, like *Letter* 34, brings to the fore the dyad of sameness and difference. Moreover, it relates it to the dialectic pair of singularity and multiplicity. Importantly, *Letter* 134 is concerned with a relation, the relation between Gregoras and Ignatios, which has been interrupted by long silence on both sides. The two friends-correspondents in this case were not of equal standing. The change in Ignatios' status, that is, his promotion to metropolitan of Thessaloniki in 1336, altered the conditions of their friendship. Thus, Gregoras' letter comes in order to reestablish the friendship despite the difference in status. *Letter* 34, in turn, sets off by asking the general question as to how it is possible that two persons have so much in common that they are so much alike. Gregoras discussed the similarities in nature and character between two persons, namely, Maximos Magistros, the monk and Maximos, the *hēgoumenos* the Chortaites monastery. The *personae* of the two Maximoi were constructed in the letter as equal from Gregoras' standpoint, as they both were his correspondents and epistolary friends, and in addition shared a number of common features. It is my understanding, however, that in between themselves the two Maximoi differed in terms of status and position in the monastic hierarchy.

### *Friendship of the Different*

In two out of three letters analyzed in the present chapter (except for *Letter* 34), the

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415.

<sup>622</sup> According to the dating given by Leone.

<sup>623</sup> Guiland, *Correspondence*, 201. Leone does not provide a dating.

<sup>624</sup> *Ibid.*, 118.

difference between friends, for instance in terms of their status, age, merit or virtue, is employed by Gregoras as a motivation for addressing his correspondents. Thus, his letters aim at justifying and defending the possibility for maintaining epistolary friendship despite the relative lack of similarity between the correspondents. For instance, in his *Letter 46* Gregoras addressed his older and better-established correspondent Joseph the Philosopher. Thus, the letter opened with a justification of the friendship between unequal individuals:

Aristotle, the son of Nikomachos, and many members of his school did not produce a single explanation of friendship, but a manifold and <they> had <it> simplified differently on many occasions in the more specialized <discourses>. For not only with respect to friendship between fellow-citizens simply and between fellow-tribesmen, moreover indeed between relatives and comrades, as much as these <friendships> also have similar and complimentary relation, but also as much as the people are dissimilar and <at the same time> also not equal, as far as merit and age are concerned, and it occurred to them (i.e. to Aristotle and the rest) to observe <the> friendship of these people, of clearly greater men towards lesser ones and the opposite; and of more divine things towards more human and the opposite. For thence both what is loved by God and the God-loving are introduced and both loving one's father and loving one's child. But if these, it would not be unfitting, are called thus and the relation between me and your greatness friendship, <a friendship>, on the one hand identical by <the> foundation, on the other hand, differing by <the> relation.<sup>625</sup>

Gregoras' justification is based on the appeal to Aristotle's authoritative theory of friendship. He points out that, first, Aristotle and the members of his school discussed the relationship of friendship between those who are similar and complimentary, such as, for

<sup>625</sup> Gregoras, *Letter 46*, lines 1-13: Ἀριστοτέλης ὁ Νικομάχου καὶ ὅσοι αἰρεσιῶται τὸ [[τῆς]] φιλίας οὐχ ἀπλοῦν ἐκδεδώκασιν ὄνομα, ἀλλὰ πολλαπλοῦν καὶ πολλαχῇ διαφερόντως ἔχον ἐν τοῖς εἰδικωτέροις ἀπλούμενον. μὴ γὰρ ὅτι πολιτικὴν ἀπλῶς καὶ φυλετικὴν, ἔτι μὴν συγγενικὴν καὶ ἐταιρικὴν καὶ ὅσαι τὴν σχέσιν ὁμοίαν καὶ ἀντιστρέφουσιν ἔχουσιν, ἀλλὰ καὶ ὅποσοι ἀνόμοιοί τε {ἅμα} καὶ ἄνιστοι, ὅσα γε κατ' ἀξίαν καὶ χρόνον, καὶ τούτων δ' εἰδέναι φιλίαν ἔπεισιν αὐτοῖς, μειζόνων δηλαδὴ πρὸς ἐλάττους καὶ τούναντίον καὶ θειοτέρων πρὸς ἀνθρωπικώτερα καὶ τούναντίον. ἐντεῦθεν γὰρ καὶ τὸ θεοφιλὲς εἰσάγεται καὶ φιλόθεον καὶ φιλοπάτορ ὁμοῦ καὶ φιλότεκνον. εἰ δὲ ταῦτα καὶ φιλίαν οὐκ ἂν τῶν ἀπεικότων εἶη καλεῖν τὴν μεταξὺ σχέσιν ἡμῶν τε καὶ μεγέθους τοῦ σοῦ, τῷ μὲν ὑποκειμένῳ ταῦτιζομένην, τῇ δὲ σχέσει διαφορουμένην. [italics mine]



instance, those who live in the same city or belong to the same tribe (φυλή), as well as those who are members of the same kin or of the same party (ἐταιρεία). They observed, however, that greater and lesser people, in terms of age or merit, also bond through friendship and thus, Aristotle and his fellow philosophers studied this relationship as well. Moreover, Gregoras compared the friendship of the different to the amicable bond between divine and human, between God and mankind, in which two infinitely unequal parties are united, and by extension, to the relationship between father and child. In sum, Gregoras defended the position that friendship between unequal people is friendship indeed, first, by appealing to the authority of Aristotle and his school, that is, to an ethical theory of friendship fundamental for Byzantine epistolary theory, and second, by comparing the friendship of the relatively unequal, like him and Joseph, to the indisputable bond between the absolutely unequal and incomparable, that is, humanity and God.

While Gregoras' justification is a constructive one, it also implicitly argues against the Aristotelian theory. At the core of Aristotelian philosophy of friendship, as related in *Nicomachean Ethics*, Books VIII and IX, is the idea that – though friendship between people unequal in terms of their virtue is possible, namely in the cases of friendship for the sake of pleasure or utility – the bond of ideal friendship is indeed formed between individuals similar with respect to their goodness. Thus, in order to demonstrate that their relationship was one seeking no profit and only prompted by the similarity of their souls, Gregoras needed to show either that despite their difference according to merit and age, Joseph and he were still similar in terms of virtue, or that Aristotle's requirement for equality could be discarded. Thus, in the opening of his *Letter 46*, Gregoras pointed to the fact that Aristotle and the members of his school did not produce a single explanation of friendship which Gregoras interprets as evidence for their complex understanding of friendship. In other words, in addition to the principle sense of the term 'friendship' which entails the requirement for equality of the friends, the Aristotelian theory, according to Gregoras,

admits that the quality of friendship can be predicated in other senses as well and, thus, it can also be applied to unequal relationships. Finally, Gregoras concludes that though difference is indeed introduced in his and Joseph's friendship on account of their relation which is not one of similarity (i.e. one is a greater and the other is a lesser man), the principle of sameness is also featured in their bond on account of its substance.

Similarly, Gregoras' *Letter* 134, addressed to Ignatios the metropolitan of Thessaloniki, also argues against the Aristotelian account of friendship. In this case, however, Gregoras was rather explicit concerning his intentions to attack the Stagirite. To begin with, Gregoras describes Aristotle as "someone who seems to be skilled and subtle and powerful in misleading the reasoning of <his> audience,"<sup>626</sup> while defining many of his teachings as "sophist-like and not beneficial" (σοφιστικά καὶ ἀξύμφορα τῶν ἐκείνου δογμάτων οἶεσθαι τὰ πλείω). Then, throughout the letter, when arguing against Aristotle, Gregoras employs a warfare vocabulary, for instance he is grateful for Ignatios' **alliance** in the **war** against the Stagirite (ὡμολογησάμην [...] ὅτι μὴ μᾶλλον **τῆς συμμαχίας** τοῦ πρὸς Ἀριστοτέλην **πολέμου**) and it is precisely this alliance that gives Gregoras the great strength he needs in order to pour plentiful and yet weightier refutations than Aristotle's (ἀπὸ σοῦ πολὺ **τῆς συμμαχίας** εἰληφὼς τὸ κράτος οὐκ ἂν οὐτ' αὐτὸ ἀποσχοίην τοῦ μὴ πλείους ἔτι καὶ βαρυτέρους αὐτοῦ καταχεῖν τοὺς ἐλέγχους). While the ancient philosopher relied on the alliance with Empedokles in support of his teaching (ἐπήγετο καὶ Ἐμπεδοκλέα **συμμαχοῦντα** τῷ δόγματι), Ignatios granted Gregoras with great strength in order to oppose the Stagirite (πολλὴν ἐμοὶ τὴν ἰσχὺν κατὰ τῶν Ἀριστοτέλους ἐχαρίσω δογμάτων) and in addition, **disarmed** completely the latter's refutations (ἤδη κατὰ τῆς ἐκείνου κεφαλῆς τοὺς ἐλέγχους **ἐξώπλισας**). Notably, Gregoras concedes that Aristotle should, nevertheless, be praised for the fact that he scrutinized a number of difficult problems and did not profess a rushed judgment on them.

<sup>626</sup> Gregoras, *Letter* 134, lines 4-5: [...] σοφιστὴς γάρ τις καὶ ποικίλος ὁ ἀνὴρ εἶναι δοκεῖ καὶ δεινὸς ἀκροατῶν διάνοιαν παρακρούσασθαι [...]

Gregoras states that *Letter* 134 was written on the occasion of interrupting the preceding silence in the correspondence between him and Ignatios. Apparently, Ignatios addressed Gregoras first and now, as a response, Gregoras set to explore the reasons for the long lack of communication. Ignatios was also the one to cease writing first and, thus, Gregoras sought for an explanation and while at first his common sense was confused and he attributed the reason for the long silence to what is “fluid and unsteady with respect to men’s fortunes,” his judgment, nevertheless, remained stable:

And in the first place it occurred to me, as I was observing your silence, which continued for a certain long period simultaneous with winter, that the explanations should be supplemented and a certain ignoble cowardice, secretly creeping on double ways tried gently to divide my common sense, accusing the fluid and unsteady with regard to the fortunes of men. However, it did not quite manage to upset <me>, but it established what pertains to the judgment stable and persevered towards the one overcoming the previous custom.<sup>627</sup>

Though he considered himself partly responsible, Gregoras thought that Aristotle is also to blame and as Gregoras had been the one to bring Aristotle’s teachings to Ignatios’ ears often, he deemed himself justified to speak up and refute Aristotle, knowing in particular that such an attack is supported by Thessalonike’s metropolitan as the latter’s desire for maintaining their friendship illustrated. Gregoras was, however, not to persuade anyone else who would prefer to believe in Aristotle’s doctrines:

After your (letters) through which you sent holy and pious words had appeared, they persuaded me to conceive, instead of the previous silence, these discourses trying to persuade you that not only me, but also Aristotle

<sup>627</sup> Gregoras, *Letter* 134, lines 26-32: τὸ μὲν οὖν πρῶτον ὁρῶντι τὴν σὴν σιωπὴν μακρῶ τινι χρόνῳ γινομένην ὁμόδρομον χειμῶνός τινός μοι ἐπήγει τοὺς λογισμοὺς ἐμπίπλασθαι καὶ δειλία τις οὐκ ἀγεν<v>ῆς λάθρα ὑφέρπουσα πρὸς διπλᾶς ὁδοὺς ἡρέμα τὴν ἐμὴν ἐπειρᾶτο σχίζειν διάνοιαν, αἰτιωμένη τὸ περὶ τὰς τύχας τῶν ἀνθρώπων ὑγρὸν καὶ ἀστάθμητον· περιτρέπειν δ’ οὐ μάλα ἐδύνατο ἀλλ’ ἀτρεμοῦντά τε εἰστήκει τὰ τῆς γνώμης καὶ ἐνεκαρτέρει τῷ διαβάντι τῆς πρὶν συνηθείας.

the son of Nikomachos is to be blamed: for it seems that that man is someone skilled and subtle and powerful in misleading the reasoning of <his> audience. Wherefore, I myself, having mixed you with him often on many occasions and having brought <you> to listen to the things said by him, I did not deem it necessary to be silent in every way, but in some cases it is possible also to refute him as much as it is befitting and <it is also possible> to praise him for not declaring his opinion on the matters according to a great authority without scrutiny, <matters> which do not like to surrender their understanding easily and now, after having obtained the great strength of your alliance, I would neither refrain myself from pouring plentiful and yet weightier refutations than his, nor would I withhold myself from persuading others to believe that most of his teachings are sophist-like and not beneficial.<sup>628</sup>

Gregoras deemed Aristotle responsible for the long silence that interrupted the correspondence between Ignatios and him. The main accusation against the Stagirite is that his theory of friendship postulates equality and that friends' things are common, thus if inequality is introduced in the relationship between two people, their bond can no longer be qualified as a bond of friendship. In particular, Gregoras referred to the following passage from the *Nikomachean Ethics*:

[...] a man's best friend is one who wishes well to the object of his wish for his sake, even if no one is to know of it; and these attributes are found most of all in a man's attitude towards himself, and so are all the other attributes by which a friend is defined; for, as we have said, it is from this relation that all the characteristics of friendship have extended to others. All the proverbs,

<sup>628</sup> Gregoras, *Letter 134*, lines 1-14: 'Εμὲ δὲ τὰ σὰ μεθ' ὧν ἀπέστειλας ἱερὰ καὶ θεῖα γράμματα ἐπιδημηκότα λόγους ὑπὲρ τῆς προτέρας τούτους ἔπεισαν ποιῆσθαι σιγῆς πειρωμένους σε πείθειν μὴ ἐμὲ μόνον, ἀλλὰ καὶ Ἀριστοτέλην ἐκεῖνον αἰτιᾶσθαι τὸν Νικομάχου· σοφιστῆς γάρ τις καὶ ποικίλος ὁ ἀνὴρ εἶναι δοκεῖ καὶ δεινὸς ἀκροατῶν διάνοιαν παρακρούσασθαι. διὸ καὶ αὐτὸς ἔγωγε ἐν πολλοῖς πολλάκις αὐτῷ σε συμμίζας καὶ τῶν αὐτῷ λεγομένων εἰς ἀκοὴν καταστάς, οὐκ ἔκρινα δεῖν σιωπᾶν πανταχῇ, ἀλλ' ἔστιν οὗ καὶ ἐξελέγχειν αὐτὸν καθ' ὅσον οἶόν τε καὶ ἐπιτιμᾶν μὴ κατὰ πολλὴν αὐθεντίαν ἄνευ τοῦ σκέπτεσθαι ἀποφαίνεσθαι περὶ πραγμάτων, ὅσα μὴ ῥᾶστα προδιδόναι τὴν αὐτῶν ἐθέλουσι κατάληψιν καὶ νῦν δ' ἀπὸ σοῦ πολὺ τῆς συμμαχίας εἰληφώς τὸ κράτος οὐκ ἂν οὔτ' αὐτὸ ἀποσχοίην τοῦ μὴ πλείους ἔτι καὶ βαρυτέρους αὐτοῦ καταχεῖν τοὺς ἐλέγχους οὔτ' ἄλλους πείθειν ἀπαγορεύσαιμι σοφιστικά καὶ ἀξύμφορα τῶν ἐκείνου δογμάτων οἶεσθαι τὰ πλείω.

too, agree with this, e.g. ‘a single soul’, and ‘what friends have is common property’, and ‘friendship is equality’ [...]<sup>629</sup>

Gregoras appropriates the sayings Aristotle is rendering, i.e. ‘a single soul,’ ‘friends’ things are in common’, and ‘friendship is equality’, explains their meaning and questions their relevance.<sup>630</sup> That is, importantly, here Gregoras problematizes a fundamental principle of Greek epistolography, namely that the friends-correspondents are alike and their souls are united. The impossibility of achieving friendship, that is sharing one soul and one character, based on being equal, is due, according to Gregoras, not to the friends themselves, their nature or will, but to the fact that their souls are governed by no other than *fortune* (τύχη):

For in addition to other things he said also that it is necessary not to wish the greatest among the goods for one’s friends: for those who surpass the existing fortune (τύχη) the least are still able to obtain the similar friendship. For how would there be still ‘things common to the friends,’ since <their> fortune (τύχη) is not common? How ‘a single soul’ and one character, since the souls are ruled by the order-lacking fortune (τύχη), even if through assemblies, appointments and positions they have something more than the

<sup>629</sup> Aristotle, *Complete Works of Aristotle*, ed. Jonathan Barnes, trans. W. D. Ross, vol. 2, 2 vols. (Princeton, NJ: Princeton University Press, 1984), 145-146. Aristotle, *EN* 1168b2-8: φίλος δὲ μάλιστα ὁ βουλόμενος ὃ βούλεται τὰγαθὰ ἐκείνου ἔνεκα, καὶ εἰ μηδεὶς εἴσεται ταῦτα δ’ ὑπάρχει μάλιστ’ αὐτῷ πρὸς αὐτόν, καὶ τὰ λοιπὰ δὴ πάνθ’ οἷς ὁ φίλος ὀρίζεται· εἴρηται γὰρ ὅτι ἀπ’ αὐτοῦ πάντα τὰ φιλικὰ καὶ πρὸς τοὺς ἄλλους διήκει. καὶ αἱ παροιμίαι δὲ πᾶσαι ὁμογενωμονοῦσιν, οἷον τὸ „μία ψυχὴ” καὶ „κοινὰ τὰ φίλων” καὶ „ἰσότης φιλότης” [...]

<sup>630</sup> Cf. Stratis Papaioannou, „Michael Psellos on friendship and love: erotic discourse in eleventh-century Constantinople,” *Early Medieval Europe* 19 (2011), 52, note 31: „It should, moreover, be noted that Byzantine readers recognized the classical background of Gregory’s notion of friendship. Gregory’s ‘one soul in two bodies’, e.g., is both an allusion to the notorious Aristophanes’ speech from Plato’s *Symposium* (189c2 – 193d5) and a direct quotation of a maxim on friendship attributed to Aristotle.” The other treatise involved in the above developed argumentation, namely Aristotle’s *Nicomachean Ethics*, was, on the contrary, a popular text among the Byzantines, as it is preserved in 120 manuscripts dated to the Byzantine millennium, according to Benakis’ calculation. See Linos Benakis, “Aristotelian Ethics in Byzantium,” in *Medieval Greek Commentaries on the Nicomachean Ethics*, ed. Charles Barber and David Todd Jenkins (Leiden; Boston: Brill, 2009), 64. One has to take in consideration, however, that in the fourteenth century such ‘sayings’ are transmitted not only as part of the *EN* but also in compilation books containing excerpts from Aristotle and other ancient authorities. See James McEvoy, “Aristotelian Friendship in the Light of Greek Proverbial Wisdom,” in *Aristotelica Secunda. Mélanges offerts à Christian Rutten*, ed. André Motte, Joseph Denooz (Liège: C.I.P.L., 1996): 167-179.

settled condition of the always and in all regards demanding <fortune (τύχη)>. For he says “equality is friendship.” But on the contrary, the inequality is the mother of separation. For usually it (i.e. the inequality) easily overthrows the judgment and plays tricks with the character and bursts madly in suspicion, and so great and such <inequalities> do not adapt naturally to friendship. Saying this, he (i.e. Aristotle) introduced also Empedokles as an ally for the doctrine, as he says that ‘the like is drawn to the like.’<sup>631</sup>

While equality preconditions friendship and union of the souls, inequality interferes with one’s judgments, influences one’s character and opens the door for suspicion which, in turn, leads to separation and thus, does not naturally pertain to friendship. In addition, though ideally the friends’ souls seek after a union, they are still always governed by fortune and fortune rules them without any order. Thus, according to Gregoras, people were either “settled in one place of the fortune and likely to remain in similar ways,” or “on their turn, divided among themselves towards the paths of the fortune.”<sup>632</sup> Moreover, Gregoras points out, none of the friends should desire to exceed in terms of their fortune, because the result is that regaining similarity within the relationship becomes problematic due to the unreliability and uncontrollability of τύχη. This particular claim Gregoras attributes to Aristotle seems unclear in the context of the *Nicomachean Ethics* alone. The passage becomes clearer if one juxtaposes it to another one of Aristotle’s works which partially discusses the nature of friendship<sup>633</sup>. In *Rhetoric* II, 4, 1381<sup>b</sup>14-19 Aristotle states:

<sup>631</sup> Gregoras, *Letter* 134, lines 14-26: πρὸς γὰρ τοῖς ἄλλοις ἔλεγε καὶ δεῖν μὴ τὰ μέγιστα τῶν ἀγαθῶν τοῖς φίλοις συνεύχεσθαι· τὴν γὰρ οὕσαν ὑπερβάντας τύχην ἥκιστ’ ἔχειν τὴν ὁμοίαν ἔτι δύνασθαι φιλίαν. ποῦ γὰρ ἂν εἴη ‘κοινὰ τὰ τῶν φίλων’ ἔτι, τῆς τύχης οὐκ οὔσης κοινῆς; ποῦ δὲ ‘ψυχὴ μία’ καὶ τρόπος εἷς, τυραννουμένων τῶν ψυχῶν ὑπὸ γε τῆς λειποτακτούσης τύχης κἂν συλλόγοις καὶ καθέδραις τε καὶ στάσεσι πλεῖον ἔχειν τοῦ καθεστῶτος ἀπαιτούσης ἐν πᾶσιν αἰεὶ; ‘ισότης’ γάρ φησι ‘φιλότης’· τοῦναντίον δ’ ἀνισότης μήτηρ διαστάσεως. ῥᾶστα γὰρ εἶωθεν αὕτη ἀναμοχλεύειν τὴν γνώμην καὶ κατηλεύειν τὸ ἦθος καὶ ὑποψίας ἀναβακχεύειν, ὁπόσαι καὶ οἷα μὴ μάλα ἀρμόττουσαι τῇ φιλίᾳ πεφύκασι. ταῦτα λέγων, ἐπήγετο καὶ Ἐμπεδοκλέα συμμαχοῦντα τῷ δόγματι καὶ ‘τὸ ὅμοιον τοῦ ὁμοίου ἐφίεσθαι’ φάσκοντα.

<sup>632</sup> Gregoras, *Letter* 134, lines 32-35: τοῖς μὲν γὰρ ἐφ’ ἑνὸς ἰδρυμένοις χωρίου τῆς τύχης εἰκὸς καὶ τοῖς ὁμοίοις ἐπιμένειν τρόποις, τοῖς δ’ αὖ μεριζομένοις ἐς τοὺς δρόμους τῆς τύχης, πάντας μὲν οὐκ ἂν ποτ’ εἴποιμι, ξυνεξοκέλλειν δ’ οὐκ ἐνίους οὐκ ἂν ποτ’ αὐτὸς ἀπαγορεύσαιμι.

<sup>633</sup> Concerning the reception of Aristotle’s *Rhetoric* in Byzantium, see T. M. Conley, „Aristotle’s “Rhetoric” in

And (we also feel friendly) towards those who are like ourselves in character and occupation, provided they do not get in our way or gain their living from the same source as we do—for then it will be a case of ‘potter against potter’: And (we like) those who desire the same things as we desire, if it is possible for us both to share them together; otherwise the same trouble arises here too.<sup>634</sup>

The passage from *Rhetoric* contains an idea similar to Gregoras’ and actually it explains it: “For in addition to other things he said also that it is necessary not to wish the greatest among the goods for one’s friends: for those who surpass the existing fortune (τύχη) the least are still able to obtain the similar friendship.” One might add: “for then it will be a case of ‘potter against potter’.” The validity of the assumption that in *Letter* 134 Gregoras entered in a critical dialog with Aristotle’s *Rhetoric* depends on whether Gregoras was actually acquainted with the Stagirite’s treatise. One should note that the Byzantine reception of Aristotle’s *Rhetoric* is rather scarce. The treatise is preserved in altogether sixty-three manuscripts. Only thirteen of them are dated to the period between the ninth and fifteenth centuries. Two manuscripts are assigned to the thirteenth century and four to the fourteenth.<sup>635</sup> As far as the exegetical tradition is concerned, there are two known Byzantine commentaries of Aristotle’s *Rhetoric* and both date to the twelfth century. One of them is anonymous, while the other was in all likelihood composed by Stephanos Skylitzes, metropolitan of Trebizond, as well as Michael Italikos’ friend and teacher.<sup>636</sup> Therefore, it is argued that the limited number of copies, as well as the scarce number of commentaries, testify for the relative lack of interest towards the text and the fact that it was little-read in Byzantium. It is well-known that the Hermogenic corpus and Aphthonios’ *Progymnasmata*

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Byzantium,” *Rhetorica* 8, 1 (1990): 29–44.

<sup>634</sup> Aristotle, *Complete Works of Aristotle*, ed. Jonathan Barnes, trans. W. Rhys Roberts, vol. 2, 2 vols. (Princeton, NJ: Princeton University Press, 1984), 61. Aristotle, *Rhet.* 1381b14–19: καὶ τοὺς ὁμοίους καὶ ταῦτ’ ἐπιτηδεύοντας, ἐὰν μὴ παρενοχλῶσι μηδ’ ἀπὸ ταύτου ἢ ὁ βίος· γίγνεται γὰρ οὕτω τὸ “κεραμεὺς κεραμεῖ” καὶ τοὺς τῶν αὐτῶν ἐπιθυμοῦντας, ὧν ἐνδέχεται ἅμα μετέχειν αὐτούς· εἰ δὲ μή, ταῦτό καὶ οὕτω συμβαίνει.

<sup>635</sup> According to data collected from the *Pinakes*.

<sup>636</sup> See Papaioannou, “Rhetoric and the Philosopher,” 192, note 65 and 193, note 68.

replaced *Rhetoric* in the framework of the Byzantine educational curriculum.<sup>637</sup> Nonetheless, it is possible to argue that during the thirteenth and the fourteenth centuries there was a relative increase in the popularity of Aristotle's work. Maximos Planoudes, for instance, prepared a new edition of the text, which included the anonymous twelfth-century commentary.<sup>638</sup> Thomas Conley argued that Theodore Metochites knew Aristotle's work on rhetoric,<sup>639</sup> while Börje Bydén noted that based on the evidence in Gregoras' dialogue *Phlorentios*, the latter probably knew someone who owned a copy of the treatise and considered the text useful.<sup>640</sup> In sum, there is a possibility that Gregoras was acquainted with Aristotle's *Rhetoric* and *Letter 134* could serve as a supporting evidence for such a hypothesis. Its case alone, however, cannot serve as conclusive proof for Gregoras' knowledge of the treatise.

According to Aristotle, friendship is still possible between different people but this would not be friendship of character, but rather friendship for benefit or enjoyment:

For the sake of pleasure or utility, then, even bad men may be friends of each other, or good men of bad, or one who is neither good nor bad may be a friend to any sort of person, but for their own sake clearly only good men can be friends; for bad men do not delight in each other unless some advantage come of the relation.<sup>641</sup>

<sup>637</sup> On the reception of Aristotle's definition of rhetoric in Byzantium and on its failure to achieve popularity, see Helena Cichocka, "Z recepcji *Retoryki* Arystotelesa w Bizancjum," *PEITHO / Examina Antiqua* 1, no. 3 (2012): 231–38.

<sup>638</sup> Cod. Vat. gr. 1340. Cf. Inmaculada Pérez Martín, „Un' esemplare della „Retorica” di Aristotele copiato da Massimo Planude e Giovanni Zaride,” in: *Byzantium: Identity, Image, Influence. XIX International Congress of Byzantine Studies*, University of Copenhagen, 18–24 August, 1996. Abstracts of Communications, ed. K. Fledelius (Copenhagen, 1996), 8126.

<sup>639</sup> Conley, "Aristotle's "Rhetoric" in Byzantium," 40–41: "Metochites seems to have read the *Rhetoric*, but disliked it, it seems, because it was merely an attack on Plato." Börje Bydén has discussed the possibility of Theodore Metochites having read the *Rhetoric* and has claimed that it is not as likely that he had done so.

<sup>640</sup> Bydén, *Theodore Metochites' Stoiceiosis Astronomike*, 57.

<sup>641</sup> Aristotle, *Complete Works of Aristotle*, ed. Jonathan Barnes, trans., W. D. Ross, vol. 2, 2 vols. (Princeton, NJ: Princeton University Press, 1984), 124. Aristotle, *EN* 1157a16–20: δι' ἡδονὴν μὲν οὖν καὶ διὰ τὸ χρήσιμον καὶ φαύλους ἐνδέχεται φίλους ἀλλήλοις εἶναι καὶ ἐπεικεῖς - φαύλους καὶ μηδέτερον ὁποιῶν, δι' αὐτοὺς δὲ δῆλον ὅτι μόνους τοὺς ἀγαθοὺς οἱ γὰρ κακοὶ οὐ χαίρουσιν ἑαυτοῖς, εἰ μὴ τις ὠφέλεια γίνοιτο.



By resuming his correspondence with Ignatios, Gregoras clearly does not seek to reestablish a friendship similar to the relationship between bad people nor between good and bad, thus, his argumentation is designed to disprove the thesis that friends who have become unequal thanks to fortune cannot maintain their previous relationship despite this particular differentiation and on account of other shared similarities. In the particular case of reestablishing their epistolary friendship after the change in Ignatios' fortune, namely after his ascension to the metropolitan see of Thessaloniki, Gregoras justified his act of resuming the correspondence in a twofold manner. First, he set out to describe how, despite the significant positive altering of Ignatios' fortune, the metropolitan did not alter either in terms of character, or in terms of his attitude towards Gregoras. Ignatios remained stable and unmoved, did not succumb to vanity or pride and by doing this, refuted Aristotle's doctrine once, as his countenance demonstrated that one can overcome the influence of τύχη and proving by extension, that τύχη does not entirely govern men's souls. Moreover, Ignatios observed his allegiance to friendship itself, as he asked for Gregoras' letters and did not treat the latter with indifference:

After you, who had rooted and established yourself firmly and well in the honorable foundation of the spirit, remained standing unmoved upon those pillars and in such greatness of the fortune you absolutely preserved the mind free from pride and vanity and as long as in the opposite case, <that is> if you fell down from some height to the depths of the sea, you distributed the judgment in this way, you granted me great strength against Aristotle's teachings and you already disarmed the fierce refutations against his head. And indeed I considered it an indication of you abiding by the ways and laws of that friendship, let alone your demand for a snowstorm of our letters, but also the attempt to fascinate through deeds our judgment and hand towards not bestowing us with any indifference and hesitation.<sup>642</sup>

<sup>642</sup> Gregoras, *Letter* 134, lines 40-52: ἐπεὶ δὲ σὺ καλῶς καὶ βεβαίως ἐρριζωμένος καὶ ἡδρασμένος τῷ καλῷ θεμελίῳ τοῦ πνεύματος ἔμεινας ἐπὶ τῶν ὄρων ἐκείνων ιστάμενος ἀκλινὴς καὶ ὀφρύος καὶ τύφου παντὸς ἐλεύθερον τὸ φρόνημα καθάπαξ τετήρηκας ἐν τῷ τοιοῦτῳ μεγέθει τῆς τύχης, καὶ ὥσπερ ἂν τὸ ἀντίστροφον εἰ ἐξ ὕψους τινὸς ἐς βυθοὺς θαλαττίους αὐτὸς κατηνέχθης, οὕτω τὴν γνώμην διέθηκας, πολλὴν ἐμοὶ τὴν ἰσχύον

Second, Ignatios' behavior refuted Aristotle once more, as it showed that fortune, which according to the Stagirite's account was a fundamental and prevailing principle in the life of mankind, is in fact void of substance and just a word. Moreover, Gregoras argued, only the weak-minded, those who yield control of their reasoning and open room for ignorance, are prompt to attribute significance to τύχη, since they renounce the possibility to judge for themselves the changing flow of events:

I acknowledged gratitude to you not only on account of all things but rather with regard to <your> alliance in the war against Aristotle. For you demonstrated that the fortune is not any substance, but only a name that goes around and wanders, and gives trouble to the hearing of the more susceptible. When one belongs to those who at some point yield the reins of reason and who in no way grant an authoritative judgment to the recognition of the things which move sometimes in this way, sometimes in that, thence the ignorance seizes a position and in precisely this way somehow introduces the name of fortune, like darkness, after the light changed.<sup>643</sup>

In conclusion, *Letter 134* together with *Letter 46* exemplifies Gregoras' anxiety regarding the maintenance of epistolary friendships, whose foundation, according to the epistolary canon informed by Aristotelian ethics, should be the equality of the friends. In *Letter 134*, Gregoras attacks Aristotle chiefly for describing fortune as a prominent principle that rules over people's souls and which, by virtue of its order-lacking nature, often disturbs, on a whim as

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κατὰ τῶν Ἀριστοτέλους ἐχαρίσω δογμάτων καὶ δριμυτέρους ἤδη κατὰ τῆς ἐκείνου κεφαλῆς τοὺς ἐλέγχους ἐξώπλισας. σημεῖόν γε μὴν ἐποίησάμην τοῦ τοῖς τῆς φιλίας ἐκείνης ἐμμένειν σε τρόποις καὶ νόμοις, οὐχ ὅπως τὸ ζητεῖν σε γραμμάτων ἡμετέρων νιφάδας, ἀλλὰ καὶ τὸ δι' ἔργων πειρᾶσθαι γοητεύειν τὴν ἡμετέραν γνώμην καὶ χεῖρα, πρὸς γε τὸ μὴ χαρίζεσθαι τῶν ῥαθυμιῶν καὶ τῶν ὀκνῶν οὐδέσιν ἡμᾶς.

<sup>643</sup> Gregoras, *Letter 134*, lines 52-59: χάριτας οὖν σοι μὴ μόνον τῶν ὅλων ὠμολογησάμην ἔνεκα, ὅτι μὴ μᾶλλον τῆς συμμαχίας τοῦ πρὸς Ἀριστοτέλην πολέμου. ἔδειξας γὰρ οὐκ οὐσίαν οὕσαν τὴν τύχην τινά, ἀλλ' ὄνομα μόνον περιῖδον καὶ πλανώμενον καὶ ταῖς τῶν κουφοτέρων ἀκοαῖς ἐνοχλοῦν· ὧν δὴ τοῦ λογισμοῦ τὰς ἡνίας ὁπώσποτε ἐνδιδόντων καὶ κρίσιν ἡγεμονικὴν οὐδαμῇ χαριζομένων τῇ τῶν κινουμένων ἄλλοτ' ἄλλως πραγμάτων ἐπιστάσι, χώραν λαμβάνειν ἐντεῦθεν τὴν ἄγνοϊαν καὶ οὕτως πῶς τὸ τῆς τύχης παρεισάγειν ὄνομα, καθάπερ σκότος μεθισταμένου φωτός.

it were, the friendship dynamics of equality, similarity and union of souls. Not only that fortune is not omnipotent, Gregoras argues, but rather it lacks any substance and is nothing but a mere name.

### *Friendship of the Same*

Gregoras invoked the notion of sameness or identity (ταυτότης) in *Letters* 6, 12, 34 and 46. The term is used twice more in his preserved correspondence, in *Letters* 114 and 148, but not in its technical meaning. *Letters* 6 and 34 elaborate on the same subject of sameness and difference, as they inquire into the relationship between friends and into the ways in which it is determined by identity, similarity or difference. *Letter* 34 describes the possibility for an ideal friendship to exist, that is, it postulates the sameness of two of Gregoras' correspondents, thus underlying the ontological possibility for a perfect union of their souls to take place, as they are already the same. *Letter* 6, however, develops a scenario in which the correspondents are as different as an even and an odd number. The bond of friendship is, however, capable to unite them and to keep them united even if each of them should change further over time.

*Letter* 34 is the only surviving evidence for the correspondence between Nikephoros Gregoras and Maximos Magistros. This letter employs the philosophical notion of sameness or identity and examines sameness and repetition as opposed to difference and change. The letter starts off with a logically paradoxical premise, namely the "identity" of two friends. Gregoras enumerated some identical characteristics of Maximos, the monk and Maximos, the *hēgoumenos* of the Chortaïtes monastery, such as their names, the monastic way of life and the fact that they were dwelling in the same monastery. In *Letter* 34, Gregoras listed notable couples sharing the same name, like the Maximoi, such as the two Perseus, Scipio and Herakles:

And, in order to bring the argument to sight with the help of examples, we hear about two Heracles, the one from Egypt and the one from Boeotia, whose deeds were not really out of tune with the harmony of their names, nor did such deeds grant them pride. There were also two Perseus, to the first one extraordinary power was granted, as he waged a war against the gorgons around the Atlas Mountains in order to put <them> to flight; the other one who was from Macedonia encountered the Romans and prevailed over <them> in the most excellent manner. Moreover, from the two people named Scipio among the most powerful in Rome, it was the task of the one to conquer the entire Africa in a short time, while the other raised Carthage itself, Africa's principal city, from <its> foundations.<sup>644</sup>

The enumeration of mythical and historical persons with identical names invokes the Byzantine examples employed in the discussion of homonymy and synonymy, such as the two Basils and the two Gregories.<sup>645</sup> Based on the case study of Psellos' *Opusculum* 6, a letter he addressed to the *logothetēs tou dromou*,<sup>646</sup> Börje Bydén and Katerina Ierodiakonou identified the ancient sources the eleventh-century author relied upon for his discussion, namely Aristotle's *Categories* and its Neoplatonic commentators, e.g. Ammonius, but also Plato's dialogs *Theaetetus* and *Sophist*, as well as Stoic logic. In addition, they pointed out Psellos' dependence on Gregory of Nazianzos' *Oration* 29.<sup>647</sup> Importantly, Bydén and Ierodiakonou underlined that a formally logical discussion of the problem of homonymy and synonymy, as Psellos' letter illustrates, brings up the problem of defining individuals and their peculiarity (ιδιότης) and subsistence (υπόστασις).<sup>648</sup> Thus, when Gregoras listed a

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<sup>644</sup> Gregoras, *Letter* 34, lines 35-44: Καί, ἵνα παραδείγμασι τὸν λόγον ὑπ' ὅψιν ἀγάγωμεν, Ἡρακλέας ἀκούομεν δύο, τὸν μὲν Αἰγύπτιον, τὸν δὲ Βοιωτίον, ὧν τῆς συμφωνίας τῶν ὀνομάτων οὐ μάλα ἀπάδει οὐδ' ὅποσα φρονήσεως ἔνδειξιν ἔργα σφίσι παρέχει. δυοῖν δὲ Περσέων γενομένων, τῷ μὲν τὴν τῶν περὶ τὸν Ἄτλαντα Γοργόνων ἀνυπόστατον/ἀμήχανον δύναμιν ἐπιστρατεύσαντα κατατροπώσασθαι ἐξεγένετο, ὃ δ' ἐκ Μακεδονίας ὠρμημένος ἀπηντήκει Ῥωμαίοις καὶ ἐνενικήκει τὰ κράτιστα. δυοῖν δ' ἔτι Σκηπίωνων τὰ μέγιστα δυνηθέντων ἐν Ῥώμῃ, τοῦ μὲν ἔργον τό γε μικροῦ πᾶσαν καταδραμεῖν Ἀφρικὴν ὃ δ' ἔπειτα καὶ αὐτὴν Καρχηδόνα, τὴν Ἀφρικῆς μητρόπολιν, ἐκ βάθρων ἀνετετρόφει.

<sup>645</sup> I thank Katerina Ierodiakonou for bringing this parallel to my attention.

<sup>646</sup> Psellos, "Opusculum 6."

<sup>647</sup> Bydén and Ierodiakonou, "Greek Philosophy," 14.

<sup>648</sup> Ibid., 15-16.

number of prominent examples of heroic pairs from the past sharing the same name and, indeed, similar in terms of their deeds, and lined up the two Maximoi as a contemporary manifestation of the same phenomenon, he referred to the same problem discussed by Psellos, namely, the definition of the individual human nature and its peculiarity. Therefore, *Letter 34* expresses Gregoras' puzzlement over the number of identical features the two Maximoi share. It also noted, however, the amazement at the equal feelings of friendship characterizing Gregoras' personal relations with the Maximoi. That is, since two people are the same, then it is expected that they would provoke the same feelings towards themselves and would attract the same people as friends:

Often it occurred to me in my mind, being puzzled, to be in doubt and at the same time to discover that indeed at some point, through certain chances, many *similar things* happened to both of you, to you and to my in every way good and excellent compatriot. For *one name* you both share, also the *identical* way of living, and the monastic habit is *similar* for each one of you two, and of course, also the monastic abode is *common* to both. And if it would seem to someone that also this should be added, I am myself very much inclined towards exchanges of companionship with both of you [...]<sup>649</sup>

One way to interpret the description of Gregoras' puzzlement regarding the possibility for two persons to have so much in common, as it is placed at the beginning of the letter, is to speculate as to the rhetorical purpose it serves in the immediate context of the missive. Though we may not know much about *Letter 34*'s addressee, we may assume that to identify him with his superior and Gregoras' compatriot and long-time friend the *hēgoumenos*<sup>650</sup> is a rhetorical strategy which can serve at least two purposes. First, the description of the two

<sup>649</sup> Gregoras, *Letter 34*, lines 1-8: "Πολλάκις κατ' ἑμαυτὸν ἐπήει τεθυμακότι {μοι} διηπορηκέναι τε ἅμα καὶ ἀνεζητηκέναι τίσιν ἄρα ποτὲ τύχαις ἀμφοῖν πολλὰ ξυνερρήναι τὰ ὅμοια σοὶ τε καὶ τῷ πάντα καλῶ κἀγαθῶ μοι πατριώτῃ. ἢ τε γὰρ προσηγορία μία ἀμφοῖν, τό τε τῆς διαίτης ταύτόν, τό τε σχῆμα τὸ περὶ ἀμφοτέρους ὅμοιον, καὶ μέντοι καὶ ὁ οἶκος εἷς ἀμφοῖν. εἰ δέ τῳ καὶ τοῦτο προσθετέον εἶναι δοκοίη, ἐταιρίας ἀμφοτέροις ξυναλλαγαῖς πάνυ τοι σφόδρα προσήκων αὐτός· ἀλλ' οὐδεὶς οὐδέπω μοι νοῦς ἀπηντήκει ἐφόδια λύσεως ἐπαγόμενος." [italics mine]

<sup>650</sup> Maximos the *hēgoumenos* was originally from Gregoras' native city Hērakleia Pontikē and to him Gregoras addressed four more *Letters* 20a, 20b, 21, 36, 100a and 100b. Cf. Gregoras, *Letters*, pages 62-71, 129-131, 260-264.

Maximoi as sharing a number of identical and similar features diminishes the importance of their difference in rank. To compare and find the addressee equal with the author's old friend is, therefore, a way to praise the correspondent and to demonstrate good will and appreciation of his qualities. At the same time, the letter praises Gregoras' compatriot, the *hēgoumenos* as well. As we shall see, *Letter 34* demonstrates the learnedness of its author and his detailed philosophical knowledge. Thus, in turn it relies on the addressee's erudition in order to be understood and to achieve its purpose. Therefore, Maximos the monk allegedly was someone well-versed in the philosophical matters Gregoras discussed, and by virtue of his respective similarity and sameness with Maximos the *hēgoumenos* we may conclude that Gregoras is praising the latter's philosophical knowledge as well. Furthermore, though in the beginning of the letter Gregoras addressed only Maximos Magistros comparing him to the *hēgoumenos*, the end of the letter addresses them collectively as if the letter was meant to be read by both of them. Therefore, one may assume then that the letter was meant to praise and impress both Maximoi by its topic and by its display of erudition:

Therefore, placing this and the things concerning you two beside the ineffable principles of the providence, I pray that you both live for many years to come, so that it may be possible also for me to enjoy many of your prayers and in full, if indeed it was possible for me to live.<sup>651</sup>

Secondly, the sameness discussed in the letter qualifies not only the addressee(s) but also Gregoras' relation to each of them, that is, for some reason by proving that both Maximoi are the same, Gregoras aimed to establish also that his friendship with the one is identical to his relationship with the other. It is difficult, if not simply impossible, to establish the reasons for such an intention of the text since we know too little about Maximos Magistros. We may only assume that since the *hēgoumenos* of Chortaites was Gregoras' old friend, the

<sup>651</sup> Gregoras, *Letter 34*, lines 61-65: “δι’ αὐτό γε μὴν τοῦτο καὶ τὰ καθ’ ὑμᾶς τοῖς τῆς προνοίας ἀπορρήτοις παρατιθέμενος λόγοις, εὐχόμεαι ζῆν ὑμᾶς ἐπὶ μακροτέροις τοῖς χρόνοις, ἵνα κάμοι γ’ ἐπὶ πλέον καὶ πλείονων τῶν ὑμετέρων εὐχῶν ἀπολαύειν ἐξείη, εἰ ζῆν ἄρα γ’ ἐξείη κάμοι.” [italics mine]

purpose of the letter was to elevate and to establish the friendship with Maximos Magistros on the same level as the older one.

In addition to postulating the amazing similarity between his two correspondents, namely the two Maximoi, in *Letter 34* Gregoras also summarized the ancient philosophers' accounts of the world where similarity, regularity and sameness, but also chance, spontaneity and fortune interfered with the occurrence of events, as well as with people's lives. According to Gregoras, some learned men regarded everything as a whole guided by one principle, so that the behavior of each of its parts could be explained by the same reasons. They considered those objects of nature which followed its order as worthy subjects of scientific inquiry. Whenever they encountered irregularities of and exceptions to the natural order, they deemed them worthy of contempt:

Well then, on the one hand <there are> the scholars of old times <who inquire> with regard to the things there are, bringing a thorough comprehension to the events <that happen every time>, they discovered that <the existing> things made use of some harmonious principles to a great extent: as far as <that was completely the case>, that would indeed not be correct. And indeed, it did occur to some people not quite accidentally to disseminate a great deviation of the generation and a certain spontaneous motion <which> suitably rejected every such explanation, all of which science made use of. Indeed they employed dignified discursive reasoning, addressing <everything existing> as a single body, yet on the one hand so many things hold the order of nature and attract the inquiring intellect, so that they in a good manner considered <them> a good condition and health of nature and bringing forth discourses to science, they were continuously unfolding the valuable gift of philosophy in that respect; on the other hand, they gave the things <which are> otherwise and not such <with all that was there> in their soul to contempt, deeming these things illnesses of nature and falling off the truth because of the necessity that the whole is affected together with the parts.<sup>652</sup>

<sup>652</sup> Gregoras, *Letter 34*, lines 9-22: Οἱ μὲν οὖν πάλαι τὰ ὄντα ἐξετασταί, πολλὴν τοῖς ἐκάστοτε γινομένοις ἐπάγοντες τὴν περίνοιαν, λόγοις μὲν τισιν ἁρμονικοῖς μέχρι πολλοῦ τινος εὕρισκον χρώμενα· τὸ δὲ μέχρι διὰ παντός, τοῦτο δ' οὐ μέντ' ἂν κομιδῇ. καὶ μέντοι καὶ πλάνον πολὺν τῆς γενέσεως ἐνίοις κατασκευάζειν οὐ πάνυ παρέργως ἐπῆει, καὶ τινὰ φορὰν αὐτόματον ἐπιεικῶς ἀποσειομένην πάντα τινὰ λόγον, ὅποσοις ἢ ἐπιστήμη

Others, such as Plutarch, Gregoras continued, claimed something more intense than pagan philosophy. Namely, Plutarch explained every power as caused either by nature or by spontaneity, that is, either by the mathematical principles inherent in what is natural, or by the undefined matter. Therefore, according to Plutarch's teachings, as presented by Gregoras, sameness occurred either spontaneously, somewhat by chance, whenever a moment opportune for its generation presented itself, or the occurrence of sameness was caused by the mathematical principles which existed eternally and revolved around themselves in a uniform fashion:

The other <group of scholars> had to be meanwhile left aside: but Plutarch from Cheironeia juxtaposed the matters about the Greeks and not only how great men had adorned the Romans but also how many things had adorned the Persians in terms of military command; he (i.e. Plutarch) tried to show that nothing is to be marveled at, if sameness occurs in different revolutions of the circumstances existing differently at different times, for he <being> a supporter <of the pagan philosophy> and breathing forth something more ardent than the teachings of the Greeks concerning the nature and the spontaneity, he (i.e. Plutarch) limited every power within nature and spontaneity: and now on the one hand, he charges the undefined matter <as cause> concerning the simultaneous falling towards the one; many among the things made use of the different opportune moments, and now on the other hand, <he charges> the form-giving mathematical principles, existing always through time and often revolving around themselves in an equal manner and procuring that the generation towards sameness happens periodically.<sup>653</sup>

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χρῶτο. οἱ γέ μὴν ἐμβριθεστέρα χρώμενοι διανοίᾳ, καθάπερ ἐν σώμα τὴν ὅλην γένεσιν προσειπόντες εἶτα ὅποσα μὲν φύσεως ἀκολούθησιν ἴσχει καὶ νοῦν ἐφέλκεται βασανιστήν, ὥσπερ εὐεξίαν εὖ μάλα ἐνόμισαν καὶ ὑγίειαν φύσεως καὶ πρὸς ἐπιστήμης ἀναφέροντες λόγους, πολυτελὲς τῆς φιλοσοφίας ἐνταυθοῖ τὸ φιλότιμον ἐφαπλοῦντες διῆγον, τὰ δ' ἄλλως ἢ οὕτως ἔχοντα ὅλαις παρασκευαῖς τῆς ψυχῆς ὑπεροψία παρεῖχον, φύσεως ταυτὶ φάσκοντες ἀρρωστήματα καὶ τῆς ἀληθείας ἀπόπτωσιν, διὰ τὸ χρῆναι τὰ ὅλα τοῖς μέρεσιν εἶναι συμπεπονθότα.

<sup>653</sup> Gregoras, *Letter 34*, lines 23-34: Οἱ μὲν οὖν ἄλλοι τέως ἀφείσθων: ἀλλ' ὁ ἐκ Χαιρωνείας Πλούταρχος, τὰ πρὸς ἄλληλα διῶν τῶν τε Ἑλλήνων καὶ ὅσοι Ῥωμαίοις καὶ Πέρσαις ὅποσα ἐν στρατηγίαις ἐκεκοσμήκεσαν, ἐπειράθη μὴδὲν εἶναι θαυμαστὸν ἀποφῆναι, εἰ ταυτότης ἐν διαφόροις τῶν ἄλλοτ' ἄλλως ἐχόντων πραγμάτων ξυμπίπτει ἐξελιγμοῖς, ἅτε γὰρ τῆς θύραθεν φιλοσοφίας ὦν καὶ αὐτὸς στασιώτης καὶ τι θερμότερον τῶν



Gregoras' account draws on Plutarch's *On the Generation of the Soul in the Timaeus*, a commentary on *Timaeus* 35a1–36b5. In his interpretation of *Timaeus*, Plutarch postulated two cosmic principles contrary to each other: God or the Monad, the One which is unchangeable and responsible for the order, stability and sameness; and the indefinite Dyad which causes the changeability, chaos and multiplicity. Gregoras' knowledge of Plutarch's commentary on the *Timaeus* has been proven based on paleographic evidence by Inmaculada Pérez Martín,<sup>654</sup> and *Letter* 34 is an example of the application of the results from Gregoras' scholarly interest in Plutarch's text.

Gregoras wrote of three philosophical schools with differing views on the governing principles of the world. Leaving the second group aside for the time being, he noted that while one group of philosophers examined the universe as a single and harmonized body, Plutarch referred to two cosmological principles, namely the undefined matter and the form-giving mathematical principles. Without ever discussing the third philosophical school he had mentioned, Gregoras concluded this section by stating that though aware that some considered the process of generation spontaneous, he disagreed. Viewing providence, however, as a universal principle of cosmic governance was a position he supported:

On the one hand, after things such as these, it would be considered and discussed by others that the process of generation happens spontaneously, though perhaps not by me; yet indeed because of these reasons, to marvel at the providence which administers all the things beyond the intellect, on the other, even if it <concerns> nobody else from all people, certainly if there <is> something else among all things, and this would much rather be

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Ἑλληνικῶν πνέων δογμάτων, ἧς τε τὴν φύσιν καὶ τὸ αὐτόματον τὸ πᾶν περίσθησι κράτος καὶ νῦν μὲν τὸ τῆς ὕλης ἀόριστον αἰτιᾶται κατὰ τῆς ἐφ' ἑν συμπτώσεως, ὅποσα τῶν πραγμάτων διαφόροις ἐχρήσαντο τοῖς καιροῖς, νῦν δὲ τοὺς ταῦτ' εἰδοποιούντας ἀριθμητικούς λόγους, δολιχεύοντας ἀεὶ τὸν αἰῶνα καὶ πολλάκις ἐφ' ἑαυτοὺς ἀνακυκλουμένους ὁμοίως καὶ κατὰ περιόδους ξυμπίπτειν τὴν γένεσιν εἰς ταυτότητα προξενούντας.

<sup>654</sup> Pérez Martín, “Un escolio de Nicéforo Gregorás sobre el alma del mundo en el “Timeo.”

something in accordance with my mind.<sup>655</sup>

Gregoras continued his discourse by elaborating on his view of the created world. Though modeled on Plato's corresponding discussion in the *Timaeus*, Gregoras' description of the creation differed significantly, as it expressed a rather negative and pessimistic position. Similarly to the Platonic description, Gregoras started off by noting that the Creator had mixed up the elements in the world. The mixture, however, unlike the proportionate and harmonic creation of Plato's demiurge, was beyond measure (ὕπὲρ πάντα λόγον) and Gregoras compared it to the so-called κυκεών, a drink made from barley, grated cheese, and wine mentioned in Homer's *Illiad* XI 638-641,<sup>656</sup> but also by Theophrastus as something the country bumpkin would drink before going to the assembly. Importantly, Gregoras' reference to a κυκεών should have reminded his addressee(s) of another familiar use of this simile, namely Heraclitus' *Fragment* 125, also reported by Theophrastus, according to which "even the barley-drink disintegrates if it is not moved."<sup>657</sup> The predominant interpretation of *Fragment* 125 understands the κυκεών as a metaphore for the cosmos and the process of stirring the drink, which is needed since the barley and cheese would not dissolve in the wine, as a metaphore for the ordered cosmic rotatory movement.<sup>658</sup> It appears that Gregoras is using the Heraclitian metaphor in a similar way, namely employing the barley-drink as a simile for the cosmos. The world described by Gregoras, however, is unstable and confused to the extent that mankind is denied to know anything within it for certain. Humans were given to understand so many things, but never to know them safely:

<sup>655</sup> Gregoras, *Letter* 34, lines 45-49: Τὸ μὲν οὖν διὰ τὰ τοιαῦτα αὐτοματίζειν τὴν φορὰν τῆς γενέσεως ἄλλοις μὲν ἂν εἶη πεφροντισμένον καὶ εἰρημένον, ἐμοὶ δ' οὐκ ἂν δῆπου· τό γε μὴν ἐκ τούτων τὴν τὰ πάνθ' ὑπὲρ νοῦν διοικοῦσαν θαυμάζειν πρόνοιαν, τοῦτο δ' οὖν εἰ μὴ τῷ δὴ τῶν πάντων ἄλλῳ, ἀλλὰ γὰρ εἴ τι τῶν ἀπάντων ἄλλο, καὶ τοῦτο δ' ἔμοιγε καὶ μάλα δῆπου κατὰ νοῦν.

<sup>656</sup> Heraclitus, *Fragments*, trans. T. M. Robinson, Phoenix. Supplementary Volume 22 (Toronto; Buffalo: University of Toronto Press, 1987), 162; Heraclitus, *The Cosmic Fragments*, ed. G. S. Kirk (Cambridge: Cambridge University Press, 1954), 256.

<sup>657</sup> [...] καὶ ὁ κυκεών διίσταται <μὴ> κινούμενος. Heraclitus, *The Cosmic Fragments*, 255. I am grateful to István Bodnár for turning my attention to this parallel.

<sup>658</sup> Heraclitus, *Fragments*, trans. T. M. Robinson, 162-163; Heraclitus, *The Cosmic Fragments*, 256.

Or how would <the Creator> not lead <us> at marvel because he neither made the movement of things in the world unmovable, nor the unsteady steady, nor even more the movement being moved in a uniform fashion, nor the unstable uniformly unstable, but having mixed up beyond all measure and having made it as if it were barley-drink, then he gave the present life to those who labour to suffer a never-ending toil and to undergo endless hardships and in order to grasp so many things that there would never be anything determined that would seem grasped?<sup>659</sup>

The skeptical epistemological stance Gregoras professed in *Letter 34* will be discussed further in *Part III.4: Knowledge of the Creation. Spontaneity, Fortune, and Divine Providence*. For the time being, suffice it to note, first, that according to *Letter 34*'s account the impossibility of attaining certain knowledge is preconditioned by the very design of the universe as 'mixed' by its Creator. Second, however, Gregoras' skepticism refers in particular to the strife for knowledge of the creation. While obtaining the truth concerning the unstable and changeable is limited and conditional, the attested examples of sameness and similarity, such as the case of the two Maximoi, nonetheless demonstrate that some certainty is possible, though not regulated by spontaneity or fortune, but by providence, as the ending of Gregoras' letter reiterates: "Therefore, placing this and the things concerning you two beside the ineffable principles of the providence, I pray that you both live for many years to come [...]"<sup>660</sup>

<sup>659</sup> Gregoras, *Letter 34*, lines 50-56: "Ἡ ποῦ οὐκ ἂν ἐλαύνοι θαύματος, ὅτε μήτ' ἀκίνητον τὴν κίνησιν τῶν ἐν κόσμῳ κατεσκευάκει οὔτε τὸ ἄστατον στάσιμον οὔτε μὴν ἔθ' ὁμοίως τὴν κίνησιν κινουμένην οὔτε τὸ ἄστατον ὁμοίως ἄστατον, ἀλλ' ὑπὲρ πάντα λόγον ἀνακερασάμενος καὶ οἷόν τινα πεποιηκῶς κυκεῶνα, τοῖς τὸν παρόντα τρίβουσιν ἔπειτα δέδωκε βίον πονεῖν κάματος ἀκάματος καὶ ἀνήνυτα μοχθεῖν καὶ καταλαμβάνειν ὅποσα μή ποτ' ἂν σχοίη πεπηγὸς οὐδὲν ὃ ἂν κατελιφθαι δοκοίη;

<sup>660</sup> Gregoras, *Letter 34*, lines 61-63: δι' αὐτό γε μὴν τοῦτο καὶ τὰ καθ' ὑμᾶς τοῖς τῆς προνοίας ἀπορρήτοις παρατιθέμενος λόγοις, εὐχομαι ζῆν ὑμᾶς ἐπὶ μακροτέροις τοῖς χρόνοις [...]

*Uniting the Different*

In 1938 Ștefan Bezdechi published his revised transcription and translation of Nikephoros Gregoras' *Letter 6*, a piece of Palaiologan writing Bezdechi characterized as “un échantillon d'arithmetica geometrica.”<sup>661</sup> No further research followed Bezdechi's publication of the text and *Letter 6* remained as unknown to scholarship as its unnamed addressee. With respect to its general subject, Gregoras' letter discusses a topic omnipresent in Byzantine epistolography, namely the union of author and addressee, the two being a single soul in two bodies. The subject, however, was approached through a rather unusual rhetorical strategy. That is, twenty-nine out of thirty-two printed lines<sup>662</sup> are dedicated to a mathematical account of the relation between two square numbers and their gnomon or the “intermediate” number, which when added to the lesser square produces the greater.<sup>663</sup> This mathematical discussion was precisely what drew Bezdechi's, as well as mine, attention to the text.

In the present section, I discuss in detail the text of *Letter 6* analyzing, first, the mathematical account which dominates over the narrative. Secondly, I discuss the final part of the letter, which indicates its rhetorical intentions. My inquiry pursues two main analytic goals: first, to identify possible sources for Gregoras' mathematical account and second, to reassess and propose one possible alternative of Bezdechi's identification of the addressee. Gregoras opens *Letter 6* with the following sentence:

The number of units (gnomon), situated between two consecutive square numbers and completed by the two sides, related there in this point, becomes for those two (i.e. for the square numbers) the reason for four

<sup>661</sup> Ștefan Bezdechi, “Un échantillon d'arithmetica geometrica' dans une lettre de Nicéphore Grégoras,” *Anuarul Institutului de Studii Clasice* 3 (1936–1940): 29–33.

<sup>662</sup> In the current standard edition by P. A. M. Leone, 1982 (Gregoras, *Letters*, vol. 2).

<sup>663</sup> On square numbers and gnomons in the context of Greek mathematics, see Heath, *A History of Greek Mathematics*, vol. 1, 77–84.

relations (*logoi*), preserving intact the ancestral relation to the squares, as well as to those initial numbers from which they are generated (i.e. the roots).<sup>664</sup>

One of the earliest definitions of a square number in Greek mathematics is found in Plato's dialogue *Theaetetus* 147e-148a in which a square number (τετράγωνος) is defined as a number which is formed by multiplying equal factors. It is represented by the shape of the square and it is also called "square" (τὸ τετράγωνον) or equilateral number (ἰσόπλευρον).<sup>665</sup> Its opposite is the oblong number (προμήκης), defined as a number which cannot be formed by multiplying equal factors, but only by multiplying a greater by a lesser or a lesser by a greater. It is represented by the shape of the oblong rectangle (τὸ ἑτερομήκης).

The 'textbook' example Byzantine scholars would be familiar with, however, is the definition provided by Nikomachos of Gerasa in *Book II*, 9 of his *Introduction to Arithmetic* to which Gregoras wrote scholia.<sup>666</sup> Similarly to Plato, Nikomachos also starts up by defining the square number as equilateral<sup>667</sup> and continues to describe how such a number is produced. While in *Book II*, 18, 3, Nikomachos refers to the method listed by Plato, namely that "squares are produced from the multiplication of numbers by their own length, and have their length the same as their breadth,"<sup>668</sup> in *Book II*, 9, 3-4 he provides a second

<sup>664</sup> Gregoras, *Letter 6*, lines 1-4: 'Ο ἀριθμὸς τῶν στίχων δυοῖν συνεχῶν μεταξὺ τετραγώνων κείμενος καὶ τῶν ἐκεῖθεν πλευρῶν ἐπ' ἀλλήλας γινομένων ἀποτελούμενος δυοῖν ἐπὶ τετάρτων αἴτιος λόγων ἐκείνοις γίνεται, τὸν πάτριον αὐτοῖς καὶ ὧν γεγέννηνται πυθμενικῶν ἀριθμῶν διασφῶζων λόγον ἀλώβητον·

<sup>665</sup> On Platonic mathematics, see Anders Wedberg, *Plato's Philosophy of Mathematics* (Stockholm: Almqvist & Wiksell, 1955); Robert Sherrick Brumbaugh, *Plato's Mathematical Imagination; the Mathematical Passages in the Dialogues and Their Interpretation*, Indiana University Publications 29 (New York: Kraus Reprint Corp, 1968); P. W. Pritchard, *Plato's Philosophy of Mathematics*, 1. International Plato Studies, v. 5 (Sankt Augustin, Germany: Academia Verlag, 1995); D. H. Fowler, *The Mathematics of Plato's Academy: A New Reconstruction*, Second edition (Oxford: New York: Clarendon Press; Oxford University Press, 1999).

<sup>666</sup> For information on Gregoras' scholia in *Nicomachem* as well as about manuscript copies of the *Introduction* associated with Gregoras' library at Chora, see my discussion in *Part I.1*, the section entitled *Mathematics*.

<sup>667</sup> R. Hoche, *Nicomachi Geraseni Pythagorei Introductionis arithmeticae libri II* (Leipzig: Teubner, 1866), 90, lines 1-12: Τετράγωνος δέ ἐστιν ἀριθμὸς ὁ συνεχῆς τούτῳ καὶ μηκέτι τρεῖς, ὡς ὁ πρόσθεν, ἀλλὰ τέσσαρας ἐν τῇ καταγραφῇ γωνίας ἀποδιδούς, ἐν ἰσοπλευρῷ μέντοι καὶ αὐτὸς σχηματισμῷ, οἷον α, δ, θ, ις, κε, λς, μθ, ξδ, πα, ρ· τούτων γὰρ αἱ καταγραφαὶ ἰσόπλευροι τετραγωνισμοὶ οὕτω πως γίνονται [italics mine].

<sup>668</sup> Nikomachos of Gerasa, *Introduction to Arithmetic*, trans. Martin Luther D'Ooge, University of Michigan

procedure for obtaining a square number:

This number also is produced if the natural series is extended in a line, increasing by 1, and no longer the successive numbers are added to the numbers in order, as was shown before, but rather all those in alternate places, that is, the odd numbers. For the first, 1, is potentially the first square; the second, 1 plus 3, is the first in actuality; the third, 1 plus 3 plus 5, is the second in actuality [...] <sup>669</sup>

Importantly, Nikomachos returns to the idea of the square numbers being generated by the addition of successive odd numbers in *Book II*, 18 of the *Introduction to Arithmetic*. Moreover, here he brings the discussion of square numbers out of its mathematical context, as he addresses the metaphysical properties of odd and even numbers and, by extension, of squares.<sup>670</sup> Nikomachos points out that a) if one follows the philosophers according to whom the odd numbers manifest the cosmic principle of ‘the same’, and b) if one keeps in mind that one way of producing square numbers is to add consecutive odd numbers, then, c) one arrives at the conclusion that the square numbers manifest the principle of ‘the same’ like the odd numbers and the monad, and even more than them, as their sides are of equal length:

The physical philosophers, however, and those that take their start with mathematics, call ‘the same’ and ‘the other’ the principles of the universe,

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Studies. Humanistic Series, v. 16 (New York: London: Macmillan, 1926), 258; Hoche, *Nicomachi Geraseni Pythagorei Introductionis arithmeticae libri II*, 113, lines 19-21: οὐκοῦν ὅτι μὲν οἱ τετράγωνοι ὑπὸ τινων ἀριθμῶν ἰδίῳ μήκει μηχανθέντων γίνονται, ταυτὸν ἔχοντες τὸ μήκος τῷ πλάτει [...]

<sup>669</sup> Nikomachos of Gerasa, *Introduction to Arithmetic*, 243; Hoche, *Nicomachi Geraseni Pythagorei Introductionis arithmeticae libri II*, 91, lines 9-16: γεννᾶται δὲ καὶ οὗτος στοιχηδὸν ἐκτεθέντος φυσικοῦ ἀριθμοῦ τῇ μονάδι ἐπισωρευθέντων οὐκέτι τῶν ἐφεξῆς τοῖς ἐφεξῆς, ὡς δέδεικται, ἀλλὰ τῶν παρ’ ἑνα κειμένων πάντων, τουτέστι τῶν περισσῶν· πρῶτος γὰρ ὁ αὐτὸς δυνάμει πρῶτος τετράγωνος, δεύτερος ὁ αὐτὸς καὶ γὰρ ἐνεργείᾳ πρῶτος τετράγωνος, τρίτος δὲ ὁ αὐτὸς καὶ γὰρ καὶ ἐνεργείᾳ δεύτερος τετράγωνος [...] The same explanation for the generation of a the square numbers is given also by Theon of Smyrna: “τῶν δὲ τετραγώνων ἡ μὲν γένεσις, ὡς εἶπον, ἐκ τῶν περισσῶν ἀλλήλοις ἐπισυντιθεμένων, τουτέστι τῶν ἀπὸ μονάδος δυάδι ἀλλήλων ὑπερεχόντων· ἐν γὰρ καὶ γ’ δ’, καὶ δ’ καὶ ε’ θ’, καὶ θ’ καὶ ζ’ ιζ’, καὶ ιζ’ καὶ θ’ κε’.” See E. Hiller, *Theonis Smyrnaei philosophi Platonici expositio rerum mathematicarum ad legendum Platonem utilium* (Leipzig: Teubner, 1878), 39, lines 10-13.

<sup>670</sup> See also Nikomachos’ *Introduction to Arithmetic*, *Book II*, 17, 1.

and it has been shown that ‘the same’ inheres in unity and the odd numbers, to which unity gives specific form, and to an even greater degree in the squares, made by the continued addition of odd numbers, because in their sides they share in equality; while ‘the other’ inheres in 2 and the whole even series, which is given specific form by 2, and particularly in the heteromecic numbers, which are made by the continued addition of the even numbers, because of the share of the original inequality and ‘otherness’ which they have in the difference between their sides. Therefore it is most necessary further to demonstrate how in these two, as in origins and seeds, there are potentially existent all the peculiar properties of number [...]<sup>671</sup>

Thus, Nikomachos’ *Introduction to Arithmetic* provides interpretative keys as to the reading of Gregoras’ *Letter 6*. First, its definition of a square number and its explanation of the methods for obtaining it were in all likelihood familiar to Gregoras as he was a reader and annotator of Nikomachos’ treatise. Secondly, Nikomachos refers to the Pythagorean and Platonic association of the odd and even numbers with the principles of sameness and difference, a conceptual framework which, as I argue further in the present section, informed Gregoras’ construction of epistolary friendship in *Letter 6*.

Returning to *Letter 6*, any two consecutive square numbers would serve to illustrate Gregoras’ argument, thus, I will employ the most commonly given examples, that is, the numbers four and nine, whose square roots are correspondingly the numbers two and three. After the aforementioned numbers are inserted into the narrative, the opening sentence of Gregoras’ letter reads as follows:

The number of units (5) situated between two consecutive square numbers (4 and 9) and completed by the two sides [...] becomes for those two (4 and 9)

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<sup>671</sup> Nikomachos of Gerasa, *Introduction to Arithmetic*, 257-258; Hoche, *Nicomachi Geraseni Pythagorei Introductionis arithmeticae libri II*, 112, line 13-113, line 4: ἐπεὶ δὲ ἀρχὰς τῶν ὅλων οἱ τε φυσικοὶ καὶ οἱ ἐκ τῶν μαθημάτων ὁρμώμενοι τὸ ταυτὸν καὶ τὸ ἕτερον λέγουσιν, ἀπεδείχθη δὲ τὸ ταυτὸν μὲν ὑπάρχουσα ἡ μονὰς καὶ οἱ κατὰ εἰδοποίησιν αὐτῆς περισσοί, πολὺ δὲ μᾶλλον οἱ ἐκ τούτων συσσωρευομένων συνιστάμενοι τετράγωνοι ὡς ἂν δὴ ἰσότητος ἐν ταῖς πλευραῖς μετέχοντες, ἕτερον δὲ δυάς τε καὶ ὁ ὑπὸ ταύτης εἰδοποιούμενος πᾶς ἄρτιος, μάλιστα δὲ οἱ ὑπὸ τούτων συσσωρευομένων συνιστάμενοι ἑτερομήκεις διὰ τὸ πρῶτης ἀνισότητος καὶ ἑτερότητος ἐν τῇ τῶν πλευρῶν διαφορᾷ μετέχειν, ἔτι τοῦτο ἀποδεικτέον ἀναγκαιότατα, πῶς ἐν ἀμφοτέροις τούτοις ὡς ἐν ἀρχαῖς καὶ σπέρμασι δυνάμει πάντα τὰ τοῦ ἀριθμοῦ ιδιώματα προυπόκειται [...]

the reason for four relations, preserving intact the ancestral relation to the squares (4 and 9), as well as to those initial numbers from which they are generated (i.e. the roots, 2 and 3).

Gregoras proceeds further in explaining the nature of the gnomon and its relationship to the square numbers it connects. “It (the gnomon) (is) perceived in a double fashion: it is set to them (the square numbers) both as an antecedent and a consequent and having affinity to them, it doubles the crop of the parental state.”<sup>672</sup> That is, four and nine should not be imagined in a linear progression, but in a spatial superposition. Four and nine have been generated from their respective roots through multiplication, and in addition to that, nine has been superimposed on four and contains it in itself. The role of the gnomon, expressed in the four relations or *logoi* is to articulate, preserve and express the relations between the squares themselves, between the squares and their roots, between the squares and the gnomon, and finally, between the roots and gnomon.

However, the gnomon is not an independent function relating four and nine; it has a special ‘ontological’ status dependent on its origin. Gregoras points out that each of the squares is derived from one root and preserves the nature of its parent. Four is an even number, just like two, nine is an odd number just like three. The gnomon, however, is born out of two parents (2 and 3), the two belonging to two different classes of numbers: even and odd. Its “half-brothers,” four and nine, have preserved the nature of the parents. This ‘weird third child,’ however, seems to be something different and to present a problem. Being a two-natured number, five can relate to both its parents and its brothers. Nevertheless, four and nine remain of unmixed nature and therefore, they can only partially relate to their brother:

They (the square numbers) being two, have clearly sprouted from the roots, those being two themselves. And this is not without a reason: for on the one

<sup>672</sup> Gregoras, *Letter 6*, lines 5-7: διχῇ τε θεωρούμενος ἐφ’ ἑκάτερα καὶ πρόλογος ὁμοῦ καὶ ὑπόλογος ὁ αὐτὸς αὐτοῖς καθιστάμενος καὶ διπλοῦν αὐτοῖς τὸν τῆς πατρίου σχέσεως χαριζόμενος στάχυν [...]



hand, each of those two (square numbers) has one parent: on the other hand, it (the gnomon) grew out of those two (square numbers) becoming related. And now there is <something>, being one, which is brother of those two (square numbers); in one way <they are> brothers because of it, and in another, <they are> not brothers because of themselves.<sup>673</sup>

Besides being mathematical, Gregoras' discussion is also dominated by the bio-botanical image of generation, as this passage clearly demonstrates: he writes about sprouting from the roots, doubling the parental crop, he even establishes numerical relations as relations of kin – between parents and children, as well as between brothers. Notably, he substitutes the technical term for mathematical root, i.e. *dynamis*, with the biological *riza*. Notably, Nikomachos employed somewhat similar discourse in one of the aforementioned examples as he stated that “it is most necessary further to demonstrate how in these two (i.e., in the odd and the even, the same and the other), as in origins and seeds, there are potentially existent all the peculiar properties of number.”<sup>674</sup> Similarly, Plutarch in his commentary on *Timaeus* 35a1–36b5, a copy of which Gregoras owned and annotated, reported that a certain Zaratas, the teacher of Pythagoras, called the indefinite dyad “*mother* of number; and the one he called *father*.”<sup>675</sup>

The rhetoric of kinship and botany emphasizes the relationships by nature between different kinds of numbers and underline the specific status of the gnomon, as the latter unites the odd and the even square numbers without being a square number itself. Moreover, Gregoras continues, the gnomon unifies not only an odd and an even number,

<sup>673</sup> Gregoras, *Letter* 6, lines 7-12: ἀφ' ὧν δηλαδὴ ριζῶν αὐτοὶ βεβλαστήκασιν δύο ὄντες αὐτοί, δυοῖν ὄντοιν ἐκείνοι. καὶ οὐκ ἀπεικόντως ταυτί· ἐκείνων μὲν γὰρ ἑκάτερος ἓνα τὸν γεννήτορα κέκτηται· οὗτος δ' ἐξ ἀμφοῖν ἐκείνων ἐπ' ἀλλήλους γενομένων ἐβλάστησε. καὶ νῦν ἐστὶν εἷς ὧν οὗτοσι δυοῖν ἀδελφὸς ἐκείνων, πῶς μὲν ἀδελφῶν δι' αὐτόν, πῶς δ' οὐκ ἀδελφῶν δι' αὐτούς.

<sup>674</sup> Nikomachos of Gerasa, *Introduction to Arithmetic*, 258; Hoche, *Nicomachi Geraseni Pythagorei Introductionis arithmeticae libri II*, 113, lines 2-4: ἔτι τοῦτο ἀποδεικτέον ἀναγκαιότατα, πῶς ἐν ἀμφοτέροις τούτοις ὡς ἐν ἀρχαῖς καὶ σπέρμασι δυνάμει πάντα τὰ τοῦ ἀριθμοῦ ιδιώματα προυπόκειται [...] [emphasis mine]

<sup>675</sup> Plutarch, “On the Generation of the Soul in the *Timaeus*,” in *Moralia*, trans. Harold Cherniss, vol. XIII: I, LCL 427 (Cambridge, MA; London, England: Harvard University Press, 1976, 2004 repr.), 165; C. Hubert, *Plutarchi moralia*, vol. 6.1. (Leipzig: Teubner, 1954) (repr. 1959), 1012 E 5-6: Ζαράτας ὁ Πυθαγόρου διδάσκαλος ταύτην μὲν ἐκάλει τοῦ ἀριθμοῦ μητέρα τὸ δ' ἐν πατέρα.

but also the same and the other; a notion based on the Pythagorean and Platonic association of numbers with the principles of sameness and otherness I referred to earlier in relation to its rendering in Nikomachos' *Introduction to Arithmetic*:

For it (the gnomon) is also of double nature and it is also called an oblong, inasmuch as it is generated from opposite forms, wishing the least to preserve the mark of the class, it demonstrates the affinity towards the children of others (the roots), <i.e.> clearly towards the same square numbers in two ways. For on the one hand, one of those was an odd number, the other an even one, entirely opposite with respect to sameness and otherness of the forms, and of those who hold unmixed the disposition to one another, which Plato in *Theaetetus* could not bring to agreement. [...] He says that not even in a dream would someone dare to ask himself "when are the odd numbers even?"<sup>676</sup>

Thus far in the letter, Gregoras established that first, the gnomon unites even and odd, and second, it unites sameness and otherness. In addition, the gnomon, as it seems not only unites different and unmixed forms, it also relates unity and multiplicity. Though being born of two parents and having a double nature, the gnomon is one single entity. Moreover, it unites the two squares and out of two, it creates a unit. Even further, it preserves the concordance between even and odd and maintains their bond fixed and stable:

[...] it is wondrous how the one who is born from foreign and discordant parents, this two-natured number is able to join together towards concordance very easily those from opposite forms, i.e. identity and otherness, they having had peculiar origin, as we have said. And even more, that being two as opposed to one in some respect, <they are> inserted along its side, and at the same time they are also related, whence it is possible that they increase greatly in length and in width, in this way, it (the gnomon) did

<sup>676</sup> Gregoras, *Letter 6*, lines 12-20: οὗτος γὰρ διφυῆς τε ὢν καὶ ἑτερομήκης καλούμενος, ἅτε ἐξ ἐναντίων ἀλλήλοις εἰδῶν γεννηθείς, ἥκιστα δ' οὖν ἐθέλων φυλάττειν τὸ τοῦ γένους ἐπίσημον, δείκνυσι τὸ φιλάλληλον ἐν τοῖς ἐκείνων παισὶ, τοῖς ἐφ' ἑκάτερα δηλαδὴ τουτοιῖσι τετραγώνοις· ἐκείνων γὰρ ἄτερος μὲν περιττὸς ἦν, ἄτερος δ' ἄρτιος, ταυτότητα καὶ ἑτερότητα ἐναντίων πάντως εἰδῶν καὶ ἀμιγῇ τὴν τάξιν ἐχόντων ἀλλήλοις· οὐδὲ Πλάτων ἐν Θεαιτήτῳ δύναται πρὸς ὁμόνοιαν ἀγαγεῖν. [...] ὃς οὐδ' ἐν ὕπνῳ φησὶ τολμήσαι ποτέ τινα πρὸς ἑαυτὸν εἰπεῖν ὡς τὰ περιττὰ ἄρτια ἔστιν;

not allow them to be set as higher than itself and that its bond of concordance be broken; but it being only single to itself, since it did not have another ally, restored and preserved again that concordance.<sup>677</sup>

Gregoras' emphasis on the unifying function of the gnomon is, in fact, rooted in the larger tradition of Greek mathematics. Importantly, in his *Categories* and *Physics* Aristotle referred to the peculiar characteristics of the gnomon when it interacts with other numbers. In the *Categories*, the Stagirite underlined that whenever a gnomon is added to a square, it both enlarges it and preserves it as a square.<sup>678</sup> Further, in *Physics* III. 4, in his well-known discussion of the infinite, Aristotle reported the Pythagorean association of the even number with the infinite and of the limiting role of the odd.<sup>679</sup> According to him, the Pythagoreans saw a manifestation of this principle in the properties of the numbers. Thus, when a gnomon (an odd number in this case) circumscribes a monad or an odd number, the resulting figure always remains the same, namely a square, that is the sequence of odd numbers producing squares, in this example, demonstrates the limiting function of the odd

<sup>677</sup> Gregoras, *Letter* 6, lines 20-29: θαῦμα πῶς ὁ ἐξ ἀλλοφύλων καὶ ἀσυμφώνων γεννητόρων γεννώμενος, διφυῆς οὗτος ἀριθμὸς ῥᾶστα συνάπτειν εἰς ὁμόνοιαν δύναται τοὺς ἐξ ἐναντίων εἰδῶν, ταυτότητα λέγω καὶ ἑτερότητα, ἰδιότροπον ἐσχηκότας τὴν γένεσιν, ὡς εἰρήκειμεν. καὶ τό γε μείζον, ὅτι καὶ κατεπαρθέντας ποτὲ κατ' αὐτοῦ δύ' ὄντας ἑνὸς καὶ ἐπ' ἀλλήλους γενομένους, κἀντεῦθεν εἰς μήκος ἔτι καὶ πλάτος ὁπόσον ἐξῆν αὐξηθέντας, οὐδ' οὕτως εἶασεν αὐτὸς αὐτοὺς ὑπερέρους αὐτοῦ καταστῆναι καὶ τὸν τῆς ὁμονομίας αὐτοῦ διαρρηῆσαι δεσμόν· ἀλλ' αὐτὸς ἐφ' ἑαυτὸν γεγόμενος μόνον μόνος, ἐπεὶ μὴ εἶχεν ἕτερον σύμμαχον, τὴν ὁμόνοιαν ἐκείνην αὐθις ἀνεκαλέσατό τε καὶ διέσωσεν·

<sup>678</sup> Aristotle, *Cat.* 15a29-32: "But there are things that increase without altering, as a square is increased by the addition of a gnomon but is not thereby altered; similarly, too, with other such cases." Aristotle, *Complete Works of Aristotle*, ed. Jonathan Barnes, trans. J. L. Ackrill, vol. 1, 2 vols. (Princeton, NJ: Princeton University Press, 1984), 26. L. Minio-Paluello, *Aristotelis categoriae et liber de interpretatione* (Oxford: Clarendon Press, 1949, repr. 1966): ἀλλ' ἔστι τινὰ αὐξανόμενα ἃ οὐκ ἀλλοιοῦνται οἷον τὸ τετράγωνον γνῶμονος περιτεθέντος ἠϋξῆται μὲν, ἀλλοιότερον δὲ οὐδὲν γεγένηται· ὡσαύτως δὲ καὶ ἐπὶ τῶν ἄλλων τῶν τοιούτων.

<sup>679</sup> Aristotle, *Physics* 203a10-15: καὶ οἱ μὲν τὸ ἄπειρον εἶναι τὸ ἄρτιον (τοῦτο γὰρ ἐναπολαμβάνομενον καὶ ὑπὸ τοῦ περιττοῦ περαινόμενον παρέχειν τοῖς οὔσι τὴν ἀπειρίαν· σημείον δ' εἶναι τούτου τὸ συμβαῖνον ἐπὶ τῶν ἀριθμῶν· περιτιθεμένων γὰρ τῶν γνωμόνων περὶ τὸ ἓν καὶ χωρὶς ὅτε μὲν ἄλλο ἀεὶ γίγνεσθαι τὸ εἶδος, ὅτε δὲ ἓν) [...] See. W. D. Ross, *Aristotelis physica*. Oxford: Clarendon Press, 1950 (repr. 1966). For an English translation, see Aristotle, *Complete Works of Aristotle*, ed. Jonathan Barnes, trans. R. K. Gaye, vol. 1, 2 vols. (Princeton, NJ: Princeton University Press, 1984), 39-40: "Further, the Pythagoreans identify the infinite with the even. For this, they say, when it is cut off and shut in by the odd, provides things with the element of infinity. An indication of this is what happens with numbers. If the gnomons are places round the one, and without the one, in the one construction the figure that results is always different, in the other it is always the same."

as it does not allow for a infinite number of different forms to be generated, in contrast with the properties of the even number.<sup>680</sup> Later on, Themistius, in his paraphrase of *Physics* Books I-III, defined the odd numbers referred to as gnomons as “those placed in succession around the first ones [that] protect the shape of the square.”<sup>681</sup> Finally, George Pachymeres in his own exegesis of Aristotle’s treatise reiterated the statement that if one would position odd numbers as gnomons around the one, the resulting figure will be always a

<sup>680</sup> While scholars unanimously agree that the first part of Aristotle’s example is quite clear, namely that a gnomon positioned around the monad produces the same figure, i.e. a square, various interpretations have been offered as to the meaning of the phrase καὶ χωρὶς, or in other words, as to the interpretation of the case of a gnomon being in place and of the result being always a different figure. For summaries of the main interpretations accompanied with diagrams, see Aristotle, *The Physics. Books I-IV*, trans. Francis Macdonald Cornford and Philip Henry Wicksteed, LCL 228 (Cambridge, MA; London, England: Harvard University Press, 1957), 218-219, note a, 1-4; Aristotle, *Aristotle’s Physics*, trans. Hippocrates George Apostle (Bloomington; London: Indiana University Press, 1969), 47, figures 1, 2a, 2b; 226-227, note 9; Edward Hussey, trans., *Aristotle’s Physics, Books III and IV*, Clarendon Aristotle Series (Oxford [Oxfordshire]; New York: Clarendon Press; Oxford University Press, 1993), 73; Themistius, *On Aristotle, Physics 1-3*, trans. Robert B. Todd, Ancient Commentators on Aristotle (London: Bristol Classical Press, 2012), 166, note 824; 166-167, note 826.

<sup>681</sup> Themistius’ paraphrase of Aristotle’s *Physics* 203a10-15 reads as follows: “They import still another sign that the odd is the cause of limit, the even of the unlimited, in that they take a unit and further combine the successive odd numbers each separately (namely, 3, 5, 7, 9), and so each further combination of these safeguards the square that is constantly being constructed as 4 [= 1 + 3], 9 [= 1 + 3 + 5], 16 [= 1 + 3 + 5 + 7] and 25 [= 1 + 3 + 5 + 7 + 9]. The reason arithmeticians call the odd numbers ‘gnomons’ is that those placed in succession around the first ones protect the shape of the square, just like geometrical points. (At all events, it is in geometry that you learn just what a gnomon is, since this work is not composed for those who are entirely untutored.) So this is how odd numbers can protect the shape and preserve unity, whereas the even ones, by being added to the unit in step with those that are next in order, constantly produce a new shape, and the differentiating advances without limit – triangle [1 + 2 = 3], then heptagon [1 + 2 + 4 = 7], then whatever might also come up. So this is how for the Pythagoreans only even number becomes unlimited.” See Themistius, *On Aristotle, Physics 1-3*, trans. Robert B. Todd, Ancient Commentators on Aristotle (London: Bristol Classical Press, 2012), 90-91. For the edition of the Greek text, see Themistius, *In Aristotelis Physica paraphrasis*, ed. Heinrich Schenkl, CAG 5, 2 (Berlin: G. Reimer, 1900), 80, lines 13-25: φέρουσι δὲ καὶ ἄλλο σημεῖον τοῦ πέρατος μὲν εἶναι αἴτιον τὸν περιττόν, ἀπειρίας δὲ τὸν ἄρτιον λαβόντες γὰρ μονάδα τοὺς ἐφεξῆς αὐτῇ περισσοὺς ἐπισυντιθέασι χωρὶς ἕκαστον, οἷον γ καὶ ε καὶ ζ καὶ θ. καὶ ἐκάστη τοίνυν τούτων ἐπισύνθεσις τὸ συναγόμενον αἰετράγωνον διαφυλάττει δ θ ις καὶ κε. διὰ τοῦτο γνώμονας καλοῦσιν οἱ ἀριθμητικοὶ τοὺς περιττοὺς, ὅτι φυλάττουσι τὸ εἶδος τοῦ τετραγώνου οἱ ἐφεξῆς τοῖς πρώτοις περιτιθέμενοι ὥσπερ οἱ γραμμικοί. πάντως δὲ ὅ τι πότ’ ἐστὶ γνώμων, ἐν γεωμετρίᾳ γινώσκεις οὐ γὰρ ἀμαθέσι παντελῶς ταῦτα συγγράφεται. οὕτω μὲν οὖν οἱ περιττοὶ φυλακτικοὶ τοῦ εἶδους εἰσὶ καὶ τὸ ἐν τηροῦσιν, οἱ δὲ ἄρτιοι προστιθέμενοι τῇ μονάδι κατὰ τοὺς ἐφεξῆς αἰετὶ καὶνὸν εἶδος ποιοῦσι καὶ ἡ διαφορὰ πρόεισιν εἰς ἄπειρον τρίγωνον, εἴτα ἐπτάγωνον, εἴθ’ ὅ τι καὶ τύχοι. οὕτως οὖν τοῖς Πυθαγορείοις ὁ ἄρτιος μόνος ἀριθμὸς ἄπειρος γίνεται.

square one, thus preserving the initial shape.<sup>682</sup>

On a different note, Philolaus reported that to bring things to mutual agreement is a feature characteristic of the gnomon,<sup>683</sup> which seems to be precisely what Gregoras' rhetorico-mathematical play is based upon. Thus, in Pythagorean and Platonic mathematics the odd number which functions as a gnomon exhibited properties related to the preservation of an initial tetragonal figure and, by extension, of a square number, as well as to the harmonizing of odd and even, finite and infinite.<sup>684</sup> Therefore, in the framework of Gregoras' *Letter 6*, the gnomon could be understood as a metaphor for the bond of friendship which keeps the friends together transforming them into one whole while at the same time preserving their personality.<sup>685</sup> In other words, in my reading of *Letter 6* Gregoras and his addressee are understood as two distinct individuals, an even and an odd number, as it were. At the same time, the two correspondents are also in certain

<sup>682</sup> Michael Psellos, *Kommentar zur Physik des Aristoteles*, ed. Linos G. Benakis, *Corpus Philosophorum Medii Aevi. Commentaria in Aristotelem Byzantina* 5 (Athens: ΑΚΑΔΗΜΙΑ ΑΘΗΝΩΝ, 2008), 127, lines 9-12: Σημεῖον δέ, φησί, τούτου, ὅτι περὶ τὸ ἕν, εἰ γνώμονας θήσεις τοὺς περιττοὺς, αἰεὶ τὸ αὐτὸ εἶδος ὠρισμένον γίνεται τῶν τετραγώνων, καὶ τηροῦσι τὸ ἕν τὸ ἀρχῆθεν [...]

<sup>683</sup> Philolaus, *Fragmenta*, ed. H. Diels and W. Kranz, *Die Fragmente der Vorsokratiker*, vol. 1 (Berlin: Weidmann, 1951, repr. 1966): 406-419. STOB. Ecl. I prooem. cor. 3 [p. 16, 20 W]. Φιλολάου. θεωρεῖν δεῖ τὰ ἔργα καὶ τὴν οὐσίαν τῷ ἀριθμῷ καττὰν δύναμιν ἅτις ἐστὶν ἐν ταῖς δεκάδι· μεγάλα γὰρ καὶ παντελὴς καὶ παντοεργὸς καὶ θείω καὶ οὐρανίῳ βίῳ καὶ ἀνθρωπίνῳ ἀρχὰ καὶ ἀγεμῶν κοινωνοῦσα δύναμις καὶ τὰς δεκάδος, ἄνευ δὲ τούτας πάντ' ἄπειρα καὶ ἄδηλα καὶ ἀφανῆ. γνωμικὰ γὰρ ἡ φύσις ἡ τῷ ἀριθμῷ καὶ ἡγεμονικὰ καὶ διδασκαλικὰ τῷ ἀπορουμένῳ παντὸς καὶ ἀγνοουμένῳ παντί. οὐ γὰρ ἦς δῆλον οὐδενὶ οὐδὲν τῶν πραγμάτων οὔτε αὐτῶν ποθ' αὐτὰ οὔτε ἄλλω πρὸς ἄλλο, εἰ μὴ ἦς ἀριθμὸς καὶ ἡ τούτῳ οὐσία. νῦν δὲ οὗτος καττὰν ψυχὰν ἀρμόζων αἰσθήσει πάντα γνωστὰ καὶ ποτάγορα ἀλλάλοις κατὰ γνώμονος φύσιν ἀπεργάζεται σωματῶν καὶ σχίζων τοὺς λόγους χωρὶς ἐκάστους τῶν πραγμάτων τῶν τε ἀπείρων καὶ τῶν περαινόντων. ἴδοις δὲ καὶ οὐ μόνον ἐν τοῖς δαιμονίοις καὶ θείοις πράγμασι τὰν τῷ ἀριθμῷ φύσιν καὶ τὰν δύναμιν ἰσχύουσας, ἀλλὰ καὶ ἐν τοῖς ἀνθρωπικοῖς ἔργοις καὶ λόγοις πᾶσι παντῶ καὶ κατὰ τὰς δημιουργίας τὰς τεχνικὰς πάσας καὶ κατὰ τὰν μουσικὰν. ψεῦδος δὲ οὐδὲν δέχεται ἡ τῷ ἀριθμῷ φύσις οὐδὲ ἀρμονία· οὐ γὰρ οἰκεῖον αὐτοῖς ἐστὶ. τὰς τῷ ἀπείρῳ καὶ ἀνοήτῳ καὶ ἀλόγῳ φύσις τὸ ψεῦδος καὶ ὁ φθόνος ἐστὶ. ψεῦδος δὲ οὐδαμῶς ἐς ἀριθμὸν ἐπιπνεῖ· πολέμιον γὰρ καὶ ἐχθρὸν ταῖς φύσει τὸ ψεῦδος, ἡ δ' ἀλήθεια οἰκεῖον καὶ σύμφυτον ταῖς τῷ ἀριθμῷ γενεαῖ.

<sup>684</sup> On the symbolic meaning of the relationship between a gnomon and its respective square, see Heath, *A History of Greek Mathematics*, vol. 1, 78.

<sup>685</sup> In a similar vein, a scholion preserved in *Marcianus gr.* Z 309, a manuscript partly copied and annotated by Philotheos of Selymbria (PLP 29896) who was probably Gregoras' disciple and possibly the addressee of Gregoras' *Letter 3* (post 1347), contains a theological interpretation of Euclid's *Proposition I. 12*, thus providing another example of metaphysical interpretation of a mathematical exposition. See Parpulov, "The Study of Byzantine Book Illumination," 209-210.

respects alike, as two square numbers, though an even and an odd one. Finally, Gregoras and his addressee are nevertheless related and even united, i.e. their souls are unified through a gnomon, the same way four and nine become one thanks to the double nature of five.

In his treatment of *Letter 6* Bezdechi has suggested that Gregoras addressed it either to his mentor Theodore Metochites, emperor Andronikos II's prime minister, or to Demetrios Kabasilas. As the number of letters addressed to them and included in Gregoras' epistolary corpus (six to Metochites and three to Demetrios) indicates, they both were among Gregoras' frequent correspondents. Cod. *Angel. gr.* 82 (the sixteenth century), however, lists Manuel Kantakouzenos as the addressee of *Letter 6*. Thus, in order to conclude the present section, I shall address each of the three possible identifications of the addressee and add another one to the list.

More often than not, *Letter 6* is transmitted without an indication of its intended addressee. The omission of a letter's addressee's name in the context of medieval letter-writing could be motivated by a number of reasons. First, the case could be that the addressee's name is simply unknown. Another option might be that the name is kept secret by the author. It is also quite common that when reworking a so-called 'real' letter into a model letter, for instance, the compiler/editor/author would erase the name of the addressee, that is, the omission would be a result of the editorial process.<sup>686</sup> It is also possible that the destination of the missive was considered obvious and therefore, remained unmentioned. Finally, it could also be the case that the reason behind omitting the addressee's name is the intention to keep the focus of the reader on the sender rather than on the recipient.<sup>687</sup>

Regarding Bezdechi's suggestions for the possible addressees of *Letter 6*, one ought

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<sup>686</sup> Kiapidou, "Chapters, Epistolary Essays and Epistles. The Case of Michael Glykas' Collection of Ninety-Five Texts in The 12<sup>th</sup> Century," 55.

<sup>687</sup> Sylvie Lefèvre, "La Lettre et Ses Adresses Dans La Littérature Française (XIIIe XVe Siècles)" (presented at the Medieval Letters between Fiction and Document, Siena, 2013): 10.

to note that Theodore Metochites was indeed Gregoras' mentor and frequent correspondent. Metochites designated Gregoras as his intellectual heir and as a guardian of his library and, moreover, Gregoras took care of the education of Metochites' children. The two had common scientific and philosophical pursuits. Further, Gregoras' letter-collection includes a total of six letters (*Letters* 23, 24ab, 25, 26, 27, and the *Hortatory Letter concerning Astronomy*<sup>688</sup>). The manuscript tradition, however, does not contain any indication that Gregoras was addressing it to Metochites. Nevertheless, it ought to be mentioned that Metochites indeed wrote on the subject of the extraction of the square root in his *Elements of Astronomy*,<sup>689</sup> though he did not refer to the gnomon and its role or meaning.

Demetrios Kabasilas was also one of Gregoras' frequent correspondents. Gregoras addressed at least three letters to him (*Letters* 65, 66, and 148), and they shared a common interest in astronomy and philosophy. *Vat. gr.* 1086 lists *Letter* 148 to Kabasilas just one letter before *Letter* 6. This part of the codex, ff. 140r-159r comprises a set of eight letters that have obviously been perceived as a unit of some kind, since they are preceded not by other letters, but by a *logos* dedicated to the Theotokos, while what follows them is a praise of emperor Andronikos II in Ionian dialect. Thus, one might argue for a connection between those eight letters, with regard to their topics or their addresses, or their style. It cannot be argued convincingly, however, that the proximity of *Letters* 148 and 6 speaks in favor of the identification of Demetrios Kabasilas as the addressee of *Letter* 6. Moreover, except for the codicological proximity, there are no other indications in favour of such a hypothesis.

Gregoras addressed two letters to the despot Manuel Kantakouzenos (*Letters* 5 and 96) and one of them, *Letter* 5, is always transmitted coupled with *Letter* 6. In *Vat. gr.* 1086 they occupy the same folio, f. 154v, and they are both transcribed by the same hand. Moreover, this particular scribe did not transcribe either the preceding or the following

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<sup>688</sup> Two versions of *Letter* 24 are preserved, and, as I have argued earlier, the *Hortatory Letter concerning Astronomy* should be added to the group of letters addressed to Metochites and subsequently, should have been included in Leone's edition of Gregoras' epistolary collection.

<sup>689</sup> Tihon, "Les sciences exactes à Byzance," 385. See also Bydén, *Theodore Metochites' Stoicheiosis Astronomike*.

letters. Again, it can be argued that the two letters were perceived as a unit, both by the scribe and by Gregoras himself, since his corrections are found throughout the codex *Vaticanus*. Thus, it may have been perceived as obvious that *Letter 6* is addressed to Manuel as well, and therefore his name was omitted from the second superscription.

In the following discussion I argue for the consideration of a fourth hypothesis as to the identification of *Letter 6*'s addressee and I propose that it is equally worthy of further examination as the identification of the recipient as Manuel Kantakouzenos. To begin with, one ought to account for the letter's ending: "In this way, by itself, your opinion has been delivered, in a marvelous way, being able to demonstrate on the spot not only the problem, but also the union of both our souls, in an outline as it were."<sup>690</sup> On the one hand, thus phrased, the letter's closing confirms its success, namely, it has facilitated the union of two friends and their souls; in other words, the gnomon has served its purpose, as it were. On the other, Gregoras writes of an opinion being delivered and of a problem being demonstrated, which are, as it appears, distinct from the matter of friendship.

Should one assume that the problem exposition and related opinion Gregoras referred to in *Letter 6*'s closing are thematically related to the mathematical account of square numbers and their gnomons delivered in the main body of the missive, then, several fourteenth-century parallels come to mind. In addition to Metochites' remarks concerning the related problem<sup>691</sup> of the extraction of square roots in his *Elements of Astronomy*, one

<sup>690</sup> Gregoras, *Letter 6*, lines 30-32: οὕτως ἐξ αὐτομάτου θαυμαστόν τινα τρόπον τὸ σὸν ἐξενήνκεται δόγμα καὶ πρᾶγμα δεικνύειν αὐτόθεν δυνάμενον καὶ τὴν τῶν ἡμετέρων ἀμφοῖν ψυχῶν ὥς ἐν τύπῳ συνάφειαν.

<sup>691</sup> The knowledge of square numbers was necessary for the study of the square roots and for learning to extract them. The latter operation, in turn, was fundamental within the sexagesimal system used for astronomical calculations. Thus, the interest in the square root on behalf of a number of Palaiologan scholars should be linked with the more general interest in astronomy they also displayed. In the words of Carelos, knowledge of arithmetic and geometry was needed, on the one hand, and on the other, astronomy, in turn, promoted their development. Moreover, Carelos noted the utmost importance of the gnomon (the instrument) for Greek mathematics and astronomy, as this device was essential for calculations related to the geometry of the circle and the latter, in turn, was indispensable for the execution of astronomical calculations. Barlaam the Calabrian, *Logistiké*, ed. Pantelis Carelos, *Corpus Philosophorum Medii Aevi. Vyzantinoi Philosophoi = Philosophi Byzantini* 8 (Athens; Paris; Brussels: The Academy of Athens; J. Vrin;



ought to mention the unedited treatise on the same subject preserved in two manuscripts, namely codd. *Ambrosiani graeci* E 76 sup. (the mid- to late fourteenth century)<sup>692</sup> and P 72 sup. (1563).<sup>693</sup> In 1977, Mogenet and Tihon wrote that the treatise *On the Square Root* (Περὶ τετραγωνικῆς πλευρᾶς) transmitted on ff. 108r-110v of the *Ambrosianus gr.* E 76 sup. was the work of Barlaam the Calabrian.<sup>694</sup> Similarly, Sinkewicz included the *On the Square Root* in the inventory of Barlaam's works he published in 1981<sup>695</sup> and in 1995 Kolbaba reiterated the same attribution of authorship.<sup>696</sup> It is noteworthy, however, that earlier, in 1978, Allard referred to the same treatise *On the Square Root* and pointed out that it is wrongly attributed to Barlaam.<sup>697</sup> Allard also declared that he was preparing a critical edition of the work based on the two *Ambrosiani* and in which, one may assume, his disagreement with the authorship attribution would have been more substantially argued. To my knowledge, the edition has not been published, but importantly, in his inventory of Barlaam's œuvre (1996)<sup>698</sup> Carelos did not list any separate treatise dedicated to the square root. Finally, it is curious that neither Sinkewicz, nor Kolbaba, engaged with Allard's position.

What is important for the present argument, nonetheless, is that should we assume that *Letter 6* was addressed to someone interested in mathematics, moreover, someone who

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Ousia, 1996), 212. On the interest in the extraction of the square root among Palaiologan scholars, the importance of the procedure and its difficulty, see Tihon, "Les sciences exactes à Byzance," 385-390.

<sup>692</sup> Emidio Martini and Domenico Bassi, eds., *Catalogus Codicum Graecorum Bibliothecae Ambrosianae*, vol. 1, 2 vols. (Mediolani: U. Hoepli, 1906), 326-328. See also Kolbaba, "Barlaam the Calabrian," especially 66, 71; Anne Tihon, "Barlaam de Seminara. Traité sur la date de Pâques," *Byz* 81 (2011): 364-365; Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, especially 3-4, 22-24; Sinkewicz, "The Solutions Addressed to George Lapithes by Barlaam the Calabrian," 196.

<sup>693</sup> Emidio Martini and Domenico Bassi, eds., *Catalogus Codicum Graecorum Bibliothecae Ambrosianae*, vol. 2, 2 vols. (Milan: U. Hoepli, 1906). See also Kolbaba, "Barlaam the Calabrian," especially 66, 71; Tihon, "Barlaam de Seminara. Traité sur la date de Pâques," 364-365, and Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, especially 4-5, 22-24.

<sup>694</sup> Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 4.

<sup>695</sup> Sinkewicz, "The Solutions Addressed to George Lapithes by Barlaam the Calabrian," 186. For the entire inventory, see pages 185-194.

<sup>696</sup> Kolbaba, "Barlaam the Calabrian," 66.

<sup>697</sup> André Allard, "Le petit traité d'Isaac Argyre sur la racine carrée," *Centaurus* 22, no. 1 (1978): 12, note 14.

<sup>698</sup> Barlaam the Calabrian, *Logistiké*, xxv-xxvi.

dealt with the problem of the square roots and consequently, was familiar not only with the properties of square numbers, the roots they are derived from and the gnomons related to them, but also with the symbolic meaning of the relationship between a square number and its gnomon transmitted within the Greek mathematical tradition, then, we should allow for the possibility, as vague as it is, for the author of the *On the Square Root* to be Gregoras' addressee, especially if he is not to be identified as Barlaam the Calabrian. In fact, the latter also wrote on the subject of the extraction of square roots, for instance, in his *Logistikē*, Book II, 39<sup>699</sup> (without any mentioning of gnomons), but given the intellectual rivalry between him and Gregoras as well as the lack of evidence of any correspondence between the two it is rather unlikely that Barlaam was the intended addressee of *Letter 6*.

In their reference to the *On the Square Root* preserved in *Ambrosianus gr. E 76 sup.*,<sup>700</sup> Tihon and Mogenet noted that the text featured quotations from Theon of Alexandria and Nikolaos Kabasilas Chamaëtos (ca. 1322/3–after 1391).<sup>701</sup> Similarly to Gregoras, Kabasilas studied rhetoric, philosophy, and astronomy in Constantinople and his *Letter 4* addressed to his father in ca. 1340–1341<sup>702</sup> indicates his preoccupation with the latter. He penned a short treatise concerned with the square roots as well and, importantly, its earliest copy is

<sup>699</sup> Ibid., 44–45. See also Tihon, “Les sciences exactes à Byzance,” 386–387.

<sup>700</sup> Barlaam de Seminara, *Traité sur les éclipses de Soleil de 1333 et 1337*, 4.

<sup>701</sup> On Nikolaos Kabasilas Chamaëtos and his involvement in the hesychast controversy, as well as on the ongoing debate in scholarship concerning his affiliation during the debate, see C. N. Tsirpanlis, “The Career and Writings of Nicolas Cabasilas,” *Byz* 49 (1979): 415–27; Nikolaos Kabasilas, *Correspondance de Nicolas Cabasilas*, trans. Marie-Hélène Congourdeau, Fragments 10 (Paris: Belles lettres, 2010); Ihor Ševčenko, “Nicolaus Cabasilas’ Correspondence and the Treatment of Late Byzantine Literary Texts,” *BZ* 47 (1954): 49–59; Ševčenko, “Nicolas Cabasilas’ ‘Anti-Zealot’ Discourse: A Reinterpretation,” *DOP* 11 (1957): 79–171; Ševčenko, “The Author’s Draft of Nicolas Cabasilas’ ‘Anti-Zealot’ Discourse in ‘Parisinus graecus 1276,’” *DOP* 14 (1960): 179–201; Ševčenko, “A Postscript on Nicolas Cabasilas’ ‘Anti-Zealot’ Discourse,” *DOP* 16 (1962): 403–8; Ioannis Polemis, “Notes on a Short Treatise of Nicolas Cabasilas,” *REB* 51, no. 1 (1993): 155–60; Sofia Kotzabassi, “Ein neues Autographon des Nikolaos Kabasilas: Der Codex Vat. Pal. gr. 211,” *JÖB* 53 (2003): 187–94; Ioannis Polemis, “Nikolaos Kabasilas’s *De vita in Christo* and Its Context,” *BZ* 106, no. 1 (2013): 101–32.

<sup>702</sup> Kabasilas, *Correspondance de Nicolas Cabasilas*, trans. Marie-Hélène Congourdeau, 18–21. In the letter Kabasilas justified his prolonged silence with the decay in his health. Namely, he had been suffering from a peculiar fever that according to the physicians is caused by his intensive studies. Interestingly, according to Kabasilas, his symptoms appeared for the first time after he had started studying astronomy with the help of Ptolemy’s *Almagest*, since, as it would seem, the effort was too great for him.

preserved in the same manuscript as the *On the Square Root* which, Allard argued, was wrongly attributed to Barlaam the Calabrian, namely in *Ambrosianus gr.* E 76 sup. With respect to the possibility for Kabasilas being the addressee of *Letter 6*, as in the case of the author of the unedited *On the Square Root* or of Barlaam, the evidence is insufficient. On the one hand, if Kabasilas had studied astronomy ca. 1340 as indicated by his *Letter 4*, to associate him with the learned circle around Gregoras would be not so far-fetched, since Gregoras' expertise was highly authoritative at the time and Chora's library preserved an extraordinary collection of scientific manuscripts. On the other, there is no evidence of any epistolary correspondence between the two and their relationship is usually discussed by scholars in the context of their respective attitudes towards Gregory Palamas' teachings: Gregoras notably polemicized with Palamas extensively and strove to refute the latter's theology, while Kabasilas' thought was in tune with Palamas' in a number of aspects.<sup>703</sup> Notably, after 1355, Kabasilas wrote a short polemical essay against Gregoras (Κατὰ τῶν τοῦ Γρηγορίου ληρημάτων λόγος) in which he mocked the latter for gathering all kinds of astronomical instruments at his residence, as well as for his interest in Plato and for his effort to emulate his philosophical and rhetorical authority.<sup>704</sup>

In order to conclude the present discussion concerning the possible addressee of Gregoras' *Letter 6*, I shall address two examples of fourteenth-century scholars dealing with the problem of the square root, and by extension, knowledgeable of the properties of square numbers and gnomons. The first pertains to Gregoras' disciple and close associate

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<sup>703</sup> Polemis, for instance, argued that Kabasilas did not share Palamas' views on the value of secular education. Polemis, "Notes on a Short Treatise of Nicolas Cabasilas," 155–60. For another example of Kabasilas' disagreement with certain aspects of Palamism, as well as for a brief bibliography concerning the ongoing scholarly debate on Kabasilas' Palamite or anti-Palamite position, see Polemis, "Nikolaos Kabasilas's *De vita in Christo* and Its Context," 101–32. For a brief survey of the existing scholarship on Kabasilas and his thought, see Eugenia Russell, "Nicholas Kavasilas Chamaëtos (c. 1322–c. 1390): A Unique Voice Amongst His Contemporaries," *Nottingham Medieval Studies* 54 (2010): 121–35.

<sup>704</sup> A. Garzya, "Un opusculé inédit de Nicolas Cabasilas," *Byz* 24 (1954): 521–32. On the hypothesis that the short treatise was written not by Nikolaos, but by his uncle Neilos, as well as for further bibliography, see Polemis, "Nikolaos Kabasilas's *De vita in Christo* and Its Context," 102 and note 5.

Isaac Argyros who wrote a short treatise on the extraction of the square root (Περὶ εὐρέσεως τῶν τετραγωνικῶν πλευρῶν τῶν μὴ ῥητῶν τετραγώνων ἀριθμῶν) which, in fact, is his only known arithmetical work.<sup>705</sup> Argyros' text is preserved in two manuscripts, namely *Vat. gr.* 1058 (ff. 29v-32v) and *Marc. gr.* 333 (ff. 26r-32r).<sup>706</sup> While the treatise features an 'introduction' which consists in statement of the problem at hand and an outline of the relevant definitions, as well as an invocation of God's help in reaching a solution,<sup>707</sup> there is no concluding section to sum up the examples discussed by Argyros in the main exposition. The text's opening is the one of interest regarding the analysis of *Letter* 6, as the rest of the treatise is highly technical. Here Argyros provides a definition of a square number, namely the result of the multiplication of whatever number by itself.<sup>708</sup> Next, Argyros refers to the method of obtaining a square number by adding up successive odd numbers, an arithmetical operation discussed already by Nikomachos as I have previously shown.<sup>709</sup> In other words, Argyros' demonstrations concerning the extraction of the square root start off from the same conceptual basis which informed Gregoras' discussion in *Letter* 6. The former, however, does not feature any other traits, for instance employing the same style or similar expressions, which would tie it to Gregoras' missive, thus suggesting that Argyros may have been its intended addressee.

Indeed, Gregoras and Argyros were both associated with the monastery of Chora and collaborated on a number of occasions such as in the production of *Par. gr.* 1276

<sup>705</sup> Allard, "Le petit traité d'Isaac Argyre sur la racine carrée," 1–43.

<sup>706</sup> Ibid., 1. According to Allard, the *Vaticanus* dates to the fifteenth and sixteenth centuries while the *Marcianus* was copied before 1446. On *Vat. gr.* 1058, see also Pingree, "Some Fourteenth-Century Byzantine Astronomical Texts," 103–8; and most importantly O. Neugebauer, "Studies in Byzantine Astronomical Terminology," *TAPS*, New Series, 50, no. 2 (1960): 1–45.

<sup>707</sup> Allard, "Le petit traité d'Isaac Argyre sur la racine carrée," 14–15, line 5.

<sup>708</sup> Ibid., 14, lines 3–6: Τῶν μὲν ῥητῶν τετραγώνων ἀριθμῶν εὐχερὴς ἐστὶν ἢ τῶν πλευρῶν εὐρεσις, ὅτι καὶ αὗται ῥηταὶ εἰσι· πᾶς γὰρ ἀριθμὸς ἐφ' ἑαυτὸν πολλαπλασιαζόμενος τετράγωνον ποιεῖ· πλευρὰ δέ ἐστιν ὁ πολλαπλασιαζόμενος ἐφ' ἑαυτὸν ἀριθμός.

<sup>709</sup> Ibid., 14, lines 6–11: Καὶ εἰσι μὲν τετράγωνοι ἀριθμοὶ ἀπὸ μονάδος ὅσοι κατὰ σύνθεσιν τῶν ἐφεξῆς γίνονται περιττῶν. Οἷον ἐκκειμένων α, γ, ε, ζ, θ, ια καὶ ἐφεξῆς, συντιθεμένης μὲν τῆς μονάδος τῷ γ, ὁ δὲ γίνεται τετράγωνος, τῆς μονάδος δὲ καὶ τοῦ γ τῷ ε ὁ θ, καὶ οὗτος τετράγωνος, τούτων δ' αὖθις τῷ ζ ὁ ις, καὶ τούτων ὁμοῦ μετὰ τοῦ θ ὁ κε, καὶ ἔτι τούτων μετὰ τοῦ ια ὁ λς, καὶ ἐφεξῆς ὁμοίως.

(Gregoras' *History*),<sup>710</sup> *Laur. Plut.* 70, 5,<sup>711</sup> and *Marc. gr.* 162.<sup>712</sup> Moreover, in the sphere of the mathematical sciences, Argyros studied the same topics as Gregoras. He reworked the tables of the lunar and solar syzygies from the *Almagest* and the *Handy Tables* and he converted them to the Roman calendar for the longitude of Constantinople, starting from 1367/1368.<sup>713</sup> In 1372/1373, Argyros composed a calculation of the solar and lunar cycles and a treatise on the calculation of the date of Easter which he dedicated to the *katholikos kritēs* Andronikos Oinaïotes.<sup>714</sup> In the latter, similarly to Gregoras, Argyros proposed a revision regarding the length of the tropical year.<sup>715</sup> Following Gregoras, Argyros executed a redaction of Ptolemy's *Harmonics*,<sup>716</sup> and finally, in 1367/1368, he also wrote a treatise on the construction of the astrolabe.<sup>717</sup> Thus, based on their common scientific interests and on the fact that Argyros wrote a short text on the square root, one could entertain the possibility that Gregoras' *Letter* 6 was addressed to Argyros. The evidence, however, remains insufficient. Moreover, there are no extant letters suggesting that the two scholars were corresponding. Finally, it is noteworthy that Tihon mentions *ca.* 1368 as the composition date for Argyros' *On the Square Root* which would preclude any possibility for him being identified as the *Letter* 6's addressee, since Gregoras was deceased for nearly a decade in

<sup>710</sup> Mondrain, "Les écritures dans les manuscrits byzantins du XIV<sup>e</sup> siècle. Quelques problématiques," 168; Pérez Martín, "El 'estilo Hodegos' y su proyección en las escrituras constantinopolitanas," 389–458.

<sup>711</sup> Mondrain, "Les écritures dans les manuscrits byzantins du XIV<sup>e</sup> siècle. Quelques problématiques," 168; J.-B. Clérigues, "Nicéphore Grégoras, copiste et superviseur du *Laurentianus* 70, 5," *Revue d'histoire des textes* 2 (2007): 21–47; Bianconi, "La biblioteca di Cora tra Massimo Planude e Niceforo Gregora," 413.

<sup>712</sup> Estangüi Gómez, "Saint-Sauveur de Chôra. Un monastère catholique à Constantinople dans le troisième quart du XIV<sup>e</sup> siècle," 175. See also Mondrain, "Les écritures dans les manuscrits byzantins du XIV<sup>e</sup> siècle. Quelques problématiques," 168.

<sup>713</sup> Tihon, "L'astronomie byzantine à l'aube de la Renaissance (de 1352 à la fin du XV<sup>e</sup> siècle)," 244, 251. See also Pingree, "The Astrological School of John Abramius," 189–215.

<sup>714</sup> *PLP* 21024.

<sup>715</sup> Tihon, "L'astronomie byzantine à l'aube de la Renaissance (de 1352 à la fin du XV<sup>e</sup> siècle)," 257–259.

<sup>716</sup> See above.

<sup>717</sup> Isaak Argyros, "Astrolabica," in *Anecdota Atheniensia et Alia*, ed. Armand Delatte, vol. 2, 2 vols., Bibliothèque de la Faculté de philosophie et lettres de l'Université de Liège 88 (Liège, Paris: Faculté de philosophie et lettres, 1939), 236–53.

1368. Unfortunately, Tihon does not provide any reasons for her dating.<sup>718</sup>

The final example I address in this section relates to the activity of Nikolaos Rhabdas from Smyrna (fl. ca. 1341).<sup>719</sup> Similarly to Barlaam the Calabrian,<sup>720</sup> Gregoras, and Isaac Argyros,<sup>721</sup> Rhabdas also occupied himself with the problem of the calculation of the date of Easter as well as with arithmetical problems famously developed in his two letters to Theodore Tzabuches<sup>722</sup> and Georgios Chatzikes.<sup>723</sup> In addition, he corresponded with Andronikos Zarides (at least 1315–1327),<sup>724</sup> a disciple of Planoudes and himself correspondent of Nikephoros Gregoras.<sup>725</sup> Another of Planoudes' students, namely Manuel Moschopoulos,<sup>726</sup> dedicated his treatise on the invention of the magic squares<sup>727</sup> to him. Finally, Rhabdas also worked on the arithmetical problem of the extraction of the square root.<sup>728</sup>

Importantly, Biedl, whose research on Gregoras' autograph *Palat. Heidelberg. gr.* 129 was instrumental in relating this collection of excerpts to Gregoras' activity as a copyist, pointed out that ff. 11v and 12r of the manuscript contain Rhabdas' mathematical tables with irrational square roots. The initial inscription above the first table on f. 11v, written in red ink, identified Gregoras as the dedicatee of Rhabdas' tables and Biedl transcribed it as

<sup>718</sup> Tihon, "Les sciences exactes à Byzance," 386.

<sup>719</sup> PLP 1437.

<sup>720</sup> Tihon, "Barlaam de Seminara. Traité sur la date de Pâques," 362–411.

<sup>721</sup> Tihon, "Les sciences exactes à Byzance," 406; Tihon, "L'astronomie byzantine à l'aube de la Renaissance (de 1352 à la fin du XV<sup>e</sup> siècle)," 259.

<sup>722</sup> PLP 27609.

<sup>723</sup> PLP 30724. An edition and commentary of Rhabdas' arithmetical letters is available in Paul Tannery, *Mémoires scientifiques*, vol. 4 (Toulouse; Paris: Edouard Privat; Gauthier-Villars, 1920), 61–187. For the section concerning the square root, see pages 101–103. For Rhabdas' calculation concerning the date of Easter see also O. Schissel, "Die Osterberechnung des Nikolaos Artabasdos Rhabdas," *Byzantinisch-neugriechische Jahrbücher* 14 (1938 1937): 43–59. On Rhabdas' arithmetical letters, see Tihon, "Les sciences exactes à Byzance," 390.

<sup>724</sup> PLP 6461.

<sup>725</sup> For Rhabdas' letter to Zarides, see Angelo Maria Bandini, ed., *Catalogus codicum manuscriptorum Bibliothecae Mediceae Laurentianae*, vol. 2, 3 vols. (Leipzig: Zentral-Antiquariat der Deutschen Demokratischen Republik, 1961), 566.

<sup>726</sup> PLP 19373.

<sup>727</sup> Tannery, *Mémoires scientifiques*, vol. 4, 28–60.

<sup>728</sup> *Ibid.*, 1–19.

follows: ἀρήτους, γρηγορᾶ σοφέ, δέχου ἐξ ἀρταβάσδου τοῦ ῥαβδᾶ νικολάου.<sup>729</sup> The inscription was subsequently covered with black ink and revised so as to omit mentioning a dedicatee: ὄρα πλευρὰς ἀρρήτους τοῦ ῥαβδᾶ νικολάου.<sup>730</sup> Based on the first inscription and the inclusion of Rhabdas' tables in a volume compiled and partially copied by Gregoras himself, Biedl concluded that Rhabdas and Gregoras must have been close associates.<sup>731</sup> Thus, the identification of the addressee of *Letter 6* as Rhabdas is plausible, first, because the subject matter of the letter corresponds to a topic Rhabdas himself examined; second, due to the dating of Rhabdas' scientific activity to the 1340s; and third, due to the evidence provided by *Palat. Heidelberg. gr. 129* that Rhabdas dedicated his tables with irrational square roots to Gregoras.

In sum, the identification of Gregoras' addressee in *Letter 6* as either Nikolaos Kabasilas, Isaac Argyros, or Nikolaos Rhabdas presents itself as equally (im)plausible. While this rather extended speculation as to the intended recipient of *Letter 6* could not be resolved in an identification, it, nevertheless, elucidates the intensive preoccupation of the fourteenth-century Palaiologan scholars with arithmetic (for instance, the problem of the extraction of the square root) which, in turn, was necessary to master in order for one to proceed towards astronomical problems such as the calculation of the length of the tropical year or of the date of Easter.

#### Chapter 4: Knowledge of the Creation. Spontaneity, Fortune, and Divine Providence

In the preceding chapters, I outlined two major lines of thought characteristic for Nikephoros Gregoras' philosophical discourse. First, I examined and exemplified his

<sup>729</sup> Artur Biedl, "Der Heidelberger cod. Pal. gr. 129 – die Notizensammlung eines byzantinischen Gelehrten," *Würzburger Jahrbücher für die Altertumswissenschaft* 3 (1948): 104.

<sup>730</sup> *Ibid.*

<sup>731</sup> *Ibid.*, 104–105.

discussion of sameness and difference. In the cases of *Letters* 134, 34, and 6, this essentially ontological problem was converted into an ethical one, namely Gregoras problematized the nature of friendship, as well as the creation and the maintenance of a friendly relationship. He approached the subject by questioning an epistolographical premise, fundamental for the Byzantine tradition, a *sine qua non* for any epistolary friendship, that is, the presumption that the two friends-correspondents are in fact one and the same soul in two bodies (*Letter* 134). The inherent ‘contradictions’ of such an idea allow for its dynamic meaning, that is, allow for it to be revisited, reinterpreted and redefined, thus opening a number of rhetorical venues for the epistolographer. These inherent ‘contradictions’ can be summarized by three dynamic relationships: 1) between the same and the different; 2) between the single and the multiple, and finally, 3) between the common and the personal. Epistolary friends share one soul and character, whose image is the text of the letter itself, while at the same time, the displacement of their bodies in space and time underlines the diversity of their physical existence. Thus, the process of maintaining a correspondence serves the purpose of overcoming the spatial and temporal distances, while the letter through its voice, i.e. through its choice of topic, language and style, facilitates and ascertains the union of the friends’ souls into a single one. The idea, however, of the union of souls, of friends being one single soul, is as much mystical, as it is logically paradoxical. How do two become one, while at the same time remaining two? How do two different beings become the same? And finally, how is it possible that two persons share a common nature, soul, will, etc.? Gregoras exploited these questions as venues into a variety of rhetorical strategies which eventually served a single purpose, namely to establish or maintain a relationship through the means of a letter. He experimented with different possibilities, for instance, how do we approach friendship when the friends are alike (*Letter* 34)?; or how do we deal with the relationship of friends who are not equal (*Letter* 134)?; and indeed, what is that which ties together those who are different and makes them one, while



at the same preserving their personality (*Letter 6*)? Two of the letters I discussed above, namely *Letters 134* and *34*, brought up another topic, namely the role of fortune and its influence on friendship. Gregoras developed more fully the problematics of spontaneity, fortune, and providence in his *History*, *Book V*, 6 (a discussion of divine providence), *Book VII*, 4 (definition of divine forethought), and *Book XXVIII*, 42-68 (discussion of determinism and free will).

As I have demonstrated both in *Part II: Justifications of Astronomy*, as well in the discussion of *Letter 34* in the present part of my dissertation, Gregoras attributed great importance not only to divine forethought, but also to the regularity of the celestial movements and to the influence heavenly phenomena exerted on terrestrial events. Moreover, in Gregoras' view, history told the story not only of people, cities and empires, but also of the heavenly bodies and their movements. In addition, it interpreted the meaning of celestial phenomena with respect to contemporary events. Thus, history provided knowledge of the past, which in turn, together with the ability to read the celestial signs divine providence furnished, assured that people could make predictions about the future. Importantly, Gregoras' *Historia Rhōmaikē* lists and discusses numerous astronomical events, such as solar and lunar eclipses (e.g. *History*, *Book IV*, 8; *Book IX*, 12, 14; *Book XI*, 3), the observation of comets (e.g. *History*, *Book XI*, 5, 7), or the configuration of the stars at a particular moment in time (e.g. *History*, *Book XI*, 11) and despite the technical scientific descriptions characteristic for Gregoras' prose, it interprets the occurrences observed in the sky as either felicitous or infelicitous. At the same time, Gregoras considered human free will to be a fundamental historical principle, as it made possible to discern a moral action from an immoral one and consequently, to assign judgment and responsibility. Gregoras positioned God and God's providence behind the design of the concordant and harmonized universe:

And indeed we are not at all forbidden to derive a clear explanation of the

events here on earth. Why? For we know the book of God, the celestial arrangement, upon which everything that is and will be has been engraved.<sup>732</sup>

For this I wanted <for you> and to show you how great the causes of the rest of the stars are on earth and how many the effects of their activity, during day and night, in order for you to recognize the greatness of God the creator and how great is the power of science and moreover, so that you would appear to yourself better-pleased with the aim and the desire for science. But as to a barbarian and someone who is far from due intelligence <this> is not sufficient nor the sufficient would come to be, thus to a man like you, intelligent and nourished by wisdom, even some little token describes the whole worth of the matter.<sup>733</sup>

The role of divine providence as an active force in the concordant and harmonized created universe, and as a facilitator of the human process of acquiring knowledge features as a subject not only in Gregoras' letters, but also in his *History*. Importantly, its very introduction links the celestial bodies and their eternal movements with the value of history:

For, on the one hand, like silent heralds of the divine magnificence, they (i.e. the heaven and earth, God's first and greatest creations) exist always, as they offer perception only as witness. History, on the other, a living and a speaking voice and its (the voice's) both really vivid and loud messenger passes through time, having always shown, like in a picture of the universe, the past events to the generations coming afterwards [...]<sup>734</sup>

<sup>732</sup> Gregoras, *Letter* 53, lines 116-118: καίτοι οὐδ' ἡμῖν παντάπασιν ἀπηγόρευται δῆλωσιν ἐκεῖθεν εἶναι τῶν ἐπιγείων. πῶς γάρ, οἱ βιβλίον ἴσμεν θεοῦ, τὴν οὐράνιον διακόσμησιν, ἥ γε γινόμενον καὶ ἐσόμενον ἅπαν ἐγγέγραπται;

<sup>733</sup> Gregoras, *Letter* 69, lines 108-116: ἐβουλόμην γὰρ ταῦτά τε καὶ ὅσα τῶν ἄλλων ἀστέρων αἷτια πρὸς γῆν καὶ ὅποσα ἐφ' ἡμέρᾳ καὶ νυκτὶ τὰ τῆς ἐργασίας αὐτῶν, ἔστιν ἃ σοι δηλοῦν, ὥς ἂν τῆς τε σοφίας τὸ μέγεθος τοῦ τεχνίτου θεοῦ τεκμήραιο καὶ ὅσον τὸ τῆς ἐπιστήμης κράτος, καὶ ἔτι σὺ σαυτῷ φανείης τοῦ σκοποῦ καὶ τοῦ τῆς ἐπιστήμης ἔρωτος ἡδίων. ἀλλ' ὥσπερ ἐς βάρβαρον ἄνδρα καὶ συνέσεως ὀφειλομένης ἔκδημον οὐχ ἱκανὸν οὐδὲ τὸ ἱκανὸν ἂν γένοιτο, οὕτως αὖ ἐς ἄνδρα κατὰ σὲ συνετὸν καὶ τρόφιμον σοφίας, καὶ βραχύ τι ξύμβολον ὅλην τοῦ πράγματος ὑπογράφει τὴν δύναμιν.

<sup>734</sup> Gregoras, *History*, vol. 1, 4, lines 9-14: τὰ μὲν γὰρ καθάπερ σιγῶντες κήρυκες τῆς θείας μεγαλουργίας, τὸν ἅπαντα διαγίνονται χρόνον, αἰσθησιν προκαλούμενα μάρτυρα μόνην. ἡ δ' ἱστορία, ζῶσα τε καὶ λαλοῦσα φωνὴ διαπερᾷ τὸν αἰῶνα καθάπερ ἐν πίνακι παγκοσμίῳ δεικνύουσα τὰ προγεγονότα τοῖς ἐπιγιγνομένοις ἀεὶ

And it seems to me that the glory of heaven and earth becomes more glorious through the history and, in a manner of speaking, the splendor <becomes> more splendid by far. For, if there were no history, wherefrom had people known how the sky, since the beginning, as it is always moving according to precisely the same unaltered movement, invariably wheels about <the> sun, moon and all stars towards an orderly and rhythmical variety and equally, describes God's glory, during day and night for eternity.<sup>735</sup>

In order to return to two key elements my study revolves around, namely knowledge and letters, I ought to make the following remark. There are two basic epistemological positions one could start from as far as knowledge is concerned: first, a skeptical point of view, namely to claim that to know something for certain is impossible; and second, one could recognize the possibility to know things and proceed in discussing what kind of things we have knowledge of and how do we succeed in attaining it. Interestingly enough, one finds both positions expressed in Gregoras' letters, as well as in some of his related writings. Gregoras wrote about the chaotic and disorderly world of mankind, where there is nothing we can know for certain. However, his lifetime of pursuing mathematic and astronomical studies might suggest that he believed the opposite. For instance, as Ierodiakonou noted in her discussion of Gregoras' anti-logical attitude, there is an obvious discrepancy between Gregoras' dismissal of Aristotelian syllogistic and his zealous studies of ancient philosophy, astronomy, and mathematics in combination with the strife after their promotion.<sup>736</sup>

One finds the same contradictory attitude in the works of his teacher Metochites. In his own words, he was the one who has renewed the science of astronomy, "the most

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<sup>735</sup> Gregoras, *History*, vol. 1, 4, line 20 – 5, line 4: δοκεῖ δέ μοι καὶ τὴν οὐρανοῦ καὶ γῆς δόξαν ἐνδοξοτέραν διὰ τῆς ἱστορίας καθίστασθαι, καὶ, ἴν' εἴπω, λαμπροτέραν πολλῶ τὴν λαμπρότητα. ποῦ γὰρ ἂν ᾔδεσαν ἄνθρωποι, τῆς ἱστορίας οὐκ οὔσης, ὡς ὁ μὲν οὐρανὸς τὴν αὐτὴν ταύτην ἀρχῆθεν αἰεὶ καὶ ἀκίνητον κινούμενος κίνησιν, ἥλιον καὶ σελήνην καὶ πάντας ἀστέρας διηνεκῶς ἐξελίττει πρὸς ποικιλίαν ὁμοίως εὐτακτόν τε καὶ εὐρυθμον, καὶ ὁμοίως τὴν τοῦ θεοῦ διηγεῖται δόξαν ἐφ' ἡμέρα τε καὶ νυκτὶ δι' αἰῶνος

<sup>736</sup> Ierodiakonou, "The Anti-Logical Movement in the Fourteenth Century," 222.

excellent of all in the field of acquisition of wisdom from the very beginning until now, a thing which had been lost to men for many years.”<sup>737</sup> At the same time, he considered natural sciences uncertain and their results rather random:

But as is immediately clear to someone who considers it well, the reason [for this variety of opinions in natural science], in contrast to the reason for the concord among mathematicians and their dissension-free assurance, is that the subject-matter of the natural scientists’ study is essentially unstable, flowing, constantly changing, and subject to innumerable modifications; it is in no way contained by unchanging causal explanations. Since the descriptions concern that which is infirm and unstable, having nothing certain and solid to define, as for instance everything that is subject to creation and nature and movement, these descriptions also sometimes miss and sometimes hit the mark [...] For how could something that does not remain identical be delimited with definitions as if it were uniform? And how could that which is subject to endless change possibly be grasped by apprehension pure and simple? And an object which is changing with all kinds of modifications, how could it not itself cause many different and even contradictory opinions to be formed by the beholders, and by necessity [elicit many different] accounts by people who are by necessity spurred to thought, different people in different ways, and undertake to persuade those who care about the truth concerning these things?<sup>738</sup>

Gregoras’ view of the creation as unstable and chaotic due to the role of chance and fortune, but overruled by the governance of divine forethought, relates to his

<sup>737</sup> Metochites, *Two Poems*, 37. *Poem* 4, lines 177-179: [...] ὅτι κεν αὐτὸς χρήμα τόδ’ ἔζοχον ἀπ’ ἄρα πάσης κτήσιος ἀρχῆθέν τ’ ἄχρι ἐς δεῦρο σοφίης καίνισα, πόλλ’ ἔτε’ οἰχόμενον μετ’ ἀνθρώποισι.

<sup>738</sup> *Theodore Metochites on Ancient Authors and Philosophy: Semeioseis gnomikai* 1-26 & 71, 203. For the Greek text, see (*Sem.*) 23.2.1-5; 200-202: Τὸ δ’ αἴτιον, εὖ γε δηλὸν αὐτόθεν, εἴ τις καλῶς συλλογίζοιτο, τούναντίον τοῦ κατὰ τοὺς μαθηματικούς αἰτίου τῆς ὁμονοίας καὶ τῆς ἀστασιάστου πίστεως, ὅτι τὸ τῆς σπουδῆς ὑποκείμενον σφίσιν ἀβέβαιον τὴν οὐσίαν καὶ ῥεῖ μεταβάλλον ἀεὶ καὶ μυρίαὶ τροπαῖς ὑπεύθυνόν ἐστι καὶ οὐ συνέχεται καθάπαξ ἀσεΐστοις αἰτιολογίαις. Καὶ τοίνυν ὡς περὶ ἀστάτου καὶ ἀνιδρύτου γε τῶν λόγων ὄντων καὶ οὐδὲν μήποτ’ ἔχοντος ἀσφαλὲς καὶ ἀσάλευτον ὀρίσασθαι, οἷα δὴ τὰ ὑπὸ γένεσιν πάντως πάντα καὶ φύσιν καὶ κίνησιν, καὶ οἱ περὶ αὐτῶν λόγοι διαμαρτάνουσιν ἔστιν οὗ καὶ ὅτε καὶ τυγχάνουσι [...] Τὸ γὰρ μὴ μένον ἐν ταυτότητι, πῶς ἂν τις λόγοις ὡς ἐνοειδὲς ὀρίσαιο; Καὶ τὸ μυρίαν ὑφιστάμενον τὴν μεταβολήν, πῶς ἔστιν ἀπλότῃ συσχεῖν καταλήψεως; Καὶ τὸ πάσαις τροπαῖς ἀλλάττον ὑποκείμενον, πῶς οὐκ αἴτιον αὐτὸ πλείστας τε καὶ διαφόρους καὶ τὰς ἐναντίας περὶ αὐτοῦ πράττεσθαι δόξας τῶν ἐποπτευόντων, καὶ λόγους τῶν μὲν τά, τῶν δὲ τὰ λογιζεσθαι πᾶσα ἀνάγκη προαγομένων καὶ πείθειν ἀξιούντων τοὺς ἐπιμελὲς ποιουμένους τὴν περὶ αὐτῶν ἀλήθειαν;

understanding of the nature and limitation of the human intellect. Importantly, modern scholarship has labeled Gregoras' position on human knowledge as 'epistemological pessimism', 'epistemological nihilism', or 'radical pessimism regarding the possibility of knowing the natural world.'

The first significant account of Gregoras' philosophical views was offered by Basil Tatakis in his seminal monograph *La philosophie byzantine* (1949).<sup>739</sup> Tatakis outlined the following philosophical themes that can be discerned in Gregoras' literary production, starting with the latter's adherence to Platonism, illustrated by Gregoras' effort in composing Platonicizing dialogues (e.g., the *Phlorentios* and the *Philomathēs*), as well as in his acceptance of the idea of a world's soul.<sup>740</sup> Further, Tatakis mentioned Gregoras' criticism of Aristotle, an attitude inherited from his mentor Metochites and visible in the former's *Solutions* and in the *Phlorentios*.<sup>741</sup>

In addition, Tatakis noted, Gregoras' criticism of Aristotle's philosophy, and especially of his syllogistic theory,<sup>742</sup> was a starting point for an attack on Latin scholasticism and for a criticism of the nature of human knowledge as a whole.<sup>743</sup> Pietro Luigi Leone, the modern editor of Gregoras' dialogue *Phlorentios* this claim was based on, agreed with Tatakis' interpretation, though he warned against ascribing to Gregoras "un antiaristotelismo integrale e convinto," since the Byzantine author often employed Aristotelian ideas in his other works.<sup>744</sup> Leone interpreted Gregoras' criticism rather as ascending from arguing against the views of one particular representative of the Latin thought, as Gregoras saw Barlaam, to polemicizing against Latin thought in general, and finally, to the confirmation of the limitations of human knowledge at large.<sup>745</sup>

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<sup>739</sup> Tatakis, *La Philosophie Byzantine*.

<sup>740</sup> Tatakis points to a passage in Gregoras, *History*, vol. 1, 108-109. See Tatakis, *Byzantine Philosophy*, 213.

<sup>741</sup> Tatakis, *Byzantine Philosophy*, 213.

<sup>742</sup> Gregoras, *History*, vol. 1, 512-520.

<sup>743</sup> Tatakis, *Byzantine Philosophy*, 213-214.

<sup>744</sup> Gregoras, *Phlorentios*, 34-35.

<sup>745</sup> Gregoras, *Phlorentios*, 34-35.

Most recently, Bydén responded to Tatakis' claim and stated that the latter overinterpreted the *Phlorentios* by reading its polemic as targeting the Latin Scholastics at large. In Bydén's words, Gregoras is rather "trying to capitalize on an already existing conviction that the Latins are inferior, in order to cast doubt on Barlaam, who, he claims, is a Latin in his heart and soul."<sup>746</sup> Importantly, Tatakis argued that due to Gregoras' position against Latin Aristotelian scholasticism Byzantine thinkers began to view Plato's teachings in opposition of the Latin scholastic reception of Aristotle, as opposed to his Orthodox scholastic reception.<sup>747</sup> Furthermore, Gregoras' so-called 'anti-Aristotelianism' and his interest in Plato were interpreted from a rather radical, through thought-provoking, perspective by Siniossoglou.<sup>748</sup> The latter designated Gregoras as one of the "major Byzantine dissenters"<sup>749</sup> (together with Michael Psellos, Theodore Metochites, Plethon and Bessarion) whose Platonizing tendencies not only anticipated Plethon's anti-Aristotelianism,<sup>750</sup> but also, in conjunction with Gregoras' opposition of Palamism resulted in the fact that, as Siniossoglou argues, "perhaps for the first time since late antiquity, Neoplatonic arguments were openly recalibrated and consistently employed against Orthodoxy."<sup>751</sup>

Furthermore, according to Tatakis' account, Gregoras criticized the fallibility of

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<sup>746</sup> Bydén, "The Criticism of Aristotle in Nikephoros Gregoras' *Florentius*," page number unavailable. I am using a manuscript sent to me by the author which does not have the same page numbering as the printed version of the article.

<sup>747</sup> Tatakis, *Byzantine Philosophy*, 214.

<sup>748</sup> Niketas Siniossoglou, *Radical Platonism in Byzantium: Illumination and Utopia in Gemistos Plethon*, Cambridge Classical Studies (Cambridge, UK; New York: Cambridge University Press, 2011). For a detailed summary of Siniossoglou's monograph, see Fabio Pagani, review of *Review of: Radical Platonism in Byzantium: Illumination and Utopia in Gemistos Plethon. Cambridge classical studies*, by Niketas Siniossoglou, *BMCR*, July 12, 2013, <http://bmcr.brynmawr.edu/2013/2013-07-12.html> [last accessed on August 20, 2014]. For a critical reading of Siniossoglou, see Sergei Mariev, review of *Review of: Radical Platonism in Byzantium: Illumination and Utopia in Gemistos Plethon. Cambridge classical studies*, by Niketas Siniossoglou, *BZ* 107, no. 1 (2014): 273–78.

<sup>749</sup> Siniossoglou, *Radical Platonism in Byzantium: Illumination and Utopia in Gemistos Plethon*, 26.

<sup>750</sup> *Ibid.*, 105.

<sup>751</sup> *Ibid.*, 107. On Gregoras' references to Platonic and Neo-Platonic authors, see also Igor P. Medvedev, *Vizantijskij gumanizm XIV-XV vv.* (Saint Petersburg: Nauka, 1976), 58; Beyer, "Nikephoros Gregoras als Theologe und sein erstes Auftreten gegen die Hesychasten."

human knowledge and he claimed that “human wisdom and science are unable to provide even a weak idea of reality.”<sup>752</sup> In terms of methods of inquiry, according to Tatakis, Gregoras preferred the *a priori* approach, but nevertheless, recognized the importance of empirical learning. Tatakis argued that Gregoras’ critical approach to human knowledge and science should not be understood as a skeptical position, since the Byzantine polymath was clearly aware of the implications a skeptical approach to knowledge held with regard to religion.<sup>753</sup> Faith surpasses the limitations of human wisdom and brings true understanding of reality. Acquiring the necessary knowledge, however, according to Gregoras, was still a necessary step in the process of understanding the world.<sup>754</sup> Another major philosophical theme in Gregoras’ writing is the criticism of sophistry and superficial understanding.<sup>755</sup> Tatakis also noted that Gregoras was very much interested in the inquiring after “the purpose that regulates nature.”<sup>756</sup> According to Tatakis, Gregoras viewed the celestial and terrestrial realms as a single entity “governed by the will of God.”<sup>757</sup> Tatakis pointed out that Gregoras rejected the Stoic fatalist position as negating human freedom.<sup>758</sup>

On a different note, Ierodiakonou presented and examined Gregoras’ attitude towards Aristotelian syllogistic in her comparative account of Gregoras’ *Phlorentios* and *First Antirrhetics*.<sup>759</sup> She summarized Gregoras’ position in the following manner: 1) Aristotelian logic is an instrument which is inadequate with respect to the transcendental reality of theological truths; 2) logic provides us with a knowledge of the sensible objects which are not reality itself but mere images of reality, i.e. one cannot obtain knowledge of the real

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<sup>752</sup> Tatakis, *Byzantine Philosophy*, 214.

<sup>753</sup> See Gregoras, *History*, vol. 2, 930. See Tatakis, *Byzantine Philosophy*, 214.

<sup>754</sup> Tatakis, *Byzantine Philosophy*, 214.

<sup>755</sup> *Ibid.*, 214-215.

<sup>756</sup> *Ibid.*, 213.

<sup>757</sup> *Ibid.*, 213.

<sup>758</sup> *Ibid.*, 213.

<sup>759</sup> Ierodiakonou, “The Anti-Logical Movement in the Fourteenth Century.”

things with the help of syllogistic.<sup>760</sup> Gregoras' criticism of Aristotelian logic and its inadequacy as an instrument with respect to the transcendental reality of theological truths<sup>761</sup> is interpreted by Ierodiakonou as an implicit criticism of Latin theology which relied extensively upon the use of syllogistic theory.<sup>762</sup>

The most recent comprehensive, though as concise as an encyclopedic entry requires, account of Gregoras' thought, on the other hand, was published by Demetracopoulos in 2011.<sup>763</sup> Like Tatakis, Demetracopoulos emphasized Gregoras adherence to Platonism, as well his appropriation of philosophical positions inherited from his mentor Metochites, for instance his criticism of Aristotle. Demetracopoulos summarizes the main characteristics of Gregoras' thought as follows: "he was a Platonist with highly Skeptical tendencies, which he combined with Platonism after the pattern of Philo of Alexandria."<sup>764</sup> Moreover, Demetracopoulos points out, Gregoras professed a Neoplatonic view concerning God whom he described as the transcendent "One" which contains the immaterial and ineffable archetypes of the created beings.<sup>765</sup> In turn, the Byzantine polyhistor understood the sphere of human affairs as defined by instability, change and corruption, ordered by divine providence.<sup>766</sup> Thus, referring to Gregoras' skepticism, Demetracopoulos notes that the former considered the attainments of the sciences with respect to the terrestrial, heavenly, as well as human affairs uncertain, as it resulted from the miserable human condition following the Fall of mankind.<sup>767</sup> Further, Demetracopoulos listed the influences on Gregoras' philosophical writings, namely Plato, Philo of Alexandria, Plutarch, and Sextus

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<sup>760</sup> Ibid., 221.

<sup>761</sup> Ibid., 221.

<sup>762</sup> Ibid., 222.

<sup>763</sup> Demetracopoulos, "Nikephoros Gregoras."

<sup>764</sup> Ibid., 897.

<sup>765</sup> Ibid., 897, 898.

<sup>766</sup> Ibid., 898.

<sup>767</sup> Ibid., 897.



Empiricus.<sup>768</sup> Significantly, Demetracopoulos assesses that even with respect to astronomy, that is, one of Gregoras' main scientific preoccupations, the latter applied his skeptical views by claiming that even astronomical theories cannot reach accurate knowledge as "instead of starting from observation data and setting forth this or that hypothesis, [they] start from some preconstructed ideas about how heavens go and tend to adapt the observation data to themselves."<sup>769</sup> Importantly, Demetracopoulos argues that Gregoras' skepticism sometimes "borders on epistemological nihilism, which appeared for the first time in Byzantium with him."<sup>770</sup>

Another scholar who emphasized Gregoras skepticism with regard to the possibility of human reason to attain knowledge of the natural world is Börje Bydén. Moreover, he has interpreted Gregoras' criticism of Aristotle as discussed in his dialogue *Phlorentios*, a feature of Gregoras' philosophical position emphasized by Tatakis and Demetracopoulos as well, in the context of the Byzantine polymath's epistemological pessimism.<sup>771</sup> In particular, Gregoras criticized Aristotle's natural philosophy as defended by Barlaam of Calabria and a certain Latin friar living in Constantinople and, according to Bydén, it is in the framework of this criticism that Gregoras showcased his "radical pessimism regarding the possibility of knowledge of the natural world."<sup>772</sup> Bydén summarizes Gregoras' criticism of Aristotle's epistemology as follows: 1) Aristotle contradicts himself when a) in the *Posterior Analytics* 2.19, he posits the universals as starting points for the demonstrative deductions, necessary in order to reach scientific truth and b) in the *Nicomachean Ethics* 1.6, he denies the existence of universals or forms. In sum, Aristotle's epistemological theory is contradictory. 2) Gregoras targets specifically *Posterior Analytics* 2.19 and problematizes the process of creation of universals from particulars by the intellect, i.e. he questions the possibility for

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<sup>768</sup> Ibid., 898.

<sup>769</sup> Ibid., 898.

<sup>770</sup> Ibid., 898.

<sup>771</sup> Börje Bydén, "The Criticism of Aristotle in Nikephoros Gregoras' *Florentius*."

<sup>772</sup> Ibid.

the immaterial intellect to create intelligible realities on the basis or material particulars which are constantly changing.<sup>773</sup> Based on this analysis, Bydén concludes that “it is clear that Nikagoras’ (i.e. Gregoras’ alias in the *Phlorentios*) criticism is not of a methodological character. That is, he does not mean to say that Aristotle has not shown us the best way to attain knowledge about the sensible world. He means to say that there is no way to attain knowledge about the sensible world.”<sup>774</sup> That is, Bydén’s reading of the relevant passages from the *Phlorentios* suggests that, according to Gregoras, the contradictory nature of Aristotle’s teachings on natural philosophy demonstrate the general assumption that “the objects of natural philosophy are impossible to grasp, and hence, it is pointless to discuss them.”<sup>775</sup> Finally, another scholar who also reflected on Gregoras’ pessimistic epistemological attitude is Michele Trizio in his analysis of Eustratios of Nicaea’s influences on Gregoras’ thought. Trizio discussed in particular Gregoras’ *Antilogia*, or *Refutation of Those who Deny Men’s Miserable Condition* and the first among his *Solutions*.<sup>776</sup>

Indeed, as Bydén pointed out, Gregoras’ position on human knowledge of the creation is one of the themes a philosophical reading of the *Phlorentios* never fails to examine. By and large in his oeuvre, Gregoras described the realm of the natural phenomena and human affairs as unstable and chaotic, subdued by chance and fortune, whose influence was, however, overruled by the governance of divine forethought and justice. His doubt in the ability of the human intellect to grasp the physical phenomena and to attain knowledge of the sensible world is expressed in the *Phlorentios* as well:

For nothing among men is true, nor certain, but the human affairs are stirred and wrecked in obscure waters, as it were [...] bringing at times an unexpected ending to those who await, at others, certain fortunate device to

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<sup>773</sup> Ibid.

<sup>774</sup> Ibid.

<sup>775</sup> Ibid.

<sup>776</sup> Trizio, “On the Byzantine Fortune of Eustratios of Nicaea’s Commentary.”

those who do not expect.<sup>777</sup>

Importantly, in the dialogue this position is expressed by Nikagoras, i.e. Gregoras alias, and is presented as a reaction to Xenophanes' (Barlaam the Calabrian's alias) claim that the latter is knowledgeable in all the sciences and is able to demonstrate it. Thus, Nikagoras' conviction that humankind is limited in grasping the truth about the natural world only through its own intellectual resources is presented in the context of the boastful claim of Xenophanes that in fact obtaining such knowledge is an achievable goal. Consequently, Nikagoras is invited to put Xenophanes' claims to a test:

Come now then, after you take that astrolabe, stand in the sun and show the time, whatever it may be at present, so that, from a certain true starting point, you arrive at findings concerning the sun and the other stars, namely where each one happens to be in the zodiac, and you are able to produce clear and irrefutable demonstrations of the intrinsic reasons for their movements.<sup>778</sup>

This request is described as an easy task fit for children who have just grasped the basics of the science of astronomy. Despite being deemed elementary, thus strengthening Nikagoras' ridicule of Xenophanes' false competence, to determine the hour would in fact require, first, knowledge of the workings of the astrolabe, and second, knowledge of the astronomical system coherent with it. One should first be able to determine the current altitude of the sun, then the position of the sun on the ecliptic, the current longitude of the sun, and only then, one could determine the apparent solar time. In sum, to determine the

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<sup>777</sup> Gregoras, *Phlorentios*, lines 628-635: οὐδὲν γὰρ ἐν ἀνθρώποις ἀληθὲς οὐδὲ βέβαιον, ἀλλ' ὥσπερ ἐν ἀδήλοις πελάγεσι κυκᾶται καὶ ναυαγεῖ τὰ ἀνθρώπινα, [...] καὶ νῦν μὲν τοῖς προσδοκωμένοις ἀπροσδόκητον φέρων τὸ τέλος, νῦν δὲ τοῖς ἀδοκῆτοις εὐτυχῇ τινα τὴν παλάμην.

<sup>778</sup> Gregoras, *Phlorentios*, lines 704-710: φέρε τοίνυν τὸν ὥροσκόπον ἐκεῖνον δεξάμενος στῆθι παρὰ τὴν ἡλίου ἀκτῖνα καὶ τὴν ὥραν ἣτις ποτὲ εἴη ἔν γε τῷ παρόντι δίδαξον, ἵνα ὡς ἐξ ὀρμητηρίου τινὸς ἀληθοῦς ἀφικόμενος ἐς τὴν εὔρεσιν τοῦ τε ἡλίου καὶ τῶν ἄλλων ἀστέρων, ὅπῃ τοῦ ζῳδιακοῦ τυγχάνουσιν ὄντες ἕκαστος, ἔχῃς σαφεῖς καὶ ἀναντιρρήτους τὰς ἀποδείξεις ποιῆσθαι τῶν ἐμπεριελημμένων ταῖς τούτων κινήσεσι λόγων.

hour is a task that demonstrates one's understanding of essential principles of the astronomical science and its tools.

Thus, I argue, Nikagoras' request bears a substantial clue as to the philosophical discussion in the *Phlorentios*, which is, however, obscured by its polemical wrapping. Here, I refer to Nikagoras' remark that determining the time serves as a true starting point (ὀρμητήριον) from which one can build further and expand on one's knowledge of the heavenly bodies and their movements. That is, this simple task encapsulated the basic principles of astronomy and represented its axioms. In other words, through the example of Nikagoras' request, Gregoras indicated that in the human science of the heavenly bodies and their movements there is at least one such thing as a true starting point, something which is not unstable, fickle and governed by fortune, and further, something the human intellect could grasp and obtain true knowledge of, such as the calculation of the hour.

Importantly, Xenophanes' response to Nikagoras' request marks a reversal in the narrative structure with regard to the epistemological positions of the two interlocutors. While at first, Nikagoras stated that no human affair is true and stable and questioned Xenophanes, whose opposite claim of certainty seemed preposterous, now Nikagoras gives an example of a human affair which is quite certain, namely to determine the current time with the help of an astrolabe, but Xenophanes is quick to defend himself by deeming the task something not at all accessible to humankind: "For which man, being earthborn, could ever ascend to the sky to observe and grasp the movements of the stars, their distances and interpositions, and could communicate something clear to the others?"<sup>779</sup>

A historico-philosophical reading of the *Phlorenios* strives at reconstructing Gregoras' intellectual stance towards a number of philosophical problems, such as for instance, the limitations of human knowledge. Somewhat naturally such a reading tends to

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<sup>779</sup> Gregoras, *Phlorentios*, lines 719-722: τίς γὰρ ἄνθρωπος ὢν γηγενὴς ἀνέλθοι ἐς οὐρανὸν πώποτε, ἵνα θεασάμενος καὶ κατειληφὼς δρόμους ἀστέρων καὶ διαστάσεις καὶ ἀντιφράξεις αὐτῶν, 'σαφές τι ἀγγέλλειν' ἔχοι τοῖς ἄλλοις;

equate Nikagoras' voice with Gregoras'. Thus, such a reading effectively eliminates the possibility for each and every character of the dialogue to be in fact presenting an aspect of the authorial and authoritative voice. When Nikagoras' voice is selected, decontextualized and read independently as the authoritative or rather the authentic one, its relation to Xenophanes' voice and the possibility of reading their conversation as expressing Gregoras' authentic position results in being obscured. I argue that read independently, Nikagoras' epistemological stance is indeed pessimistic and skeptical. Read as a response to Xenophanes' pretention for mastering all-knowledge, it serves as a reaction, a corrective and even as a moral warning against a false conception of knowledge. That is, in my understanding, the dialogue between Nikagoras and Xenophanes communicates what knowledge and wisdom are not and advises against the advancement of impossible to defend claims. At the same time, however, as the example with the determination of the current time suggests, should one claim that they are all-knowledgeable, there is a method to test that, in the context of astronomy, moreover, there is a true premise to start from, and had Xenophanes completed the task, he might have proven his wisdom real.

Furthermore, as a comparison with *Letter 42* shows, Gregoras did not reject science as meaningless and moreover, encouraged the curiosity of his student and addressee of *Letter 42*, Helena Kantakouzene Palaiologina, by advising her to continue addressing him with philosophical questions.<sup>780</sup>

The occasion for writing the letter is to deliver an answer as to Helena's question concerning the difference between chance and fortune.<sup>781</sup> At the same time, however,

<sup>780</sup> Gregoras, *Letter 42*, lines 49-50: Ταύτη τοι καὶ καινὰ καινῶν αἰεὶ μοι προβάλλειν οὐδαμῇ γε ὀκνεῖς.

<sup>781</sup> The second half of the letter outlines the differences between fortune and spontaneity. According to Gregoras, spontaneity is usually related to situations where no choice and exercise of the free will are involved, whereas fortune can influence only beings with freedom of choice. For discussions of fortune and spontaneity in Gregoras' *History*, see Gregoras, *History*, vol. 3, 96, lines 8-15; 206, lines 7-13; 209, lines 9-12. For Gregoras' accusation towards John Kantakouzenos in determinism, see A. P. Kazhdan, "L'histoire de Cantacuzène en tant qu'oeuvre littéraire," *Byz 50* (1980): 279-335. On determinism and free will in Byzantine

Gregoras seized the opportunity, first, to praise Helena's inquisitive mind and intellectual achievements, second, to juxtapose her example with, in his words, the prevailing at the time superficial attitude among contemporary 'scientists', and finally, to describe briefly two intellectual processes of acquiring knowledge:

If those things which are prior in nature naturally encounter the perception as posterior, and, reversely, <if> the objects of the intellect are by all means worthier as prior to the perception, since both of them grasp each other according to the manner befitting to each one, the method directed towards scientific knowledge would also be pursuing some sort of double path: one that starts from the top, and another which ends somewhere up.<sup>782</sup>

Gregoras' discussion takes as its starting point a passage in Aristotle's *Categories* 7b35-8c13 in which the Stagirite accounts for the priority of the perceptible to the perception. Gregoras' objective, however, is not to reflect on Aristotle's inference, but rather to establish a hierarchy of objects of knowledge and of the corresponding methods of approaching them. While physical objects, that is, the perceptibles, exist prior to perception, they are also less worthy than the imperceptible objects of the intellect. Both the perception and the intellect approach their respective objects in a manner befitting their nature and both methods are valid paths to acquiring knowledge. As far as scientific knowledge is concerned, in Gregoras' opinion, it follows a double path, that is, it could ascend from examinations of the particulars and it could descend from intelligibles such as the universals.

Further, Gregoras deems the inquiry 'from below', that is from the particular, perceptible, and multiple towards the speculative and the intelligible a safer path to

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philosophical literature from the fourteenth and fifteenth centuries, see Igor P. Medvedev, *Vizantijskij gumanizm XIV-XV vv.* (Saint Petersburg: Nauka, 1976), 104-123.

<sup>782</sup> Gregoras, *Letter* 42, lines 1-5: Εἰ ὅσα τῇ φύσει πρότερα τῇ αἰσθήσει πεφύκασιν ὕστερα καὶ τούναντίον καὶ τὰ τοῦ νοῦ τιμιώτερα πάντως ὥς πρότερα τῆς αἰσθήσεως, ἐκατέρων δ' ἐχόντων ἐκάτερα κατὰ τὸν ἐκατέρω προσήκοντα τρόπον, εἴη ἂν καὶ ἡ πρὸς ἐπιστήμην μέθοδος διπλὴν τινα τὴν πορείαν ἰοῦσα, τὴν μὲν ἄνωθεν ἀρχομένη, τὴν δ' ἄνω που περατοῦσα.

knowledge for the ‘weaker’ minds that are not able first to grasp the principles and then to see them unravel in the natural world. Moreover, this method allows its practitioner to progress and with the help of the intellect, to reach to realm of true scientific knowledge:

And so that I may open a clearer path for the explanation, the inventors of the philosophical and logical sciences obeying the rule of the intellect and positioning somewhat up <the> track of speculation [...] advanced towards the objects posterior by nature [...], so that the matter at hand would not be defective nor extreme in whichever respect, but it would be also such that it has as part the befitting principle, <a principle> which thence the intellect provides as a ladder as it were, for the sake of knowledge befitting it (i.e. the intellect). Anyone who is not able to prepare introductions to science from the principle above and according to the natural order, but since the person is, moreover, without resources, they stand in need of those wings of the method from below, if on the one hand, they may ascend the entire guiding method as if with the help of a ladder and if they may investigate analytically regarding the plain of the truthful knowledge, they <may> justly bring praise to themselves [...]<sup>783</sup>

The second method of inquiry, namely, ‘from above’, consists in descending from the one and simple to the multiple and complex, thus observing the ‘branching out’ of the One into the multitude of the perceptible. It is this type of cognitive process that Gregoras deems as ‘justly marveled at’:

But whoever would grasp the wisdom powerfully and in accordance with nature, thereafter desires in abundance for distinction and for the secondary <objects>, as they descend from the One by nature and as they are scattered, they are subjected to the perception with respect to so many things and as

<sup>783</sup> Gregoras, *Letter 42*, lines 9-21: Καὶ ἵνα τῷ λόγῳ σαφεστέραν ἀνοίξωμεν τὴν ὁδόν, οἱ τῆς φιλοσοφίας καὶ ὅσοι τῆς λογικῆς ἐπιστήμης ἐφευρεταὶ τῇ τοῦ νοῦ κατακολουθήσαντες ἡγεμονίᾳ καὶ ἵχνος ἄνω που θέντες τῆς θεωρίας [...], εἶτα ἐπὶ τὰ τῇ φύσει κεχωρήκασιν ὕστερα [...], ἵνα μὴ χωλεύῃ τὸ πρᾶγμα μηδὲ καθ’ ὁπότερον ἄκρον, ἀλλ’ εἴη καὶ τοῦτο τὴν προσήκουσαν τὸ μέρος ἔχον ἀρχήν, ἣν ὥσπερ τινὰ κλίμακα δίδωσιν ἐκεῖθεν ὁ νοῦς γνώσεως εἵνεκα τῆς αὐτῷ προσηκούσης. ὅστις οὖν μὴ δυνηθεὶς ἐκ τῆς ἄνωθεν ἀρχῆς καὶ κατὰ φύσιν τὰ τῆς ἐπιστήμης ποιεῖσθαι προοίμια, ἀλλ’ ἀχορήγητος ὢν ἔτι τοιούτων πτερῶν δεῖται τῆς κάτωθεν ἀγωγῆς, ἐὰν μὲν ὅλην ἀνέλθῃ τὴν οἶονεὶ διὰ κλίμακος ἄγουσαν καὶ πρὸς τὸ τῆς ἀληθευούσης γνώσεως ἀναλύσει πεδίον, ἔπαινον μὲν προσάγεσθαι δίκαιος [...]

they observe the division of the One towards the many like as ‘from a root’ in order to assemble anew and to make through all one varied interweaving, so that they observe one universe, this one, to me, is quite justly marveled at for <their> good nature [...]”<sup>784</sup>

Notably, here Gregoras does not describe the perceptible, multiple, and complex world as chaotic and uncertain. On the contrary, similarly to the simile employed in his *Letter 12*<sup>785</sup>, Gregoras notes that the One, once divided into many, is reassembled again in a ‘single varied interweaving’. In my understanding, here Gregoras argues that if one inquires into the nature of the physical world ‘descending from above’, as it were, one would then examine the multiple as an offshoot of the single and would perceive the particulars as a complex composite whole, characterized by structured variety and reassembled as to form an articulated unity. Such a perspective on the sensible world is based on knowledge of its principle and cause. Thus, despite the occurrences of spontaneity and the interference of fortune which result in the randomness and uncertainty of human affairs, “we are not at all forbidden to derive a clear explanation of the events here on earth.”<sup>786</sup>

To summarize, notably in the *Phlorentios*, but also in his letters, Gregoras questioned the possibility for attaining true knowledge concerning the natural world or human affairs. I argue, however, that to label his position as ‘epistemological nihilism’ is an oversimplification of his views. While, indeed, following Metochites, Gregoras claimed that the changeability of natural phenomena limits the possibilities of attaining cognition of them and correspondingly, the authoritative accounts concerning nature contradict

<sup>784</sup> Gregoras, *Letter 42*, lines 22-28: ὅστις δ’ ἐρρωμένως καὶ κατὰ φύσιν ἄπτοίτο τῆς σοφίας, ἔπειτα φιλοτιμίας περισυία καὶ τῶν δευτέρων ἐφίεται, κατιῶν ἐκ τοῦ φύσει ἐνὸς καὶ σκιδνάμενος καθ’ ὅσα αἰσθήσει ὑπόκειται καὶ βλέπων ὡς ‘ἀπὸ ρίζης’ τὴν τοῦ ἐνὸς πρὸς τὰ πλείω διαίρεσιν, ἴν’ αὖθις συνηθροικῶς καὶ μίαν πλοκὴν διὰ πάντων ποικίλην πεποιηκῶς ὡς ἐν ὁρᾷ τὸ πᾶν, οὗτος ἐμοὶ τῆς εὐφυΐας μάλα θαυμάζεσθαι δίκαιος [...]

<sup>785</sup> Gregoras, *Letter 12*, lines 37-43: ἃ γὰρ χρόνος δήπου διέστησεν, ἔργων ὁμοιότης συνηψε πολλάκις καὶ ἃ συνηψεν αἶμα, τρόπων ἀλλοτριότης διέστησε πολλαχῇ, φύσιν ἐχούσης τῆς τῶν πραγμάτων φορᾶς καὶ γενέσεως νῦν μὲν συγχεῖν καὶ ταράττειν τὰς ὁμοιότητας, νῦν δ’ ἀναφέρειν καὶ παραπλέκειν ἀρμονίας ταυτότητος, καθάπερ ἐν σηρικοῖς τισι ὑφάσμασι καὶ πλέγμασιν, ὅποσα ποικιλία τις κοσμεῖ [...] [italics mine]

<sup>786</sup> Gregoras, *Letter 53*, lines 116-117: καίτοι οὐδ’ ἡμῖν παντάπασιν ἀπηγόρευται δῆλωσιν ἐκεῖθεν εἶναι τῶν ἐπιγείων.



themselves and each other, at the same time, if viewed in relation to its first cause, that is, as an image of its creator and as governed by His providence, the creation can be seen as harmonic and orderly and the intellect is able to approach it in those terms. Finally, the study of the mathematical sciences and of the celestial bodies and their movements is important precisely because the latter, despite being physical, perceptible, and moving objects, remain constant in their order, proportion and constant repetitive motion, thus being the noblest objects of scientific inquiry.

## CONCLUSIONS

The principal objective of the present dissertation is to reconstruct and analyze the discourses of science and philosophy in the letters of Nikephoros Gregoras. Gregoras' letters have been chosen as the main source material in order to fill a *lacuna* in the existing scholarship, namely the fact that though available in a recent critical edition, Gregoras' epistolary corpus was never studied comprehensively. Moreover, the existing studies of individual letters or letter-groups, when concerned with Gregoras' astronomical and philosophical letters, do not take into account their epistolarity, or in other words, their rhetorical features. On the one hand, while Gregoras' astronomical letters have been discussed in detail for the sake of the evidence they provide to historians of Byzantine science concerning the scientific pursuits of Palaiologan scholars, the nature of their sources and the level of their expertise, they are rarely seen as literary products at the same time. And whenever approached in the latter fashion, the letters' polemicizing rhetoric is what has been scrutinized. Gregoras' philosophical letters, on the other hand, have been largely neglected by modern scholarship as opposed to his more substantial Platonizing dialog *Phlorentios, or, on Wisdom*, and his *Solutions to Philosophical Problems*. Thus, the present dissertation approaches Gregoras' epistolary corpus as a valid and significant source for the study of his ideas and, moreover, examines it comprehensively with the intention to reconstruct Gregoras' discourses of knowledge, both scientific and philosophical.

In order to contextualize my analysis, in *Part I: Nikephoros Gregoras' Epistolary Collection* I offer a survey of Gregoras' biography and works, as well as a detailed reconstruction of his 'library', that is, a survey of the manuscripts he, in all likelihood, possessed, annotated, compiled, and copied. The data is organized according to subject matter, namely mathematical, musical, astronomical, and philosophical. Notably, the final section of the reconstructed 'library' lists a number of Plutarchian codices, thus deviating

from the main chapter structure, in order to emphasize the importance of Gregoras' readership of Plutarch. This fact becomes relevant for the discussion of Gregoras' arithmological treatise *On the Number Seven* (Part II: 2), as well as for the analysis of *Letter 12* (Part III: 2). Finally, *Part I* concludes with a discussion of the manuscript tradition of Gregoras' letters, as well as of their modern editions whose purpose is to account for the difficulties in analyzing letters and letter-collections, as well as to underline the importance of the codicological context for the interpretation of Gregoras' correspondence. Thus, *Part I: 4 Gregoras' Letters. Manuscript Evidence and Editorial Approaches* serves as the background, first, for the discussion of the *Hortatory Letter concerning Astronomy* which is at present excluded from the modern edition of Gregoras' letters, whereas in *Part II: 1* I argue in favour of its epistolary character. Second, the discussion of the codicological arrangement of *Vat. gr. 116* illuminates the reading of *Letter 28*, an invective against the slanderers of astronomy, and, third, the examination of *MS Barocci 48* strengthens my arguments in favour of the attribution of the *On the Number Seven's* authorship to Gregoras, as well as of its dissociation from the corpus of the *Solutions*.

The main analytical body of the present dissertation is comprised by *Parts II* and *III* dedicated respectively to astronomy (*Part II*) and to philosophy and letters (*Part III*). The principal conceptual motivation behind *Parts II* and *III*, and the present study in general, is the exploration of the dialectical relationship informing Gregoras' intellectual epistolary discourse, namely the relationship between *knowledge* (science and philosophy), on the one hand, and *rhetoric* (letters), on the other. To this objective, the dissertation addressed a number of research questions related to Gregoras' epistemological position. Notably, his views regarding the possibility for humankind to obtain accurate knowledge of the world, are usually labeled in scholarship as skeptical on the basis of the reading of his dialogue *Phlorentios* and in part on his *Antilogia*. Thus, first, my inquiry aimed at examining whether and in what manner Gregoras' alleged skepticism manifested in his letters (notably, *Letter*

34). Second, the results of this analysis were juxtaposed with the discussion of Gregoras' scientific works and letters which reflect his zealous pursuit of the mathematical sciences, and importantly, his defense of the value of astronomy in particular, and by extension, his concern with obtaining knowledge about the creation. Therefore, in *Part II* of the present study, *Justifications of Astronomy*, I discuss three types of sources, first, a discourse which is transmitted independently also as a letter (the *Hortatory Letter concerning Astronomy*); second, an arithmological treatise (*On the Number Seven*), and finally, a group of letters dealing with astronomy (e.g. *Letter 28* and *40*). All of them display two important features. First, they all intend to justify the study of astronomy and to support Gregoras' claim for its importance. Thus, they serve as evidence that the otherwise well-known revival of the mathematical sciences in Palaiologan Byzantium was not a non-problematic and non-problematized issue and despite its recognized value for the history of Byzantine science, it should be revisited as an intellectual, ideological, and even political problem. Second, the main justification strategy Gregoras employs is to emphasize the nobility of astronomy's subject matter and the usefulness of its study due to the interdependence of the celestial and terrestrial phenomena. Thus, I argue that, based on his astronomical writings alone, one would not perceive Gregoras' position as skeptical. One would rather be lead to inquire after the reasons behind Gregoras' conscious, and in my opinion, programmatic defense of astronomy.

The research comprised in *Part II* brings up two additional results, namely it discusses for the first time after its edition Gregoras' arithmological treatise *On the Number Seven* which, among other things, is an important evidence for Gregoras' readership of Philo and Macrobius. Secondly, in conjunction with the information provided in the reconstruction of Gregoras' library in *Part I*, it illustrates the dependence of Gregoras' scholarly activity on that of Planoudes and the manuscripts the latter left at the library of Chora monastery.

While Gregoras' astronomical works and letters provided evidence for discussion of his position concerning the knowledge of the world, it is less obvious how to approach his views on the possibilities of attaining certain knowledge with respect to human nature. I examine this issue from the perspective of Gregoras' strategies in constructing epistolary friendship. It has to be noted that Byzantine theory of friendship employed three basic premises: first, the friends are considered to be one soul in two bodies and, second, their things are common. The third premise, I argue, predetermined the intrinsic connection between friendship and its discursive expression, the letter, namely, that the letter is an icon of the soul. In other words, a letter is an image of the soul two friends share, and as far as it is so, the two are the same, i.e. entirely alike *qua* friends, since their soul is represented by a single discursive act. Hence, in *Part III Letters and Philosophy*, I analyze three case studies of letters in which Gregoras is employing this theoretical framework so as to reinforce or reestablish the certainty of the friendly relationship.

Though *Part III* is not dealing with epistemology in a strict sense, it problematizes the question of certainty and thus, addresses the main problem of the dissertation, namely what are, in Gregoras' view, the possibilities and limitations of human knowledge and correspondingly, what is the status of science and philosophy as the acquisition of knowledge is at their core *qua* disciplines. In *Part III*, I argue, that the interaction of epistolary and philosophic or scientific discourses creates a particular idiosyncratic meaning, thus motivating the composition of philosophical and scientific letters. Moreover, I suggest that the rhetoricity of a Byzantine letter should not prevent it from being seen as philosophical as it is precisely the epistolary discourse of friendship that introduces to a lesser or a greater degree the philosophical element in Byzantine epistolography.

The three case studies I discuss in *Part III* illustrate three types of epistolary strategies which modify the Byzantine theoretical framework of epistolary friendship, that is, the discourse of maintaining the similarity, and thus, the union between the friends-

correspondents. The discussion of *Letter* 134, for instance, subverts the Aristotelian theory of friendship in order to justify the friendship of correspondents who are not similar to each other. *Letter* 34, in turn, presents the similarity and even the sameness of the friends, as far as they are bound by such a relationship, as a rare instance of certainty in an otherwise unstable and unordered world. Finally, *Letter* 6 offers a unique example of the use of an arithmetical discussion in which the mathematical relationships between square numbers symbolize the union of the friends. Throughout the case studies in *Part III*: 3, Gregoras' epistolary discourse of friendship adduces his views on the role and influence of fortune. Importantly, fortune is the principle that brings disorder not only in the physical world, thus, rendering the knowledge of it fickle and uncertain, but also in interpersonal relationships such as friendship. Thus, Gregoras argues against the 'tyranny' of fortune and invokes the role of divine providence as a metaphysical agent of stability in the world. It is from this perspective that I analyze his epistemological position. That is, in my reading of Gregoras' letters, he maintains that while there are limits of mankind's ability to attain knowledge of the perceptible world, due both to the nature of the studied objects and to the faculties of the inquiring intellect, nevertheless, with the help of the divine providence in certain cases, it is possible to achieve certainty and comprehension. One such example is the study of the heavenly bodies and their movements. Not only are the planets and the stars created by God as signs for mankind to understand, according to Gregoras, but also the regularity of their motion and its mathematical principles facilitate the use of the astronomical science for the achievement of knowledge. An ideal friendship, one that manifests itself in the discursive unity of the correspondents, similarly, brings certainty and knowledge of oneself and of the other.

## APPENDIX I: CHRONOLOGY OF GREGORAS' LIFE AND WORKS

ca. summer 1293/June 1294	Born in Hērakleia Pontikē
since at least 1304	Orphan
around 1314 or 1315	Already in Constantinople
by 1316	Mentored by Theodore Metochites
1320s	Tutor of Metochites' children;  Began studying Ptolemy;  Offered the office of <i>chartophylax</i> of Hagia Sophia
1321	Three encomia dedicated to Andronikos II
1324	Proposed a calendar reform;  <i>On the Date of Easter</i>
1326	Embassy to the court of the Serbian king Stefan Uroš III Dečanski
between 1324 and 1328	First redaction of the <i>On the Construction of the Astrolabe</i>
1328	His maternal uncle John, metropolitan of Hērakleia died
after 1328	<i>Life of John, metropolitan of Hērakleia</i>
May 28, 1328	Andronikos II's abdication;  Metochites exiled to Didymoteichon;  Gregoras' possessions confiscated

1330s	<p>Leading philosopher and astronomer at the court of Andronikos III;</p> <p>Calculation of the longitudes of the seven planets for September 23, 1329;</p> <p>Calculation of the lunar eclipses of January 5, 1330 and of June 30, 1330;</p> <p><i>Calculation of the Solar Eclipse of July 16, 1330;</i></p> <p>Calculation of the solar eclipse of November 30, 1331;</p> <p>Calculation of the solar eclipse of May 14, 1333;</p> <p>Calculation of the solar eclipse of March 3, 1337;</p> <p>Emended and commented on Ptolemy's <i>Harmonics</i></p>
between 1330 and 1332 or before May 1328	Commentary of Synesios' <i>On Dreams</i>
spring of 1331	<i>Response to Those who Claim that There Is No Humility Among Men (Antilogia)</i>
summer of 1331	<i>Philomathēs, or, On Arrogant People</i>
between 1332 and 1335	Second redaction of the <i>On the Construction of the Astrolabe</i>
February 13, 1332	<p>Andronikos II died;</p> <p>Funeral oration dedicated to Andronikos II</p>
March 13, 1332	<p>Theodore Metochites died;</p> <p>Funeral oration dedicated to Theodore Metochites</p>
1333	Consolation speech addressed to Andronikos III on the occasion of the death of his mother Rita (Maria) of Armenia



ca. 1339	Encomium of Andronikos III
June 1341	Funeral oration dedicated to Andronikos III
1334	Negotiations with the papal legates Francesco da Camerino and Richard of England
1337	<i>Phlorentios, or, On Wisdom</i>
by 1344	<i>Roman History</i> (Books I-XI)
1347	<i>Roman History</i> (Books I-XI) circulated for the first time
1341–1347	Civil war: Supporter of John Kantakouzenos; neutral towards Palamism
1347	Declares an anti-Palamite position; opposes John Kantakouzenos;  <i>First Antirrhetics</i>
1349	Offered to become a patriarch
1351	Condemned
1351–fall 1354	Under house arrest
summer of 1354	Public dispute with Gregory Palamas
by 1356/1357	<i>Second Antirrhetics</i>
ca. 1357	<i>Solutions to Philosophical Problems</i>
November 14, 1357/9	Gregory Palamas died
ca. 1360	Died in Constantinople

## APPENDIX II: LIST OF GREGORAS' CORRESPONDENTS

1	(Nikolaos?) Pepagomenos ( <i>Letters</i> 1, 56, 116)	Unknown ( <i>Letter</i> 2)
2	<i>Prōtonotarios</i> Pepagomenos (possibly the same as #1) ( <i>Letter</i> 4)	Unknown, ( <i>Letter</i> 3)
3	Manuel Kantakouzenos ( <i>Letters</i> 5, 96)	Unknown ( <i>Letter</i> 6)
4	Alexios Tarchaniotes Philanthropenos ( <i>Letters</i> 9, 72, 76, 84, 107, 127, 130)	Unknown ( <i>Letter</i> 7)
5	John ( <i>Letters</i> 10, 68)	Unknown ( <i>Letter</i> 8)
6	John Kantakouzenos ( <i>Letters</i> 11, 18, 19, 41, 43, 57, 77, 82, 83, 85, 86, 90, 92, 93, 106, 120, 122, 125, 126, 149)	Unknown ( <i>Letter</i> 17)
7	Matthew Kantakouzenos ( <i>Letter</i> 12)	Unknown ( <i>Letter</i> 31)
8	The <i>prōtasēcrētis</i> (Leo Bardales?) ( <i>Letters</i> 13, 15)	Unknown ( <i>Letter</i> 35)
9	Kalopheros ( <i>Letter</i> 14)	Unknown ( <i>Letter</i> 37)
10	Kalarchon ( <i>Letter</i> 16)	Unknown ( <i>Letter</i> 39)
11	Maximos, <i>hēgoumenos</i> of the Chortaites monastery ( <i>Letters</i> 20ab, 21, 36, 100ab)	Unknown ( <i>Letter</i> 47)
12	Joseph the Philosopher ( <i>Letters</i> 22, 46, 51)	Unknown ( <i>Letter</i> 48)
13	Theodore Metochites ( <i>Letters</i> 23, 24ab, 25, 26, 27)	Unknown ( <i>Letter</i> 54)
14	Joseph, metropolitan of Apros, ( <i>Letter</i> 28)	Unknown ( <i>Letter</i> 69)
15	The <i>megas primmikērios</i> ( <i>Letter</i> 29)	Three unknown, ( <i>Letter</i> 71ab)
16	Andronikos Zarides ( <i>Letters</i> 30, 32ab, 45, 110, ad Gr. 2)	Unknown ( <i>Letter</i> 75)

17	Athanasios ( <i>Letter 32a</i> )	Unknown ( <i>Letter 78</i> )
18	Glabas, the <i>megas dioikētēs</i> ( <i>Letters 33, 50</i> )	Unknown ( <i>Letter 79</i> )
19	Maximos Magistros ( <i>Letter 34</i> )	Unknown ( <i>Letter 80</i> )
20	Theodore Xanthopoulos ( <i>Letters 38, 63, 64</i> )	Unknown ( <i>Letter 81</i> )
21	George Pepagomenos ( <i>Letter 40</i> )	Unknown ( <i>Letter 87</i> )
22	Helene Kantakouzena Palaiologina ( <i>Letter 42</i> )	Unknown ( <i>Letter 88</i> )
23	Athanasios Lepentrenos ( <i>Letters 44, ad Gr. 18</i> )	Unknown ( <i>Letter 94</i> )
24	Thomas Magistros ( <i>Letters 49, 51, 91, 142, ad Gr. 3</i> )	Unknown ( <i>Letter 98</i> )
25	The <i>prōtobestiarios</i> ( <i>Letter 52</i> )	Unknown ( <i>Letter 104</i> )
26	John Chrysoloras ( <i>Letter 53</i> )	Unknown ( <i>Letter 117</i> )
27	Andronikos Palaiologos Asan ( <i>Letter 55</i> )	Unknown ( <i>Letter 123</i> )
28	Basil Glykys ( <i>Letter 58</i> )	Unknown ( <i>Letter 124</i> )
29	Karbones ( <i>Letter 59</i> )	Unknown ( <i>Letter 131</i> )
30	John Basilikos ( <i>Letter 60</i> )	Unknown ( <i>Letter 135</i> )
31	Theoleptos, metropolitan of Philadelphia ( <i>Letter 61</i> )	Unknown ( <i>Letter 136</i> )
32	Nikephoros Choumnos ( <i>Letter 62</i> )	Unknown ( <i>Letter 138</i> )
33	Demetrios Kabasilas ( <i>Letters 65, 66, 148</i> )	Unknown ( <i>Letter 145</i> )
34	George Bekkos ( <i>Letter 67</i> )	Unknown ( <i>Letter 146</i> )
35	Matthew of Ephesus ( <i>Letters 70, 102, ad Gr. 19</i> )	Unknown ( <i>Letter 150</i> )

36	The <i>epi tēs trapezēs</i> (Letter 73)	Unknown (Letter 151)
37	The patriarch (Letter 74)	Unknown (Letter 152)
38	Andronikos III Palaiologos (Letter 89)	Unknown (Letter 153)
39	The <i>chartophylax</i> (Letter 95)	Unknown (Letter 154)
40	The metropolitan of Sida (Letter 97)	
41	Gregory Akindynos (Letters 99, ad Gr. 4, ad Gr. 5, ad Gr. 6, ad Gr. 7, ad Gr. 8, ad Gr. 9)	
42	Kokalas, the <i>megas logariastēs</i> (Letter 101)	
43	Michael Kaloeidas (Letters 103, 114)	
44	The <i>prōtosebastos</i> (Letter 105)	
45	Athanasios Palaiologos (Letter 108)	
46	Basil (Letter 109)	
47	Abalantes (Letter 111)	
48	Nikephoros Metochites (Letter 112)	
49	Michael Synadenos (Letter 113)	
50	Nikolaos Lampenos (Letters 115, ad Gr. 1, ad Gr. 17)	
51	Andronikos II Palaiologos (Letter 118)	
52	Alexios Apokaukos (Letter 119ab)	
53	The <i>hetaireiarchēs</i> Apokaukos (Letter 121)	
54	The <i>megas hetaireiarchēs</i> (Letter 128)	

55 Ignatios Glabas, metropolitan of Thessalonike (*Letters* 129, 133, 134, 158)

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56 Gregory, metropolitan of Dyrrachion (*Letter* 132)

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57 The *sakellarios* (*Letter* 137)

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58 Demokles (*Letter* 139)

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59 Leontios? (*Letter* 140)

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60 Kleodemos? (*Letter* 140)

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61 George Bryennios (*Letters* 141, ad Gr. 12)

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62 Loukites (*Letter* 143)

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63 The *megas droungarios* (*Letter* 144)

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64 Metrophanes (*Letter* 147)

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65 Emmanuel Angelos (*Letter* 155)

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66 The empress (*Letter* 157)

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67 Soteriotes, *prōtonotarios* of Thessalonike (*Letter* 159)

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68 Theodore Koutales (*Letter* ad Gr. 10)

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69 Balsamon (*Letter* ad Gr. 11)

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70 Demetrios Kydones (*Letter* ad Gr. 13)

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71 George Lapithes (*Letters* ad Gr. 14, ad Gr. 15, ad Gr. 16)

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72 Nikolaos Pepagomenos (*Letter* ad Gr. 20)

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73 Michael Gabras (*Letters* ad Gr. 21, ad 22)

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