

2023

Preprint N° 516

Commentaries from Babylon to Byzantium:
Gleanings from the MPIWG

Edited by M. J. Geller
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Abstract

An interdisciplinary approach to ancient and late antique commentaries reflects various MPIWG research initiatives on ancient commentaries, partly in cooperation with Topoi and the ERC project BabMed. While most of the research results from these seminars and workshops and events will appear in other publications, the present selection has important strands of coherence which will make this Preprint useful as a window into ancient commentaries. The texts discussed in this preprint extend from later phases in Mesopotamia hermeneutics to the broad reach of Greek and Byzantine scholarship, which also impacted Slavonic technical learning while en route back to Latin Europe via Arabic and Hebrew. The impression offered by these papers is one of familiarity of topics, as one generation of scholars were challenged to explain the intellectual heritage of their predecessors.

Preface

Most of the contributions to this Max Planck Preprint are bi-products of workshops and seminars held at the MPIWG, jointly organised by Karine Chemla, Lorraine Daston, Glenn Most, and Mark Geller.

The first event was a seminar on Commentaries, 25-27 August, 2016:

(<https://www.mpiwg-berlin.mpg.de/content/commentaries>).

The second seminar was held at the MPIWG were on Medical Commentaries and Comment(aries) on Medicine, 26-27 September, 2017, also under the auspices of the ERC Advanced Grant BabMed (ERC ID 323596):

(<https://www.geschkult.fu-berlin.de/e/babmed/konferenzen/index.html>).

This was related to an MPIWG working group on Commentaries on Mathematics in a Comparative Perspective, 1-15 August, 2017:

(<https://www.mpiwg-berlin.mpg.de/research/projects/commentaries-mathematical-texts-comparative-perspective>).

Other contributions to this volume represent work carried out under the auspices of the Topoi Excellence Cluster at the Freie Universität Berlin and the MPIWG.

Special thanks are due to Josephine Fenger of the MPIWG, who has worked tirelessly and efficiently to prepare this Preprint, with grace and patience.

M. J. Geller



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Introduction

This collection of essays on the topic of commentaries reflects the character and spirit of Berlin's Topoi Excellence Cluster, which comprised the largest conglomerate of interdisciplinary studies on antiquity ever assembled, featuring independent studies of ancient philology, historical narrative, archaeology, literature, geography, and history of knowledge. While each of the individual contribution in the present volume is directed towards a single discipline, the combination of topics dealing with commentaries from ancient and later Mesopotamia, Greece, Rome, Byzantium and the Slavonic world provide a unique interdisciplinary panorama extending from the mid-first millennium BCE to the pre-modern era.

This particular ensemble is not an easy read, since commentaries are by intention meant to associate abstruse meanings of similar sounding words which evoke allusions to classical texts recognisable to educated listeners and readers. This is certainly the case with cuneiform commentaries, which was a topic of discussion long dormant before Eckart Frahm produced a readable and comprehensive 2011 monograph, *Babylonian and Assyrian Text Commentaries*. Considering the scale of the subject matter, however, Frahm was understandably unable to edit the commentaries in his volume, which is why he created the online Yale Cuneiform Commentaries Project, which enrolled Enrique Jiménez. The Jiménez contribution to the present volume not only takes up the formidable task of editing commentaries but also explains some key features of cuneiform hermeneutics. Unlike Aristotelian syllogisms, Babylonian logicians never ended propositions with a logical inference, since this was assumed to be implicit, so that the logical framework of a commentary is never spelled out. Nevertheless, the ultimate goal of commentaries is explained by Jiménez as the art of perfection, for example by harmonising the seemingly incongruent statements of the protases and apodoses of omen literature, which defy the usual expectations of modern logic. Jiménez's final observation is a comparison between cuneiform commentaries and a much later famous work, Maimonides' *Guide to the Perplexed*, which attempts to explain the laws of Torah through Aristotelian science.

The editor's contribution to this collection attempts to bridge the large gap between Babylonian thinkers and their contemporaries in the Greek world as well as their successors in later Talmudic tradition. Although philosophy, like rhetoric, was a Greek invention which never penetrated the Babylonian curriculum, nevertheless some cuneiform commentaries appear to invoke similar kinds of cosmological thinking usually attributed to the Presocratics. This in itself is not surprising since thinking about creation or the cosmos was not exclusive to any one intellectual milieu. Moreover, while the Babylonian Talmud is famous for its cryptic language and complex argumentation, the different categories of propositions and inferences employed by rabbinic academies may have originated within scholastic practices of an earlier cuneiform academic curriculum. One example provided of a cuneiform medical commentary resembles Talmudic-style word play.

Moving on to the Classical world, medical commentaries turn out to be a popular genre of hermeneutics also for Greek scholars, possibly because of the common need to clarify medical theories for practical purposes of treatment and therapy. Of key interest in this regard were commentaries on Hippocratic aphorisms, which Giulia Ecca elucidates by focusing on exegesis of the famous first Hippocratic aphorism, which she describes as 'one of the most famous texts in the history of ancient medicine'. The Hippocratic statement that 'life is short, the art is long, the opportunity is fleeting' was open to numerous interpretations, not least because it was familiar to anyone in ancient Greece engaged in the study of medicine. In fact, commentaries on this aphorism took the form of scholia or marginal notes in manuscripts or independent texts, dating from antiquity through to later Byzantium. However, any reading of

Hippocrates, including his Aphorisms, was to be influenced by the formidable writings of Galen, whose own work became the prism through which Hippocrates was being read and understood. Nevertheless, *Ecce* concludes that commentaries on Hippocratic aphorisms were not restricted to medical education but were also adopted more widely for general philosophical purposes, which is a reflection on the robustness of commentary traditions.

Vivian Nutton's contribution follows on naturally from that of Giulia *Ecce* by pointing out that the Hippocratic Aphorisms continued to be studied by Rudolf Virchow (and presumably his Berlin students) in the 19th century. Nutton focuses his attention on commentaries on Galen, which became a popular fixture of Renaissance Europe, which is in itself remarkable that a literature dating to the 2nd century CE could have such a profound impact on scholarship some 1500 years later. Nutton, while explaining how these commentaries became integrated into the medical curriculum, provides exact details of how the discovery of Greek manuscripts of Galen profoundly influenced medical training, which had previously relied upon Arabic translations of Galen and other Arabic medical writings, such as Avicenna, and that 'Galenic medicine fitted neatly into the commentary model of university teaching'. Medical training became based upon knowledge of classical medical texts, such as Hippocrates and Galen, although the challenge facing medical training was how to reduce these very large corpora into manageable pedagogical compendia.

What is likely to be new to Classical scholars was that, in addition to paraphrases or translations of Hippocrates and Galen into Arabic, Syriac, Latin, and Hebrew, related traditions have been known to Eastern European scholarship since the 19th century, as pointed out by Florentina Badalanova Geller. She provides the very first English translations of Slavonic texts attributed by medieval scribes to Galen, no doubt themselves translations from Byzantine Greek. However, no one has as yet identified a Greek Vorlage for any of the Slavonic sources, which provide medical discourses on the four humours, diet and regimen, urinoscopy, and phlebotomy recognisable from both Hippocrates and Galen. The Slavonic sources, dating from the 15th century, are roughly contemporary with commentaries on Hippocrates and Galen discussed by *Ecce* and Nutton in this volume, and they add a further dimension to studies of the reception of ancient Greek medicine in pre-modern Europe. Badalanova Geller not only edits and translates the Slavonic texts, but she describes the monastic contexts in which these manuscripts were found, which also resonates with Byzantine Greek manuscript milieu. Nevertheless, Slavonic medicine does not begin with this particular manuscript tradition, since the 9th century Bulgarian scholar John the Exarch was already familiar with humoral theory and other aspects of Greek medicine.

The final paper in this collection from Stefanie Rudolf features Syriac commentaries on the biblical creation account, which was also a key topic in the works of Philo as well as in Midrash, although Syriac hermeneutics tended to follow Classical models of Greek commentaries on Homer and Vergil. Rudolf focuses on the Hexameron of Jacob of Edessa, which was particularly concerned with science and cosmology. She offers a translation of one passage dealing with Jacob's interpretations of the creation of the sun and moon as sources for calendar reckoning and meteorology. Rudolf leaves the question open as to whether such works in Syriac should be categorised as biblical commentaries or encyclopaedic texts based on biblical themes.

The present collection of essays is a preliminary step towards broadening the current view of commentaries and scholia, reflected in the thematic coherence of the various contributions presented in this volume.

M. J. Geller,
London

A Cuneiform Guide for the Perplexed: Mesopotamian Commentaries and the Perfection of Cuneiform Literature

Enrique Jiménez

Abstract:

The goal of this article is to examine the *raison d'être* of Mesopotamian commentaries. The purpose that is perhaps most readily associated with exegesis, viz. the explanation of obscure words, does not appear to be the primary goal of many commentarial entries, which instead aim to demonstrate that the protases of omens relate to their apodoses, or that the text is coherent in other ways. Based on these explanations, it is argued here that the ultimate goal of Mesopotamian exegesis is to demonstrate that cuneiform literature is internally coherent ('perfect'), and therefore still worth studying at a time when traditional cuneiform scholarship had dwindled in significance, pushed to the fringes by other cosmopolitan cultures.

1. The Unsaid in Mesopotamian Exegesis

One of the most striking aspects of Mesopotamian commentaries is their preoccupation with explaining discrete signs and words. They are rarely concerned with longer segments and never, or almost never, with entire texts. When reading Mesopotamian commentaries, the impression gained is that Babylonian philologists cared more about microscopic details, most of them inherent to the complexity of the writing system – and, therefore, of little interest to anyone not versed in it –, than they did about larger interpretative issues relating to the text's meaning. This is what Frahm (Frahm 2011: 28) means by Mesopotamian commentaries' "essentially atomistic nature."

But is our initial impression of the Mesopotamians' limited focus correct? The reason for this impression is, firstly, that Mesopotamian exegetical treatises sometimes leave the conclusions of their arguments unexpressed: their "all men are mortal" and "Socrates is a man" are usually not followed by a "therefore, Socrates is mortal." Thus, a famous commentary on a ritual to ease childbirth states:

gi-èn-bar bàn-da šu u-me-ti¹ : gi : *sin-niš-ti* : bar : *a-šu-u* : bàn-da | *še-er-ri* : *ša-aḫ-ri*
(In) "Take a small reed (*gi-enbar banda*)," *gi* (means) "woman," *bar* (means) "to go out," *banda* (means) "baby," (in the sense of) "little one."

11N-T3 l. 8 (CCP 4.2.A.a = Civil 1974: 332; Jiménez 2014)

This entry provides us with the technical keys for the interpretation, viz. that *gi* (from *gi-enbar*, "reed") means "woman," *bar* (also from *gi-enbar*) means "to go out" and *banda* ("small") means "baby," in the sense of "little one." However, several important aspects are left unexpressed: firstly, "means" and "in the sense of" have to be supplied by the reader, since the commentary uses simply cola (so-called *Glossenkeile*) to separate the various words. This type of extreme laconism is a feature

1 Here and elsewhere in this paper, boldface represents the base text (the explanandum), whereas Roman text is used for the commentarial explanation (the explanans). In addition, quotations from other texts adduced by the exegetes in their explanations are underlined. Thanks are expressed to M. Frazer, U. Gabbay, and M. Geller for reading an earlier version of this paper and making numerous suggestions and corrections.

of ancient Mesopotamian commentaries, which use only sparingly technical terms to make explicit the relation between *a* and *b*.²

Secondly, the gained meaning is sometimes left unformulated: if we combine the three explanations in the commentary entry above, one can imagine that the intended meaning would be “to extract (*ašû*, ‘go out’) the baby from the woman.” The terseness of this entry means, however, that other interpretations are possible, e.g. “the baby goes away from his mother,” or “the mother abandons the baby”. The Mesopotamians must have sometimes been aware of this ambiguity, since the gained meaning is, unlike in this entry, usually stated.

Thirdly, and most importantly, the goal of the commentarial explanation is *never* explicitly formulated. In the case of our commentarial entry, one can presume that the goal was to demonstrate that the capacity of “extracting the baby from a woman” is inherent to the reed called *gi-enbar banda*, since it is hardwired into the reed’s name.³ Of course, some commentaries exhibit a clear agenda: for instance, almost every entry in this commentary connects elements of the ritual with childbirth, so one may presume that the goal of the commentary is to show that the specific elements used were conducive to childbirth. Yet these goals are never given explicitly: not a single commentary states at the beginning, “this treatise aims to show this and that.” Sophisticated commentarial explanations are never explicitly connected with the larger meaning of the base text, and so they appear to be a mere display of learnedness without an apparent goal.

Nevertheless, occasionally even these apparently gratuitous philological elucubrations surface in a context that reveals that they are, in fact, engaging with the meaning of the base text. For instance, the name of the Sun God, Šamaš, is written in a handful of late texts rather outlandishly as ^dšà-máš, instead of the usual writings ^dUTU or ^dšá-máš:⁴ the two signs used for writing the syllables /ša/ and /maš/, viz. ŠÀ and MÁŠ, are elsewhere normally used as word-signs for the words “heart” and “divination,” respectively, and almost never for phonetic values. The writing appears most often in colophons, and since colophons are often the only section of a tablet in which the scribe’s imagination is given free rein, one could regard the orthography as simply playful. One particular use of this orthography, however, reveals it to be more than a crabbed philological joke: three Neo-Babylonian manuscripts of the ‘Creation Epic’ use the writing *only* in the emblematic lines describing the birth of Marduk, in which the god’s name is explained as *māri’ūtu māri’ūtu | māri šamši šamši ša ilānī*, “Māri’ūtu, Māri’ūtu, son of the Sun, Sun of the gods!”⁵ These lines represent a theological fabrication whose purpose is to explain the name of the god Marduk. The most common orthography of Marduk, the Sumerianizing writing ^damar.utu(k), means “Calf of the Sun(-god),” and this was also the oldest, most straightforward, and most widespread

2 On the technical terms used in Mesopotamian commentaries, see Frahm 2011: 108–110, Jiménez 2013b, Wee (2019: 356–409) and, in particular, the thorough monographic treatment by Gabbay (2016).

3 As noted by Maul (1999: 12): “Auf einer zweiten (...) Sinnenebene läßt er so die Aussage erstehen: ‚Das Baby wird aus der Frau herauskommen‘, und damit beweist der Kommentator letztendlich die Wirksamkeit des gesamten Rituals. Aus dieser Deutung spricht der tiefe Glaube, daß kein Wort des Textes zufällig sei und daß selbst in einer einfachen Aussage ein tiefer Sinn verborgen ist, den es zu ergründen gilt.”

4 Frahm/Jiménez 2015: 323–324, Fadhil/Jiménez 2021: 217–218.

5 *Enūma eliš* I 102–103 (Lambert 2013: 56, Fadhil/Jiménez 2021: 207). The line, “the most obvious example of a contrived orthography in Babylonian literature” (George/al Rawi 1996: 150) has been discussed multiple times in secondary bibliography: see the references collected in Fadhil/Jiménez 2021: 217–218.

etymology of the god's name.⁶ As an etymology, however, it left something to be desired, since the god Marduk had, at least in historical times, nothing to do with the Sun God. The Babylonians were probably well aware of this incongruity. In the words of W. G. Lambert, "the author of *Enūma Eliš* was in the same dilemma as ourselves. The obvious etymology was theologically impossible" (Lambert 2013: 164). The solution found by the author of the 'Creation Epic' was rather creative: with these lines, he argues that the "Sun" embedded in Marduk's name does not refer to the Sun God, but rather to Marduk itself, who is the (son of the) "sun of the gods," i.e., their king. The "sun" here is just an antonomasia for the "king," i.e., a proper name used as an epithet, just as "Enlil" in "Enlil of the gods" is elsewhere in the 'Epic' an antonomasia for the "highest god."⁷

The author of the 'Creation Epic' thus provides a possible solution to the theological problem posed by the name of the head of the Babylonian pantheon. This solution, however, may have appear unsophisticated to first-millennium Babylonian exegetes: the writing ^dšà-máš of the three Neo-Babylonian manuscripts takes a different approach to the old problem of the lack of correlation between the traditional etymology of Marduk's name and the god's theological attributes. As explained in a commentary,⁸ ^dšà-máš has an identical meaning to the divine name ^dšà-zu: both mean "he who knows/examines the heart." Little is known about the god Šazu, beyond the fact that he was syncretized with Marduk at an early point in history:⁹ with the writing ^dšà-máš in these lines (the only time this orthography is attested in all the manuscripts of the 'Epic'), the Babylonian scribe shows that the Marduk is a solar deity because one of his most important names, Šazu, can also be rendered as Šamaš.

The orthography of the Babylonian manuscripts of this section reveals that the writing ^dšà-máš is not a scribal eccentricity, but rather a sophisticated solution to a long-standing theological problem. Were it not for the three manuscripts of the section that use ^dšà-máš, we would have no reason to suspect that this writing could have any particular importance, since none of its attestations in colophons seem to entail any theological significance. As often the case in other "playful" writings in Mesopotamian colophons, the writing ^dšà-máš is deeply rooted in the Mesopotamian exegetical tradition.

The laconism that is so typical of Mesopotamian commentaries means that the written commentary tablets we have represent only the backbone of an explanation. This backbone must have been elaborated on for the larger explanation to have been fully comprehensible. It has been suggested that commentaries are merely notes taken during lessons, in the course of which the overarching interpretation of texts must have been given, or else compilations of notes taken from various sources.¹⁰ Examples such as the writing ^dšà-máš discussed above support this idea. The impression that the commentaries are "largely devoid of discussions of existential concerns" (Frahm 2011: 381) might, therefore, just be due to the nature of our documentation and not be an accurate reflection of the commentaries' goals: while transcendental conclusions were never expressed in writing, they can occasionally be reconstructed from the highly technical Babylonian exegetical texts we know, as will be explained below.

6 For other Mesopotamian etymologies of the name of Marduk, such as *bānū nišī* ("creator of the people," < rú ùk), *mār dūki* ("son of Dūku"), and *abūb kakki* ("flood of a weapon," < a-ma-ru tukul), see Mayer 1990: 464–465, Lambert 2013: 160–167, and Jiménez 2018: 96.

7 Note that *šamšu*, "sun," is occasionally used as an antonomasia for the "king," e.g. in *Ludlul I 55* (see Oshima 2014: 373–375).

8 Frahm/Jiménez 2015: 309 l. 44' and 323–324 *ad loc.*

9 On the god Šazu, see Krebernik 2009/2010.

10 On commentaries as notes taking during lessons, see e.g. Gabbay (2012: 278–284). On commentaries as compilations, see Gabbay/Jiménez (2019: 59–64).



The goal of this essay is to examine a question never addressed in Babylonian commentaries, at least in their written form, but which is nevertheless of pressing concern for our understanding of them: their purpose. Naturally, the main goal of the commentaries is to explain aspects of their base text, yet a particular type of exegetical strategy does not seem to fit this function, viz. the attempt to demonstrate that the protasis and apodosis of omen texts are connected. These sorts of explanations “seek to establish the coherence and rationality of their base texts” (Frahm 2011: 80), and their method is clearly deductive: based on the fact that the protasis and the apodosis of *certain* omens are connected, these explanations seek to demonstrate that both clauses are connected in *all* omens. As is well known, the formulation of the prediction in many omens is based on a particular word from the sign observed. For instance, in the following omen, the prediction that the sons of the king “look askance” at their father is based on the observation of an abnormal miscarriage in which one head “looks askance” at its tail:

*šumma izbu šittā qaqqadātūšu ištēn qaqqassu zibbassu **nekelmu** šarru mārūšu **ikkelemmū***

If a miscarriage has two heads, and one of the heads **looks askance** at its tail, the son of the king will **look askance** (at the king).

Izbu VII 74' (de Zorzi 2014: 576, see also 192)

In the following omen, the fact that the “head” (*rēšu*) of a particular section of the liver is displaced means that a criminal will steal a “slave” (*rēšu*) from the land:

*šumma māt [u]bānim **rēssa** eki[m] sarrum in[a] libbi mātim lū **rēša** lū amtam ana [mātim] nakar-tim ušešše*

If, as for the Finger’s area, its **head** (*rēš-sa*) is displaced; a criminal will steal either a **slave** (*rēša*) or a maid from the midst of the land to the enemy land.

YOS 10, 33 iii 27–30 (Winitzer 2017: 316)

These “philological” connections have been thoroughly studied in secondary bibliography, and one could easily add many more examples.¹¹ One could imagine that the prestige of divination literature was due to the fact that the omens it contains represent valuable bits of information recorded by past scholars: at one point in the remote past a scholar would have observed that the displacement of the head of the Finger’s area coincided with the theft of a slave, and would have recorded the coincidence as a warning for future scholars. However, the ubiquity of “philological” connections between protases and apodoses, as in the two examples given above, challenge this idea. What is interesting is that the “philological” connection was as obvious to the Mesopotamians as it is to us, yet the fact that the prediction was so clearly based on a pun, and not derived from an observation recorded in the past, does not seem to have affected the prestige of the omen: as modern research sees the question, omens were prestigious precisely because they were “deduced,” i.e., because the prediction could be shown to derive from the observation. As noted by George (2010: 327–328), classifying these sorts of connections as word-play does not do full justice to Babylonian linguistics. In the eyes of the Babylonians, protasis and apodosis are etymologically related: “the signifier produces the sign” (George 2010: 328).

¹¹ To cite only a few recent contributions, where more references will be found: Veldhuis 2006; Böck 2010; George 2010; de Zorzi 2014: 191–196; van de Mieroop 2016: 114–121; and Winitzer 2017: 438–449.

Mesopotamians may have seen divination as “an exegetical act,” as argued, for instance, by Frahm (2011: 22). Still, the fact remains that, in the majority of omens, no “etymological” connection between protasis and apodosis seems possible.¹² This apparent lack of congruity between the sign and the prediction was a matter of concern for Mesopotamian exegetes in the first millennium BCE: some cuneiform commentaries set out to demonstrate that, even in cases in which the connection between sign and prediction is not explicit, there is a connection, only a deeper one, hidden in plain view, as it were, and accessible only to those equipped with the tools of Mesopotamian exegesis. By making this connection explicit, scholars demonstrate that the text is internally coherent, i.e. that it is perfect. Philology, understood in its widest possible sense, becomes the mother of sciences, and divination the arena in which it exhibits its methods and results.

2. Demonstrating Perfection

The “hidden” connections between protases and apodoses explored by Mesopotamian commentaries can be divided into four types: lexical, *ad auctoritatem*, non-textual, and unexpressed.¹³

2.1 Lexical Connection

The simplest type of connection is based on the similarity between a word in the protasis and a word in the apodosis. In the examples of omens given above, this similarity is strictly phonetic: when the connection is not based on the shape of the word, but rather on its meaning, Mesopotamian commentators often identify the connection explicitly. For instance, in the following commentarial entry the author explains that the word “back of the head” (*kutallu*) in the apodosis is related to the word “shoulder” (*būdu*) in the protasis. Since both words are never connected in lexical lists, nor do they share a Sumerian equivalent, it can be assumed that they are connected simply because they belong to the same semantic category, viz. “parts of the back side of a human being.”

^(24b) *šumma*(DIŠ) *šerru*(MUŠ) *ana bu-di amēli*(NA) *imqut*(ŠUB-ut) *mu-kil ku-tál-li amēli*(NA)
imāt(UG7) : *bu-di* : *ku-tal-la*

In “If a snake falls onto a man’s shoulder, he who backs up a man shall die” (*Šumma Ālu* 22 73), the “shoulder” (*būdu*) (in the protasis) (is connected with) the “back of the head” (*kutallu*) (in the apodosis).

BM 129092 o 24b // SpTU 5, 259 o 11' (CCP 3.5.22.A.a l. 24b)

Occasionally the lexical connection is made by recourse to “lexical transitivity,” a felicitous expression coined by Pearce (1998: 335–336) by analogy with the mathematical principle of transitivity, according to which if $a = b$, and $b = c$, then $a = c$. In Babylonian texts, if two Akkadian words (a and c) are equated with the same Sumerian word (b) in a lexical list, then they are regarded as equivalent.

¹² As noted by Oppenheim (1966: 345), “in the large majority of omens it is impossible to discover a rational relationship. In this respect, we face a problem to which I can see no solution because of the impossibility of gauging adequately the conscious and subconscious associations inherent in the words of a dead language.”

¹³ It is, however, necessary to note that these categories are not watertight, and that these connections can all be loosely grouped under the category of “philological,” if that term is understood in its widest possible sense.

For instance, in the following entry the verb *kamāsu*, “to bow,” is explained as *kanāšu*, “to prostrate,” because both of them are elsewhere equated with the same Sumerian word, *g a m* :

ak-tam-sak-ku : *ka-ma-su* : *ka-na-šú* : *g a [m : ka]-ma-su* : *g a m* : *k[a-na-šú]*

“I bow to you” (= Theodicy 45) (stems from) “to bow,” (which means) “to prostrate,” (since) *g a m* (in Sumerian) [means “to b]ow” (and) *g a m* means “to pr[ostrate”].

BM 66882+ (CCP 1.4) obv. 18

The principle of lexical transitivity underlies an interesting explanation in a commentary on a chapter of pig omens from the omen compendium *Šumma Ālu*. According to the omen, a pig repeatedly opening its mouth in front of a man foretells the infidelity of that man’s wife. The commentary explains this apparently arbitrary connection by pointing out that the Akkadian word for mouth, *pû*, is equated with the Sumerian word *múrub*, which in the same list is also equated with the words for “buttocks” and for “vagina,” the obvious implication being that a woman will open her vagina in the same way:

^(16b) ***šumma*(DIŠ) *šahû*(ŠAH) *ana pān*(IGI) *amēli*(NA) ⁽¹⁷⁾ *pâ*(¹KA¹)-¹šú¹ *iptette*(¹BAD*.BAD*¹-te) *aššat*(DAM) *amēli*(LÚ) *it-ta-na-a-a-ak* : *múrub*^{mu-nu-ub} *pu-ú* : *múrub* : *šu-uh-ḥu* ⁽¹⁸⁾ ¹múrub¹ : *ú-ri šá sinništi*(MUNUS)**

“If a pig repeatedly opens its mouth in front of a man, the man’s wife will repeatedly have (illicit sex)” (= *Ālu* 49 34’): *múrub*, to be read as *murub*, means “mouth,” *múrub* means “buttocks,” and *múrub* means “vagina.”

DT 37 obv. 16b–18 (CT 41, 30–31; CCP 3.5.49)

The line in the commentary cites three entries of the lexical list *Harra XV*¹⁴ that establish the Sumerian equivalents of the Akkadian words and, through the principle of lexical transitivity, the connection between them.¹⁵ This is not uncommon: as explored in the next section, external texts are often quoted to establish the connection between the observation and its prognosis.

2.2 *Ad auctoritatem*

Some commentaries establish a connection between protasis and apodosis by recourse to the authority of a different, canonized text: if a word from the protasis and a word from the apodosis are connected in a line in such a text, then this connection is enough to explain the omen. For instance, in the following entry from a commentary, a quotation of a line from the anti-witchcraft series *Maqlû* in which the date palm is described as “(the tree) that receives every wind,”¹⁶ is enough to establish a connection between a pig carrying a palm frond in the protasis and the wind rising in the apodosis:

šumma*(DIŠ) *šahû*(ŠAH) *ari*(^{GIS}PA) *gišimmari*(GIŠIMMAR) *na-ši šāru*(IM) *itebbi*(ZI) : *gišimmaru*(^{GIS}GIŠIMMAR) *lim-ḥur-an-ni ma-ḥi-ir kal šá-a-[ri]

“If a pig carries a palm frond, wind will rise” (*Šumma Ālu* 49 48’) — “May the date palm receive it, (the tree) that receives every wind!” (quotation from *Maqlû* I 22).

14 *Harra XV* 22, 24a, 24d (MSL 9, 6–7).

15 The underlying idea is, of course, that Akkadian and Sumerian are two exchangeable languages: a polysemic word in one of them (*múrub* in Sumerian) explains connections in the other (*pû*, “mouth,” with *ūru ša sinništi*, “vagina,” in Akkadian).

16 Probably because palm branches sway even with the slightest breeze: so Streck 2004: 274 and Jiménez 2013a: 65–66. The epithet is also attested in the incantation SpTU 5, 248 o 33 (Abusch/Schwemer *et al.* 2020: 67 §5 l. 33).

DT 37 obv. 12b (CT 41, 30–31; CCP 3.5.49)

In the same commentary, the connection between the observation that “pigs squeal in the city square” and a prognosis that refers to the rise of a storm or the uprising of workers is justified by means of a quotation of a line from the epic *Lugale*:

šumma(DIŠ) šahû(ŠAH^{meš}) ina rebûti(SILA.DAGAL.LA) il-ta-na-su-ú tibûtu(ZI-UT) [šāri(IM)]⁽³⁾ šum₄-ma tibûtu(ZI-UT) marri(ŠI^{is}MAR) u tupšikki(ŠI^{is}DUSU) : ša-la-lu ki šahû(ŠAH) : at-tú ana e-pe-ši-ka k[i šahû(ŠAH) lu-u s]al-lat

“If pigs persistently squeal in the city square — rise of [a storm] or uprising of spade and hoe (laborers)” (*Šumma Ālu* 49 4) (the relationship between protasis and apodosis is demonstrated by the expression) “to lie down like a pig,” (which appears in the line) “You, (O Stone,) while (they) work on you, [do] lie li[ke a pig]!” (quotation from *Lugale* 484).

The explanation seems to be based on the fact that pigs are typically in a recumbent position, as demonstrated by the line from *Lugale* quoted. Upset pigs, therefore, foretell uprising.¹⁷

Of course, lexical transitivity can be considered an argument *ad auctoritatem*: the connection between two Akkadian words derives solely from the fact that they are equated with the same Sumerian word in a “canonical” lexical text. Examples such as the two just cited, however, give the opposite impression: that the literary texts are cited because they can be used as lexical lists. The epithet of the palm resembles the short descriptions of terms found in lexical lists, the line from *Lugale* is condensed as a lexical entry (“to lie down like a pig”) before being given in full. In arguments *ad auctoritatem* the cited text works almost as an *ad hoc* dictionary with which the commentator explores the subtleties of the Sumerian and Akkadian languages.

2.3 Astrological Connections

Some commentaries establish a connection between two words based on the astrological counterparts of the words in question. For instance, in the following two entries of a commentary, the connection in the base text between a man’s sick spleen and the god Marduk and between his kidney and the god Nergal, is explained by recourse to the astronomical counterparts of the two gods, Jupiter and Mars:

⁽⁶⁾ **šumma(DIŠ) amēla(NA) tu-lim-šú īkul(GU₇)-šú aš-rat marūtuk(^dAMAR.UTU) ištene ’ ʾ(KIN.KIN)-ma iballuṭ(TI-UṬ) šá iqbû(E-U)⁽⁷⁾ ina libbi(ŠA) šá* ŠĀ.GIG : ^dSAG.ME.GAR : ŠĀ.GIG : tu-li-mu**

What it says, “If a man’s spleen hurts him, he should visit the temple of Marduk assiduously and he will live,” is because (lit. “as in”) ŠĀ.GIG means “Jupiter” and ŠĀ.GIG means “spleen.”

⁽²⁰⁾ **šumma(DIŠ) amēla(NA) kalīt(ÉLLAG)-su īkul(GU₇)-šú qāt(ŠU*) ^dnergal šá iqbû(E-U*)**
⁽²¹⁾ ^{mul}ÉLLAG : ^dšal-bat-a-nu

What it says: “If a man’s kidney (ÉLLAG) hurts him, it is the hand of Nergal”: the Kidney star (^{mul}ÉLLAG) (is) the planet Mars.

¹⁷ Compare also the sophisticated explanation by de Zorzi (2016), according to which protasis and apodosis are connected by the commentator on account of the (implicit) “mud,” an element that the pigs from the protasis (because of the sty, since de Zorzi reads *ašar*(KI) *šahû*, “where the pigs (lie)”), and spade laborers and wind (whose logogram, IM = *šāru*, “wind,” can also be used for writing *īdu*, “mud”) in the apodosis would have in common. If that explanation is correct, the fact that the key word (“mud”) is left unmentioned would be surprising. Note, in any case, that the writing *ki* is used in late texts frequently for the preposition *kī*: see Fadhil/Jiménez 2019: 173 fn. 21 and compare e.g. BM 46288+ o 21’ (Schramm 2008: pl. xl): a - m á - u r u s - g i n 7 || *ki a-bu-bu*, “like the flood.”

11N-T4 ll. 6–7 and 20–21 (CCP 4.2.B)

The second entry establishes that the “kidney” and the planet “Mars” are equivalent, since they are both written with the same sign (ÉLLAG). The well-established association of the planet Mars with the god Nergal in Mesopotamia¹⁸ means that no further explanation by the commentator is needed: connecting the kidney with the planet also connects the kidney with the god. However, the first entry is not as straightforward: while the association of Marduk with Jupiter is very common, the present context appears to be the only one in which the spleen is associated with Jupiter. The fact that the logogram ŠÀ.GIG needs to be stated suggests that the association is not immediately obvious, and that it must be based on the use of that logogram. Perhaps the association is based on the phonetic similarity between the Sumerian word for spleen, š a₃(g₄)-g i g, and the name of the planet Jupiter, š/s a g - m e - g a r / n í g.¹⁹

These two examples have been hailed as both “the first occurrence of melothesia”²⁰ and “the only known Babylonian example” thereof (Reiner 1995: 59–60; see also Geller 2014: 79). The case for seeing here a connection between body parts and zodiac signs is, however, not so clear: the connection between the kidney and Mars is established on strictly philological grounds, and its goal is clearly to connect the kidney with Mars’s patron, Nergal, rather than with the planet itself. The spleen and Jupiter are connected through a reportedly shared logogram, ŠÀ.GIG, and not because of the astrological significance of the spleen. The goal is, again, to connect the spleen with the god Marduk; the planet Jupiter is just an intermediary step. It is possible that a more far-reaching connection (i.e. melothesia) underlies the associations in the base text or in commentary, but it does not seem possible to establish it by means of these entries alone. With our current state of knowledge, the commentary appears simply to use the planets to link organs and gods.

A much-discussed example of a connection of protasis and apodosis based on astrological criteria appears in a commentary on the first tablet of the medical treatise *Sagig*. The entry in question is preserved in three slightly divergent recensions:

a: ^(23b) **šumma(DIŠ) narkabta**(^{giš}GIGIR) **īmur(IGI) maršu**(^lGIG¹) **šū(BI) qāt(ŠU) ^{diš}-tá[r** : ^{giš}GIGIR : ⁽²⁴⁾ *nar-kab-ti*u₄ : *narkabtu*(^{mul}gišGIGIR) : ^d*dil-bat* : MIN GIGIR : *nar-kab-tu*₄ : x [o o (o o)] ⁽²⁵⁾ [o o (o) *ištar*(^d15)-*kakkabī*(^{MUL}meš) : MIN GIGIR : *nar-kab-tu*₄ : ^{ú-bu}UBU(GE₂₃) : *di-l[i-te-nu-ú* (: ²⁶ *ú*]-*bu* : *sūt*(BÁN) 3 *qa* : *ú-bu* : 15 : *ištar*(^d15)

b: ^(42b) **šumma(DIŠ) [narkabta**(^{giš}GIGIR)] **īmur(IGI) qāt(ŠU) ištar(^d15)** ^r:¹ *narkabtu*(^{giš}GIGIR) *šá rēši*(SAG) : *narkabtu*(^[gi]šGIGIR) *šá šarri*(LUGAL) : *qāt(ŠU) ištar*(^d15¹) ^(43a) [*šá iqbū*(E)-^ru^{1?}] *ina lib-bi narkabti*(^{mul}GIGIR) : ^d*dil-bat* :

c: ⁽⁹⁾ [**šumma(DIŠ) narkabta**(^{giš}GIGIR)] **īmur(IGI) maršu(GIG) šū(BI) qāt(ŠU) ištar(^d15) ina libbi**(ŠA) *šá narkabtu*(^{mul}GIGIR) : ^d*dil-bat*

a: “If (the exorcist) sees a chariot, that patient (suffers from) the hand of Ištar[ar.” *Gigir* (means) “chari]ot,” (and) the constellation Chariot (means) “Dilbat” (Venus). *Alternatively*, *gigir* (means) “chariot,” ... [... Iš]tar-of-the-Stars. *Alternatively*, *gigir* (means) “chariot,” (the sign) GE₂₃, (read as)

18 On the association between Nergal and Mars, see e.g. Wiggermann 1998/2000: 222–223; Horowitz 2014: 88; and Reynolds 2019: 291.

19 The correct reading of the writing ^dSAG.ME.GAR is still uncertain (Brown 2000: 55).

20 “Melothesia” is a branch of astrology that connects body parts with zodiac signs. On melothesia in Babylonia, see Geller (2014).

ubu, (is the sign) *dil[itenû*, (and means) *u]bû*,²¹ (i.e.), 15 *qû*, (therefore) *ubû* (means) 15, (which means) Ištar (^d15).

b: “If (the exorcist) sees a chariot, (it is) the hand of Ištar” (it refers to) the chariot of a high official, the chariot of the king. [*What it sa*]ys, “the hand of Ištar,” (is) on account of (the fact that)²² the constellation “Chariot” (means) Dilbat (Venus).

c: “[If] (the exorcist) sees [a chariot], that patient (suffers from) the hand of Ištar,” on account of (the fact that) the constellation “Chariot” (means) “Dilbat” (Venus).

a = IM 74357 (CCP 4.1.1.B); b = AO 17661 (CCP 4.1.1.A.b); c = IM 74374 (CCP 4.1.1.C); edition follows George 1991: 150–151

All three recensions aim to connect the chariot in the omen’s protasis with the goddess Ištar in the omen’s apodosis. Commentary **c** is the most laconic: it simply states that the constellation Chariot equals Venus. Commentary **b**, after a small excursus in order to specify what type of chariot is meant, states that the planet Venus equals the constellation Chariot. Commentary **a**, the most verbose, offers three possible explanations: the first one is based on the equation of the constellation Chariot with the planet Venus, made without further elaboration. The second, partly broken, probably went along the same lines, since it mentions Ištar-of-the-Stars, i.e., Venus. The third, by far the most elaborate, states that a cuneiform sign that comprises part of the composite sign GIGIR, i.e., the sign *Aštenû*, can be read as the capacity measure *ubû*, which equals 15 litres: 15 being the number of Ištar, the connection between protasis and apodosis is established.

The “etymographic”²³ explanation offered by **a** to connect Chariot and Venus is probably secondary,²⁴ as it seems far too complex to be taken seriously. The association between Venus and the Chariot probably goes back to one of the most common operations in Mesopotamian astrological exegesis, according to which fixed stars and constellations are simply sobriquets for planets: with this operation, Babylonian exegetes “rationalized” some particularly unpalatable omnia, such as those regarding the movement of fixed stars.²⁵ The equation of Venus with the Chariot is attested in at least one commentary that used this

21 The reading assumes that the line contains a quotation from a four-column version of the lexical list *Ea*. For alternative interpretations, see George (1991: 161) and Wee (2019: 54–55). In a Middle Assyrian excerpt of *Ea*, the sign ^{GE}₂₃(*Aštenû*) receives the name *zi-da-ten-nu-u* (MSL 14, 261), but the description of a sign as *zidatenû*, “*tenû* to the right,” disappears in the first millennium (Gong 2000: 12). *di-li-te-na* appears to be the first-millennium name of the sign (Gong 2000: 104 and 129; but cf. Borger 2010: 157 and 201).

22 As noted by Gabbay (2016: 168 fn. 182), *ina libbi* here is an exegetical term, and does not specify that Venus is “inside” that constellation (for diverging interpretations, see George 1991: 161 and Wee 2019: 54–55). The passage needs collation, the reading suggested here is tentative.

23 The term “etymography” was introduced in cuneiform studies by Frahm (2011: 70–76) to designate the practice of “analyz[ing] the signs used to write individual lemmata with an eye on the many other meanings these signs may have.”

24 As noted by Frahm (2002: 86 fn. 51), “Mit großer Sicherheit ist anzunehmen, daß dies eine sekundäre Erklärung ist. Ursprünglich dürfte der Bezug zwischen dem Streitwagen und der Hand der Ištar darin bestanden haben, daß man den Anblick des Kampfgefährts mit dem Wirken der mesopotamischen Kriegsgöttin assoziierte, welche Ištar war” (see also *id.* 2011: 81).

25 Frahm (2011: 334). On this hermeneutical operation, see Reiner (2004).

operation.²⁶ It is, however, striking that neither **b** nor **c** explain in any way why Venus should relate to Chariot: either it was common knowledge or the rationale for the connection was communicated only by word of mouth. Be that as it may, the laconism of **b** and **c** should alert us to the possibility that sophisticated connections may underlie simple commentarial entries. This is the case of the commentaries explored in the next section.

2.4 Unexpressed Connections

Some commentaries connect protasis and apodosis without identifying the connection explicitly. In the following two examples, the entries are mere backbones of commentarial explanations. Using the various connection techniques hitherto discussed – lexical connection (including lexical transitivity), *ad auctoritatem* connection and astrological connection – and by looking at related passages in cuneiform literature, it seems now possible to decode the reasoning of the commentator.

The first commentary explains an omen according to which a snake coiling around the bolt of a house predicts either the expansion of a house or its abandonment:

⁽⁴²⁾ *šumma*(DIŠ) *šerru*(MUŠ) *ina bīt*(É) *amēli*(NA) *dalta*(^{gix}IG) *sikkūra*(^{gix}SAG.KUL) *lamī*(NIGIN)-*ma* ⁽⁴³⁾ *[a-n]a' petē*(BAD-e) *ul*(NU) *iddin*(SUM-in) *bītu*(É) *šū*(BI) *irappiš*(DAGAL-iš) KIMIN *innaddi*(šUB-di) : *ana kab-tu dum-qí ana muškēni*(MAŠ.EN.GAG) *lum-nu* ⁽⁴⁴⁾ ṛaš¹-šum *šu-tuk-ku dan-nu-tu₄ šá^dnin-gír-zi-da* : *šu-tuk-ku* : *sik-kát**²⁷ :

“If a snake in a man’s house coils around the door (at the) bolt and does not allow him to open it, that house will expand. Alternatively: it will be abandoned” (= *Šumma Ālu* 23, 59): (this means that) it is a good (prognosis) for a noble man, but a bad one for a commoner, because of (the line) “the strong reed bundles of Ninġirzida” (= quotation from the incantation *Tummu bītu*),²⁸ (where) “reed bundle” (*šutukku*) (means) “peg” (*sikkatu*, a part of the bolt).

BM 129092 r 12–14 (CCP 3.5.22.A.a ll. 42–44)

The goal of these lines is, apparently, to explain a conflicting prognosis: in the base text, the fact that a snake “coils around the door (at the) bolt (*sikkūru*) of a man’s house” is said to foretell either the expansion of a house or its abandonment. The commentary explains these two contradictory predictions as referring to two different subjects: one of them, the positive one, would apply to a noble man, the other to a humble person. The attribution of one prognosis to each social class is justified by the commentator, in typically laconic fashion, by the clause beginning *aššu*, “because,”²⁹ which introduces a quotation from an incantation that mentions the “strong reed bundles (*šutukkū dannūtu*) of Ningirzida.” A final remark states that “reed bundle” (*šutukku*) means *sikkatu*, “peg,” an equation probably based on the phonetic similarity between the two words.

26 In the *Sîn ina tāmarišsu* tablet LB 1321 r 21’ (Borger 1973: 41), as already noted by Hunger (1976: 37a). In addition, note K.3558 o 10 (ACh SS 66): [DIŠ] MUL.MUL *u* ^{mul}MAR.GÍD.DA TÉŠ.BI GUB-ME ^d*dil-bat* KI MUL.MUL SAR-ma, “[If] Bristle and Chariot stand together’ (means that) Venus rises together with the Bristle.”

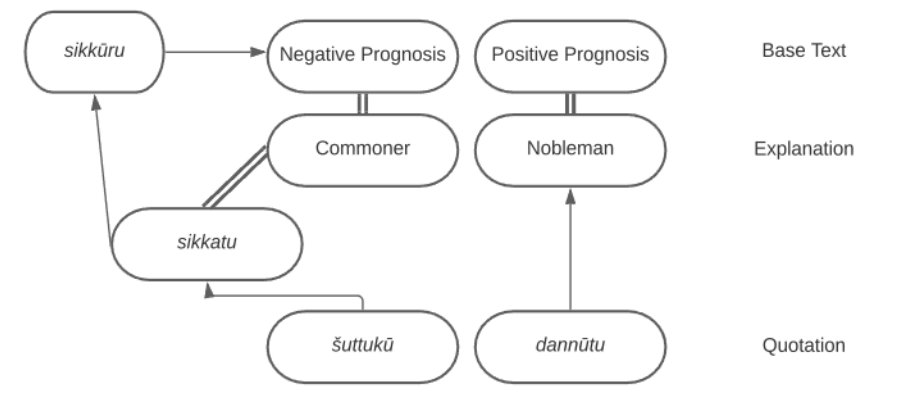
27 U. Gabbay (*privatim*) suggests emending the text to *sikkur*¹, which would make the connection between protasis and apodosis (see below) even more clear.

28 The incantation is attested in K.4656+ l. 17’ // K.4868+ o 9’ (eBL transliteration).

29 On the use of *aššu* in commentaries, see Labat 1933: 16; Frahm 2011: 70 and 75; Jiménez 2013b; Gabbay 2014: 355; *id.* 2016: 144–164; Reynolds 2019: 130.

As in other commentary entries discussed in this essay, the commentator apparently tries to connect the protasis with the apodosis — in this case, with the apodoses. The words from the protasis and the apodoses that are connected are probably *sikkūru*, “bolt” (protasis) and *sikkatu*, “peg” (apodoses), the latter word probably in its specific meaning “pin of the bolt.”³⁰ Although both words appear not to have been equated in the ancient lexical tradition, nor do they have a common Sumerian equivalent, their semantic proximity makes them, one must assume, equivalent.

The way in which the protasis and apodosis are connected is, however, astounding: neither of the predictions of the base text is used to make the connection; instead, the commentator makes the connection between the apodosis and the new interpretation provided (“it is a good (prognosis) for a noble man, but a bad one for a commoner”). In this interpretation, both the “noble” and the “humble” person can be connected by means of the quotation from the incantation, *šuttukū dannūtu*: the “noble” is represented in the word *dannu*, “strong,”³¹ whereas the “humble” is represented in *šuttukku*, “reed-hut,” through its given meaning *sikkatu*, “peg.” Although left unexplained, the connection probably relies on the fact that the common logogram of the word *sikkatu*, GAG, is contained in MAŠ.EN.GAG, the logogram used in the text for “humble.” The diagram below shows the reasoning leaps in a schematic fashion.



What is striking about this explanation is that most of the leaps between the various domains are not explained in any way: if equipped only with the text on the cuneiform tablet, and not for instance with an oral explanation accompanying it, a reader would have to make the connection between the “bolt” (*sikkūru*) and the “peg” (*sikkatu* = ^{GAG}), and between “peg” and “commoner” (*muškēnu* = MAŠ.EN.GAG) on his own. The only connection that the commentary provides, that of *šuttukū* (“reed bundle”) and *sikkatu* (“peg”) is also unexplained, and had the commentary not provided it, the significance of the text quoted would have remained obscure.

An equally convoluted yet laconically expressed connection between protasis and apodosis can be found in a commentary entry on a diagnostic omen that states that a patient who moans “my belly, my belly!” suffers from a disease caused by Ištar:

⁽¹³⁾ *libbī(ŠÀ) libbī(ŠÀ) ištanassi(GÙ.GÙ-s[Ī] qāt(ŠU) eṭemmi(GIDIM) (Ø) ⁽¹⁴⁾ [(Ø) š]á-né-e ištar(^{d15})
*imât(GAM) libbu(ŠÀ) : ištar(^{d15}) : is-suk mul-mul [ih¹-te-pi ka-r[as-sa]**

30 On the exact identification of the *sikkatu* and the *sikkūru*, and their relationship to each other, see Leichty 1987: 191; Scurlock 1988: 424–433; Potts 1990: 189–192; and Radner 2010: 270–271.

31 *kabtu* is explained as *dannu* in the Principal Commentary to *Šumma Izbu* (de Zorzi 2014: 341 l. 70).

⁽¹³⁾ (In) “He cries once and again ‘my belly, my belly!’ – [hand of a ghost], ⁽¹⁴⁾ emissary of Ištar. He will die” (*Sagig* IV 10): “Belly” (in the protasis is related to) “Ištar” (in the apodosis), (as in) “He shot an arrow that pierced her stomach” (quotation from *Enūma eliš* IV 101).

BM 66965 o 13–14 (CT 51, 136; CCP 4.1.4.B)

The entry consists of the base text, a commentarial explanation, and a quotation. The commentarial explanation simply connects a word from the protasis (*libbu*) with a word from the apodosis (Ištar), and the line quoted presumably provides a justification for this apparently arbitrary connection.

The counterpart of the word “belly” (*libbu*) in the quotation from *Enūma eliš* seems clear: it must be the “stomach” (*karšu*), which in lexical lists is equated with the same Sumerian word as *libbu*, viz. ^{uz}šà.³² Both words are therefore interchangeable according to the principle of lexical transitivity, although the commentator does not explicitly state so. But where is Ištar in the quotation? It has been argued that Ištar is hidden behind the victim of Marduk’s arrow, i.e. Tiamat, who is occasionally connected with Ištar.³³ While this is possible, a symbolic association with no anchor in the wording of the quotation seems unlikely, in view of the other passages discussed here: the letter, rather than the spirit of the quoted texts, seems to be the most relevant factor for their quotation. If one looks at the remaining words of the quotation (*issuk*, *mulmul(la)*, *iḥtepi*), only one seems to be relatable to Ištar: *mulmul(la)*.

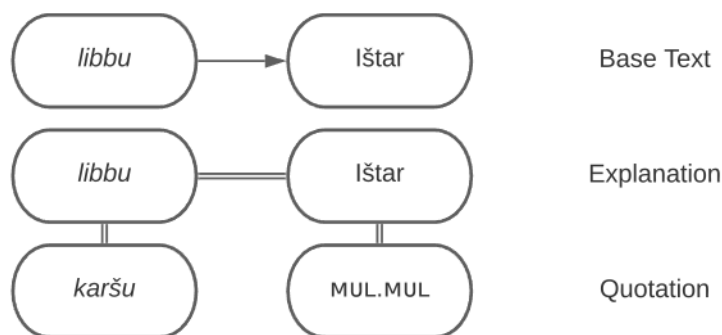
The way in which the word is cited in the commentary, simply as *mul-mul*, with no case ending, is no accident: a Mesopotamian tradition, perhaps originating in this very line of *Enūma eliš*, represents the Bristle Constellation (MUL.MUL) as the “weapon of Marduk.” The tradition can be found, for instance, in a Late Babylonian astro-mythological treatise:

zappu(MUL.MUL.LA) = *kakku*(^{giš}TUKUL) *šá qātī*(šU^{min}) *marduk*(^dAMAR.UTU)

Bristle = Weapon of the hand of Marduk

BM 42262 (5R 46/1 Z. 26), see Reynolds 2019: 237

The same line of *Enūma eliš*, with the same writing *mul-mul*, is cited in an astro-mythological calendar treatise at the beginning of the section dealing with the month Ayyaru (II), the month traditionally linked with the Bristle Constellation.³⁴ The quotation from the text in our commentary probably alludes to this astral aspect of Marduk’s weapon, i.e. to the Bristle Constellation, which would then be connected with Ištar’s astral counterpart, the planet Venus. In a schematic fashion, the commentarial moves involved can be represented as follows:



32 Compare, for instance, *Ḥarra* XV 98–99 (MSL 9, 9): ^{uz}šà = *libbu*, ^{uz}šà = *karšu*.

33 Thus Frahm (2011: 105) and, following him, Wee (2019: 161–162 and 2019: 156).

34 See Reynolds 2019: 190–191 and 236–239.

It is unclear how exactly the Bristle Constellation relates to Venus, in the same way that the relationship between Venus and Chariot has few parallels elsewhere (see above). The Bristle Constellation is usually related to Mars; rarely to Mercury or Saturn.³⁵ The easiest assumption is probably that the Bristle Constellation was once connected with Venus, but this connection is yet to surface in commentaries on astrological texts: if it existed, the connection might have been based on the fact that both Ištar and the Sebettu (the divine hypostasis of the Bristle Constellation) are martial divinities (see fn. 24 above).

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The explanations advanced here are based on comparison with other texts, such as astro-mythological treatises and lexical lists, in which some of the exegetical trends surface. These parallel texts enable the commentator to achieve the goal of establishing connections between apodoses and protases. Although one may reasonably assume that the Mesopotamians who wrote and studied the commentaries had access to some of these texts, it seems unlikely that they would have had the chance to study them all simultaneously, as we do, in order to get to the bottom of the connection. Instead, it seems likely that the highly sophisticated connection provided would have been explained orally, and that the written text contains only the essential information necessary for reconstructing the reasoning of the commentator. After all, the texts most frequently quoted in commentaries are those that the students of cuneiform memorized during the elementary stage of their education: the connection between Marduk's arrows and the Bristle Constellation must have been a commonplace for educated Mesopotamians. There is much more to these explanations than meets the eye: the laconism of Babylonian commentaries belies not only the sophistication of the exegetical moves involved, but also their very purpose, which we must assume was either implicitly understood by ancient audiences or else communicated orally.

3. The Meaning of Perfection

Interest in demonstrating the coherence of the text is not exclusive to commentaries on astrological omens: a similar concern underlies, for instance, the commentary on the seventh tablet of the Epic of Creation, which shows that every word of the line concerned is related to each name of Marduk. For instance, the line *Ee* VII 128 (*(^ené-be-ru) mā ša qerbiš tiāmti ītebberu lā nāḫiš*, “(Nēberu), (which means) thus: he who restlessly crosses the midst of the sea”) is explained as:

[^e]er _s	<i>qer-bu</i>
ne.ru	<i>tam-ti</i>
bu	<i>e-bé-rù</i>
ra	<i>la-a</i>
ne	<i>na-a-ḫu</i>

Commentary II on *Enūma eliš* VII 128 (Bottéro 1977: 13; Lambert 2013: 142)

The case the commentary makes for the Creation Epic is similar to the cases that the commentaries discussed above make for their astrological omens: they argue that the text makes sense, if one approaches it in the correct way. The text is coherent, and any apparent incongruity should not be blamed on the text itself, but rather on the ignorance of the reader, who may not know, for instance, that the word “sea” (*tāmtu*) is contained in Marduk's name Nēberu.

35 Gössmann 1959: 110–111; Reiner 2004: 9–10.

The commentary on the Creation Epic takes what the Creation Epic already states, namely that the names given to Marduk make sense because they are related to Marduk's qualities and achievements, one step further. In the Epic, the point made is that Marduk is called Nēberu because he can "cross" (*ebēru*) the sea. The commentary goes beyond the design of the author of the Epic and proves that the entire line – not just one word of it – can be deduced from the god's name. While the goal of the Epic is to show that the names given to Marduk are justified, the goal of the commentary is to demonstrate that the justification given in the Epic is itself justified. The goal of the Epic is theological, that of the commentary is purely textual: if the Epic glorifies Marduk, the commentary glorifies the Epic.

The same interest in glorifying their base texts underpins the connections between protasis and apodosis established in the commentaries on divinatory treatises discussed above: texts are shown to be prodigiously well argued. In the first-millennium, exegesis had become a highly technical discipline which avoided the puns and alliterations typical of earlier Mesopotamian philological speculation and instead focused on equivalents in lexical lists and on how words were spelt. Some of the received interpretations, such as the explanation of Marduk's name as "sun of the gods" in *Enūma eliš* I (see above §1), may have appeared unsophisticated to scholars in the last centuries of cuneiform culture, who instead looked for explanations in the very fabric of the text, at an atomic level — in its words and signs. Commentaries thus offer a guide for discovering hidden layers in venerably old texts: once discovered, these hidden layers confirm that the truth encoded in those texts still holds.

Justification, even if not expressed as such, is a central goal of any metatext on a traditional, authoritative text. When Moses Maimonides (1137–1204 CE) wrote his *Guide for the Perplexed* (*Dalālat al-Ḥā'irīn*, ca. 1190 CE), his purpose was to address "one who has philosophized and has knowledge of the true sciences, but believes at the same time in the matters pertaining to the Law and is perplexed as to their meaning because of the uncertain terms and the parables."³⁶ The *Guide for the Perplexed* is the most elaborate attempt to reconcile Aristotelian philosophy with the text of Hebrew Bible, based on the premise that "[r]eligion conveys the abstract truths of philosophy in the form of images and symbols" (Kraemer 2006: 43): the task Maimonides assumes is, therefore, to decode such "uncertain terms and parables." The *Guide* is, in Maimonides's words, "a key permitting one to enter places the gates to which were locked. And when these gates are opened and these places are entered into, the souls will find rest therein, the eyes will be delighted, and the bodies will be eased of their toil and of their labor."³⁷

Naturally, Maimonides's attempt to reconcile Aristotelian philosophy with the text of the Bible necessitates the Bible to be accepted first.³⁸ In the same manner, the highly sophisticated philological analyses characteristic of late cuneiform commentaries necessitate the texts they explain to be recognized as authoritative by a community of people, since the goal is to demonstrate *ad oculos* their perfection. It is difficult to imagine that demonstrations of this sort could be necessary without a common perception of a gap between the texts and their readers, which could threaten belief in their perfection: in the case of Maimonides, the threat was the apparent incompatibility between Aristotelian philosophy and the word of the Bible. In the case of cuneiform commentaries, it is perhaps the incompatibility between the blooming philological and astronomical sciences and the apparently unsophisticated received texts.

36 *Guide for the Perplexed* I, 6a (Maimonides 1963: 10).

37 *Guide for the Perplexed* I, 12a (Maimonides 1963: 20).

38 As noted by Leo Strauss (*apud* Maimonides 1963: xiv), "[o]ne begins to understand the *Guide* once one sees that it is not a philosophic book – a book written by a philosopher for philosophers – but a Jewish book: a book written by a Jew for Jews. (...) Philosophers are men who try to give an account of the whole by starting from what is always accessible to man as man; Maimonides starts from the acceptance of the Torah."

It is not by chance that the genre of cuneiform text commentaries is first attested in the first millennium BCE, and that it grows in sophistication as Mesopotamia dwindles in political significance: Mesopotamian literature was, by the second half of the first millennium BCE, a relic of a bygone era in a world greatly changed from that inhabited by its creators. Through these labored treatises, late scholars show that their legacy is more than an heirloom, that it still has the power to speak to their own world, thus easing, as Maimonides puts it, the minds of the traditionally educated Mesopotamians “of their toil and their labor.”

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Logical Reasoning in Akkadian Commentaries

M. J. Geller

Åke Sjöberg was fond of warning against interpreting texts with too much *Talmudischespitzempfindlichkeit*, since the plain meaning of a text was likely to be more reliable and accurate than an elaborate explanation. Sjöberg was certainly right about most genres, but commentaries are different, since hermeneutics deals in the business of nuance, fanciful analysis, paranomasia, complex orthographies, and a range of other exegetical tools which were designed to draw new meanings from a text. One of the most astute remarks about the nature of hermeneutics is that writing commentaries is a way of making a text say what you want it to say.¹ The following four studies of Babylonian commentaries dealing primarily with the disciplines of medicine, magic and astrology will serve to illustrate this point.

I. *The Philosopher and Ummânu thinking along similar lines*

Can a cryptic cuneiform commentary allude to an unrecognised Babylonian theory about the primordial elements? A unique and intriguing commentary from Kutha, roughly contemporary with Presocratic philosophers known from the Greek-speaking world, makes the following observations on the reverse of the tablet:²

Biggs 1968: rev. 1–3 (ll. 14–16):

- 1) *šum₄-ma KEŠDA šá ša-a-tum <ana> IGI-ka tu : ta : ti*
- 2) *ù : a : ia : e šá-niš AN-e u KI-tim*
- 3) *kur-ú tam-tim u šá-a-ri ub-te-e*

1) If a *šātu*-commentary³ confronts you: (the cuneiform signs) **tu–ta–ti**

1 This insightful remark was made by Gideon Freudenthal in a Topoi lecture in Berlin; see now G. Freudenthal 2015. Work on this text is part of the author's contribution to the ERC Advanced Grant Project 323596 *BabMed*, and thanks are due to Cale Johnson for useful comments on the text.

2 Published by R. Biggs in 1968, commented upon by Frahm 2010: 95, and re-edited by in Wee 2017: 245-246, which differs considerably from the present interpretation of the meaning of the text. The obverse of the Kutha tablet is equally interesting but not as relevant to the present discussion, since it deals mostly with astrological associations to so-called *Šumma izbu* omens, concerned with deformed births. The initial four lines of the text, however, are interesting because of their plea to keep esoteric knowledge secret:

šum₄-ma iz-bu SA.GIG alam-dím-mu-ú^{mul}LÚ.HUN.GÁ^{mul}GU₄.AN.NA^{mul}SIPA.ZI.AN.NA

ana e-la-nu ki-i ik-šu-du alam-dím-mu-ú iq-ta-bi ni-šir-tú AN u KI ú-šur

If (there are omens taken) from a deformed birth, medical prognosis, or physiognomy when (the stars) Aries, Taurus, and Orion have reached (visibility) above (the horizon), a physiognomic (omen) is claimed (as valid): protect the secrets of heaven and earth!

3 This word-for-word (A = B) type of commentary, similar to the formats of lexical lists, is discussed in detail in Frahm 2011: 48-55. See also Gabbay 2016: 101-102, translating *šātu* as 'word correspondences'.

2) = (the sounds) **ù–a–ia–e**, (and) secondly = heaven and earth,

3) it may be referenced⁴ as: *oven*, sea, and wind.

This puzzling text requires some explanation. The phrase **tu : ta: ti** and the vowel patterns **ù : a : ia : e** referred to in the commentary are simply meant to signify the elemental principles of *writing* and phonology, which every first-year student had to learn,⁵ but here representing basic components of knowledge. The alternative explanation (*šaniš*) extends this idea of elemental knowledge to the cosmos (heaven and earth), usually understood as the Sumerogram KUR (‘mountain’), followed by *tamtu* (‘sea’) and *šāru* (‘wind’).⁶ The problem is that the signs KUR-ú as ‘high ground’ or mountain (*šadû*) make little sense here, which is why one should rather read it as a phonetic (and somewhat esoteric) orthography for Akkadian *kūru* ‘furnace’.⁷ Akkadian (in common with other Semitic languages) often has difficulty in expressing abstractions, but here the terms ‘furnace, sea, and wind’ correspond to abstract concepts of ‘fire’, ‘water’, and ‘air’, which are the *elemental* components of ‘heaven and earth’ (*šamê u eršetim* mentioned in the line above).⁸ In other words, what we actually have here is the first known Babylonian attestation to the primordial elements as understood by philosophers such as Empedocles, who believed in four elements,⁹ rather than the three alluded to in this commentary.

This interpretation is supported by another reference in the same Kutha text, which clearly highlights the elements of ‘fire, air, and water’ in the immediately succeeding lines: Biggs 1968: rev. 4–5 (ll. 17–18):¹⁰

4) ^dGIŠ.BAR : ^d60 : IZI : *ul-la-nu* : ^d40 : *mu-ú*

5) IM ḤUR.SAG : ^dEn-lil : *šá-a-ri* : *šu-ut* KA *šá ša-a-tú e-du-tú*

4 See Wee 2017: 245 n. 64, Gabbay 2016: 68, ‘to be searched’ (< *bu”û*).

5 See Veldhuis 2013: 147-148; these are the basic cuneiform signs to be learned by beginners, but see now Wee 2017: 251-252 and also Frahm 2010: 95.

6 The Palestinian Talmud Hagigah, Chapter II, reports a supposed dialogue between the Emperor Hadrian and Aquila the Proselyte, in which the Roman asks, ‘is it true that you (pl.) say, ‘that the world exists on air (lit. wind)’? (*‘lm’ qyym ‘l rwh’*); see Guggenheimer 2015: 418. Even if this is a Palestine tradition familiar with Pre-socratic elements, it is clear that the word for ‘air’ is Aramaic *rūḥā*, ‘wind’, similar to the way Akkadian *šāru* is used for ‘air’ in the Kutha commentary.

7 Synthetic orthographies such as *kur-ú* for *kūru* are not uncommon in commentaries.

8 Frahm 2010: 95 recognised the connection with Greek primordial elements, but without explaining the connection with the details in this commentary. Cale Johnson has kindly drawn my attention to another suggested reference in the Kutha text to the basic three (rather than) four elements, in the reference to the common lexical phrase *tu-ta-ti*, followed by special emphasis on the vowels. This could possibly hint at the *theme vowels* of the Sumerian logograms representing the elements, namely (T)U = wind (ÚLU), (T)A = ‘water’ (A), (T)I = ‘fire’ (IZI).

9 See Laks and Most 2016 V 413 (D73), Simplicius citing Empedocles:

Out of many, at another time again they separate to be many out of one,

Fire, water, earth, and the immense height of air.

Elsewhere, *ibid.* 403 (D61), Simplicius again quotes Empedocles:

How from water, earth, aether, and sun,

Mixed together, the forms and colors of mortal things come about.

See also Lloyd 1979: 34, and Shiefsky 2005: 76.

10 See the recent edition of Wee 2017: 245-246.

- 4) Girra (god of fire) and Anu (sky god) = ‘fire’ = ‘primordial’ = Ea = ‘water’
 5) IM HUR.SAG¹¹ = ‘Enlil’ = ‘wind’.¹² Oral lore of a learned *ṣātu*-commentary.

The primaeval abstract characters of fire, water, and air are all presupposed in this comment. The three basic elements are equated with the chief gods primarily associated with these characteristics. Girra as the god of fire,¹³ combined with Anu the god of the heavens, indicates that this ‘fire’ is cosmic and also described as ‘primordial’ (or primaeval, *ullānu*). Next, the god Ea, who rules over the Apsû or subterranean sweet ocean, is associated with cosmic ‘water’.¹⁴ This leaves the element of ‘air’, now indicated in the next line with the logogram IM HUR.SAG, corresponding to Akkadian *šār huršāni*, lit. ‘mountain-wind’, suggesting another cosmic element, especially since the Sumerian logogram IM (read /iškur/) is also used to indicate Adad, the storm god. This is supported in turn by the juxtaposition with the god Enlil, whose name means ‘lord spirit’, with the Sumerian /lil/ roughly corresponding in meaning to Latin *spiritus*. The problem is finally resolved with the third equation *šāru* ‘wind’, which in this case reiterates the point of the previous lines, that this represents the basic element ‘air’ in the sense of invisible aether which belongs to the natural environment.

But why are there three primordial elements and not the four? What happened to ‘earth’, as in Empedocles? To the Babylonians, ‘earth’ was an inert substance and not of interest. The other three elements, ‘fire, water, and air’, all entail motion and are dynamic and worth considering as basic components of nature and hence worth noting. Already in 2004, Francesca Rochberg drew attention to description in the Babylonian Creation Epic, *Enūma Eliš*, of a divinely ruled cosmos: the god ‘An ruled the remote heaven, Enki the waters around and below the earth, and Enlil the space between ... containing the earth and winds’ (Rochberg 2004: 197). However, this Kutha commentary makes a much better case for this kind of logic, indeed alluding to a theory relevant to cosmology and science, at roughly the same time as Empedocles.

In case one might think that this cuneiform commentary is *sui generis* and hardly represents general opinion, a surprising reflection of this point of view can be found in another source, in similar language, albeit in Aramaic form. In the Mandaic Phylactery for Rue, published by Lady Drower in 1946, a passage adjures the healing plant by the Babylonian gods Bil (Bēl), Nirig (Nergal), and Nebo (Nabû), and finally:

b-ziqa u-nura u-mia u-b-ziqa d-aiar tur,
 (adjured) by wind (air)¹⁵ and fire and water, and by the ‘wind of mountain air.’¹⁶

Like the Akkadian example, the Mandaic uses a word for ‘wind’ (*ziqa*) for ‘air’ (ether), but then explains the expression by adding the clause, *u-b-ziqa d-aiar tur*, ‘a stream of mountain air’, which bears some resemblance to the explanatory phrase in the Kutha commentary, specifying ‘air’ as IM HUR.SAG,

11 Lit. ‘wind of the mountains’.

12 Akkadian (like other Semitic languages) lacks a specific term for ‘air’ and can use the word ‘wind’ to serve this purpose.

13 Girra is associated in iconography with the torch.

14 The iconography of the god Ea often depicts him with streams of water flowing from his shoulders.

15 Cf. Akk. *zīqu*, ‘blast’ of wind.

16 (Drower 1946: 331). A new edition of this text is currently being prepared by the present author with Stefanie Rudolf and Bogdan Burtea.

‘mountain wind’. The Mandaic evidence bears adequate testimony to the popularity of the notion of three basic elements – air, fire, and water – as forming the elemental building blocks of Mesopotamian cosmology.

There are two general corollaries to this interpretation of the Kutha commentary.

First, this commentary does not represent ‘philosophy’, which was a uniquely Greek literary genre of treatises based more upon logical argument than observation, nor can we read ‘philosophy’ back into Mesopotamian scholarly enterprise.¹⁷ Even if the commentary bears some remote resemblance to Presocratics, more examples of attention to primordial elements would have to be found before any firm links with Greek philosophy could be established. Second, this interpretation of the commentary must be evaluated in the light of Francesca Rochberg’s elaborate and meticulous argument in *Before Nature*, which takes the view that Babylonian science lacked an abstract concept of ‘nature’ (see Rochberg 2016). The evidence presented here is meant to test this ‘no-to-nature’ hypothesis rather than to refute it.

II. *Syllogistic-type Logic in Cuneiform Commentaries*

One hardly expects to find a series of logical propositions in an Akkadian text, similar to what one commonly finds in Greek philosophical circles. One early example of this approach occurs in a seventh-century BCE commentary on an incantation known as *Marduk’s Address to the Demons*. This cuneiform commentary from Assur, now found in the John Rylands Library (No. 1053), was attributed to Kišir-Nabû, one of the important Assur scholars whose career through the ranks has been well recorded.¹⁸ The present study intends to show that not only does commentary represent the thoughts of this scholar-scribe, but the text as a whole represents a remarkable demonstration of the use of logic which is comparable to (but not identical with) syllogistic argumentation associated with Greek philosophical thinking,¹⁹ resulting in a completely different understanding of the underlying text being commented upon.

Kišir-Nabû was one of the more prolific scribes in Assur, whose name is well-attested on colophons of tablets dealing with magic, medicine, and commentaries on such texts. Perhaps Kišir-Nabû’s most significant (and beautifully executed) work is a copy of the Exorcist’s Manual attributed to him,²⁰ since this copy of the curriculum for exorcists contains numerous glosses giving the incipits of many incanta-

17 Eckart Frahm arrived at a similar conclusion, in Frahm 2018: 125.

18 For Kišir-Nabû’s archive, see Maul 2010: 209, see Pedersén 1986: II 46.

19 One obvious commonality between Babylonian and Greek academic cultures was the tendency to cite and comment upon standard texts, e.g. Aristotle citing Plato, for which see Ullmann 2017: 3, 21-22, and for a discussion of how Mesopotamian commentaries cite standard texts, see Frahm 2011: 102-107. This is not, however, the same as Greek doxographies, which cite texts attributed to authors, and not specifically within the context of textual commentaries.

20 Kišir-Nabû’s name in the colophon of KAR 44 is rendered as ^mKA.K[EŠ]DA-⁴HÉ.DU₇ LÚ.[MAŠ.MAŠ] DUMU ^{md}Šamaš-ib-ni. For a copy of the tablet (best known as KAR 44), see Geller 2000: 245-246, and a new edition of the text in Geller 2018, as well as important observations on this text in Frahm 2018.

tions, which are otherwise formally identified according to their rubrics.²¹ Since duplicate copies of the Exorcist's Manual do *not* share this singular characteristic, and it is likely that Kišir-Nabû himself was responsible for these glosses, which coincides with his interest in writing commentaries; the connection between glosses and commentaries has already been noted by Eckart Frahm, who remarks that 'glosses are in many ways reminiscent of text commentaries' (Frahm 2011: 16). In other words, it is likely that Kišir-Nabû's liberal use of glosses in this important catalogue of incantations reflects his similar interest in composing commentaries on this same genre of texts, and that commentaries attributed to him are likely to reflect his own thinking and ideas.

At first sight, Kišir-Nabû's commentary text (JRL 1053) looks puzzling. It is divided by rulings into three separate sections, each commenting on a different source. The first section offers citations and comments on an excerpt from *Marduk's Address to the Demon*, which at some point was incorporated into a lengthy Sumerian-Akkadian series of incantations known as Udug-hul (Akkadian *Utukkū Lemnūtu* or 'Evil Demons') as Tablet XI.²² The second section cites a single line from the sixth tablet of a different incantation series known as *Muššu'u*, lit. 'massage,' and the final section of the commentary provides another extract from the same Udug-hul series, but this time from Tablet III, without any hint as to what these extracts have in common or why they appear together, as well as being out of sequence.²³

The text reads as follows:

Edition of JRL 1053²⁴

A = John Rylands Library (JRL 1053) (copy WG Lambert, photo CDLI P430865)

B = LKA 82 (copy and photo Geller 2016 pl. 137)

- 1 *ana-ku* ^d*asal-lú-hi šá ina ra-ma-ni-šú* DÜ-u ^r*ana¹-k[u]* (= cf. *Marduk's Address* l. 47)
- 2 *ma-a ina* UGU *ú-lu-lu an-šár qa-b[i]*
- 3 *ana-ku* ^d*asal-lú-hi šá a-[š]ar šil-la-te la i-qab-bu-u* ^r*ana¹-[ku]* (= Ibid. l. 45)

21 See, for instance, KAR 44 (copy: Geller 2000: 245, edition: Geller 2018: 297), ZÌ.SUR.RA.ME[Š^{sag}]-ba sag-ba. The incantation known as ZÌ.SUR.RA.MEŠ by its rubric has an incipit which begins: sag-ba sag-ba. For the full text of this incantation, see Schramm 2001: 20 and 26, ka-inim-ma zì-sur-ra giš-hur-a-kam, with the incipit én sag-ba sag-ba giš-hur nu-bal-e // *ma-mit ma-mit ú-šur-tu šá la e-te-qí*, 'incantation for the scattering of flour', with the incipit, 'Oath, oath, which does not transgress the (magic) circle.' The spell treats the oath (*māmītu*) both as a sacred designated space and as a divine plan (*ušurtu*) which cannot be altered.

22 Now published in Geller 2016: 340-398, and recently re-edited with improved readings on the Yale Cuneiform Commentaries Project website (<http://ccp.yale.edu/P430865>), by E. Frahm, E. Jiménez, and M. Frazier. The colophon of this tablet was misread by the present author, see now NABU No. 80 (2016/3), 134-135.

23 This commentary (JRL 1053) partly overlaps with another Assur commentary of similar size and layout and ductus (Ms. B), probably also the work of Kišir-Nabû (VAT 8286 = LKA 82, see Geller 2016: 705); this second commentary, however, takes extracts from Udughul in the proper sequence in which they occur within the Series.

24 The Yale Cuneiform Commentaries Project has offered improved readings, most of which have been adopted here. See Frahm, E. & Jiménez, E. & Frazer, M., 2016, "Commentary on Marduk's Address, Muššu'u, and Udughul (CCP 2.2.1.A.b)," *Cuneiform Commentaries Project* (E. Frahm, E. Jiménez, M. Frazer, and K. Wagonsonner), 2013–2018.

4 *ina ŠÀ kam-mi*²⁵ *ša* ^dMES DÙ-šú UM.ME.A *la* ^ri¹-šal-liṭ
 5. *la i-^rtak¹-kip ma-a* ^dmarduk *ka-mu-u* AD.MEŠ-šú ŠEŠ.MEŠ-š[ú]²⁶
 6 *ina lib-bi ÉN dup-pir lem-nu* (= UH XI incipit)

7 [k]i.bi gur₄.gur₄ ki.b[i] ^ri¹.gal.gal (= Muššu’u VI 5)²⁷
 8 ^rit-ti-šú *i-kab-bi-ru*¹ KI-šú *i-ra-bu-u*
 9 ^rina *a-ki-tu*₄¹ (?)²⁸ x x x *rak-^rsu¹ qa-^rbi¹*
 10 *ina lib-bi ÉN ÚŠ HUL.GÁL* (= Muššu’u VI incipit)

11 A *a-na É ina e-re-bi-ia* ^dUTU *ina IGI-ia* ^d30 *ina* ^rEGIR¹-*ia* (= UH 3 107-108)
 B *a-na É ina e-re-bi-ia* ^dUTU *ina IGI-ia* ^d30 *ina ár-ki-ia*
 12 A *ma-a šum-ma ina* ^dUTU ^È *pa-ni-ia šak-nu*²⁹
 B *ma-a šum-ma ina* ^dUTU ^È *pa-ni-ia GAR-nu*³⁰
 13 A *ma-a* ^dUTU *ina IGI-ia* ^d30 *ina ár-ki-ia*
 B *ma-a* ^dUTU *ina IGI-ia* ^d30 *ina ár-ki-ia*
 14 A ^rU.GUR¹ *ina im-ni-ia* ^dMAŠ *ina GÛB-ia ina KA-ia ha-^rsi¹-[is]*³¹
 B ^rU.GUR¹ *ina im-ni-ia* ^dMAŠ *ina GÛB-ia ina KA-ia ha-si-is*

25 This relatively rare term *kammu* serves as a nice homonym with the verb *kamû* appearing later in the same commentary line. This term also appears in the colophon of the Erra Epos V 42 (see Gössmann 1955: 37, Cagni 1970: 32), but was incorrectly rendered in Geller 2016: 393, 4. See also below.

26 See the cultic commentary (also belonging to Kišir-Nabû) in which the king is identified as Marduk, published by Livingstone (1989: 93 = SAA 3 No. 37: 14), DINGIR.MEŠ AD.MEŠ-šú ŠEŠ.MEŠ-šú DINGIR.HUL.[MEŠ] *an-zu-ú* ^d*a-sak-ku ina ŠÀ-šú-nu LÁ-^ri¹ (kami)*, “the gods, his fathers and mothers, Anzû and Asakku, being bound among them”, referring to Marduk, as here. The allusion is intentional, since the cultic commentary makes Marduk bound (*kami*) by divine forefathers, brothers, and gods, while in this commentary Marduk does the binding (*kamû*) of the ‘fathers’ and ‘brothers’.

27 The identification of this line with Muššu’u VI 5 (= Böck 2007: 223) was made by the Yale Cuneiform Commentaries Project.

28 The signs are only visible on Lambert’s copy, but not on the photograph, and not read in YCCP. The reading of *a-ki-tu*₄ should not be *a priori* disregarded, however, since the comment on this same line of *Marduk’s Address* in the longer Kišir-Nabû commentary (Ass. 13955/gt, Geller 2016: 394, 7) reads, [M]U EN *ša ina á-ki-it ina qa-bal tam-ti áš-bu*, ‘referring to the lord who is seated in the middle of the ‘sea’ during the Akitu-festival’, the meaning of which is hardly transparent.

29 Lambert’s copy of this line reads, *ma-a šum-ma ina MUL* ^rÈ¹ *pa-ni-ia šak-nu*, ‘if my face is facing a rising star’, but the photograph is of little use in confirming his copy. The idea would be that the exorcist must know where the astral bodies are located in order to interpret his text correctly, according to rules of astral magic, in order to be protected when visiting the patient.

30 The last two signs were omitted from the copy in Geller 2016 pl. 137. The copy in LKA 82 has *šú-nu*, which should be amended to *GAR-šú*.

31 *Pace* the Yale Cuneiform Commentaries Project, which reads *ha-^rriš¹*. The expression *ina pî-ia hasis* ‘wise in my mouth’ is an allusion to the common phrase found in colophons (usually designating commentaries), *ina pî ummâni*, ‘from the mouth of the expert’.

- 15 A *ina ŠÀ ÉN pu-ṭur l[em-nu]* (= UH II incipit)³²
 B *ina ŠÀ pu-ṭur lem-nu*

A *ṛmaš-al¹-ti ^mKi-ṣir-^dNabû(PA)*
 B *ṛIM.GÍD¹.[DA]*

Translation:

“I am Asalluhi, who was created by himself, am I”:
 this means Anšar (Assur) is mentioned in respect to *Ulūlu*.
 “I am Asalluhi, who does not speak where there is blunder (*šillatu*), am I”:³³
 In reference to a text which Mes (= Marduk) has made, the *ummānu*-expert has no authority,
 he cannot impress (wedges on the tablet). This means: ‘Marduk ‘binds’ its (i.e. the tablet’s)
 “forefathers” and “brothers”.
 According to the incantation, *Duppīr Lemnu*

“With this one grows fat, with this one grows up”
in the Akitu the are arranged, it is said,
 According to the incantation, *uš-hul-gal*.

When I enter into the house, Šamaš is in front of me and Sin is behind me
 this means if my face is positioned towards sunrise,
 this means Šamaš in front of me and Sin behind me,
 Nergal to my right and Ninurta is on my left,
 wise in my mouth / word.
 According to the incantation *Puṭur Lemnu*.

Questions (and answers) of Kišir-Nabû / (Ms. B: tablet of [...])

32 It is unclear why Kišir-Nabû has given the incipit of the second rather than third tablet of Udug-hul, from where the citation comes, but it is possible that in his Assur recension of Udug-hul, these two tablets were merged. Note that the duplicate passage in VAT 8286 also gives the incipit of the Udug-hul tablet as *puṭur lemnu*, which supports the idea that Kišir-Nabû was responsible for both commentaries.

33 See the Yale Cuneiform Commentaries Project translation of this line, as ‘I am Asalluhi, he who is *not mentioned* at the place of blasphemy, I am.’ An alternative translation to this line of *Marduk’ Address* is given in Frahm 2011: 94: ‘(‘I am ditto (= Asalluhi) who says, “No!” in the place of blasphemy’. The expression *la iqabbû* is not banal in this context, since *qabû* often serves as a technical term in commentaries to introduce an explanatory phrase, meaning that Marduk (identified as the exorcist-scholar) would not offer a comment on an erroneous place in a text. See below.

Notes on the text

The John Rylands commentary has two unusual features which are not generally recognisable in other commentaries. 1) It appears to be a comment primarily on the logic of the hermeneutics, and 2) although divided into three different extracts, the text is actual a unified comment explaining two unusual statements from *Marduk's Address to the Demons*.³⁴ The overall structure of the commentary is chiasmic and hence difficult to see the how the text is formulated as a unit. The logical arrangement can best be described through the following schema:

Section 1

Postulate A: citation from *Marduk's Address* (I 47) + comment

Postulate B: citation from *Marduk's Address* (I 45) + comment

Section 2

Explanatory comment on Postulate B with a text citation (*Muššu'u* VI 5)

Section 3

Explanatory comment on Postulate A with a text citation (*Udug-hul* III 100)

The end result of these arguments will lead to a single conclusion, as will be shown. Section 1 of the commentary features two citations from *Marduk's Address*, not chosen at random and not in the correct sequence. The opening line (**Postulate A**) is not a verbatim quote from *Marduk's Address* but rather a paraphrase of l. 47 of this text, which ought to read, *ana-ku* ^d*asal-lú-hi šá ina ðè-mi-šú ib-ba-nu-ú ana-ku*, 'I am Asalluhi, who was created in his (own) mind, am I'.³⁵ Our commentary paraphrases this statement with somewhat different wording: 'I am Asalluhi, who was created by himself, am I' (*šá ina ra-ma-ni-šú DÙ-u ana-ku*).³⁶ Kišir-Nabû's adds a cryptic and puzzling explanatory phrase (see l. 2 above, also **Postulate A**), '*ina* UGU *ú-lu-lu an-šár qa-bi*', 'Anšar (Assur) is mentioned in respect to *Ulūlu*'. This could be a word play based on the month name *Ulūlu* as the 6th month in the calendar (also an intercalary month), since in Astrolabe B the month *Ulūlu* occurs exactly opposite to the month *Adaru* in which *Marduk* (as *Jupiter*) appears.³⁷ But Kišir-Nabû may well have had a *double entendre* in mind,

34 The two key expressions addressed in this commentary are *ina ramānišu* ('by himself') and *šillatu* ('blunder'), and the text is full of puns, as we will see.

35 Lambert translated this line somewhat differently, as 'I am Asalluhi, who was created by his own decree, am I', see Geller 2016: 350. One should note that this crucial phrase could also be understood actively, as 'I am Asalluhi who *creates* on his own, am I'. The term *banû* can refer to formulating abstract ideas, such as *Enūma Elish* VII 11, *libnima šipti*, 'let him (*Marduk*) fashion an incantation' (Lambert 2013: 124-125), or for the passive N-Stem of *banû*, cf. Lambert 1960: 108,10, *amēlūtu u šipir ibbanû išteniš iqatti*, 'man and the work created (by him) come to an end together'.

36 We know that the two variations of this line from *Marduk's Address* were understood by Kišir-Nabû as having the same meaning, since they both receive the same explanatory comment (*ina* UGU *ú-lu-lu an-šár qa-bi*) in two commentaries attributed to him; see the following note.

37 See Horowitz 1998: 156 (for Astrolabe B). Kišir-Nabû's second commentary also makes reference to the month of *Tammuz* (ⁱⁱⁱŠU) as a comment on this line (*Ass* 13955/gt, see Geller 2016: 394), and adds the clear identification of *Marduk* as *Nēberu*, *Jupiter*; for this see also Frahm 2011: 356, although Frahm's translation of 'purification' for *ú-lu-lu* has little to recommend it within this context. For the association of *Marduk* with *Nēberu*, see Rochberg, 2007: 435, pointing out that this term can refer to *Jupiter* 'midway through the year in the month of the autumnal equinox', i.e. in the month of *Adar*.

with *ú-lu-lu* serving as a pun on *lullu* (< Sum. *lú-u₁₈-lu*), with Marduk being mentioned in respect to a ‘man’ (*lullû*) of Assur (the toponym rather than the god),³⁸ thus alluding to an Assur exorcist and quite possibly to Kišir-Nabû himself. That this pun may have been a key point for Kišir-Nabû may be reflected in the fact that he repeats it again in a second commentary (Ass. 13955/gt = Geller 2016: 394) on this same line (l. 47) of *Marduk’s Address*, which however has a somewhat different emphasis but reiterates the notion of Marduk’s self-creation. We translate this second commentary with the pun on *ulûlu* = *lullû* (‘man’) in mind:

KI.MIN *šá ina t̃è-me-šú ib-ba-nu-u a-na-ku*
 DUSU ^r*šá i-na* ⁱⁱⁱŠU¹ UD.13.KAM *ina IGI EN GAR-nu*
šá-niš ma-a ina UGU ú-lu-lu an-šár qa-bi
šá KA um-ma-ni MIN-e ma-a ^dné-bi-ru: ^dMES šá ana ra-ma-ni-šú DÛ-u
^dné-bi₇(KU)-rú^{ra}: šá-a: RA: i-na: UMUŠ: t̃è-e-mu: DÛ: ba-nu-u:
 NÍ: *ra-ma-nu: ^dné-bi-ru: ^dné-bi₇-rú*

Ditto, who was created in his own mind, am I:

a (ritual) basket in the 13th day of the month *Tammuz* is placed in front of the lord.
 Alternative: this means it is called ‘Anšar’ (= the city Assur) in reference to a ‘man’ (*ulûlu*);
 according to a second expert, this means Neberu = Mes (Marduk), who was born by himself.

Nēbiru: suffix RA = ‘in’, UMUŠ(KU) = ‘mind’; DÛ(/rú) = ‘be born’,
 NÍ = ‘by oneself’: Nēbiru = Nēbiru (= ‘born by one’s own decree’).³⁹

This supposition of a pun focusing on a ‘man’ of the city of Assur (ie. the exorcist and composer of the commentary) is supported by Section 3 of the John Rylands commentary, which provides the necessary background information for grasping Kišir-Nabû’s pun: within Udug-hul incantations, the exorcist repeatedly identifies himself with Marduk (hence the refrain ‘I am Marduk’).⁴⁰ This particular extract from Udug-hul incantations in Kišir-Nabû’s commentary (JRL 1053) explains that, when first approaching the patient, the exorcist first needed to note which gods (Šamaš, Sīn, Nergal, and Ninurta) surrounded him, since the exorcist’s first obligation was to protect himself.⁴¹ Identified with Marduk, the exorcist was surrounded by gods of the highest rank (including the sun and moon) as if himself acting out the role of a supreme deity.

38 See Livingstone 1989: 85, 55 for the use of Anšar as a toponym (Assur).

39 For a somewhat different rendering of this comment, see Frahm 2011: 356. Note that Nēbiru is spelled in two different ways, with the second reiterating the complex orthography of this term in the previous line.

40 Udug-hul Tablet III includes two different kinds of statements expressed in the first person by the exorcist of these incantations. Either he claims to be the messenger or emissary of Enki and Marduk and other gods, or that he is the *āšipu šangamahhu* (exorcist and high priest) of the god Ea and purification priest of Eridu, roles normally associated with Marduk; see Geller 2016: 110 = UH III 100-101.

41 One Assur tablet – no doubt known to Kišir-Nabû – specifically recommends that the exorcist first anoint himself (*ramānka ištēniš tapaššaš*) before approaching the patient (VAT 8803 = KAR 31, see Geller 2016: 39-40); this tablet was copied by Kišir-Nabû’s grandfather Nabû-bēssunu. See also Ali-Geller 2021, identifying Assur scribes copying tablets of Maqlû who clandestinely entered their own personal names into the text for their own protection.

The second statement from *Marduk's Address* (l. 45) constitutes **Postulate B**, which requires some elucidating. The line affirms that Marduk avoids speaking in any place of 'blunder' (*šillatu*); this statement is afforded an elaborate interpretation, that what Marduk has determined cannot be altered by an *ummānu*,⁴² since Marduk had 'bound' or fixed the earlier manuscripts and duplicates (referred to metaphorically as 'fathers' and 'brothers'). According to **Postulate B**, another *ummānu*-scholar cannot rewrite the tablet with his stylus, which must remain as a received text, which has been fixed by Marduk.⁴³ The subliminal meaning behind this remark is that whatever the original 'author' (an exorcist identified with Marduk) has written cannot be changed by any other scribe or *ummānu* but can only be commented upon in the form of exegesis. Interpretation may alter the understanding of the text, but without tampering with it.

Section 2 of Kišir-Nabû's commentary cites a line from the 'massage'-magical text, Muššu'u VI 5, intended to illustrate what *šillatu* 'wrongdoing' means in this specific context. This section in the commentary (ll. 7-10) is puzzling unless one looks at the fuller context of the opening lines of Muššu'u VI, which describes in cosmic language mankind's fear of death and lack of knowledge at birth, and all this in the face of countless diseases which are afterwards listed in the text. This can best be seen from the older and fullest version of the opening lines, from the Old Babylonian period (c. 18th century BCE).⁴⁴

- 1-2) úš-hul-gál an-ki-bi-da su-zi ri-a nigin-nam-šár-ra
 3-5) nam-lú-u₁₈-lu ù-tu-ud-da-bi-a ur₅-bi lù-a⁴⁵ níg nu-^fzu¹-zu
 ki-ba⁴⁶ ì-gur₄-gur₄ ki-ba ì-gal-gal

- 1-2) There is evil death in the world, (and) terror casts off all abundance.
 3-5) (When) mankind is born, their minds (lit. liver) are confused, they know nothing,
 (but) they become fat (i.e. healthy) in their places, they grow up in their places.

A list of diseases follows this introductory passage, which attempts to explain that mankind manages to thrive despite fear and ignorance of death and disease.⁴⁷ The damaged Nineveh duplicate to these lines interprets the Sumerian with unconventional originality (K 5111+, collated 28-07-16):

- 2) su-zi ri-a nigin-nam-šár-ra // [ša-lum-ma-tu₄ ra-ma]^f at kal du¹-uš-šu
 3) [lú-u₁₈-lu-ke₄] ^fù¹-tu-^fud¹-da ^fdu₈-dè¹ // [i-lit-ti L]Ú.MEŠ a-na uš-šu-ri
 4) [ur₅-bi]⁴⁸ ^fá²-gál¹-a níg-nam nu-un-zu-z[u] // [mit-ha-r]iš i-ru-ud-du šá la
 i-lam-m[a-du]

42 Note the pun on *šillatu* 'wrongdoing' in relation to the statement that the *ummānu la išallit*, the 'professor will have no authority' to alter the primary text.

43 Another reminder of Gideon Freudenthal's point mentioned above, that the commentary is not allowed to alter the text but to reinterpret it.

44 Bu. 88-5-12, 6 = CT 4, 3 (collated 28-07-16).

45 Falkenstein 1931 read this line as HAR-bi lú-a níg nu-un(?) -zu, without translating it, but it is likely that he misread lù in the Pinches copy for lú.

46 Not gim, as previously read.

47 Regarding disease names listed in Böck 2007: 223, I would recommend reading Ms. A in l. 6 as [..... G]IG.ga // si-im-mu ra-'i-ša x [.....], 'a smashed sore', and in l. 6a, I would suggest reading ri-ṭim-ti for riṭibtu, and še-e-[ni-tu] as an orthography for šennitu.

48 Cf. ur₅-ur₅ // mithurtu, see Livingstone 1986: 34, also translated as 'corresponding'.

5) [k]i-bi gur₄-gur₄ ki-bi g[al-gal-la] // it-ti-šú i-kab-bi-ru it-ti-šú i-ra[b-bu-u]

2) (There is evil death in the world, and) terror casts off all abundance.

3-4) In order to release the progeny of men, they will collectively *tremble* (*râdu*) at that which they have not learned,

5) with which they grow *fat* and with which they grow up.

Kiřir-Nabû's commentary has a rather different agenda in quoting this passage. The key point is in ll. 4-5: 'What they do not learn (is that) with which they grow "heavy", with which they grow up.' There is a hidden meaning here, since Sumerian /gur₄/, 'to be fat' (*kabāru*), also corresponds to the Akkadian synonym *kabātu*, 'to be heavy, honoured.' This is an ironic statement, matching that of **Section 1** of the commentary, warning against academic achievement and honours based upon ignorance; this quotation in the commentary has much more to do with academic life than with the diseases catalogued in Muššu'u VI.

So the comments in this commentary all reflect on the two postulates drawn from *Marduk's Address*, that the exorcist, identified as Marduk, also acts as the one who was created on his own accord, effectively alluding to the original author or composer of these texts, and in one cryptic comment even identifying this author as a 'man' (*lullu*) of Assur. To fully comprehend the subtle message in this commentary, one must consider the cultural context: Mesopotamian gods do not create themselves, they are the product of primordial creator gods and mother goddesses, and it is shocking in these terms to consider Marduk as self-created. But the meaning of Marduk being created *ina tēmišu* (translated by Lambert as by his 'own decree') can also simply mean, 'in his own mind', glossed by Kiřir-Nabû as 'by himself.'

The result of this process is reflected in Kiřir-Nabû's final comment – also reflecting upon himself – that, *ina KA-ia ha-si-is*, '(I am) wise in my mouth / words,' which also intends to reflect on the expression, 'I am the one created by himself,' referring to Marduk on one level and to the exorcist or 'author' of the text of these incantations on another level. The backdrop to this statement is that the author or composer of a cuneiform text is mostly anonymous, with a few notable exceptions, since the scribe is usually considered to be a copyist or transmitter of a text, rather than one who composed it. There is no word for 'author' in the Mesopotamian context, nor is there any definitive and unambiguous way of describing authorship in colophons of tablets. The clearest statement we have relative to authorship comes from the colophon of the Erra Epos (see Lambert 1962: 70, Cagni 1970: 32, 42):

ka-řir kam-me-šú kab-ti-DINGIR.MEŠ-dmarduk DUMU da-bi-i-bi

ina řat mu-ři ú-řab-ri-řú-ma ki-i řá ina mu-na-at-ti id-bu-bu

a-a-am-ma ul ih-ři e-du řu-mu ul ú-rad-di ina muh-hi

Kabti-ilāni-Marduk son of Dabībi, the editor (*ka-řir*) of this text (*kammu*),⁴⁹

had this text revealed to him in an hour of the night, (and) when he recited it in the morning, he did not indeed omit or add a single line to it.

Note that Kabti-ilāni-marduk was not credited with being the author of this text, nor during the course of compiling the text was he allowed to alter a single line. So who was the author of the text remains a problem.

In this instance, however, Kiřir-Nabû plays on the *anāku* ('I am') statement from *Marduk's Address*, as being the same first person who appears elsewhere in Udug-hul incantations; 'I am' is the exorcist who declares, 'when I enter the house of the patient', who must perform first official exorcism upon

49 Note that this fairly rare word also appears in Kiřir-Nabû's commentary.

himself as a form of self-protection. The message is subtle but clear: the exorcist or ‘man of Assur’ (*lullu Anšar*) has been creative in his own mind, and it is he and he alone who composed this text commentary, in the same way in which Marduk claims to have invented himself. In other words, this commentary attempts to define what is meant by the phrase *ina pî ummâni*, ‘from the mouth of the expert’: the expert is Kišir-Nabû himself.⁵⁰

Postulate B thus stipulates that the author, like Marduk, should avoid any place where *šillatu* is spoken, probably meaning ‘nonsense’ or ‘blunder’ in the present instance, and the commentary cites a passage (from Muššu’u VI) referring to mankind’s ignorance in the face of disease. The entire commentary turns out to be somewhat of an hermeneutical masterpiece, citing other supporting texts among the scholarly *oeuvres* of the author, Kišir-Nabû.

The logic behind this commentary can now be re-assembled in the form of propositions, carefully constructed to demonstrate an argument which can be derived from the main text of *Marduk’s Address*. We can reconstruct these propositions as follows:

- 1) Marduk is created (or is creative) in his own mind / by himself.
- 2) The exorcist identifies with Marduk (by his declaration, ‘I am Marduk).
- 3) The exorcist creates / or is creative in his own mind, i.e. the author of the commentary.
- 4) Being wise in ‘my’ mouth results from the exorcist’s identification with Marduk.
- 5) Marduk avoids any ‘place of blunder’.
- 6) The exorcist is identified with Marduk.
- 7) The exorcist / author avoids the ‘blunder’ of altering a text.

In other words, this commentary attempts to define what is meant by the phrase *ina pî ummâni*, ‘from the mouth of the scholar’, a phrase normally thought to describe the oral transmission of knowledge, but is now interpreted as a declaration of authorship.

But can we consider this to be rudimentary ‘philosophy’? The question as to whether Babylonian cuneiform scholarship could be labelled as ‘philosophy’ was first raised in a monograph devoted to the theme (Van De Mieroop 2015), followed by several contributions in a single issue of the *Journal of Ancient Near Eastern History*. The most directly relevant contributions addressing the theme of ‘philosophy’ are those of G. Gabriel, M. Van De Mieroop and E. Frahm. Gabriel (2018: 5-6) suggests that because Indian and Chinese philosophies are both widely accepted terms, that ‘philosophy’ can equally apply to Mesopotamia, on the basis that philosophy consists of epistemic practices and ideas, it is specific and deviates from a general world view, but at the same time philosophy occurs together with religion, literature, mythology, etc. Gabriel then proceeds to outline the many objections to this argument, e.g. that cuneiform scholarship was generally anonymous, it was heavily influenced by a long tradition of earlier scholarship, that there was no literary genre of writing about theory, nor was there any apparent interest in systems of logic. In fact, Gabriel could have gone further and concluded that none of the chief characteristics of Greek philosophy apply to Babylonian scholarship. M. Van De Mieroop (2018), on the other hand, makes no distinction between scholarship and philosophy, but re-defines the main features of the Babylonian episteme (e.g. its strong lexical tradition and complex writing system) as compo-

50 It is no coincidence that the *ummânu*-expert is mentioned in both Kišir-Nabû commentaries to this same line of *Marduk’s Address to the Demons*. Note that the second and longer Kišir-Nabû commentary (Ass 13955/gt = Geller 2016: 394, cited in fn. 21 above), attributes an exegetical comment to a ‘second *ummânu*’, which is very exceptional in commentaries and indicates that Kišir-Nabû is collecting personal authoritative statements as part of his hermeneutics.

nents of a Babylonian ‘philosophy’. He concludes (2018: 35) that Babylonians ‘pursued a systematic understanding of the universe with its distinct logic and coherence’. Nevertheless, this point of view does not answer the obstacles raised by Gabriel in the introduction to the volume, that these features of Babylonian scholarship do not resemble either the form or content of Greek philosophy. E. Frahm (2018b) takes a different tack, concentrating on Babylonian hermeneutics (which comes close to the approach taken in the present paper), suggesting that analogical thinking in Babylonian commentaries could resemble some of the thought processes and logic of Greek thinkers. Nevertheless, Frahm soberly concludes (2018: 121-122) that there is little evidence for ‘second-order’ reasoning in Mesopotamia, and that Babylonian scholarship hardly qualifies as ‘philosophy’.

The unusual logic of this commentary to *Marduk’s Address* presented here does not follow any of the patterns attributed to Babylonian scientific thinking, either from the perspective of *Listenwissenschaft* or hermeneutics. There is indeed a second-order reasoning to this commentary expressed in three separate propositions, which follow in close logical sequence from each other, culminating in an inference which can be derived from the propositions. The commentary betrays a syllogistic type of rational argument which one usually associates with Greek thought coming centuries later. Still, a single example of logical inferences in a commentary text is an insufficient basis for positing the existence of Babylonian ‘philosophy’, although it does demonstrate that Babylonian scholars were able to make logical inferences from postulates based upon certain accepted truths or suppositions. In other words, Babylonian scholars could well have laid the groundwork for the genre of ‘philosophy’ made popular by the Greeks.

III. *The Ummānu and the Rabbi: thinking along similar lines*

Interest in Babylonian commentaries has reawakened after being dormant for a long time.⁵¹ The general mechanics of Babylonian commentaries are now well recognised, i.e. in the way scribes deconstructed Sumerian and Akkadian words and quoted similar phrases from other contexts, as well as citing synonyms, homonyms, and antonyms, but this is not quite the same as hermeneutics, as employed by scholiasts and rabbinic exegetes.⁵² Explanations in Akkadian commentaries followed hermeneutical rules also known from rabbinic *middôt* or rules of interpretation, which were formulated in a period when Babylonian scribal schools were still functioning.⁵³

51 See Frahm 2011, following upon the last previously dedicated study of commentaries being Labat 1933. Frahm’s work has inspired a new direction in commentary research, most obviously seen in the Yale Cuneiform Commentary Project, but also in the subsequent work in Gabbay 2016, Chrisostomo 2019, and two studies by John Wee on medical commentaries (2019).

52 See Lieberman 1987 for the first detailed discussion of Babylonian and rabbinic hermeneutics, and particularly the use of *notarikon*, appearing in the same year as comparisons between Babylonian hermeneutics and *midrash* (see also Cavigneaux 1987). The present article will not pursue the same arguments raised in these seminal studies, nor the issues raised in Maul 1999, Maul 2000, or Frahm 2010, which mostly deal with the mechanics of Babylonian hermeneutics rather than the rules governing how the system works.

53 For convenience, we will use Stemberger’s transcriptions of rabbinic *middôt*. The earliest attribution of hermeneutic *middôt* were to Hillel the Elder, an influential figure who came to ancient Palestine from Babylonia during the Herodian period (Stemberger 1982: 73). Hillel’s original seven *middôt* were later expanded and attributed to other scholars, such as R. Ishmael at the end of the first century CE (ibid. 26-32).

The tacit assumption taken here is that modes of rabbinic exegesis may have derived from Late Babylonian school practices.⁵⁴

There are general factors to be taken into account when considering commentaries. One concerns the relationship between the commentary and its source text, which, if part of the curriculum, should be seen as a skeleton devoid of flesh and viscera. This applies to lexical lists as well as to literary texts, in the sense that the text itself as copied is only the starting point of discussion and not the end point. Every text, whether reflecting *Listenwissenschaft* or a literary narrative, potentially offers the basis for exposition and scholarly explanation, although these were rarely committed to writing. The survival of Late Babylonian commentaries was haphazard, since they were not normally part of the school curriculum and do not usually come down to us in duplicate copies, even if several commentaries expound the same source text.⁵⁵ This means that an *ummânu* (expert or professor) was free to explain a text in any way he wished, drawing upon word-play, traditional interpretations which he himself had learned from his own *ummânu*, parallels cited from other texts, and even arbitrary interpretations, and he may well have peppered his exposé with barbed comments critical of any rival interpretations made by an *ummânu* from another academy. Greeks and later Romans scholars, on the other hand, wrote treatises and polemics rather than lists, no doubt reflecting a curriculum which included a heavy dose of rhetoric, a subject never taught in Babylonia. The lack of rhetoric as an academic discipline in Babylonia might explain why we have no Akkadian theoretical treatises but have to content ourselves with *Listenwissenschaften* instead.⁵⁶

Let us presume that a commentary is a listing of key words or *Stichwörter* reflecting an actual lesson given by the *ummânu* in his school, much as Aristotle may have lectured in the Lyceum. If this is the case, one could theoretically try to reconstruct the substance of the lecture, based upon the key words, while tracing the logic of the arguments put forward. The aim will be to show that the Babylonian commentary followed fixed rules of textual interpretation, also known from rabbinic hermeneutics. In rabbinic contexts, hermeneutics (or *middôt*) had two separate functions, the first being to interpret biblical passages in order to derive points of law (*halachah*), and the second being to interpret biblical passages for homiletic purposes (of *midrash*). Ironically, Babylonian medical commentaries are unusual in displaying unexpected parallels to later *halachic* hermeneutics of the rabbis, since the aim of the cuneiform medical commentary was to clarify theory and practice, rather than simply explicating a text. Let us see how this works.

Uruk medical commentary on dermatology: SBTU I 51

A commentary is essentially a dialogue with a specific source text, best exemplified by the remarkable commentaries on the first tablet of the *Diagnostic Handbook* (George 1991).⁵⁷ The same can be said of

54 The crucial question is to what extent Babylonian (not Jewish) schools were still functioning during the period when rabbinic exegesis was being developed. Because lexical and school exercise texts cannot be dated precisely, we cannot be certain of the dating of many cursive Late Babylonian tablets (studied in Gesche 2001).

55 See Gabbay 2016: 19 n. 36, pointing out that while in some individual cases commentary tablets were copied, this is exceptional, suggesting that most commentaries were extra-curricular.

56 What is also lacking in cuneiform academic genres is the doxography, which by the first century BCE became a popular means for Greeks to record philosophical theory. As Whitmarsh describes the process, ‘ancient intellectuals increasingly set about collecting, editing, and archiving the opinions (*doxai*) of those who went before’ (Whitmarsh 2015: 207). It is interesting to note that the Mishnah, and even more so the Talmud, could be described as doxographies.

57 For extensive examples of commentaries on the *Diagnostic Handbook*, see Wee 2019.

SBTU I 51 (Hunger 1976: 61-62), a commentary on an (as yet) unidentified medical text dealing with cranial dermatology, but our failure to recognise the proof text severely impairs a full appreciation of the discourse between commentary and source. Nevertheless, we are familiar enough with the commentary's general subject matter to be able to draw upon similar recipes in closely-related therapeutic texts, the best example of which being a Louvre tablet (AO 11447) dealing with various diseases of the head, including acne-like skin conditions of the face and hair loss (*alopecia*).⁵⁸

The initial task of the Uruk medical commentary, SBTU I 51, is to establish the exact nature of the medical condition to be treated, often by invoking analogous cases from other texts. The first ailment is a general description of an insect-caused skin condition, *kalmātu matuqta*, lit. 'sweet louse', which the commentary makes more specific by adducing lexical evidence for a parasite as 'an insect which devours the head', which is then applied to the Akkadian synonyms *mutqu* and *uplu* 'louse'.⁵⁹ The first two lines of the commentary read:

kal-ma-tu ma-tuq-ta DIRI : UH SAG.DU Ì.KÚ.E: *mut-q[u :]*
ú-pul : *šá* SAG.DU-*su kal-ma-tu ú-nak-ki-[su]*
 Fully (infested with) a 'sweet insect' = (in Sumerian) 'a bug devours the head'
 = a parasite = a louse = (in Akkadian) 'one whose head an insect *mutilates*'.

The opening phrase, *kalmātu matuqta* DIRI, '(if the patient's head) is full of a sweet insect', is known from medical incipits.⁶⁰ This statement is then qualified by a Sumerian phrase cited from lexical lists, defining the ailment as UH SAG.DU Ì.KÚ.E, 'an insect which "devours" his (the patient's) head'.⁶¹ The generic term *kalmātu* 'insect' is then specified as either *mutqu* 'parasite' or *uplu*, 'louse',⁶² based upon the same explanatory phrase as before (UH SAG.DU Ì.KÚ.E), but this time in an Akkadian version: *šá*

58 JMC 10 (= Geller 2007), with duplicate passages also edited in JMC 7 = Worthington 2006 and Fincke 2011.

The fact that we lack the specific source tablet upon which our commentary is based does not leave us entirely hopeless, since medical tablets are loosely structured and the same recipes often appear within different compositions.

59 The commentary's source text was a therapeutic prescription divided into recipes, with each recipe beginning with a description of symptoms (e.g. DIŠ NA ... GIG), followed by *materia medica*, with a dividing line between recipes. If descriptions of symptoms are followed by *materia medica* in the commentary, this is based upon a complete recipe in the source text; if two different types of symptom descriptions appear in the commentary, these are derived from alternative recipes in the source text. Finally, *materia medica* listed without symptoms may also reflect separate recipes in the source text, which usually begin with 'ditto' without repeating the previously listed symptoms.

60 JMC 10 33: 35-36, Fincke 2011: 191 ii 21'-22':

DIŠ NA SAG.DU-*su kal-ma-tú ma-tuq-tú* DIRI Ú GAR-*šú* GIM *ka-mu-ni* ^u*mur-ru* M[U.NI] *ina* Ì HI.HI
ina bar-šú SAG.DU-*su ŠÉŠ-ma* [TIN]

If a man's head is full of 'sweet insect', mix the plant named *murru* (the nature of which is like *kamūnu*-mould) in oil and rub his head in juniper and [he should improve].

61 See Hh XIV 253-260a and MSL 8/2 47 (lexical commentary), showing that *kalmātu* is an insect affecting barley, garden plants, and even garments (see CAD K 86f.), as well as human skin. The only variety of this insect affecting humans is classified as 'sweet' (*matuqtu*), which also relates to skin lesions being 'sweet' (*simmu matqu* as logograms GIG KU₇.KU₇, cf. JMC 7 21 A ii 9), although the present commentary interprets the meaning somewhat differently.

62 This equation occurs in a lexical commentary in MSL 8/2 47, based on the standard lexical phrase UH SAG.DU Ì.KÚ.E = *mutqu* = *uplu*, as in our commentary.

SAG.DU-*su kal-ma-tu ú-nak-ki-[su]*,⁶³ ‘(the patient) whose head an insect *mutilates*’. There is a problem, however: the *ummānu* would certainly have realised that the Akkadian word *unakkis* ‘cuts, mutilates’ does not actually translate the Sumerian phrase Ì.KÚ.E, ‘devours’; the commentary presumably relies upon Sumerian homonyms KÚ (eat) and KU₅ (cut) to explain the Akkadian translation (*unakkis*). In fact, an alternative meaning was readily available to this commentary, known from the bilingual recension of the myth Lugale, which translates the same Sumerian phrase Ì.KÚ.E with Akkadian *inniq* ‘sucks’.⁶⁴ This makes excellent sense, as it would have been obvious that lice suck blood from the scalp, since squeezing lice often produces samples of human blood. So why use a derived form of Akkadian *nakāsu*, ‘to cut’, even though it fits the context rather awkwardly? The reason is that the commentary is not actually *translating* the Sumerian phrase but *interpreting* it.

There is no doubt that within normative Akkadian medicine, the Sumerogram KU₇.KU₇, translated by Akkadian *matqu*, bears the plain meaning of ‘sweet’, as in the expressions *simmu matqu* or *kalmātu matuqtu*, referring to skin lesions, which could be based upon an analogy of insects being attracted to honey, or the skin condition itself feeling ‘sticky’ (another possible meaning for *matqu*).⁶⁵ The present commentary, however, sees matters differently, suggesting a new meaning based upon a Babylonian Aramaic cognate *mtq*, ‘to suck’,⁶⁶ which may have been obvious in a late scribal school where Aramaic was doubtlessly spoken. Since this meaning fits the context so well, one wonders why the Akkadian translation for Ì.KÚ.E avoids using the obvious *inniq*, ‘sucks’, following the Lugale model, if that is what it means to say. Two possible reasons come to mind. First, the meaning ‘to suck’ is not known in Akkadian for *matāqu* ‘to be sweet’ or the corresponding adjective *matqu*.⁶⁷ Second, Akkadian *enēqu* ‘to suck’ is a transitive verb usually referring to benignly suckling milk or imbibing drugs through the nostrils, whereas our commentary requires a pernicious image of the insect sucking blood (but without blood being mentioned).

The hermeneutic rules: The commentary relies upon the homophones *unakkisu* ‘they cut’ and *un-aqqušu* ‘they suck’ as a pun, to provide the semantics for a blood-sucking louse, based upon etymologising *mutqu* from Aramaic *mtq*, ‘to suck’; paranomasia was a standard rabbinic hermeneutic instrument (Stemberger 1982: 38). Two other possible hermeneutic rules may be at play here: the first stipulates that one can derive an explanation from two relevant texts (also if they slightly differ from each other, *ke-yotse bo be maqom acher*, Stemberger 1982: 30).⁶⁸ The second is the rule *kelal u-ferat u-ferat u-kelal*, from the general to the particular and particular to the general (see Stemberger 1982: 29) reflecting the progression from insect to parasite to louse.

The next skin ailment from another recipe from the source text has an etymological ambiguity, whether to be rendered as *kissatu* or *gizzatu* or even *kiššatu*, depending upon how one perceives the verbal root.

63 Cf. Hunger 1976: 62 and Fincke 2011: 185, for other possible restorations as well.

64 In Lugale I 28, the child sucks up the power of the milk, (nè ga ì-kú-e // e-muq šì-iz-bi in-ni-qu); see van Dijk 1983 II 35.

65 This meaning for *matqu* in this context was suggested by Strahil Panayotov.

66 The root MTQ in Aramaic has both meanings of ‘to suck’ and ‘to sweeten’, see CAL s.v. *mtq*.

67 The corresponding Sumerian logogram KU₇.KU₇ ‘sweet’ is never applied to the insect *mutqu*, although it appears to be derived from the root *matāqu*.

68 A standard hermeneutic practice which also has parallels in Roman rhetoric.

3) *gi-iz-za-tú* : *ana* UGU *ga-za-az šá SÍG ÛZ* : Ì.KUR.RA : [*nap-tu*]
gizzatu-(skin-)ailment, relating to shearing of goat's wool; ì.kur.ra = [naphtha].

The skin malady known as *kissatu* or *gizzatu* in our missing source text happily also occurs in two duplicates (but in a different sequence): DIŠ NA SAG.DU-*su gi-iz-za-tú* TUK-*ši*, 'if a man's head has *kissatu*-disease'.⁶⁹ The incipit is then explained thus: *ana* UGU *ga-za-az šá SÍG ÛZ*, 'with regard to⁷⁰ "shearing" (*gazāzu*) of goat wool'; the dermatological condition may have felt like the patient's skin was being scraped or scratched like the shearing of wool. The next entry in the Uruk commentary (SBTU I 51: 3) referring to 'naphtha' (Ì.KUR.RA = *nap-tu*), introduces a single item of *materia medica*,⁷¹ perhaps because the prescription was a *simplicium* having only a single active ingredient; in any case, discussion of this recipe is now concluded.

The hermeneutic rules: An etymology for *gizzatu* derived from a root *gazāzu*, to 'shear' a goat, reflects rabbinic *perat u-kelal*, an argument from the particular (*gizzatu*) to the general (*gazāzu* 'to shear'), as a way of explaining the term (Stemberger 1982: 28). The restored word *nap-tu* 'naphtha' is similarly used to explain the ambiguous Sumerian term Ì.KUR.RA,⁷² although *nap-tu* is usually specified as 'poor quality oil' (Ì HUL) or 'fish oil' (Ì KU₆) in learned texts (see BRM 4 32 = Geller 2010: 168, 5 and n. 258). In this case, the explanation could be considered as *kelal u-ferat*, moving from the general to the particular (Stemberger 1982: 28).

The next dermatological disorder chosen for comment is *kibšu*, a fungus or related skin ailment which also appears in the incipits of previously noted duplicates (JMC 10: 9, 30, Fincke 2011: 190, ii 5'). The Uruk commentary reads,

4) *kib-šá* : *qu-um-ma-nu* : *ek-ke-tú* eme *šá e-ge-[gi]*
'*kibšu*' = fungus = 'itching' (*ekketu*), derived from (lit. 'language of') *egēgu* 'to scratch'.

The actual *qummānu*-mould identified here with *kibšu* is only otherwise attested with botanical hosts.⁷³ The similarity between *qummānu* and *kamūnu*, both referring to types of fungus, would hardly have escaped the notice of the *ummānu*, particularly since the remedy against *kalmātu matuqtu* (cited above as a source recipe) prescribed a *kamūnu*-like drug.⁷⁴ In other words, our commentary draws attention to an item of *materia medica* which resembles the illness, something like modern homeopathy (*similia similibis*).⁷⁵

69 JMC 10 9:25; see also Fincke 2011: 190 ii 8'. The different order of recipes indicates that AO 11447 (JMC 10) is not the actual source text upon which our commentary is based but represents a similar text.

70 According to Gabbay 2016: 237, the phrase *ana muhhi ... qabi*, indicates 'the referent of the cited text(s)', and is not a technical term. This does not fit the present passage, where *ana muhhi*, here means 'with specific reference to its derivation from'.

71 i.e. no longer commenting on the symptomology of the source text but on the treatment.

72 which could be interpreted erroneously as 'mountain oil'.

73 Cf. CAD Q 305 and the synonym list Malku-šarru IV 70 (Hruša 2010: 96), which offers meagre evidence for *qummānu*-fungus to be associated with a malady *arhānū*, only attested in lexical texts.

74 DIŠ NA SAG.DU-SU *kal-ma-tú ma-tuq-tú* DIRI Ú GAR-*šú* GIM *ka-mu-ni* ^u*mur-ru* M[U.NI] *ina* Ì HI.HI, 'if a man's head is full of 'sweet insect', mix the *murru*-plant (its name), the characteristics of which are like *kamūnu*-mould...' See note 7 above. The *kamūnu*-fungus also appears in SBTU I 52: 11-12.

75 The reference can only be fully understood when commentary and source text are considered together; in this case, a *qummānu*-like illness (fungus) is treated with a *kamūnu*-like drug (also a fungus).

The hermeneutical rules: The word *kibšu*, a general term for ‘fungus’, is explained by its synonym *qummānu*, which is related in turn by paranomasia to *kamūnu*, a fungus which appears regularly among *materia medica*. The *kibšu*-fungus is then equated by analogy (rabbinic *gezerah shavah*, see Stemberger 1982: 28) with a skin condition which causes severe itching, *ekketu*, the meaning of which is derived from *egēgu* ‘to scratch’ (an example of *perat u-kelal*, particular to general).

The Uruk commentary now cites a series of skin ailments which also appear in a thematically related companion commentary, SBTU I 52,⁷⁶ with three skin diseases (*kissatu*, *ekketu*, *rišūtu*, lit. ‘gnawing’, ‘itching’, ‘redness’) being listed as Sumerograms with Akkadian translations. Here is l. 5:

SU.GÚ SA.GÚ SA.UMBIN.AK.AK : *ki-is-sat ek-ke-tú ri-[šu-tu]*. These dermatological maladies are also known from *Muššu’u* incantations,⁷⁷ an example of one text cited to explain another, or rabbinic *ke-yotse bo be-maqom acher*, ‘a deduction from another source’ (Stemberger 1982: 30).

So far our commentary has mostly commented on symptoms, with only a single reference to a recipe ingredient, naphtha. The next function of our commentary is to explain the various types of *materia medica* associated with these skin ailments, which turn out in many cases to be *Dreckapotheke*. In this respect, however, the commentary actually represents the mirror image of a source text, since the usual situation is for the *Dreckapotheke* in prescriptions to represent a *Deckname* or secret name for ordinary ingredients. The opposite occurs in the commentary, with the *Deckname* representing *Dreckapotheke*. We can see how this works in the next commentary passage, with ‘black sulphur’ cited from the source text being equated with another kind of black sulphur, *agargarītu*, literally ‘river dung’ (SBTU I, 52: 6-7).

PEŠ₁₀.^dÍD GE₆: *kib-rit zi-kar* : ŠE₁₀ AMAR MUŠEN.MEŠ šá i[q-bu-ú] AMAR : *a-tam* : *li-da-nu*

black sulphur = ‘male’ sulphur is equated with young bird droppings, which is to be explained as: (Sumerian) ‘fledgling’ (AMAR) = ‘young bird’ (*atmu*) = ‘chick’ (*lidānu*)

The source text for this commentary presumably gives sulphur as the sole ingredient of the prescription against *ekketu* and *rišūtu* ailments, cited above.⁷⁸ The commentary must be understood in the light of another Uruk medical commentary equating ‘black sulphur’ with a mineral, *agargarītu*,⁷⁹ elsewhere

76 SBTU I 52 (Hunger 1976: 62-63) comments on skin pustules or boils which are cited with the very same sequence of dermatological conditions mentioned in our commentary. The text reads as follows, from l. 4:

Û.BU.BU.UL : *bu-bu-tu₄* [Û.BU.B]U.UL : *na-bal* : *e-ke-ka* : *e-ge-gi*

[*ek-k*]e-tu₄ ri-šu-tu₄ : SU.GÚ SA.GÚ [SA.UM]BIN.AK.AK : *ki-is-sa-tu₄ ek-ke-tú ri-šu-tú*

This passage describes pustules (in both Sumerian and Akkadian) as a ‘flame’ (*nablu*) resulting from a burning sensation, which is then related to two homonymous synonyms meaning ‘to scratch’ (*ekēku* and *egēgu*), as etymological explanations of the ailment *ekketu*.

77 Cf. Böck 2007: 224, 12, with a more plausible Sumerian orthography, SU.GU₇ SA.GU₇ SA.UMBIN.AK.AK, (an illness which) ‘devours the body, devours the sinews, and scratches the sinews’. See also MSL 9 106, 13, for the lexical equation *umbin.ak.ak* = *i-te-né-ki-ik* (‘it always scratches’), see *ibid.* 92, 13. This purely phonetic rendering of the Sumerian logograms in our commentary (SU.GÚ SA.GÚ) also appears in SBTU I 52, 6-7, explainable by juxtaposition there to *suālu* ‘cough’, i.e. the neck being anatomically associated with coughing; cf. Civil 2010: 156, 6:13, *sa.gú.mu* = *ta-ta-a-ni*, ‘nape of the neck’ (*dadānu*).

78 The supposition here is that this passage is commenting on a recipe similar or identical to JMC 7: 21 A ii 3: DIŠ NA SAG.DU-*su ek-ke-tú u ri-šu-tú* DIRI PEŠ₁₀.^dÍD SÚD *ina* Ì^{gis}EREN HI.HI ŠÉŠ-*su-ma TIN-uṭ*, ‘if a man’s head is full of itching and *rišūtu*, grind up sulphur and mix it in cedar oil, rub it on him and he should get better.’ Sulphur is the single active ingredient in this simplicium.

79 See BRM 4, 32: 12 (= Geller 2010: 169), PEŠ₁₀.^dÍD GE₆ = A.GAR.GAR.^dÍD = PEŠ₁₀.^dÍD *ša-li-in-du*, ‘black sulphur’ (Sumerian) = *agargarītu* = ‘black’ (Akkadian) ‘sulphur’ (Sumerian).

associated with fish eggs⁸⁰ and literally meaning ‘river dung’ (also Akkadian *piqannu*). There is no great leap required to identify this type of sulphur with ‘bird droppings’, since *Dreckapotheke* normally represented secret names for quite ordinary plant and mineral ingredients of medical recipes.

In order to make the connection, the commentary logic defines black or ‘male’ sulphur in terms of Sumerograms ‘AMAR MUŠEN.MEŠ’ (‘fledgling birds’), equated with Akkadian terms for young birds, *atmu* and *lidānu*; this equation is known from a lexical commentary,⁸¹ obviously being quoted here. The meaning of sulphur as a medical ingredient is clarified through a string of associations: ‘black sulphur’ defined as ‘male sulphur’ (*kibrit zikar*) stands in opposition to its synonym *agargarītu* ‘black sulphur’, but which has female connotations because of its association with fish roe (*agargarū*); within this logical framework, ‘river dung’ (also *agargarītu*) as the male counterpart to fish eggs is identified as ‘bird droppings’, used as *Dreckapotheke*.⁸² The final term for ‘chick’, *lidānu*, actually provides a further link between black sulphur and bird muck. The third tablet of the canonical plant list Uruanna lists many examples of *Dreckapotheke*, but one which stands out is *liddanānu*, ‘chick-like plant’ (Uruanna III 427).⁸³ The equation of *atmu* with *lidānu* was based upon the latter’s semantic connection to *Dreckapotheke*, thereby reinforcing the original commentary interpretation of black sulphur.

The hermeneutic rules: The commentary begins with two kinds of sequences, both representing movement from the general to the specific (*kelal u-ferat*). The first is ‘black sulphur’ being explained as ‘male sulphur’, which appears to be an unusual category of sulphur. The second instance is the sequence of AMAR, a general Sumerian term for any young animal (usually referring to a kid or calf) followed by *atmu*, a term mostly used for a young bird,⁸⁴ and finally ending with *lidānu*, a term for ‘chick’ but with other meanings,⁸⁵ as an example of a *kelal u-ferat u-ferat u-kelal* (general to specific to general) string.⁸⁶

The overall hermeneutic device at play here is the *gezerah shawa*-analogy principle (‘like is like’) eventually allowing sulphur to appear as an example of *Dreckapotheke*, by associating ‘male’ black sulphur, fish eggs, and chick droppings. This is the opposite of what we expect, since the usual pattern would be for recipes to refer to ‘bird droppings’ (*Dreckapotheke*) as a *Deckname* for sulphur. The commentary is thus anticipating the possibility that a standard ingredient mentioned in a prescription (e.g. sulphur) might theoretically have been given in its alternative form as *Dreckapotheke*, which the commentary now deciphers for us.

80 See MSL 8/2 104-105, for *agargarū*, ‘fish roe’.

81 MSL 8/2 173, AMAR [a-ma]r = *at-mu* : *li-da-a-nu* = DUMU *iš-su-ri*, which translates as ‘AMAR “fledgling” is *atmu* “young bird” or *lidānu* “chick,” (meaning) the “young of a bird.”’ The Sumerogram AMAR is also given phonetically.

82 The equation between black sulphur and bird droppings is not inferred but explicitly made in the commentary (ŠE₁₀ AMAR MUŠEN.MEŠ *šá i[q-bu-ú]*). Birds and fish often appear together as a trope in literary and lexical texts.

83 See now JMC 18 13 no. 37 and 20 no. 20, giving the passages from Šumma šikinšu for the plant *liddanānu*, which is compared to the *lišān kalbi*-plant.

84 or an animal that reproduces through eggs, including turtles or fish.

85 The term can also mean ‘bastard’, cf. CAD L 182.

86 Stemberger 1982: 29. This is a similar sequence to what we saw above as *kalmātu matuqtu*, *mutqu*, *uplu*, for insect, parasite, and louse.

Our commentary's next reference (SBTU 1 52: 7-8) to baldness or *alupecia*⁸⁷ is a logographic phrase translated into Akkadian, but does not represent symptoms: SÍG SUMUN ŠUB-*ma* SÍG GIBIL 'È' [:] šár-tu₄ la-bir-tu₄ i-ma-aq-qut-ma šár-tu₄ eš-še-tu₄ il-[la-a], 'the old hair will fall out but the new hair will grow.'⁸⁸ This passage represents the end result of a recipe cited from the source text, reflecting a positive result from the treatments recommended in the prescription.

The final section of the Uruk commentary (SBTU 1 52) concerns itself exclusively with *materia medica*, but without the source text it is difficult to assess the full significance of the comments on various drugs.⁸⁹ The commentary passages commenting on 'oil of myrtle' and 'oil of juniper' are examples of how hermeneutics were used to reinterpret medical practice (hence comparable to deriving *halachic* regulations). Here are ll. 10-12:

Ì^{sim}GÍR šá DU₁₁-ú : Ì^{sim}GÍR GAZ SIM ina A tu-[raṭ-ṭab]
 DÈ ina KI.TA-nu ta-šar-rap Ì ana UGU ŠUB-*ma* ta-[za-ru]
 Ì^{sim}LI šá E-ú KI.MIN
 What they call oil of myrtle: you crush and sieve myrtle, you *soak* it in water, you ignite coals below, you place oil on it and you [sprinkle it]. What they call oil of juniper, ditto.

The point behind the comment is that both myrtle (Akkadian *asu*) and myrtle oil (*šaman asi*) were commonly used as prescription ingredients, but the commentary specifies that myrtle and oil needed to be used separately; first the myrtle is to be prepared and afterwards oil is to be introduced into the concoction. The same applies to the next ingredient, juniper oil, which is to be treated in the same way, as separate ingredients (oil and juniper).⁹⁰

The hermeneutic rule: The commentary adduces additional evidence, presumably cited from another text, to prove that *šaman asi* 'myrtle oil' and *šaman burāši*, 'juniper oil', are to be treated as separate ingredients, with *šamnu* 'oil' being distinct from *asu* 'myrtle' and *burāšu*, 'juniper'. The hermeneutic rule employed here resembles the rabbinic *ke-yotse bo be-maqom acher*, 'a deduction from another source' (Stemberger 1982: 30).

The comments which follow record two different versions of how recipe drugs were to be applied, either internally or externally as a bandage. In fact, what at first appears to be specifying 'plant-seeds' as *kasû*-seeds turns out to be something more complex; since medical texts do not normally refer to 'plant-seeds' in general, we are entitled to be suspicious, nor should we underestimate the crossword-puzzle like logic of these commentaries.

87 Perhaps in reference to the incipit of a source recipe cited above, JMC 7 21 A i 54, [DÍŠ NA SA]G.DU-*su gu-ub-bu-uh*, 'if a man's hair is balding'....

88 It is not clear why the Sumerograms are translated into Akkadian, except to avoid possible ambiguities. Cf. BAM 494 ii 75, [...] SÚD ina Ì^{gis}e-re-ni HI.HI EŠ.MEŠ-*ma* SÍG È-a, 'pound ... and mix (it) in cedar oil, keep rubbing it on and hair will emerge'.

89 The first item of *materia medica* is an equation between two drugs (l. 9), *qulqullānu* and *kikkirānu* (written *kir-kir-ra-nu*), both known from other medical recipes but not related to each other. The equation in this commentary might reflect the similar phonetics of the two words rather than any pharmacological significance.

90 At this point, the *materia medica* become more exotic, since the Uruk text reads: GÍŠ : MÍ.Ú.ZUH : ú-su[k-ka-tu]; if the GÍŠ sign is correct, it may be a homophone for KĀŠ 'urine', which was produced by a menstruating or unclean woman (*usukkātu*) for recipes. See BAM 476 11', which prescribes among the *materia medica*: KĀŠ^{mi}Ú.SUH šá NITA Û.TU, 'the urine of an unclean woman who has (just) given birth to a male child'.

13) NUMUN Ú.HI.A *ma-la iq-bu-ú* : GAZI^{sar} : *ina ŠÀ šá Ú*.[HI.A ŠUB]

14) *šá-niš* NUMUN Ú.HI.A *ma-la ina* KA.KÉŠ *ana mur-ši-šú* [KÉŠ]

‘plant-seeds’, as much as called for = *kasû* : which [you put] into the drugs ...

alternatively, ‘plant seeds’, as much as [you need to bind] into a bandage for his sore

Our commentary distinguishes between two alternative medical procedures, both involving generic ‘plant-seeds’ or tamarind (*kasû*)-seeds. The distinctive feature is the general term ‘plant-seeds’ (NUMUN Ú.HI.A), a phrase which is hardly typical for medical recipes; ‘seeds’ in *materia medica* belong to specific plants. The puzzle can be solved, however, with reference to a lexical equation *šu-ru-[um]* = URUXGU = *za-ru-ú šá šam-mi*, ‘to sprinkle in reference to plants’ (MSL 14 442, 41). The logogram NUMUN Ú.HI.A of our commentary produces a similar-sounding phrase, *zērū ša šammi*, ‘seeds of plants’, with the paranomasia being that Sumerian ŠURUM is also a term for ‘animal dung’, a typical example of medical *Dreckapotheke*.⁹¹ The oblique reference to the mysterious (and virtually meaningless) ‘plant-seeds’ becomes a cipher for *Dreckapotheke*, and the *Deckname* in the present case refers to the ordinary medical ingredient tamarind (*kasû*).

The hermeneutical rule: Akkadian *zērū ša šammi* easily leads us to a Sumerian logogram ŠURUM, a homonym for ‘dung’; as before, the commentary supplies the ingredient (seeds of an ordinary plant) which could theoretically have been given as a *Deckname*, which is now identified in the commentary as *Dreckapotheke*. This is a classic example of Talmudic reverse logic, but based upon paranomasia.

One might easily object that we are reading too much into this text, in finding hidden references to *Dreckapotheke* at every turn. Nevertheless, it is unlikely to be a coincidence that the end of the text (SBTU 1 52: 15-16) offers further comment on the use of *Dreckapotheke* (with Sumerian logograms being rendered into Akkadian):

ŠE₁₀ LÚ.TUR MÍ.TUR *šá* NAM.T[UR.RA :] [‘ze-e’] *ša-har u ša-hir-ti šá ma-ru-ti-šú šá-niš* [...],
‘stools of a boy or girl in his/her youthful state, alternatively’

Paediatric stools are attested in recipes as *Dreckapotheke* (CAD Z 150), but the commentary emphasises that a small child of either sex must be *young*, since the ambiguous category of ‘small’ can refer to either size or age. The last remark in the commentary, clarifying that stools from a small child must actually come from a young child, also serves as another example of *kelal-u-ferat*, moving from the general to the particular.

Finally, not every brand of hermeneutics can be found in any one commentary, such as *gematria*, *notarikon* or *qal wachomer*, the latter of which argues from ‘a minori ad maius’ and vice versa (Stemberger 1982:28, 34). As one can see, these hermeneutical rules are not always transparent, nor was any attempt made in Babylonian schools at codifying medical theory. The present study of a single medical commentary in relation to its source recipes (although not the actual source text) suggests a limited sample of possible rules used by the *ummānu* to extract practical and useful information from an earlier medical canon, similar to ways in which rabbis formulated *halachic* regulations. Cuneiform commentaries, with their complicated hermeneutics, challenge us to tease out of their cryptic and laconic remarks the underlying theoretical assumptions of Babylonian medicine and Babylonian hermeneutics in the latter half of the first millennium BCE, a vibrant period for the spread of scientific thinking which laid the groundwork for later hermeneutics in Late Antiquity.

⁹¹ Akkadian *kabû*, see CAD K 29. The fact that two different Sumerian signs give a value /šurum/ is not significant in this case.

IV. *A sick spleen (BAM 77), Melothesia, and Simple Solutions*

It is not always the case that one has both a medical commentary and the proof text upon which it comments. When a text and its commentary fortuitously coincide, the results are often surprising and intriguing, since ancient commentaries rarely interpret their texts in the same way that we would do so. The present example is a case in point. The prescription for a sick spleen was an important topic, since interest in the spleen persisted into later Aramaic medicine as well, which makes clear that the spleen was a wet organ which had to be dried out. The function of the spleen remained a mystery in antiquity, which is hardly surprising, since even in modern medicine, the spleen's function is not entirely understood. The importance of this particular recipe is indicated by the fact that it was the subject of a medical commentary from Nippur, from the mid-1st century BCE, originally published by Miguel Civil and now edited by Mary Frazer on the website of the Yale Cuneiform Commentary Project. The recipe is preserved on two cuneiform tablets from Assur (c. 7th century BCE), edited by JoAnn Scurlock, but with some minor differences than that offered here. The Nippur commentary includes word-play and allusions to other texts which are not easy to grasp, and in fact differing interpretations of this material are to be expected.

A = BAM 77 ll. 20-27 (cf. Scurlock 2014: 532-533)

B = BAM 78 ll. 1-6

C = 11 N-T4 6ff. (selection) (medical commentary, see Civil 1974: 336-338, Frazer 2015)

- 20) A [DIŠ NA *tú-lim-šú* ¹GU₇-šú UD] u GI₆ NU NÁ *pa-gar-šú* KÚM ¹ú¹-[*kal*]
 B DIŠ NA *tú-lim-šú* ¹GU₇-šú UD u GI₆ *la i-šal-lal* [.....]-šú KÚM ¹ú¹-[*kal*]
 C DIŠ NA *tú-lim-šú* GU₇-šú
- 21) A [KAŠ NAG u NINDA GU₇ LÁL LÚ.B]I UD *aš-rat* ^dMarduk KIN.KIN-*ma* T[I]
 B [KAŠ NAG u NINDA G]U₇ LÁL [LÚ.B]I UD *aš-rat* ^dMarduk¹ KIN.KIN-*ma* TI
 C *aš-rat* ^dMarduk¹ KIN.KIN-*ma* TI šá E-u. *ina* ŠÀ ŠÀ.GIG : ^dSAG.ME.GAR :
 ŠÀ.GIG : *tú-li-mu*
- 22) A [.....] ^úTAR.MUŠ ^{na4}ZÚ GI₆ NUMUN ^{gis}ŠINIG
 B ^ú[.....] ^úTAR.MUŠ ^{na4}ZÚ GI₆ NUMUN ^{gis}*bi-ni*
- 23) A [^{na4}*ga-bi-i* I-*niš* SÚ]D *ina* LÁL.KUR.RA HI.HI NU *pa-tan*
 B ^{na4}*ga-bi-i* I-*niš* SÚD *ina* LÁL.KUR-*e* HI.HI *la pa-tan*
- 24) A [*ú-na-šab-ma* g]*a-bid* GU₄ HÁD.A SÚD *ina* KAŠ ^{1a}KÚRUN.NA
 B *ú-na-šab-ma* TI
 C ŠIM GU₄ HÁD.A SÚD *ana ga-bi-du al-pi tu-ub-bal ta-sa-ku*
- 25) A [*tu-rab-bak b*]*a-a-a-ri ik-ta-na-su-us*
 C *ma-kut* : *ba-a-a-ri* GIM *pa-ni* ŠÚR.DÚ^{mušen}
 C *tu*₉(TÚG)-*lim* MÁŠ : *tú-li-mu* MÁŠ.ZU šá E-ú
 C ^{mul}SUHUR.MÁŠ ^{kur}*su-bar-tú* u ERI.DU₁₀
- 26) A [.....] x -*ut* Ì.UDU ÚKUŠ.HAB *ana* ŠÀ 1 SÌLA KAŠ ŠUB-*d*[*i*]

- 27) A [.....] SI.SÁ-*ma* EGIR-šú Ì u KAŠ DUB-*ak-ma* TI
-
- 28) A [DIŠ N]A [tu-*lim-šú* G]U₇-šú u GUB.GUB-*az* LAG A.ŠÀ.GA
- 29) A HÁD.DU GAZ SIM *ina* A ÍD SÌG-*aš ba-lu pa-tan* NAG.MEŠ-*ma* TI
-
- 30) A DIŠ NA tu-*lim-šú* GU₇-šú u GUB.GUB-*az tu-lim'* šá UR.GI₇,
^dNIN.KILIM.EDIN.N[A]
- 31) A *ša taš-lam'*(TE)-*tu*₄ MU.NI *tu-šab-šal* UD.3.KÁM
- 32) A *ba-lu pa-tan* GU₇-*ma* ù *me-e i-šat-ti-ma ina-eš*
-
- 33) A DIŠ NA BI.RI-šú GUB.GUB-*az* BI.RI UR.GI₇ 'GI₆'
- 34) A *in-du-hal-la-tú ša* EDIN [š]*a taš-lam-tu* MU.NE
 C *an-du-hal-la-tú šá* E-ú : NIR.UŠUMGAL : *an-da-hal-lat*
 C *ana-ku* ^dASAL.LÚ.HI UŠUMGAL ^d*a-nun-na-ki lab-bi* ^d*t-gì-gì*
 C PA₄.ÛRU SIM-*tu*₄ *šu-um-šá* : *nap-pu-ú* u *na-pi-tú šum-šú*
 C PAP.^{pa-ap-úr}ÛRU : *nap-pu-ú* : SIM : *na-pu-ú*
 C *ina na-aš-ša-bu lab-bi li-nu-uh*
 C *ina na-ša-bu lib-bi li-nu-uh* : ^u*nu-ša-bu*
 C ^u*ku-uk-ka-ni-ti 5 la-a-ri šá-kin*
- 35) A [HÁD.A ^u]SUMUN.DAR SÚD *ina* MÚD-šá HI.HI BI.RI
- 36) A [a]n-*nu-ti tu-šab-šal* UD.3.KÁM-^r*ma ina* KAŠ² SAG² NAG²'
-
- 37) A [DIŠ KI.MIN *in*]-*du-hal-la-tu* HÁD.DU SÚD *ina* KAŠ 'NAG'¹
- 38) A [*ba-a-a-ri*] *ik-ta-na-su-us*
-
- 39) A [DIŠ NA BI.RI]-šú GUB.GUB-*az* BI.RI UR.GI₇ GI₆
- 40) A [*in-du-hal-la-t*]ú šá EDIN *ša taš-me-tu*₄ MU.NE
- 41-2) A [HÁD.A S]ÚD *ina* MÚD-šá HI.HI E₁₁-*a ŠEG*₆-šal *ina-eš*
-
- 43) A [DIŠ KI.MIN *in-du-hal-la-t*]i šá EDIN HÁD.A SÚD
- 44) A [.....] *ina* KAŠ] NAG.MEŠ *ba-a-r*[i]
- 45) A [*ik-ta-na-su-u*]s T[I]
-
- 46) A [DIŠ KI.MIN tu-*lim* UR.G]I₆ tu-*lim an-du-hal-la-t*[i]
- 47) A [šá EDIN *ša ta*]š-*lam-tu*₄ MU.N[E]

- 48) A [.....] NU *pa-tan* N[AG]
 49) A [..... NÍG].ĀR..RA NU *pa-tan* G[U₇]
 50) A [*ba-a-ri ik-ta-na*]-*as-su-uš*

-
- 51) A [.....] ^ú*tar-muš* ^úIGI-[*lim*]
 52) A [.....] ^ú*hal-tap-pa*-[*nu*]
 C ^ú*hal-la-pa-nu* : ^ú*hal-tap-pa-nu* : ^ú*tuš-ru*

Translation:

- 20) If a person's spleen hurts him, he cannot sleep day or night, his body contains fever,
 (Commentary): if a person's spleen hurts him
 21) his drinking beer and consuming bread is diminished; that man, when seeking out
 'Marduk's advice',⁹² can get better.
 (Commentary): 'one seeking out 'Marduk's advice' can get better'. As they say: 'because the
 'black organ'⁹³ = Jupiter; the 'black organ' = the spleen.
 22-23) Pound together [...], *tarmuš*, black obsidian, tamarisk seed, and alum, mix (them) in
 mountain honey, (and) on an empty stomach
 24-25) he should lick (them). Your dry out and pound ox liver and [*you decoct*] it into
 tavern-beer and he should keep chewing it while hot.
 (Commentary): (The signs) ŠIM GU₄ HĀD.A SÚD (refer) to 'you dry out and pound ox
 liver.' The 'pole' (is) hot when (the term appears) in front of 'to chew'. (The signs)
tu₉-lim is spleen of a *kazzu* (billygoat), as they say, 'Capricorn (the goat star) is
 Subartu and Eridu'.
 26) Put into a litre of beer and colocynth-fat,
 27), he should move his bowels and afterwards you pour oil and beer (into his anus)
 and he will improve.
 28-29) If a person's spleen hurts him and it is present, dry out, crush, and sieve a field-clod, stir it
 into canal water and have him keep drinking it on an empty stomach, and he will improve.
 30-32) If a person's spleen hurts him and it is present, boil the spleen of a dog (or) weasel, the
 nickname of which is *tašlamtu*, let him eat (it) for 3 days on an empty stomach and drink the
 liquid, and he will get better.
 33-36) If a person's spleen hurts him and it is present, [*you dry out*] the spleen of a black dog (and)
i-lizard of the desert – the nickname of which is *tašlamtu*, you pound *šumuttu* and mix (it) in
 its blood, you boil these spleens and for 3 days and *he drinks it in premium beer*.
 (Commentary): The *anduhallatu*-lizard, which they call 'dragon-lord' (NIR.UŠUMGAL) =

92 Although a 'Marduk shrine' is the usual understanding of the phrase *ašrat Marduk*, the present translation in this context is based on the homonym *aširtu* 'advice' (see CAD A/2 440).

93 The anatomical term can refer to 'heart', 'stomach', or any internal organ, following the translation in Stol 1993: 31-32.

an-da-hal-lat, ‘I am Asalluhi, dragon of the Annunaki, lion of the Igigi.’

The ‘sieve’ (or) ‘strainer’ is its name : *nappû* or *nappîtu* is its name,

(Sum.) PA₄.ÛRU = (Akk.) *nappû*, SIM = *napû* (snakes),

‘Let it rest in the *drainage* of the date-palm,’ ‘let (its) heart be calm in licking’:

the *nuṣabu*-plant, the *kukkānîtu*-plant equipped with 5 branches.

- 37-38) If ditto, dry out and pound (the spleen) of an *i.*-lizard, *decoct* it in beer, he should chew it while hot.
- 39-42) [If a person’s spleen] is present, [you dry out] the spleen of a black dog (and) *i.*-lizard of the desert – the nickname of which is *tašlamtu*, pound and mix (it) in its blood, remove (the spleens) and boil (the mixture) and he will get better.
- 43-45) Ditto, dry out and pound (the spleen) of an *i.*-lizard of the steppe, let him *decoct* (the mixture) in tavern beer and chew (the residue) while hot and he will get better.
- 46-50) If ditto, [you boil the spleen of a black dog] (and) spleen of an *a.*-lizard [of the steppe], the nickname of which is *tašlamtu*, let him eat / drink it [in beer (?) for 3 days (?) on an empty stomach. You... and eat (and) groats on an empty stomach and let him chew it while hot.
- 51-52) [.....], *tarmuṣ*, *imhur-ešrā*
[.....], *haltappānu*
(Commentary): *hallappānu* = *haltappānu* = *tušru*)

Notes on the text: (See now Jiménez above for a different view of this commentary.)

20) *tulīmu*: Westenholz argues for this organ to be the pancreas rather than the spleen (Westenholz 2010), but the argument is not entirely convincing, since she has not taken into account the necessity of drying out the spleen. The pancreas does not feature in Greek anatomy.

21) *tulīmu*: The commentary attempts to provide quite a different meaning for this line, that seeking Marduk’s advice (*aširtu*) is a way of achieving improved health. The usual translation (see Scurlock 2014: 533) of seeking a ‘shrine of Marduk’ is based upon references to *ašrat Marduk* in royal inscriptions (CAD A/2 439), but this makes little sense in the present context. Seeking out an unspecified Marduk shrine is not a practice mentioned elsewhere within the extensive magical or medical literature.

What seems clear is that this commentary note has different levels of hermeneutics imbedded within its cryptic wording. The commentary remarks that the quest for health is to be found within the internal anatomy of the patient (*ina ŠÀ ŠÀ.GIG*), which is somehow equated with Jupiter (‘SAG.ME.GAR).

One suggestion, based on this passage, was proposed by Erica Reiner, that Jupiter was associated with the spleen through *melothesia*, the system in which constellations astrologically affect internal body organs (Reiner 1995: 59-60). In this interpretation, ‘Marduk’s advice’ recognises the astrological influence of Jupiter, the constellation associated with Marduk.

Another possibility is the usual meaning of ŠÀ as *libbu*, ‘heart’ (also ‘stomach’, or simply an internal organ) which under normal circumstances could be read as *libbu marṣu*, ‘a sick organ (heart / stomach)’. The ambiguity could suggest that Marduk’s sought-after advice refers to internal anatomy, but an alternative interpretation is possible. The phrase *libbi maruṣ*, ‘sick of heart’ could imply the psyche, since *libbu* can also refer to the mind (see Geller 2014: 24, Steinert 2020: 174).

Fortunately, the ambiguity is resolved by the commentary itself. The final remark in the commentary note in this line is that the signs ŠÀ.GIG refer specifically to the spleen (*tulīmu*). Marten Stol has explained the hermeneutics of this remark with reference to the Greek idea of ‘melancholy’, literally

‘black bile’, which was thought to be responsible for epilepsy (Stol 1993: 27-28). Stol substantiates his understanding of the spleen as the ‘black organ’ (ŠÀ GIG) with a glossed text from KADP 22 1 13-14, which reads: [DIŠ NA ŠÀ.GIG].GA GIG = ŠÀ GE₆ / [DIŠ NA *lib-bi ku-u*]k-ki GIG = ŠÀ GE₆, [‘if a man[suffers from a [ŠÀ GIG] = a black heart / [if a man] suffers from a black [heart] = a black heart.’ This is the same organ which our commentary identifies with the spleen.⁹⁴ Stol goes on to relate Greek melancholy to Akkadian expressions for a ‘heartbreak’ (*hīp libbi*), which may reinforce the interpretation of this commentary as referring to the psyche.⁹⁵

The logogram ^dSAG.ME.GAR is also equated in omens with Nēberu (see for convenience CAD N/2 147), another astrological designation of Jupiter (Marduk). The commentary tradition generally appears to be responding to the popular concept that seeking Marduk’s advice or counsel will improve one’s health, a theme well known from healing magic.

24). The commentary translates the logograms ŠIM GU₄ HÁD.A SÚD as *ana ga-bi-du al-pi tu-ub-bal ta-sa-ku*, for (the phrase) ‘you dry and pound ox liver’. ŠIM is an unattested logogram for *gabīdu* ‘liver’, but since the term can mean ‘bowl’, it might indicate the general shape of the organ. It is unlikely to indicate an aromatic plant here, as suggested in Frazer 2015, since there is no ‘liver of a bull’ plant attested elsewhere.

25) [*turabbak*]: Scurlock 2014: 532 restores NAG.MEŠ in this gap, based on the parallel in l. 44 below. The restoration is certainly reasonable, following *ina* KAŠ LÚ.KÚRUN.NA, ‘have him drink (*materia medica*) repeatedly ‘in tavern beer’. However, there is a logical conundrum based on the sequence of the recipe instructions, both in this line and l. 44 below. The problem is that drinking the ingredients leaves nothing over to be chewed, which is stipulated immediately afterwards (*iktanassus*, ‘he should keep chewing ...’). Two factors can change our understanding of this line. First, in addition to ‘drinking’ *materia medica* ground into beer, a common alternative is to ‘steep’ the ingredients in beer, as in BAM 11 35: *sah-lé-e* ^uHAR.HAR *i-na* KAŠ.KÚRUN.NA *ta-rab-bak* LÁ.LÁ-*su-ma* TIL.LA, ‘you steep *sahlū* and *haltappānu* in tavern beer, keep binding it on and he will get better’. There is no identified logogram for Akk. *rabāku*, ‘to steep’, but the present context suggests that the sign NAG could perform this function, with the meanings that the *materia medica* which are ‘steeped’ are conceived as drinking (NAG) the fluids in which they are soaked.

ba-a-a-ri: The meaning of the term *ba-a-a-ri* is a crux, which occurs several times in this text with the same verb *kasāsu*, ‘to chew’ (*iktanassus*). Scurlock’s translation ‘rawhide’ (2014: 533) is imaginative but not based on philological justification, nor is ‘rawhide’ ever used elsewhere as a medical ingredient. What would this be exactly? Frazer 2015 takes her cue from Civil’s comment (1974: 337) that the phrase might be ‘an allusion to some hunters’ custom’, and she translates *ba-a-a-ri* as a ‘hunter’ (*bāyyaru*) with the rather odd translation, ‘hunter like the face of a falcon’, which sounds strangely inappropriate. A much simpler understanding of the term *ba-a-a-ri* represents an unusual orthography for *bahru*, ‘(while) hot’, which makes good sense in this context. In other words, the recipe ingredients are steeped in tavern beer to soften them and the patient then has to keep chewing them after they are warmed up. Nevertheless, the key to understanding this line is how to normalise the readings *ma-TAR* and the Sumerian logogram ŠÚR.DÙ^{mušen} in this line.

94 Another lexical text equates the ŠÀ.GIG with *irru šalmu* ‘black intestines’ (see CAD T 124). The terminology for internal anatomy is imprecise, since knowledge of internal human anatomy was minimal.

95 See also Stadhouders 2016: 56, giving an incantation with a damaged incipit, reading é[n gaz²] šà gig.ga [.....] u₄ nu-ku-ku ge₆-e nu ku-ku, ‘incantation for (one) suffering from ‘heartbreak’ (*hīp libbi*) [.....] one cannot sleep by day, one cannot sleep by night.’ This shows the ambiguity of the combination of signs ŠÀ GIG and how easy it is to interpret them in various ways, which is why a commentary was necessary.

ma-kut: Frazer 2015 follows Civil 1974 in reading *ma-TAR* as *ma-haš*, which is glossed by *ba-a-a-ri* but not explained. However, the reading *ma-kut* is preferred because of the exotic phrase *makūt gabīdi* ‘pole of the liver’ (noted by Civil as well), attested in medical texts (see IGI 3: 75’, 81’, and 89’, Geller and Panayotov 2020: 169-171, 289) and omens (Jeyes 1989:184).

ŠÚR.DŪ^{mušen}: The line serves as an explanation of *makūt* only if one assumes that the logogram ŠÚR.DŪ^{mušen} (‘falcon’) is normalised as *kasūsu* (already suggested by Civil 1974: 337) rather than *surdū*; both values for this logogram are attested in Nineveh lexical commentaries (Hg B 12 = MSL 8/2 171, Hg C 294 = MSK 8/2 170). In this case *kasūsu* is simply phonetic, in order to represent the root of the verbal form *ik-tan-as-su-us*. The meaning of the line *ma-kut : ba-a-a-ri GIM pa-ni kasusu* then becomes: ‘the “pole” (of the liver, i.e. not the entire liver) (is employed) ‘when’ (GIM) the term *ba-a-a-ri* (= *bahri* ‘hot’) occurs ‘before’ (*pa-ni*) (the verbal root) *kasusu* (i.e. *iktanassus* < *kasāsu*) ‘to chew’.

kizzu (MÁŠ.ZU): Although the recipe refers to an ox liver (*gabīd alpi*), the commentary adds a separate tradition of using a goat liver, which also happens to feature in the Babylonian Talmud, in another recipe against spleen-disease in the medical handbook, Gittin 69b: *lyty ṭhl’ dšyprt’ dl’ ypth wnṭhy’ bt-nwr’ wnwqy lhdyh wnym’ ky hyky dybyš h’y ṭhl’ nyybš ṭhlyh dplwny br plwnyt’*, let one take the spleen of a virgin kid⁹⁶ and smear it on an oven and let him (the healer) stand near it and let him say, ‘just as this one spleen is dried up, may that spleen of So-and-so dry up.’ Civil (1974: 337) suggests that the *kizzu*-billygoat is mentioned because of a homonym with *kasūsu*. For a text and commentary featuring a fumigation for the *kizzu*-billygoat for the condition of ‘heartbreak’ (*hīp libbi*) see Geller 2010: 173 and Scurlock 2014: 342, with some different readings, which might be thematically related to the theme of spleen-disease. The commentary in the text (ibid. 169, 10) has the comment MÁŠ.ZU : *ki-iz-zu* MÁŠ : *ú-ri-ša* ZU : *e-du-ú*, ‘MÁŠ.ZU = billygoat (derived from) MÁŠ = goat, ZU = ‘known (sexually)’.⁹⁷

^{mul}SUHUR.MÁŠ^{kur}*su-bar-tú u* ERI.DU₁₀: The comment associates Capricorn with Subartu in the North and Eridu in the South and is intended to provide an astral dimension to the reference to a goat spleen; as previously noted in the commentary, the goat is an allusion to the constellation Capricorn. The astral association with the theme ‘goat’ appears in another commentary (BM 55466+55486+55627 = STC 70 II i 10-11): *gi-iš-ša-ni-tú : ki-iz-za-ni-tú šum-šú : ana muhhi* ^{mul}MÁŠ *ki-iz-zu*, ‘the term *gizzānītu* : its name is *kizzānītu* (‘goat-like’) : on account of the ‘goat-star’ *kizzu* (‘billygoat’).

24). *ú-na-šab-ma*: Licking is not especially common for adult patients among recipe instructions, but for several examples of licking (or sucking on) a lozenge (*nuššubu*) in the same text, see Stadhouders and Johnson 2018: 560. Although this verb is not repeated in BAM 77, it occurs again later in the Nippur commentary, in the phrase *ina našābi libbi linūh*.

28) GUB.GUB-*az*: See Westenholz 2010: 6-7, translating this phrase ‘constantly stands up / protrudes’, which she explains as referring to an enlarged organ, ‘palpable when the abdomen was examined.’ The expression also occurs in ll. 33 and 39. Evidence from the *Syriac Book of Medicine* offers a different explanation for this repeated phrase referring to the spleen. See Budge 1913: 567: *w’n plg’ nšt’ ’zl plg’ dṭhl’ w’n št’ klh ṭlq klh ṭhlh*, ‘if he should drink a half (of the drug), half of the spleen goes away, and if one drank all of it, all of his spleen disappears.’ The understanding is that the presence of the spleen is a sign of a pathology, and that successful drug treatment will make the spleen no longer visible or present. A similar idea appears in the Babylonian Talmud (bGit. 69b): *w’y l’ nyty bynyt’ wnyṭwwyyh by nph’ wnyklyh bmy’ dby nph’ wnyšty mmy’ dby nph’ hhy’ ’yz’ dhwt šty’ my’ dby nph’ yšṭhyṭ wl’*

96 The unusual Aramaic expression *šyprt’ dl’ ypth* ‘kid not opened’ is a calque on the common Akkadian expression, *unīqu lā peṭītu*, with the same meaning.

97 Scurlock suggestion, as opposed to a ‘virgin kid’, *unīqu lā peṭītu*, ‘unopened goat’.

'yšthkh lh ṭhl', 'and if not, let one take *fish roe* and roast it in a forge and let him (the patient) eat it in water of a forge and let him drink from the water of a forge. As for certain goat which was drinking from the water of a forge, when slaughtered, its spleen was not found.'

34): NIR.UŠUMGAL : *an-da-hal-lat*: NIR.UŠUMGAL is a designation of the *anduhallātu*-lizard in Uruanna III 247: NIR.UŠUMGAL.KAR.RA, describing the lizard as a kind of snake of the quayside. The element NIR is problematic but is perhaps phonetic for NÍR, as a description of the lizard as stone-like. The Uruanna plant list also translates the nickname for the *anduhallatu*-lizard in our text, *tašlamtu*, as *kallat šēri*, 'snake's bride', see CAD K 79.

ana-ku ^dASAL.LÚ.HI UŠUMGAL ^d*a-nun-na-ki lab-bi* ^d*i-gi-gi*: a quote from *Marduk's Address to the Demons* l. 58, see Geller 2016: 353 (edition W. G. Lambert). As always, it is important to try to reconstruct the question behind any commentary remark, in this case why this line from a literary incantation is cited in this commentary. What is missing from our commentary is the question which this quote is intended to answer, perhaps intending to clarify the expression NIR.UŠUMGAL and what this represents (translated as 'snake's bride'). The point is that Asalluhi is described both as UŠUMGAL 'dragon' or 'snake', or as *labbu*, 'lion'. The underlying question may have been whether the spleen of any other wild animals would qualify as useful for this recipe, for which this quote could have supplied a positive answer.

PA₄.ÛRU: The equation PA₄.ÛRU for *nappû* 'sieve' is unattested, but it is a scholarly writing to indicate 'maleness' (*zikaru*, *ašarīdu*), as counterpart to the logogram for sieve, which is GI.ŠÀ.SUR, lit. 'womb-reed'. The reading of the signs (rather than the usual PA₄.ŠEŠ) is confirmed by the next line in the commentary with a phonetic compliment. In any case, these puns are actually intended to refer to *nappītu* and *nappû* as terms for snakes, not sieves (which have no connection with the present context). The *induhallātu*-lizard is compared to a male and female *nappû* snake, for which the Sum. is MUŠ.MA.AN.SÍM, lit. 'the snake which smells me.' The association with snakes is further suggested by the MUŠ.ŠÀ.TUR, lit. 'womb-snake', corresponding to GI.ŠÀ.SUR (lit. 'womb-reed') as the logogram for 'sieve'. The important thing to recognise is that the commentary is interested in snakes and lizards, not sieves.⁹⁸

nap-pu-ú u na-pi-tú šum-šú: As pointed out above, these terms have nothing to do with *nappû*, 'sieve', but these are terms for 'snake'.

The remaining lines of the commentary appended to this comment are a play on the word *labbu* 'lion' but refer back to the lizard and its habits: *ina naššabu labbi linūh ina našābu libbi linūh : nušābu kukkanīti 5 larī šakin*. The *naššabu* or 'drainpipe' usually refers to a hidden habitat (CAD N/2 52), and *labbu* is a word describing some unspecified feature of the date-palm (see CAD L 23); hence it is likely that this is where the lizard is hiding, and this could be a citation from another text. This leads to a further association with the words *našābu* 'to suck' and the *nušābu*-plant, and the *kukkanītu* (lit. 'black-like') plant recalls the spleen (the object of this entire exercise) as a black organ.

37) *ina* KAŠ NAG: The sign NAG is interpreted here as a logogram for *rabāku*, 'you decoct', since it makes no sense to drink up the crushed ingredients in beer before chewing them. See the note above.

52). Although BAM 77 ends here, it is likely the Nippur commentary provides evidence for a new

⁹⁸ An alternative possibility is to read the entire phrase PAP.ÛRU SIM-tu₄ as *kūr-ūru-sim-tu₄* as an esoteric writing for *kursimtu*, 'snake skin'.

section in BAM 77 beginning with the incipit, DIŠ NA BIR-šú GÚ₇-šú, ‘if his kidney hurts him’. The Nippur comment on this line reads as follows (Civil 1974: 337, 20): DIŠ NA BIR-šú GÚ₇-šú ^dnergal šá E-u ^{mul}BIR : ^dšal-bat-a-nu. Reiner 1995: 60 translates this line, ‘If a man’s kidney hurts him, (the disease comes from the god) Nergal, as they say: “The Kidney-star is Mars”.’ Reiner then cites another Uruk medical commentary equating ^{mul}BIR with *ka-li-ti* (SBTU 1 54:11’), ‘kidney star’, and also cites Ptolemy’s statements that Mars governs the kidneys. The Nippur commentary is the basis for recognising the existence of *melothesia* in Late Babylonian sources.

The interesting feature of this commentary is that it clearly reads the Sumerogram for *kalītu* ‘kidney’ as BIR rather than its usual rendering ÉLLAG, since the former reading matches closely with the other Sumerogram for ‘spleen’, B.I.RI, which appears in several times in BAM 77 (ll. 33, 35, 39).

Conclusion

The intricate complications imbedded within this one medical commentary are not easy to unravel and clearly other associations have been missed or are incorrect. Nevertheless, the exercise of working through each commentary reference leads to the inevitable conclusion that these works of scholasticism represented important aspects of curriculum and higher learning in Babylonian schools and they provide clues to second order thinking. As such, they are invaluable sources of learning.

Abbreviations

BAM = F. Köcher, *Babylonisch-assyrische Medizin in Texten und Untersuchungen*

BRM 4 = Clay, A. T. 1923. *Babylonian Records in the Library of J. Pierpont Morgan* (New Haven).

CAL = The Comprehensive Aramaic Lexicon Project (online)

JMC = *Le Journal des médecines cunéiformes*

MSL = *Materials for the Sumerian Lexicon*

SBTU = *Spätbabylonische Texte aus Uruk*

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Commenting on and Commenting through the First Hippocratic Aphorism. An Overview on Four Case Studies

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Ὁ βίος βραχύς, ἡ δὲ τέχνη μακρὴ, ὁ δὲ καιρὸς ὀξύς, ἡ δὲ πείρα σφαλερὴ, ἡ δὲ κρίσις χαλεπὴ. δεῖ δὲ οὐ μόνον ἑαυτὸν παρέχειν τὰ δεόντα ποιῶντα, ἀλλὰ καὶ τὸν νοσέοντα, καὶ τοὺς παρεόντας, καὶ τὰ ἔξωθεν.

The life is short, the art is long, the opportunity is fleeting, the experiment is treacherous, the judgment is difficult. The physician must be ready, not only to do his duty himself, but also to secure the co-operation of the patient, of the attendants and of externals.

This is the first Hippocratic Aphorism (ed. Magdelaine 375,1-4 = Littré IV 458,1-3; transl. Jones), one of the most famous texts in the history of ancient medicine and, perhaps, of the whole ancient Greek literature. In antiquity, this aphorism – and especially its first part (ὁ βίος βραχύς... κρίσις χαλεπή) – represented the summa of medical knowledge and was quoted by a large number of both medical and non-medical authors.¹

However, every reader can easily notice that the meaning of this beautiful Aphorism is anything but immediately clear. Therefore, since Hellenistic times, many ancient authors not only quoted this short text, but also commented on it, trying to understand what Hippocrates exactly meant and in which way the meaning could fit to their own purposes. In the six centuries that separate the redaction of the Aphorisms (probably dating to the 4th century BC) from the most famous, detailed and rich commentary on them, namely the 2nd-century commentary by Galen of Pergamum (ed. Kühn XVIIb 345,1 – XVIIIa 195,5; more specifically on Aph. I 1: Kühn XVIIb 345,1 – 356,13), we can count more than a dozen commentators on the Hippocratic Aphorisms.² Unfortunately, not one of their commentaries has been preserved for us: we have just fragments, mostly transmitted as quotations in Galen's Commentary on the Aphorisms, which is the most important source from antiquity for better understanding the meaning of the Hippocratic text.

In late antiquity, the Aphorisms became part of the canon of Hippocratic treatises that were read in medical schools: they were perhaps the first Hippocratic work to be studied.³ For this reason, we have much evidence of a rich practice of commenting on the Hippocratic Aphorisms during this period, al-

1 See Anastassiou – Irmer 2006, pp. 51–53; Anastassiou – Irmer 1997, p. 59; Anastassiou – Irmer 2001, pp. 49–50; Anastassiou – Irmer 2012, pp. 52–55; cf. Nachmanson 1933.

2 For these commentators, see Ihm 2002, which counts – among others – Herophilus (4th-3rd cent. BC); Bacchius of Tanagra (3rd cent. BC); Asclepiades of Bytina (2nd cent. BC); Zeuxis (2nd. cent. BC); Heraclides of Tarentum (1st cent. BC); Archibius (1st cent. BC), who is credited with writing the commentary on the first Aphorism preserved in the Papyrus Berol. 9764 (firstly edited by Schöne 1905, pp. 22-26, it was then re-edited by Marganne 1998, pp. 13-34; cf. Manetti-Roselli 1994, p. 1535-1536, n. 17); Thessalus (1st cent. AD); Dionysius (prior to Galen), Dioscurides (1st-2nd cent. AD); Rufus of Ephesus (1st-2nd cent. AD); Iulianus (2nd cent. AD); Lycus (2nd cent. AD); Marinus (2nd cent. AD); Numisianus (2nd. cent. AD); Pelops (2nd cent. AD); Quintus (2nd cent. AD); Sabinus (2nd cent. AD); Soranus (2nd cent. AD).

3 On this canon, see Iskandar 1976 and Overwien 2012.

though just few late antique commentaries have been preserved:⁴ this is the case of the texts written by Stephanus of Alexandria⁵ and Theophilus.⁶ Stephanus, in particular, underlined that, among the Hippocratic writings, the Aphorisms should have been read at first according to a logical order, “because of the universal, summary and concise character of their content”.⁷

In this contribution I will try to generally explore how the first Aphorism and the Commentary by Galen have been used within the frame of a specific commentarial activity developed in late antiquity: writing introductions to the texts that should have been commented on. The famous book by Jaap Mansfeld masterfully illustrated the structures and patterns of the introductions (the so-called Prolegomena), typical for rhetorical, philosophical and medical texts.⁸ Late antique commentaries were usually divided into (1) introductions to the text, which contained relevant information about different points – author, authenticity, character, structure and scope of the commented text⁹ – and (2) word-by-word commentary on the text in question. In some cases, before the introductions to the specific texts, we also find more general Prolegomena to the author, or also to the whole art of medicine, philosophy or rhetoric.

Some manuscripts do preserve texts ‘constructed over’ the first Aphorism, and in particular over the first part of it. That means that the first Aphorism (through quotations, paraphrases and comments on it), forms the core of those texts, which are transmitted independently from the proper commentaries on the whole Hippocratic work. When analyzing these texts and their formats in the manuscript tradition, a scholar has to face crucial key-questions:

(a) Are these texts simply commentaries on the first Aphorism, which had a proper and independent manuscript tradition?

(b) Or are they introductions to the Hippocratic Aphorisms,

(c) or, perhaps, Prolegomena to the author or to whole medical art?

In this paper, I will present an overview on four important examples of these late antique and early Byzantine introductive commentaries transmitted either in the form of independent texts or in the form

4 Magdelaine 1996 well demonstrated that the Commentary preserved under the name of Damascius largely corresponds to the Commentary by Galen, and that it probably is a forgery by Andreas Darmarios; on this point cf. also Savino 2013, which came to the same results, although unaware of the previous study by Magdelaine.

5 Ed. Westerink 1985; cf. Wolska-Conus 1992.

6 Ed. Dietz 1834. On the relationship between Stephanus and Theophilus, cf. Wolska-Conus 1994 and 1996.

7 Westerink 30,23-25: ἡ δὲ τοῦ λόγου τάξις πρότερον τοὺς Ἀφορισμοὺς παρακελεύεται ἀναλέγεσθαι διὰ τὸ καθολικὸν καὶ κεφαλαῖωδες καὶ σύντομον τῶν ἐνταῦθα παραδιδομένων.

8 Mansfeld 1994.

9 With regard to medical texts, these are the so-called eight chapters (ὀκτὼ κεφάλαια). For example, Stephanus listed the following eight points in his Commentaries on the Hippocratic Prognosticum (Duffy 26–34) and on the Hippocratic Aphorisms (Westerink 28–32): 1) σκοπός “scope”, 2) χρήσιμον “usefulness”, 3) γνήσιον “authenticity”, 4) αἰτία τῆς ἐπιγραφῆς “reason of the writing”, 5) τάξις τῆς ἀναγνώσεως “position of the lecture (in the curriculum)”, 6) εἰς τὰ μέρη διαίρεσις “division in parts”, 7) ὑπὸ ποῖον μέρος ἀνάγεται τὸ παρὸν σύγγραμμα „to which part this text belongs“, 8) τρόπος διδασκαλικός “way of teaching”. Cf. Wolska-Conus 1992, pp. 9–10. On this schema, see Quain 1945, pp. 243-256 and Mansfeld 1994, pp. 10-11.

of scholia, namely notes written at the margins of manuscripts;¹⁰ they all show common features and patterns.

1) The most famous text I will deal with has a very rich manuscript tradition and had several editions. Printed for the first time by de Yriarte in his 18th-century catalogue of the Madrid manuscripts, it was then edited by Dietz and Usener in the 19th century.¹¹ More than a century later, Flashar took the text into account in an article and, quite recently, Kapetanaki and Sharples re-edited it in a volume on the (pseudo-Aristotelian) *Problemata*.¹² In fact, this very interesting anonymous text constitutes a prologue to the Hippocratic Aphorisms in some manuscripts, but a prologue to the Aristotelian *Problemata*, attributed to Alexander of Aphrodisias, in some others.¹³ For this reason, it has been studied both as a medical and as a philosophical text. The overlap between the two fields should not surprise, since especially in late antiquity and early Byzantine time medicine and philosophy were often combined together in the *curriculum studiorum*.¹⁴

The opening part of the text presents and celebrates the life and the work of Hippocrates, who is divinised according to Christian canons, since he was sent to earth by God (Kapetanaki - Sharples 86,5 – 88,2 = Dietz II 244,23-26):

καὶ οὐκ ἄν τις ἀμάρτοι λέγων, ὡς ὁ προνοητικὸς θεὸς ἐλεήσας τὸ ἀνθρώπινον γένος ἀλλεπαλλήλοις νόσοις ἀπολλύμενον αὐτὴν τὴν φύσιν σαρκώσας Ἴπποκράτην κατήγαγε πρὸς ἀρτίαν ταύτης παράδοσιν.

One would not be wrong to say that god in his providence, having taken pity on the human race which was being destroyed by a succession of diseases, having made nature herself incarnate sent down Hippocrates to impart her adequately.

The compiler then illustrates the features of the medical art, using categories and patterns typical for late antique commentators of the Aphorisms. For example, after introducing the notion of experience through the Hippocratic expression *πειρα σφαλερή* (“experience is treacherous”), taken from the first Aphorism, he provides the following explanation (Kapetanaki - Sharples 88,8-13 = Dietz II 244,25-31):

10 Lunden 1997 demonstrated that the word ‘scholion’ from antiquity up to the Byzantine time conveyed a broad meaning: it could refer to an ‘explanation’ of every sort (paraphrases, etymology, grammar, textual criticism or exegesis), regardless from its position in the manuscript, either in the margins or in the center of the page. However, nowadays we tend to identify the scholia with explanatory notes at the margins of a main text, and we tend to distinguish these scholia from self-standing and continuous commentaries, usually referred to with the Greek word *ὑπομνήματα*. Cf. Dickey 2007.

11 De Yriarte 1769, p. 322, edited the text transmitted by the *Matritensis gr.* 4616 (olim cod. 84), XIV cent.; Dietz 1834, pp. 244-245, edited the text as transmitted by the *Vindobonensis med. gr.* 49, ff. 1-2; Usener 1859, pp. 1-2, presented a critical edition according to the analysis of different manuscripts.

12 Flashar 1962; Kapetanaki - Sharples 2006.

13 For a complete list of manuscripts, see Kapetanaki - Sharples 2006, pp. 82-83.

14 See Westerink 1964.

ἴσως γὰρ καὶ τοῦτο αἰνίττεται κατὰ τὸ προοίμιον τῶν Ἀφορισμῶν λέγων ὡς “ἐπειδὴ κατὰ τὴν πείραν ἡ ἰατρικὴ σχεδὸν ἀκατάληπτός ἐστιν (οὔτε γὰρ ὅτε βουλόμεθα, τοῖς πάθεσιν τῶν ἀνθρώπων ἐντυγχάνουσιν οἱ ἰατροί, τύχη γὰρ καὶ τῷ σπανίῳ τῆς γενέσεως δουλεύει ταῦτα), ἔτι γε μὴν καὶ ἐπικίνδυνος τῷ ἐν σώματι ῥευστῷ μὲν διὰ τὴν ὕλην καὶ ἀβεβαίῳ [...]”.

He [scil. Hippocrates] hints even at this in the prologue of the Aphorisms, when he says “Medicine can hardly be grasped by experience. For we doctors do not encounter people’s afflictions at the time we wish to, for these things are subject to chance and to the infrequency of their occurrence. Moreover it involves risks, because the art of medicine is practiced on a body which is on the one subject to flux, because of matter, and unstable [...]”.

The last sentence on the instability of the human body, taken from Galen’s Commentary (Kühn XVIIb 346,16 - 347,1), has been largely used especially by late antique commentators, such as Stephanus (Westerink 38,25-26) and Theophilus (Dietz II 247,20-21); it also occurs – as we will see – in an anonymous text related to the Hippocratic Praecepta, which will be discussed in the following pages.¹⁵

The possible cultural context that produced this text has been long debated. On the one hand, Hellmut Flashar identified Neoplatonic commentators with the authors of the text, which would have belonged to the commentary tradition on Aristotle.¹⁶ On the other hand, at the end of the last century, Oliver Temkin and Inek Sluiter argued that this text was a prologue to a late antique commentary on the Aphorisms.¹⁷ Few years after the publication of Mansfeld’s monograph on Prolegomena, Amneris Roselli revised the text and the previous studies on it, examining more closely its language and structure.¹⁸ She has convincingly showed that we deal here with an isagogic text and she has considered it as a Prolegomenon, that means an ‘introduction’, not just to the Hippocratic Aphorisms, but to the study of medicine in general. Indeed, after a brief introduction to the pre-Hippocratic medicine, the text praises the figure of Hippocrates as saviour of human beings, drawing a sort of βίος of the ancient physician with his main values. The first Aphorism quoted in the text, standing as symbol of Hippocrates’ medical heritage, along with some re-worked sentences extrapolated from Galen’s Commentary on it, aimed to introduce students to the medical art. The first Aphorism, in fact, offers a general overview on the art of medicine, through the list of its major elements and their relative roles. The anonymous Prolegomenon says it explicitly after the presentation of the divinised figure of Hippocrates (Kapetanaki - Sharples 88,23–25 = Dietz II 245,8–11):

Τὸ δὲ μέγιστον τοῦ ἀνδρός, ὅτι οἱ παρ’ αὐτοῦ λεγόμενοι Ἀφορισμοὶ οὐχ ἀρμόζουσι μόνη ἰατρικῇ ἀλλὰ καὶ κοινῶς παντὶ τῷ βίῳ. νόμοι γὰρ εἰσι καθολικοὶ θεσπίζοντες καὶ κανονίζοντες τὰ γινόμενα.

The greatness of the man [i.e. Hippocrates] [scil. is apparent] from the fact that the Aphorisms he uttered are appropriate not only to medicine but in general to the whole of life: for they are universal laws foretelling and regulating the things which happen.

¹⁵ See the fourth and last case study in this contribution.

¹⁶ Flashar 1962 and 1964.

¹⁷ Temkin 1991 and Sluiter 1994.

¹⁸ Roselli 1998.

Next to the medical context, Roselli also drew attention to many parallels and re-elaborations from the Platonic tradition. For example, the compiler quoted Aphorism II 10: this quotation is put into relation with a passage from Plato's *Phaedo* 67b, as it was in the 6th-century Commentary on Galen's *De sectis* by Palladius.¹⁹ This combination of medical and philosophical material results perfectly in line with the cultural framework of late antique commentarial activities.

2) Another anonymous text interesting for our purpose is to be found at the folia 315v-319v of the Parisinus gr. 2237, which can be dated between the end of the XIII and the beginning of the XIV century.²⁰ According to Brigitte Mondrain's codicological analysis, it is possible to link the manuscript to the erudite circle of Johannes Argyropoulos in Constantinople, which was particularly interested in collecting both medical and philosophical (in particular Aristotelian) writings.²¹ The text is unedited as yet, and the only investigation on its content and structure has been made by Anna Maria Ieraci Bio.²²

The title reads: ἐρμηνεία πάνυ καλή εἰς τὸ α' τμήμα τῶν ἀφορισμῶν (add. supra lin. Ἱπποκράτους). κεφάλαιον α' εἰς τὸ ὁ βίος βραχύς. It begins immediately with the commentary of every single expression of the first part of the first Hippocratic Aphorism, without introducing it with a prologue. The compiler divided the text into Hippocratic lemmas and related commentaries, introduced by the words κείμενον and ἐρμηνεία respectively. The first commented lemma is ὁ βίος βραχύς, ἢ δὲ τέχνη μακρά (f. 315v), the second καιρὸς ὀξύς (f. 316r), the third ἢ πείρα δὲ σφαλερὴ (f. 317v), the fourth ἢ δὲ κρίσις χαλεπή (f. 318r). The compiler of the text made consistent use of the earlier commentaries on the Hippocratic Aphorisms available to him (Galen, Stephanus and, especially, Theophilus), reworking this exegetic material in order to compose his own commentary. However, he used not only the Aphorisms, but also other Hippocratic works, such as the Prognostic and the Epidemics, which late antique medical schools largely commented on. Ieraci Bio pointed out that the text shows a very evident didactic character: it is addressed to a student (ὦ φιλομαθέστατε) and expressions typical for a school context are very recurrent (for example δεῖ γινῶσκειν and ἰστέον ὅτι). Moreover, the compiler resorted to some patterns which were common in late antique iatrosophistic schools, such as the question-answer structure (ἐρωταπόκρισις), introduced for many exegetical passages.²³

The text only deals with the first Aphorism and is closed by the last sentence of it. However, one should wonder whether this text must be simply considered as the first part of a longer Commentary on the Aphorisms or it is just an exegetical introduction to the Hippocratic work or, maybe, to the whole art of medicine. In support of this last hypothesis, it is worth highlighting that this anonymous text is to be found at the last folia of the manuscript, which otherwise does not preserve any commentary on the Hippocratic Aphorisms. On the basis of this observation, one can safely argue that the text has been transmitted independently. After all, already Galen, at the very beginning of his Commentary, stressed the introductory character of the first Aphorism (Kühn XVIIb 346,2-3). Therefore, it should not surprise that the proemium of the most representative work of the father of medicine could be commented on its own, in order to set the definition of medicine and its most important elements.

19 On this Commentary, see Baffioni 1958.

20 See the catalogue by Omont 1888, p. 219.

21 See Mondrain 1999, pp. 411-413; on Johannes Argyropoulos, see Mondrain 2000.

22 See Ieraci Bio 2006; cf. Ieraci Bio 2014, p. 402. So far as I know, there has been no further investigation on it.

23 On this structure, see Ieraci Bio 1995.

The last two texts I would like to introduce are again anonymous works, which I edited and commented on during my researches on the Hippocratic Aphorisms and Precepts.

3) At folia 157r-157v of the MS Harleianus 6295 (Hb) and at folia 158r-159r of its apograph, the Parisinus gr. 1884 (R),²⁴ we find an anonymous text that serves as prologue to a mixed Commentary on Aphorisms,²⁵ in which part of Theophilus' Commentary (In Hipp. Aph. proeh. - I 1: Dietz II 245,32 - 248,4) is transmitted along with part of Galen's Commentary (In Hipp. Aph. I 1 - VII 81: Kühn XVIIIb 355,13 - XVIIIa 195,5). In both manuscripts, the text bears the simple title of Ἀφορισμοὶ τοῦ Ἱπποκράτους "Aphorisms of Hippocrates", without any mention of a commentator. The text is divided into two parts, according to my analysis. In the first part (§ 1-3), the compiler introduces his Commentary on Aphorisms by explaining the title of Hippocrates' treatise and by offering a definition of medicine. In the second part (§ 4-7), he provides a word-by-word commentary on the text of the first part of Aph. I 1 (that means ὁ βίος βραχύς, ἡ δὲ τέχνη μακρὴ, ὁ δὲ καιρὸς ὀξύς, ἡ δὲ πείρα σφαιερὴ, ἡ δὲ κρίσις χαλεπή). The compiler often re-elaborates material taken from Galen's Commentary on Aphorisms and combines it with elements that show clear analogies with late antique philosophical Prolegomena, in particular with those produced within Neoplatonic circles. Unfortunately, these considerations do not contribute to identify the compiler, who was not necessarily a physician: in late antiquity and middle Byzantine period, in fact, lectures on the first Hippocratic Aphorism were probably common among philosophers too.

I would like to provide just one case study taken from this text. Before beginning to comment on the first Aphorism, the compiler explains the necessity to do it because of the unclearness both of the Hippocratic text and of the Commentary by Galen:

ὅτι δὲ ἀσαφεῖς ὑπάρχωσι, τοῦτο μὲν ἅτε ποιητικώτερον συντιθέμενοι τοῦτο δὲ καὶ ὡς πολυλογώτερον παρὰ Γαληνοῦ ἐξηγησάμενοι καὶ ἀμφοτέρωθεν²⁶ πολλὴν τὴν ἀσάφειαν ἔχοντες, δῆλον τοῖς πᾶσι. ἐκατέρω οὖν ἀποσεισάμενος τοῦ μὲν Ἱπποκράτους περὶ τοὺς ἀφορισμοὺς ποιητικὴν ἀσάφειαν, μακρηγορίαν²⁷ δὲ τὴν περὶ αὐτοῦς – φησὶ τις τῶν καθ' ἡμᾶς προκρίτων θεοφόρων πατέρων· πολέμιος ἀκοαῖς κόρος λόγου²⁸ ὡς²⁹ ὑπερβάλλουσα τροφὴ σώμασιν – εὐφραδέως οὕτω καὶ συντόμως τὴν πραγματείαν ποιήσομαι, ἐπεὶ δὲ περὶ ἰατρικῆς ἡμῖν ἐστὶν ὁ λόγος. δεόν ἀυτόχρημα διορίσασθαι τί ἐστὶν ἰατρικὴ· ἰατρικὴ ἐστὶ τέχνη περὶ τὰ ἀνθρώπινα σώματα καταγινομένη ὑγείας περιποιητικῆ.

that [scil. the Aphorisms] are unclear is evident to everybody: that is so, because they are both composed in a poetic way and also explained in a more long-winded way by Galen, and from both sides they have a lot of obscurity. After having shaken off both Hippocrates' poetic ob-

24 See respectively the catalogues by Nares 1808, vol. III, pp. 354-355 and Omont 1889, vol. 2, p. 158.

25 I submitted the first critical edition of this text with translation and exegetical notes for the Proceedings of the 15th Colloque hippocratique, which took place in Manchester in 2015: see Ecce 2021. In the following pages, I have only included a few selected textual notes, just to explain those cases in which I have either preferred a variant reading of the apograph R or corrected the text as transmitted by the manuscripts.

26 ἀμφοτέρωθεν *scripsi*: ἀμφοτέροθεν Hb R

27 μακρηγορίαν *scripsi*: μακρυγορίαν Hb R

28 κόρος λόγου R: *om.* Hb

29 ὡς R: ἡ Hb

scurity on the Aphorisms and [scil. Galen's] long-winded discourse about them – one of our favourite fathers inspired by God says: “a satiety of word is adverse to the hearing of divine voices, as an excessive nourishment is for bodies” – I will put this treatise in a well-written and concise style, since our discourse is about medicine. It is absolutely necessary to define what medicine is: “medicine is an art, which deals with the human bodies and procures health”.

In this paragraph we find interesting parallels with the Prolegomena on Porphyry's Isagoge, probably composed around the 6th century in Alexandria by two authors: David, who mentions Galen as an example of ‘obscurity’ because of his long-winded narrative (In Porph. Isag. 3: Busse 105,13-16), and Elias, who presents both Galen's ‘extended’ way and Hippocrates' ‘contracted’ way of writing as examples of stylistic obscurity (In Porph. Isag. 16: Busse 41,30 - 42,5).³⁰ In support of his aim to concisely and clearly explain the Hippocratic text, the compiler quotes a sentence of the treatise *In sanctum baptisma*, written by the Cappadocian Father Gregory of Nazianzus (4th cent.), which compares the excess of words, which impairs the capacity of listening the word of God, with the excess of food, hostile to human bodies (Orat. 40: MPG XXXVI 360,24-25). It is rather significant that the only other quotation of this sentence is in John of Damascus' *Sacra Parallela*, written at the beginning of the 8th century (MPG XCV 1345,27-28). By way of conclusion of this section, the compiler uses the definition of medicine as “an art, which deals with the human bodies and procures health”, which has a clear original source in pseudo-Galen's *Definitiones medicae* (Kühn XVIIb 350,17-18). This definition of medicine became very popular in the Neoplatonic schools of Alexandria: it occurs in the Commentary on Porphyry's Isagoge by Ammonius (Busse 2,6-9), in that by Elias (Busse 5,34 - 6,3), and in the *Prolegomena philosophiae* by David (Busse 17,33 - 18,6; 19,3-4); it was also quoted in John of Damascus' *Dialectica* (Kotter 70,24-26). This definition contains – even if not explicitly – the clear Aristotelian distinction between the ‘object’ (ὄποκειμενον) of the art, which are the human bodies, and its ‘purpose’ (τέλος), which is health.

Then, the text shows many characteristics similar to other late antique Prolegomena, and it would not be odd to suppose that this text too was constructed as independent Prolegomenon. One should not be surprised that the compiler closed his text with the commentary on the first part of Aph. I 1, without further commenting on the Hippocratic text: in fact, from the time of Galen onwards, Aph. I 1 was considered a prologue somehow independent from the seven books of the Aphorisms. Moreover, after this anonymous text, we find the prologue and the beginning of Theophilus' Commentary on the Aphorisms (ff. 157v-158v of the Harleianus): that means that even the compiler of the manuscript intended the anonymous text as Prolegomenon to the whole commentary or, even more generally, to the art of medicine.

4) The last text I am now about to examine is transmitted at the margins of one single manuscript (Vaticanus Urbinas graecus 68, ff. 26v - 27r),³¹ thus representing what we usually call a ‘scholion’. It is particularly interesting for us, because it is a commentary not on the first Aphorism, but on the incipit of another and much less famous and quite late Hippocratic treatise: the *Praecepta*, plausibly written around the first or second century AD.³² A characteristic of the *Praecepta* is that the author reworked and

30 On these texts, cf. Militello 2010.

31 Catalogue: Stornajolo 1895, pp. 84-92.

32 I edited and commented this text in my book on the *Praecepta*: Ecce 2016; specifically on the manuscript and the scholion see Ecce 2018.

re-contextualised some sentences taken from famous Hippocratic writings, which at his time became somehow ‘canonical’. The first sentences of the Hippocratic Praecepta (Ecce 110,4-7) assume as a model and rework the first Hippocratic Aphorism, thus aiming to represent the summa of medical knowledge:

χρόνος ἐστὶ ἐν ᾧ καιρός, καὶ καιρός ἐν ᾧ χρόνος οὐ πολὺς. ἄκεσις χρόνω, ἔστι δὲ ἡνίκα καὶ καιρῷ. δεῖ γε μὴν ταῦτα εἰδῶτα μὴ λογισμῷ πρότερον πιθανῶ προσέχοντα ἡτρεῦειν, ἀλλὰ τριβῆ μετὰ λόγου.

Time is that wherein there is opportunity, and opportunity is that wherein there is no great time. Healing is a matter of time, but it is sometimes also a matter of opportunity. Therefore, knowing this, one must attend in medical practice not to a reasoning that has been previously made plausible, but to experience combined with reason.

The scholion text begins with a sentence, which alludes to a previous (and not preserved) introduction to the work, according to a common structure in late antique commentaries. Then, the compiler comments on the first words of the Praecepta, putting the temporal notions of χρόνος and καιρός into relation with the two parts that essentially constitute the medical activity: reason (λόγος) and experience (πεῖρα), which are at the core both of the first Aphorism and of the incipit of the Praecepta. The compiler composes a sort of doxography, by introducing fictive interpretations of physicians and philosophers who came before Galen (Chrysippus and the Stoics, Archigenes, the Empiricists), in the way in which Galen would have presented them. After considering this list of fictive interpretations, along with the title ἐκ τῶν Γαληνοῦ at the beginning of the text, one can be lead to believe that the compiler wanted to create a forgery under the name of Galen.

Since the Praecepta did not belong to the group of canonical works of Hippocrates in the philosophical and medical schools of late antiquity, the compiler of this scholion explained the Praecepta by commenting on the much more famous first Aphorism. He admits this exegetical approach quite explicitly, when he claims that the right interpretation of the first sentence of the Praecepta assumes the interpretation of the first Aphorism (Ecce 336,5-10). Moreover, at the end of this passage, we find the same re-elaboration of Galen’s Commentary on the mutability of the matter – that means of the human body – that we previously found in text n. 1:

ἄλλοι δὲ τινες τῆς ἀληθείας ἐγγυτέρω προβαίνοντες πρὸς τὸν νοῦν τοῦ α’ κεφαλαίου τῶν Ἀφοριστικῶν συγγραμμάτων ἀναφέρουσι τὸν λόγον καὶ φασιν· χρόνος ἐστὶν ἐν ᾧ καιρός, ἥτοι ἐκάστου ζωῆς διάστημα ἐστίν, ἐν ᾧ θεωρεῖται ὄξυς ὁ καιρός – διὰ τὸ ῥευστὸν δῆλον τῆς ὕλης καὶ εὐαλλοίωτον.

Some others [scil. interpreters] come closer to the truth, since they explain the meaning according to the sense of the first chapter of the aphoristic treatises, and say: “χρόνος is that wherein there is καιρός. That means it is the period of each life, in which the right moment is considered fleeting, obviously because of the fugacity and the mutability of the matter”.

It is worth noticing that also in this scholion, similarly to the anonymous text of the Harleianus examined before (text n. 3), we find a quotation of the Cappadocian Father Basilus of Caesarea (MPG XXXI 425-428), which was later on used by John of Damascus in his Sacra Parallela (MPG XCV 1273). The compiler uses the metaphor of the sweetness of philosophy with reference to Hippocrates, who is said to ‘philosophise’ (Ecce 334,5-7):

προιὼν μὲν φιλοσοφεῖ, τὸ τῆς φιλοσοφίας γλυκὺ γεῦσαι θέλων τοὺς ἐντυγχάνοντας. τίς γὰρ ἀναγγελεῖ τὴν ταύτης γλυκύτητα τοῖς μὴ γευσασμένοις;

He goes on philosophising, since he wants to let taste the sweetness of philosophy to the readers. For who could disclose its sweetness to those, which did not taste it?

This quotation shows that the compiler of the text was probably Christian: for this reason, a plausible *terminus post quem* for the redaction of the text is the 6th century, when the Christian religion began to expand also in the Neoplatonic schools of philosophy and medicine. This text was probably composed in late antiquity or in the early Byzantine time, although it is impossible to date it precisely.

After having presented the different interpretations of the first sentences, the compiler does not go further with his comment on the text of the *Praecepta*; he was clearly interested only in the incipit of the text, which immediately recalls the first Aphorism in its vocabulary and syntax. In this way, the compiler made up a new Prolegomenon to the reading of medical texts, basically presenting a general overview of what medicine is and which is its purpose.

Conclusions

From the overview of these late antique and early Byzantine prologues, we can draw some preliminary conclusions. Their analysis, in fact, shows quite clearly how their anonymous authors somehow extrapolated sentences of the first Hippocratic Aphorism as well as of Galen's Commentary from their original context and used them to compose isagogic writings to the study of medicine, or the reading of medical texts. Late antique commentators reworked this ancient material in order to create independent general introductions or Prolegomena; in doing so, they usually followed shared patterns, which present close similarities with those used in the Neoplatonic philosophical commentaries. Even in the case of the unedited text in MS Parisinus gr. 2237, which only preserves a word-by-word commentary on the first part of the first Aphorism, it seems reasonable to suppose that the compiler was motivated by the fact that the first Aphorism represented an introduction *per se* to the medical art, as also Galen noted in his Commentary. Probably, the authors of these prologues cannot be identified with those scholars who commented on the whole Hippocratic Aphorisms. In fact, they do not show a specifically medical expertise, but they rather display a more broadly both philosophical and medical background, as it is expected for a time in which the study of medicine and philosophy were often combined together.

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Commentary from the Renaissance to Galen

Vivian Nutton

I make no apology for a title and a theme that takes us a long way from Babylonia, or for this ahistorical chronology. It reflects my present interests in writers from the sixteenth century, but, more importantly, by proceeding from a period where we have abundant information back over the centuries we may gain a better understanding of some of the major differences between scholars and physicians even when they are discussing the same texts. For the purposes of this essay, I define medical commentary as the exposition by medical men of the writings of an earlier author for medical purposes, whether originally presented orally in a lecture or composed in writing over a lengthy period. Such a method of medical instruction lasted far longer than one might imagine. The Hippocratic *Aphorisms* were studied in Berlin by Rudolf Virchow in the early 19th century and did not disappear as a subject for lectures at Bologna until the early twentieth. This long perspective raises wider questions about the making, choice and usage of commentary that reveal much about the development and context of this educational practice. Although several commentaries will be mentioned, and a list of names and dates can be found at the end of this paper, I shall not be examining them in any detail but using them as examples of broader trends.

My story begins in Paris in the 1570s. Professor Houillier had died prematurely in 1562, but his writings were conserved, and some published, by a distinguished set of pupils, including Jean Liébaut, Alexis Gaudin and Didier Jacot. He had been an inspiring teacher, and his circle, including Louis Duret, Maurice de la Corde and Anuce Foes, have rightly deserved the title of the Parisian Hippocratics given them by Iain Lonie. Although they knew their Galen, it was Hippocrates, and Hippocrates the clinical observer, who demanded their attention. As well as his Aphorisms, they introduced to a wider world, and a wider world made possible by printing, unfamiliar texts that had never formed part of any learned canon – *Disease of young girls*, for example, and, above all, *Coan predictions*, a work parallel to the *Aphorisms* but one almost entirely forgotten today. Houillier's commentary on the last text, edited by Jacot, but with contributions by others in the group, appeared in 1576, and Duret brought out his own commentary in 1588. These are huge volumes: Houillier's comes to 1130 folio pages, Duret's a mere 576, excluding their copious indexes. The chosen method of this group was the commentary, in part deriving from lectures to students, but reworked in the study with an amplitude of learning. This method could be applied to modern texts too: the diseases described by Houillier originally in his lectures and case notes appeared with his own comments and those of his pupils in 1565 as *De morborum curatione*, and in an enlarged edition in 1567 and 1571. Duret's lectures and commentary on Houillier's work on internal diseases, *De morbis internis*, appeared even later, in 1577. At the same time, Pieter van Foreest, the 'Dutch Hippocrates', began what must be the largest such collection of commentary, his *Consultationes at observationes* in 32 books, as well as a further nine on surgery, published at frequent intervals between 1584 and 1610. They followed the model of learned commentaries on Hippocrates' Epidemics, opening with a case study, usually, but not always his own, often followed by very detailed Scholia, discussing the case with many references to authors ancient, medieval and modern. His example, as well as that of Houillier and his followers, demonstrates that the work chosen for commentary need not form part of an agreed syllabus of texts, but could reflect the particular interests of the commentator. It was a flexible form of imparting information, and Foreest in particular expected his readers to be able to recognise both his innovations and his adherence to traditional forms.

Lonie describes these Parisian commentaries as among ‘the first modern commentaries on ancient medicine’. Two features distinguish them from medieval commentary: attention to the Greek text and to questions of philology (impossible before the widespread availability of the original Greek Galen and Hippocrates after the Aldine editions of 1525-6); and a strong emphasis on relating their contents to modern clinical medicine, as both method and practice (something that marks these commentaries out from shorter expositions of textual points at the back of editions and translations, like Leonardo Giachino’s edition of Galen’s *Prognosis* of 1540, or John Caius of Galen’s *Anatomical Procedures* of 1544). Their authors at times deliberately seek to distinguish themselves from medieval commentators, who are criticised for raising more logical and analytical questions about their text material. This is unfair to such learned authors as the Parisian Jacques Des Parts or Taddeo Alderotti in N. Italy, who included much clinical material in their books. But these medieval authors had by no means as much Galen at their disposal as Giambattista Da Monte at Padua in the 1540s. This new classical material becoming available effectively from the 1520s swamps everything that has gone before, to say nothing of the increased availability of texts, treatises and earlier commentaries on which to draw.

The impact of the rediscovery of Greek was evident by 1520 even in the short traditional collection of basic texts, the so-called *Articella*, as older versions were replaced by new ones taken directly from the Greek rather than Arabic intermediaries. But it was not until 1525, and arguably not until 1530 with the production of new Latin versions, that Galen’s importance and range as a commentator became apparent. Among this material was Galen’s commentaries on Hippocrates. True, those on *Aphorisms*, *Prognostic* and *Diet in acute diseases* had circulated in some university manuscripts in Latin in the translation by Constantine the African, but the rest were effectively unknown. Besides, the process of transmission had removed most of Galen’s comments on the Greek text of Hippocrates, irrelevant in discussions of Latin versions, and equally irrelevant in comments on Arabic texts in their Latin versions.

Renaissance readers discovered that Galen’s commentaries were far more sophisticated than anything available before, and comparable to contemporary humanist commentaries on poets like Catullus or Propertius. They included reference to predecessors and elegant discussions of variant readings (although the full significance of his exploitation of the ‘editions’ of Capito and Dioscorides, or the work of Rufus of Samaria, Ilberg’s proto-philologist, had to wait till the appearance the 20th century of Arabic versions of works lost in Greek). At first there was no knowledge of Rufus, Galen’s predecessor, or Oribasius, his successor, there was no easy way of reconstructing Galen’s place within an Alexandrian tradition of Hippocratic exegesis. But readers could appreciate for the first time Galen’s methods, and his incessant search for authenticity based on the accuracy and intelligibility of the text. He was familiar with others’ exegeses of Homer, the playwrights, Plato and Aristotle, and he devoted an enormous amount of effort into creating lexica of Attic comedy, which he believed, rightly, offered a better appreciation of the normal meaning of words in the lifetime of Hippocrates than the more exalted poets and philosophers. The overall effect of Galenic commentary on the sixteenth century was not at first to change the texts chosen for commentary, but to widen it, both in and outside the classroom, and to provide a new model for exposition. One might note, for instance, an edition of Avicenna in Arabic.

But acceptance of Galen’s authority also brought with it a problem. How to choose between the enormous numbers of works that were now available, many beyond the pocket of medical students. This was a problem that had already been faced in Late Antiquity when an earlier and continuing Alexandrian tradition of Hippocratism was supplemented by Galenism. How far one can talk about a definite syllabus of Hippocratic texts for commentary is open to question, but there can be no doubt of a later Galenic syllabus already by the late fifth century, the so-called sixteen books, accompanied by lectures and summaries for the benefit of students. It depended on Galen’s own injunctions of how to study his books, including his

lists in *My own Books*, and was an easy way of abridging the Galenic legacy. Its sixteen books (or, on another calculation, twenty) were well chosen and organised, beginning with some short introductory works before going on to others on, to use modern terminology, anatomy, physiology, pathology, therapeutics and prophylaxis. It became available in Syriac (and was later studied in that language by Christians at Alexandria and in Baghdad), Arabic, Hebrew and by 1250 in Latin, where they formed the basis for advanced study in the new Western universities. How, when and where a syllabus was formed in the Latin West is disputed. 'Standard' Latin university manuscripts seem to contain a different number of Galenic texts North and South of the Alps, and not all the texts contained in them became the subject of lectures and commentary. The earlier texts chosen would appear to be derived from Arabic, with a variety of previously unknown 'new Galen' texts appearing in the last quarter of the thirteenth century. A few seem to have been studied widely, notably Galen's *Art of medicine*, and individual teachers and individual universities might lecture on texts rarely studied elsewhere. At Montpellier, for instance, there were lectures for roughly sixty years, between 1290 and 1350, on *Good and bad humours*, a Galenic work widely copied but largely used in private study. But what is striking about this late medieval Galenism is that by 1300 it had already become so widespread that it hampered the acceptance of the translations of Niccolò da Reggio, made from the Greek between roughly 1308 and 1350 although they were far more accurate than those made earlier from Arabic intermediaries. They do not appear to have circulated widely and were not the subject of public lectures, partly because they largely dealt with relatively minor topics, and partly because of their, at times, unusual vocabulary. They were used by professors in private reading, and did not become the object of public exposition.

Medicine came late into the Western University; and when it came, Galenic medicine fitted neatly into the commentary model of university teaching already developed in law, theology and the arts. It was highly theoretical, and offered many points for discussion – *dubitata, quaestiones, contradictiones* and so on. It depended on a sound knowledge of philosophy, particularly that of Aristotle. To judge from annotations and ownership marks, most of these 'new' Galenic works were read principally by advanced students, often as a basis for disputations. But before the arrival of the theoretical Galen, medics were already familiar with a different set of translated texts largely derived from Arabic sources translated into Latin – part of the *Canon of Avicenna*, part of the *Liber nonus* of Rhazes, and earliest of all; the *Articella*, short introductory texts ideally suited for beginners. They originally consisted of *Liber ysagogarum* of Johannitius, a redaction of the *Questions and Answers* by the ninth-century writer Hunain ibn Ishaq, Hippocrates' *Aphorisms* and *Prognostic*, two Greek texts on urines and pulses by Theophrastus and Philaretus, and, later, Galen's *Art of Medicine* and the Hippocratic *Regimen in Acute Diseases*. The expositions of these works by the earliest commentators in early-twelfth-century Salerno explain the text closely and methodically. But by 1180 Bartholomaeus was raising wide questions incorporating Aristotelian and Arabic philosophical thinking in a style adaptable to non-Salernitan texts e.g. the *Canon*. This heavily logical and text-based commentary was derided in the 16th century by those who could see the wider range of Galen's own practice, but it marked a major advance on what had been available in the Latin West.

Before Salerno, however, our knowledge of medical education is scanty. The medical texts that survive in Latin are heavily weighted to practical advice on diagnosis and therapy or collections of remedies, with one major exception. At Ravenna in the sixth century lectures were given in Latin on some of the initial texts in the Alexandrian syllabus on the model of, and sometimes closely dependent on, what was being taught in the Greek world. But Ravenna, with its *schola greca*, was for long the outpost of Byzantium in the Latin West, and evidence for the circulation of manuscripts of these commentaries outside the Po Valley and Monte Cassino is hard to find. And with Ravenna, we return to Galen and the Alexandrian tradition of medical commentary that runs from the third century BCE to the eleventh century.

What conclusions can be drawn from this brief survey? The first is that medical commentary is something foreign to Latin Europe, and the two places where commentary can be found early, Ravenna and Salerno are both closely linked with the Greek World, one through trade, the other as the seat of Byzantine government. In part this is because the Greek educational tradition around the Eastern Mediterranean was linked with canonical texts, and with institutions in which commentary on texts formed a central role. This system also privileged the study of philosophy, principally logic, whether in Byzantium or in the Islamic world. Medieval Western universities also demanded a degree in arts, i.e. Aristotle, before proceeding to medicine, and those educated in this system would naturally also mostly support its continuance.

Earlier medical commentary took place within institutions, under various names, the house of Herophilus in third century B.C. Alexandria, or the *schola* at Ravenna. In late antique Alexandria, Magnus was given a public *didaskaleion*, and the remains of a major educational establishment there are visible today at Qom el-Dikka. Teaching seems also to have taken place in hospitals in the late medieval Islamic world, and some have seen Islamic medreses as the forerunner of Western universities. Institutions involving the teaching of medicine did exist in the Latin Roman Empire at Bordeaux and Aventicum, for example, although it is far from clear what was taught there, although it is unlikely to have been commentated lectures on Hippocrates. Besides, the late-Roman Empire in the Latin West was less wealthy than the East, certainly to the extent that it could sustain such institutions as are found in Alexandria or Constantinople. The practical medical texts that survive in Latin from before 1000 AD are far less suited to detailed commentary. They give advice on effective healing rather than discuss the theories that underpin them.

This may also explain why commentaries on surviving classical Latin medical texts appear only in the late Renaissance. The first printed commentary on Celsus was that of Caesarius in 1528, the first large-scale folio commentary that of Willem Pantin of Bruges in 1551. Scribonius Largus had to wait still longer, until 1655 and the still valuable edition by Johan Rode.

At all periods, the favoured type of text for medical commentary was short, no more than 30 printed pages in length, and often much less so whether in manuscript or in printed form. This makes them memorable, but also, since many of the preferred texts are either cryptic (Hippocrates) or extremely succinct (Galen, Avicenna), they require the aid of a teacher to explain them and to put them into a therapeutic context.

The texts chosen for commentary, it goes without saying, are viewed as in some way authoritative: Some Hippocratic writings appear to have gained this status by the third century B. E, in a tradition that includes Empiricist doctors such as Heraclides of Tarentum, as well as Galen's teachers, both in Asia Minor and Alexandria. Partly because Galen himself wrote commentaries in which he provides information about his predecessors, it is tempting to think that these were the only ones chosen, but his teacher, Pelops, and at least one late Alexandrian commented on *The nature of the child*, and fragments survive in Arabic of a pseudo-Galenic commentary on the Hippocratic *Oath* written in the time of Galen. Sibylle Ihm in her useful listing of ancient medical commentaries also suggests that Galen commented on a wide range of other writers, Archigenes, Asclepiades, Erasistratus, Herophilus, Menodotus, Serapion, and Theodas, but these seem to have been discussions of particular problems in their works, *hypomnemata*, rather than detailed expositions of specific texts. But by Late Antiquity, and still more in Islam, Hippocratic texts were much reduced in number, and were largely superseded by Galen's works, although how and when this happened remains unclear. By contrast two of the writings in the early medieval *Articella*, Philaretus on pulses and Theophilus on urines, appear to have been chosen less from the authority of their authors than because of the practicality of their short summaries, which were memorisable but also limited.

There was in Western medicine a tradition of commentary on certain texts that went back to at least the third century BCE, and which, certainly by 500 CE often served to differentiate those physicians who had attended such lectures from lesser practitioners. Proper medicine thus came to be defined in part as a knowledge of certain medical texts gained through attendance at lectures, which in turn helped to establish a sense of a community. Medical commentary was flexible, particularly when it involved texts whose wording, until the age of printing, was never entirely fixed, and in the hands of good teachers allowed for a wide variety of exposition, particularly, as with the Hippocratic *Aphorisms*. when they were thought to encapsulate most of the leading principles of medical practice. The advent of printing did allow for larger and more detailed commentaries than in an age of manuscript, although we know of some both in Antiquity and in the Middle Ages that were very substantial in length. But commentaries were not the only aids to understanding these basic texts. There were summaries produced for students (by Galen himself, the Alexandrian summarisers, John of St Amand, for example), as well as lexica that would explain difficult words and concepts (e.g. by Galen, Petrus de Sancto Floro, or Anuce Foes), all of which contributed to enshrining for centuries the notion that certain books were of greater value in medical education than others. Only when less trust came to be placed in the words of the past was medical commentary superseded, but that took a long while in coming.

Commentary from the Renaissance to Galen – a brief bibliography

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'Modern' commentary

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- Baudoin RONNSE (and Jerome DRIVERE), *Celsus*, Leiden, 1591.
- Maurice DE LA CORDE, *De morbis mulierum* Paris, 1585.
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- Giambattista DA MONTE, *Aphorisms, Epidemics I, Art of Medicine, Method of medicine, for Glaucon, Alansorem, Canon I Fen I, all*, with different editors, Venice, 1553-54.

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W. PANTIN, *Celsus*, Basle, 1551.

Antonio MUSA BRASAVOLA, *Aphorisms*, Basle, 1541.

Late Medieval Commentary

Art of Medicine, Aphorisms, Canon I and 4, Almansorem, Elements, Mondino's Anatomy, Articella texts. From 1250 many Galenic texts available for students.

Salerno

Articella: Liber ysagogarum, Aphorisms, Prognostic, Theophilus, Urines, Philaretus, Pulses; by 1200
Art of medicine, and later Regimen in acute diseases.

Ibn Ridwan 998-1068

Aristotle, Hippocrates, *Aphorisms, Prognostic, Diet in acute diseases, Airs, waters and places;* Galen 16 books: (later authors talk of 12 Hippocratic Texts).

Introductory: *Sects, Art, Pulses fir beginners Method of medicine, for Glaucon*

The body; *Bones, Muscles, Nerves, Veins, Elements, temperaments, Natural faculties*

Causes: *Causes of symptoms, Causes of disease, Different types of disease; Different types of symptoms Affected parts, Pulses* (four treatises)

Different types of fevers, Crises, Critical days

Method of healing

Hygiene.

Ravenna

Galen, *Sects, Art, Pulses for beginners Method of medicine, for Glaucon.*

Late antiquity

Probably same canon as given by Ibn Ridwan, but with more Hippocratic material, including *Fractures, Nature of the child.*

Several authors named, including Asclepius, Gesius, John (or several Johns), Palladius, Stephanus, often with variant ascriptions. Canon in existence by 500, if the Alexandrian *Summaries* go back to Gesius, if not earlier.

Galen's commentaries

Ca. 175 *Fractures, Joints, Wounds* (fragments), *Wounds in the Head* (fragments), *Aphorisms.*

176-179 *Epidemics I, Prognostic, Humours* (fragments); *Regimen in acute diseases, Surgery, Epidemics II.*

Ca.180 *Prorrhetic.*

Ca.186 *Epidemics III.*

Ca.189 *Epidemics VI Nutriment* (fragments), *Nature of Man, Airs, Waters, Places.*

Pseudo-Galen (Pelops??)

Hippocratic Oath (fragments).

'Alexandrian' Roman-period sources of Galen

Marinus, Rufus of Ephesus, Sabinus, Numisianus, Pelops Quintus, Julian, Metrodorus, Stratonicus, Satyrus, Aeficianus, Lycus, Menodotus, Rufus of Samaria.

Earlier 'editions' by Dioscorides and by Artemidorus Capito, ca. 100-120 CE.

Galen's *Nachlass* in Slavonic Intellectual Landscapes: Knowledge Transmission in the Byzantine Commonwealth

Florentina Badalanova Geller



Fig. 1.: Aristotle, Galen, Sybil, and Plato, fresco on the ceiling of the Refectory of the Bachkovo Monastery, Bulgaria (1643)
Photo by the author.

§ 1. Frame of reference

The purpose of this publication is to bring to the attention of historians of science a cluster of medieval and early modern Slavonic editions of ancient medical texts, the authorship of which is attributed to the renowned Greek physician Galen (129 – c.216).¹ The main objective of our research is to make these types of compilations available for broader studies beyond the immediate intellectual environment of their anticipated linguistic settings. To the best of our knowledge, there were no earlier attempts to

¹ The first draft of this text was presented at the Dahlem Seminar for History of Ancient Science (Freie Universität Berlin, TOPOI Excellence Cluster) in November 2014, as a follow-up to a previous talk given by Heinrich von Staden on Greek medical commentaries (cf. Fischer, von Staden [1996: 86–98]). Earlier versions of the present publication were shown to Heinrich von Staden, Philip van der Eijk, Jacques Jouanna and Paul Demont, to whom I express gratitude for helpful comments. Further study was conducted during my fellowship on the project, “Transmission of Scientific Knowledge in Old Church Slavonic,” within the framework of the “Structural Changes in Systems of Knowledge” programme at the Max Planck Institut für Wissenschaftsgeschichte (Berlin). The work on the digitalisation of the manuscript sources was carried out by Iva Trifonova (Cyrillo-Methodian Research Centre, the Bulgarian Academy of Sciences) during her TOPOI post-doctoral fellowship at the Freie Universität Berlin in 2018. I am most grateful to her for her diligence and assistance.

produce an English translation of the Slavonic redactions and paraphrases of the Galenic corpus; this important task is yet to be accomplished. The current publication is therefore but a preliminary step in this direction and hence represents work in progress. It further aims at providing reference to some Slavonic manuscripts² that contain texts discussing various medical issues and conditions, human anatomy and physiology, along with disease diagnosis and prognostication, therapeutics and health care. Apart from their specific subject matter, what these types of sources have in common is one particular feature — their scribes mention in the titles Galen as the author. Among the emblematic texts deserving special attention in this connection are medieval and early modern Slavonic renditions of his celebrated commentaries on *Corpus Hippocraticum*, the direct Greek *Vorlage* of which remains unidentified. It has been maintained that those responsible for the translation of the relevant Greek material and its further Slavonic editions most probably belonged to the Eastern Orthodox cloistral community of Mount Athos, and worked in the scriptoria of some of the monasteries there.³ It has been suggested that the anonymous Slavonic translators drew on a certain (no longer extant) synopsis of Galen's treatises that was previously assembled by Byzantine compilers, rather than on contemporary manuscripts comprising surviving copies of his original *Nachlass*.⁴

As for the next phase of Slavonic acculturation of Galenic heritage, that of the dissemination of the manuscript copies containing the hitherto translated editions of his works, it must have taken place first and foremost through the conventual channels of the Byzantine Commonwealth. From the scriptoria of Mount Athos, through the intra-monastic networks of *Slavia Orthodoxa*, these types of compositions were most probably disseminated to cloistral libraries on the territory of Bulgaria, Serbia, Romania and Russia.⁵ Furthermore, this process could have been greatly impacted by the growing set of emerging monastic hospitals/hospices that created the necessary ground for the transmission of medical knowledge through their structures.

Significant in this connection is the fact that the first infirmaries in medieval Bulgaria were set up at the premises of convents (which is a tradition identical to that observed in Byzantium). One such typical case is the cloister complex established in the 9th-10th century in the region of Avradaka [Аврадака] in the vicinities of the then capital Preslav.⁶ Hospitals/hospices were also founded in the monasteries dedicated to one of the prominent Christian saints-healers, St Pantaleimon, situated in the vicinities of both Preslav and Ohrid (which at the time were the two major intellectual centres of Bulgarian Kingdom).⁷ Similar *loci* of healing were associated with the founding father of monasticism in medieval Bulgaria, the hermit St John of Rila (876 – c. 946). Emphasised in hagiographical sources is the fact

2 The earliest extant witness is dated to the first quarter of the 15th century; see Prokhorov [1982: 599–601]. For a concise survey of sources, see Mil'kov (with the assistance of Isachenko) [1999: 450–453]; Gerasimova, Mil'kov, Smol'nikova [2015: 377–378]. See also the discussion below.

3 Mount Athos comprises a web of twenty monasteries, seventeen of which are Greek, while the other three are Slavonic. Among them are the Bulgarian Zograph Monastery (founded in 919), the Serbian Hilandar Monastery (founded in 1198), and the Russian Saint Panteleimon Monastery (founded in 1169).

4 See Prokhorov [1982: 599–600].

5 See Gerasimova, Mil'kov [2014: 279–281; 2016: 185–187].

6 See Georgiev [2016: 48].

7 See the general discussion in Georgiev [2015].

that he was recognised by his contemporaries as a healer and miracle-worker.⁸ Similar was the situation in medieval Serbia.⁹ As for medieval Russia, the earliest centres of healing [ВРАЧЕВАННЕ] were established in 11th century, also at monasteries. A typical example is the Kiev Monastery of the Caves (also known as the Kiev-Pechersk Lavra [Russ. Киево-Печерская лавра]), founded 1051. One of its monks [ЧЕРНОРИЦЕЦЬ], the legendary St Agapetus of the Kiev Caves (also known as St Agapetus of Pechersk) was famous with his having healed a vast number of poor people without receiving any remuneration in return, which is why he was referred to as “the Holy Venerable Agapetus the Unmercenary Physician” [СВЯТОЙ И БЛАЖЕННЫЙ АГАПИТЬ БЕЗМЪЗДНЫЙ ВРАЧЬ],¹⁰ or simply “Agapetus the Healer” [АГАПИТЬ ЛЕУЕЦЬ / ЛЪУЫЦЬ].¹¹ According to his *vita*, as presented in the *Paterikon of Kiev Monastery of the Caves* [ПАТОРИКЪ ПЕЧЕРСКИЙ], he was bestowed by God with the gift of healing [И СЕГО РАДИ ПРОЗВАН БЫСТЬ ЛЕУЕЦЬ, СЕМУ БО ДАРОВА ГОСПОДЬ ДАРЪ ИСЦЕЛЕННА]. The word of his medical knowledge spread outside the caves of the convent, and reached even the household of the Grand Prince Vladimir II Monomakh [ВОЛОДИМЪРЪ МОНОМАХЪ] (1053–1125) who happened to be afflicted by a serious illness at the time. It was maintained that the saint prepared for him a special herbal remedy [ЗЪЛАНЕ] from his own alimentation, and as soon as the sick Prince tasted it, he was cured [И ЕГДА ЖЕ КНЯЗЬ ВКУСН ЗЪЛНА, И ТУ АБНЕ ЗДРАВЪ БЫСТЬ].¹²

Last but not least, among the emblematic Russian monks venerated as healers was the Abbot of Radonezh, Saint Sergius (1314–1392).¹³

But then again; the types of monastic therapeutic strategies employed by him and his predecessors were based on prayers, herbal therapy and dietary rules, with the strength of Christian faith being recognised as the ultimate precondition for achieving (and maintaining) spiritual, mental and physical

8 See the survey of sources in Ivanov [1936: 1–108]; Mutafov [1999: 37–42].

9 See Katić [1958; 1967; 1981; 1982; 1987; 1990]; Bojanin [2017: 277–294; 2022: 111–148]. Further on medical knowledge among the Balkan Slavs during the Middle Ages and the early modern period, see Angusheva-Tihanov [2005: 7–20; 2012: 271–287].

10 As it will be further discussed below, in Old Church Slavonic (e.g. Old Bulgarian, Old Serbian, Old Russian) the appellation “врачъ” was employed to render the Greek *ιατρος*. The lexicographic analysis shows that it was attested exclusively in a masculine form. In written sources (including redactions and paraphrases of the Galenic corpus) it is used as a term denoting “healer” / “physician” / “medical practitioner”; see Sreznevskii [1893: 314–315]. There circulated also a related cluster of nouns denoting “healing” / “curing” / “nursing”, such as враѣба / враѣеніе / враѣваніе / враѣство (θεραπεία, ιατρεία). In modern South Slavonic vernacular dialects, however, the noun “врач” (and especially its feminine counterpart “врачка”) occasionally has negative connotations, as it may designate not only a “healer”, but mainly (and predominantly) “diviner” and even “witch”; see Diuvernua [1889: 274–275]. The masculine form of the term врач (sing.) / врачове (pl.), on the other hand, designates a physician-saint (for example, Saints Cosmas and Damian); see further Georgiev et al. [1971: 179–180, 183]; Badalanova Geller [2021: 129, note 45]. In modern Russian, the lexeme врач denotes “doctor” / “physician” / “medical practitioner”.

11 On the semantic coverage of the terms лѣубѣа / лѣуеніе, лѣуець / лѣуыць / лѣунтель, see Sreznevskii [1902: 80–81].

12 See Olshevskaia, Dmitriev [1997: 398–405].

13 See Gerasimova, Mil'kov [2014: 279].

health. Sickness was habitually interpreted as divine punishment for previously committed sins, while the recovery was considered as a sign of forgiveness. Indeed, monks-healers were perceived as agents of divine intervention in seeking God's help in resolving health problems.¹⁴

It is in this socio-cultural environment that Galenic heritage gained its momentum in *Slavia Orthodoxa*, with its first witnesses beginning to circulate in the early 15th century.¹⁵ Besides, this was the period that marked the arrival of a number of foreign medical practitioners (after the fall of Constantinople) to the court of Ivan the Third (1440 – 1505), also known as Ivan the Great, the Grand Prince of Moscow and all Russia (from 1462 until 1505). Whether there was a connection between the influx of foreign physicians to Russia and the dissemination of Galenic heritage is a question that merits detailed investigation.¹⁶

The first step in this direction was already made by a number of researchers of the reception history of the Galenic corpus, who suggest that some of the manuscripts containing texts attributed to him did not reach monastic libraries of *Pax Slavia Christiana* through ecclesiastical channels, but through the encounters between itinerant medical practitioners¹⁷ travelling to local urban centres, and representatives of the neighbouring monastic communities.¹⁸

It is conceivable too, scholars claim,¹⁹ that the Slavonic phase of multilingual and cross-cultural transmission of the Galenic heritage was impacted by the system of medical training in the Byzantine Empire. The adherents of this idea suggest that “it is perhaps legitimate to relate” the reception history of Galen's medical treatises in *Slavia Orthodoxa* to the scribal activities taking place in one of the best-known hospices of late Constantinople, that of the *Xenon of the Kral* (Ξενὸν τοῦ Κράλη). Founded in the early 14th century by the Serbian ruler Stefan Uroš II Milutin, it was originally staffed with “his own people” who presumably encountered a vibrant community of monks that acted as both scribes and physicians. It is further argued that this intellectual landscape nurtured sustainable collaboration between the local Greek practitioners and “professionally educated Serbian monks”, resulting in the production of Slavonic translations of relevant items of the Byzantine medical curriculum. But while the latter postulation acknowledges the specific historical circumstances surrounding the presumed medical training of the Serbian monks within the favourable linguistic environment of the *Xenon of the Kral*, it still leaves some important questions. For instance, were there among the Serbian monks sent by Stefan Milutin to Constantinople individuals who were professionally equipped, both in terms of sufficient linguistic skills and medical knowledge, to carry out such an important task as the translation of selected pieces of the classical corpus of ancient medical knowledge? Were these individuals in control of professional medical terminology in both Greek and Slavonic? The language efficiency would

14 See Medved' [2013: 171–175].

15 See note 2 above.

16 Further on history of monastic medicine in Kievan Rus' and early Muscovy, see the general discussion in Zguta [1984: 54–70]; Zimareva [2015: 84–89].

17 On the social rank of the wandering physicians (*iatroi*) in the Byzantine Empire, see Evert-Kappesowa [1979: 149–150].

18 See Gerasimova, Mil'kov [2016: 188].

19 See Ševčenko [1991: 610, note 52].

not have been enough, as the command of relevant vocabulary would have assumed acquaintance with Slavonic medical terminology coined in some fundamental works dealing with physiology produced in the late 9th-early 10th century (e.g. some specific chapters from *Hexaemeron* and *Theology* dealing with the nature of the human body compiled by John the Exarch).²⁰ And, most importantly — how the translations accomplished in Constantinople would have made their way to the scriptoria of Kievan Rus' and early Muscovy, unless they followed the traditional inter-monastic networks of manuscript diffusion, with Mount Athos being its epicentre, and some of the monks acting as the main agents in the process. The “biographies” of some of the miscellanies containing medical texts concerning their previous “owners”²¹ indicate that the monastic scriptoria were not only shelters of manuscripts — be it itinerant items or locally written ones — but also cores of their subsequent peripheral dissemination. As such, the Slavonic monasteries played a pivotal role in the reception history of the Galenic heritage in the Byzantine and post-Byzantine periods, and this subject remains open for future studies.

Explorations into medieval manuscript tradition related to Galen's Nachlass will hopefully lead to the discovery of additional witnesses, both Greek and Slavonic, and the new data will help trace the intellectual trajectories of codices with medical treatises from Mount Athos via the Balkans to Russia. This will further clarify how the Eastern Orthodox monastic landscapes not only fostered and safeguarded the “rewritten” Byzantine Galenic corpus but also shaped the next phase of its reception history — the transmission of its surviving renditions into Slavonic socio-cultural settings.

On the other hand, the content analysis of codices with incorporated medical treatises (and especially those the authorship of which is attributed to Galen) indicates that the latter were occurring within the framework of cumbersome chapters dealing with a wider scope of natural sciences.²² Occasionally preceded by chronographic segments devoted to Church and State annals, they create an overarching narrative binding social and political history with natural history. In fact, these types of miscellanies (*sbornitsi*, *sborniki* [сборници, сборники]) contain — apart from editions and paraphrases of Galenic commentaries on *Corpus Hippocraticum* and discourses on related works — cosmological, astronomical and astrological compositions covering a wide range of *topoi* (such as the solar and lunar calendrical schemes, the description of the twelve signs of the Zodiac, the tables of malevolent and benevolent days, dietary recommendations according to seasons, *Brontologia*, etc.).²³ Among typical representatives of these types of sources are the two 15th-16th centuries Russian miscellanies from *The Collection of the Trinity Lavra of Saint Sergius* (Troitse-Sergieva Lavra), now kept in the Russian State Library, Moscow under record № 762²⁴ and № 177²⁵. Presented below in the Appendix are the original Church Slavonic

20 See the discussion below.

21 One such case is represented by a marginal note on fol. 109 of the *Chodoš* codex; see Jagić [1878: 82].

22 By the same token, some manuscripts may attribute the authorship of texts concerning the causes of the thunder and lightning to Galen, thus portraying him not only as a great physician but also an authority in celestial sciences; see Dušchev, Kristanov [1954: 517]. See also the discussion below.

23 See Gerasimova, Mil'kov [2014: 281–291; 2016: 185–188].

24 See Mil'kov, Polianskii [2008: 543–622]. See also text № 5 in the Appendix below.

25 The text of the entire macro-unit was published for the first time by Nikolaï Savvich Tikhonravov [1863: 398–421]; see also the Appendix below (text № 1).

redactions of Galenic commentaries on the *Corpus Hippocraticum* from these two sources, supplemented with an English translation. Parallel with this, the current publication offers three additional Serbian redactions of medical works attributed to Galen,²⁶ following their earlier edition by Stojan Novaković in 1877 based on the 17th century MS № 54 from the Archival Collection of the Serbian National Library in Belgrade (destroyed during WWII). In fact, Novaković's publication offers one of the few scarce surviving pieces of evidence for the transmission of the Galenic *Nachlass* among the Balkan Slavs in the post-Byzantine period.²⁷

§ 2. Human sciences in the Byzantine Commonwealth preceding the Slavonic translations of the Galenic corpus

The earliest Slavonic compositions containing information about the nature of the human body appear in Medieval Bulgaria during the reign of King Symeon the Great (893–927). They occur as self-sufficient fragmentary units incorporated into scientific encyclopaedic compendia, the editorial work on which was carried out by members of Preslav Literary School.²⁸ Such writings drew predominantly upon redrafted translations from some renowned Byzantine Greek sources but also contained original exegetical compositions.

One such case is the *Hexaameron* compendium, assembled in the late 9th-early 10th century by the prominent Bulgarian intellectual John the Exarch [Ἰωάννης Ἐξάρχης]²⁹ on the basis of revised fragments from the *Homiliae in Hexaameron* of Basil of Caesarea (c. 329 – 379) and *In Cosmogoniam homiliae* of Severian of Gabala (c. 380 – c. 408/425).³⁰ Of special interest for the current discussion is the *Homily on the Sixth Day* [СЛОВО ШЕСТАГО ДЪНЕ], the Church Slavonic text of which appears to have no immediate Greek *Vorlage*.³¹ It is clear, however, that John the Exarch composed it on the basis of reworked translations of excerpts from the Byzantine redaction of Aristotle's *History of Animals*, while further expounding the scope of his discussion by including the anatomical and physiological treatise (*Περὶ τῆς τοῦ ἀνθρώπου κατασκευῆς*) of one of the famous 9th century *iatrosophists*, the monk Meletius, among whose sources is the work *Περὶ φύσεως ἀνθρώπου* of Nemesius, Bishop of Emesa (4th -5th centuries). However, in his discourse on human nature, John the Exarch follows much closer the views of Plato and

26 For surveys of Serbian manuscripts containing translated and adapted medical treatises and for their transmission from the early Middle Ages to the modern period, see Katić [1958; 1967; 1981; 1987]. As pointed out by scholars, some codices (e.g. the 16th century Hilandar Medical MS 517) contain not only Byzantine Greek, but also Latin sources; see the discussion in Bojanin [2017; 2022].

27 See Novaković [1904 (1877): 592–595]. See also texts №2, № 3 and № 4 in the Appendix below.

28 Duichev, Kristanov [1954: 54–57]; Trifonov [1929: 165–202].

29 For text editions of John the Exarch's *Hexaameron*, see Aitzetmüller [1958–1975]. For editions of the Old Church Slavonic text (with translation into modern Russian and commentary apparatus), see Barankova, Mil'kov [2001]; V. Mil'kov, S. Polianskii [2008 (1): 125–209; 2009: 120–157]. See also the discussion in Cholova [1988: 16–22, 35–36].

30 The authorship of certain excerpts from Severian's *Homilies* may be ascribed to John Chrysostom, which is also the case with the contemporary Byzantine scribal tradition; see Mil'kov, Polianskii [2009 (2): 94].

31 See Slavova [2002: 244].

Aristotle rather than those of Galen, whose works do not appear to be among sources explicitly quoted by him, albeit he must have been familiar with them.³²

Parallel with the reflections on human anatomy and physiology, as formulated in the *Homily on the Sixth Day*, in medieval Bulgaria a cluster of similar considerations on the same topic circulated. They are attested in the domesticated redaction of the famous composition of the Syrian monk and priest John Damascene [John of Damascus] (676–749), *The Fountain of Knowledge*, which was also translated by John the Exarch; it was included in his work, *Theology* (Heavens). Thus in chapter 23, entitled *On humankind* [ω υλβιϛѢ], it is outlined that both the Universe and Man are homologous entities:

The flesh³³ (var. corporeal, matter) has three dimensions; namely, it has length, width, and depth, that is to say — thickness (var. fatness, corpulence). Each body consists of four elements (var. constituents), while the bodies of living beings — of four liquids. It must be known that there are four [classes of] elements, which is to say — natures: earth, which is dry and cold; water, which is cold and fluid; air, which is damp and warm; fire, which is warm and dry. So are there four [body] liquids, corresponding to the four elements: black bile, corresponding to earth — because it is dry and cold; phlegm, corresponding to water — because it is cold and wet; blood, corresponding to air — because it is fluid and warm; yellow bile, corresponding to fire — because it is warm and dry. Parenthetically, fruits are composed of four elements, whereas liquids [derive] from fruits, while bodies of living creatures [are composed] from liquids and once again return to [var. transform again into] them. Because everything that is a composite returns to the substance from which it is constituted. It also must be recognised that man has some common features with creatures that do not possess souls; furthermore he also participates in the lives of speechless beings, while retaining cognition together with creatures with reason [ie. angels]. Due to his body, man has things in common with soulless objects, since like them he consists of four elements. With vegetation and all the botanical world and plants and seeds, he has in common the characteristics of need of sustenance [ie. food to eat/consume], and to grow, and to bear seed(s), which is to say, [to have] the ability to reproduce. He is related to speechless [animals] not only on account of this [property], but also because of his being endowed with desire, which is to say, anger and sexual drive, as well as the senses and movement [var. locomotion, kinesis] which is reciprocal to the impulse [var. instinct?]. There are five senses: vision, hearing, smell, taste, touch.³⁴

The philological eloquence and language proficiency manifested in John the Exarch's Slavonic editions of the *Homily on the Sixth Day* (deriving from the Byzantine Greek Hexameral compendia), and the chapter *On Humankind* (from John Damascene's *Fountain of Knowledge*) indicates that he was a scholar of extraordinary erudition and intellectual aptitude. He must have received scholastic education either in the famed Monastery of Studios, or in the elitist School of Magnaura in Constantinople, along with other representatives of contemporary aristocracy (e.g. the future king of Bulgaria, Symeon the Great). The depth of his intellectual input shows that he must have studied not only grammar, logic and rhetoric,

32 See Georgiev [1990b: 67–71, 74–76].

33 The Church Slavonic noun used here is плѣтъ; in other sources it is employed to render the Greek σάρξ, σῶμα.

34 For the original Church Slavonic text, see Dučhev, Kristanov [1954: 82–84].

but also philosophy and theology, along with astronomy³⁵ and medicine. In fact, it was John the Exarch who coined in his works the specialised terminology that was subsequently employed in Old Church Slavonic scribal tradition to designate different parts of human body, along with related theoretical concepts in anatomy and physiology.³⁶

§ 3. Philological explorations into Slavonic paraphrases of Galen's treatises

Scholars exploring the extant manuscripts sources containing Slavonic editions and paraphrases of Galenic treatises maintain that they were translated from (no longer extant) Greek Byzantine protographs by anonymous South-Slavonic scribes, most probably working in monastic environments.³⁷

The earliest Slavonic MS containing the treatise of *Galen on Hippocrates* [Галеново. Изъ Нпократа] is dated to the first quarter of the 15th century.³⁸ It comes from a miscellany copied in one of the richest monastic libraries of Northern Russia, the Kirillo-Belozersky Monastery, situated next to the settlement called Belo-Ozero (lit. "White Lake"), presently in the Vologda County. The Monastery was founded in 1397 on the bank of Lake Siverskoe by the monk Cyril (1337 – 1427), who was eventually beatified by the Russian Orthodox Church as "Saint Cyril of Belo-Ozero" [Кириллъ Белоозерскій]. In fact, he was one of the most ardent disciples of the prominent Russian monk-healer and saint, the aforementioned Abbot of Radonezh, Saint Sergius (1314 –1392).³⁹ The MS is currently preserved in the Archaeographic Department of the National Library of Russia (formerly the Imperial Public Library), Saint Petersburg. It is kept in the famous Kirillo-Belozersky Collection [Кирилло-Белозерское собрание] under record № XII; hence its designation among specialists as *Kir-Bel* № XII. According to the Russian scholar Gelian Mikhaïlovich Prokhorov, who produced the first text-edition of this earliest East-Slavonic version of the treatise of *Galen on Hippocrates*,⁴⁰ the MS in which it was found originally belonged to the personal library of St. Cyril of Belo-Ozero.⁴¹ The miscellany was copied most probably by St. Cyril himself on the basis of an earlier Slavonic translation of a Greek original that was composed as an anthology of treatises on natural sciences. Among plausible sources, Prokhorov lists tailored adaptations of works by the Byzantine philosopher and theologian Eustratius of Nicaea (1050/1060 – c. 1120), discussing matters like dietary recommendations according to different seasons and instructions on phlebotomy. In order to confirm or refute Prokhorov's hypothesis, a comparative analysis of the Greek and Slavonic witnesses is necessary.

35 Surveys of scientific terminology attested in John the Exarch's *Homily on the Fourth Day* show considerable cosmological and astronomical knowledge (including the architectonics of the firmament and sets of rules defining temporal and spatial properties of planets and stars). See also the discussion in Fomina [1995: 269-276].

36 See in this connection Trifonov 1929 [165–203]; Georgiev [1990a: 23–38; 1990b: 65–79]

37 See Prokhorov [1982: 599–600].

38 See Mil'kov (with the assistance of Isachenko) [1999: 451].

39 See note 13 above.

40 Prokhorov [1982: 192–214, esp. 192–196].

41 Further on the content of the personal library of St. Cyril of Belo-Ozero, see Prokhorov [1981: 54–68].

The actual text of *Galen on Hippocrates* [Галеново. Из Ипократа] in *Kir-Bel* № XII (fols 215-219) inaugurates a lengthy cosmographic chapter entitled “On the Structure (Lay-out) of the Earth”.⁴²

The medical discourse begins with an explanation of the symmetry between macrocosm [МНРЬ] and microcosm [МАЛЫЙ МНРЬ]: while the world is composed of four substances (fire, air, earth and water), mankind is constituted as its allomorph. The four elements [ЧЕТЫРИ СТИХИИ] forming the human body are: blood [КРЪВЬ], phlegm, which is also called wetness [ФЛЕГМА ЖЕ, ИЖЕ ЕСТЬ МОКРОТА], red bile [УРЪМНА ЖЛЪУЬ]⁴³ and black bile [УРЪНА ЖЛЪУЬ]. The taste of the blood is sweet and its colour is crimson [УРЪВАЕНА]; it is like air, because it is wet and warm. The phlegm is white in appearance, but salty in taste; it is like water because it is wet and cold. The red bile is yellow in appearance but is bitter in taste; it is like fire, as it is dry and warm. The black bile tastes sour and has a black colour; it is like the earth, because it is dry and cold. These four elements — blood, phlegm, red/yellow bile and black bile — are inherent in different parts of the human body. The heart is the vessel of the blood which runs from there and divides, passing through the veins and arteries. Phlegm is contained below the spleen, while the red/yellow bile is under the liver in a bubble attached to it. The black bile is contained in a scrotum appended inside the spleen, at its bottom.

The disruption of the equilibrium between the four elements of the human body causes illnesses. These have different aetiologies according to the age of the patient, and to the seasons of their occurrence. Health is therefore conceptualised as a harmonious condition characterised by the smooth and equal supply of blood, phlegm, red/yellow bile and the black bile through the body. The physician, on the other hand, is regarded as a servant of nature; knowledge of its laws helps him restore the disturbed balance between the four elements, thus treating the sickness.

The text of *Galen on Hippocrates* in *Kir-Bel* № XII is followed by a short treatise entitled “Of Alexander” [АЛЕКСАНДРОВО].⁴⁴ Discussed in this fragment is the development of the foetus in the mother’s womb, from the conception to the birth.⁴⁵ The tractate begins with a discussion concerning the question whether the semen is “soulless” or “animate”, and present the temporal characteristics of foetal development, with special emphasis on sexual dimorphism:

Let no one think that the seed [СЪМІА] is soulless [БЕЗДУШНУ], for it is animate [ОДУШЕВЛЕННО] when it enters into the womb [ВПАДАЕТСЯ ВЪ УТРОВУ], and grows, and enlarges;⁴⁶ yet that which is soulless does not grow or enlarge.⁴⁷ First of all, the heart [СЕРДЦЕ] is being built up and formed; and the male [МУЖЬСКИЙ ПОЛЬ] is being formed in thirty days, while the female [ЖЕНЬСКИЙ] — in thirty-two days. When the parts of the body become fully

42 See the discussion in Prokhorov [1981: 63–68].

43 One of the idiosyncratic features of Slavonic paraphrases of Galenic writings is that instead of “yellow bile” the scribes employ the term “red bile” (after which they explain that the colour of the latter is actually yellow).

44 It has been suggested that the purported authorship of this treatise was attributed to Alexander of Aphrodisias; see Prokhorov [1982: 600].

45 Conveyed in these types of texts are most probably abbreviated renditions of Galen’s *The Construction of the Embryo*.

46 Lit.: multiplies.

47 Lit.: multiply.

formed, then — with the growth of the body parts [УДОВОМ РАСТІАЩІНМЪ] and the hardening of the bones [КОСТЕМЪ УТВРЪЖДЫШНМСІА] — the child [ОТРОУІА] starts taking blood from the flesh [of the mother], and gradually, as the bone marrow inflates [КОСТНІА МАЗГА НАПАВАЕМА], the bones get stronger and different parts of the body become mutually compliant [УТВРЪЖДАЮТСІА КОСТН Н УЛЪНОВЕ Н ОТАРУГЪ ДРУГА СЪСТОЮТСІА]. When the nails [of fingers and toes] are formed [ВЪКОРЪНЪЮТСІА], then the child will begin to move. The male [foetus] begins to move in the third month, while the female — in the fourth and a half month. And when the child begins to move, then the mother's milk appears. Milk is [emanating] from eating and drinking, and it rises up in the breasts, and it warms there, and becomes white and sweet.

And if the seed [сѣміа] of both [parents] is strong, the child will be male; if it [the seed of either the mother or the father] is weaker, the child will be female. And if the father's seed prevails, the child will resemble the father; but if mother's seed prevails, the child will be like the mother; but if [the seed] of neither [the mother or the father] prevails,⁴⁸ the child will be similar to both. And if the womb is too narrow [тѣсна],⁴⁹ the child will be small and weak, but if it is large [пространна],⁵⁰ the child will be sturdy and fleshy. And if the aforesaid seed makes its way to two or more separate uteri [въ обонх ложехъ или множайшихъ], then twins [внзньунаа], or greater number [множайша] of children will be [born]. And if it [the seed] gets to [the uterus] from the right side, the child will be male; and if it happens from the left, the child will be female. The child grows and is being nourished by the monthly⁵¹ blood, coming from the womb through the umbilical cord [растетъ же и питається отроуіа крѣвми нисходіащнми повѣсемесіаупнми от утробы пупкомъ]. There are two veins [флевы] ascending from the womb to the breasts that raise the blood which then becomes white in the breast vessels, so that it may serve and nourish the child.

And if you want to know before the birth what the sex of the child will be, you should make the pregnant woman sit on the ground, with her legs stretched out; and after a little while you should call her to come unto you; and if, when she stands up, she will raise her right leg first, the child of the male sex shall be born; but if it is the left, the child will be female.⁵²

The next part of the treatise “Of Alexander” [АЛЕКСАНДРОВО] is concerned with the temporal reciprocity between the phases in development of the foetus in mother's womb, and the timing of rituals performed on the third, the ninth and the fortieth day after death:

And it is said that the seed, after having entered the womb white, is first transformed into blood, then — into flesh, and other body parts are formed and shaped. And this is why [the mortuary customs are performed] on the third, the ninth, and the fortieth day [after the death], because the seed, having entered into the womb, changes to blood on the third day; this is also when the heart appears; on the ninth day it coagulates⁵³ into flesh, and the parts of the body are formed; on the fortieth day, the appearance [of the child] is fully formed. Similar to [the symbolism of] the number of days is that of the months: for an animated male child begins moving in the womb in the third month, while the female — on the fourth and a half. In the ninth month the shell [of the womb] is opened, and the child strives to come out. It appears that the male child is [formed] under the influence

48 Lit.: if both are equal.

49 Var.: curbed, small.

50 Lit.: spacious.

51 That is, menstrual.

52 The translation is made on the basis of the publication of the text by Prokhorov [1982: 198–199].

53 Var.: condenses.

of the warmth of the seed, while the female — under the lack thereof, and [is under the influence] of coldness. For when the coagulation⁵⁴ happens quickly, the child turns out to be of male gender, and when it happens slowly, the child is female. Because what coagulates⁵⁵ slowly is formed likewise slowly. The full completion of the formation of male sex is forty days. The flesh of females, on the other hand, is only partly formed by the fortieth day.⁵⁶

Inserted into the tractate is also a short note concerning certain (unidentified) herbs that may impact the gender of the child:

There are herbs that influence whether the child will be of male or of female sex, if taken in the morning; some [herbs] cause the male sex, while other — the female sex.

The final part of the composition “Of Alexander” [АЛЕКСАНДРОВО] goes back to the mutual reciprocity between the prenatal and post-mortal processes taking place in human body:

Let us also say of the death of a man: on the third day (s)he changes and [the body] undergoes transformation in appearance. By the ninth day (s)he is entirely decayed and decomposed, only the heart remains preserved. In the fortieth [day] the heart itself is destroyed. That is why [mortuary customs] are performed on the third, ninth, and the fortieth days after the death.

The treatise “Of Alexander” [АЛЕКСАНДРОВО] commences a chain of micro-units discussing various cosmographic matters. The first one is entitled “On the width and the length of the Earth” [О широтѣ и дълготѣ земли]; it is followed by a cluster of accounts concerned with the distance between the earth and the sky, the causes of earthquakes, the four great seas, and the ocean surrounding dry land. Discussed are also topics like the origins of clouds, rain showers, hailstorms, fog, thunder and lightning, and shooting stars. There is a conscious attempt by the compiler, however, to relate concepts of cosmogony and anthropogony to biblical commentaries (such as the formulaic connection between Jesus’ crucifixion and the concurrent earthquake, as related in Matthew 27: 51-54 and 28: 2). At the same time, the compiler adds a special chapter containing a table showing the description of the phases of the Moon (fols 173–186) according to the nineteen-year lunar cycle, starting with January and ending with December. Then (fols 186–187) he adds another chapter related to agricultural and healing practices (and especially bloodletting) according to the lunar calendar; it is entitled “A Discourse on lunar year: when one should sow and plant seeds, and treat a sick patient” [Сказанне нзвѣст(н)о луннымъ годомъ: когда сѣяти и садити и врачевати человѣкы]. Then follows a chapter in which the copyist lists the days in which certain agricultural activities and medical procedures (including bloodletting, but also other curative activities performed on either humans or domestic animals) are proscribed [Нно сказанне днемъ, от них же достонть хранити ся врачеванна человѣком и скотом, ни крѣви пуцати, но блюстити их всегда]. It is emphasised that such practices should not be performed on the 1st and the 15th January, 9th and 22th February, 5th and 25th March, 6th and 20th April, 3rd and 4th May, 6th and 29th June, 5th and 22th

54 Var.: thickening.

55 Var.: thickens.

56 The translation is made on the basis of the publication of the text by Prokhorov [1982: 197–199].

July, 6th and 8th August, 3rd and 22nd September, 9th and 22nd October, 5th and 22nd November, and 5th and 22nd December. In the next chapter, entitled “Another discourse on the same matters” [ННО СКАЗАНИЕ О ТОМ ЖЕ], the scribe lists the days in which bloodletting is prescribed or proscribed. Bloodletting is not recommended in the period between 12th November and 25th March [А НЕ ПУЦАЙ КРЪВН ОТ 12 ДНН НОИАВ(Р)А ДАЖЕ ДО 25 МАРТА]; instead it is recommended to be done between 25th of March and 13th May [ПУЦАЙ ОТ 25 МАРТА ДО 13 МАНА]. Then again, the period between 13th to 20th May is not recommended for bloodletting, while the period between 20th September and 12th November is considered to be favourable [ОТ 20-ГО ДНН СЕП(Т)АБР)А ДО 12 ДНН НОЕВРНА ПУЦАЙ]. This timetable serves as an introduction to a special chapter containing health conditions in which phlebotomy is recommended, with special instruction concerning when it should be done (that is, calendrical recommendations), and from which part of the human body (i.e. left or right hand, arm, palm, finger) the bloodletting should take place. Finally, the chapter provides instructions concerning conditions requiring such treatment.

In conclusion it should be noted that the MS *Kir-Bel* № XII is a typical representative of miscellanies containing Slavonic adaptations and paraphrases of the Galenic corpus. In fact, Prokhorov’s edition offers but a glimpse to an earlier phase of the reception history of medical texts in medieval Russia.

The Kirillo-Belozersky Monastery, on the other hand, appears to have become in the later periods one of the epicentres for production and dissemination of Russian renditions of the treatise of *Galen on Hippocrates*. It was in its scriptorium where the adherent of Saint Cyril of Belo-Ozero, the hieromonk Efrosin Belozersky, compiled in the second half of the 15th century a miscellany containing one such text.⁵⁷ Like its predecessor (MS *Kir-Bel* № XII), the *Efrosin’s Codex* [Сборник Ефросина] currently belongs to the Kirillo-Belozersky Collection and is kept in the Archaeographic Department of the National Library of Russia (MS *Kir-Bel* № 22/1099);⁵⁸ the text of *Galen on Hippocrates* appears on fols. 209v–211r.⁵⁹ An abridged version of the same treatise was produced by another member of the Kirillo-Belozersky monastic community, also in the 15th century. The codex containing it belongs (like MS *Kir-Bel* № XII and MS *Kir-Bel* № 22/1099) to the Kirillo-Belozersky Collection of the Archaeographic Department of the National Library of Russia (MS *Kir-Bel* № 101/1178); the text of *Galen on Hippocrates* is found on fols. 261v–262r.⁶⁰

Another major monastic centre in which copies of medical treatises attributed to Galen were produced was the Trinity Lavra of St. Sergius [Троице-Сергиева лавра] (situated northeast from Moscow, in the town of Sergiyev Posad). One such miscellany was copied in its scriptorium in the second half of the 15th century; it is currently held at the Russian State Library in Moscow (MS *Tr.-Serg.* № 762) in the *Collection of the Trinity Lavra of Saint Sergius*. Apart from the text of *Galen on Hippocrates* [ГАЛННОВО

57 See Mil’kov (with the assistance of Isachenko) [1999: 451].

58 For palaeographic description of MS *Kir-Bel* № 22/1099, and thorough content analysis, see Kagan, Ponyrko, Rozhdestvenskaia [1980: 7– 105 (esp. 57)]. The entire codex consists of 514 fols.

59 The original Church Slavonic text of *Galen on Hippocrates* [ГАЛННОВО НА НПОКРОТА] from MS *Kir-Bel* № 22/1099 is published, with translation into modern Russian and commentaries by Mil’kov [1999: 467–471]; see also Gerasimova, Mil’kov, Smol’nikova [2015: 393–395].

60 The original Church Slavonic text of *Galen on Hippocrates* [ГАЛННОВО, НА НПАКРАТА] from MS *Kir-Bel* № 101/1178 is published, supplemented with a translation into modern Russian and commentaries by Mil’kov (with the assistance of L. N. Smol’nikova) [1999: 471–473].

на Ипократа] (fols. 270v–274r),⁶¹ the codex comprises the following sections: *On Bloodletting* [Ѡ кровопѠцѠанїи] (fols. 274r–274v), *Performing Bloodletting* [ПоуѠцѠаѠѠ же кровь] (fols. 275r), *Rules Concerning the Days When One Should Not Perform Bloodletting or Implement Health Treatment* [ПравѠло дѠнѠѠ въ ѠѠже ѠелѠпо ѠѠ кровь поуѠцѠати, ѠѠ врачѠвати] (275r); *On the Properties of Blood, When Bloodletting is performed* [Ѡ каѠѠствѠѠ кровѠ, ѠѠда поуѠцѠати] (fols. 275r–276r); *On the Days According to the Moon: On Auspicious Signs of the Zodiac, on the Lucky, and Unlucky, and Equivocal Ones* [Ѡ лѠжѠныѠ дѠнѠѠѠ : — Ѡ оудобѠныѠ зодїѠѠѠ, добрыѠ Ѡ злыѠ, Ѡ посреѠѠнѠѠ] (fols. 276r–277v); *On The Pleiades* [Ѡ власожѠелѠѠѠѠѠѠ] (fols. 277v–278r); *On the Herb Called Peony* [Ѡ бѠлѠ глѠѠѠѠѠ бѠжурѠ] (fols. 278r).⁶² This macro-unit is followed by a paragraph of glossolalic content (most probably an incantation or prayer).

A similar case is the 15th–16th century miscellany produced in the same monastery; in this, two related medical texts are included by the scribe as separate chapters. The first one, entitled *Galen on Hippocrates* [Галиново Ѡа Ипократа], is copied on fols. 258r–262v), while the second, *On Bloodletting* [Ѡ кровѠ поуѠцѠенїи] — on fols. 262v). Significantly, the treatise *Galen on Hippocrates* is preceded by a section about *The Signs of the Zodiac* [Ѡ стѠпенѠѠ зодїѠѠѠѠ] according to the twelve-monthly annual cycle (starting with Aries, “entering on the third day of March”), with special emphasis on dietary rules. The codex is kept in the Collection of the Trinity Lavra of Saint Sergius, the Russian State Library, Moscow (MS *Tr.-Serg.* № 177).⁶³ As briefly mentioned above, it was published for the first time by Tikhonravov, and his edition inaugurated the study of reception history of the Galenic corpus in the intellectual landscape of Slavonic scribal tradition.⁶⁴

And last but not least, the text of *Galen on Hippocrates* was integrated into the corpus of the official Russian Orthodox Menologium, *The Great Menaion Reader* [ВеликиѠ ЧетѠѠ-МинѠѠ], compiled in the 1530s–1540s under the supervision of the Metropolitan of Moscow Macarius.⁶⁵ This particular detail indicates that, by the beginning of the 16th century, the treatise of *Galen on Hippocrates* must have gained great popularity among the men of letters in medieval Russia, which resulted in its subtle recognition by the Orthodox Church as a text with certain ecclesiastical value and high status, but not as marginal composition of pseudepigraphic descent.

To sum up; explorations into the history of medicine in medieval and premodern East–Slavonic

61 Cf. note 24 above; an edition of the text of *Galen on Hippocrates* from MS *Tr.-Serg.* № 762 is published by Gerasimova, Mil'kov, Smol'nikova [2015: 377–392]; see also the next note.

62 The macro-unit containing the entire cluster of the accounts mentioned above (i.e. *Galen on Hippocrates*; *On Bloodletting*; *Performing Bloodletting*; *Rules Concerning the Days When One Should Not Perform Bloodletting or Implement Health Treatment*; *On the Properties of Blood, When Bloodletting is Performed*; *On the Days According to the Moon: On Auspicious Signs of the Zodiac, on the Lucky, and Unlucky, and Equivocal Ones*; *On The Pleiades*; *On the Herb Called Peony*) from MS *Tr.-Serg.* № 762 is published by Mil'kov, Polianskii [2008: 577–586]. See also text № 5 in the Appendix below.

63 See Mil'kov [1999: 454–460]; Mil'kov, Polianskii [2008: 519–526]. See also text № 1 in the Appendix below.

64 See note 25 above.

65 The MS containing *The Great Menaion Reader* is kept in the State Historical Museum (Moscow) [Государственный исторический музей, Москва] under the record number *GIM Sinod* № 996 [ГИМ. Синод. № 996.]; the chapter with the text of *Galen on Hippocrates* is on fol. 1063.

(and in particular Russian) tradition, as initiated by N. Tikhonravov and G. Prokhorov, gained momentum during the last three decades. The investigations in the field were greatly advanced by the research of V. Mil'kov, I. Gerasimova, L. Smol'nikova, T. Isachenko, S. Polianskiĭ, and others.

As far as South-Slavonic tradition is concerned, one typical representative is the text published in 1878 by Vatroslav Jagić; the case in question is the Chodoš codex⁶⁶ (dated to the 15th century).⁶⁷ The MS was originally part of the personal archive of the Slovak philologist Pavel Jozef Šafárik, subsequently bequeathed (as part of his collection) to the Prague National Museum (Národní muzeum).⁶⁸

Incorporated in this miscellany is a catalogue of terms denoting different ailments and health problems, which is complemented by a list of healing substances and a cluster of apocryphal spells and incantations (against rabies, snake bites, etc.). Copied after them are texts on human physiology (e.g. “A discourse on human body and elements” [Сказаніе ѿ телѣсехъ ѹловѣуѣскыхъ и ѿ съставѣхъ], “The division of elements” [Раздѣленіе съставѣмъ], etc.); the Hippocratic concept of four humours (as originally rendered in the treatise *On the Nature of Man*) is reiterated. These chapters are followed by another cluster of texts devoted to gynaecology and embryology (e.g. “How is the semen developing in woman’s body” [ѿ еже како нзмѣниает се сѣме въ ложеснахъ жен’скихъ], “The origins of the male and female gender” [ѿ еже ѿтъкоуду мѣжскы поль и женскы бываеть], “How to recognise the sex of the infant in mother’s womb” [ѿ еже како познати отроуе въ оутровѣ матерны], “What is to be done so that the woman can deliver quickly” [ѿ еже родити женѣ скорѣ], “Concerning infertile women” [ѿ женѣ неплоднѣ], “What should be done so that the foetus does not die in mother’s womb” [ѿ еже не оумрѣти отроуето въ оутровѣ], etc.).⁶⁹ In some of the above mentioned units the discussion on medical matters is intertwined with recommendations stemming from vernacular healing practices and folk magic rites (i.e. writing on a piece of paper a particular incantation and placing it on the body of the woman in labour, etc.).

Finally, the survey of South-Slavonic medical works attributed to Galen indicates that in the Balkans there circulated a separate type of treatise devoted to uroscopy. Entitled “What was made known by Galen, about how to determine treatment according to the patient’s urine in a glass” (see text № 2 in the Appendix below), it offers a list of instructions concerning the methods of diagnosis of various diseases and health disorders on the basis of the visual examination of the urine of ailing individuals (e.g. the presence or the absence of foam, the occurrence of cloudiness and muddiness or a lack of thereof, etc.). The tractate also includes comments on urine’s transparency, its thickness and flow, as well as other related properties. The discourse on aetiology of the illness is followed by dietary recommendations (prescriptions and proscriptions), as well as instructions for therapeutic interventions (including bloodletting); occasionally, the suggested diagnosis is accompanied by prognosis and prediction of the

66 The codex is associated with the male Serbian Orthodox Monastery of Hodoș (Romania).

67 See the discussion in Angusheva-Tihanov [2005: 9, note 2]; Angusheva, Dimitrova [2020: 128–129].

68 It is kept under record № IX F10 / S 14.

69 See Jagić [1878: 95–97]; the full content of the miscellany was published by Katić [1990]. See also the discussion in Slavova [2002: 244–245]; Angusheva-Tihanov [2005: 9–20]. For South Slavonic texts on women’s health in medieval and post-medieval tradition (with a special emphasis on parallels between segments from the Chodoș codex and quotations from miscellanies containing ethnopharmacological recipes and folk prayers), see Angusheva-Tihanov, Dimitrova [2005: 469–479]; Angusheva, Dimitrova [2020: 126–138].

future health status of the patient (i.e. recovery or death). The Slavonic treatment of Galen's interest in urinoscopy reflects a widely performed practice in antiquity, since urine provided one of the best sources of information regarding abnormality or disease of internal organs, such as in the urinary tract and kidneys, gall bladder, or liver. Like other physicians, Galen is reported to have examined urine in a glass vessel, noting its texture and colour. According to the Slavonic text, he studied whether the urine was transparent, cloudy, oily, or foamy, or was white ('milk-like'), red, green, or black; in fact, modern medicine also recognises having blood or excessive protein in the urine as indicators of pathologies. Based on his observations, Galen attributed abnormalities in the urine to life-style, either caused by excessive indulgence in eating and drinking or alternatively, by poverty. His medical advice in these circumstances is mostly dietary and focuses on curative regimens (e.g. consumption of certain foods and beverages, etc.). The instructions are simple and include matters related to specific nutrition items, eating and drinking habits, and salubrious cuisine. Further guidelines are concerned with complementary strategies of intervention, including treatment by bathing, fasting, and phlebotomy.

The study of South-Slavonic medical manuscripts indicates that texts devoted to the practice of uroscopic analysis occur concurrently with treatises on haematoscopy (see text № 3 in the Appendix below). Such works are envisaged as lectures given by Hippocrates before his student Galen, so that the latter could be introduced to diagnostic and prognostic methods implemented through the procedure of bloodletting. Furthermore, the title of the treatise declares that this type of medical knowledge was originally revealed in an epistle which was purportedly written by Hippocrates to King Ptolemy, the founder of the Great Library of Alexandria, who ruled Egypt from 323 to 282 BCE. The text maintains that the practitioner should be able to predict the health status of a patient on the basis of the colour, texture and coagulation characteristics of the blood released during phlebotomy; apart from visual examination, the doctor was supposed to pay attention also to its smell, an important indicator in the diagnostic and prognostication process.

Associated with the assumed regimen of King Ptolemy are also certain recommendations for periodical prophylaxis according to the phases of the Pleiades through different seasons. They include dietary prescriptions (consuming particular food and beverages), as well as matters related to personal hygiene (e.g. bathing, rubbing special substances into the skin), purification of digestive system (including vomiting and taking purgatives), and other related practices (see text № 1 in the Appendix below).

§ 4. Concluding remarks

The transmission of technical ancient medical knowledge into the medieval Slavonic world remains largely unexplored and this especially applies to the works of the most extensive corpus of the writings of Galen, who was the consummate interpreter of Hippocrates.

So far, Galen's treatises have been studied by specialists in Greek and Latin, as well as Arabic and Syriac, but historians of ancient medicine do not appear to be aware of Slavonic medical texts attributed to Galen. They were found in monastic library manuscripts, the earliest of which are dated to the 15th century.

The surviving corpus of Slavonic renditions of Galen's commentaries on the *Corpus Hippocraticum* takes up the fundamental theoretical plank of ancient Greek medicine, the theory of humours

reflecting the four basic elements of the cosmos, as outlined in Pre-Socratic philosophy. Hence, the primordial elements earth, air, fire, and water correspond respectively to black bile (earth), crimson blood (air), red/yellow bile⁷⁰ (fire) and white phlegm (water), so that each of the four humours is associated with the same basic colours which often appear in diagnostic descriptions of disease. Each of the humours has a characteristic attribute, such as being wet and warm (blood), or wet and cold (phlegm), dry and warm (red bile) or dry and cold (black bile). Taste is also a relevant characteristic, since blood is sweet, phlegm is salty, red/yellow bile is bitter and black bile is sour. All of these criteria are applied not only to diagnostics but also to describe the properties of *materia medica*, to determine their correct usage. Illness is envisaged as a direct result of these four humours getting out of balance, by being either insufficient or superfluous, or appearing in the wrong part of human anatomy. Moreover, each of the four humours has a specific seat or placement within the body, with blood found in the heart, phlegm in the spleen, red/yellow bile in a bladder under the liver (probably the gall bladder) and black bile under the spleen. A healthy body holds all of these humours in correct balance. The four bodily humours are affected by the patient's age, with a plethora of blood in youngsters, red/yellow bile in young adults, black bile in middle age and phlegm in the elderly. The humours can be used diagnostically, e.g. indicating that diseases associated with the head (cataract, swollen glands, toothache, earache, etc.) actually "originate" in the stomach. Health mirrors each of the humours being in correct balance, which also reflects mental health, since the three aspects of the soul (reason, emotion, and will) are also affected by humours. The increased levels of humours can often be detected in behaviour (e.g. whether one is "phlegmatic", etc.). The five sensory perceptions are also closely associated with the primordial elements and their associated humours, since vision and smell relate to the air, while hearing to fire, taste to phlegm (i.e. water) and touch to the earth. The function of the healer is to use his skills (*techné*) to maintain good health or alleviate suffering in his patients. To accomplish this, the trained healer must be aware of how the four seasons reflect the levels of humours in the body, and which treatments (diet, purging, phlebotomy) should be prescribed for various times of the year.

The analysis of Slavonic scribal tradition shows that treatises attributed to Galen are based upon no-longer extant Byzantine Greek originals and hence add to our knowledge of the spread of editions and paraphrases of his *Nachlass* in late antiquity and Middle Ages. However, the manuscripts attributed to Galen are not the first medical treatises in Slavonic guise, since much earlier works produced in the 9th century by the Bulgarian scholar John the Exilarch exhibit a similar awareness of Greek medicine. There is clearly a need for a new re-assessment of when and how Greek medical knowledge spread to *Slavia Orthodoxa*, and the present contribution is a step in that direction.

One final point; the field of "Galenic iconography" remains virtually unexplored within the context of Christian monumental sacred art of *Slavia Orthodoxa*. It is most significant that portraits of Galen are depicted in the monasteries and churches in the Balkans and elsewhere.⁷¹ Among the most famous examples are the frescoes on the ceiling of the Refectory of the Bachkovo Monastery in Bul-

70 One of the idiosyncratic features of Slavonic paraphrases of Galenic writings is that the term "yellow bile" (as in Greek) is rendered as "red bile" (with the scribe diligently explaining that its colour is actually yellow).

71 One such representative site is the Refectory of the Monastery of Great Lavra (Μονή Μεγίστης Λαύρας) on Mount Athos (painted in 1512); see Dorofeev [2023: 1010].

garia (painted in 1643) [Fig. 1].⁷² Galen is shown between the crowned Aristotle and Sybil, standing in a horizontal row of six consecutive portraits of ancient Greek personages (e.g. Plato, Plutarch, etc.). All six of them are depicted alongside the Tree of Jesse, paralleling the branches embodying the figures of Christ's ancestors, starting with the father of David and finishing with the Virgin Mary throughout twenty-eight generations, thus visualising the narrative of Matthew 1: 1–17 concerning the genealogy of Jesus. Opposite the row of Aristotle, Galen and the others, another row of six “wise philosophers” and playwrights (e.g. Aristophanes, Diogenes, Socrates, etc.) is depicted. Scholars have pointed out that the iconographic scheme of these twelve ancient figures functions as a visual counterpart of the Twelve Apostles.⁷³ In other words, Galen and the other eleven ancient dignitaries surrounding him are perceived as harbingers of Christ.

Indeed, each of them holds a scroll containing a prophetic sentence concerning the forthcoming birth of Christ. Thus Galen holds in his lowered down right hand an unfolded scroll with the inscription in Greek: “During the reign of a pious king we shall see once more, O Sun, the one who had destroyed the temple that has existed for ages.” He is dressed in a lengthy garment with an ornate collar; the sleeves are long with rich adornment above the elbows and around the wrists; the wide stripe at the bottom of the robe is garlanded and his elegant shoes share the same pearl-like decoration. On his head he has a small, richly decorated brimless skull cap. His hair, moustache and curly beard are white. His face is turned towards Sybil, while his body is given frontally. His left hand is raised from the elbow upwards, the thumb distant from the other fingers — a gesture signifying speaking.

A similar iconographic scheme is employed in the Church of Nativity of Christ in Arbanasi, North-East Bulgaria (painted in 1681). In contrast to the Bachkovo Monastery, the group of the twelve ancient individuals does not form a convoy surrounding the scene of the Tree of Jesse but visualises its allegorical roots. Furthermore, Galen, like the other eleven figures, is depicted with a halo, thus virtually receiving a status equal to that of Christian saints. Significantly, he holds a scroll on which it is written, “For He shall come to judge both living and dead, and to reward everybody according to their works”; the latter is a recognisable paraphrase of Matthew 17: 27 (“For the Son of man shall come in the glory of his Father with his angels; and then he shall reward every man according to his works”).

Future studies devoted to the general cultural context of Galen's *Nachlass* in Slavonic intellectual landscapes will need to take iconographic poetics into account.

72 See Duichev [1978: 13–22].

73 See Duichev [1978: 13–14].

APPENDIX

Text № 1

Galen on Hippocrates

The Church Slavonic original of the account translated below is found in a MS copied in the 15th–16th century, currently № 177 in the Collection of the Trinity Lavra of Saint Sergius [Троице-Сергиева лавра] in the Russian State Library (Moscow); it was transcribed and edited for the first time by the Russian scholar N. Tikhonravov, and published by him in 1863 in the second volume of his *Monuments of Proscribed Russian Literature* (pp. 405–410). My translation follows Tikhonravov's publication; taken into consideration are also the observations of the Bulgarian scholar Ivan Duichev (who offered an edition of the same text in 1954).⁷⁴ Consulted are also the editions of V. Mil'kov (with the assistance of T. Isachenko) [1999: 454–467], and V. Mil'kov and S. Polianskiĭ [2008: 519–526]. For the purposes of future research, the current publication reproduces the entire macro-unit containing the Church Slavonic version of the Galenic commentaries on the *Corpus Hippocraticum* (fols. 258r-264r).

Galen on Hippocrates.

The world consists of four substances [ВЪЩН]: fire, air, earth, and water, and so does the microcosm, that is, man, who also consists of four elements [СТОУХНН], that is to say: blood, phlegm [lit. wetness], red bile and black bile. The appearance of blood is red in colour, while sweet in taste; it is akin to air, since it is wet and warm. Phlegm, which is wet, is white in colour, salty in taste, and since it is wet and cold, it is akin to water. Red bile has a chilly appearance, but it tastes bitter and since it is dry and warm, it is akin to fire. Black bile has a black appearance, and its taste is sour and since it is dry and cold, it is akin to earth. Depending upon how these elements increase or decrease, or condense beyond their nature, or change or leave their places and go to other atypical places, they make men become ill in different ways and varieties.

Let us say, for instance, where and in which places [each of the elements] is situated. Thus, phlegm is below the spleen; it is exhaled and flows out through the mouth and nostrils. Blood is around the heart, in the enclosures, and from there it divides and goes through veins and arteries. When it increases, it is exhaled and flows out through the nose, because it cannot either pass through or get out from another [orifice]. Red bile is situated under the liver [ПОД ОУТРОВОЮ],⁷⁵ in a bladder which is attached to it, and it is exhaled and [flows out] through the ears; that is why wax which we clear from our ears is in fact red bile. Black bile is situated under the spleen, and it is contained in a sack attached to the inside of it. It is exhaled and [flows out] through the eyes, so that rheum [i.e. dried mucous] which we wash from our eyes is in fact black bile. When these aforementioned elements are distributed equally in the right way, the human body is in a healthy condition.

Each of these above-mentioned elements increases and expands in a different age. Thus in youngsters

74 See Duichev, Kristanov [1954: 517–525].

75 Lit. the womb.

up to 14 years old, blood increases, similar to what it is like during the Spring in March, April, and May, because then it is wet and warm. In young people up to 30 years of age, red bile increases. This is what it is like during the Summer, that is to say, June, July and August, when it is warm and dry. For a man in his prime, until 45 years of age, black bile increases. This is like during the Autumn season, that is to say, September, October, and November, because then it is dry and cold. In old men, in the age of 80, phlegm increases, that is to say, wetness, similar to what [the weather] is like during the Winter, when it is cold and wet.

Then again, in children, there is a warm and wet mixture [of elements], which results from the blood, and that is why they sometimes play, sometimes laugh; but when they cry, they are quickly comforted. In adolescents, the mixture [of elements] is warm and dry, which results from the red bile, which is why they are rather quick and daring. In a man in his prime, there is a dry and cold mixture, which results from black bile, which is why people in this age are very warm and steadfast.⁷⁶ In old men, the mixture of cold and wet results from phlegm [lit. wetness], which is why people in this age are sad, weary, slow and forgetful, and when they get angry, they remain distressed [for a long time]. Look how blood makes the soul merciless and generous, while wetness and phlegm — slow and forgetful, red bile — rather honest and very robust. As for the cause and aetiology of diseases, we recognise it thus: to start with, it is related to age. If a child gets sick, the reason for this is blood. If an adolescent gets sick, it is because of red bile. [If a person in his prime gets sick, the reason is black bile.] If an old person gets sick, it is because of phlegm. In the second place comes the season. If [illness occurs during the Spring, the reason for that is blood; if in Autumn,] the reason for it is black bile. If [illness occurs during the] Winter, the reason for it is wetness [= phlegm]. On the other hand, memory and showing wisdom in men is according to the mixture which is situated in the nape [= occipit], and according to whether it is warm or cold. Forgetfulness is due to the cold nape [= occipit], and insanity is due to the fiery and burning [lit. igniting] [elements]; because it emerges as a fiery steam from the intestines [var. liver, kidney, testicles],⁷⁷ rising up through the place between the shoulders towards the nape; it is then when a man becomes insane, that is to say, loses his mind. Then, as recommended [lit. said] by Hippocrates [= ΕΒΨΚΡΑΤΟ], it is necessary to massage his nape with balsam from the ointment / infusion of 'wild rose oil', and [ingredients] similar to it. The closing [palsy?] of the eyes or disfiguring of the mouth or the half of the face is due to the cold substance originating in the nape. [To treat these kinds of diseases], it is necessary to clear the nostrils and through them heat the head with hot steam. Diseases which concern the head originate in the stomach, those being eye disease, toothache, sore throat, withering of a particular member, asthma, diseases of the ear, hoarseness, vomiting, and similar. The skull has seams, but there are seamless skulls which are all-in-one. These kinds of skulls are also normal. The hair happens to be straight when there is a lot of wetness [= phlegm] in the head, but the hair is curly when the head is warm. The hair may be red, due to red bile, while the hair can be black because of black bile and cold wetness [= phlegm]. Baldness is due to the reduction of the fluid which nurtures the hair. The ailments that are related to the head originate in the stomach. These are: numbness, disease of the glands, cataract, toothache, swelling of gums [= gingivitis?]. The beard, according to its growth, has five types: wide or long or small or middle-size or beardless, which means a lack of beard, and this is due to the decrease of the fluid which nurtures it.

⁷⁶ Lit. firm, solid.

⁷⁷ As pointed out by Bonchev [2012: 349], this same word is also used to denote liver, kidney, testicles.

The senses in men are five: vision, smell, hearing, taste, and touch. Vision comes from ether, smell from the air, hearing from fire, taste from the phlegm [lit. wet], and touch is from the earth.

Question: how many are the parts of the soul? Answer: three: reason [lit. verbal], emotion, and will. Question: when is a person healthy and when is he infirm? Answer: the person is healthy when the above-mentioned four elements are mixed according to their strength and proportion, so that they balance and neutralise each other. Question: what is health? Answer: health is a good mixture of the elements from which the body is composed, that is, [warmth], dryness, coldness, and wetness. Question: What is the healer [var. physician]? Answer: the healer [var. physician] is a servant of nature, and a helper against disease. Perfect is the healer [var. physician] who is proficient in observing and acting impeccably while performing healing [var. therapy] according to real science [var. teaching]. Healing [var. therapy] is a skill [= *technē*], a measurement for those who are healthy and convalescence for the sick. The human body has five limbs: two arms, two legs, and one head. Man also has 12 organs [lit. elements, *στυχη*]: head [lit. top], ears, eyes, nostrils, mouth, breasts, two hands, trunk (abdomen), knees, and two feet. Also the year has four parts [lit. elements, *στιχια*]: Spring, Summer, Autumn, and Winter. The Spring begins on the 24th March and ends on 24th June. [This is the time] when the increase of blood takes place, which is why bloodletting should be done and purging of the stomach with the help of purgatives. For food, one should consume warm vegetables; overeating of fish is to be avoided, along with warm wine and late suppers. The Summer begins on the 24th June and ends 24th September. That is when the black bile increases. One should rest and not eat a lot, and avoid spicy food; one should drink cold water and abstain from late suppers, eat little cold fish, avoid purging the stomach, and bloodletting. The Autumn begins on the 24th September and lasts until 24th December. One must abstain from eating vegetables, as well as consuming cold water and much wine, and avoid taking off clothes in the morning and when the weather is cold, although it may be stuffy. One should be careful not to fall into anger and rage, as well as overeating of any kind of food. One should do bloodletting and purging the stomach with a laxative when the Moon is waning. From the 24th December Winter begins and lasts until 24th March. Phlegm starts increasing, that is to say, the wetness [of the body]. Things which provide warmth should be consumed, which are: mustard, horseradish, onion, garlic, leeks, pepper, ginger, cloves, that is to say, nutmeg, and to drink an infusion from dill, boiled with honey and pulses; one should avoid overeating as well as fresh fish, vegetables, and late suppers.

About bloodletting.

On the first day of the beginning of the lunar month you perform bloodletting early [in the morning]; on the second day you perform bloodletting at noon; on the third day you perform bloodletting at noon; on the fourth and the fifth day you perform bloodletting early [in the morning]; on the sixth day you should not perform bloodletting at all. On the seventh day you perform bloodletting during the entire day; on the ninth day you should not perform bloodletting at all. On the tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth day you perform bloodletting during the entire day. On the nineteenth day you perform bloodletting during the entire day; on the twentieth day you perform bloodletting during the entire day; on the twenty-first day you should not perform bloodletting at all; on the twenty-second, twenty-third, and twenty-fourth day you perform bloodletting at any time; on the twenty-fifth day you perform bloodletting in the evening; on the twenty-sixth, twenty-seventh, and twenty-eighth day you

perform bloodletting in the evening; on the twenty-ninth day you perform bloodletting in the morning; on the thirtieth day you perform bloodletting at any time.

From experts [in weather forecast].

This is what is reported about certain matters by those who have carefully observed them; when both halves of the Sun appear like two [separate] suns, either to the east or to the west of the Sun itself, there will be rain. The same thing happens when the air thickens and the clouds fill with light. If it turns red on the north side, it signifies a wind blowing from the north, and if [it turns] on the south side, it signifies a south [wind]. If the sun is in the middle [of the cloud], then it portends heavy rain and strong wind. When it darkens by the fog rising from the earth and the sun appears to the human eye like a burning coal, or, to put it more simply, the sun appears to be bloody, then a sign becomes evident that there will be a storm in those places where much evaporating moisture has accumulated. But when the clouds seem to stretch out their threads or turn crimson, it will be windy and cold. Also, when the sun appears to bend its rays to itself or is obscured by darkened clouds during sunrise or sunset, it will be rainy and cloudy. If it is clear or crimson at sunset, it predicts that the day will be quiet and clear. In the same way, the moon gives many different signs [to those who observe its phases]. When it is clean and thin on the third day, it heralds long, calm weather. If it is thin, but not clean, and fire-like, it predicts strong winds. If the two horns of the moon are equal or the northern horn is pure, then it heralds a south [wind]. But when it darkens during the full moon, it rains. And when there are two crowns around the moon, the air will be [turbulent]. And when the moon is surrounded by a rim and appears to the people in this form, then it foreshadows a storm. When you find that her crown has darkened, it means that there will be prolonged bad weather. Omens from the Sun, it was said, were made known [by the Lord].

About the constellation of the Pleiades.

From the setting of the Pleiades to the winter solstice there are 49 days: from November 12 to the end of December. On the days of the winter solstice, the probability of the increasing of sputum occurs. Therefore, bathing is necessary, and rubbing the body with dry oil. From the winter solstice until day and night are equal there are 84 [sic!] days, that is — from January 1 to March 15. These are winter days. You should bathe and induce vomiting. From the autumnal equinox to the setting of the Pleiades there are 47 days; that is — from September 25 to November 12. On these days, bodily ailments multiply and yellow bile increases. Drink vinegar, eat sweets, and wash often, and shun lust. If you obey this [regimen], then it will be good for you, [as it was the case with] the great King Ptolemy.

Галново на впократа. Мнрѣ ѿ чѣтырѣ^x вѣщн съставнтса. ѿ ог^ана. ѿ въздоуха. ѿ землѣ. н ѿ воды. съставленѣ же бысть н малын мнрѣ. снрѣ^v ѿлѣкѣ. ѿ чѣтырѣ стоухнн рекше ѿ кровн. ѿ мокроты. ѿ ѿрѣмныа жлѣун. (н ѿ черныа). н кровь оубо вндѣннемѣ ѿрѣвлена. вкѣшеннемѣ же сла^ака. по^абна естъ въздоухоу. јако мокра н тепла. ѳлегма же јаже естъ мокрѣотна. вндѣнне^m была. вкоушеннемже сла^ана по^абна оубо е^с водѣ. јако мокра н студена. ѿрѣмныа жлѣуб.

вндѣнне^м люта. вкоушеннемже горка. по^авна оубо естѣ сѡг^ню. яко соуха и тепла. чрънаа жлъчъ. вндѣнне^м черна. вкѡшеннемъ^ж кнсла. по^або е^с землн. яко сѡха и стодена. сн^м оубо стоухна^м. оумалѣющнмса нлн ѡмножающнмса нлн ѡдебелевающнмса. выше естѣства свое^с. нлн премѣнвшнмса и ѡстоупльшнмъ ѡ свонхъ мѣстѣ. и проходащнмъ в несѡбычныа мѣста. многѡбразно и много и разлчно сѣтворяють члѣка болѣтн. ре^смъ оубо. и где. и в кон^х мѣстѣхъ пребываетъ. мокрота оубо по^а слезною бытн ен. продыхаетже и нсходнтъ сквозѣ оуста и нозд^рн. кровь же пребываетъ ѡколо ср^аца въ прѣградѣ. и ѡтоудѣ раздѣлаетса и прохонднтъ сквозѣ флелы. и артрнню. и ког^а оумножнтса. продыхает^с и нсходнтъ сквозѣ носъ. нноудѣ бо не можетъ. нїже нмать нзытн. чръмнаа жлъчъ преебываетъ по^а оутробою въ прелепленуюа иат^роу мошннчнню. и продыхает^с сквозѣ оушн. калъ оубо егоже нсчнцаемъ въ оухо то е^с чръмнаа жлъчъ. чрънаа ж^алъчъ⁷⁸ по^а слезною и та пребываетъ^с въ прнсаженоаа внатрѣ мошннцю. и та продыхаетъ сквозѣ сѡчн. горелн бо іаже нзмываемъ ѡ сѡчню тыа чрънаа⁷⁹ жлъчн соуть. Сіа прѣ^ареченныа стоухна. тѣкмащнмса равно прѣбывающнмъ. з^аравотвоует^с жнвотное члѣкъ. всакнн бо въ прѣ^ареченныа стоухнаа ннѣ. ннѣмн възрастомъ растнтъ и множнтса. паче же оубо въ ѡтрочатн до .дї. лѣтѣ оумножнваетса кровь. іакоже и в пролнтнн. марта и апрнлна. маня. за еже бытн мокрова и топла. въ юношн же .л.тнмъ лѣто^м. оумножнваетса чръмныа жлъчъ. іакоже и в лѣто. снрѣ^с ноуна. іѡла авгж^с за еже бытн емоу теплоу и соухоу. въ свершеномъ же моужн .м. и патнмъ лѣтомъ. оумножнваетса чрънаа жлъчъ. іакоже и въ есень, снрѣ^с септеврїа и ѡкто^мврнн, ное^мврнн. за еже бытн емѡ соухоу и стоденоу. въ старомже .лї. лѣтомъ. оумножнваетса флегма. снрѣ^с мокрота іакоже и в знмѣ стодена и мокра. и оу⁸⁰ ѡтрочатоу естѣ растворенне тепло и мокро. іако ѡ кровн. и егоже ра^ан сѡвог^а нграють. сѡвог^а смеятса. и ег^а плачутса. скороже оутѣшаетса. юношн же растворенїе е^с тепло и сѡхо. іако ѡ чръмныа жлъчн. и сего радн соутъ брѣз^аншн и свѣрѣпѣншїн. свершено^с же моужа растворенїе е^с соухо и стодено. іако ѡ чръмныа жлъчн. и сего радн соуть теплѣншн и блѣгостоїателѣншн. старомоуже растворенне е^с стоу[де]но и мокро. іако ѡ мокрѡты. сего ра^а соутъ печалнн и драхлн и к^снн и непаметаннн. и ег^а гнѣваетса пребывають неоутѣшннн. Н се внж^а іако кровь оубо мал^стнвоу и подателнвоу сдѣловаетъ дшїо. мокрота же е^с флегма. коснѣнша и забытанва. чръмнаа жлъчъ честнѣнша и блѣгостоїателѣнша. познаетжееса непѣванннн и внны болѣзнемъ. прѣвое оубо ѡ врѣсты. аще оубо ѡтроча е^с болан кровь естѣ внновна. ащеелн юноша чръмнаа жлъчъ.⁸¹ ащеелн старѣ. флегма естѣ ѡскорблѣющннн. второеже познаветса и ѡ времннѣ внна.⁸² ащеелн е^с; чрънаа жлъчъ повннна естѣ. ащеелн знма мокрота повннна е^с. а еже помнѣтн и мѡдрѣствоватн. бываетъ члѣкомъ ѡ блѣгостаореворена тыла. снрѣ^с нже по^а нмѡцемоу теплотѡ и стѡденъ тылѣ. забытне же бываетъ ѡ стодена тыла. ѡ сѡгнены^х же и палтелны^х естество бываетъ безоумне. сѡгнелѣ бо парѣ сквозѣ меж^аорамне нспоуцаемѣ ѡ іатрѣ к тылоу. и бываетъ безоуменъ члѣкъ. снрѣ^с нстоупленїе оума. и по^абаетъ растворенымн маслы еже глѣть евѣкрато. помазоватн тылѣ. снрѣ^с шнпково масло, и подобнаа семоу. сѣкрывленїе бывающе ѡкѡ нлн

78 Tikhonravov's note: "Въ рук.: чръмнаа ж'лъ."

79 Tikhonravov's note: "Въ рук. вездѣ ошибочно: чръмныа."

80 Tikhonravov's note: "Въ рук. оу."

81 Tikhonravov's note: "За тѣмъ въ сп. № 762: ащеелн сѣврѣшенъ мѡ^ж, чрънаа жлъчъ."

82 Tikhonravov's note: "За тѣмъ пропушены слова: аще оубо пролѣтое вре^м е^с. кровь повннна. Ср. № 762."

оустнамъ нлн по^а ѿвбраза н се ѿ стоуденѣнша е^ства подаваемо ѿ тыла. в нхже подобае^т сквосѣ позадн ѿнцатн, н ѿ вонѣ парамн ѿгненымн напарнватн главою. Нлнка страданїа вывають главѣ, ѿ стомаха начало нмать. яже соу^т волѣнїе ѿнма. болѣнне зоуба^м. болѣнне горлоу. соухотнаїа. оудѣшне. болѣнне оушнма. ошпнѣтне. болванїе. н по^абнаїа смѣ. Нмат^тже глава шѣвы. ѿбрѣтаетжеса н самотворна глава. не нмоуцн цѣвы. н та з^арава ест. проста косма же бывае^т глава. ѿ многна мокроты нже в главѣ. коудраваже бывае^т. тепла соуцн глава. ч^рмность власѣмъ. ѿ ч^рмныа желчн. ч^рно^сже ѿ ч^рмныа н стоуденыа мокроты. плѣшнвѣствоже ѿ еже ѿскоудѣватн тнѣ. пнтѣюцнн власы. Нлнкн страстн вывають въ главѣ, ѿ желоудца нмат^т начало. якоже, смолкота. желѣза. вѣмо на ѿ^тню. зоубомъ болѣзнь. въбцн ѿто^к рекше ягоднца. Брадѣже прнбытцн .б. шнрока. длѣга. мала. срѣ^ана. н спаность. еже ест скѣдость брадѣ. н се ѿскоуденїа пнтѣюцнн тнѣ е^с. Чювѣства же въ члѣцѣ .б. зрѣнїе ѿбонанїе. слышанїе. вкоушенїе. ѿсазаннїа н оузрѣнїе ѿ ефара. ѿбона^не ѿ въз^аоуха. слышанїе ѿ ѿгна. вкоуше^не же ѿ мокрого. ѿсазаннїаже ѿ земаа.

Въспро^с Колнкн соу^т дѣвныа частн. ѿвѣ^т. трї словесное яростное н желателное. Въспро^с. Ког^а з^араствоуетъ члѣк^н н ког^а нзнемогае^т. ѿвѣ^т. Здраствоутже оубо ког^а соу^ттателно по снлѣ. н равностоїателнѣ стоїатъ четыре стоухнїа пре^ареченныа во всемъ равенствѣ^х. н оутншен. Въспро^с. Что е^с з^аравне. [ѿв.] З^аравне е^с бл^горастворенїе прѣвымъ. ѿ нх^же съставлено е^с тѣло. ѿ бл^госоухаго. стоуденаго. мѣкра^т. Въспро^с. Что е^с врачъ. ѿвѣ^т. Врачъ е^с естество сложнтель. н въ болѣзне^х подвнжннкъ. н свершенъ бы^с врачъ. нже вндѣнне^м н дѣяннемъ нскоусенъ. нзраднѣншн^х. нже всѣ творан врачеванїе по правому словоу. Врачество е^с хнтрость. мѣра з^аравствѣюцн^м. н нсцелнтелство болацн^м. Члѣк^н нмать частн в тѣлѣ .б. роуцѣ двѣ. н позѣ двѣ н главою. Стнхнеже .б. верхъ оушн. ѿн. поз^арн. оуста. съсцн. роуцѣ двѣ. тѣло. колѣнн. позѣ двѣ. Нматже н годна стнхне четыре. пролѣтъ. лѣто. есень. з^нма. А весна оубо начннаетсе⁸³ ѿ .к^д. мартнїа м^сца. да^ж до .к^д. ноуннїа. бывае^тже оумноженїе кровн. по^абае^т оубо пѣцатн кровь н творнтн ѿнценїе оутровѣ съ вонфнмою. пнца^ж зелїе тепло. бѣжатн же сытостн рыбныа. н внна тепла. н ве^чернїа поз^ана. Лѣто же начннаетса ѿ .к^д. юуннїа да^ж до .к^д. септеврнїа. бывае^тже оумноженїе ч^рмныа жлчн. н подобае^т себе оупоконтн. н не ястн мно^т. ѿгрѣватнже^с елнко соу^т люта. н пнтн подобае^т водоу стоуденоу. н ве^чраннїа поз^ана ѿлоучатнса. ястнже рыбы стоудены мало. ѿнценїїа же оутробы н пѣцанїїа кровн бѣжатн. ѿ .к^д. же септеврнїа начннаетса есень. до .к^д. де^сврнїа. н по^абае^т ѿшаїатнса ѿ вкоушеннїа ѿвоцен. н стоудены^х водѣ. н множества внна. н оутренн^х н стѣдены^х. н не совлачнтн себе. аще н доушно боуде^т. н храннтн себе ѿ г^нѣва н яростн. н всакн^х спеден множества. пѣцатн же кровь н оу^нцатн оутроба. вонфнмою оумалнвшнса л^днѣ. ѿ .к^д. же де^срїа да^ж до .к^д. марта начннаетса з^нмн. оумножае^тже^с флегма яже е^с мокрота. по^абае^тже ястн елнко нмать топлотѣ. яже соу^т сна. напѣ. снцерѣ^т горунца. редесн. лоу^к. ч^ссно^к. прасъ. пеперь. з^ннцнверѣ. карафаль. снрѣ^т ѿрѣшкы м^скатны. пнтнже оукропѣ с медо^м. н мѣсто^м варены^м. нже глѣ^т нфнмо. ѿгрѣватнже^с сытостн, н рыбѣ свѣжн^х. н ѿ зелеїа н ве^чера поз^аны.

ѿ кровнпоуценнн. Наставша лоуна .а. днѣ рано поуцан .б. днѣ полоуднн поуцан .г. днѣ полоуднн поуцан .д. .б. рано поуцан .с. ве^с не поуцан. .з. весь поуцан .б. весь не поуцан. .г. аї. бї. гї. дї. еї. весь пѣцан. бї весь поуцан. к. весь поуцан. к^а. весь не пѣцан. к^в. к^г. к^д. весь

83 Tikhonravov's note: "Въ рукоп. начннаете."

поуцѣн. кѣ. ве^ръ поуцѣн. кѣ. кѣ. кѣ. вечеръ поуцѣн. кѣ. оутрѣ поуцѣн. л. ве^с поуцѣн.

ѿ хитрець. Глѣть нже ѿ томъ хитросмотрнть^н. егда боудоуть ѿба полы слѣнца. акн двѣ слѣнци створнвшѣ. соуцоу слѣнцоу. въ вѣстоцѣ нлн на западѣ. до^ж⁸⁴ бываеть. ег^а нзрадницею оуцнтса⁸⁵ въздоу^х. н исплѣннтъ свѣта облакъ. да ег^а сѣверъннѣа страны поурмнѣсть. то сѣверъ⁸⁶ назнаменоуетъ боудоуць. н ег^а ѿ южннѣа. то югъ. егда лн съ ѿбою строуоу слѣнце посреде соуцоу. тог^а дож^а многѣ н раменъ вѣтръ назнаменоуетъ. ег^а бо ѿ мегленаго възгорѣннѣа ѿже ѿ земаа въскаженнѣа. урѣнѣнша боудеть. слѣнчнн кроу^т акы оуг^аль горацѣ. авнтса улу^скомѣ зракоу. нлн просто рецн акы кроваво слѣнце боудеть. то ѿвѣ знаменае^т. н ѿко моуть нмать на тѣ^х мѣстѣ^х бытн, на ннхже мокрота многа въскоурнвшѣса. ног^а⁸⁷ акнн власы простѣть. нлн погора^т ѿблацн. то вѣтрено боудеть н стоуденѣо. н ег^а лоуца своѣа сама к совѣ прнѣгаѣ⁸⁸ ѿвнтса нлн поурѣнѣвшнн ѿблакн дрѣжнмѣо ѿко наунеть входнтн. то дож^аевно боудеть н моутно. нлн пакы заходнтъ ут^со нлн загорнтса. то оутншенне ѿвлае^т н ѿспнсть. Такоже н лоуна творнтъ многа з^наменѣа разлнчнѣа. въ третнн бо днѣ егда боудеть тенка н чнста. то длѣгоуа тнхость знаменае^т. ащелн тонка боуде^т нѣ неч^та. но акы ѿг^нена. вѣтръ⁸⁹ назнаменоуетъ раменѣ. ащелн ѿбѣма рогама равна са ѿвлае^т нлн сѣверннн ро^т чнстѣ боуде^т. то знаменоуетъ югъ бываюцѣ. ног^а⁹⁰ по^аурѣнѣе^т полно соуцн свѣта. то дож^аове бываю^т. н ег^а боудеть тотонка⁹¹ ѿба полы бывае^тже то въз^аоу^х. н ег^а акы венецъ въкрѣжнтса ѿ лоуны. ѿвлае^т вндѣтн моу^т бываюцѣ. егда лнса поурѣнѣвшн ток тон ѿбрацеть. то продолже^н мѣ^т ѿвлае^т. ѿ знаменн же слѣнца ѿсподъ нзвѣца глѣ.

ѿ власожеацѣхъ. ѿ западаже власожеаецъ до възвращеннѣа знмнаго .ѣ. днѣн .мѣ. снрѣ^т. ѿ .бѣ. мѣца пое^мврнѣа до кон^аца де^кемврнѣа. тн днѣе соу^т знмнаго възвращеннѣа. растн^т же в нн^х ѿхра^нт^н многъ зѣло. тѣмже требн бана. н масло^м соухнмъ трн свое тѣло. ѿ възвращеннѣа знмнаго дондеже оудалнтса днѣ с ноцнню. то есть .пѣ. снрѣ^т ѿ перваго днѣ мѣца генвара до патагонадеса^т марта. тн днѣе знмнн соуть. подовае^т трѣбоватн бана н блеванѣа. Тѣ ѿсенна же ладодннѣа. да власоже^скаго захоженнѣа. е^с днѣн .мѣ. снрѣ^т. ѿ .кѣ. септеврѣа. до .бѣ. пое^мврнѣа. въ сн^х днѣхъ оумножаютса злобы телеснѣа н жлѣтаѣа крѣчннна. трѣвоуѣа ѣксоуса. н сла^кко ажъ. н чѣсто мынса. а похотн ѿноу^а ѿмѣтаѣса. аще кто тако хранншѣ то добрѣ пребоудешн превелнкнн цѣрю птѣлаѣмеж.

84 Tikhonravov's note: "Такъ въ № 762 и № 951. Въ печатаем: тоже."

85 Tikhonravov's note: "Въ № 762: оуцнтнтса."

86 Tikhonravov's note: "Въ Син. № 951: сѣверъ вѣтръ."

87 Tikhonravov's note: "Въ № 762: но ег^а."

88 Tikhonravov's note: "Чит.: прнѣгаѣа."

89 Tikhonravov's note: "Въ № 762: вѣтры."

90 Tikhonravov's note: "Въ № 762: но ег^а."

91 Tikhonravov's note: "Въ № 951: токъ."

Text № 2

**What was made known by Galen,
about how to determine treatment according to the patient's urine in a glass**

First published by Stojan Novaković in 1877 in his *Примери књижевности и језика старога и српско-словенскога* (Београд: Издање и штампа државне штампарије, 1877), pp. 504-505. We follow the third (revised and corrected) edition of 1904 (Београд: Издање и штампа краљ.-српске државне штампарије), pp. 592–593. The text is part of 17th cent. MS № 54 (entitled ТНПНКЪ ВРАЧЪВНН). At the time when Novaković prepared his edition, the codex was kept the Archival Collection of the National Library in Belgrade; the MS was destroyed during WWII.

What was made known by Galen, about how to determine treatment according to the patient's urine in a glass. First. If the sick person's urine is rather turbid [var. muddy, cloudy] in a glass, this individual should eat radish; then if nothing changes by the ninth day, it predicts death. If, however, [the urine] changes and becomes like pure (var. clear, translucent, transparent) wine, it predicts health. Second. If the sick person's water [=urine] in a glass is like flammable oil, it means that they suffer from disease in their back [var. spine]. You must let blood from his right arm and he will recover. Third. If [the patient] has lesions on his glands, they should eat mallow⁹² with "wood oil" [= olive oil], since the cause [of their disease] is in the gall bladder, and they will be relieved. When you make them move about (var. change position)⁹³ after three days, you should bathe them. Fourth. If the water [=urine] has a milk-like appearance, the disease is caused by straining, and [the patient] ought to abstain from salty food and dry food, but should eat meat from chicken, or pigeon, or [...] from a wild cockerel,⁹⁴ and should drink old wine four times, and blood should be let from [the patient's] left arm. Fifth. If [the patient] urinates excessively and has lesions, this is from the sinews where the ailment originates, as well as from over-eating and over-drinking, and indulgences, due to [his] high social status.⁹⁵ Such [a patient] should observe abstention; it should be known that the ultimate abstention is a fast. Sixth. If the urine in the glass is transparent with a little foam, his ailment is from the left side. [...] You must let blood and make him bathe and give him pigano-oil or hemp-oil, and smear his body. Seventh. If the urine is transparent but has a layer of thickness, then you should know that his ailment is from the right side of his intestines, or from the kidney. This [patient] should eat onion with oil, and in the morning he should bathe, after which you should give him walnut-juice with spicy vinegar to drink, then with diluted wine. Eighth. If the urine in the glass has the appearance of blood and does not mix with wax, this predicts death. Ninth. If [the urine] is green as a thick herb with the appearance reminiscent of the juice of bindweed [?], it means that [the patient] is defeated by poverty. Give him [a fusion of] heledone, after having mixed it with the juice of orach,⁹⁶ and he will recover. Tenth. If the urine has a milk-like appearance and shakes,

92 Medicinal plant (*Malva sylvestris*, *Malva vulgaris*, *Common mallow*) known among the Southern Slavs also as "God's hand" (Божја рџчица) due to its healing properties.

93 Perhaps make the patient get up from bed?

94 "Wood grouse" / "Heather cock" / "Cock-of-the-woods" (*Tetrao urogallus rudolfi*).

95 That is, a life-style illness.

96 *Atriplex hortensis*.

it predicts death. Eleventh. The same is if [the urine] is black — this is caused by the black [bile]. This is a frightful [prognosis] for the patient, and without doubt predicts death.

Пронзвѣстьно сѣтъ Галнна врачевѣніе прѣдвѣдетн всѣдѣ нѣмѣштномуу въ цѣклѣ. - .а. Аще цѣкло немоштнаго сѣбрѣштано іестъ много, таковн да іастъ рѣпоу. Да аште не нзмѣннтъ се до .ѳ. днѣы, назнамѣнаеть емоу сѣмръть. Аште лн же пакы нзмѣннтъ се н боудѣтъ іако внно чнсто, здравіе назнаменаеть емоу. - .в. Аште лн немоштномуу вода боудѣтъ въ цѣклѣ іако масло нскрїн поуштаіе, то естъ емоу волѣзнъ въ грѣбы, поустн емоу крѣвь въ дѣсноую рѣкѣ, нсцѣлѣеть. - .г. Аште лн нмать агладѣкъ расѣлн, да іастъ слѣзъ сѣ масломъ дрѣвеннмъ, занѣ сѣтъ жлѣн естъ емоу, н оутѣштнть се. Н прѣмѣстнвъ его по трѣхъ днѣхъ, ванѣу сѣтворн емоу. - .д. Аште лн боудѣтъ млѣковндна вода сѣтъ правнта естъ болезанъ. Да сѣшаеть се слана н сѣхаа н да іастъ пнплѣта кокошннаа н голѣбнѣе н днѣіа пѣтъла пасїана н внно ведхо чѣтрѣтаѣно н да крѣвь поустнтъ въ лѣвоу рѣкоу. - .е. Аште лн нмѣтъ вода оуспанннцѣ н расѣлане же іестъ, сѣтъ жнлѣ прндѣ нѣдоугъ н сѣтъ сѣбыаденїа н пнтїа н саньна. Таковїн хсѣцѣтъ да нмать въздрѣжанїе; подоваеть же вѣдѣтн, іако больше естъ въздрѣжанїе нѣго постъ. - .с. Аште лн естъ вода въ цѣклѣ чнста нмѣштїн малне пѣнн, сѣтъ лѣвне странн томоу бысть недѣгъ крѣвь поустн емоу, н да банаеть се, н напон его пнгановнмъ маслѣомъ нлн конопьнѣымъ, н помажн его по тѣлоу. - .з. Аште лн естъ чнста вода нмѣе іако дѣвѣлѣгѣсть тоука, вѣждъ, іако сѣтъ дѣснїе оутровн томоу естъ нлн сѣтъ боуврѣгъ. Таковн да іастъ кромндѣ сѣ масломъ н за оутра да банаеть са, н напон сокъ сѣраховъ сѣ сѣцтомъ лютѣмъ н по томъ внно благо, растворѣннѣно. - .н. Аште лн естъ вода въ цѣклѣ крѣвовндна н не нмоуцїн сѣставъ воска, сѣмръть назнамѣнѣеть. - .ѳ. Аште лн боудѣтъ зелено іако зелїе гѣсто, малнн іако сѣтъ ѣшаве сокъ, повѣждѣнъ естъ сѣтъ трѣбованїа, напон его хеледѣномъ, смѣснвъ сѣ сѣжкомъ сѣтъ лѣводѣ, н нсцѣлѣеть. - .ї. Аште лн естъ млѣковндна трѣсоуштн се, сѣмрътъ назнаменуоуеть. - .аї. Тако же естъ аште чрѣно, сѣтъ чрѣнїе жлѣн естъ; сѣы страхъ естъ сѣнѣмъ, н сѣмрътъ нелажно кажеть.

Text № 3

Interpretation: Hippocrates [address] towards his student Galen concerning man; the epistle of Hippocrates to King Ptolemy regarding bloodletting

First published by Stojan Novaković in 1877 in his *Примери књижевности и језика старога и српско-словенскога* (Београд: Издање и штампа државне штампарије, 1877), pp. 505–506. The text was part of 17th cent. MS № 54 (entitled *Типикъ врачѣнїи*) from the Archival Collection of the National Library in Belgrade; the MS was destroyed during the Second World War.

Interpretation: Hippocrates' [address] towards his student Galen concerning man; the epistle of Hippocrates to King Ptolemy regarding bloodletting.

If bloodletting is done [to someone] and the flow of the blood has the appearance of a liquid [lit. 'wet water'], and its gushing begins like this, it predicts death. If [the blood] is brighter, it predicts fever [lit.

‘the ugly disease’] and all kinds of infirmity. If the blood is bright [lit. clear] and there is not much of it coming out [from the vein?] due to its becoming clotted, this blood predicts good health. If the blood is green, then [the patient] will die. If [the blood] is white and [flows] in a thick [stream] while being warm, for many it is a residue [slag], and for those patients it predicts that their intestines will recover. If [the blood] is yellow as arsenic and coagulated, this means that [the patient] will die either in 30 days or in 6 months. If after bloodletting blood is black and coagulated, he will die soon. If you let blood from a patient and it is black but has no pus, it means fever. Blood which is like pus indicates comfort and joy for the patient. Blood which looks like crushed arsenic predicts death. Foaming blood indicates a skin rash and cough. Blood with bubbles predicts disease in a short time. Blood which has a furrow in the middle predicts death. Blood which while foaming has the appearance of milk and smells badly indicates water retention from the kidneys. Blood which is black and smelly and has concentric rings indicates 6 months to live.

ТЛЪКОВАНИЕ. ПОКРАТЬ КЪ СВОЕМОУ ОУЧЕННКОУ ГАЛІННОУ СЪ ЧЛОВѢЦЕ. ПОСЛАНИЕ НПОКРАТОВО КЪ ПТОЛОМЕѦ ЦАРѦ СЪ КРЪВН ПѦШТАНИН.

АШТЕ ТКО КРЪВЬ ПОУСТНТЬ, Н НСТОУНТЬ КРЪВЬ НМѢ ВНДѢНІЕ МСѦКРА ВОДА, ТАКОВОУ НЗАНТІЮ НАЧАНЫШОУ, СЪМРЪТЬ НАЗНАМѢНОУЕТЬ. – АШТЕ ЛН БОУДЕТЬ ПОСВѢТЛА, ГРОЗНЦОУ Н РАЗАНУѢ НЕМОШТИ ВЪЗВѢШТАЕТЬ. – АШТЕ ЛН ЖЕ ІАКО ЧНСТА КРЪВЬ НМѢЮШТИН МАЛО СЪТЪ ЖНУІА ІАКО ОУВО СЪБРОШТЕНА ТАКОВА ОУБѦ КРЪВЬ ЗДРАВІЕ НАЗНАМѢНОУЕТЬ. – АШТЕ ЛН БОУДЕТЬ КРЪВЬ ЗЕЛЕНА, ТО ОУМРѢТЬ. – АШТЕ ЛН БОУДѢТЬ БѢЛА, ДѢБѢЛА, ТСОПЛА, МНОЗЕМЪ НЗМѢТЬ, Н ОУТІЕ ЧРѢВОМЪ, ЗДРАВО БНВАЕТЬ, БѦЛѢШТИ. – АШТЕ ЛН БОУДѢТЬ ЖАЛТА ІАКО АРСЕННКЪ, ОУСНРЕНА, ТАКОВА ЖЕ НАКАЗДЕТЬ НЛН .А. ДНЪ НЛН .S. МѢСЕЦЪ ОУМРЕТН ЕМОУ. – АШТЕ ЛН ЕСТЬ ХѦТЕН СЕБЕ КРЪВЬ ПОУСТНТИ, НСТОУНТЬ КРЪВЬ ЧРЪНѦ Н ОЧСРѢНОУ, СКОРО СКѦНУАЕТЬ СЕ. – КРЪВЬ НСТОУНВІН БОЛАНЪ ЧРЪНОУ Н ГНОЕНІА НЕ СЪТВОРНВЪ, ТРѢСКОУ ПОКАЗДЕТЬ. – КРЪВЬ НЖЕ ЕСТЬ ІАКО ГНОН, ОУТѢШЕНІЕ Н СЪТРАДОУ БОЛѢШТОМѦ ПОКАЗДЕТЬ. – КРЪВЬ ВНДѢНІЕ НМѢШТИН АРСЕННКЪ ТРѢНЪ, СЪМРЪТЬ ПРОІАВІАЕТЬ. – ПЕНЕШТІА СЕ КРЪВЬ ЗАСНПЪ ПОКАЗДЕТЬ Н КАШАЛЬ. – КРЪВЬ ЦАКЛѢШТИН Н БѦЛѢЗАНЪ ПОКАЗДЕТЬ СКѦРСѦ. – КРЪВЬ НМОУШТІА ДОЛЬ ПОСРѢТЕ, СЪМРЪТЬ ІАВІАІЕТЬ. – КРЪВЬ ПѢНЕШТІА СЕ ІАКО МЛѢКОВНДѢНО СМРАДНО, СЪТЪ ВѢРВРГЪ ЗАПОРЪ ВОДѢ ПОКАЗДЕТЬ. – КРЪВЬ ЧРЪНА Н СМРАДНА НМѢШТИ ДѦГН СКОУДѢЛНІЕ .S. МѢСЕЦЕМЪ ЖНВОТЬ ПОКАЗДЕТЬ.

Text № 4

On food regiments according to the annual cycle

First published by Stojan Novaković in 1877 in his *Примери књижевности и језика старога и српско-словенскога* (Београд: Издање и штампа државне штампарије), pp. 506–507; we follow the third (revised and corrected) edition of 1904 (Београд: Издање и штампа краљ.-српске државне штампарије), pp. 593–595. The text is part of 17th cent. MS № 54 from the Archival Collection of the National Library in Belgrade (entitled *Тнпнкъ врачънн*); the beginning of the text (including the title) is missing. The MS was destroyed during the Second World War.

The period of the harvest begins from the 24th of June [and lasts] until the 24th of September. In these days, the level of yellow [lit. blond] bile increases, and for those who are healthy it is necessary to calm down their flesh and not work too hard; nor should they remove their clothes excessively, or to eat excessively, but to drink excessively and expose their bodies to cold. Because of frequent [drinking] of cold water and consuming of vegetables, one should abandon all spicy and hot meals, that is to say [those] with juice of onion or radishes; eat melons and consume small quantities for supper, yet you may take a little bit of cold fish. Abstain from herbal purgatives and all kinds of exhaustion. This would be enough for those who wish to obey. From the 24th September to 24th December, which is Autumn, is the usual period for excessive [eating and drinking behaviour]; it is not an easy time for those who, despite [living among] the outrageous ones, [continue to] eat and drink with moderation, and are rather careful and refrain from [gluttony and other vices]. Over drinking of wine should be avoided, as well as consuming of too many vegetables. Beware of cold mornings, because the flesh experiences a shortage of greens; and even it becomes hot, do not remove your clothes; beware of the fervour of bile, as well as too many meals. Perform bloodletting moderately and purge yourself with herbs when the Moon is waning. At that time, black bile increases in man and disease becomes more active. From the 24th December until 24th March, during Winter, are the days when wetness in man increases and all kinds of liquids flow because of the cold. That is why those who enjoy good health should consume food with chilly spices, that is to say, radishes, onion, and garlic, as well leeks and pepper, and drink hot wine with honey, somewhat diluted. One should avoid overeating of fresh fish and vegetables, especially as an evening meal. Those who follow this will be satisfied with the health of their bodies.

For the month of February, I recommend that one should avoid cold wine in the evening, since this may cause you to commit sin.

For the month of March, allow very little bloodletting because of the weakness of your body as Winter departs. I recommend not to consume spices and vinegar as well as cold wine, but instead sweet things should be eaten and drunk.

For the month of April, avoid water in the evening. If you do this, you will enjoy good health in your body.

For the month of May, I recommend avoiding cold wine in the evenings.

For the month of June, drink a little water in the mornings because of bile [lit. gall bladder].

For the month of July, refrain from too many spices and too much wine, because these are not good for the body and trigger diseases.

For the month of August, avoid cold water and consume a little bit of melon. Watch carefully for diseases triggered by bile [lit. gall bladder].

For the month of September, called in Greek *gorpiy*, meat is recommended to be eaten. In this month, a little bloodletting should be performed because the Winter is to come and it [i.e. bloodletting] may trigger weakness.

Къ жетвоу оубсѡ научнаеть ѡтъ .кд. Іоунїа мѣсеца до .кд. Септемврїа мѣсеца. Къ тѣхъ 8же дьнехъ мнѡжнть се рѡса жльчъ, н потрѣбно естъ здравїнмъ оупоконтн свою пльть н не трѣднтн се мнѡгѡ, ннже ѡбнажатн се, ннже іастн мнѡгѡ, паучеже пнтїн н простоужатн свою пльть; радн чєстн стоудѣныхъ водъ н ѡвоштнїе сьнѣдн, всѣхъ лїотыхъ тѡплыхъ ѡстоатн потрѣба, снрѣчъ сѡковъ лоука, родьквы; дннѣ н мало прїеман ннже веучерь что іастн; прїеман же мало рыбы стоудѣнехъ; ѡунштєнїа ѡтъ влїн ѡтѣган, н всако дрѡго нсташтенїе, довлѣютъ бо сїа слышатн хотєштнмъ. – Ѣтъ .кд. Сектеврїа мѣсеца до .кд. Декеврїа мѣсеца нан до есѣнїн, н естъ сїе пауче бесчннѣншее н негладко пауче въ беуннѣншнхъ страшлнвнмъ зѣло н оужасанмъ съ вьсацѣмъ прнлѣжанїемъ іастн н пнтн, н наснштєнїа вннѣнаго бѣгатїн н многыхъ ѡвоштїн вькоуса храннтн се н ѡтъ ѡтрєныхъ стоудѣнїн блїостн се радн еже въ пльтн сѣльнїе немощїн, н не савлачнтн се радн знѡїа н храннтн се ѡтъ іаростн жльчн н мнѡжєство вьсацѣхъ снѣдїн, поуштатн же н кровь мало, н ѡунштатн се мало влїамн оумалаюштїн се лоунѣ, мнѡжн бо се еже въ чловѣцѣхъ чрьнаа жльчъ н двнжеть болѣзнн. – Ѣтъ .кд. Декеврїа мѣсеца до .кд. Мартїа мѣсеца даже до знмн мнѡжеть се въ чловѣцѣхъ въ тѣхъ днѣхъ мѡкрота, н плюванїа тѣкоуть стоуда радн, н трѣбъ ієсть здравнмъ пнштоу нмѣтн, зелїа іастн лїота, сїнрѣчъ рафїндн, лѣкы чрьвѣнн н чєсновнтн н празъ, пнпѣрь, пнтн же топлѡтоу съ мѣдомъ н растворѣнїемъ малнмъ; ѡтстоатн наснштѣнїа рыбъ прѣспныхъ н зелїа, подѡвнѣ веучернаго іадѣнїа. Довлѣютъ сїа къ здравїю пльтн нже добрѣ ѡбємлюштїнмъ.

Мѣсеца Ферѡарїа глаголю ѡтстоатїн веучерь внна стоудѣна, сїе бо творє сѣло пѡпльзѡуєшн се.

Мѣсеца Мартїа малѡ крови поуштан слабѡстн радн тѣла, нже насъ прѣводєштїн ѡтъ знмн, глаголю не іастн зѣлїа н ѡцѣта н стоудѣна внна, сладка же іастн н пнтн.

Мѣсеца Апрулїа веучерь н водн ѡтстоупатн, сїе творє ѡбрѣштєшн здравїе много тѣлоу своємѡ.

Мѣсеца Мана веучере н стоудѣна внна глаголю ѡстоатн въ тїн днѣ.

Мѣсеца Іоунїа вьспрїеман ѡтъ оутра мало водн радн жльчн.

Мѣсеца Юлїа ѡтстон зелїа н многа внна, вьзбранаюють бсѡ сїа пльтн н вьздвнжѣть недѡгъ.

Мѣсеца Августа стоудѣны воды ѡтстоатн, днне мало прїеман, іако мльчъ раждаюють, нскрѣпное болѣзнн сьхранан се.

Мѣсеца Септѣврїа, нже нменуєть се по елннскомѡ гѡрпїе, повелѣваю мєса іастн, въ сѣмъ мѣсецн н мало кровн поуштатн, занѣ бо настоїанїе знмїн н слабѡстн.

Galen on Hippocrates

The text is copied in a miscellany dated to the second third of the 15th century; it is kept in the Russian State Library (Moscow), in the *Collection of the Trinity Lavra of Saint Sergius* (Troitse-Sergieva Lavra), under record № 762. Previous editions of the text of this Russian version of the tractate *Galen On Hippocrates* [Галиново на Ипократа] (fols. 270v–274r) are published by Mil'kov, Polianskii [2008: 577–584]; Gerasimova, Mil'kov, Smol'nikova [2015: 379–384]. The manuscript is accessible online: <http://old.stsl.ru/manuscripts/book.php?col=1&manuscript=762>

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Galen on Hippocrates.

The world consists of four substances [ВЕЩИ]: from fire, from air, from earth, and from water, and so does the microcosm, that is, man, [who also consists] of four elements [СТОУХИИ], that is to say: from blood, from phlegm [lit. wetness], from red bile and from black [bile]. Since the appearance of blood is red in colour, while being sweet in taste, it is akin to air, as it is wet and warm. Phlegm, which is wet, is white in colour and salty in taste; and since it is wet and cold, it is akin to water. Red bile has a chilly appearance, but it tastes bitter and since it is dry and warm, it is akin to fire. Black bile has a black appearance, and its taste is sour; and since it is dry and cold, it is akin to earth.

Depending upon how these elements increase or decrease, or condense beyond their nature, or change or leave their places and go to other atypical places, they make men become ill in different ways and varieties. Let us say, for instance, where and in which places [each of the elements] is situated. Thus, phlegm is below the spleen.

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It is exhaled and flows out through the mouth and nostrils.

Blood is around the heart, in the enclosures, and from there it divides and goes through veins and arteries. When it increases, it is exhaled and flows out through the nose, because it cannot either pass through or get out from another [orifice].

Red bile is situated under the liver [ПОД ОУТРОБОЮ], in a bladder which is attached to it, and it is exhaled and [flows out] through the ears; that is why wax which we clear from our ears is in fact red bile.

Black bile is situated under the spleen, and it is contained in a sack attached to the inside of it. It is exhaled and [flows out] through the eyes, so that rheum [i.e. dried mucous] which we wash from our eyes is in fact black bile. When these aforementioned elements are distributed equally in the right way, the human body is in a healthy condition. Each of these above-mentioned elements increases and expands in a different age.

Thus in youngsters up to 14 years old, blood increases, similar to what it is like during the Spring in March, April, and May, because then it is wet and warm.

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In young people up to 30 years of age, red bile increases. This is what it is like during the Summer, that is to say, June, July and August, when it is warm and dry. For a man in his prime, until 45 years of age, black bile increases. This is like during the Autumn season, that is to say, September, October, and November, because then it is dry and cold.

In old men, in the age of 80, phlegm increases, that is to say, wetness, similar to what [the weather] is like during the Winter, when it is cold and wet.

Then again, in children, there is a warm and wet mixture [of elements], which results from the blood, and that is why they sometimes play, sometimes laugh; but when they cry, they are quickly comforted. In adolescents, the mixture [of elements] is warm and dry.

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This results from the red bile, which is why they are rather quick and daring. In a man in his prime, there is a dry and cold mixture, which results from black bile, which is why [people in this age] are very warm and steadfast. In old men, the mixture of cold and wet results from phlegm [lit. wetness], which is why [people in this age] are sad, weary, slow and forgetful, and when they get angry, they remain distressed. Look how blood makes the soul merciless and generous, while wetness and phlegm [make it] slow and forgetful, and red bile [makes it] rather honest and very robust. As for the cause and aetiology of diseases, we recognise it thus: to start with, it is related to age. If a child gets sick, the reason for this is blood. If an adolescent gets sick, it is because of red bile. If a person in his prime gets sick, the reason is black bile. If an old person gets sick, it is because of phlegm. In the second place comes the season. If illness occurs during the Spring, the reason for that is blood; if in Autumn, the reason for it is black bile. If [illness occurs during the] Winter, the reason for it is wetness [phlegm]. On the other hand, memory and showing wisdom in men is according to the mixture which is situated in the nape [occipit], and according to whether it is warm

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or cold. Forgetfulness is due to the cold nape. Insanity is due to the fiery and burning [lit. igniting] elements, because it emerges as a fiery steam from the intestines [var. liver, kidney, testicles], rising up through the place between the shoulders towards the nape; it is then when a man becomes insane, that is to say, loses his mind. So, as recommended [lit. said] by Hippocrates [ЕЖЕ ГЛЮТЬ ЕВ'КРАТО], it is necessary to massage his nape with balsam from the ointment / infusion of 'wild rose oil', and [ingredients] similar to it. The closing [palsy?] of the eyes, or disfiguring of the mouth, or of half of the face is due to the cold substance originating in the nape. [To treat these kinds of diseases], it is necessary to clear the nostrils and through them heat the head with hot steam.

Diseases which concern the head originate in the stomach, those being eye ailments, toothache, sore throat, withering [of a particular member], asthma, earache, hoarseness, vomiting, and similar [conditions]. The skull has seams, but there are seamless skulls which are all-in-one. These kinds of skulls are

also normal. The hair happens to be straight when there is a lot of wetness [phlegm] in the head. Then again, the hair is curly when the head is warm. The hair may be red, due to red bile, while the hair can be black because of black bile and cold wetness [phlegm].

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Baldness is due to the reduction of the fluid which nurtures the hair.

The ailments that are related to the head originate in the stomach. These are: numbness, [disease of] the glands, whiteness in the eye [cataract?], toothache, and swelling of gums [gingivitis?]. The beard, according to its growth, has five types: wide, or long, or small, or middle-size; there is also beardless, which means a lack of beard, and this is due to a decrease in the fluid which nurtures it.

The senses in men are five: vision, smell, hearing, taste, and touch. As for vision, it comes from ether, smell — from the air, hearing — from fire, taste — from the phlegm [lit. wetness], and touch — from the earth. Question: How many are the parts of the soul? Answer: Three — reason [lit. verbal], emotion, and will. Question: When is a person healthy and when is he infirm? Answer: The person is healthy when the above-mentioned four elements are mixed equally according to their strength and proportion, so that they balance and neutralise each other. Question: What is health? Answer: Health is a good mixture

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of the elements from which the body is composed, that is, [warmth], moderate dryness, coldness, and wetness. Question: What is the healer [var. physician]? Answer: The healer [var. physician] is a servant of nature, and a helper against disease. Perfect is the healer [var. physician] who is proficient in observing and acting impeccably while performing healing [var. therapy] according to real science [var. teaching]. Healing [var. therapy] is a skill [*technē*], a measurement for those who are healthy and convalescence for the sick. The human body has five limbs: two arms, two legs, and one head. Man also has 12 organs [lit. elements, *CTHXHE*]: head [lit. top], ears, eyes, nostrils, mouth, breasts, two hands, trunk [abdomen], knees, and two feet. Also, the year has four parts [lit. elements, *CTHXHE*]: Spring, Summer, Autumn, and Winter. The Spring begins on the 24th March and ends on 24th June. [This is the time] when the increase of blood takes place, which is why bloodletting should be done and purging of the stomach with the help of purgatives. For food, one should consume warm vegetables; overeating of fish is to be avoided, along with warm wine and late suppers. The Summer begins on the 24th June and ends 24th September. That is when the black bile increases. One should rest

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and not eat a lot. Avoid spicy [food]; it is fitting to drink cold water and abstain from late suppers; eat little cold fish, avoid purging the stomach, and bloodletting. The Autumn begins on the 24th September and lasts until 24th December. One should abstain from eating vegetables, as well as consuming cold water and much wine; avoid taking off clothes in the morning when the weather is cold, although it may be stuffy. Do not fall into anger and rage; avoid overeating of any kind of food. Do bloodletting and

purgings the stomach from noxious substances with a laxative when the Moon is waning. From the 24th December Winter begins and lasts until 24th March. Phlegm starts increasing, that is to say, the wetness [of the body]. Things which provide warmth should be consumed, which are: rapeseed (which is to say, mustard), radish, onion, garlic, leeks, pepper, ginger, cloves (that is to say, nutmeg); drink [infusions from] dill, boiled with honey and pulses; avoid overeating, as well as consuming fresh fish, vegetables, and late suppers.

About bloodletting. On the first day of the beginning of the lunar month

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perform bloodletting early [in the morning]; on the second day perform bloodletting at noon; on the third day perform bloodletting at noon; on the fourth and the fifth day perform bloodletting early [in the morning]; on the sixth day you should not perform bloodletting at all. On the seventh day you perform bloodletting during the entire day; on the eighth day perform bloodletting at noon; on the ninth day you should not perform bloodletting at all. On the tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth day you perform bloodletting during the entire day. On the sixteenth day perform bloodletting in the morning; on the seventeenth day you should not perform bloodletting at all. On the eighteenth day perform bloodletting in the morning. On the nineteenth day you should not perform bloodletting; on the twentieth day you perform bloodletting during the entire day; on the twenty-first day you should not perform bloodletting at all; on the twenty-second, twenty-third, and twenty-fourth day you perform bloodletting at any time; on the twenty-fifth day you perform bloodletting in the evening; on the twenty-sixth, twenty-seventh, and twenty-eighth day you perform bloodletting in the evening; on the twenty-ninth day you perform bloodletting in the morning; on the thirtieth day you should not perform bloodletting.

If a man suffers from scabs, perform bloodletting on the first day of the lunar month of May, and he will get rid of them [lit. will be cleansed from them]. If a man suffers from shivering or leanness, perform bloodletting from his right hand/arm on the 15th day of the lunar month of May. If a man suffers from fear, or sadness, or if he is lustful, then perform bloodletting from the left hand/arm on August 15.

If the throat is swollen, perform bloodletting from the main vein, above the central one. When someone faints during bloodletting, it means that he has [an overflow of] black bile, which at that time enters the heart. To whom this happens, a little cold water should be given, and the bile goes out of the heart, and nothing will happen to him; or else, before bloodletting, much water should not be drunk [in order to avoid fainting].

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Bloodletting is to be performed from the twenty-fifth day of the lunar month in March to the thirteenth day of the lunar month in May; bloodletting is not to be performed from the thirteenth day of the lunar month in May to the twentieth day of the lunar month in September. And [then again]: bloodletting is to be performed from the twentieth day of the lunar month in September to the twelfth day of the lunar month in November.

The rule about the days on which it is not recommended to perform bloodletting or healing; [these are:] the second and twenty-sixth day of the lunar month in January; the sixth and twenty-fourth day of the lunar month in February; the third and twenty-fifth day of the lunar month in March; the third and twenty-second day of the lunar month in April; the second and twenty-second day of the lunar month in May; the seventh and twentieth day of the lunar month in June; the sixth and twenty-eighth day of the lunar month in July; the sixth and eighteenth day of the lunar month in August; the second and twenty-first day of the lunar month in September; the eighth and twenty-eighth day of the lunar month in October; the second and twenty-first day of the lunar month in November; the second and twenty-second day of the lunar month in December. You need to know that it is good to perform bloodletting if the weather is clear [var. no clouds], provided it is not Wednesday or Friday.

About the quality of blood during bloodletting. If bloodletting is performed in the months of March, April, or May, or June, and [the blood of the individual] looks like sea-water, [the patient] will die at the beginning of winter. If the blood is light and does not contain pus, it indicates fever and frequent ailments. If the blood is clean and exudes a little yellow bile, the patient is healthy. In pleurisy, if there is yellow or green blood, [the patient] will die; if it is yellow, like thick arsenic, [the patient] will die in thirty,

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or six and a half days. If the person happens to be feverish and the blood [during phlebotomy] runs black and thick, s/he will soon die.

If the person happens to be [mentally] disturbed, or insane, or suffering from seizures, and if [during phlebotomy] thick green poison flows with his/her blood, s/he will die soon afterwards. The blood that [during phlebotomy] looks black, without pus, indicates fever. Yellowish blood indicates that s/he will live six more months or a year.

Pus-like blood indicates a change in the course of the disease. If the blood is green in colour, [the patient] will die in five days or a week.

If blood drops are found to be similar to writing, it indicates pregnancy. Blood that looks like arsenic and splatters like a jumping flea portends death. If the blood is like tar or like white pus or mud, it indicates putrefaction. Foaming blood indicates a cough and [?] illness. Blood with pus portends a speedy recovery. A blood clot with an indent in the middle

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indicates death. Blood which is foam-like and has the appearance of milk portends dropsy. Blood that is black and has a bad odour and has the appearance of burnt pottery predicts six more months to live. If bloodletting is performed from the central vein of the right hand/arm, it is good for the whole body. If bloodletting is performed from the main vein which is higher than the central one, from the same hand/arm — it helps against swelling of gums [?]. If bloodletting is performed next to the index finger, it helps against cough, and also [...].

On lunar days.

On the signs of the Zodiac that are benevolent, malevolent and ambiguous.

Aries, Gemini, Virgo, Pisces are beneficial and benevolent.

Cancer, Leo, Capricorn are malevolent.

Taurus, Libra, Sagittarius, Aquarius are between benevolent and malevolent.

Scorpio is more malevolent than the average.

The names of the months are [related to]: Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn, Aquarius, Pisces.

Beware [of the Moon] being in Scorpio, Cancer or Capricorn: do not start any activities,

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because these Zodiac signs are unpropitious and harmful.

If [the Moon] is in Aries, Gemini, Virgo or Pisces, then deal with the most important of all matters, because these Zodiac signs are the most blessed ones. And the other signs have been pointed out to you, some benevolent, some malevolent, or those in middle between them.

Do not perform bloodletting, do not collect medicinal herbs, do not drink them. See on what day the patient had fallen sick, and count [the numerical values of the letters in] his name; and [count] the days, and the lunar month from his/her birth; and when you have counted, divide it by thirty. And if the remnant is in the specified numbers, s/he will live, and if it is in the other numbers indicated, s/he will die. Life: 1, 3, 4, 10, 11, 14, 16, 19, 20, 22, 23, 26, 28. Death: 2, 5, 7, 8, 9, 12, 15, 17, 18, 21, 24, 26, 27, 29, 30; [be in] peace.

From experts [in weather forecast].

This is what is reported about certain matters by those who have carefully observed them; when both halves of the Sun appear like two [separate] suns, either to the east or to the west of the Sun itself, there will be rain. The same thing happens when the air thickens and the clouds fill with light. If it turns red on the north side, it signifies a wind blowing from the North, and if [it turns] on the south side, it signifies a south [wind]. If the sun is in the middle [of the cloud],

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then it portends heavy rain and a strong wind. When it darkens by fog rising from the earth and the Sun appears to the human eye like a burning coal, or, to put it more simply, the Sun appears to be bloody, then a sign becomes evident that there will be a storm in those places where much evaporating moisture has accumulated. But when the clouds seem to stretch out their threads or turn like fire, it will be windy and cold. Also, when the Sun appears to bend its rays to itself or is obscured by darkened clouds during

sunrise or sunset, it will be rainy and cloudy. If it is clear or crimson at sunset, it predicts that the day will be tranquil and clear. In the same way, the Moon gives many different signs [to those who observe its phases]. When it is clean and thin on the third day, it heralds long, calm weather. If it is thin, but not clean, and fire-like, it predicts strong winds. If the two horns of the Moon are equal or the northern horn is pure, then it heralds a south [wind]. But when it darkens during the full Moon,

[fol. 277v]

it rains. And when there are two crowns around the Moon, the air will be [turbulent]. And when the Moon is surrounded by a rim and appears to the people in this form, then it foreshadows a storm. When you find that her crown has darkened, it means that there will be prolonged bad weather. Omens from the Sun, it was said, were made known [by the Lord].

About the constellation of the Pleiades.

From the setting of the Pleiades to the winter solstice there are 49 days: from November 12th to the end of December. On the days of the winter solstice, the probability of the increasing of sputum occurs. [...] Therefore, bathing is necessary, and rubbing the body with dry oil. From the winter solstice until day and night are equal there are 84 [sic!] days, that is — from January 1st to March 15th. These are winter days. You should bathe and induce vomiting. From the autumnal equinox to the setting of the Pleiades there are 47 days; that is — from September 25th to November 12th. On these days, bodily ailments multiply and yellow bile increases. Drink vinegar, eat sweets, and wash often, and shun lust. If you obey this [regimen], then it will be good for you, [as it was the case with] the great King Ptolemy.

About the herb called peony.

If man's tongue gets entangled, fumigate him with incense from this herb, and it will get untied. Those who have [var. wear] its roots while travelling will never lose the way, and will not be afraid of either poison, or beasts. Its seeds, when drunk with wine, heal internal and external diseases. Fumigate your house with its leaves and its roots, and no unclean spirit shall ever enter into your home.

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галанново, на нпократа

Мнрѣ ѿ четьрь вецїи составн ѿ огня. ѿ въздуха. ѿ земли. и ѿ воды. составле же быч и малыи мнрѣ. снрѣ члкъ. ѿ четьрь стнхїи, рекше, ѿ крови. ѿ мокроты, ѿ чермныя желчи, и ѿ черныя. и кровь оубо, видѣнемъ червена. възшенїемъ * слака. поьна е въздухоу, яко мокра и тепла. флегма *, яж е мокротна. видѣнемъ бѣла, вкоушенїемъ * слана. поьна оубо

ЕСТЬ ВОДѢ. ІАКО МОКРА Н СТОУДЕНА. ЧЕРМНАА ЖЕ ЖЕЛУЧЬ. ВНАДѢНІЕМЪ ЛЮТА, ВКОУШЕНІЕМЪ * ГОРКА. ПО^БНА ОУБО Е^ ОГНЮ. ІАКО СОУХА Н ТЕПЛА. ЧЕРНАА ЖЕ ЖЕЛУЧЬ. ВНАДѢНІЕМЪ ЧЕРНА, ВЪКОУШЕНІЕМЪ * КЫСЛА. ПО^БНА ОУБО Е^ ЗЕМЛН. ІА^ СОУХА Н СТОУДЕНА.

СНМЪ ОУБО СТНХІАМЪ. ОУМАЛАЮЦН^ СА НЛН ОУМНОЖАЮЦН^ СА. НЛН СЪДЕБЕЛѢВАЮЦН^ СА ВЪШЕ Е^ СТВА СВОЕГО. НЛН ПРѢМѢННВШН^ СА Н СТОУПЫШНМЪ СЪ СВОН^ МѢСТЪ. Н ПРОХОДАЦН^ В НЕОБЫЧНІА МѢСТА. МНОГОСЪБРАЗНО Н МНОГОРАЗАНЧНО СЪТВОРАЮ^ ЧЛКА БОЛѢТН РЕЧЕМЪ ОУБО, Н ГДЕ, Н ВЪ КОН^ МѢСТѢХЪ ПРѢБЫВАЮ^ . МОКРОТА ОУБО, ПО^ СЕЛЕ-

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ЗЕНОЮ БЫТН ЕН. ПРОДЫХАЕ^ ЖЕ Н НСХОДН^ СКВОЗѢ ОУСТА Н НОЗ^РН.

КРОВЬ * ПР^БЫВАЕ^ СКОЛО СР^ЦА ВЪ ПРѢГРАДѢ. Н СТОУ^ РАЗДѢЛОВАЕ^ СА Н ПРОХОДН^ СКВОЗѢ ФЛЕВЫ. І АРТНРІЮ. Н КОГ^А ОУМНОЖНТ СА, ПРОДЫХАЕ^ Н НСХОДН^ СКВОЗѢ НОСЪ. Н НОУДѢ БО НЕ МОЖЕТЪ НН * НМА^ НЗЫТН.

ЧЕРМНАА ЖЕ ЖЕЛУЧЬ, ПРѢБЫВАЕ^ ПО^ ОУТРОБОЮ ВЪ ПРНЛѢПЛЕНОУЮ ІАТРОУ МОШННЧУНОУЮ, Н ПРОДЫ^ЕТЬ СКВОЗѢ ОУШН. КАЛЪ ОУБО ЕГО* НСУНЦАЕМЪ ВО ОУХО ТО ЕСТЬ ЧЕРМНАА ЖЕЛУЧЬ.

ЧЕРНАА ЖЕ ЖЕЛУЧЬ. ПО^ СЕЛЕЗНОЮ Н ТА ПРѢБЫВАЕ^ ВЪ ПРНСАЖЕНОУЮ ВЪНОУТРЬ МОШННЦОУ. Н ТА ПРОДЫХАЕТЪ СКВОЗѢ ОУН, ГЕРЕЛН БО ІАЖЕ НЗЫМАЕТЪ СЪ ОУІЮ, ТЫА СЪ ЧЕРНІА ЖЕЛУЧ СОУ^ СНА ПР^РЕ^НІА СТНХІА. ТОКМАЦН^ СА Н РАВНО ПРѢБЫВАЮЦНМЪ ЗДРАВСТВУЕ^ ЖНВОТНОЕ ЧЛКЪ. ВСАКЫН БО ВЪ ПРѢДЪРЕ^НІА СТНХІА. ННЪ ННѢМЪ ВЪЗРАСТОМЪ РАСТЕТЪ Н МНОЖН^ СА.

ПАЧЕ * ОУБО ВЪ ОТРОЧАТН, ДО, ДІ. ЛѢ^ . ОУМНОЖАВАЕТ СА КРОВЬ. ІАКО* Н ВЪ ПРОЛѢТІН. МАРТА. АПРН^ . МАНА. ЗА Е* БЫТН МОКРОВА Н ТЕПЛА.

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ВЪ ІУНОШН * , Л^-ТН^ ЛѢТΩ^ . ОУМНОЖАЕ^ СА ЧЕРМНАА ЖЕЛУЧЬ. ІАКОЖЕ Н В ЛѢТО, СНРѢ^ , НІОНА ІУЛА, АВГОУ^ . ЗА ЕЖЕ БЫТН ЕМОУ ТЕПЛОУ Н СОУХΩ . ВЪ СОВЕРШЕНОМ ЖЕ МОУЖН, М^ Н ПАТН^ ЛѢТО^ ОУМНОЖАВАЕТ СА ЧЕРНАА ЖЕЛУЧЬ. ІАКО* Н ВЪ ЕСЕ^ . СНРѢ^ , СЕПТЕВРІА, СЪКТОМВРІА, НОЕ^ВРІА. ЗА Е* БЫТН ЕМОУ СОУХОУ Н СТΩДЕНОУ.

ВЪ СТАРОМЪ * , П^-ТНМЪ ЛѢТОМЪ, ОУМНОЖАВАЕ^ СА ФЛЕГМА, СНРѢ^ МОКРОТА. ІАКО* Н В ЗНМѢ СТОУДЕНА Н МОКРА.

Н ОУБО СЪТРОЧАТОУ Е^ РАСТВОРЕНІЕ ТЕПЛО Н МОКРО. ІАКО СЪТЪ КРОВН. Н ЕГОЖЕ РАДН ОВОГДА НГРАЮ^ . СЪВОГДА СМѢЮТ СА. Н ЕГДА ПЛАЧЮТ СА, СКОРО ОУТѢШАЮТ СА. ІУНОШН ЖЕ РАСТВОРЕНІЕ ЕСТЬ ТЕПЛО Н СОУХО.⁹⁷

97 Half of the page is left blank; the handwriting on the following page suggests that the next part of the composition is copied by another scribe.

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іако ѿ чрѣмныа жлъчн. н сего ра^{аі} бор'зѣнши. н сверѣпѣнши. Свѣрѣшенаго * моужа раствореніе е^с соухо н стоудено, іако ѿ чрѣмныа жлъчн. н сего ра^{аі} соу^т теплѣнши блѣгостоателнѣнши, старому * раствореніе е^с стоудено н мокро, іако ѿ мокроты. сего ра^{аі} соу^т печалнн н дѣрахлн н кѣснн, н непаматлнн. н егда гнѣвают са пребываю^т неоутѣшнн. Н се внж^а іако кровь оубо, мл^ствоу н податлннв сѣдѣловае^т дш^о. мокрота * е^с флегма, кѣснѣншиа забытлнва. чрѣмнаа * жлъчъ, ч^стнѣнша н блѣгостоателнѣнша. поднаваю^т * е^с непщеваніа, н внны болѣзне^м. прѣвѣ оубо ѿврѣсты, аще оубо отроча е^с болан, кровь е^с внновна, аще лн юноша, чрѣмнаа жлъчъ, аще лн свѣрѣшенъ м^ж, чрѣмнаа жлъчъ. аще лн старъ флегма е^с ѡскрѣблаюціа. второе * познавае^т с. н ѿ временъ внна. аще оубо пролѣтное време е^с, кровь повннна. аще лн есень, чрѣмнаа жлъчъ повннна е^с. аще лн зима, мокрота повннна е^с. а е^ж помнѣтн н м^рьствоватн, бы^ве^т ч^лк^о ѿ блѣгостаствовена тыла, срѣ^в, н * полъ нмѣщом^с теплот^с

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н стоуденъ тылѣ, забытне * бывае^т ѿ стоудена тыла. ѿ огньныхъ * н палтелныхъ естѣвѣ бывае^т безоуміе. ѡгньнѣн бо парѣ сквозѣ меж^аораміе нспоуцаемѣ ѿ іатрѣ къ тылоу. н бывае^т безоуменъ ч^лкъ, срѣ^в нстоупленіе оума н по^абае^т растворенымн маслы, еже глѣютъ ев^крато, помазоватн тылѣ, срѣ^в, шпкково масло, н по^абнаа семоу. скрнвленіе бывающе окоу, нлн оустна^м, нлн полъ ѡбраза. н се ѿ стѣденѣнша естѣства подаваемо ѿ тыла, въ ннхъ * по^абае^т сквозѣ ноз^арн ѡчнцатн. н ѿ вѣнѣ парамн ѡгньнымн напарнватн главоу : —

Елнка * стра^анїа бываю^т главѣ бываю^т главѣ. ѿ стомаха на^вло нмоу^т, іаже сж^т болѣнїе оунма, болѣнїе зѣбом^б, болѣнїе грѣлоу. сжхотнаа, оудшїе. болѣнїе оушнма, ѡснппоутїе, блѣланїе, н по^абнаа сн^м : — Нмать * глава шьвы, ѡбрѣтае^т же с^н н самотворна глава ненмоуцн шьвѣ, н та з^арава е^с. просто косма * бывае^т глава ѿ многыа м^окроты нже въ главѣ, коудрѣва * бывае^т, тепл^а сжцн глава. чрѣмность власѡ^м, ѿ чрѣмныа жлъчн. чрѣмность *, ѿ чрѣмныа н стѣденыа мо-

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кроты. плѣшнвѣство *, ѿ еже ѡскѣдѣватн, тннѣ, пнтаюцнн власы : —

Елнкы страстн бываю^т въ главѣ, ѿ желѣдѣца нмоу^т на^вло, іако *, смѡлкота, железа, вѣла на оу^іо, зоубо^м болѣзне въ невцн ѡтокѣ, рекше іагоднца : — **Б**радѣ * прнбытцн, е. шнрока, длѣга, мала. срѣднн, н спаность, еже е^с скоудость брадѣ, н се ѿ оскоудѣнїа пнтѣюцнн тннѣ е^с : — **Ч**ювства * въ ч^лцѣ сж^т, е. зрѣнїе, ѡбонанїе, слышанїе, вѣкоушенїе, ѡсазанїе. н оубо зрѣнїе, ѿ ефера, ѡбонанїе ѿ вѣзджха, слышанїе ѿ огна, вѣкоушенїе же ѿ мокраго, ѡсазанїе же, ѿ земаля : — **в**ьпро^с, **К**олн^кі сж^т дшѣвныа частн. ѿвѣ^т. **т**рн. **с**ловесное, **і**аростное. **н** желателное. **в**ьпро^с. **к**ог^а з^аравствѣе^т ч^лкѣ, н къгда нзнемогае^т. ѿвѣ^т. **з**равствѣоуе^т оубо, ког^а съуетателно по снлѣ н равностоателнѣ стоа^т чѣтыре стнхїа прѣ^арѣнїныа въ все^м равенствѣ * н оутншнн. **в**ьпро^с, **ч**то е^с з^аравїе. ѿвѣ^т. **з**равїе е^с блѣгора-

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створеніє пръвы^м, ꙗко нхъ^ж съставлено е^с тѣло. ꙗко бл҃госоухаго. стоуденаго, мокраго. **В**ъпро^с. **ч**то е^с врачъ. **Ѡ**вѣ^т. **в**рачъ е^с естѣствоу слоужнѣ^н въ болѣзнь^х подвижннкъ. и съврѣшенъ е^с вра^ч, нже вндѣнїемъ и дѣанїемъ нскоусѣ^н. нзра^ннѣншн^ж, нже вса твора и врачеванїн по правому словоу : **в**рачевѣство е^с хытро^с, мѣра з^аравѣствоующн^м, и нсцѣлантел^аство болащнмъ. **ч**лѣкѣ нма^т частн, в' тѣлѣ, **б**. роуцѣ, двѣ. нозѣ, двѣ, и главоу. **с**тнхїе же, **б**ї, врѣхъ, оушн, оун, ноз^арн. оуста сесцн, роуцѣ двѣ, тѣло, колѣнѣ, нозѣ двѣ. **н**мать^ж и годнна, стнхїе чѣтыре, пр^олѣтъ. лѣто, есень, знма. **а** весна оубо начннаеть^с, ꙗко **к**д. марта м^сца, да^ж до, **к**д понїа, бываеть^ж оумноженїе кровн. по^абае^т оубо пжцатн кровь. и творнтн ѡунценїе оутровѣ съ вонфїмою. **п**нца^ж, зѣлаїе тепл^о. вѣжатн^ж сытость рыбноую и вена тепл^а. и ве^ранїа поз^ана. **л**ѣто^ж начннаеть^с, ꙗко, **к**д. понїа да^ж до, **к**д, се^н, бываеть^ж оумноженїе чрѣныа жлѣчн, и по^абае^т себе оупоконтн, и не

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частн много. ѡгреватн же^с елка соу^т люта. и пнтн по^абае^т водоу стоуденоу, и ве^ранїа поз^ана ꙗлоучатн са. частн^ж рыбы стоудены мало. оунценїа же оутробы, и поущанїа кровн вѣжатн. **Ѡ** **к**д, же септеврїа начннаеть^с есень, до, **к**д, **д**е^к, и по^абае^т ѡшапатн^с, ꙗко вѣкѣшенїа ѡвощен, и стоудены^х водѣ, и мно^жства внна, и оутренїнхъ стоудены^х, и не съвлачнтн себе аще и дѣшно боуде^т. и храннтн себе ꙗко гнѣва и яростн, и ꙗко всакыхъ спѣден множа^жства. поущатн^ж кровь, и оуунчатн оутрова ꙗко іада вонфїмою оумалївшн са лоунѣ. **Ѡ** **к**д, же **д**е^к, да^ж до, **к**д, мар^т. начннаеть^с знма. оумножае^т же^с флегма, іа^ж е^с мокрота. по^абае^т^ж частн, елка нмоу^т теплотоу, іа^ж сж^т сїа, напѣ, снрѣ^ч, грѣчнца ре^квы, лоукѣ, чѣснокѣ, прасѣ, пнперѣ, зннцнверѣ, карофалѣ, снрѣ^ч ѡрешкы мѣскатны. пнтн^ж и оукропѣ с медо^м, и мѣсто^м варены^м нже глїотѣ нѣнмо. ѡгреватн же^с сытостн, рыбѣ свѣжн^х, и ꙗко зѣлаїа, и ве^ра поз^аны : — **ѡ** **к**ровопѣщанїн, **Н**аставшѣе лоуны, **а**,^т

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днѣ рано поущан, **в**, **д**нѣ полоуднн поущан. **г**, **д**нѣ полоуднн поущан. **д**, **е**, рано пжцан, **с**, ве^сне поущан, **з**, ве^сне поущан. **н**. по^аднн поущан. **ѡ**, ве^сне поущан. **ї**. **а**ї. **б**ї. **г**ї. **д**ї. **е**ї ве^сне поущан. **с**ї, оутрѣ поущан. **з**ї, ве^сне поущан, **н**ї, оутрѣ поущан. **ѡ**ї, ве^сне поущан. **к**. ве^сне поущан. **к**а, ве^сне поущан. **к**в, **к**г, **к**д, ве^сне пѣщан. **к**е, ве^р поущан. **к**с, **к**з, **к**н, ве^сне поущан. **к**ѡ, оутре поущан, **л**, ве^сне поущан : — **А**ще боуде^т на **ч**лѣцѣ **с**троупѣ, да поустнтѣ кровь, маїа лоуны **а**. **д**нѣ. и боуде^т ч^стъ : — **А**ще боуде^т въ **ч**лѣцѣ стѣденъ нлн сжхота, да поустнтѣ кровь, маїа лоуны, **б**. нс правое ржкы : — **А**ще боуде^т въ **ч**лѣцѣ оужастѣ, нлн тоуга, нлн полоханвѣ, да поустнтѣ кровь, авгоу^с, **б**. нз лѣвое ржкы : — **А**ще горло затѣче^т, поустн кровь нз' главныа жїла выше съборныа. **Е**г^а кто ѡбѣоумнрае^т въ кровопоущанїн, нма^т чрѣноу жлѣчѣ, и падае^т в то время на ср^аце. комоу сїе бывае^т даваю^т емоу воднцоу стоуденоу ма^а. и ѡбѣгае^т ѡна жлѣчѣ ꙗко ср^аца, и не бывае^т емѣ ннчто, нлн прежае поущанїа да не пїеть мало : —

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† **поуцае^т же кровь**, $\overline{\text{сѡ}}$, $\overline{\text{кѣ}}$, -го мартовы лж^н. до, $\overline{\text{г}}$ -го маіевы лоуны. а $\overline{\text{сѡ}}$, $\overline{\text{г}}$ -го маіа лоу^н, до, $\overline{\text{к}}$ -го, се^н. лоу^н, не поуцатн кровн, а $\overline{\text{сѡ}}$, $\overline{\text{к}}$ -го се^н. лоу^н, до, $\overline{\text{в}}$ -го ное^мврїа лоу^н, поуцатн:—

† **правнло днѣ^м въ наже нелѣпо е^с кровь поуцатн, нн врачеватн.** ге^нвы лоу^н, $\overline{\text{в}}$. $\overline{\text{к}}$. $\overline{\text{с}}$. **февъ** лоу^н. $\overline{\text{с}}$, $\overline{\text{к}}$. $\overline{\text{д}}$. **мар^твы**, лоу^н, $\overline{\text{г}}$. $\overline{\text{к}}$. $\overline{\text{е}}$. **апрн^а**, лоу^н, $\overline{\text{г}}$. $\overline{\text{к}}$. $\overline{\text{в}}$. **маіевы** лоу^н, $\overline{\text{в}}$. $\overline{\text{к}}$. $\overline{\text{в}}$. **по^н**, лоу^н, $\overline{\text{з}}$. $\overline{\text{к}}$. **по^а**. $\overline{\text{с}}$. $\overline{\text{к}}$. **авг⁸**, лоу^н. $\overline{\text{с}}$, $\overline{\text{н}}$. **се^н**, лоу^н. $\overline{\text{в}}$, $\overline{\text{к}}$. **сѡкто^в**, лоу^н, $\overline{\text{н}}$. $\overline{\text{к}}$. **ное^м**, лоу^н, $\overline{\text{в}}$. $\overline{\text{к}}$. $\overline{\text{а}}$. **де^к**, лоу^н. $\overline{\text{в}}$, $\overline{\text{к}}$. : — **вѣ^атн** * по^абае^т когда бывае^т ведро, н кромѣ сре^а, н па^тка, добро е^с кровь поуцатн : — **сѡ кау^ствѣ^с кровн, егда поуцатн.** М^сца мар^т, нлн апр^і^а, нлн маіа, нлн по^н, аще кровь пѣстнтъ кто, н потеуе^т прнлнкоу нмѣщн морьскон водѣ таковому, знмѣ научнаюцн, смертъ бывае^т : — **Аще** * лн кровь свѣтла боуде^т, н гноа не нма^т. трасавнцоу н часты педжгы сказоуе^т. аще * лн чїсты соу^т. н $\overline{\text{сѡ}}$ частн іадѣ жлѣтъ $\overline{\text{сѡ}}$ рнгае^т з^аравн соу^т, прн плеврнтѣ. аще $\overline{\text{сѡ}}$ брацет са крѣвь жлѣта, нлн зелена, оумнрае^т, аще лн жлѣта іако арсеннкъ гоустъ, нлн въ, $\overline{\text{л}}$ -тн^х,

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днѣх, нлн въ шестн^х н по^а оумнрае^т. аще лн * сжхоа^в боуде^т емоу * кровь поустнт са, н потеуе^т кровь чрѣна гжста въ скорѣ скончатн ^снмать. аще лн * кто вредовнтъ сжщѣ нлн забытан^в нлн нзоумленѣ. н кровь поустнтъ, н потеуе^т съ кровїю, іадѣ зеленѣ съг^сщенѣ, по взатїн кровн въ скорѣ скончает са. **Кровь** * потекшіа весма чрѣна н гнон нестворшн. трасавнцоу сказоуе^т, **Кровь** жлѣта $\overline{\text{сѡ}}$ ноу^а наивлаемѣн кровн, шестомѣсауынн жнво^т іавлае^т, нлн годнцны : — **Кровь** гноевндна, нзмѣненїе педжга сказоуе^т. аще лн зеленѣ $\overline{\text{сѡ}}$ бразѣ кровн боуде^т. па^тдневенѣ, нлн не^алю скончатн са нма^т, аще лн * н ремнцн кровнїн іадовнтн $\overline{\text{сѡ}}$ брацоут са іако^ж наурѣтанїе пло^авъ преіавлае^т. **Кровь** $\overline{\text{сѡ}}$ бразѣ нмоуцн арсеннка, іако плоунца $\overline{\text{сѡ}}$ скачаюцн, смртъ сказоуе^т. аще лн іако смола, аще лн іако гнон вѣлѣ, нлн тнна, съгннтїе сказоуе^т. **Кровь** пѣноу нмжцн. кліоую волѣзнь н кашель сказоуе^т. **Кровь** съ гное^м, з^аравїе въ скорѣ назнаменае^т. **Кровь** нмоуцн посре^а

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долѣ, смртъ назнаменоуе^т. **Кровь** пѣновндна н млековндна, смра^а оубрѣжннн н водны трж^а сказоуе^т. **Кровь** чрѣна, н сѣмрѣдацн нмоуцн же лнца керамнновндны, шестомѣсауынн жнво^т іавлае^т, **Въ** ржкоу десноую аще кровь поустнтъ въ соборноую флевою, ползоуе^т все тѣлѣ. Главнаа же выше съборныа то е^ж ржкы, ползоуе^т $\overline{\text{сѡ}}$ іагоде. **Блнзѣ** же велнкаго прѣста $\overline{\text{сѡ}}$ кашла, так $\overline{\text{сѡ}}$ жде $\overline{\text{сѡ}}$ іатрѣ : —

† **жнвотннн, сѡ лжнны^х днѣх^х :** — **сѡ оудовны^х зодїсѡ^х, добры^х н злы^х, н посре^анн^х.** овенѣ, блнзнецѣ, $\overline{\text{д}}$ $\overline{\text{в}}$ $\overline{\text{а}}$, рыбы, оубодны * н добрн : — **ракъ, левъ, козоро^т.** злн : — **юне^ц, іаре^м, стрелецѣ,** водо^лн, сре^а злы^х, н добры^х : — **скорпїн, зліе $\overline{\text{сѡ}}$ среднн^х — М^сцн крїсѡсъ, таврсѣ, дїднмо, каркы^н, легѡн. парфенѣ, гїѡсъ, скорпїе, токоте. егокеро. н др^охосѣ, н хвїасѣ. вѣннман прочее, ког^а $\overline{\text{сѡ}}$ бр^ащешн еа. тдѣ е^с разоумѣн, да ег^а боуде^т на скорпїсѣ, нлн на ракоу, нлн на козорозѣ, на^ало работѣ не творн, поне^ж полезна н съ-**

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протнвна сж^т жнвотна таа. **А**ще лн^ж буде^т на сѡвнѣ, нлн на блнзцацѣ, нлн на двѣ, нлї на рыба^х, **Т**огда велнчанаа работы іа^ж нмашн творн. поне^ж бл^свенѣнша сж^т жнвотна тае прочее іавнхо^м ва^м, жнвотнаа. полезнаа н неполезнаа. прочаа^ж сре^анаа сж^т : — **н**е поуцан кровн, нн былїа берн, нн пїн нхѣ. **П**онції въ кон днѣ разболѣл са е^с болан, н сѣути нма его, н днѣ н лоуны. ѿ рож^аенїа. н сѣунта^б сїа сѡставн на, л̄, н сѡставшаа аще боудоу^т въ ре^вны^х чнсло^х, жнвѣ боуде^т. аще лн въ ре^вны^х оумре^т, жнво^т. а̄, г̄, д̄, г̄, аї, дї, сї, ѿї, к̄, к̄в, к̄т, к̄с, к̄н. смертѣ, в̄, е̄, ѳ̄, з̄, н̄, ѳ̄, вї, еї, з̄ї, нї, к̄а, к^а, к̄е, к̄з, к̄ѳ, л̄ мнрѣ : —

Глїотъ нже ѿ то^м хнтро смотрнлн, егда боудѣ^т сѡба полы слнца, акн двѣ слнцѣ сѣтворївшн, сжцоу слнцоу на вѣстоцѣ нлн на западѣ. до^ж бывае^т, егда нзра^ацею оуцнстнт са въздоу^х, н нсплннт сѣѣта сѡбла^к. да ег^а ѿ сѣверныа страны сѣверннѣ^т, то сѣверныа знаменоуе^т боудоуцѣ. і ег^а ѿ южныа то югѣ ег^а лн сѣ сѡбою странау боуде^т. а слнцоу посре^а

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сжцоу, тог^а дож^а много. н раменѣ вѣ^трѣ назнаменоуо^т, ег^а ѿ мегленаго възгорѣнїа іаже ѿ земаа вѣскаженїа, ѣернѣнша боудоу^т. слнчннн крж^т акы оугль горюцѣ, іавнт са ѡлѣ^вскоу зракоу, нлн просто рецн акы кроваво слнце боуде^т. **Т**о іавѣ знаменае^т, іако моу^т нма^т на ты^х мѣсте^х бытн. на ннх^ж мокрота многа вѣскоурннше^с, но ег^а акы власы простре^т, нлн погора^т сѡблацн, то вѣтрено боуде^т н студено. і ег^а лоуча своа само к^а себѣ прннбаа іавнт са, нлн по ѡрнѣвшнмї сѡблакн дрѣжнмо, іако начне^т вѣсходнтн то дож^аевно боуде^т н моутно, нлн пакы захо^ант чнсто нлн загорнт са, то оутншїе іавлае^т н іаснѣство. **Т**акож^а н лоуна творн^т многа знаменїа разлнчна. въ третїн бо днѣ ег^а вѣде^т тон^ака н чнста, то длѣгоую тнхость знаменае^т. аще лн тонка боуде^т по нечнста по акн огннна. вѣтрына знаменоуе^т рамены. аще лн сѡѣма рогома равна са іавлае^т нлн сѣверннн рогѣ чнстѣ боуде^т, то знаменаю^т югѣ вываюцѣ. но егда поурнѣ^т пльна сѣцїї

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сѣѣта, то дож^аева бываю^т, і ег^а боуде^т тонка сѡба полы. бывае^т ^ж то въздоу^х, і егда акы вѣнець вѣкржннт са ѿ лоуны іавлае^т вѣ^атн моутъ бываюцѣ, ег^а лн са поурнѣвшн, то кто н сѡбраце^т. то продлѣженѣ моутъ іавлае^т. ѿ знаменн же слнца г̄в̄ нзвѣща г̄л̄а : — **ѿ** власоже^лцѣ^х : —

ѿ запада ^ж власоже^лецѣ. до възвращенїа знмнаго. е^с днѣн, мѳ. снрѣ^в, вї, м^сца поемврїа. до конца деке^мврїа. тн днѣ сж^т знмна^т възвращенїа. расте^т ^ж в нн^х сѡхра^к много, с̄. тѣмже требоун бана, н масло^м соухо^м трн свое тѣло, ѿ възвращенїа знмна^т, донде^ж оудалнт са днѣ с ноцїю. то е^с, п̄. д̄. снрѣ^в ѿ перва^т днѣ м^сца генва^р. до патаго на деса^т мар^та. тн днѣ знмнн сж^т. по^абае^т требатн бана н блеванїа то сѡсенна ^ж ладо^днїа, до вл^асоже^лскаго захож^аенїа. е^с днѣн, м̄з. снрѣ^в ѿ к̄е. септемврїа, до, вї. днѣн поемврїа. всн^х дне^х оумножают са злобы телесныа. н жлѣтаа кржнна, трѣбоун оуксжса н сла^ако іаждѣ н часто мы са, а похотн ѿноу^а ѿмѣтан са

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аще тако храннши тог^а добрѣ прѣбоу^аши превеланкы црѣю ПТОЛЕМЕЮ : — ѿ БЫЛН ГЛѢМѢМЪ
БЖОУРЬ. Ег^а комоу боу^а ѿЗЫ^ксваза^а да каднт са с нн^м н рѣшнт са ѿ сѣоузѣ. ПОСА КОРЕНЬ ЕГО НЕ
ЗАБЛОУДНТЬ ѿ ПОУТН, НН * БОНТ СА ѿ ТРАВЫ, НН * ЗВѢРЕН, ПО Н СѢМА ЕГО СЪ ВІНО^м ПІЕМО. НСЦѢЛЕНІЕ
БОЛѢЗНЕН СВОИ^х. ВЪНОУТРЫШНН^х Н ВЪНѢШННХЪ. ПОКАЖАИ Н ДО^м СВОИ С ЛНСТВІЕ^м С КОРЕНЕМЪ ЕГО
: — НЕ ВНИДЕ В СОНѢ ДЖХЪ НЕУНСТЬ : —

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Semiotics of the Sky - Commentary traditions in Jacob of Edessa's *Hexaemeron*

Stefanie Rudolf

“Even if ‘commentary’ was not acknowledged as a distinct genre in antiquity, modern scholars are free to identify such a genre in the context of their investigations.”¹

1. Introduction

1.1 Overview

Jacob of Edessa (630-708) is one of the most renowned figures among Syriac scholars and theologians.² Having studied in Alexandria, Antioch and Qennešre (under Severus Sebokht), he became bishop of Edessa in 684 and engaged in the fields of grammar, theology, philosophy and (Greek) sciences.³ Among other texts he translated the Aristotelian *Categories* and the *Prior Analytics* into Syriac.⁴ Jacob was the first Syriac author who wrote a full-fledged commentary on the Creation⁵ - his well known but understudied *Hexaemeron*.⁶ A source study on the first, second and fourth part (*mēmra*) of this comprehensive text with translation was undertaken by GREATREX 2000 (including text edition).⁷ Earlier studies cover limited topics like zoology, angelology, botany or the particular influence of Greek authors like Ptolemy, Pseudo-Dionysius etc. in Jacob's *Hexaemeron*.⁸

A very enlightening outcome of WILKS' (formerly GREATREX) deep study of the text was an article from 2008 in which she demonstrated Jacob's liberal treatment of the generally accepted Aristotelian

1 HARTOG 2017: 30.

2 This paper was the outcome of a workshop on commentaries held at the Max Planck Institute for the History of Science in Berlin in August 2016. I am grateful to my colleague Dr. Yousef Khouriye who read and discussed the text sample with me several times, to Katharina Köhler for her smart review, and I am deeply indebted to the ideas offered by Prof. Bas ter Haar Romeny, who did not get tired to discuss this text with me over and over again and who offered a lot of solutions to irresolvable questions.

3 For an overview see Kruisheer 2008, several studies are dedicated to his life, his grammar, his canons and his translation of Aristotle's *Categories*, s. Hugonnard-Roche 2008, Romeny 2008, Ibrahim 2010, King 2010.

4 See VAGELPOHL 2010: 16-7.

5 See BAUMSTARK/RÜCKER 1954: 191-2.

6 There are two complete editions of the Syriac text (Chabot 1928, Çiçek 2010: Chabot 1928 offers a facsimile edition of the 9th-century Lyon manuscript, variants from the Leiden manuscript are given in an appendix, so that all extant versions are included. The edition by Çiçek is a copy of the 9th-century Lyon text from Chabot. GREATREX 2000 offers Memre 1, 2, and 4 according to Lyon with the Leiden material in footnotes) and a Latin translation (Vaschalde 1932). Until now there is no English translation of the work as a whole. At least there is an English excerpt by GREATREX 2000 and a French one by Martin 1888.

7 The publication of the thesis remains a desideratum.

8 See the bibliography of KRUISHEER 2008: 274-5.

cosmological system. In this brief article I want to continue her approach and examine a passage on the heavenly lights. In addition the following questions will be addressed: How can the *Hexaemeron* be defined in terms of genre? To what extent does Jacob's *Hexaemeron* function as a commentary? How is Jacob treating his sources? Which traditions does he follow? What place do the sciences occupy in his writings?

1.2 The concern of hexaemeral literature

The *Hexaemeron* literature⁹ deals with the work of Creation in six days.¹⁰ The individual texts, however, vary due to their genre, length and style. It was not only the platform for a detailed treatment of a very interesting part of Genesis but also developed into a synthesis of Greek philosophical ideas with the established monotheistic creed. Philo of Alexandria (d. 40 C.E.) mentions the term for the very first time accordingly: *πρότερον μὲν ἐν τῇ ἑξαήμερῳ τὰ γένη τῶν παθῶν καὶ τὰς ιδέας εἰργάζετο* "Earlier during the six-day period, he (God) made the different kinds of passions and the ideas" (Leg. all. 2,12), a clear reference to the Platonic teaching of pre-existing ideas.¹¹ The harmonization of philosophy and religion is further transferred by Philo to the person of Moses: he appears not only as a man of religion but is treated as a philosopher in other passages of the text as well.¹² Philo's work became decisive for later generations of authors, even though his model was not consistently followed.¹³

The interpretation of Genesis was formative for the constitution of exegetical traditions. Subtle differences in interpretation could be used to defend major points of difference in belief. These questions pertain to the preexistence of the *Torah* (v.i.), the question of good and evil, or the Trinity. King (2010: 6) is convincing in his claim that philosophy was not endangering theological doctrines.¹⁴ Philosophy was,

9 The best known writings on the *Hexaemeron* are by Basil of Caesarea (d. 379) and by Ambrose of Milan (d. 397). Basil treats the physical world, the Earth, and the planetary system only on the side. His main topic is the praise of the oneness of the Creator, who stands outside of nature, and the Creation as a whole. His interpretation is of a rather literal (as against allegorical) type.

10 The Greek term *ἑξαήμερος* is a compound adjective from the numeral prefix *ἕξ*- 'six' and the root *ἡμερ*- 'day', meaning 'of six days'. It is often found as substantive derived from its attributive use: *ἡ ἑξαήμερος* (sc. *περίοδος*) and *τὸ ἑξαήμερον* (sc. *ἔργον*).

11 MONDÉSERT 1962: 112.

12 Johannes Philoponos (490-575) in his *De opificio mundi* compares the account of Moses (Genesis) with a passage of Plato's *Timaios* on the creation of the world. In his view Plato wrote his account after Moses and with clear reference to him, see SCHOLTEN 1995: 40.

13 In his approach TEN NAPEL 1987 attempts to classify *hexaemeral* literature and offers a scheme consisting of a) introduction with detailed justification of the topic, b) distinction between God as the active cause of Creation and the Creation as the passive entity, c) argument that time could not exist before the completion of the Creation's process (= intemporal Creation), d) idea of a *κόσμος νοητός*, e) proclamation of the nobility of the Creator and the wisdom of the Architect. Each of these sections would be followed by an OT passage and extended by "Origenistic additions". See TEN NAPEL 1987: 58.

14 Apologetic works referring to pagans are mostly translations like Basil of Caesarea's *Hexaemeron*, c. the following quote: "Shall I show forth the vanity of the Gentiles? Shall I exalt the truth of our faith? The philosophers of Greece have made much ado to explain nature, and not one of their systems has remained firm and unshaken, each being overturned by its successor. It is vain to refute them; they are sufficient in themselves to destroy one another." SCHAFF/WALLACE 2007: 53.

on the contrary, a key element for climbing the spiritual ladder as can be exemplified by the commentary on Aristotelian logic by Sergius:

The Graeco-Syriac philosopher Sergius of Reš'aina, although he wrote in the prologue to his commentary that logic was necessary to the study of theology, never seeks to make use of the former directly in the service of constructing Christological definitions. What he rather had in mind was to ground his teaching curriculum in demonstrative logic (King 2010: 6).¹⁵

This quote emphasizes the high rank of Greek philosophy in early Syriac culture as a method. At the risk of generalisation, the biblical commentaries were not intended as apologetic works exclusively towards Greek philosophy, but rather towards pagan cults and the Jewish belief. The defence is sometimes even turning into polemics, as we will see below.¹⁶

2. Jacob's *Hexaemeron*

2.1 Is Jacob's *Hexaemeron* a commentary?

When referring to commentaries a word on the usage of this term is in order. From the Hellenistic period onwards the term was used to designate an exegetical work commenting on a literary or scientific text in a philological, glossographical, or mythological way. The format was usually following the lemma exegesis-model and was set down in a document with references to but not with full reproduction of the annotated text. This distinctive format (ὑπομνήματα) was differentiated from the σύγγραμμα, a monographic treatise without explicit quotations of the whole text.¹⁷

The exegetical commentaries of the Bible hark back to the exegesis of Homer or Vergil, i.e. they are deeply influenced by antique literary and philological commentaries.¹⁸ VAN ROMPAY claims that commentaries are easily distinguishable from other types of texts like homilies by their approach to the biblical text. They are conceived as “tools guiding the reader through the Biblical text.” The majority of the Syriac commentaries is considered to be of a selective type: “Not all biblical verses are quoted; a number of verses and even some chapters are skipped; and explanations are provided for only a limited number of difficult passages.”¹⁹ The main Syriac biblical commentaries begin with Ephrem's commentaries and continue up to the *Awšar rāzē* ('Storehouse of Mysteries') by Barhebraeus dating to 1271-72, a 'selective commentary'. Nearly half of the work is composed of phonetical, lexical, and philological remarks and demonstrates the continuing tradition.²⁰

15 The simplicity of the Syriac introductions into philosophical theories could be taken as an indication of their field of application within the school context: “both the ‘introductions’ and the translations were meant for classroom use.” (KING 2013: 64).

16 Cf. BECK 1978.

17 For example Galen, *Hippocratis de auctorum morborum victu liber et Galeni commentarius* 15,515 K.: Scholia II. 2,111, see MONTANARI 2006: 641-43.

18 See LANG 1995: 213; cf. SCHÄUBLIN 1974; NEUSCHÄFER 1987. For a discussion of the subgenres and the origin of biblical commentaries cf. DORIVAL (forthcoming).

19 VAN ROMPAY 2006: 31.

20 See PRATELLI 2013.

One also has to bear in mind that the distinction between scientific and practical exegesis, that is to say between erudite and practical interpretation of the biblical text, is a modern approach that was not consistently applied by the church fathers. Therefore, there was some overlap between homilies and commentaries, though it should be conceded that in terms of intention, approach to the text, and audience these two genres have already been distinguished in the time of the Church Fathers.²¹

One could also ask the recipients of Jacob's *Hexaemeron* to answer the question whether it is to be considered a commentary, although we would not want to put the cart before the horse. The function of the very *Hexaemeron* by Jacob is by no means a homily in terms of a wide audience. For a general public it would have been unintelligible because of the many elucidations from different knowledge domains. As Theodore of Mopsuestia put it: 'We consider it to be the task of the commentator to comment on the words which are difficult for most people; that of the preacher, however, is to reflect on words that are clear and to speak about them.'²² If we then define the *Hexaemeron* as non-homiletic, we would be forced to define it as something else, but for a commentary the clear structure of the text and the distinction between original text and commentary are wanting. The question of whether a text on the Bible is a commentary or not may not only be solved by the genre itself but also by a closer look at the term denoting the genre in Syriac: if we return to the beginning of the text and focus on the title probably given by Jacob himself, it appears as *penqīlā d-mēmre* 'collection of memre', which itself can convey different meanings, such as 'homily, tractate,' or 'commentary' (!). In Syriac the term *mēmra* is broadly defined by Bar Bahlūl as 'informing report' (*qālā mšawd'ānā*) and is not the conventional denomination for 'commentary' (*turgāmā* 'interpretative rendering', *puššāqā* 'explanation', *nuhhārā* 'elucidation', *sukkālā* 'creating and conveying meaning').²³ A *mēmra* is defined by BAUMSTARK as the spoken word against the word that is sung. Some elements of a musical recital - like a refrain for instance - are missing, but not necessarily the strophic format and the metrum. It is not unusual to find an accumulation of several *mēmre* on the same topic.²⁴ Exactly this is the situation we are facing in Jacob's *Hexaemeron*. The question remains to what extent the *Hexaemeron* of Jacob might be understood as a commentary. On the one hand, it seems like an unsolvable question, if we follow Martin in his judgement of memra 2: "Ce traité sent peu ou ne sent même pas du tout l'homélie et le commentaire ; c'est l'homme de science qui parle toujours et qui parle de tout."²⁵ In the definition by VAN ROMPAY on the other hand, this is the very character of Syriac commentaries of the later period, which "tend to be of a more encyclopedic nature, in which comments of diverse content and origin are brought together. Indeed, they may sometimes be as heterogeneous, interminable, and poorly organized as footnotes in a present-day scholarly publication."²⁶ Therefore, he includes Jacob's *Hexaemeron* into the list of commentaries of the Syrian Orthodox Tradition.²⁷

21 Origen in his commentary on Matthew refers to his homily about Luke in order to skip some details that he would merely have to repeat (GCS1 Origenes 10,261). This demonstrates more or less the convertibility of the genres, see Torjesen 1986: 61 f., LANG 1995: 202. There are several examples for homilies that had certainly no use in the service, see SCHOLTEN 1996: 256.

22 VOSTÉ, J.-M. (ED.), *Theodori Mopsuesteni commentarius in Evangelium Iohannis Apostoli*, Leuven 1940 (CSCO 116, CSCO, Scriptores Syriaci 63), 4-5; trans. VAN ROMPAY 1997: 104-105.

23 See VAN ROMPAY 2006: 30.

24 See BAUMSTARK 1922: 40.

25 MARTIN 1888: 402.

26 VAN ROMPAY 2006: 31.

27 VAN ROMPAY 2006: 49-50.

2.2. Jacob of Edessa's approach

Jacob is very much interested in sciences, physical observations, analytic arguments, and deductions. When it comes to the elements he introduces the soil as the first of the physical world's elements. He elaborates on its geological variations and formations such as mountains, steppes, deserts, and plains, springs and volcanoes. After this excursus he tries to harmonize the biblical narrative with 'geological findings' counting on the authority of Eusebius of Caesarea:

And witness that this is the truth and that in this way it is an essential nature in the earth, is also the account of an educated and knowledgeable man, Eusebius of Caesarea. He namely, even though he is in a way into other things, is even in these matters known to be a man worthy to be trusted. For this one says in the histories which he composed (in the foreword which he wrote and placed before the Universal Chronicle on which he laboured, when he wants to show that the waters of the Flood truly rose up over all mountains of the earth by fifteen cubit, as Scripture says) and he writes in this account as follows: "The truth that the Flood rose above the mountains which are higher than everything is confirmed also to us, who are writing these things, by the appearance of various fish which are found in our times up above, near the highest summits of the tops of the mountains of Lebanon."²⁸

In this way he integrates scientific topics all over his commentary and argues with philosophical ideas, whereas they remain subjected to biblical teachings and theological doctrines. An illustrative example is the Aristotelian geocentric model that was widespread in Late Antiquity and assumed a planetary order according to the planets' period of revolution (Earth, Mercury, Venus, Sun, Mars, Jupiter, Saturn). Jacob instead reverses the order in his cosmological account putting the Sun as the most pure and bright planet farthest away from the Earth. His ulterior motive maintains the triadic structure of the cosmos corresponding to three (!) elements. The Sun is made from fire, the stars from air and the Moon from the heaviest element, earth. Jacob's structure represents the theological hierarchy composed of divine, angelic, and human strata.²⁹ In other instances his interpretation stretches the text with quite flexible readings:

And loving brevity, [Scripture] mentions and quotes only heaven and earth, while he does not say the name of water, air or fire, because he knew that those who read and understand know that these things were created with them as well.³⁰

GREATREX 2000: 109 reads the 4th chapter of Jacob's *Hexaemeron* as depending on the more homiletic framework of Basil's *Hexaemeron*, which was then supplemented by Jacob with astronomical details from Ptolemy's *Almagest* (in the adaptation of Severus Sebokht). In fact, the connection to Basil is rather loose and pertains copiously to the selection of topics (anti-astrological polemics) instead of specific lines of argumentation.³¹

28 CHABOT 1928: 60 and Leiden codex; CF. DINNO 2010: 18. He even indicates the diameter of the Earth being 10 800 miles (approximately 95 percent accurate).

29 See GREATREX.

30 See CHABOT 1928: 69A; CF. GREATREX 2000 VOL. 1: 56, refers for this thought to the Pseudo-Aristotelian *De Mundo*, a text that was known to Jacob through Basil.

31 Jacob had his own version of the Old Testament based on different sources, the Septuagint, the Syrohexapla, and the Pšittā. See SALVESEN 2008: 207. His use of the Syrohexapla for Genesis could not be shown and may therefore have to be excluded, see ROMENY 2008b.

3. Extract from the *Hexaemeron* of Jacob of Edessa

The fourth memra: on the lights, which God created in the dome of the sky.³² God, the Creator (*bārōyā*), and the custodian (*yāšōpā*) of his Creation, embellished its construction (*tuqqānāh*) with all the things that are necessary and useful for it. He did not omit even one of the things of which his wisdom was aware that they were necessary for this tangible and corporeal Creation. Compare those who build and construct royal palaces and furnish them, after they have finished, built and completed the buildings, and constructed and provided them with walls, columns, roofs, and the floor of the house together with windows to bring light into the rooms for those who live there, they wisely and orderly take care also to provide the house with candles and other devices of illumination.³³ The same also goes for God, the maker and craftsman (*ʿummānā*) of this world and the overseer and wise governor of the formation of man, whom he was to create and form in his image and whom he was to appoint inhabitant and king of this great house. For [this house] he constructed this vast and wonderful sky as the roof, and instead of windows he adorned and furnished it with this clear, pure, and transparent air. For it he made this great and vast dry land as a furnished and well-arranged floor for the inhabitation and dwelling for animals. Instead of cisterns he constructed in it seas, rivers, and springs, he took care to construct and place in it with all these things also lights like candles to enlighten it during night and day for the kingly inhabitant and the animals which serve him. Thus God the maker constructed and provided this house first with all the necessary things for the sake of man who was to be created for it as inhabitant. With reference to this the Spirit-author, who spoke through Moses, said:³⁴ In this order he put these first things, that he created, one after the other. And God said, let there be lights in the dome of the sky to separate the day from the night; and let them be for signs, and for seasons, and for days, and years: And let them be luminaries in the dome of the sky to give light upon the Earth: and it was so. And God made two great lights; the greater light to rule the day, and the lesser light to rule the night: he made the stars also. And God set them in the dome of the sky to give light upon the Earth, and to rule over the day and over the night, and to separate light from darkness: and God saw that it was good. And there was evening and there was morning, the fourth day.³⁵ These words spoke the Spirit of God through Moses, the writer, who spoke about the coming into being and the creation of the Earth. He wanted to point to the order of the lights of heaven, which God had created in the dome of the sky and put in this world, the house of mankind, in form of lamps and lanterns, that are put and arranged in the palaces. We will explain and elucidate these words of the Spirit of God one by one for those who read them. We will reveal their hidden and secret meaning for those who read them diligently and with love of learning.³⁶

He said the following, God said, said the Spirit, let there be lights in the dome of the sky. Who is it,

32 My own translation. For the Syriac text see CHABOT 1928: 142^{ff}.

33 The comparison to the stages of building a house was a well known metaphor in the Alexandrian school applied to the structure of the Aristotelian *Organon*: “the foundations are provided by the Categories and the roof that keeps out the rain and enables the student to divide the true from the false is the Posterior Analytics.” (KING 2015: 7).

34 On the topic of inspiration in Judaism and Christianity see SUNDBERG 1975. Cf. Basil of Caesarea at the beginning of the *Hexaemeron*: “Let us listen then to these words of truth [=Moses’ words] written without the help of the “enticing words of man’s wisdom” by the dictation of the Spirit”, SCHAFF/WALLACE 2007: 52.

35 Gen 1,14-19.

36 Reference to Proverbs 4,8.

who said, let there be lights, and to whom was it said? Investigating reason (*melltå*)³⁷ was seeking [for an answer] and intelligent thought was answering and perceived the truth that God the Father, who is invisible and the maker of every being, is not born and neither created and is imperceptible.³⁸ He, who originated from himself eternally without beginning, spoke the word of creation secretly and in a divine way. God the Father spoke to his begotten Son. The strong and omnipotent God spoke to his strength which cannot be described, to his Wisdom, who said: When he established heaven, I was with him, and when he made the fundament of the Earth, I was there.³⁹ To his strength and wisdom and to his arm and right hand and his eternal splendor and essence and everlasting reason (*melltå*), the powerful, omnipotent and maker, God the Father, and birthgiver said: Let there be lights in the dome of the sky. To him, through which all things are created and without whom nothing was, God the Father and their birthgiver said: Let there be lights in the dome of the sky. In the dome of the sky, he said, let them be and he announced the place of their position and the location of their attachment. Therefore, he said it, to name their area and place, where they should be set up. He also meant to announce with his words why they were made, and he said: to separate the day from the night; and let them be for signs, and for seasons, and for days, and years. Into two lights he put them to separate between day and night. The great one was to make the day. This one, alone, which was above the Earth, was to make the day. The one below the Earth was to make the night. The small one is not to be found above the Earth to make the day but beneath the Earth to make the night. With regard to this, one might simply say, that it illuminates the night, because all the light of the day is the light of the big one. It is further written: And God made two great lights; the greater light to rule the day, and the lesser light to rule the night. Through this it is explicitly shown that the small light cannot illuminate the day, because it is the big one which has to rule the day and further the small one which has to rule the night. Thus, he said, the lesser light to rule the night. And he continued: the stars also. With this it is clarified, that if the small light is not illuminating the night, the stars are illuminating it. These [things] announced the word that the Spirit said regarding the lights: to separate the day from the night, in this way their illumination divides day and night and announces to them who possess the sense of vision, when it is day[time] and when it is night[time]. And he continued with his words: and let them be for signs, and for seasons, and for days, and years. These, as well, reason explains and elucidates. But before he made this he said, that the lights needed to have names, so that the word is plain and clear. The Spirit did not do this, instead it was accomplished through the words of the Holy Scripture.⁴⁰ However, he just said: the greater light and the lesser light. With this he clarified their difference and their variance and especially pointed to the fact that they alone rule [day

37 This term is the translation of *λόγος* in an Aristotelian (KING 2010: 309) as well as theological context (John 1,1). In this place it has to be explained by the theological meaning ‘word; eternal world reason or divine words of the creator’ and also ‘Christ’ himself. This meaning is probably implied, because the idea of a preexisting *λόγος*/Christ is crucial for trinitarian theology. This reading is also confirmed by the following explanation.

38 The *creatio e nihilo* was an important topic for the commentators of Genesis who were trained in Aristotelian philosophy. The claim that God was the *causa prima* existing without his creation had to be defended against other readings of the text. One theory about the generation of the whole debate is that it was answering Manichean ideas.

39 Prov. 8, 27-30: “When he established the heavens, I was there, [...] when he marked out the foundations of the earth, then I was beside him.” Based on this passage Wisdom is conceived as a female entity (*hokmā*, Gr. σοφία) in Jewish writings, a personified intermediary between God and the creation.

40 Jewish tradition has it that Scripture was preexisting in time (*Bereshit Rabba*), see DAN 1996: 1, cf. the Palestinian Talmud (*Targum Neofiti*) on Gen. 3,24: “Two thousand years before He created the world, He created the Torah“, cit. after Kister 2010: 144.

and night]. These lights are the Sun and the Moon, this is what they are called by custom. These, he said, let them be for signs, and for seasons, and for days, and years. For signs, he said, because he wanted them to generate miraculous and marvelous signs for men through their malfunction that occurs from time to time. [For instance,] when the Sun and the Moon meet and they take the same route, heading towards the same direction, and the Moon stands in front of the Sun and hides it from men. If the Moon is far away from the Sun with a great distance of half a sphere and its light is concealed and they are afar from each other, then the lesser light, the Moon, shows us thereby signs varying due to its waxing and waning. The Sun and the Moon also generate other, differing and frightening signs in the sky⁴¹ and in the air. Besides, the Sun generates a terrible and frightening bow in the shape of a half-circle and other signs with the clouds that are called venom of the Sun by custom.⁴² [There are] other [signs] in the the dome of the sky that are called ‘meteors’ (*qoṇṭārē*),⁴³ ‘brooms’ (*mḵanšyāṭā*), beams (*qarrīrāṭā*), comets (*qōmīṭē*),⁴⁴ bearded stars (*pōgōnē*),⁴⁵ and meteors (*dōqīdē*)⁴⁶ as they are called by Greek custom.⁴⁷ The Moon makes a circle and rotates in the clouds, among other variations. It radiates in many different ways in the humid air and with its horns, whether they are thick or thin, or with its waxing and waning light.⁴⁸ [This means] let them be for signs as the words [of the commentary] demonstrated. Now I will speak about the numerous men who are considered intelligent and wise, as they try to observe them as if they would exactly foretell the future things.⁴⁹ They think they know what the future brings and are supposed to know about upcoming events, whilst they are not reliable and do not know, even if they use to prognosticate what is near. Even though the Sun and the Moon give signs through their varying appearance in the humid or dry air or the air near or under them, and people by the way of experience learn

41 NB: *šmayyā* in Syriac means both, ‘heaven’, and ‘sky’.

42 The same is found in the *Commentary of the Monk Severus*, which itself is based to a large extent on Ephrem and Jacob, see ROMENY 2008A. This passage clearly refers to Jacob. The same signs are described there, including the (probably technical) term ‘venom of the Sun’, see BENEDICTUS 1737: 124-5.

43 lit ‘spears’, < Greek κοντάριον ‘little spear’. The word also appears in the Syriac translation of the Pseudo-Ptolemaic *Centiloquium*, an astrometeorological, divinational collection quoted by Bar Hebraeus, see NAU 1931-2:198.

44 Bar Bahlūl explains the word in his dictionary with the common word for ‘comet’ in Syriac (*kawkbā šūšyānā*), which Jacob does not make use of in this list, see DUVAL 1901, VOL. 2: 1734.

45 < Greek πώγων ‘beard; tail of fire’.

46 < Greek δοκίς ‘plank; shield’.

47 Jacob’s list of comets’ names quoted in the *Commentary of the Monk Severus* is shorter: *qoṇṭārē wa-mḵanšyāṭā ba-dmīṭ šūšyāṭā* ‘spears and comets in the form of sparks’ (SOKOLOFF 2009: 1336), see BENEDICTUS 1732: 125. In this instance, Jacob had another Greek text on comets at his hands.

48 The kind of prognostication addressed here belongs to the type of astrometeorological prognostication only divining the weather. This type is also found in the *Syriac Book of Medicines*, see BUDGE 1913, VOL. 1: 547. These divination techniques go back to Mesopotamian and Greek material. All other kinds of divination activities are condemned by Jacob in his Canons and also below. Cf. RUDOLF 2018.

49 The polemical sidenotes on astrology, divination, and predestination are part of the inventory of commentaries on Genesis. They are already found in Origen’s commentary even though he does not give examples for divination like Jacob in the paragraph above, see METZLER 2010: 70-77. The condemnation of astrology is not found in Jacob’s predecessors writing on astrology like Sergius or Bardaisan. Sergius, for example, distinguishes between the different purposes to observe celestial phenomena. Whereas he condemns the astrological approach, he points to the usefulness of knowledge about the setting and rising of stars, see KING 2011: 199-201.

to know about the future things and to foretell them and they speak the truth, it is not so all the time and not necessarily, because God causes numerous changes in an instant, if he wants to. He multiplies diverse and wonderful signs in the air and in the [heavenly] lights that had not been signs beforehand and were not generated before and had not served as indications. It is written, that God does what he wants and this is the truth. The Sun and the Moon cannot force us to believe what was indicated with them and has been said by those who foretell and predict.⁵⁰ Thus, they are for signs, if God is pleased by their actions.⁵¹ For seasons, and for days, and years, he said, because both [lights] measure the time with the revolution of their sphere. The Sun runs and circles towards the west with the whole sphere of the sky and indicates with this circle the extent and stretch of daytime and nighttime, which is 24 hours. The return of its course towards the east, which equals the orbit of the whole sphere, gives the measure of a year and the four varying [seasons] with 365 days and the fourth of a day, which is 6 hours. The Moon by its return to the course towards the east back through the whole sphere of the sky gives the measure of a month, with its circle, which is 29 days and a half and a certain portion. The name of the Moon in Hebrew and in Greek even indicates the month.⁵² Together with the Sun and the Moon, the five stars that are called wandering [stars] indicate periods with the extent and stretch of time required for [a whole] orbit in the sphere of the sky. One of them is called Chronos or Kēwān, which requires 30 years for its course through the sphere of the sky. Jupiter or Bēl requires 12 years for its revolution. The one called Ares by them requires one year and six months for its course through the sphere of the sky. The remaining ones are called Aphrodite and Hermes and, like the Sun, indicate a time/period of approximately a year [...].⁵³ So the words that the Spirit spoke came to pass: and let them be for signs, and for seasons, and for days, and years. Thereupon, he said: And let them be lights in the dome of the sky as well as light upon the Earth. After he said for lights in the the dome of the sky he additionally said as well as light upon the Earth. By this, he wanted to clarify that merely upon the Earth the things were in need of light, and not those fixed to the dome of the sky, and that not God, their Creator is in need of their light, that neither the powers, his servants, who are called heavenly [powers] nor the place where they were located and fixed. About this the words tell us, that they were, instead, created to give light upon Earth for men and animals that God created upon it. Thus, God spoke about the lights that were created in the sky. And the Spirit said “immediately” and it was so.

This it was so does not necessarily mean without intelligence (*hawnā*) or reason (*melltā*) as the pagans say and those who are foreign to our doctrine.⁵⁴ They say that the lights came into being from themselves and from nothing. No more do they understand when they say: who was it who made, estab-

50 The anti-astrological polemical literature also offers arguments from the creation narrative: Theophilus of Antioch points to the fact that “plants and seeds were created prior to the stars” (*To Autolycus* 2,15). Similarly, Gregory of Nyssa (*Against Fate*) is wondering how the stars can have power over the earth if they were created after it (Gen 1,9-19), see HEGEDUS 2007: 158.

51 Reference to Psalm 135,6: “Whatever the Lord pleases he does, in heaven and on earth, in the seas and all deeps.” The omnipotence of God was one of the major anti-astrological arguments, starting with Clement of Alexandria. In his view it is even a transgression of the eighth commandment to ascribe power to the stars since they “rob the untiring power from the Father of the universe (*Miscellanies* 6,16.148.1)” (HEGEDUS 159). According to him, the stars are merely agents under God’s command.

52 Cf. Hebr. *yeraḥ* ‘month’, *yareḥ* ‘Moon’, Gr. μήνας ‘month’, μῆνη ‘(new) Moon’ (rare in prose).

53 Lists of planetary orbits were widespread. Examples are found varying in details in Severus Sebokht (NAU 1910: 211, 214), the discourse of Basil from the 5th cent. (Vat. sir. 516), see VILLEY 2011-12: 84 and the *Syriac Book of Medicines* (BUDGE 1913: 470, 480-83).

54 Here again the problem of the *creatio e nihilo* is addressed.

lished (*qayyem*) and fixed them [the lights] in the dome of the sky? Rather, they should see and consider diligently what the Spirit said afterwards: And God made two great lights. On this the Spirit above said, “and God said, let there be lights in the dome of the sky”. After that he said “now”. And God made two great lights. This should not be taken lumberingly, thoughtlessly and light-minded, so to speak in a Jewish and blind way. For them [the Jews and blind people] it indicates that just one hypostasis (*qnōmā*)⁵⁵ is seen and not two as the writing demands at any rate. One has to understand that there is one person who says, let there be light and another hypostasis about whom the Spirit said, “and he made lights”. If it was but one hypostasis who said and who created, the very same, he would neither have been obliged to say “let there be lights” nor the Spirit would have been writing it down. He would just have done it and would not have had to say “let there be lights”. It was right that he made it alone and that he did not say “let them be [lights]”. As the Spirit says ‘God made the lights and not “these first things”’. Instead, it is known, that God the Father, maker of all things, was it, who said “let there be lights” to the reason, of the maker, the omnipotent, which was created by him eternally and exactly like him regarding power and creation. It was him who made the lights, i.e. with the Father through the Spirit. All things were made by him, and without him was not any thing made.⁵⁶ By the word of the Lord were the heavens made; and all the host of them by the breath of his mouth.⁵⁷ This is the secret teaching of the words of the Holy Scripture. Due to the Jewish rigidity of ignorance they cannot hear nor tolerate another divine hypostasis regarding divinity, one who said, let there be lights, and another one who made [the lights]. Thus, [everything] was put and written indistinctly and secretly. Instead, the words of the Holy Scripture show the truth clearly and frankly.

4. Discussion of the fragment

As we have seen Jacob’s objective is to explain the heavenly ‘signs’, and to unlock the semiotics of the sky. He explains why the heavenly bodies can be understood as signs, namely in the case of their ‘malfunction’. He addresses, first of all, the Sun and the Moon, its waxing and waning, the eclipses, further the phenomenon of comets and meteors that are spelt out by their different Greek terms adapted to Syriac. He also shows his deep acquaintance with the Greek terminology of ‘meteorology’ (sources like the *Centiloquium*). None of these are mentioned in the biblical text of Genesis, and therefore they belong to Jacob’s own interpretation. The study of meteorology was one of the fundamentals mentioned in every compendious or encyclopedic writing of that or even later times, like the *Causa causarum*. Subsequently he bridges to the prognostication of the future and divination due to the celestial signs. Even though he does not approve of this branch of astral science, he neatly describes it, as if he would concede these teachings their place due to their popularity. Like writing from a mind map he then changes over to the astronomical aspect of the celestial bodies and provides the periods of planetary orbits following Syriac models.

Jacob is a traditionalist also in the sense that he relies on his predecessors like Basil of Caesarea and others when he goes into polemics against the Jews. This offers the frame to incorporate theological references, like the *creatio e nihilo* debate and exegetical features: Scripture is explained from Scrip-

55 This term is one of the terms explained by Jacob in his *Encheiridion*.

56 John 1,3: All things came into being through him, and without him not one thing came into being.

57 Psalm 33,6: By the word of the Lord the heavens were made, and all their host by the breath of his mouth. Cf. MASPERO 2016.

ture itself as the quotations of John or the Psalms show. More than any other author Jacob takes care to include the scientific insights of his time in a very creative way: they are all concentrically arranged around his theological programme. Even though he opens up various fields of science and knowledge, he always gets back to the centre, to the “secret teaching of the Holy Scripture” enthroned above them.

5. Conclusion

The answer to the question of whether Jacob’s *Hexaemeron* is a commentary, is not obvious. It is neither a “tool [...] guiding the reader through the Biblical text” - to quote VAN ROMPAY again, nor is it clear whom he addresses. Jacob went far beyond the simple annotation of difficult words and passages. He accomplished an interpretation of the biblical text integrating insights from the natural sciences as well as the philosophical and theological discussions of his time taken from the Greek hexaemeral tradition. His aim was definitely not to ease the reading of the text, which would be the task of a commentator according to Theodore of Mopsuestia.

Two things have to be taken into consideration:

- 1) The changing form of the commentary genre, which more and more changed into an encyclopaedia-like collection of information (s. VAN ROMPAY, 2.1).
- 2) The fact that Jacob does not explicitly call his text a commentary in Syriac.

We might therefore come back to the opening quote by Hartog, who suggests that this classification can still be used as a tool in modern research. Whatever classification is found for the text, one thing should be emphasized: the importance to study this text as a testimony to the scientific knowledge and theories that were circulating in his days.

Jacob, as an immense treasurer of scientific knowledge, awaits annotation. He allows us to look behind the curtains of a Syriac scholar’s library and to follow his analysis and interpretation of sources.

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