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ANTHIMUS AND HIS WORK, OR ON AROMATICS AND WILDFOWL IN *DE OBSERVATIONE CIBORUM*[1*]

Abstract. Kokoszko Maciej, Anthimus and His Work, or on Aromatics and Wildfowl in *De observatione ciborum* (*Antimus i jego dzieło, czyli o aromatach i dzikim ptactwie w "De observatione ciborum"*).

The present study focuses on select fragments of *De observatione ciborum* only. It starts with Chapter 13 (describing preparation of hare), analysing exclusively the recipe for a sauce included therein as it illustrates accurately Anthimus' world of knowledge, and gives an opportunity to supplement the list of ingredients of the delicacy. Subsequently, the analysis moves on to Chapters 25, and 26 of *De observatione ciborum*, which have some information on Anthimus' medical practice and his creativity as a physician. The research is concluded with the contents of Chapter 33, which provide data on the place, where the work was composed.

Keywords: Anthimus; *De observatione ciborum*; history of medicine; history of food; aromatics; wildfowl

INTRODUCTION

De observatione ciborum, which was penned by an author whose name reads in Latin Anthimus and in Greek Ἄνθιμος, is a collection of culinary recipes (incorporating ample dietetic advice) addressed to Theuderich, ruler of the Franks (511–534 AD). It is likely to have been composed at the beginning of the 6th c. AD.[2] The author of *De observatione ciborum* is commonly agreed to have been a physician, mentioned by Malchus of Philadelphia (6th c. AD) in his "Byzantine history" (Βυζαντιακά). According to the historian, Anthimus, on a charge of plotting against emperor Zeno (474–491 AD), was exiled from Constantinople in 478 AD.[3] The doctor's later fate is dubious, though it is often maintained that Anthimus spent the rest (or at least a substantial fraction) of his life among the

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[2] Circa 516 or 523 AD. – Grant 2007: 9–42, esp. 23–24. Grant considers the former date to be more likely. Cf. Scarborough 2008: 91.

[3] Malch., 15, 422, 30–39.

barbaric Goths. During that period, he was dispatched by Theodoric the Great (471–526) on a diplomatic mission to Theuderic's court, carrying his work as a gift to the Frankish ruler.[4] In the year 2006, however, Yitzhak Hen undermined those conjectures, suggesting that the author of *De observatione ciborum*, after a short period of his stay with the Goths, returned from his exile between 491 and 497 AD to Constantinople, and was sent as an envoy to the Franks (at least twice) by Byzantine emperor Anastasius (491–518 AD). Last but not least, his work was said by Hen to have been commissioned by Theuderic himself.[5]

De observatione ciborum is a compelling piece of medical literature as it can be researched into at different angles. For historians of medicine, the text shows the evolution of dietetics and *materia medica*.[6] Food historians analyse the treatise as evidence testifying to the condition of Mediterranean cuisine in the 6th c. AD,[7] while philologists find it fascinating because it allows to explore the lexical richness and evolution of Latin.[8] This paper delves into the data provided by Anthimus through the prism of a researcher in the field of medical thought, approaching *De observatione ciborum* as a collection of advice on nutrition principles, i.e., as a regimen based on the rules of dietetics.[9] When Anthimus was compiling his treatise, this branch of medicine was already nearly 1000 years old, which explains why the rules of dietetics deeply permeate the text. The foundations of Greek dietetics are mentioned, for instance, in a sentence within the *proemium*, which explicitly attributes good health to an appropriate diet ("prima sanitas hominum in cibis congruis constat,"[10]) and in an extract that describes the consequences of eating unsuitable foodstuffs, identifying them as the main reason behind disturbances of the process of digestion and absorption of food.[11] These

[4] Such course of events was proposed by Rose and his later followers – Rose 1870: 43–62, esp. 44–56. A useful bibliography on the subject cf. Deroux 2002: 1107–1108.

[5] Hen 2006: 99–110, esp. 100–103.

[6] Historians of medicine usually appreciate Anthimus' interest in dietetics – Deroux 2002: 1107–1124; Prioreschi 2003: 146–147; Nutton 2005: 301; Scarborough 2008: 91–92. Fischer (1989: 880–881) implied that the treatise by Anthimus also contains information on veterinary medicine, and more precisely data on cauterisation of horses suffering from dysentery. Cf. Deroux 2005: 484–493.

[7] Anthimus is customarily presented as an author who gathered a substantial amount of important data on Byzantine cuisine. For instance, cf. Dalby 2010: 173–177, 188–189, 209–210, etc.; Koder 2014: 423, 428, 431–434; Koder 2016: 207, 213, 216, etc. He is also depicted as an author describing Gallic cuisine, cf. Effros 2002: 7, 61–68; Deroux 2008: 518–528.

[8] The treatise is most commonly studied through the prism of its lexis, which often causes numerous interpretative difficulties. For instance, cf. Messing 1942: 150–158; Grant 1993: 377–379; Deroux 2015: 491–493 etc. Some researchers classify the lexis by its ethnic origin. Cf. Caparrini 2009: 179–196. Another interesting aspect of *De observatione ciborum* is the fact that the author was bilingual. Cf. Adams 2003: 496–497.

[9] Thus, I share Plouvier's (2002: 1358–1360) line of reasoning.

[10] Anth., *Proemium*, 1, 8–9.

[11] Anth., *Proemium*, 1, 9 – 2, 2.

statements are supplemented with the remark "si autem bene praeparati fuerint cibi, digestio bona et dulcis fiet, et humoris boni nutriuntur (…),"[12] which explains the author's interest in food preparation, i.e., culinary art. Anthimus' dietetics (as well as dietetics in general) was connected with *materia medica*, i.e. with a branch of medicine which focused on a corpus of knowledge on therapeutic substances, a large fraction of which were also foodstuffs. This is visible on almost every page of Anthimus' text, e.g., in the extract where the author refers to dried figs,[13] explicitly attributing them to a therapeutic effect in clearly specified treatments, e.g., early stages of rhinitis, sore throats, and dysphonia.

Nevertheless, *De observatione ciborum* is not just an ordinary collection of practical advice on food preparation based on knowledge of the properties of various foodstuffs. The treatise also reveals a tendency to summarise the output of previous generations of physicians which is akin to that we can find in medical encyclopaedias by Oribasius (4th c. AD),[14] Aëtius of Amida (6th c. AD), and Paul of Aegina (7th c. AD).[15] Simple though it is, the text by Anthimus is based on the acquisition of knowledge mastered by medical experts. Two statements that refer to this *corpus* of expertise – and thus, emphasise the competences of the author himself – can be already found in the introduction to *De observatione ciborum*. First of all, Anthimus assures the reader that the substantive part of the treatise is a body of knowledge based on "praecepta auctorum medicinalium,"[16] and next he reveals that the content was compiled "secundum praecepta diversorum auctorum."[17] Finally, we have references to this substantial theoretical base in the numerous chapters that provide more detailed information, including sections 23, 25, 26, 36, and 57.

As a consequence, the method of approach towards Anthimus' output employed in the present article involves a close reading of ancient medical theories and is supposed to analyse his writing with an eye to re-constructing the physician's professional competence. Subsequently, the article attempts to make use of purely medical data for the purpose of adding to the picture of Anthimus as a doctor, and at the same time it demonstrates how information included in his treatise can be profited from to comment on a possible moment in time when the physician compiled his letter to Theuderic. For spatial and temporal constraints, the study focuses only on select fragments of *De observatione cibroum*. It starts with Chapter 13 (describing preparation of hare), focusing exclusively on the

[12] Anth., *Proemium*, 2, 3–4.

[13] Anth., 93, 33, 1–3.

[14] On the physician and his work – Baldwin 1975: 85–97; Grant 1995: 368–379; de Lucia 2005: col. 660–661; Jagusiak, Kokoszko 2011: 5–21; Jagusiak, Kokoszko 2013: 339–357.

[15] On the continuity of medical tradition in Antiquity and Early Byzantium, cf. Nutton 2005: 292–309; van der Eijk 2010: 519–554, esp. 519–525; Touwaide 2020a: 364–365.

[16] Anth., *Proemium*, 1, 6–7.

[17] Anth., *Proemium*, 4, 4–5.

sauce included therein. Short as it might seem, the recipe illustrates accurately Anthimus' world of knowledge. Subsequently, the analysis moves on to Chapters 25 and 26 of *De observatione ciborum*, which have some information on Anthimus' medical practice and his creativity as a practitioner. The research is concluded with the contents of Chapter 33, which provide data on the place, where the work was composed.

A SAUCE FOR HARE

We shall now examine an extract from Chapter 13 within *De observatione ciborum*, which discusses the preparation of a sauce for hare meat, and is worded as follows: "in dulci piper habentem, parum cariofilum et gingiber, costo et spicanardi vel folio."[18] Anthimus claims that hare should be consumed *in dulci…*, which – being slightly imprecise – suggests that the prepared meat of *lepores novelli* ought to be served with a sweet sauce aromatised with spices, to which Anthimus refers using the term *iuscellum.*[19] What is more, the preposition *in* with the ablative case may imply that the served meat was either steeped in the sauce or meant to be dipped in it.[20] Whether the meat was also stewed in it, we do not know.

Since the recipe itself does not specify how the said *dulce iuscellum* was prepared, we may conclude that Anthimus chose not to provide any details in the recipe within Chapter 13 as the general principles of making meat sauces had been laid out previously – in Chapter 3 on serving beef.[21] Presumably, the physician assumed that Theuderic's cooks were familiar with the technicalities of the matter, and thus, he focused on key issues concerning the health of the Frankish king.

In the treatise, Anthimus lists three sweetening substances that could possibly have been used in the recipe, referring to them as *dulcedines*.[22] These are "mel aut sapa vel carenum."[23] As the author does not specify the type of honey as such, we may conclude that it was not necessary to select one type from among numerous kinds described in medical and agronomic literature by the properties imbued by its origins[24] (for instance, it did not have to be exclusively Attic honey, which is, preferably, made from thyme flowers that

[18] Anth., 13, 5–6, p. 8.

[19] Anth., 3, 5, 1; 4, 6, 1; 5, 6, 7; 10, 7, 8; 23, 12, 14; 24, 13, 2; 34, 16, 7.

[20] The second option was described in the chapter on serving piglets (*lactantis/lactantes*), namely *…intingendo in oximelli simplici…* Cf. Anth., 10, 7, 10.

[21] Anth., 3, 4, 16 – 5, 15. For the first time, Anthimus reveals that it is his tried and tested way of writing about things in the recipe for boar meat, where he refers to the data he had already included in the recipe for mutton: *…quomodo de uerbicinas indicauimus*, cf. Anth., 8, 6, 15.

[22] Anth., 3, 5, 6 (…*dulcedinem*..).

[23] Anth., 3, 5, 13–14.

[24] On honey, cf. Dalby 2003a: 179–180; Faas 2005: 146–148; Χρόνη 2012: 236–259; Γερμανίδου 2016: 31–33.

blossomed on Hymettus). While it is safe to say that *sapa* and *carenum* (or *caroenum*) were liquids in which food could be boiled or stewed, honey is either fluid or solid in consistency (when it crystallises). Although reversible, once honey has been exposed to a higher temperature, the process of re-liquefaction is not easy to control since the substance tends to caramelise rather quickly. Therefore, it is advisable to mix it with another liquid so that it can dissolve when heated up. The problem, however, did not bother ancient cooks, since – as we learn from Galen in the chapter on honey[25] in *De alimentorum facultatibus* (2nd/3rd c. AD)[26] – prior to use, honey was customarily dissolved in water and then boiled. The main purpose of the procedure was to eliminate its impurities, which – according to the contemporaneous theory of *materia medica* – changed the overall dietetic nature of honey by removing the characteristic sharpness, provoking the viscera to excrete (which, in turn, would impede the appropriate absorption of food).[27] Accordingly, as a result of being processed in this way, honey always had an admixture of water, and thereby remained fluid.

The term *sapa* refers to reduced grape must,[28] produced – according to Columella (1st c. AD) – when it was heat-reduced to three quarters, two thirds, or even half of its initial volume.[29] On the other hand, Pliny (1st c. AD)[30] and Palladius (4th c. AD)[31] accounted that must was customarily boiled down to one third of its original volume.[32] Pliny added that such a product was called *siraeum* and *hepsema*[33] (in Greek σίραιον[34] or ἕψημα[35]). As for *carenum/ caroenum*, Palladius maintained that the noun referred to must that had been reduced to two thirds of its initial volume,[36] meaning it contained less sugar and more water than *sapa*. However, it is possible that it was not grape must, but reduced sweet wine, whose taste resembled οἶνος Καρύϊνος (dark, thick, and very sweet) produced in Lydia, often mentioned by Galen, and compared to σίραιον.[37] Even though these terms are not precisely defined in the ancient

[25] Gal. *Alim.Fac*., 738, 15–742, 17, vol. 6.

[26] On the physician and his output, cf. Boudon-Millot 2007: VII–XC; Mattern 2013.

[27] Gal. *Alim.Fac*., 740, 10 – 741, 3, vol. 6.

[28] On *sapa*, cf. Dalby 2003a: 225; Faas 2005: 149.

[29] Col., XII, 19, 1, 4–8. On the author, cf. Rodgers 2008: 456–457.

[30] Plin. *Hist.Nat.*, XIV, 80, 5–7. On the author and his encyclopaedia, cf. Murphy 2004: 1–48.

[31] On the author, cf. Rodgers 2008: 35–36.

[32] Pallad., XI, 18.

[33] Plin. *Hist.Nat.*, XIV, 80, 5–6.

[34] The term is used in numerous medical writings, cf. Dsc. *Eup*., V, 6, 4, 4; Gal. *Vict.At*., 88, 1 – 89, 1; Gal. *Alim.Fac*., 503, 8, vol. 6 etc.

[35] The term was used in the medical literature, cf. Dsc. *Eup*., V, 6, 4, 4; Gal. *Alim.Fac*., 503, 8, vol. 6; Gal. *Alim.Fac*., 667, 10, vol. 6 etc.

[36] Pallad., XI, 18. On *caroeum*, cf. Dalby 2003a: 224; Faas 2005: 148.

[37] For instance, cf. Gal. *Vict.At*., 98, 2–99, 1; Gal. *Bon.Mal.Suc*., 801, 2–6; Gal. *Dig.Puls*., 774, 16–775, 5, vol. 8 etc.

literature, they undoubtedly referred to distinct syrups characterised by varied, but invariably high, concentrations of sugars, which made them all suitable for Anthimus' recipe. Since we can conclude that both *sapa* and *carenum*/*caroenum* were commonly available for cooking, the physician must have known how they differed. Therefore, it was unnecessary for him to elaborate on something that was clearly obvious.

In addition, Anthimus' recipe contained certain exotic spices: pepper (*piper)*, cloves (*cariofilum*), ginger (*gingiber*), costus, also known as putchuk (*costus*), and, as Anthimus puts it, *spicanardi vel folio.*[38] If we take into account analogical data in the recipe for beef, these ingredients were pounded in an earthenware mortar with the addition of small amounts of wine.[39] Next, the ingredients were mixed with honey or *sapa* or *carenum*/*caroenum*.

Even though Anthimus never mentioned whether the sauce was to be prepared cold or heated, the technique – described in his recipe for *oxymel*[40] within Chapter 10 (devoted to serving young pork),[41] and Chapter 24 (on peacock meat)[42] of *De observatione ciborum* – allows us to conclude that the meat sauces were usually made by boiling their ingredients. This cooking method is also implied by the fact that the heat treatment of sauces was remarked in the vast majority of the recipes for hare meat to be found in *De re coquinaria* (4th c. AD),[43] and specifically in recipes 1,[44] 3,[45] 4,[46] 5,[47] 6,[48] 7,[49] 9,[50] 11,[51] 12,[52] and 13.[53] Heating

[38] Mark Grant stresses the fact that spices used to make the sauce were expensive rarities in 6th century Gaul, cf. Grant 2007: 28.

[39] *ista omnia simul trita bene in mortario fictile addito vino modico…* – Anth., 3, 5, 10–11.

[40] Medical sources indicate that *oxymel* was obtained through boiling water, honey and vinegar until the decoction gained the appropriate consistency. Anthimus (10, 7, 11–12) describes the process as follows: "… duas partis de melle et una pars de aceto… coquat in vas fictile…," and yet, he never mentions water among its ingredients. Despite medical texts reporting numerous variants of the recipe, they all confirm Anthimus' information that *oxymel* was prepared by heating its ingredients. Cf. Dsc. *Eup*., V, 14, 1, 1–4; Gal. *San.Tu.,* 273, 11 – 274, 7, vol. 6; Orib. *Coll.Med*., V, 24, 9, 1 – 15, 3; Orib. *Lib.Eunap*., IV, 144, 4, 1 – 6, 2; Aët., IX, 24, 101–113. On *oxymel*, cf. Χρόνη 2012: 272–278.

[41] Anth., 10, 7, 8–13.

[42] Anth., 24, 12, 17 – 13, 5.

[43] On the treatise, cf. Kokoszko, Rzeźnicka, Jagusiak 2012: 145–164; Asfora Nadler 2016: 183–203.

[44] Apic., VIII, 8, 1.

[45] Apic., VIII, 8, 3.

[46] Apic., VIII, 8, 4.

[47] Apic., VIII, 8, 5.

[48] Apic., VIII, 8, 6.

[49] Apic., VIII, 8, 7.

[50] Apic., VIII, 8, 9.

[51] Apic., VIII, 8, 11.

[52] Apic., VIII, 8, 12.

[53] Apic., VIII, 8, 13.

was particularly important whenever the dish contained aromatic ingredients, since – as stated by Anthimus in his recipe for beef – cooks of that time were aware that higher temperatures brought out the aroma of spices added to the sauce.[54]

Hare sauce contained pepper, which from the 6th/5th centuries BC was one of the most favoured spices in antiquity.[55] Immensely popular, it had to be imported from distant lands (at that time called India), which translated into its high price. Pliny accounts that the most expensive long pepper was sold for 10–15 denarii per pound,[56] while its white and black variants cost 7–10 and 4–10 denarii respectively.[57] Just like other aromatic substances, pepper was listed in the edict *De pretiis rerum venalium* issued by emperor Diocletian, where a pound of pepper is said to have cost 800 denarii.[58] Although we have no detailed data on the pricing of pepper in Anthimus' times, the information provided in the history by Theophylact Simocatta[59] (and later also in the chronicle by Theophanes the Confessor[60]) which gives an account of the failed campaigns conducted by emperor Maurice against the Avars (when the Romans had to pay a tribute to the victorious barbarians in kind, including pepper, φύλλον Ἰνδικόν,[61] cinnamon κασία, and costus [κόστος][62]), together with the inventory of the treasury of the Persian ruler Khosrow II (which was captured by emperor Heraclius' troops in 627, and where the Romans found pepper and ginger[63]), preserved by Theophanes the Confessor,[64] clearly prove that the spice was still highly valued in the late 6th and the early 7th centuries AD. Undoubtedly, the barbarian Avars would never have accepted a tribute made up of agricultural produce if they had not regarded it at least as highly as precious metals. Analogically, the Persians would not have hoarded pepper and ginger if they had not considered them luxury goods. In addition, the two pieces of information would not be preserved in the works by Byzantine historians if Theophylact (6th/7th c. AD) and Theophanes (early 9th c. AD) had not recognised them as noteworthy and prestigious commodities. Therefore, both the history written by Theophylact and

[54] *ista omnia trita …mittis in ollam… ut antequam tollatur de foco, modicum sentiam et remittat in ius virtutem suam* – Anth., 3, 5, 10–13.

[55] On pepper, cf. Laurioux 1985: 43–75; Dalby 1996: 137–138; Dalby 2000: 90–94; Dalby 2000a: 194–196; Dalby 2003a: 254–255; Faas 2005: 165–166; Lev, Amar 2008: 236–239; Cobb 2013: 140–141; Cobb 2018: 519–559.

[56] One pound = 327 g.

[57] Plin. *Hist.Nat.*, XII, 28, 6 – 29, 1.

[58] *Edict.Dioclet*., 36, 114 (Lauffer); 34, 67 (Reynolds).

[59] Theophyl.Sim., VII, 13, 6, 1–4.

[60] Theoph., 278, 22–24.

[61] Cf. deliberations on the term *folio*/*folium* herein.

[62] Cf. deliberations on the term *costus* herein.

[63] Cf. deliberations on the term *gingiber* herein.

[64] Theoph., 322, 5.

the chronicle compiled by Theophanes prove that pepper was still a valuable merchandise long after Anthimus composed *De observatione ciborum*. Physicians also took interest in pepper, and its first comprehensive description is known as part of the pharmacopoeia compiled by Dioscorides (1st c. AD).[65] He listed three types of foodstuff (i.e., long, black, and white pepper), attributing them with sharpness, a pleasant taste, and culinary applicability. Moreover, the author described all variants of the spice as substances that facilitate digestion, with warming, diuretic, astringent, and diaphoretic effects.[66] Pepper was also a subject of interest among posteriori physicians, who treated it invariably as a foodstuff and a medicament.[67]

Cloves were imported from as far as the Maluku Islands. Pliny maintained that they originated from India.[68] Their regular presence in the Greek pharmacopoeia is proven by the fact that in the 6th c. AD they are mentioned (as an ingredient of aromatic preparations and medicines) by Aëtius of Amida[69] and Alexander of Tralles (6th/7th c. AD).[70] However, the first fully comprehensive description dates back to as late as the 7th c. AD, and is preserved in the medical encyclopaedia by Paul of Aegina. The author stated that their smell was pleasant, and assessed

[65] Dsc. *Eup*., II, 159, 1, 1 – 4, 3. On the author and the treatise, cf. Riddle 1985: 1–24; Kokoszko, Jagusiak, Rzeźnicka, Dybała 2018: 982. The significance of Dioscorides' treatise for the Byzantine *materia medica*, cf. Touwaide 2020a: 364–366, 376–377, 381–382.

[66] Dsc. *Eup*., II, 159, 1, 1 – 4, 8 (description of individual types – II, 159, 1, 6 – 2, 7; shared effects of all types of pepper – II, 159, 3, 1–2).

[67] Galen discussed pepper as a foodstuff in *De alimentorum facultatibus*. Even though no separate chapter was devoted to the spice, its properties were listed within descriptions of other foods. For instance, the author attributed pepper with warming qualities (when expounding on the properties of various parts of plants and animals), cf. Gal. *Alim.Fac*., 477, 5–9, vol. 6. In the chapter on figs (Gal. *Alim.Fac*., 570, 11 – 573, 9, vol. 6), Galen lists pepper among substances that have cutting (τέμνοντα), diluting (λεπτύνοντα; both terms referred to the impact pepper had on thick humours within the body) as well as purifying (ῥύπτοντα) properties, cf. Gal. *Alim.Fac*., 572, 6–12, vol. 6. In another passage within the same treatise (Gal. *Alim.Fac*., 703, 12 – 705, 14, vol. 6), he argues that pepper facilitates digestion (i.e., is πεπτικός), cf. Gal. *Alim.Fac*., 705, 9–13, vol. 6. Galen also includes an analysis of the plant's qualities in his theory of *materia medica*, emphasising its sharpness and warming properties (as a result of which pepper was told to have a siccative effect on tissues), cf. Gal. *SMT,* 97, 7 – 16, vol. 12. Other effects and properties of pepper are scattered throughout the first five theoretical books of his work. The findings by Dioscorides and Galen later formed the basis for the theory applied by Byzantine physicians, reflected in the works of Oribasius (*Coll.Med*., XII, π, 7, 1–12; XV, 1:16, 12, 1 – 15, 1 etc.), Aëtius of Amida (I, 316, 1–5 etc.), and Paul of Aegina (VII, 3, 16, 27–31 etc.).

[68] Plin. *Hist.Nat.*, XII, 30, 1–3. On cloves, cf. Laurioux 1985: 43–75; Dalby 1996: 138–139; Dalby 2000: 50–52; Dalby 2003a: 89; Faas 2005: 165; Talbot 2007: 118; Lev, Amar 2008: 151–153. Cloves in Anthimus' times, cf. Laurioux 1985: 62.

[69] For instance, they were an ingredient of the perfume called νάρδος – Aët., I, 131, 35–43 (cloves – I, 131, 36). On teachings and practice of Aëtius of Amida, cf. Hunger 1978: vol. 1, 294–296; Nutton 1984: 1–14; Scarborough 1984: 224–226; Garzya 2005: col. 19–20; Nutton 2005: 295.

[70] For instance, Alexander of Tralles, *Therapeutica*, I, 611, 25–613, 5. On the physician, cf. Bouras-Vallianatos 2014: 337–353; Kripouri, Filippou 2019: 295–304.

the spice as sharp, slightly bitter, and having a warming and strongly siccative effect. He also added that cloves could be used for multiple purposes in cooking and pharmacology.[71]

Ginger was a popular spice and medicament. In the 1st c. AD, it cost between 5 and 10 denarii per pound,[72] while in the early 4th c. AD, a libra[73] of dried ginger[74] was sold for as much as 250 denarii.[75] The high price and its reputation of being an aromatic must have lasted for centuries, since ginger was listed, by Theophanes the Confessor, among the war booty found in Khosrow II's palace of Dastargerd.[76] Dioscorides' *De materia medica* proves that the properties of the plant were described in detail as early as in the 1st century AD, as the author writes that ginger has a warming effect, delicately softens the gastrointestinal tract (i.e., stimulates the excretion of faeces), is beneficial for the stomach, and affects the body in a similar manner to pepper.[77] Interest in ginger as a medical substance was keenly held by subsequent generations of physicians.[78]

Costus was yet another aromatic commodity imported from distant lands.[79] Pliny accounted that its roots were sold for 5,5 denarii per pound,[80] while *De pretiis rerum venalium* contained information that a libra of costus was priced at 250 denarii.[81] The reputation it enjoyed and, in consequence, its high prices at the turn of the 6th and 7th centuries AD, is evidenced by the spice being among

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[71] Paul.Aeg., VII, 3, 10, 86–90. On Paul of Aegina, cf. Diller 1949: col. 2386–2397; Pormann 2005: col. 681–682; Pormann 2004.

[72] Plin. *Hist.Nat.*, XII, 28, 6. On ginger, cf. Laurioux 1985: 43–75; Dalby 1996: 138; Dalby 2000: 21–26; Dalby 2003a: 159; Faas 2005: 164–165; Lev, Amar 2008: 174–176.

[73] Libra = 0.327 l.

[74] The term most likely referred to dried ginger rhizomes. As fresh rhizomes were prone to go off quickly in transport, they had to be either pre-dried or stored in brine within earthenware vessels. In the latter case, both ginger and the liquid were to be consumed. Cf. Dsc. *Eup*., II, 160, 1, 6–8.

[75] *Edict.Dioclet.*, 36, 102 (Lauffer); 34, 56 (Crawford, Reynolds).

[76] Theoph, 322, 6.

[77] Dsc. *Eup*., II, 160, 1, 1–12 (properties of ginger – II, 160, 1, 9–12).

[78] Galen discusses ginger as a spice in *De alimentorum facultatibus*. These extracts confirm that the physician of Pergamon shared Dioscorides' belief on the similarity of properties between ginger and pepper, cf. Gal. *Alim.Fac*., 572, 6–12, vol. 6; 703, 12 – 705, 14, vol. 6. In the same treatise, we can also read that ginger (together with white pepper and vinegar) was added to a medicament based on honey and apple juice and served to anorexics (Gal. *Alim.Fac*., 603, 6–8, vol. 6), which implies that ginger was thought to increase appetite. A description of ginger from the perspective of *materia medica* can be found in *De simplicium medicamentorum temperamentis ac facultatibus* (880, 9 – 882, 4, vol. 11). Physicians of early Byzantium continued to rely on the findings by Dioscorides and Galen, for instance cf. Orib. *Coll.Med*., XI, ζ, 2, 1–7; XV, 1:6, 1, 1–6, 1; Aët., I, 153, 1–4; Paul.Aeg., VII, 3, 6, 5–8.

[79] On putchuk, cf. Laurioux 1985: 63–64; Dalby 2000: 85–86; Dalby 2000a: 97; Dalby 2003a: 105; Lev, Amar 2008: 157–158.

[80] Plin. *Hist.Nat.*, XII, 41, 5–8.

[81] *Edict.Dioclet.*, 36, 47 (Lauffer); 34, 1 (Crawford, Reynolds).

Ἰνδικαί καρυκείαι[82] to be given as a form of tribute to the Avars by the Roman general Priscus.[83] Costus was analysed in detail by Dioscorides, who described its flavour as δηκτικὸς καὶ πυρώδης, i.e., sharp and burning. The scholar of Anazarbus claimed that the spice had a warming and diuretic effect.[84] Writings by Galen and early Byzantine physicians show that the plant was also used in medicine in later times.[85]

The list of sauce ingredients culminates in the phrase worded …*spicanardi vel folio*. The first noun refers indubitably to the spikenard.[86] Growing in the Himalayas and the Hindu Kush, spikenard had to travel a long and dangerous route before it was delivered to the centres of the Greco-Roman civilisation. Pliny accounted that the price for one pound of the so-called ears (*spicae*) of nard could reach 100 denarii, while its most valued type of leaves – 90 denarii.[87] Although no information about its prices is contained in Diocletian's *De pretiis rerum venalium*, we can assume that nard was still an expensive commodity in the early 4th c. AD, because the source reports that a libra of essential oil made from the plant cost 75 denarii.[88] We owe a detailed description of nard's properties to Dioscorides,[89] who stressed that the spice had a warming, desiccant, and diuretic effect.[90] For that reason, when drunk,[91] it slowed down the gastrointestinal processes and counteracted diarrhoea.[92] Served in cold water,[93] nard helped patients suffering from nausea, heartburn, bloating, jaundice, and liver as well as kidney diseases.[94] It could also be an ingredient of antidotes.[95] Remarks by

[82] On the term καρυκεία, cf. Kokoszko 2008: 269–283.

[83] Theophyl.Sim., VII, 13, 5, 3 – 6, 5. Cf. Dalby 2003: 43; Dalby 2010: 43.

[84] Dsc. *Eup*., I, 16, 1, 1 – 2, 11 (note on the properties of costus – I, 16, 1, 6–7).

[85] The lack of information on costus within *De alimentorum facultatibus* implies that it was not commonly used as a spice. On the other hand, numerous remarks on its therapeutic applications in Galen's pharmacological treatises indicate that the plant was far more frequently made use of by physicians. Galen's most comprehensive description of costus (concordant with Dioscorides' account) can be found in *De simplicium medicamentorum temperamentis ac facultatibus* (40, 10 – 41, 6, vol. 12). The two authors' teachings became part of the canon of early Byzantium, for instance cf. Orib. *Coll.Med*., XI, κ, 31, 1–9; XV, 1:10, 65, 1–3; Aët., I, 219, 1–12; Paul.Aeg., VII, 3, 10, 306–315.

[86] *Nardostachys jatamansi* (D. Don.) DC. On nard, cf. Jannaris 1923: 216–228; Weberling 1975: 443–452; Laurioux 1985: 45, 54, 62–64; Dalby 2000: 86–88; Dalby 2000a: 196–197; Lev, Amar 2008: 289–293; Kokoszko 2017: 31–51.

[87] Plin. *Hist.Nat.*, XII, 43, 6 – 44, 4.

[88] *Edict.Dioclet.*, 36, 98 (Lauffer); 34, 52 (Crawford, Reynolds).

[89] Dsc. *Eup*., I, 7, 1, 1 – 4, 9.

[90] Dsc. *Eup*., I, 7, 3, 9.

[91] As a brew, or an infusion.

[92] Dsc. *Eup*., I, 7, 3, 9–10.

[93] Presumably, what the author has in mind is a nard infusion diluted with cold water.

[94] Dsc. *Eup*., I, 7, 4, 1–3.

[95] Dsc. *Eup*., I, 7, 4, 7.

Galen and early Byzantine physicians show that nard was used in therapeutic procedures.[96]

Anthimus ends his recipe for sauce with …*vel folio*. Mark Grant, who translated *De observatione ciborum* into English, believes that *folio* refers to nard, suggesting that the recipe required the use of its ears or leaves.[97] In doing so he relies on a version of the Latin original proposed by Valentin Rose (and reading, …*spicam nardi vel folium*)[98], and on Rose's understanding of the noun *folium* printed in his glossary to the second edition of Anthimus' work.[99] Accordingly, the two scholars imply that the genitival qualifier *nardi* refers to both nouns, i.e. *spica* and *folium*. Interestingly, the same interpretation of the text is found in Edward Liechtenhan's German translation,[100] even though the Latin version of the original postulated by him[101] does not include any genitival qualifier relating to the form *folio*. There is virtually no explanation to the mode of translation he adopted except for a short mention of the term *spicanardi* in his *Index Grammaticus*, where Liechtenhan suggests that it is a compound noun, and stands for the accusative *spicam.*[102] All in all, in this respect Liechtenhan represents the same tradition as Rose and Grant.

There is, however, another possible interpretation of the passage – *folio* (i.e. *folium* in classical Latin, and in Greek φύλλον) should be interpreted as a designate separate from *nardus*, i.e. a phytonym, which is, in fact, *pars pro toto*, since it was derived from this part of the plant it referred to. In preserved Greek and Latin sources, we can find convincing evidence that such a plant existed. A couple of examples will suffice.[103] The first is included in Galen's teachings and in an anonymous work entitled *Eclogae medicamentorum.*[104] Galen quoted

[96] The lack of data on nard in *De alimentorum facultatibus* indicates that it was sporadically used in cooking during Galen's times. However, remarks on the plant in his other works prove that it was quite commonly applied in his medical practice. The most exhaustive account on the therapeutic properties of nard can be found in *De simplicium medicamentorum temperamentis ac facultatibus* (84, 11 – 85, 3, vol. 12). This extract, together with Dioscorides' description of the effect nard had on the human body, were the basis for its application modes among physicians of early Byzantium, for instance cf. Orib. *Coll.Med*., XII, v, 1, 1–23; XV, 1:13, 1, 1 – 2, 1; Aët., I, 289, 1–8; Paul.Aeg, VII, 3, 13, 5–9.

[97] Grant 2007a: 55.

[98] The version of the original postulated by Rose was criticised severely by Liechtenhan (1963: X).

[99] Rose 1877: 52.

[100] Liechtenhan 1963: 37.

[101] Liechtenhan postulates the Latin version found in G (Sangallensis 762 saec. IX) without Rose's amendments. On Rose's use of the codex cf. Liechtenhan 1963: XI.

[102] Liechtehan 1963b: 52.

[103] An exhaustive explanation – Kokoszko, Rzeźnicka 2016: 5–42; Kokoszko, Rzeźnicka 2018: 579–616.

[104] *Eclogae medicamentorum* is an anonymous work often attributed to Oribasius. Arguments in favour of the attribution have been presented recently by Passabì (2007: 71–138). The summary

a recipe for Polyarchus' medicament,[105] which included φύλλα μαλαβάθρου,[106] i.e. tejpat.[107] A similar therapeutic substance named πολυάρχειον can also be found in *Eclogae medicamnetorum*, but the author of the work mentions in the formula no φύλλα μαλαβάθρου but only the term φύλλον.[108] Since the ingredients and the intended use of the two medicines are analogical, there is no doubt that both authors had in mind the same plant, and thus in the first formula tejpat is termed φύλλα μαλαβάθρου (which means 'leaves of μαλάβαθρον'), while in the second, it is simply called φύλλον, i.e., 'leaf'. The second example comes from the works by Aëtius of Amida. Among the essential oils he describes there is one called φύλλινον or μαλαβάθρινον (φύλλινον ἤτοι μαλαβάθρινον).[109] Since the title of the recipe implies that the terms φύλλινον and μαλαβάθρινον mean the same perfume (μύρον), we may conclude that the name of the oil was derived from the word φύλλον (listed in the formula[110]), which, in this case, doubtlessly meant the leaves of μαλάβαθρον, as such meaning is reflected in the alternative name (i.e., μαλαβάθρινον) of the oil.

It is equally noteworthy that the term *folium* appears in *De re coquinaria.*[111] In three recipes, the nouns *folium* and *malabathrum*, however, are used one next to another,[112] which may imply that each has a separate *designatum*. Notwithstanding, there is evidence indicating that all the recipes within *De re coquinaria* that contain the word *folium* refer to the application of *malabathrum*, i.e., tejpat. A significant class among alcoholic beverages described in ancient and

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of debates on the authorship of *Eclogae medicamentorum*, cf. Buzzi 2016: 195, footnote 8; Buzzi 2017: 965, footnote 17; Buzzi, Calà 2017: 126, footnote 12.

[105] Keyser 2008: 680.

[106] Gal., *Comp.Med.Loc*., 185, 8 – 186, 8, vol. 13 (μαλάβαθρον – 185, 16, vol. 13).

[107] *Cinnamomum tamala* (Buch.-Ham.) T. Nees & Eberm. On tejpat, cf. Dalby 2000: 41–46; Dalby 2000a: 198–199; Dalby 2003: 206; Lev Amar 2008: 444–445.

[108] *Eclog.Med.*, 51, 8, 1–9, 1 (φύλλον – 51, 8, 4).

[109] Aët., I, 133,1–7 (μαλάβαθρον – I, 133, 2). Admittedly, Dioctelian's *De pretiis rerum venalium* contains no information on φύλλινον, but the chapter on prices of aromatic substances lists a similar fragrant ointment called φολιᾶτον, which was made with an addition of tejpat leaves, as proved by *Eclogae medicamentorum* (73, 31, 1–7), and Aëtius of Amida (XVI, 131, 4–17). On the other hand, it must be stated that source texts also speak of another perfume under the same name that had no tejpat among its ingredients. Galen mentions it as a luxurious commodity on numerous occasions (*San.Tu*., 427, 3–5, vol. 6 etc.), providing proof of its alternative name of σπικᾶτον, which implies that it was derived from spikes of nard. A recipe for the product was preserved, *inter alia*, by Pliny (*Hist.Nat*., XIII, 15, 4 – 16, 1), who accounts that yet another name of the perfume was *nardinum*. A series of similar recipes were incorporated by Aëtius of Amida into Book 16 of his treatise – Aët., XVI, 130, 22 – 132, 4. A libra of φολιᾶτον cost 1,000 denarii (*Edict.Dioclet.*, 36, 88 [Lauffer]; 34, 42 [Crawford, Reynolds]), while the same amount of unwashed leaves of tejpat – 60 denarii (*Edict.Dioclet.*, 36, 49 [Lauffer]; 34, 3 [Crawford, Reynolds]).

[110] The term μαλάβαθρον is not listed in the recipe.

[111] Apic., I, 1; I, 3; I, 27; I, 29; VI, 5, 4; VII, 6, 8; VIII, 2, 6; IX, 1, 3; IX 7; IX, 8, 2; IX, 8, 3.

[112] Apic., I, 29; IX, 1, 3; IX 7.

Byzantine literature were κονδῖτα (Latin: *condita* or *piperata*[113]), i.e., therapeutic drinks that contained pepper, honey, and a long list of other ingredients. One of them, namely κονδῖτον νεφριτικόν, can be found among recipes within *Eclogae medicamentorum*,[114] and has its equivalent in *conditum paradoxum*, whose recipe is quoted in Book 1 of *De re coquinaria*.[115] Both contain terms that mean 'leaf', i.e., *folium* in Latin and φύλλον in Greek. We have already established that the author of *Eclogae medicamentorum* used the term to refer to μαλάβαθρον, so there is every likelihood that *folium* included in the Latin formula was used to designate the same plant. What is more, this interpretation is reinforced by Pliny's remark when he explicitly expounds on the excellent results obtained by adding *malobathrum* to wine.[116] The second example is *apsintium Romanum*, whose recipe can also be found in Book 1 of *De re coquinaria*,[117] and which has its counterpart in ἀψινθάτα[118] used by Oribasius and Aëtius of Amida.[119] In this case, the Latin term *folium* is also expressly used as the synonym to the Greek φύλλον. In conclusion, we can formulate a hypothesis that since the term *folium* meant a leaf of μαλάβαθρον in wine recipes, it must have had the same meaning in other recipes in *De re coquinaria*, and that the appearance of the words *folium* and *malabathrum* in Books 1 and 9 within the collection is nothing more than a mistake of the copyist.[120] As a result, if the noun *folium* within *De re coquinaria* and the term φύλλον in Greek medical treatises are used to refer to leaves of tejpat, there is no reason why it would have a different meaning in the short text by Anthimus, whose theory of *materia medica* mirrored that of the medical tradition of the period. What must be emphasised is that this interpretation is concordant with the view of Andrew Dalby, who consistently translates the Latin term *folium* and the Greek word φύλλον as *malabathrum*[121] despite not providing formal proof of this interpretation.

What is more, medical sources clarify why Anthimus used the conjunction *vel* in his account. In order to comprehend it, let us refer to some preserved descriptions of tejpat's properties. Remarks on the affinity between nard and *Cinnamomum tamala* can already be found in Dioscorides' work, who argues that the latter possesses properties identical to Indian spikenard, when it comes to intensifying the effects of other therapeutic substances. He also adds that both

[113] Plin. *Hist.Nat.*, XIV, 108, 2–3.

[114] Oribasius, *Eclog.Med.*, 62, 8, 1–9, 1 (leaf [= μαλάβαθρον] – 62, 8, 6).

[115] Apic., I, 1.

[116] Cf. the aforenoted passage from *Historia naturalis*.

[117] Apic., I, 3.

[118] Orib. *Coll.Med*., V, 33, 13, 1–5 (leaf [= μαλάβαθρον; cf. przypis poniżej] – V, 33, 13, 2).

[119] Aët., III, 71, 1–4 (leaf [= μαλάβαθρον – III, 71, 1]); III, 72, 1–3 (leaf [= μαλάβαθρον] – III, 72, 2).

[120] Which is not repeated by the author of *Excerpta Vindarii*. Cf. Grocock, Grainger 2006: 347.

[121] Dalby 1996: 192, 306; Dalby 2003: 206; Dalby 2010: 175, 182 etc.

are diuretic and good for the stomach (although tejpat is more effective in respect of both qualities).[122] Galen, in turn, directly lists leaves of tejpat as a substitute to nard in *De simplicium medicamentorum temperamentis ac facultatibus*, stating that the plant has a similar effect to that customarily attributed to nard.[123] Later descriptions of tejpat do not differ from accounts compiled in the 1st/2nd centuries AD,[124] as evidenced by data provided by Oribasius[125], Aëtius of Amida,[126] and Paul of Aegina.[127] In conclusion, it seems justified to state that Anthimus recommended nard or its replacement, i.e. leaves of *Cinnamomum tamala*, to be used for the sauce served with hare. He did so because both spices offered similar properties.

There is one more point to make. The sauce for hare appears to be compiled in accordance with the rules which governed dietetics. As the meat in Anthimus' recipe was classified as tough by nature, and thus, heavy and contributing to the production of thick and sticky humours in the body, especially, to the generation of black bile (considered cooling),[128] it was advisable that it be served with a sauce that contained honey, *sapa* or *caroenum*, because these

[122] Dsc. *Eup*., I, 12, 1, 1 – 2, 11 (origins, cultivation, appearance – I, 12, 1, 1 – 2, 2; dietetic characteristics – I, 12, 2, 2–5; pharmacological characteristics and general applications – I, 12, 2, 6–11).

[123] Gal. *SMT*, 66, 15–16, vol. 12. Interestingly, nard and μαλάβαθρον usually co-occur in medical recipes. What is more, Paul of Aegina considered κασία and nard to be substitutes for μαλάβαθρον – Paul.Aeg., VII, 25, 12, 1.

[124] There were only minor inaccuracies regarding details. There was no doubt that μαλάβαθρον had warming properties of the first (cf. Orib. *Coll.Med*., XIV, 15, 1, 1–5 [μαλάβαθρον – XIV, 15, 1, 3]; Orib. *Syn*., II, 3, 1, 1–3 [μαλάβαθρον – II, 3, 1, 2]; Orib. *Lib.Eunap*., II, 3, 1, 1–4 [μαλάβαθρον – II, 3, 1, 5–6]; Aët., II, 199,1–3 [μαλάβαθρον – II, 199, 2]), or third degree (Aët., II, 201,1–10 [μαλάβαθρον – II, 201, 7]). On the other hand, all physicians who discussed the issue agreed that it had siccative properties of the second degree – Orib. *Coll.Med*., XIV, 26, 1, 1–16 (μαλάβαθρον – XIV, 26, 1, 6); Orib. *Lib.Eunap*., II, 5, 1, 1 – 4, 6 (μαλάβαθρον – II, 5, 2, 6); Aët., II, 211, 1–7 (μαλάβαθρον – II, 211, 7).

[125] The main description of μαλάβαθρον within Oribasius' *Collectiones medicae* was derived from Dioscorides' *De materia medica* – Orib. *Coll.Med*., XI, μ, 2, 1–7. Cf. Orib. *Syn*., II, 56, 35, 1 – 36, 1 (μαλάβαθρον – II, 56, 35, 1–2). Moreover, Oribasius also included Galen's remark on the similar effects of μαλάβαθρον and nard from *De simplicium medicamentorum temperamentis ac facultatibus* – Orib. *Coll.Med*., XV, 1:12, 2, 1–2.

[126] Aët., I, 266, 1; II, 196, 64–68.

[127] Paul.Aeg., VII, 3, 12, 6.

[128] The dietetic properties of hare meat were discussed by numerous ancient and Early Byzantine physicians, cf. *Diaet*., II, 46, 25–26; Gal. *Alim.Fac*., 664, 4–6, vol. 6 ; Orib. *Coll.Med*., II, 28, 10, 1 – 12, 1; III, 16, 4, 1 – 6, 1; Aët., II, 121, 25–18; II, 253, 8–10; Paul.Aeg., I, 84, 1, 7–9 etc. An excess of black bile that could stem from the consumption of hare meat was a health risk, which was explicitly stressed by Galen, e.g., in the treatise *De atra bile* (112, 3–5, vol. 5). His catalogue of diseases induced by black bile (Gal. *At.Bil*., 114, 9 – 119, 12, vol. 5) included the infamous plague in the times of Mark Aurelius that spread after 165 AD, an illness known as ἐλέφας (elephantiasis), ἄνθραξ-type ulcerations, neoplasms, haemorrhoids, κιρσός (varicose veins), melancholy (Galen, *Loc.Aff*., 179, 18 – 193, 6, vol. 8), and quartan fever (Galen, *Diff.Feb*., 336, 11–12;

foodstuffs were said to have warming properties.[129] Not only did they ensure an appropriate temperature within the stomach (required for food to be digested),[130] but they also prevented the rest of the body from being chilled. Among the listed sweeteners, it was honey that best served the purpose, as it was thought to have a warming, diaphoretic, and also – through its sharpness – purging effect. Even though it tended to lose some degree of the two latter properties when boiled, it would still remain effective. Anyway, Galen considered it beneficial for the stomach, which meant that – just like other sweet ingredients – it facilitated the functioning of the digestive tract.[131] He explained the action, maintaining that sweet ingredients were made of tiny particles (and thus they were termed λεπτομερῆ[132]), which meant that they effectively counterbalanced substances that had opposite properties (termed, in turn, παχυμερῆ[133]), i.e. they were able to attenuate thick and sticky humours, and black bile in particular. The effect of such ingredients was reinforced with spices which, though different as far as their flavour is concerned, had a similar impact on digestion, because all of them were characterised by pungency[134] or bitterness and pungency[135] (denoting their warming effect and λεπτομέρεια[136]).

One more aspect of the recipe seems noteworthy. All spices used for making the sauce were redolent. It means that apart from their therapeutic effect, they also had a pleasant fragrance which, in dietetics, was a desired, though not an indispensable, feature. Since they were all imported and expensive, the use of just one of them was enough to consider a dish exquisite (the fact which

343, 11 – 347, 3, vol. 7, etc.). On Galen's theory on the generation of black bile cf. Stewart 2019: 75–93. On ailments caused by the humour cf. Stewart 2019: 129–144.

[129] Gal. *SMT*, 646, 2–5; 785, 6–7, vol. 11.

[130] Galen described this process as follows: τὸ δὲ γλυκὺ πέττει…, cf. Gal. *SMT*, 786, 6–7, vol. 11.

[131] Gal. *SMT*, 70, 13 – 71, 19, vol. 12.

[132] Such conclusions can be drawn, for instance, from Galen's lecture on the properties of individual substances that create sweet and bitter tastes. The physician writes that bitterness and sweetness are connected, since the humours he calls bitter are formed when sweet juices are diluted through exposure to heat. Therefore, both tastes are evidence that substances with such properties are small-particled and warming. However, bitter ones have smaller particles than their sweet equivalents, and they also offer more intense warming effects – Gal. *SMT*, 698, 4–10, vol. 12.

[133] Large-particled constitution and thickness as properties of black bile, cf. Gal. *At.Bil*., 111, 5–10, vol. V.

[134] Gal. *SMT*, 670, 12–14; 679, 10 – 680, 3, vol. 11. Cf. … τὸ μὲν δριμὺ πυρῶδες … – Gal. *SMT*, 785, 4–5, vol. 11; τὸ δὲ δριμὺ παραπλησίως … δρᾷν, κατά γε τὸ διαλεπτύνειν τε καὶ διακαθαίρειν…τὸ δὲ δριμὺ θερμαίνειν…τὸ δ' ἐπισπᾶσθαι καὶ διαφορεῖν – Gal. *SMT*, 785, 13–16, vol. 11.

[135] Gal. *SMT*, 646, 9–11, vol. 11; effects of bitter substances – Gal. *SMT*, 684, 4–7, vol. 11; τὸ δὲ πικρὸν γεῶδες λεπτομερὲς – Gal. *SMT*, 785, 2–3, vol. 11; …καὶ τὸ μὲν πικρὸν διακαθαίρει τε τοὺς πόρους καὶ διαῤῥύπτει καὶ λεπτύνει καὶ τέμνει τὸ πάχος τῶν χυμῶν ἄνευ φανερᾶς θερμότητος – Gal. *SMT*, 785, 17 – 786, 1, vol. 11.

[136] Gal. *SMT*, 653, 1 – 656, 2, vol. 11.

Anthimus might also have wanted to emphasise when he decided to use the conjunction *vel*, thus offering the cook a choice between pricier nard and slightly cheaper tejpat). All in all, it seems logical to assume that if a single recipe required the use of pepper, cloves, costus, and nard, or pepper, cloves, costus, nard, and tejpat, only Frankish elites could afford such a dish. Last but not least, the recipe for hare in *De observatione ciborum* appears to testify to the fact that the Franks were already refined enough to stop thinking about merely satisfying their hunger, but they also sought pleasant culinary and olfactory sensations.

ANTHIMUS ON TURTLEDOVES, QUAILS, STARLINGS, AND BUSTARDS

De observatione ciborum contains three entries, namely Chapters 25, 26, and 33, which has been unsatisfactorily interpreted so far in terms of what they say about Anthimus' practice and fate.[137] A starting point in the present analysis should be Chapter 25, where Anthimus appears to make a reference to his medical practice when describing wildfowl. This is how we should probably interpret the words: "istud et ego in tempore meo probavi in provincia mea,"[138] which are followed by a story of two peasants (*duo rustici*) who consumed the meat of a turtledove (*turtur*) that fed, *inter alia*, on hellebore (*elleborus*).[139] It made one of the men so sick that he suffered from internal haemorrhage and died. Anthimus adds that in such cases aged wine (*vinum vetus*)[140] and warm

[137] With the exception of Deroux's (1998: 366–381) study. His conclusions have been included in the hypothesis presented in the present research.

[138] We are not able to fully understand what Anthimus meant. The words …*in provincia mea* were for Rose (1870: 49) the basis for a hypothesis that Anthimus was a governor of a province under Theodoric the Great's rule. The suggestion was subsequently questioned by Liechtenhan (1963: X; cf. Liechtenhan 1963c: 74), Deroux (1998: 366, note 2), and Hen (2006: 102–103). I share Liechtenhan' and Deroux' opinion that in the passage *istud et ego…probavi…* the verb *probavi* suggests that the case of poisoning was Anthimus' first-hand experience. Cf. the German translation by Liechtenhan (1963a: 39), reading "Das habe ich…beobachtet", and the French translation by Deroux (1998: 370) worded "De cela j'ai été temoin…".

[139] There were two plants which could be considered to have been meant by Anthimus. One was the white hellebore (*Veratrum album* L.) and the other the black hellebore (*Helleborus niger* L.). They were commonly used in a variety of cures (cf. do Sameiro Barroso 2015: 30–37), including the treatment of mental illnesses (cf. Maieron 2018: 5–18). Deroux (1976: 875–878, esp. 877) maintains that it was the black hellebore that was mentioned by Anthimus.

[140] Let us resort to some examples only. When Galen delves into the issue of treating poisoned patients, he illustrates his account with cases of opium (μηκώνειον) and cowbane (κώνειον) poisonings, for which he advises liberal amounts of aged, warming, wine of good quality (εὐγενής) to be the best cure. Subsequently, he enumerates a wide range of superior wines as antidotes, including wine from Lesbos (which he successfully applied in his own practice), and …Φαλερῖνος καὶ Σουῤῥεντῖνος, Ἀριούσιός τε καὶ Τμωλίτης ὁ αὐστηρὸς…, i.e., prestigious and expensive types

olive oil[141] were the antidotes to be served to the patient,[142] which is definitely in agreement with the medical theory of Antiquity.

Let us commence the analysis with information on the birds which eat hellebore. In the literature that Anthimus may have been familiar with, we come across a thread, but it refers to quails, not turtledoves. In this context, quails are mentioned not only in *De plantis*, a treatise ascribed to either Aristotle (4th c. BC) or Nicolaus of Damascus (1st c. BC),[143] but also in Pliny's *Historia naturalis*,[144] *De alimentorum facultatibus*,[145] *De simplicium medicamentorum temperamentis ac facultatibus*,[146] *De theriaca ad Pisonem*,[147] *In Hippocratis librum VI epidemiarum commentarii*[148] by Galen, *Problemata* by Alexander of Aphrodisias (2nd/3rd c. AD),[149] *Collectiones medicae* by Oribasius (in extracts derived from Galen),[150] in the compilation of magic-medical texts entitled *Cyranides* (dated

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of wine. Cf. Gal. *SMT*, 603, 11– 605, 9, vol. 11. On the gradation of quality wines mentioned by Galen cf. Thurmond 2017: 219–222, 224 (Italian); Komar 2020: 87–94, 102, 120 (eastern). It seems justified to add that the list of wines that Romans valued most began to crystallise at the turn of the 2nd and 1st c. BC, most probably under Lucius Licinius Crassus' influence – cf. Tchernia 1997: 1247–1259. In Italia, mature Greek wines maintained a strong market position, which translated into their high prices – Cf. Komar 2014: 99–131; Komar 2014a: 227–244; Komar 2018: 95–116; Komar 2019: 3–16. The list of prestigious wines from Italia and other locations in the Mediterranean is provided by Pliny (*His.Nat*., XIV, 59, 1 – 76, 8), and referred to by Thurmond (2017: 219–231) in his in-depth study of ancient wine production. In Merovingian Gaul quality vintages were imported and expensive – Bonifay, Pieri 2020: 864. They also reached Metz – Bonifay, Pieri 2020: 863. In any case, we should expect that to be an effective antidote, the *vinum vetus* recommended by Anthimus must have been a high-grade wine, i.e., it was more likely imported than local, and expensive, not cheap. What is more, Galen recommended large amounts of it to be served to the patient, which additionally raised the total cost of the treatment.

[141] Because of abundant information, let us rely on select examples. Olive oil is depicted as an antidote in Dioscorides' *De materia medica*. It was served heated and in several doses until the patient was induced to vomit. Cf. Dsc. *Eup*., I, 30, 2, 3–4. Galen refers to the same method in the treatise *De antidotis*. For instance, after Asclepiades of Bithynia (2nd/1st c. BC, cf. Scarborough 2008a: 170–171), he recommends warm ὑδρέλαιον, i.e., a mixture of water and olive oil, to be served repeatedly to the patient until emesis occurs – cf. Gal. *Ant*., 138, 6 – 10, vol. 14. Galen restates similar advice when he writes about treating people poisoned with cantharidin – Gal. *Ant*., 141, 10–12, vol. 14. However, this time he mentions olive oil mixed with grape syrup (γλυκύ). Warm olive oil with no additions, in turn, is recommended by the author for cases of white lead (ψιμύθιον) poisonings. Cf. Gal. *Ant*., 144, 3 –4, vol. 14.

[142] Anth., 25, 14, 6–8.

[143] *Plant*., 820b, 5–6. On the treatise, cf. Ferrini 2012: 7–241; Touwaide 2020: 305–306.

[144] Plin. *Hist.Nat*., X, 69, 4–5.

[145] Gal. *Alim.Fac*., 567, 12, vol. 6.

[146] Gal. *SMT*, 382, 5–6; 612, 14–15, vol. 11.

[147] Gal., *Ther.Pis*., 227, 14, vol. 14.

[148] Gal. *Hipp.Epid*., 307, 1–3, vol. 17 b.

[149] Alex.Aphr., I, *proemium*, 48. 4, 25. On the author and his works, cf. Fazzo 2008: 54–55; Madigan 2013: 1–7; Sharples 2014: 1–7.

[150] Orib. *Coll.Med*., XIV, 41, 4, 4–5.

4–8th c. AD),[151] in Homily 5 within commentaries to *Hexaemeron* by Basil of Caesarea (4th c. AD),[152] in Procopius of Gaza's teachings (5th–6th c. AD),[153] in commentaries to Aristotle's *Metaphysica* written by Asclepius of Tralles (6th c. AD),[154] in Hesychius' lexicon (6th c. AD),[155] in Pseudo-Caesarius'[156] questions and answers (6th c. AD),[157] and in an extract within *Geoponica* (10th c. AD), which – according to Cassianus Bassus – originated from *Georgica* by Didymos of Alexandria,[158] i.e., from a text that is dated to the late 4th or the early 5th c. AD.[159]

Interestingly, the story on quails eating hellebore is often followed by accounts claiming that starlings eat hemlock, a fact which is also mentioned by Anthimus (with data no different to what can be read elsewhere) in Chapter 26.[160] Before the 6th century AD, it can be found in *De temperamentis*,[161] *De alimentorum facultatibus,*[162] *De simplicium medicamentorum temperamentis ac facultatibus*,[163] in Galen's *De theriaca ad Pisonem*,[164] *Problemata* by Alexander of Aphrodisias,[165] in *Cyranides*,[166] in Homily No. 5 within commentaries to *Hexaemeron* by Basil of Caesarea,[167] in Procopius of Gaza's writings (5th–6th c. AD),[168] in Pseudo-Caesarius' work,[169] etc.

We cannot trace the journey these two pieces of information travelled to reach Anthimus' treatise, but what we can do is, especially when we consider his educational background, assume that he may have derived them from the repertory of medical texts. Anyway, it was Galen who, statistically, most often

[151] *Cyranid*., 3, 53, 3. On the treatise complied between the 4th and 8th centuries AD, cf. Zucker 2008: 497–498; Zucker 2020: 288.

[152] Basil.Caesar. *Hex*., 5, 4, 31. On the author and his literary output, cf. Lim 1944: 351–370; Karamanolis, Schwartz 2008: 189–190; Inglebert 2020: 27–52, esp. 35–38; Touwaide 2020a: 386–387.

[153] Procop.Gas. *Gen*., I, 8, 72–73. On Procopius Layton 2019: 223–224.

[154] Asclep.Trall., 276, 17. On the author, cf. Hunger 1978: vol. 2, 229; Irby-Massie 2008: 172.

[155] Hesych., ε, 2147, 1, s.v. ἐλλέβορος. On the author and his lexicon, cf. Hunger 1978: vol. 2, 35–36; Dickey 2007: 88–90; Matthaios 2015: 289–290.

[156] Curta 2001: 43–44; Perczel 2006–2007: 49–83.

[157] Ps-Caes., 85, 19.

[158] Rodgers 2008a: 245.

[159] *Geopon*., XIV, 24, 2, 1. On *Geoponica*, cf. Teall 1971: 40–44; Hunger 1978: vol. 2, 273–274; Tilelis 2020: 192–193; Zucker 2020: 286–289; Lazaris 2020: 415–417.

[160] Anth., 26, 14, 9–11.

[161] Galen, *De temperamentis*, 684, 2, vol. 1.

[162] Gal. *Alim.Fac*., 567, 13, vol. 6.

[163] Gal. *SMT*, 382, 3–4, vol. 11; 551, 18 vol. 11; 600, 7–16 vol. 11; 601, 4–5, vol. 11.

[164] Gal., *Ther.Pis*., 227, 12, vol. 14.

[165] Alex.Aphrod., I, *proemium*, 49. 4, 26.

[166] Cyranid., 3, 53, 2–3.

[167] Bas.Caes. *Hex*., 5, 4, 26–28.

[168] Procop.Gas. *Gen*., I, 8, 72.

[169] Ps-Caes., 85, 18–19.

referred to the two facts in his treatises, and since he did so on the grounds of medical knowledge which Anthimus also studied, there is every likelihood that his works, and particularly *De alimentorum facultatibus* and *De simplicium medicamentorum temperamentis ac facultatibus* were the foundations of the system of knowledge presented in Chapters 25 and 26 of *De observatione ciborum*.

The reasons for Anthimus' substituting turtledoves for quails is unclear and usually put down to the author's error,[170] perhaps an effect of an inaccurate reconstruction of data that he read in his studies in Constantinople,[171] which he could not verify when compiling his treatise, as he may not have had access to well-equipped libraries, e.g., in the region of Ravenna under the reign of

[170] An error was suggested by Rose (1870: 56) and later by Deroux (1998: 377). Both do not know how to explain the fact.

[171] During Anthimus' lifetime, Constantinople was not only the imperial capital but also a growing centre for medical education. We can surmise that the city created opportunities for many physicians of different status – Nutton 1997: 191–226, esp. 210–212; Nutton 1984: 11–13; Ceran 1993: 6–11. As for Anthimus, we can conjecture that he received his medical training in Constantinople. Had he studied in Alexandria, the fact would have been mentioned by Malchus or by the author of *De observatione ciborum* himself – Evert-Kappesowa 1979: 139–164, esp. 140; Duffy 1984: 21–27, esp. 21. As far as medical studies are concerned, the city on Bosporus did not enjoy the fame which could equal that of Alexandria, and the majority of doctors working there were likely to learn their profession by apprenticeship to a practicing physician and reading medical books. At the end of the 5th c. AD Galen was definitely a medical classic, and thus there is nothing to suggest that Galen's works were not known in Constantinople – Boudon-Millot 2007: CXXXVII. It is true that by 500, except for his glossary to Hippocrates, all his philological works had vanished. The same fate met his philosophical treatises, whose Greek originals had fallen out of use before the early sixth century – Nutton 2007: 171–176, esp. 174. However, the vast majority of his works survived, and were reworked by eminent medical authors into multiple writings, including those which are certain to have been composed and circulated in the Constantinopolitan milieu. A good example is Aëtius of Amida, who is said to have practised in the capital and possibly served as an imperial physician at Justinian's court – van der Eijk 2010: 532; Scarborough 2013: 742–762; Gowling 2017: 99; Bouras-Vallianatos 2019: 41. During the period chronologically hardly distant from Anthimus' times, he, *inter alia*, used *De simplicium medicamentorum temperamentis ac facultatibus*. He also consulted Galen's *De alimentorum facultatibus* at first hand (cf. Gowling 2017: 83, 96–97; Bouras-Vallianatos 2019: 42) or indirectly (in the past, it was claimed that Aetius of Amida did not profit from *De alimentorum facultatibus* but made use of the lost synopsis of Galen's works penned by Oribasius or possibly of another source – Sideras 1974: 110–130; van der Eijk 2010: 544–545). Even if the latter option is true, *De alimentorum facultatibus* and *De simplicium alimentorum temperamentis ac facultatibus* must have been in circulation. They were read by, for instance, Alexander of Tralles, who also lived during Justinian's reign – Bouras-Vallianatos 2019: 45. As for Galen's commentary on Book 6 of *Epidemiae* it must have been less popular because parts of it are left only in Arabic translation – Boudon-Millot 2007: CLXI–II. However, there is no evidence that the treatise was absent from the capital's readership at the end of the 5th and at the beginning of the 6th c. AD either. Anyway, Constantinople is likely to have provided Arab translators with Greek originals of the work – Boudon-Millot 2007: CLVIII. To recapitulate, the city of Constantinople had satisfactory resources to provide Anthimus with vast medical knowledge, including those pieces of information which Anthimus discusses in his Chapters 25 and 26.

Theodoric the Great,[172] or in Metz, the capital of the Frankish ruler Theuderic.[173] Either way, such an interpretation could lead us to the conclusion that

[172] Ravenna was implied by Rose (1870: 56) as a place where *De observatione ciborum* was composed, when he called Theodoric the Great "der Auftraggeber" of the *opusculum* and set as *terminus post quem* for the compilation of the work years after 511 AD (the beginning of Theuderic's rule in Metz) and as *terminus ante quem* Theodoric the Great's death (526 AD). The same view can be deduced from Effros' (2002: 65–66) discussion on Anthimus and his work. On the other hand, the option is frowned upon by Hen (2002: 102–103). At the time of Anthimus' hypothetical stay in the city, Ravenna was not strange to medical studies, and the city's students followed a course similar to that in Alexandria – Palmieri 1991: 294–310, esp. 295–302; Corcoran 2016: 181; Herrin 2020: 367. In the late 5th or early 6th c. AD, in north Italy, possibly in Ravenna itself, there appeared a number of Latin translations of works belonging to *Corpus Hippocraticum*, and especially a Latin version of Book 2 of Hippocratic *De diaeta* known by the title *De observantia ciborum*, which clearly shows a contemporary keen interest in dietetics – Joly 1975: 3–22, esp. 3, 9, footnote 36, 22; Mazzini 1984: 11–12, 32–34; Totelin 2009: 278–279; Everett 2012: 23; Herrin 2020: 241. Fragments of the other translation are found to be interwoven with some manuscripts of Anthimus' work – Deroux 1974: 680–687; Deroux 1978: 966–970. The same milieu is said to have given the oldest Latin translations of Oribasius' treatises *Synopsis ad Eustathium filium* and *Libri ad Eunapium* – Baader 1984: 251–259, esp. 252; Mazzini 1991: 286–293, esp. 288–289; Everett 2012: 22–23. Sometime after Anthimus' lifetime (in the second part of the 6th or at the beginning of the 7th c. AD), the city of Ravenna witnessed lectures given by the famous iatrosophist Agnellus, which were written down by his student named Simplicius. Agnellus' curriculum included Galen's *De sectis*, *Ars medica* and *De pulsibus.* At a very similar time, a commentary to Galen's *De medendi methodo* was also compiled in the same (or not distant) location – Palmieri 1991: 306–309; Everett 2012: 22; Herrin 2020: 239–241. Accordingly, during Anthimus' hypothetical stay in the city, Ravenna was an environment inducive to medical studies, and promoting the interest in Greek medical heritage. Accordingly, one can surmise that, even if the city's medical library did not possess adequate literature, Greek-speaking doctors practising and teaching there (Herrin 2020: 239), had Anthimus wanted to consult them on peculiarities of wild bird's diet, he would have enough resources and knowledge to help him out on this problem.

[173] Anthimus was a legate and the mission should entail a stay of some duration in Gaul. The fact does not appear an oddity because physicians were used as diplomats (cf. Blockley 1980: 89–100; Baldwin 1984: 15–19; Nutton 1984: 12–13, esp. note 114; Nutton 2005: 301). As for the author of *De observatione ciborum*, Hen (2006: 103) suggests that he might have been sent to the Franks not once but at least on two diplomatic missions (the first, in 508, still during the reign of Clovis, when he met Theuderic for the first time, and the other after 511, when he was sent to his capital at Metz). Accordingly, in the light of Hen's hypothesis Anthimus might have had an opportunity to familiarize himself with Frankish dietary habits, and subsequently he included his experience in his final work. Such an option appears to be corroborated by the fact that, on the one hand, Anthimus writes relatively little about the Goths' diet (he mentions fleetingly only one Gothic dish, namely *fenea* – Anth., 64, 24, 2; cf. Hen 2006: 103), while, on the other hand, he writes in detail about the appreciation (i.e. *laredum* – Anth., 14, 8, 9 – 10, 5) raw bacon enjoyed among the Franks. The entry on *laredum* is by far the most exhaustive in the entire *opusculum*, which seems to suggest that Anthimus knew the Frankish delicacy well, and is the basis for Mark Grant's premise that the entire work was compiled in north-eastern Gaul – Grant 2007: 27. Such a conclusion, however, appears to be weakened by that fact that Anthimus writes that he only heard that the Franks ate raw bacon (*de crudo vero laredo, quod solent, ut audio, domni Franci comedere*… – Anth., 14, 9, 9–10) and never admits to having eaten it himself. As a result, his knowledge on bacon may be interpreted as indirect. For a dietetic interpretation of the passage cf.

Anthimus had erred with regard to accepted knowledge, a mistake which might lead us to question his overall competences.

Such a way of reasoning seems, however, to have its weaknesses. As a dietician and gourmet Anthimus was knowledgeable about foodstuffs, including fowl. Carl Deroux, who studied his letter in detail, has demonstrated Anthimus' competence in a number of his articles, never having been able to prove him wrong except for this one and only case.[174] As far as turtledoves and quails are concerned, they were ubiquitous in the Mediterranean, and thus well-known. The former nested across the areas of Europe, North Africa, and West Asia, which is reflected both in literary sources as well as by results of archaeological research.[175] The latter crossed the region twice a year and their bones have been excavated in Italy, the Balkans, and North Africa.[176] Accordingly, it should be

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Deroux 1994: 178–180; Deroux 2008: 518–523. Although the fact of Anthimus' addressing letter to Theuderic proves the Franks' growing interest in medicine, there is no evidence saying that Metz under Theuderic's rule was a major centre of medical activity or formation. On the other hand, it does not mean that the city and Francia as a whole were devoid of physicians. Such must have been available where urban areas and royal courts created an environment able to provide enough wealthy patients – Nutton 2005: 304. Medics are also certain to have travelled extensively from one noble household to another when summoned to the ailing rich. The powerful tried to protect the population from epidemics, and to create a network of hospitals – Horden 2020: 299–313, esp. 305–307. We know some members of the medical profession whose names and fate were depicted in extant sources. Helpidius found employment at the Ostrogothic court under Theoderic the Great, and this fact is for Hen one of the arguments disproving Rose's hypothesis concerning Anthimus' career as a court physician to the Gothic ruler – PLRE 1980: 537; Nutton 2005: 301; Hen 2006: 103. The other, named Reovalis, served the bishop of Poitiers in the second part the sixth century. He was, however, educated far from Gaul, possibly in Constantinople – Greg.Tur. *Hist*., X, 15. At a more or less the same time, the third, called Marileif, is attested to have acquired considerable wealth at Chilperic's court – Greg.Tur. *Hist*., V, 14; VII, 25. Though there is no doubt that doctors in Gaul could become prominent figures, there is little evidence of extensive knowledge of classical medicine there – Flint 1989: 127–145, esp. 128–133. The last major compilation written in the milieu and based on ancient and contemporary Greek medical achievements before Anthimus' lifetime was *De medicamentis,* compiled by Marcellus of Bordeaux around the year 408. All in all, one can claim that some Roman medical knowledge survived in the region – Baader 1984: 252, 258; James 1993: 45–60, esp. 54–55; Effros 2002: 55–67, esp. 55–58. For the lack of major medical schools in the area, however, the local expertise had to be upgraded either by means of contacts with the Byzantine capital (and later with Ravenna) or by alluring such medics as Anthimus into Gaul. Consequently, it is hard to assume that, in the part of Gaul visited by him on his diplomatic missions, there were enough Greek-speaking doctors or works written in Greek to provide him with specific knowledge (especially in terms of the contents of Chapters 25 and 26), if he had wanted to consult them there.

[174] On the contrary, he rather appears to have proved that Anthimus was precise in using his terminology. Cf. Deroux' conclusions concerning terms referring to the fish salmon – Deroux 1976: 55–68, esp. 63–64.

[175] Arnott 2007: 364–366; Kroll 2010: 188; Kroll 2012: 105.

[176] Arnott 2007: 237 (migration); Kroll 2010: 122 (migration), 187 (osseous remains); Kroll 2012: 105 (migration and osseous remains), 116 (osseous remains).

assumed that the author of *De observatione ciborum* knew the creatures from his own experience, and thus was able to tell one from the other.[177] His topical competence is corroborated by the fact that it is impossible to demonstrate that Anthimus blunders when he refers to *turtures* as a dietician. He was right that the birds, although they basically (together with other birds) live in the wild (*in campis vero qui nascuntur*…[178]), were also kept in captivity for fattening purposes (…*qui saginantur in domum*…).[179] He was equally well-informed about their dietetic influence, and in his evaluation followed in Galen's footsteps, who assessed them as hard-fleshed.[180] The above-characteristic resulted in their contribution to the production of black bile,[181] which was also alluded to rightly by Anthimus.[182] It is of the utmost importance that Galen's opinion was retained by later physicians who practiced up the time when Anthimus was compiling his treatise, and consequently is present in Oribasius' works,[183] and cited also in Aetius of Amida's teachings.[184]

One has, however, also to admit that dietetic assessment of quails was not far from that of turtledoves. A good example is the fact that Archigenes of Apamea (1st/2nd c. AD)[185] prescribed turtledoves' and quails' meat to those suffering from dropsy because it was relatively dry.[186] To be honest, quails did not attract Galen's attention at all, except for his testimony saying that they were hunted for and consumed in Greece (in Doris, Boeotia, Thessaly, and Attica) and that their meat could pose a threat to those who ate it (giving them muscle cramps),

[177] Deroux 1998: 377–378.

[178] Deroux (1998: 371) recommended the reading *pascuntur* instead of *nascuntur*.

[179] The information has been preserved, for instance, by Varro (*R.Rust.*, III, 8, 1, 1 – 3, 8) and Columella (VIII, 9, 1, 1 – VIII, 9, 4, 7), and implied in *Geoponica* (XIV, 24, 1, 1–4).

[180] Gal. *Alim.Fac*., 700, 13–16, vol. 6.

[181] The effect of consuming turtledove meat is discussed by Galen in *De victu attenuante*, where Galen's readers are advised against eating the foodstuff in large quantities, especially if they live a sedentary lifestyle. In order to make the food less harmful, Galen recommends that it should be left to mature for a day after slaughter, which tenderizes the meat effectively and makes it fit to nourish the body safely – Gal. *Vict.At*., 69, 1–71, 9.

[182] I do not agree with Deroux' conclusion that Galen spoke highly of turtledoves – Deroux 1998: 372–374. Since I share Deroux's opinion that Anthimus was first and foremost a medical doctor ("…*Anthime est avant tout médecin*… – Deroux 1998: 372), I think that the primary goal of his work was to present general rules of *materia medica* (considering foodstuffs) from the point of view of dietetics. Therefore I am of the opinion that the culinary information referred to by Deroux is inconclusive because it says nothing about the principles of dietetics but about disobedience to dietetic rules. Such an interpretation of the data has been also proposed by Deroux (1998: 372), who writes that "…*le point de vue du médecin n'est pas nécessairement celui de gourmet*…."

[183] Orib. *Coll.Med*., II, 42, 1, 1 – 5, 8; III, 18, 5, 1–3, ; Orib. *Syn.*, IV, 17, 3, 1–3; Orib. *Lib. Eunap.*, I, 35, 3, 1–2.

[184] Aët., II, 130, 5–7.

[185] Touwaide 2008: 160–161.

[186] Archigen., *Fragment* 72, 5–11.

when the birds had a temporary fancy for hellebore.[187] Galen's silence about the quality of the birds' meat is in fact its assessment, as, if it had been a foodstuff regarded as worth pondering on, he would not have refrained from writing about it. In fact, we can conjecture that other medical doctors who were active after Galen shared his low appreciation of the meat. By the by, his opinion had already had a long history when he was composing his works, and that is why Athenaeus of Attaleia's (1st c. AD)[188] teachings on the birds (preserved by Oribasius in his *Collectiones medicae*) are limited to a mere statement that quails were fattest (that is best to eat) in autumn.[189] In fact, Rufus of Ephesus (1st/2nd c. AD),[190] a fragment of whose work on diet appropriate for women has been preserved in writings attributed to Oribasius, is the other physician who, while classifying quails as the worst of all wildfowl, alluded to their dietetic characteristics, opining that the creatures' meat moistens the body but is not easy to concoct.[191] It is easy to notice that Rufus' evaluation contradicts what Archigenes claimed, and is a clear sign of the double assessment of quails in ancient medicine. On the other hand, apart from corroborating the validity of the above assumptions as for a general quality of quails, Rufus' remark on their moistening quality suggests that they were not assessed to contribute to the production of black bile (as the humour's characteristics included dryness) but rather to phlegm (being watery and cold). In conclusion, the evidence presented above turns out to be important because it appears to prove that in Chapter 25 of *De observatione ciborum* Anthimus did not make a mistake in naming the bird he was writing about but, as his description concerns a foodstuff which is melancholic and not phlegmatic, he made a choice in his teaching, and out of two pathways of medical tradition he embarked on the one which was also preferred by Rufus.

Having said that, I would like to propose a solution to the riddle. First and foremost, one can venture a slightly different way of interpretating the meaning chapter 25 has. The beginning of the fragment ("de agrestibus vere avibus"[192]) suggests that its contents refer to wildfowl in general, and consequently the facts mentioned in the narrative consider all wild birds (including turtledoves). Accordingly, Anthimus' statement worded "sicut auctoris nostri dicent"[193] implies a mere fact that, known from medical literature, if wild birds have a fancy for hellebore, their meat can pose a threat to the health of those who would like to consume it. What follows is a story which exemplifies these general teachings Anthimus learned from his reading but on the basis of a case which proved

[187] Gal., *Hipp.Epidem.*, 306, 14 – 307, 3, vol. 17 b.
[188] Touwaide 2008a: 176–177.
[189] Orib. *Coll.Med*., I, 3, 4, 2–3.
[190] Scarborough 2008b: 720–721.
[191] Orib. *Coll.Med. (libri incerti)*, XX, 24, 1 – 25, 1.
[192] Anth., 25, 13, 3, 6.
[193] Anth., 25, 13, 10–11.

the theory true. As a result, the story about treating the two *rustici* poisoned with turtledove meat may well be a description of an actual intervention which Anthimus made on the basis of correct therapeutic premises. Presumably, the fact that he knew medical sources that prevailingly reported food poisonings caused by quail meat entitled him to believe that he had encountered a similar case (in terms of aetiology) with much the same symptoms induced by another bird belonging to the class (i.e., wild fowl), namely turtledoves. Even though the case was not identical to the accounts he knew from the literature, he may still have come to the conclusion that the two poisoned peasants required the same, standardised, treatment with aged wine and olive oil.

If this interpretation is accurate, Chapter 25 should be recognised as evidence that Anthimus was not only an active but also a creative physician, who – just like Galen – related his own professional experience (ἐμπειρία) in his writings.[194] In all probability, he decided to add this information to tell the reader about his small contribution, which not only remained in line with medical theory but parallelly was able to authenticate the content of his treatise, differentiating *De observatione ciborum* from works of medical theoreticians and authors who were not professional medical practitioners, e.g., Diphilus of Siphnos (3rd c. BC),[195] Cato the Elder (3rd/2nd c. BC),[196] iatrosophists of his times,[197] and later Symeon Seth,[198] and Michael Psellos (10th/11th c. AD).[199] Accordingly, one can modify Deroux' conclusions expressed in his study on Chapter 25 of *De observatione ciborum* that the case was a mere verification of "…un savoir figé et éminnemment livresque," and add the described poisoning and its cure to other elements of Anthimus' creativity rightly recognised in the researcher's earlier article.[200]

Although the story of the two poisoned *rustici* is not explicit enough for us to determine the exact time and place of the events, it still leaves leeway for speculation on the matter. First of all, there is *terminus post quem*, which relates to the general background of the story. Before his exile from Constantinople, as a city dweller, Anthimus mostly had contacts with residents of the capital (*urbani*), not *rustici*, while the fragment worded "turtures in campo vero qui nascuntur" and the profession of the poisoning victims allow us to conclude that

[194] Nutton 2005: 1–14, esp. 4. Alexander of Tralles, who wrote in Constantinople sometime later (but still in the 5th c. AD), was equally proud of his practical experience – Duffy 1984: 25; Bouras-Vallianatos 2019: 45–46, 56.

[195] Cf. Scarborough 1870: 194–201.

[196] Cf. Boscherini 1993: 730–739; Draycott 2019: 46–48, 140–141.

[197] On iatrosophists – de Wet 2019: 414; Garofalo 2019: 62–67, 71; Touwaide 2020a: 366–367.

[198] Cf. Bouras-Vallianatos 2015: 436–457.

[199] Cf. Hohlweg 1988: 39–49; Bouras-Vallianatos 2019: 439, 443 (footnote 40), 446 (footnote 55), 447.

[200] As a result, the case should be included into Deroux' article entitled *Tradition et innovation dans la Diététique d'Anthime*.

Chapter 25 tells a story that is more likely to have happened in the countryside, i.e., in a setting very different from that typical of the Byzantine capital. If so, the story is not a report from Anthimus' young years before the exile but would rather refer to the period of his life when he was absent from the city upon the Bosporus. As a result, it must have taken place after 478, i.e., the year when he was forced to leave Constantinople.

The words "in villa duo rustici" reveals that the author considers the two men poisoned with turtledove meat to be either peasants, or farm labourers who worked at a large mansion. They cannot have been better-off as, if they were, they would have purchased fattened fowl which was said to be better than the wild turtledove they happened to catch. Neither could they have owned their own estate each as the noun *villa* would then have been used in the plural, most likely with an additional possessive pronoun, e.g., *in villis suis*. If so, it seems reasonable to presume that the men could have afforded to pay neither for medical consultation nor for necessary medicaments, one of which – namely, *vinum vetus* – would have been more expensive than regular table wine because of its maturity, and also due to the fact that it should have belonged to the class of top-quality wines.

Anthimus writes that he encountered the case during his time *in provincia mea*. Here, we may consider two possibilities for the situation to have happened. If we follow Rose's suggestion that Anthimus was a governor of one of the provinces in Theodoric's Gothic state, the situation must have occurred most probably after 493, when the Gothic leader established his rule in Ravenna, as it was only after this date that the political situation in the kingdom of Theodoric the Great allowed farm labourers to lead a peaceful life and landowners to care about their staff. On the other hand, provided we accept Hen's hypothesis that Anthimus returned to the city on Bosporus between 491 and 497, stayed there for good, and was sent on diplomatic missions, the medical intervention is likely have happened after the date, and provided Anthimus actually practiced as a medical doctor, being commissioned by landowners to treat either themselves or their staff.

There is one more piece of evidence worth considering in the context of Anthimus' career. Notably, in Chapter 33 Anthimus recommends to Theuderich bustards, saying that they are absent from Gaul. Since this piece of information implies that the author, while he was writing *De observatione ciborum* lived in a place where bustards were hunted for, and therefore appreciated as food, and since, according to the data collected by D'Arcy W. Thompson,[201] Lawrence Feinberg,[202] and W. Geoffrey Arnott,[203] bustards were in antiquity ubiquitous

[201] Thompson 1895: 199–200.

[202] Feinberg (1970: 129–136, esp. 129, footnote 2) disproves Capponi's (1962: 572–615) conclusions that the bird τέτραξ, whose mention is made by Atheaneus of Naucratis in in Book 9 of his *Dipnosophistarum libri* (IX, 398d – 399a [58, 28–50]), is the bustard.

[203] Arnott 2007: 239–240. Though Arnott maintains that bustard's remains were identified at Fishbourne Roman palace (which appeared to imply that they were also present in the northern

in the Balkans and to the east of the region but there is no evidence that they were hunted for in the west (with the exception of Spain) or in the middle of the Mediterranean (with the exception of North Africa), it could be argued that *De observatione ciborum* was not compiled in Gothic Italy[204] but rather in the eastern part of the Empire.[205] Such a conclusion supports Hen's hypothesis (which locates Anthimus for a longer period in the region of Constantinople) and disproves that of Rose and his followers (which implies that Anthimus stayed close to Theodoric the Great's court). If so, it also becomes likelier that, in Chapter 25, Anthimus told us a story that happened somewhere in the countryside (but not that far from Constantinople as the city was in the region inhabited by bustards) during the period between the beginning of the nineties of the fifth century AD and his diplomatic mission to the Franks (during which he was carrying his final version of the work to Theuderic). Consequently, if we accept other results of Hen's line of reasoning, *De observatione ciborum* was most probably completed also in a similar location after Anthimus' first encounter with the Franks (and possibly with Theuderic himself, who, having been impressed by Anthimus' competence in dietetics, commissioned the work) in 508, before the hypothetical second legation, which might have been despatched after Theuderic's enthronement (i.e. after 511),[206] and definitely prior to Theuderic's death in 534. Such course of events appears to be more congruous with pieces of information extant in Anthimus' work than that postulated by Rose, whose ideas, though modified, were shared by Grant, the translator of the text into English, suggesting that *De observatione ciborum* was compiled in north-eastern Gaul, and handed over to Theuderic by a Gothic legation sent by Theodoric the Great either in 516 or in 523.[207]

FINAL CONCLUSION

The analysed information proves that Anthimus was a competent physician, and he was able to apply in his medical practice theories he learned. Accordingly, the author *De observatione ciborum* did not err when, in chapter 25, he mentioned

part of Europe), later research by Allen proved that specimens originally thought to belong to the great bustard should be re-interpreted as remains of the common crane – Allen 2019: 180–186.

[204] Where bustards were not hunted for.

[205] Where bustards were common.

[206] The three years between 508 and 511 were a time which allowed Anthimus to acquire knowledge on Frankish diet. By the by, Hen's hypothesis also appears to put forward an explanation to the riddle of Anthimus's use of vulgar Latin – it was actually learned by him when he was with the Goths. However, when he was allowed to return to the empire, he used to live in a Greek-speaking environment, and that is why he did not continue to master his command of the language.

[207] Grant 2007: 21–28, esp. 23–24, 27–28.

turtledoves but his topical teachings were a creative application of knowledge he acquired through reading medical classics. His know-how included understanding achievements of ancient dietetics and was based on his fairly profound knowledge of *materia medica*. That is why he was able to use the theory he acquired as a result of his studies to give culinary advice which was in tandem with his doctrine. Moreover, Anthimus' work and fate imply that his approach towards the medical knowledge and its application in food preparation techniques were growing more and more popular and thereby influential among Gothic and Frankish elites. Last but not least, the information included in Chapters 25, 26, and 33 of the treatise *De observatione ciborum* imply that Anthimus' work was composed in the Constantinopolitan milieu after 508, possibly circa 511.

REFERENCES

Primary sources

Aët.: *Aetii Amideni Libri medicinales I–VIII*, ed. A. Olivieri, Lipsiae–Berolini 1935–1950; Αετίου Αμιδηνού λόγος ένατος, ed. Σ. Ζερβός, "Αθηνά" XXIII (1911), 273–390.

Alex.Aphr.: *Alexandri Aphrodisiensis Problemata*, in: *Physici et medici Graeci minores*, ed. J.L. Ideler, vol. 1, Berlin 1841.

Alex.Trall.: *Alexandri Tralliani Therapeutica*, in: *Alexander von Tralles*, ed. T. Puschmann, vol. 1–2, Vienna 1878–1879.

Anth.: V. Rose, *Die Diätetik des Anthimus an Theuderich König der Franken*, in: *Anecdota graeca et graecolatina. Mitteilungen aus Handschriften zur Geschichte der griechischen Wissenschaft*, ed. V. Rose, vol. 2, Berolini 1870, 41–102; *Anthimi De observatione ciborum epistula ad Teudericum regem Francorum*, ed. V. Rose, Lipsiae 1877; *Anthimi De observatione ciborum ad Theodoricum regem Francorum epistula, iteratis curis edidit et in linguam Germanicam transtulit* E. Liechtenhan, Berlin 1963 (text of reference); Anthimus, *On the Observance of Foods. De observatione ciborum*, ed., transl. M. Grant, Blackawton–Totnes 2007.

Apic.: *Apicius. A Critical Edition with an Introduction and an English Translation of the Latin Recipe Text Apicius*, ed. Ch. Grocock, S. Grainger, Blackawton–Totnes 2006.

Archigen.: G.L. Calabrò, *Frammenti inediti di Archigene*, "Bollettino del comitato per la preparazione dell'edizione nazionale dei classici greci e latini" IX (1961), 68–72.

Asclep.Trall.: *Asclepii in Aristotelis metaphysicorum libros A-Z commentaria*, ed. M. Hayduck, Berlin 1888.

Ath.: *Athenaei Naucratitae dipnosophistarum libri xv*, ed. G. Kaibel, vol. 1–3, Lipsiae 1887–1890.

Basil.Caesar. *Hex*.: Basile de Césarée*, Homélies sur l'hexaéméron,* ed. S. Giet, Paris 1968.

Col.: Columella, *De re rustica*, in: *L. Iunii Moderati Collumellae opera quae extant*, vol. 2–8, eds. V. Lundström, Å. Josephson, S. Hedberg, Uppsala 1917–1958.

Cyranid.: *Die Kyraniden*, ed. D.V. Kaimakes, Meisenheim am Glan 1976.

Diaet.: *Hippocratis de diaeta*, ed., trans., comm., R. Joly, S. Byl, Berlin 2003.

Dsc. *Eup*.: *Pedanii Dioscuridis Anazarbei De materia medica libri V*, ed. M. Wellmann, vol. 1–3, Berolini 1906–1914.

Eclog.Med.: *Oribasii Collectionum medicarum eclogae medicamentorum*, in: *Oribasii Collectionum medicarum reliquiae*, vol. 4, libros XLIX–L, *libros incertos*, *Eclogace medicamentorum, indicem continens*, ed. I. Raeder, Lipsiae–Berolini 1933.

Edict.Dioclet.: *Edictum Diocletiani et Collegarum de pretiis rerum venalium*, ed. M. Giacchero, vol. 1–2, Genova 1974; *Edictum Diocletiani de pretiis rerum venalium. Edykt Dioklecjana*

o cenach towarów wystawionych na sprzedaż, intr., transl., eds. A. and P. Barańscy, P. Janiszewski, Poznań 2007.
Gal. *Alim.Fac.*: *Galeni de alimentorum facultatibus libri III*, in: *Claudii Galeni Opera omnia*, ed. C.G. Kühn, vol. 6, Lipsiae 1823.
Gal. *Ant.*: *Galeni de antidotis libri II*, in: C.G. Kühn, *Claudii Galeni opera omnia*, ed. C.G. Kühn, vol. 14, Lipsiae 1827.
Gal. *At.Bil.*: *Galeni de atra bile*, in: *Claudii Galeni Opera omnia*, ed. C.G. Kühn, vol. 5, Lipsiae 1823.
Gal. *Comp.Med.Loc.*: *Galeni de compositione medicamentorum secundum locos libri X*, in: *Claudii Galeni Opera omnia*, ed. C.G. Kühn, vol. 12–13, Lipsiae 1826–1827.
Gal. *Diff.Feb.*: *Galeni de febrium differentiis libri II*, in: *Claudii Galeni Opera omnia*, ed. C.G. Kühn, vol. 5, Lipsiae 1823.
Gal. *Dig.Puls.*: *Galeni de dignoscendis pulsibus libri IV*, in: *Claudii Galeni Opera omnia*, ed. C.G. Kühn, vol. 8, Lipsiae 1824.
Gal. *Loc.Aff.*: *Galeni de locis affectis libri VI*, in: *Claudii Galeni Opera omnia*, ed. C.G. Kühn, vol. 8, Lipsiae 1824.
Gal. *Bon.Mal.Suc.*: *Galeni de rebus boni malique suci libellus*, ed. G. Helmreich, Lipsiae 1923.
Gal. *San.Tu.*: *Galeni de sanitate tuenda libri VI*, in: *Claudii Galeni Opera omnia*, ed. C.G. Kühn, vol. 6, Lipsiae 1823.
Gal. *SMT*: *Galeni de simplicium medicamentorum temperamentis ac facultatibus libri XI*, in: *Claudii Galeni Opera omnia*, ed. C.G. Kühn, vol. 11–12, Lipsiae 1826–1827.
Gal. *Temp.*: *Galeni de temperamentis libri iii*, ed. G. Helmreich, Lipsiae 1904.
Gal. *Ther.Pis.*: *Galeni de theriaca ad Pisonem*, in: *Claudii Galeni opera omnia*, ed. C.G. Kühn, vol. 14, Lipsiae 1827.
Gal. *Vict.At.*: *Galeni de victu attenuante*, ed. K. Kalbfleisch, Lipsiae–Berlolini 1923.
Gal. *Hipp.Epid.*: *Galeni in Hippocratis sextum librum epidemiarum commentaria I-VI*, ed. E. Wekenbach, Lipsiae 1940.
Geopon.: *Geoponica*, ed. H. Beckh, Lipsiae 1895.
Greg.Tur. *Hist.*: *Gregorii episcopi Turonensis Historiarum libri X*, ed.B. Krusch, W. Levison, Hanover 1951.
Hesych.: *Hesychii Alexandrini lexicon*, ed. K. Latte, vols. 1–2, Copenhagen 1953–1966.
Col.: *L. Iuni Moderati Columellae De re rustica*, in: *L. Iuni Moderati Columellae Opera quae exstant*, ed. S. Hedberg, vol. 8, Uppsala 1958.
Malch.: Malchus, *Historia Byzantina*, in: *The Fragmentary Classicising Historians of the Later Roman Empire: Eunapius, Olympiodorus, Priscus and Malchus: Text, Translation, and Historiographical Notes*, ed. R.C. Blockley, vol. 2, Liverpool 1983, 403–462.
Orib. *Coll.Med.*: *Oribasii collectionum medicarum reliquiae*, ed. I. Raeder, vol. 1–4, Lipsiae–Berolini 1928–1933.
Orib. *Lib.Eunap.*: *Oribasii libri ad Eunapium*, in: *Oribasii Synopsis ad Eustathium filium et Libri ad Eunapium*, ed. I. Raeder, vol. 6, 3, Lipsiae 1964.
Orib. *Syn.*: *Oribasii synopsis ad Eustathium filium*, in: *Oribasii Synopsis ad Eustathium filium et Libri ad Eunapium*, ed. I. Raeder, vol. 6, 3, Lipsiae 1964.
Pallad.: *Palladii Rutilii Tauri Aemiliani viri inlustris Opus agriculturae, De veterinaria medicina, De insitione*, ed. R.H. Rodgers, Leipzig 1975.
Paul.Aeg.: *Paulus Aegineta*, ed. I.L. Heiberg, vol. 1–2, Lipsiae–Berolini 1921–1924.
Plant.: *[Aristotele]. Le piante. Testo greco a fronte*, intr., transl. M.F. Ferrini, Milano 2012.
Plin. *Hist.Nat.*: *C. Plini Secundi naturalis historiae libri XXXVII*, ed. C. Mayhoff, vol. 1–4, Lipsiae 1892–1909.
Procop.Gas. *Gen.*: Prokop von Gaza, *Eclogarum in libros historicos Veteris Testamenti epitome,* vol. 1: *Der Genesiskommentar*, ed. K. Metzler, Berlin–Munich–Boston 2015.
Ps-Caes.: Pseudo-Kaisarios, *Die Erotapokriseis,* ed. R. Riedinger, Berlin 1989.

Theoph.: *Theophanis Chronographia*, rec. C. de Boor, vol. 1, Leipzig 1883.
Theophyl.Sim.: *Theophylacti Simocattae Historiae*, ed. C. de Boor, Leipzig 1887.
Var. *R.Rust.*: *M. Terenti Varronis Rerum rusticarum libri tres,* [in:] *M. Porci Catonis De agri cultura liber. M. Terenti Varronis Rerum rusticarum libri tres*, ed. H. Keil, R. Krumbiegel, vol. 1–3, Lipsiae 1881–1902.

Secondary sources

Adams 2003: Adams, J. 2003. *Bilingualism and the Latin Language.* Cambridge.
Allen 2009: Allen, M. G. 2009. "The Re-Identification of Great Bustard (Otis tarda) from Fishbourne Roman Palace, Chichester, West Sussex, as Common Crane (Grus grus)." *Environmental Archaeology* vol. XIV, no. 2, 180–186.
Arnott 2007: Arnott, W.G. 2007. *Birds in the Ancient World from A to Z.* London – New York.
Asfora Nadler 2016: Asfora Nadler, W. 2016. "Collecting and Interpreting Apicius in Fifteenth-Century Italy Manuscript Tradition and Circulation of Culinary/Dietary Knowledge." *Food and History* vol. XIV, no. 2/3, 183–203.
Baader 1984: Baader, G. 1984. "Early Medieval Latin Adaptations of Byzantine Medicine in Western Europe." *Dumbarton Oaks Papers* XXXVIII, 251–259.
Baldwin 1975: Baldwin, B. 1975. "The Career of Oribasius." *Acta Classica* XVIII, 85–97.
Baldwin1984: Baldwin, B. 1984. "Beyond the House Call: Doctors in Early Byzantine History and Politics*" Dumbarton Oaks Papers* XXXVIII, 15–19.
Blockley 1980: Blockley, R. C. 1980. "Doctors as Diplomats in the Sixth Century A.D." *Florilegium* II, 89–100.
Bonifay, Pieri 2020: Bonifay, M., Pieri, D. 2020. "Merovingian Gaul and the Mediterranean: Ceramics and Trade." In *The Oxford Handbook of the Merovingian World.* Ed. by B. Effors, I. Moreira, 860–882. Oxford.
Boscherini 1993: Boscherini, S. 1993. "La medicina in Catone e Varrone." In *Aufstieg und Niedergang der römischen Wel.* Ed. by W. Haase, vol. 2, 37.1, 730–739. Berlin–New York.
Boudon-Millot 2007: Boudon-Millot, V. 2007. "Introduction générale." In: *Galien*. Tome I: *Introduction générale, Sur l'ordre de ses propres livres, Sur ses propres livres, Que l'excellent médecin est aussi philosophe.* Trad. V. Boudon-Millot, VII–CCXXXVIII. Paris.
Bouras-Vallianatos 2014: Bouras-Vallianatos, P. 2014. "Clinical Experience in Late Antiquity: Alexander of Tralles and the Therapy of Epilepsy." *Medical History* vol. LVIII, no. 3, 337–353.
Bouras-Vallianatos 2015: Bouras-Vallianatos, P. 2015. "Galen's Reception in Byzantium: Symeon Seth and his Refutation of Galenic Theories on Human Physiology." *Greek, Roman and Byzantine Studies* LV, 431–469.
Bouras-Vallianatos 2019: Bouras-Vallianatos, P. "Galen in Late Antique Medical Handbooks." In *Brill's Companion to the Reception of Galen.* Ed. by P. Bouras-Vallianatos, B. Zipser, 38–61. Leiden–Boston.
Buzzi 2016: Buzzi, S. 2016. "La "forma breve" come paradigma compositivo nella produzione scientifica di epoca tardoantica: il caso di Oribasio." In *Forma breve.* Ed. by D. Borgogni, G.P. Caprettini, C. Vaglio Marengo, 192–201. Torino.
Buzzi 2017: Buzzi, S. 2017. "Polemica e controversia nel Corpus Oribasianum." *Medicina nei Secoli: Arte e Scienza* vol. XXIX, no. 3, 943–970.
Buzzi, Calà 2017: Buzzi, S., Calà, I. 2017. "Le ricette cosmetiche nelle enciclopedie mediche tardoantiche." In *Collecting Recipes: Byzantine and Jewish Pharmacology in Dialogue.* Ed. L. Lehmhaus, M. Martelli, 123–146. Berlin–Boston.
Caparrini 2009: Caparrini, M. 2009. "Per un approfondimento dei germanismi dell'Epistula Anthimi de observatione ciborum: bridum/spiss, sodinga/prue." *Linguistica e Filologia* XXIX, 179–196.

Capponi 1962: Capponi, F. 1962. “Il tetrax ed il tarax di Nemesiano.” *Latomus* vol. XXI, no. 3, 572–615.

Ceran 1993: Ceran, W. 1993. “Jan Chryzostom o leczeniu i lekarzach.” *Acta Universitatis Lodziensis. Folia Historica* VIII, 3–26.

Χρόνη 2012: Χρόνη, M. 2012. *Η πανίδα στη διατροφή και στην ιατρική στο Βυζάντιο.* Αθήναι.

Cobb 2013: Cobb, M. A. 2013. “The Reception and Consumption of Eastern Goods in Roman Society.” *Greece & Rome* vol. LX, no. 1, 136–152.

Cobb 2018: Cobb, M. A. 2018. “Black Pepper Consumption in the Roman Empire” *Journal of the Economic and Social History of the Orient* vol. LXI, no. 4, 519–559.

Corcoran 2016: Corcoran, S. 2016. “Roman Law in Ravenna.” In *Ravenna*: *Its Role in Earlier Medieval Change and Exchange.* Ed. J. Herrin, J. Nelson, 163–198. London.

Curta 2001: Curta, F. 2001. *The Making of the Slavs. History and Archaeology of the Lower Danube Region c. 500-700.* Cambridge.

Dalby 1996: Dalby, A. 1996. *Siren Feasts: A History of Food and Gastronomy in Greece.* London–New York.

Dalby 2000: Dalby, A. 2000. *Dangerous Tastes: The Story of Spices.* London.

Dalby 2000a: Dalby, A. 2000a. *Empire of Pleasures: Luxury and Indulgence in the Roman Empire.* London.

Dalby 2003: Dalby, A. 2003. *Flavours of Byzantium.* Blackawton–Totnes.

Dalby 2003a: Dalby, A. 2003a. *Food in the Ancient World from A to Z.* London–New York.

Dalby 2010: Dalby, A. 2010. *Tastes of Byzantium: The Cuisine of a Legendary Empire.* London–New York.

de Lucia 2005: de Lucia, R. 2005. “Oreibasios v. Pergamon.” In *Antike Medizin. Ein Lexikon.* Ed. by K.-H. Leven, col. 660–661. München.

Deroux 1974: Deroux, C. “Des traces inconnues de la “Diététique” d’Anthime dans un manuscrit du Vatican “(Reg. Lat. 1004)”.” *Latomus* vol. XXXIII, no. 3, 680–687.

Deroux 1976: Deroux, C. 1976. “La définition du nom de poisson esox (isox, isicius …).” In *Hommages à André Boutemy.* Ed. by G. Cambier, 55–68. Bruxelles.

Deoux 1976a: Deroux, C. 1976a. “Note sur l’ellébore et le faux ellébore.” *Latomus* vol. XXXV, no. 4, 875–878.

Deroux 1978: Deroux, C. 1978. “Les interpolations d’une version latine du livre II du Περὶ διαίτης pseudo-hippocratiquedans la Diététique d’Anthime.” *Latomus* vol. XXXVII, no. 4, 966–970.

Deroux 1994: Deroux, C. 1994. Tradition et innovation dans la Diététique d’Anthime.” In *Tradición e innovación de la medicina latina de la antigüeda*d y de *la alta edad media. Actas del IV Coloquio Internacional sobre los «textos médicos latinos antiguos»*. Ed. by M. E. Vázquez Buján, 171–182. Santiago de Compostela.

Deroux 1998: Deroux, C. 1998. “Anthime et les tourterelles: un cas d’intoxication alimentaire au très haut moyen âge.” In *Maladie et malades dans les textes latins antiques et médiévaux. Actes du Ve Colloque international «Textes médicaux latins» [Bruxelles, 4-6 septembre 199].* Ed. by C. Deroux, 366–381. Bruxelles.

Deroux 2002: Deroux, C. 2002. “Anthime, un médecin gourmet du début des temps mérovingiens.” *Revue Belge de Philologie et d’Histoire* vol. LXXX, no. 4, 1107–1124.

Deroux 2005: Deroux, C. 2005. “The Allusion by Anthimus the Physician to the Cauterisation of Horses (De obs. cib., praef., p. 3, l. 6-8 Liechtenhan).” In *Studies in Latin Literature and Roman History.* Ed. by C. Deroux, 484–493. Bruxelles.

Deroux 2008: Deroux, C. 2008. “The Franks and Bacon According to Doctor Anthimus (De obs. Cib. 14).” In *Studies in Latin Literature and Roman History.* Ed. C. Deroux, 518–528. Bruxelles.

Deroux 2015: Deroux, C. 2015. “Le médecin Anthimus et le vocabulaire de la diagnose [De obs. cib. 25: agnoscens].” *Latomus* vol. LXXIV, no. 2, 491–493.

de Wet 2019: de Wet, Ch. L. 2019. "The Preacher's Diet: Gluttony, Regimen, and Psycho-Somatic Health in the Thought of John Chrysostom." In *Revisioning John Chrysostom: New Approaches, New Perspectives.* Ed. by Ch.L. de Wet, W. Mayer, 410–463. Leiden–Boston.

Dickey 2007: Dickey, E. 2007. *Ancient Greek Scholarship: A Guide to Finding, Reading, and Understanding Scholia, Commentaries, Lexica, and Grammatical Treatises, from their Beginnings to the Byzantine Period.* Oxford–New York.

Diller 1949: Diller, H. 1949. "Paulos (23)." In *Realencyclopädie der classischen Altertumswissenschaft.* Ed. by K. Ziegler, vol. 18.4, col. 2386–2397. Stuttgart.

do Sameiro Baroso 2015: do Sameiro Barroso, M. 2015. "The Hellebore, the Plant Beloved by the Greeks: The Reasons Behind a Myth." *Vesalius* vol. XXI (2015), no. 2, 30–37.

Draycott 2019: Draycott, J. 2019. *Roman Domestic Medical Practice in Central Italy: From the Middle Republic to the Early Empire.* London–New York.

Duffy 1984: Duffy, J. 1984. "Byzantine Medicine in the Sixth and Seventh Centuries: Aspects of Teaching and Practice." *Dumbarton Oaks Papers* XXXVIII, 21–27.

Effros 2002: Effros, B. 2002. *Creating Community with Food and Drink in Merovingian Gaul.* New York–Houndmills, Basingstoke.

Everett 2012: Everett, N. 2012. "Introduction to the "Alphabet of Galen." In *The Alphabet of Galen*: *Pharmacy from Antiquity to the Middle Ages*. *A Critical Edition of the Latin Text with English Translation and Commentary.* Ed. by N. Everett, 3–35. Toronto–Buffalo NY–London.

Evert-Kappesowa 1979: Evert-Kappesowa, H. 1979. "The Social Rank of a Physician in the Early Byzantine Empire (IVth–VIIth Centurie A.D.)." In *Byzance et les Slaves: Études de Civilisation*, Mélanges J. Dujčev, 139–164. Paris.

Faas 2005: Faas, P. 2005. *Around the Roman Table. Food and Feasting in Ancient Rome.* Tr. by S. Whiteside. Chicago.

Fazzo 2008: Fazzo, S. 2008. "Alexander of Aphrodisias (T. Aurelius Alexander) (ca 200 CE)." In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 54–55. London–New York.

Feinberg 1970: Feinberg, L. 1970. "The Tetrax in Athenaeus." *Greek, Roman and Byzantine Studies* vol. XI, no. 2, 129–136.

Ferrini 2012: Ferrini, M. F. 2012. "Introduzione." In *[Aristotele]. Le piante. Testo greco a fronte.* Intr., tr. by M. F. Ferrini, 7–241. Milano.

Fischer 1989: Fischer, K.-D. 1989. "Ein brennendes Problem: Anthimus, praef., p. 3, 6, Liechtenhan." *Latomus* vol. XLVIII, no. 4, 880–881.

Flint 1989: Flint, V. J. 1989. "The Early Medieval 'Medicus', the Saint – and the Enchanter." *Social History of Medicine* vol. II, no. 2, 127–145.

Garofalo 2019: Garofalo, I. 2019. "Galen's legacy in Alexandrian Texts Written in Greek, Latin, and Arabic." In *Brill's Companion to the Reception of Galen.* Ed. by P. Bouras-Vallianatos, B. Zipser, 62–85. Leiden–Boston.

Garzya 2005: Garzya, A. 2005. "Aetios v. Amida." In *Antike Medizin. Ein Lexikon.* Ed. by K.-H. Leven, col. 19–20. München.

Γερμανίδου 2016: Γερμανίδου, Σ. 2016. *Βυζαντινός μελίρρυτος πολιτισμός: Πηγές, τέχνη, ευρήματα.* Αθήναι.

Gowling 2017: Gowling, E. 2017. "Aëtius' Extraction of Galenic Essence: A Comparison Between Book 1 of Aetius' Libri Medicinales and Galen's On Simple Medicines." In *Collecting Recipes. Byzantine and Jewish Pharmacology in Dialogue.* Ed. by L. Lehmhaus, M. Martelli, 83–101. Boston–Berlin.

Grant 1993: Grant, M. 1993. "A Problematical Word in Anthimus' 'De Observatione Ciborum Epistula' 43." *Rheinisches Museum für Philologie, Neue Folge* vol. CXXXVI, no. 3/4, 377–379.

Grant 1995: Grant, M. 1995. "Oribasios and Medical Dietetics or the Three Ps." In *Food in Antiquity.* Ed. by J. Wilkins, D. Harvey, M. Dobson, 368–379. Exeter.

Grant 2007: Grant, M. 2007. “Introduction.” In Anthimus, *On the Observance of Foods. De observatione ciborum.* Ed., tr. M. Grant, 9–44. Blackawton–Totnes.

Grant 2007a: Grant, M. 2007a. “Translation.” In Anthimus, *On the Observance of Foods. De observatione ciborum.* Ed., tr. M. Grant, 47–81. Blackawton–Totnes.

Grocock, Grainger 2006: Grocock, Ch., Grainger, S. 2006. “Appendix: A Glossary to Apicius.” In *Apicius. A Critical Edition with an Introduction and an English Translation of the Latin Recipe Text Apicius.* Ed. by Ch. Grocock, S. Grainger, 329–362. Blackawton–Totnes.

Grocock, Grainger 2006a: Grocock, Ch., Grainger, S. 2006a. “Introduction.” In *Apicius: A Critical Edition with an Introduction and an English Translation of the Latin Recipe Text Apicius*, 13–123. Blackawton–Totnes.

Hen 2006: Hen, Y. 2006. “Food and Drink in Merovingian Gaul.” In *Tätigkeitsfelder und Erfahrungshorizonte des ländlichen Menschen in der frühmittelalterlichen Grundherrschaft (bis ca. 1000): Festschrift für Dieter Hägermann zum 65. Geburtstag.* Ed. by B. Kasten, 99–110. München.

Herrin 2020: Herrin, J. 2020. *Ravenna*: *Capital of Empire, Crucible of Europe.* Princeton.

Hohlweg 1988: Hohlweg, A. 1988. “Medizinischer ‘Enzyklopädismus’ und das ΠΟΝΗΜΑ ΙΑΤΡΙΚΟΝ des Michael Psellos.” *Byzantinische Zeitschrift* LXXXI, 39–49.

Horden 2020: Horden, P. 2020. “Public Health, Hospitals and Charity.” In *The Oxford Handbook of the Merovingian World.*. Ed. by B. Effros, I. Moreira, 299–313. Oxford.

Hunger 1978: Hunger, H. 1978. *Die hochsprachliche profane Literatur der Byzantiner*, vol. 1–2. München.

Inglebert 2020: Inglebert, H. 2020. “‘Inner’ and ‘outer’ knowledge: the debate between faith and reason in late Antiquity.” In *A Companion to Byzantine Science.* Ed. by S. Lazaris, 27–52. Leiden–Boston.

Jagusiak, Kokoszko 2011: Jagusiak, K., Kokoszko, M. 2011. “Życie i kariera Orybazjusza w świetle relacji źródłowych.” *Przegląd Nauk Historycznych* vol. X, no. 1, 5–21.

Jagusiak, Kokoszko 2013: Jagusiak, K., Kokoszko, M. 2013. “Pisma Orybazjusza jako źródło informacji o pożywieniu ludzi w późnym Cesarstwie Rzymskim.” *Vox Patrum* LIX, 339–357.

James 1993: James, E. 1993. “A Sense of Wonder: Gregory of Tours, Medicine and Science.” In *The Culture of Christendom: Essays in Commemoration of Denis L.T. Bethell.* Ed. by M. A. Meyer, 45–60. London–Rio Grande.

Jannaris 1902: Jannaris, A. N. 1902. “ΝΑΡΔΟΣ ΠΙΣΤΙΚΗ or ‘SPIKENARD’.” *The Classical Review* vol. XVI, no. 9, 459–460.

Joly 1975: Joly, R. 1975. “Les versions latines du Régime pseudo-hippocratique.” *Scriptorium* vol. XXIX, no. 2, 3–22.

Karamanolis, Schwartz 2008: Karamanolis, G., Schwartz, D. L. 2008. “Basil of Caesarea (Kappadokia) (ca 365 – 379 CE).” In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 189–190. London–New York.

Keyser 2008: Keyser, P. T. 2008. “Poluarkhos (30 BCE – 35 CE).” In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 680. London–New York.

Koder 2014: Koder, J. 2014. “Cuisine and Dining in Byzantium.” In *Byzantine Culture. Papers from the Conference ‘Byzantine Days of Istanbul’ Held on the Occasion of Istanbul being European Cultural Capital 2010, Istanbul, May 21–23 2010.* Ed. by D. Sakel, 423–438. Ankara.

Koder 2016: Koder, J. 2016. *Die Byzantiner Kultur und Alltag im Mittelalter.* Wien–Köln–Weimar.

Kokoszko 2006: Kokoszko, M. 2006. “Historia kuchni antycznej i bizantyńskiej. Sos karyke (καρύκη). Komentarz do Chronografii Michała Psellosa.” *Przegląd Nauk Historycznych* vol. V, no. 2 (10), 167–178.

Kokoszko 2006a: Kokoszko, M. 2006a. "Sosy w kuchni greckiej. Garum (γάρος) i pochodne." *Vox Patrum* XLIX, 289–298.

Kokoszko 2008: Kokoszko, M. 2008. "Some Technical Terms from Greek Cuisine in Classical and Byzantine Literature." *Eos* XCV, 269–283.

Kokoszko 2017: Kokoszko, M. 2017. "Nard (νάρδος; Nardostachys jatamansi [D. Don] DC)." In *Lek roślinny*, Tom VI: *Rośliny w lecznictwie, w środowisku naturalnym i w krajobrazie kulturowym. Ed. by* B. Płonka-Syroka, A. Syroka, 31–51. Wrocław.

Kokoszko, Jagusiak, Rzeźnicka 2014: Kokoszko, M., Jagusiak K., Rzeźnicka, Z. 2014. *Dietetyka i sztuka kulinarna antyku i wczesnego Bizancjum (II-VII w.)*, część I, *Zboża i produkty zbożowe w źródłach medycznych antyku i wczesnego Bizancjum (II-VII w.)*. Łódź.

Kokoszko, Jagusiak, Rzeźnicka, Dybała 2018: Kokoszko, M., Jagusiak K., Rzeźnicka, Z., Dybała, J. 2018. "Pedanius Dioscorides' Remarks on Milk Properties, Quality and Processing Technology." *Journal of Archaeological Science: Reports* XIX, 982–986.

Kokoszko, Rzeźnicka 2016: Kokoszko, M., Rzeźnicka, Z. 2016. "Malábathron (μαλάβαθρον). Kilka uwag o roli Cinnamomum tamala w kuchni i medycynie antyku i Bizancjum w okresie pomiędzy I a VII wiekiem." *Przegląd Nauk Historycznych* vol. XV, no. 1, 5–42.

Kokoszko, Rzeźnicka 2018: Kokoszko, M., Rzeźnicka, Z. 2018. "Malabathron (μαλάβαθρον) in Ancient and Early Byzantine Medicine and Cuisine." *Medicina nei Secoli: Arte e Scienza* vol. XXX, no. 2, 579–616.

Kokoszko, Rzeźnicka, Jagusiak 2012: Kokoszko, M., Rzeźnicka, Z., Jagusiak, K. 2012. "Health and Culinary Art in Antiquity and Early Byzantium in the Light of De re coquinaria." *Studia Ceranea: Journal of the Waldemar Ceran Research Centre for the History and Culture of the Mediterranean Area and South–East Europe* II, 145–164.

Komar 2014: Komar, P. 2014. "Consumption of Greek Wines in Roman Italy – between Literary and Archaeological Evidence." *Food & History Journal* vol. XII, no. 3, 99–131.

Komar 2014a: Komar, P. 2014a. "Greek Wines for the Roman Elite – In Search of Eastern Luxuries on Western Tables." *Eos. Commentarii Societatis Philologiae Polonorum* CI, 227–244.

Komar 2018: Komar, P. 2018. "Aegean Wine Importations to the City of Rome (1st century BC – 3rd century AD)." *Studies in Ancient Art and Civilization* XXII, 95–116.

Komar 2019: Komar, P. 2019. "Luksus czy codzienność - vina transmarina w starożytnym Rzymie." *Klio* vol. XLV, no. 1, 3–16.

Komar 2020: Komar, P. 2020. *Eastern Wines for Western Tables*: *Consumption, Trade and Economy in Ancient Italy.* Leiden – Boston.

Kripouri, Filippou 2019: Kripouri, P., Filippou, D. 2019. "On the Work of Alexander of Tralles." *Acta Medico-Historica Adriatica* vol. XVII, no. 2, 295–304.

Kroll 2010: Kroll, H. 2010. *Tiere im Byzantinischen Reich Archäozoologische Forschungen im Überblick.* Mainz.

Kroll 2012: Kroll, H. 2012. "Animals in the Byzantine Empire: An Overview of the Archaeozoological Evidence." *Archeologia Medievale* XIX, 93–121.

Laurioux 1985: Laurioux, B. 1985. "Spices in the Medieval Diet: A New Approach." *Food and Foodways: Explorations in the History and Culture of Human Nourishment* I, 43–75.

Layton 2019: Layton, R. A. 2019. "Catenae." In *The Oxford Handbook of Early Christian Biblical Interpretation.* Ed. by P. M. Blowers, P. W. Martens, 223–224. Oxford.

Lazaris 2020: Lazaris, S. 2020. "Veterinary medicine." In *A Companion to Byzantine Science.* Ed. by S. Lazaris, 261–301. Leiden–Boston.

Lev, Amar 2008: Lev, E., Amar, Z. 2008. *Practical Materia Medica of the Medieval Eastern Mediterranean According to the Cairo Genizah.* Leiden–Boston.

Liechtenhan 1963: Liechtenhan, E. 1963. "Ad lectorem praefatio." In *Anthimi De observatione ciborum ad Theodoricum regem Francorum epistula, iteratis curis edidit et in linguam Germanicam transtulit* E. Liechtenhan, IX–XXIII. Berlin.

Liechtenhan 1963a: Liechtenhan, E. 1963a. "Brief des Anthimus des erlauchten Comes und Gesandten and den ruhmreichen Theoderich, der König der Franken, über Speisediät." In *Anthimi De observatione ciborum ad Theodoricum regem Francorum epistula, iteratis curis edidit et in linguam Germanicam transtulit* E. Liechtenhan, 34–47. Berlin.

Liechtenhan 1963b: Liechtenhan, E. 1963b. "Index grammaticus." In *Anthimi De observatione ciborum ad Theodoricum regem Francorum epistula, iteratis curis edidit et in linguam Germanicam transtulit* E. Liechtenhan, 48–61. Berlin.

Liechtenhan 1963c: Liechtenhan, E. 1963c. "Index veroborum memorabilium." In *Anthimi De observatione ciborum ad Theodoricum regem Francorum epistula, iteratis curis edidit et in linguam Germanicam transtulit* E. Liechtenhan, 62–78. Berlin.

Lim 1990: Lim, R. 1990. "The politics of Interpretation in Basil of Caesarea's Hexaemeron." *Vigiliae Christianae* vol. XCIV, no. 4, 351–370.

Madigan 2013: Madigan, A. 2013. "Introduction." In Alexander of Aphrodisias, *On Aristotle Mataphysics 4. Tr.*. A. Madigan, 1–7. London–New Delhi–New York–Sydney.

Maieron 2018: Maieron, M. A. 2018. "On the Hellebore Trail an Anthropological Research into Madness." *Medicina Historica* vol. II, no. 1, 5–18.

PLRE 1980: J.R. Martindale, 1980. *The Prosopography of the Later Roman Empire*, *vol. 2, A.D. 395–527*, Cambridge–London–New York–New Rochelle–Melbourne–Sydney.

Matthaios 2015: Matthaios, S. 2015. "Greek Scholarship in the Imperial Era and Late Antiquity." In *Brill's Companion to Ancient Scholarship.* Ed. by F. Montanari, S. Matthaios, A. Rengakos, 184–296. Leiden–Boston.

Mattern 2013: Mattern, S. P. 2013. *The Prince of Medicine: Galen in the Roman Empire.* Oxford.

Mazzini 1984: Mazzini, I. 1984. "Introduzione." In *De observantia ciborum, traduzione tardo-antica del Περὶ διαίτης pseudoippocratico l. II*, *Introduzione, testo critico ed index verborum memorabilium a cura di* I. Mazzini, 11–41. Roma.

Mazzini 1991: Mazzini, I. 1991. "Les traductions latines d'Oribase et d'Hippocrate." In *Les écoles médicales à Rome. Actes du 2ème colloque international sur les textes médicaux latins antiques, Lausanne, septembre 1986.* Ed.by P. Mudry, J. Pigeaud, 286–293. Geneva.

Messing 1942: Messing, G. M. 1942. "Remarks on Anthimus De observatione ciborum." *Classical Philology* vol. XXXVII, no. 2, 150–158.

Murphy 2004: Murphy, T. 2004. *Pliny the Elder's Natural History: The Empire in the Encyclopedia.* Oxford–New York.

Nutton 1977: Nutton, V. 1977. "Archiatri and the Medical Profession in Antiquity." *Papers of the British School at Rome* XLV, 191–226.

Nutton 1984: Nutton, V. 1984. "From Galen to Alexander. Aspects of Medicine and Medical Practice in Late Antiquity." *Dumbarton Oaks Papers* XXXVIII, 1–14.

Nutton 2005: Nutton, V. 2005. *Ancient Medicine.* London–New York.

Nutton 2007: Nutton, V. 2007. "Galen in Byzantium." In *Material Culture and Well-Being in Byzantium (400–1453). Proceedings of the International Conference (Cambridge, 8–10 September 2001).* Ed. by M. Grünbart, E. Kisslinger, A. Muthesius, D. Ch. Stathakopoulos, 171–176. Wien.

Palmieri 1991: Palmieri, N. 1991. "L'école médicale de Ravenne: Les commentaires de Galien." In *Les écoles médicales à Rome. Actes du 2ème colloque international sur les textes médicaux latins antiques, Lausanne, septembre 1986.* Ed. by P. Mudry, J. Pigeaud, 294–310. Geneva.

Passabì 2007: Passabì, A. 2007. "Dagli scritti di Oribasio: L'uso di ἐγώ e correlati negli excerpta di Rufo e nella testimonianza personale dello stesso Oribasio." *Rudiae: Ricerche sul mondo classico* XIX, 71–138.

Perczel 2006–2007: Perczel, I. 2006–2007. "Finding a Place for the Erotapokriseis of Pseudo-Caesarius: A New Document of Sixth-Century Palestinian Origenism." *Aram* XVIII–XIX, 49–83.

Plouvier 2002: Plouvier, L. 2002. "L'alimentation carnée au Haut Moyen Âge d'après le De observatione ciborum d'Anthime et les Excerpta de Vinidarius." *Revue belge de philologie et d'histoire* vol. LXXX, no. 4, 1357–1369.

Pormann 2004: Pormann, P. 2004. *The Oriental Tradition of Paul of Aegina's Pragmateia.* Leiden.

Pormann 2008: Pormann, P. 2008. "Paulos v. Aigina." In *Antike Medizin. Ein Lexikon.* Ed. by K.-H. Leven, col. 681–682. München.

Prioreschi 2003: Prioreschi, P. 2003. *A History of Medicine*, vol. 5. *Medieval Medicine*, Omaha, NE.

Riddle 1985: Riddle, J. M. 1985. *Dioscorides on Pharmacy and Medicine*. Foreword by J. Sarborough. Austin.

Rodgers 2008: Rodgers, R. H. 2008. "Palladius Rutilius Taurus Aemilianus (ca 375 – ca 450 CE)." In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 35–36. London–New York.

Rodgers 2008a: Rodgers, R. H. 2008a. "Didumos of Alexandria (II: Agric.) (ca 350 – 450 CE)." In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 245. London–New York.

Rodgers 2008b: Rodgers, R. H. 2008b. "L. Iunius Moderatus Columella of Gades (ca 40 – ca 70 CE)." In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 456–457. London–New York.

Rzeźnicka, Kokoszko 2016: Rzeźnicka, Z., Kokoszko, M. 2016. *Dietetyka i sztuka kulinarna antyku i wczesnego Bizancjum (II-VII w.)*, część III, *Ab ovo ad γάλα. Jajka, mleko i produkty mleczne w medycynie i w sztuce kulinarnej (I-VII w.).* Łódź.

Rzeźnicka, Kokoszko 2020: Rzeźnicka, Z., Kokoszko, M. 2020, *Milk and Dairy Products in the Medicine and Culinary Art of Antiquity and Early Byzantium (1st–7th Centuries AD).* Łódź–Kraków.

Scarborough 1970: Scarborough, J. 1970. "Diphilus of Siphnos and Hellenistic Medical Dietetics." *Journal of the History of Medicine and Allied Sciences* vol. XXV, no. 2, 194–201.

Scarborough 1984: Scarborough, J. 1984. "Early Byzantine Pharmacology." *Dumbarton Oaks Papers* XXXVIII, 224–226.

Scarborough 2008: Scarborough, J. 2008. "Anthimus (of Constantinople?) (ca 475 – 525 CE)." In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 91– 92. London–New York.

Scarborough 2008a: Scarborough, J. 2008a. "Asklēpiadēs of Bithunia (in Rome, ca 120 – 90 BCE)." In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 170–171. London–New York.

Scarborough 2008b: Scarborough, J. 2008b. "Rufus of Ephesos (ca 70–100 CE)." In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 720–721. London–New York.

Scarborough 2013: Scarborough, J. 2013. "Theodora, Aetius of Amida, and Procopoius: Some Possible Connections." *Greek, Roman, and Byzantine Studies* LIII, 742–762.

Sharples 2014: Sharples, R. W. 2014. "Introduction." In Alexander of Aphrodisias, *Quaestiones, 1.1–2.15.* Tr. R. W. Sharples, 1–7. London–New Delhi–New York–Sydney.

Schoff 1923: Schoff, W. H. 1923. "Nard." *Journal of the American Oriental Society* XLIII, 216–228.

Sideras 1974 : Sideras, A. 1974. "Aetius und Oribasius. Ihre gemeinsamen Exzerpte aus der Schrift des Rufus von Ephesos „Über die Nieren- und Blasenleiden" und ihr Abhängigkeitsverhältnis." *Byzantinische Zeitschrift* LXVII, 110–130.

Solomon 1995: Solomon, J. 1995. "The Apician Sauce – Ius Apicianum." In *Food in the Ancient World.* Ed. by J. Wilkins, D. Harvey, M. Dobson, 115–131. Exeter.

Stewart 2019: Stewart, K. A. 2019. *Galen's Theory of Black Bile: Hippocratic Tradition, Manipulation, Innovation.* Leiden–Boston.

Talbot 2007: Talbot, A.-M. 2007. “Mealtime in Monasteries: The Culture of the Byzantine Refectory.” In *Eat, Drink, and Be Merry (Luke 12:19) – Food and Wine in Byzantium Papers of the 37th Annual Spring Symposium of Byzantine Studies, in Honour of Professor A.A.M. Bryer.* Ed. by L. Brubaker, K. Linardou, 109–125. Aldershot–Burlington, VT.

Tchernia 1997: Tchernia, A. 1997. “Le cercle de L. Licinius Crassus et la naissance de la hiérarchie des vins à Rome.” *Comptes rendus des séances de l’Académie des Inscriptions et Belles-Lettres* vol. CXLI, no. 4, 1247–1259.

Teal 2018: Teall, J. L. 2018. “The Byzantine Agricultural Tradition,” *Dumbarton Oaks Papers* 25, 33–59.

Thibodeau 2008: Thibodeau, P. 2008. “Diophanēs of Nikaia (85 – 60 BCE).” In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 267. London–New York.

Thompson 1895: Thompson, D’A. W. 1895. *A Glossary of Greek Birds*. Oxford.

Thurmond 2017: Thurmond, D. 2017. *From Vines to Wines in Classical Rome. A Handbook of Viticulture and Oenology in Rome and the Roman West.* Leiden–Boston.

Tilelis 2020: Tilelis, I. 2020. “Meteorology and Physics in Byzantium.” In *A Companion to Byzantine Science.* Ed. by S. Lazaris, 177–201. Leiden–Boston.

Totelin 2009: Totelin, L. 2009. *Hippocratic Recipes: Oral and Written Transmission of Pharmacological Knowledge in Fifth- and Fourth-Century Greece.* Leiden–Boston.

Totelin 2015: Totelin, L. 2015. “When Foods Become Remedies in Ancient Greece: The Curious Case of Garlic and Other Substances.” *Journal of Ethnopharmacology* CLXVII, 30–37.

Totelin 2018: Totelin, L. 2018. “Therapeutics.” In *The Cambridge Companion to Hippocrates*. Ed. by P. E. Pormann, 200–216. Cambridge–New York.

Touwaide 2008: Touwaide, A. 2008. “Arkhigenēs of Apameia (95–115 CE).” In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 160–161. London–New York.

Touwaide 2008a: Touwaide, A. 2008a. “Athēnaios of Attaleia (or Tarsos?).” In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 176–177. London–New York.

Touwaide 2020: Touwaide, A. 2020. “Botany.” In *A Companion to Byzantine Science*. Ed. by S. Lazaris, 302–353. Leiden–Boston.

Touwaide 2020a: Touwaide, A. 2020a. “Medicine and Pharmacy.” In *A Companion to Byzantine Science.* Ed. by S. Lazaris, 354–403. Leiden–Boston.

van der Eijk 2010: van der Eijk, Ph. 2010. “Principles and Practices of Compilation and Abbreviation in the Medical ‘Encyclopaedias’ of Late Antiquity.” In *Condensing Texts – Condensed Texts.* Ed. by M. Horster, Ch. Reitz, 519–554. Stuttgart.

Weberling 1975: Weberling, F. 1975. “On the Systematics of Nardostachys.” *Taxon* vol. XXIV, no. 4, 443–452.

Wilkins 2015: Wilkins, J. 2015. “Good Food and Bad: Nutritional and Pleasurable Eating in Ancient Greece.” *Journal of Ethnopharmacology* CLXVII , 7–10.

Zuker 2008: Zucker, A. 2008. “Kuranides (50 – 200 CE?).” In *The Encyclopedia of Ancient Natural Scientists. The Greek Tradition and its Many Heirs.* Ed. by P. T. Keyser, G. Irby-Massie, 497–498. London–New York.

Zucker 2020: Zucker, A. 2020. “Zoology.” In *A Companion to Byzantine Science.* Ed. by S. Lazaris, 261–301. Leiden–Boston.

ANTHIMUS AND HIS WORK, OR ON AROMATICS AND WILDFOWL IN *DE OBSERVATIONE CIBORUM*

Summary

De observatione ciborum was penned by Anthimus and addressed to Theuderich, ruler of the Franks (511–534 AD). It is likely to have been composed at the beginning of the 6th c. AD. The present study focuses on select fragments of the treatise. It starts with Chapter 13 (describing preparation of hare), focusing exclusively on the sauce included therein as it illustrates accurately Anthimus' world of knowledge, and gives an opportunity to supplement the list of ingredients of the delicacy. Subsequently, the analysis moves on to Chapters 25 and 26 of *De observatione ciborum*, which have some information on Anthimus' medical practice and his creativity as a practitioner. The research is concluded with the contents of Chapter 33, which provide data on the place, where the work was composed.

The analysed information proves that Anthimus was a competent physician and he was able to apply in his medical practice theories he learned. Accordingly, the author of *De observatione ciborum* did not err when, in chapter 25, he mentioned turtledoves but his topical teachings were a creative application of knowledge he acquired through reading medical classics. His know-how included understanding achievements of ancient dietetics and was based on his fairly profound knowledge of *materia medica*. That is why he was able to use the theory he acquired as a result of his studies to give culinary advice which was in tandem with his doctrine. Moreover, Anthimus' work and fate imply that his approach towards the medical knowledge and its application in food preparation techniques were growing more and more popular and thereby influential among Gothic and Frankish elites. Last but not least, the information included in Chapters 25, 26, and 33 of the treatise *De observatione ciborum* imply that Anthimus' work was composed in the Constantinopolitan milieu after 508, possibly circa 511.