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A Few Words on Milk and Dairy Products

Investigating the importance of milk and its derivatives in the dietetics, pharmacology, therapeutics and gastronomy of antiquity and the early Byzantine period may, at very first glance, cause slight wonderment. After all, in the Mediterranean region, initially influenced by Greek, later by Roman and still later by Byzantine cultures, it was wine, not milk, that had – for centuries – been the most prevalent drink, and it was olive oil, not butter that was the most significant source of fat. This does not mean, however, that the range of dairy products in which we take an interest played a marginal role in the diet of the people of that time. Quite the contrary: since time immemorial, milk and its derivative foods – alongside cereal products – constituted an important element of the peasantry diet (shepherds, in particular) in the territories around the Mediterranean Sea. What is more, dairy also played a similar role in the life of nomadic tribes[1]. And that is why, in all likelihood, milk and cheese

[1] Cf. S t r a b o, IV, 6, 2 (milk as an important constituent of the diet of Ligurian shepherds); C o l u m e l l a, VII, 2, 1–2 (milk as the base of nomads' diet); G a l e n, *Ad Glauconem de medendi metodo*, 142, 7, vol. XI (milk as the food of the Scythians);

became synonymous with the simple rustic and pastoral food of the time, or – like butter – a food for barbarians, who were strangers to the achievements of European antiquity[2]. Presumably, this link to these particular groups of consumers is the reason why the products of our interest have often been presented as somewhat unexceptional foodstuffs eaten, as a rule, by simple and uncultured people[3].

Athenaeus of Naucratis, II, 46 e (26, 5–6, milk as the basic drink of some peoples living on the periphery of Greek and Roman civilisation). On milk (and milk products) as the food of barbarians, peasantry, and shepherds, cf. F. Dupont, *Grammaire de l'alimentation et des repas romains*, [in:] *Histoire de l'alimentation*, eds. J.L. Flandrin, M. Montanari, Paris 1996, p. 197; O. Longo, *La nourriture des autres*, [in:] *Histoire...*, p. 269–271; J. Auberger, *«Du prince au berger, tout homme a son content de fromage...» Odyssée, 4, 87–88*, REG 113, 2000, p. 23–31; G. Malinowski, *Zwierzęta świata antycznego. Studia nad Geografią Strabona*, Wrocław 2003, p. 50–51; O. Longo, *The Fairness of the Farm. Food, Ecology and Ethics in Ancient Greece*, FH 2.2, 2004, p. 201; P. Tuffin, M. McEvoy, *Steak à la Hun: Food, Drink, and Dietary Habits in Ammianus Marcellinus*, [in:] *Feast, Fast or Famine. Food and Drink in Byzantium*, eds. W. Mayer, S. Trzcionka, Brisbane 2005, p. 79, 82; J.P. Alcock, *Food in the Ancient World*, Westport–London 2006, p. 159, 167, 178, 235; P. Garnsey, *Food and Society in Classical Antiquity*, Cambridge 1999, p. 65–70; V. Nutton, *Galen and the Traveller's Fare*, [in:] *Food in Antiquity*, eds. J. Wilkins, D. Harvey, M. Dobson, Exeter 1999, p. 360; J.M. Wilkins, S. Hill, *Food in the Ancient World*, Malden, Mass.–Oxford 2006, p. 23, 131, 161–162; D. Braund, *Food among Greeks of the Black Sea: the Challenging Diet of Olbia*, [in:] *A Companion to Food in the Ancient World*, eds. J. Wilkins, R. Nadeau, Malden, Mass.–Oxford–Chichester 2015, p. 300; Ch. Chandezon, *Animals, Meat, and Alimentary By-Products: Patterns of Production and Consumption*, [in:] *A Companion...*, p. 143; S. Hitch, *Anthropology and Food Studies*, [in:] *A Companion...*, p. 120–121; A. Pellettieri, *Latte e latticini. Aspetti della produzione e del consumo nelle società mediterranee dell'Antichità e del Medioevo. Le ragioni del convegno*, [in:] *Latte e latticini. Aspetti della produzione e del consume nella società miditerranee dell'Antichità e del Medioevo*. *Atti del Convegno Internazionale di Studio promosso dall'IBAM – CNR e dall'IRS – FNER nell'ambito del Progetto MenSALe Atene, 2–3 Ottobre 2015*, eds. I. Anagnostakis, A. Pellettieri, Lagonegro 2016, p. 9; M. Gobbetti, E. Neviani, P. Fox, *The Cheeses of Italy: Science and Technology*, Cham 2018, p. 14.

[2] For instance, cf. Galen's opinion expressed in his dietetic characteristics of butter. It is not inconceivable, however, that butter was produced in some Greek regions, cf. J.M. Wilkins, S. Hill, *Food...*, p. 162.

[3] This is expressed, for instance, by Euripides who – when referring to a peasant – uses the phrase *galaktopótas anér*, i.e., 'a man who feeds on milk', cf. Euripides, 169. Another meaningful example in classical literature is the extract from *The Odyssey*

As far as the sources for our present investigation are concerned, unsurprisingly, milk and dairy were a point of interest to the ancient and Byzantine agronomists when compiling their works, since they were perfectly aware of the features which characterised the milk of any given animal species and the methods which had to be applied to improve its quality. Moreover, their writings also contained a substantial amount of detailed information regarding the technology which enabled the production of such foodstuffs as soured milk, curd, and cheese[4].

More surprisingly, however, the subject of dairy was also extensively covered in the medical literature of both periods. What is more, medical doctors formulated a coherent theory on the uses of milk and other dairy products. This particular source of knowledge has yet to be investigated, though the present study will try to demonstrate how abundant in information it is.

Due to a cornucopia of data, the present investigations will treat the issue only on the base of carefully selected examples. Otherwise, the work would have evolved into a multi-volume treatise. Nonetheless, the book often refers to the contents of sources, an approach which might seem to some readers to result in excessive meticulousness. It is, however, indispensable, since the related knowledge is known exclusively to the small circle of Hellenists and Latinists who devoted their life to studying medical writings. In most cases, however, we had to subject

in which the poet describes the lifestyle of cyclopes, presenting them as a savage tribe, ignorant of the law, growing crops and creating simple crafts. The author of the epic poem reports that they lead the life of shepherds, using goat milk to produce cheeses, cf. H o m e r, IX, 105–115; IX, 219–229; IX, 244–249. More on the issue, cf. P. G a r n s e y, *Food...*, p. 65; A. D a l b y, R. D a l b y, *Gifts of the Gods. A History of Food in Greece*, London 2017, p. 45; M. G o b b e t t i, E. N e v i a n i, P. F o x, *The Cheeses of Italy...*, p. 13–14. A similar attitude towards milk products is adopted by the Romans, as can be seen, for instance, in Suetonius' (1st c. AD) account of Augustus' (1st c. BC/1st c. AD) culinary preferences. According to the historian, the emperor opted for simple, almost coarse food, including mediocre-quality bread, small fish, hand-squeezed cheese made from cow milk, and figs, cf. S u e t o n i u s, II, 78, 1. Nevertheless, it must be emphasised that the Mediterranean world were aware of exquisite types of cheese, for which wealthy gourmets were willing to pay a high price – as shown hereinafter, in the excerpt on the culinary application of cheese.

[4] Authors of agronomical treatises ignored butter in their deliberations.

our sources to careful selection. For the extant information available, the process has been particularly strict when therapeutic information was examined, while culinary data retrieved from medical sources had to be supplemented by means of a number of different works.

In order to give the research a readable form, the book has been divided into separate chapters, which discuss the dietetic nature of dairy, the *materia medica* knowledge on it, its therapeutic applications, and, last but not least, the culinary uses of milk and its most common derivatives.

Our choice of sources, compositional strategy and working method can be justified by quoting an extract from Varro (2nd/1st c. BC)[5]. His *De re rustica*, being an agronomical treatise, perfectly illustrates the convergence of ancient and Byzantine studies into agriculture and medicine[6], with both containing a similar source of information, characterised by the analogical structure of its presentation.

Accordingly, in *De re rustica* Varro commences with remarks worthy of a physician specialising in dietetics. Notably, he argues that milk is the most nutritious of all liquid foods, giving special praise to that obtained from sheep and goats[7]. The author also adds that milk possesses certain laxative properties, and in this respect, he lists those of mares, donkeys,

[5] On the author and his treatise, cf. I. M i k o ł a j c z y k, *Rzymska literatura agronomiczna*, Toruń 2004, p. 114–169; A. D o o d y, *The Authority of Writing in Varro's De re rustica*, [in:] *Authority and Expertise in Ancient Scientific Culture*, eds. J. K ö n i g, G. W o o l f, Cambridge–New York 2017, p. 182–202.

[6] Agronomical authors were interested not only in agricultural data *sensu stricto*, but also provided their readers with information verging on medical advice, cf. S. B o s c h e r i n i, *La medicina in Catone e Varrone*, [in:] *ANRW*, vol. II, 37, 1, Berlin 1993, p. 729–755; G. N e l s e s t u e n, *Polishing Scrofa's Agronomical "Eloquentia": Representation and Revision in Varro's "De re rustica"*, Phoe 65.3/4, 2011, p. 329; J. D r a y c o t t, *Literary and Documentary Evidence for Lay Medical Practice in the Roman Republic and Empire*, [in:] *Homo Patiens: Approaches to the Patient in the Ancient World*, eds. G. P e t r i d o u, C. T h u m i g e r, Leiden–Boston 2016, p. 436–440; A. D o o d y, *The Authority of Writing...*, p. 189–190; D. B u d z a n o w s k a-W e g l e n d a, *Cato the Elder on Human and Animal Diseases and Medicines for them – According to the Treatise On Agriculture*, CC 21, 2018, p. 31–54.

[7] Varro's deliberations on milk and cheese – V a r r o, *De re rustica*, II, 11, 1–4.

cows and goats[8]. Next, in a way analogical to the one adopted by ancient dieticians, he maintains that the quality of milk is conditioned by three factors, i.e., the fodder, the age and welfare of the livestock, and the time that has elapsed between birth and milking, before going on to discuss each of these factors. Considering the first, Varro declares that the best milk is given by quadrupeds fed on barley and straw, whereas a laxative effect can be obtained by giving the animals green fodder – herbs in particular[9]. In the section devoted to age and welfare, we read that the best-quality milk is derived from young and healthy animals. As for timeliness, Varro states that the best policy is to drink it shortly after milking, though not immediately after the animal has given birth. In his work, the Roman scholar also characterises various types of cheese. As the most nourishing, he advocates products derived from cow milk, while, at the same time, warning the reader that they are hard to digest. In addition, he mentions sheep cheeses, and goat-milk derivatives, which he classifies as the lightest in terms of digestion. In addition, he draws the reader's attention to the fact that the properties of the discussed products also depend on their freshness. Finally, not having strayed from a discourse typical for medical doctors, he informs the reader that soft and fresh cheeses are more nutritious, whereas mature, dry ones do not constitute a valuable foodstuff[10].

To conclude, the quoted extract is of triple value to the studies herein. Firstly, it allows us to establish what determinants guided ancient farmers in their drive to obtain a top-quality primary product that could additionally be processed into other foodstuffs. Secondly, it constitutes evidence of a reciprocal diffusion of two, seemingly separate branches of science, i.e., agronomy and medical dietetics. Thirdly, as Varro's work can be dated to the 1st c. BC, his writings prove that by the time of the collation of the medical works we are to examine the ancient's theory on milk had been already developed.

[8] Cf. the gradation of milk varieties and their characteristics present in Galen's writings examined herein.

[9] The author of *Geoponica*, on the other hand, recommends feeding animals on *Medicago arborea*, or tying *Origanum vulgare* to their bellies, cf. *Geoponica*, XVIII, 12, 1.

[10] Cf. dietetic characteristics of cheeses in the ancient and Byzantine medical treatises analysed herein.