



“E μ mas non quod opus est, sed quod necesse est?”¹ Soldiers’ Pay and its Purchasing Power in the Byzantine Army in the 9th-10th Centuries

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Abstract: The issue of the earnings of Byzantine soldiers is one of the most frequently discussed topics. A topic that still raises controversy is the financial situation of thematic soldiers, who are often omitted in available sources. The aim of this text is an attempt to determine the amount of earnings and purchasing power of thematic soldiers in the period of the 9th-10th centuries. The analysis consists in confrontation of sources and a response to the current state of research. The main conclusion of the text is that the financial situation of theme soldiers was varied and depended on whether the recruit derived his main income from the soldiers’ land or was a volunteer with no better prospects for life. In the latter case, only the veteran status allowed one to achieve income sufficient to support a family.

Keywords: Byzantium; Byzantine military; everyday life; Byzantine legislation

When Emperor Constantine Porphyrogenitus wrote that the army was to the state, what the head was to the body, he was in no sense exaggerating³. There is no doubt that a significant portion of the state apparatus (especially in the fiscal sphere) was focused on maintaining the empire’s military capabilities. However, this issue is extremely complex, as these aspects depended directly on the situation in Byzantium, which was constantly changing. The period of the 7th and 8th centuries remains the most controversial for researchers, due to the fragmentary picture emerging from the sources⁴. Paradoxically, the Byzantine-Persian War

¹ Lucius Annaeus Seneca, *Ep.* 77, 26.

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³ Constantinus Porphyrogenitus, *Novellae Imperatorum* V 1, in: N. Svoronos, *Les nouvelles des empereurs macédoniens concernant la terre et les stratiotes*, ed. P. Gounaridis, Athens 1994, p. 118. It is clear that soldier’s profitability was not without influence on the morale of the warriors, as pointed out by researchers. See W. Treadgold, *Byzantium and Its Army*, Stanford 1998, p. 156-157.

⁴ The issue of the lack of sources for the mentioned period and the challenges that the empire had to face was raised by many researchers. For a literature review see J. Haldon in *Military service, Military Lands and the Status of Soldiers: Current Problems*

and the subsequent Arab conquests led to significant changes in the functioning of the empire⁵. While later sources shed more light on the functioning of the thematic army in the 9th and 10th centuries, the picture that emerges no longer resembles that known from the times of Justinian or Maurice. Furthermore, although numerous studies have given us much more information about the service conditions of commanders, senior officials, elite contingents of the *tagmata*, and mercenaries, we know relatively little about the situation of the rank-and-file soldiers of the thematic army⁶. Meanwhile, it was on their shoulders (alongside

and Interpretations, DOP 47 (1993) p. 11-20. For the detailed description of the problems see I. Brubaker – J. Haldon, *Byzantium in the Iconoclast Era c. 680-850: a History*, Cambridge 2011, p. 465-488, 625-634; 665-670, 709-713, 723-726. Other crucial publications on the issue include: 07-21; W.E. Kaegi, *Notes on Hagiographic Sources for Some Institutional Changes and Continuities in the Early Seventh Century*, “Byzantina” 7 (1975) p. 58-70; D. Górecki, *The Strateia of Constantine VII: The Legal Status, Administration and Historical Background*, ByZ 82 (1989) p. 157-176; M.F. Hendy, *Studies in the Byzantine Monetary Economy c.300-1450*, Cambridge 1985, p. 619-662.

⁵ More on the Byzantine-Persian struggle and the damage the war caused to both empires see G. Greatrex – S.N.C. Lieu, *The Roman Eastern Frontier and the Persian Wars (Part II, 363-630 AD)*, v. 2, New York – London 2002, p. 217-227; J. Haldon, *Byzantium in the Seventh Century: the Transformation of a Culture*, Cambridge 1997, p. 46. The exhaustion of both powers opened the way for the Arab conquest. By the end of 639 the Arabs had completed their conquest of Palestine and Syria, as remarked by W.E. Kaegi (*Byzantium and the early Islamic conquests*, Cambridge 1995, p. 67). The fall of Alexandria in 642 marked the de facto end of the Byzantine presence in Egypt, see H. Kennedy, *Egypt as a Province in the Islamic Caliphate, 641-868*, in: *The Cambridge History of Egypt*, ed. M.W. Daly – C.F. Petry, Cambridge 1998, p. 62. For more on the Byzantine-Persian conflict and its consequences, see M.J. Leszka – S. Wierzbiński, *Strategoí: Early Byzantine military commanders in the times of Zeno and Anastasius I (474-518)*, Łódź – Kraków 2024, p. 78-101.

⁶ The topic of commanders' salaries is better elaborated thanks to more sources. In most cases, the amounts oscillated in pounds of gold. According to Constantine VII's account in *De cerimoniis, strategoi* (στρατηγοί) in the 10th century earned respectably 5, 10, 20, 30 or 40 lítra (λίτρα) of gold a year, depending on the province they governed, see Constantinus Porphyrogenitus, *De cerimoniis aulae byzantinae* II 50, ed. A. Moffatt – M. Tall, Canaberra 2012, p. 696-697. These values are confirmed, with some variations, by Ibn Khordadbeh (depending on the rank of the chief, 40, 36, 24, 12, 6 or 1 pound of gold per year). See Ibn Khordadbeh, *Kitab al-Masalik wa 'l-Mamalik*, ed. M.J. de Goeje, Lugdunum 1889, p. 84. The differences may indicate that the rates of the highest wages were somewhat lower at the beginning of the 10th century than before. Cf. W. Treadgold, *The army in the works of Constantine Porphyrogenitus*, RSNB 29 (1992) p. 91. The question of rank and file soldiers' wages has been addressed by a number of scholars, but it seems that researchers didn't reach coherent conclusions. The most detailed analysis was given by W. Treadgold in *Byzantium and Its Army*, p. 135-140. Some older

the elite imperial contingents, which increasingly served as the field army proper) that the fate of the Byzantine Empire rested from the 7th to the 10th centuries. Paradoxically, wherever rank-and-file soldiers appear in sources, poverty is an inherent element of their description⁷. This picture, however, did not apply to all soldiers, as evidenced by imperial novellas from the 10th century and fragmentary narrative sources⁸. This

scholars considered that ordinary theme infantry earned the amount of one *nomismata* (νόμισμα) per month see: S. Blöndal – B.S. Benedikz, *The Varangians of Byzantium. An aspect of Byzantine military history*, transl., revis., rewritten by B.S. Benedikz, Cambridge – London – New York – Melbourne 1978, p. 25; I. Heath – A. McBride, *Byzantine Armies 886-1118*, Oxford 1979, p. 5-6. However, the sources do not provide a basis for such claims. Somewhat different approach is presented by N. Oikonomides in *Middle-Byzantine provincial recruits: salary and armament*, in: *Social and Economic Life in Byzantium*, ed. E. Zachariadou, New York 2017, p. 121-136. Other scholars, on the other hand, point to the lack of a uniform policy for the remuneration of thematic soldiers see J. Haldon, *The Empire That Would Not Die: The Paradox of Eastern Roman Survival, 640-740*, Harvard 2016, p. 35. Partial literature review on the subject see S. Wierzbński, *U boku bazyleusa. Frankowie i Waregowie w cesarstwie bizantyńskim w XI w.*, Łódź 2019, p. 277-293.

⁷ However, a thorough analysis of the sources conducted by scholars points to a more complex picture, see J. Haldon, *Recruitment and Conscription in the Byzantine Army c. 550-950*, Vienna 1979, p. 47-58; Haldon, *Military*, p. 18-25; M. Kaplan, *Les hommes et la terre à Byzance du VIe au XIe siècle. Propriété et exploitation du sol*, *Byzantina Sorbonensia* 10, Paris 1992, p. 237-244; E. Ragia, *The Social Position of the Soldiers and the “Military Lands”: An Interpretation (6th-10th Centuries)*, *REB* 80 (2022) p. 151-155.

⁸ The poverty described in both categories of sources is relative in nature. In the account of the life of St Luke, we encounter the future saint’s truly poor companions in arms, see *Vita Sancti Lucae Stylitae* 14-22, in: *Vie de saint Luc le stylite*, BHG 2239, ed. H. Delehaye, *Les saints stylites*, *Subsidia Hagiographica* 14, Bruxelles – Paris 1923, p. 201. However, in the case of both the lives of St Philaret and Eustratius, the problem is not a lack of means of subsistence, but rather a lack of equipment, in this case a war horse, which required extraordinary expenses, see *Vita Sancti Philareti Misericordis* 223-227, in: *The Life of St Philaretos the Merciful written by his grandson Niketas. A Critical Edition with Introduction, Notes, and Commentary*, ed. L. Ryden, Uppsala 2002, p. 72-74; *Vita Sancti Eustratioti*, in: *Βίος καὶ θαύματα τοῦ ὁσίου πατρὸς ἡμῶν Εὐστρατίου, ἡγουμένου τῆς μονῆς τῶν Ἀγαύρου, Ἀνάλεκτα Ἱεροσολυμιτικῆς σταχυολογίας*, ed. A. Papadopoulos-Kerameus, St. Petersburg 1897 – Bruxelles 1963, p. 377. The situation is similar to imperial legislation in the 10th century. The poverty mentioned in Romanos’ novella stemmed from the disastrous winter of 927-928, see E. McGeer, *The Land Legislation of the Macedonian Emperors (Mediaeval Sources in Translation 38)*, Toronto 2000, p. 10, 49-50; Romanus I, *Novellae Imperatorum*, III, B1-B2, 75-100, p. 85-86. In the case of Constantine Porphyrogenitus’ documents, the poor were not those without means of subsistence, but those unable to meet the demands

text is an attempt to reassess the available sources and research findings undertaken by numerous renowned researchers to address the actual financial situation of this largest group of combatants. The most important issue seems to be their actual pay, service conditions, and wealth. The author's second major goal is to determine the potential purchasing power of soldiers' pay, in order to address the actual living standards of soldiers. Due to the complex nature of the issue, the research has focused on the thematic soldiers. The third goal of this article is to answer the question of whether the ranks of the thematic foot soldiers were filled solely by farmer soldiers, charged with the duty of *strateia*, or whether another category, namely volunteers, can be distinguished⁹.

1. Introductory Remarks

Given the insufficient source information on the situation of thematic soldiers in the 9th and 10th centuries, it seems necessary to refer to earlier centuries, particularly the 6th century, and then attempt to reconstruct the changes that occurred in the following two centuries. Explaining the financial situation of the thematic soldiers seems impossible without understanding the changes that led to the emergence of the thematic system¹⁰. A key aspect of the aforementioned process also seems to be

of the *strateia* obligation. Constantinus Porphyrogenitus, *Novellae Imperatorum*, V A1, 9-18, p. 118.

⁹ It's worth noting that, despite appearances, this isn't a new hypothesis. This possibility was already noted by I. Brubaker and J. Haldon. However, allowing for this possibility carries important consequences, as it explains many apparent contradictions in the source material see Brubaker – Haldon, *Byzantium*, p. 746, 755. In the further part of the work I will try to show that the above-mentioned intuition was correct.

¹⁰ For more on the discussion regarding the creation of themes. The most frequently raised issue is the issue of linking the reform to a specific ruler. Some researchers consider Emperor Heraclius to be the creator of the system, see J.C. Cheynet, *Le Monde Byzantin II: L'Empire byzantin (641-1204)*, Paris 2006, p. 151-152. The work attributed to Constantine Porphyrogenitus, *De Thematribus*, adds some information to the discussion. It is worth noting that among the emperor's sources there are accounts referring both to the period before and after the Arab conquest, see J. Haldon, commentary, in: Constantinus Porphyrogenitus, *De Thematribus*, ed. J. Haldon, Liverpool 2021, p. 10-11. It seems that the date of the first mention of this Anatolikon clearly allows us to assume at least that the outline of the system was already completed by the reign of Constans II, see J. Haldon, *Warfare, State and Society in the Byzantine World, 565-1204*, London 1999, p. 73. The most interesting interpretation seems to be that of J. Haldon, who sees the process of creating themes as both the result of conscious actions during

the evolution of the obligation of *strateia* (στρατεία) and its connection with the land cultivated by soldiers (*stratitotika ktemata* – στρατιωτικὰ κτήματα). Despite the dramatic changes that took place in the 7th and 8th centuries, both aspects of the material functioning of soldiers seem to have their roots in the 6th century or even earlier¹¹.

There is no doubt that the very first issue discussed, i.e. the chronology of the development of the thematic system, raises enormous controversy¹². Although the matter remains open, several aspects should be considered. First, following failures to halt the Arab conquest, the Byzantine army was ultimately forced to abandon part of its territories and was relocated deeper into the empire. One must also agree with J. Haldon that the changes occurring in the state apparatus were gradual, as the scholar demonstrates through the continuity of state administration¹³. There is also no reason to doubt that at some point soldiers did in fact received some land related benefits in compensation for the loss of monetary pay¹⁴. However, we can assume it was linked to significant changes in the soldier remuneration system and changes in the monetary economy (discussed below). The process in question, although in many respects it remains difficult to grasp, is a fact, as exemplified by the cessation of

the reign of Heraclius and gradual changes spread over time, because the term *thema* itself in reference to the military structure appears in sources only during the reign of Nicephorus I, cf. Constantinus Porphyrogenitus, *De Thematribus*, ed. J. Haldon, Liverpool 2021, p. 55-56; Brubaker – Haldon, *Byzantium*, p. 744-755.

¹¹ As E. Ragia convincingly proves in his text on the social position of Byzantine soldiers, see Ragia, *The Social*, p. 132-140.

¹² Older scholars attribute the origin of the themes to Heraclius, see G. Ostrogorsky, *History of Byzantine State*, New Jersey 1997, p. 101; Cheynet, *Le Monde*, p. 151-152. Other scholars point out that the process could not have begun in earnest until the field armies withdrew into Byzantine territory as a result of their defeats by the Arabs, see W. Treadgold, *A History of the Byzantine State and Society*, Stanford 1997, p. 316. The most convincing theory, however, seems to be that the whole process took place gradually and was related to the identification of the names of individual armies with the districts in which they were deployed, see Haldon, *Byzantium*, p. 214-215. The aforementioned scholar has been maintaining his thesis for years and convincingly proves that the culmination of the process could have been the official establishment of the theme system during the reign of Nicephorus I, i.e. only at the beginning of the 9th century, see Brubaker – Haldon, *Byzantium*, p. 744-755.

¹³ Brubaker – Haldon, *Byzantium*, p. 671-679.

¹⁴ W. Treadgold recognises that in the following decades of the seventh century the above amount was changed so that warriors received only 5 *nomismatata* in their pay, but in return they received land, see Treadgold, *Byzantium*, p. 144. Unfortunately, the sources do not directly confirm this theory, although from a logical point of view it makes sense.

payment of certain benefits to soldiers, such as *donativum*¹⁵. Determining the actual level of wages is therefore necessarily speculative and is limited to the formulation of hypotheses, except in certain situations where we can rely on sources, as in the case of financial documents prepared in connection with specific war operations undertaken by the empire¹⁶.

Another issue significantly related to the financial situation of Byzantine soldiers in the 9th and 10th centuries is the nature of the obligation of *strateia*. Although older scholarly literature tended to suggest that it was directly linked to the granting of land by the state in exchange for military service, the current issue seems more complex¹⁷. For example,

¹⁵ This applies primarily to the cyclical *donativum*. Benefits paid, for example, on the accession of a new ruler continued to exist. Regarding the cyclical *donativum*, paid once every five years, there is consensus that it disappeared, but scholars point to a different chronology for the phenomenon. M. Hendy believes it may have survived even until the reign of Justinian, while the accessional pay existed well into the early 640s, see Hendy, *Studies*, p. 642-643, 670. On the other hand, Treadgold believes that they were finally stopped being paid during the reign of Anastasius, permanently increasing the value of the *annona* benefit by one *nomismatata*, see Treadgold, *Byzantium*, p. 153-154. There is no doubt that of these two benefits the accessional *donativum* survived longer, i.e. at least until 641, as evidenced by Georgios' Kedrenos account, see *Historiarum Compendium* I, ed. I. Bekker, Bonn 1838-1839, p. 753 (Point made by Hendy, *Studies*, p. 646-647).

¹⁶ In this respect, the most important contribution is made by the works of Constantine Porphyrogenitus, which contain important information on the logistical aspects of military expeditions to Crete in 911 and 949, i.e. *De administrando imperio* and *De cerimoniis*, see Constantinus Porphyrogenitus, *De administrando imperio*, ed. G. Moravcsik, CFHB 1, Washington 1967, p. 246-257; Constantinus Porphyrogenitus, *De cerimoniis* II 44-45, p. 651-678. For the more up to date edition and comment see Constantin VII Porphyrogenète, *Le livre des cérémonies*, ed. G. Dragon – B. Flusin, CFHB 52/1-5, Paris 2020. More on the issue in question see Treadgold, *A History*, p. 470-489; C.G. Makrypoulias, *Byzantine Expeditions against the Emirate of Crete c. 825-949*, "Graeco-Arabica" 7-8 (2000) p. 352-356; J. Haldon, *Theory and Practice in Tenth-century Military Administration: Chapters II, 44 and 45 of the Book of Ceremonies*, "Travaux et Mémoires du Centre de Recherches d'Histoire et Civilisation Byzantines" 13 (2000) p. 201-352.

¹⁷ For the arguments in question of this hypothesis see N. Oikonomides, *The Social Structure of The Byzantine Countryside in the First Half of the Xth Century*, in: *Social and Economic Life in Byzantium*, ed. E. Zachariadou, New York 2017, p. 110-111. The term *strateia* literally means militia and shows connections with the tradition of the Roman Empire, A.H.M. Jones, *The Later Roman Empire 284-602. A Social, Economic and Administrative Survey*, v. 2, Oxford 1964, p. 563-566. There is also no doubt that the holders of *strateia* enjoyed significant privileges, such as tax exemptions, see N. Oikonomides, *Fiscalité et exemption fiscale à Byzance*, Athens 1996, p. 37-40, 117-120.

in her recent findings, E. Ragia convincingly argues that the origins of *strateia* are much older than the founding of the thematic system, dating back as far as the 6th century¹⁸. Furthermore, the scholar suggests that the term should be associated with a personal relationship between a soldier and the state, rather than with the land¹⁹. The two are, of course, interconnected, but contrary to appearances, this connection dates back quite late, as the first mentions directly referring to *stratitotika ktemata* refers to the 10th century²⁰. For most of the period between the 6th and 10th centuries, *strateia* was a personal obligation to the state, in exchange for a specific social status, reinforced, of course, by various privileges, including taxation, rather than a fiscal burden. At least in the period preceding the Byzantine-Persian wars and the Arab conquests, the holder of *strateia* gained a recognized place in the social order, and having no other resources, for example land, he decided on a military career²¹.

¹⁸ Ragia, *The Social*, p. 132-140. Other researchers also hold the view that *strateia* was a personal relationship with the state, there is no evidence that it was originally linked to a landed estate, see Brubaker – Haldon, *Byzantium*, p. 746.

¹⁹ This is supported by sources both from before the Arab conquest and from a later period. The surviving accounts of Procopius of Caesarea and Patriarch Nicephorus (Procopius Caesarensis, *Anecdota* XXIV 8, in: *Procopius. With an English Translation by H.D. Dewing*, v. 7, London 1960, p. 280; Nicephor Archiepiscopus Constantinopolitani, *Antirrhethici tres adversus Constantinum Copronymum* 30, PG 100, 492) clearly show that the holders of *strateia* were primarily those listed in military catalogs. These soldiers, discharged from service, suffered from poverty and apparently had no other source of income than begging. See Jones, *The Later*, v. 2, p. 661-663. This argument is supported by the analysis of A. Kaldellis in *Prokopios, The Secret History, with Related Texts*, Indianapolis – Cambridge 2010, p. 107, n. 25. The above-mentioned connections were first drawn to attention by E. Ragia, *The Social*, p. 136-139.

²⁰ The first mention is in a novella by Romanus I, see Romanus I, *Novellae Imperatorum*, II, 1, 97-113, p. 57-58. Interestingly, in the above-mentioned novella the so-called nobles/*dynatoi*. About their roles in the light of Roman’s novella I see McGeer, *The Land*, p. 39. The relatively late appearance in the sources of both the soldiers’ land and the *stratitotes* who made their living from it was also noted by J. Haldon. See commentary in Constantinus Porphyrogenitus, *De Thematibus*, ed. J. Haldon, p. 57-59.

²¹ Reading the source material and literature imposes a dual image of soldiers. In the first, the holders of *strateia* are warriors, living in the countryside and belonging to the local community, though with a clearly privileged status over the rest, see E. Ragia, *Mutual Interest Groups in a Provincial Context*, in: *Microstructures and Mobility in the Byzantine World*, ed. C. Rapp – Y. Stouraitis, Vienna 2024, p. 50-52. In the second, the soldiers are those who, having no prospects for better employment, decided to bind themselves to the state through the bond created by the obligation of *strateia*: E. Ragia, *The “Politikon” and the “Stratitotikon” in Byzantium: Two Conflicting Social Images*, in: *Social Profiles and Social Position in Byzantium. Testimonies and Interpretations*,

This subtle difference in interpretation, has profound consequences for the debate on soldiers' remuneration in the 9th and 10th centuries. If we assume that the connection between *strateia* and land arose no earlier than in the second half of the 7th century, then the initially mentioned condition should be associated with volunteers for military service, who, at least initially, may not have possessed significant wealth (such as land properties) and only later acquired it through service²². Consequently, it should be assumed that the actions taken by Constans II (and his successors?) were aimed at offering soldiers compensation for the income lost due to the difficult situation of the state, and the obligation to serve was originally attached to the person and not to the land, which was to some extent an equivalent of pay for a certain group of soldiers²³. It seems that E. Ragia is right when she points out that the process of linking both elements emerged in a later period, i.e. at the end of the 7th or in the 8th century, when soldiers settled for good in particular districts and it was necessary to organize their property (*peculium castrense*) and the property of other family members and relatives from a fiscal perspective²⁴.

ed. E. Ragia, Athens 2025, p. 26-27. The social division among public servants into civilian and military factions dates back to the times of Procopius. See Procopius, *Anecdota* XXIV 30, p. 288.

²² The legal mechanism that could lead to this was long known in the period we are interested in. Soldier property (*peculium castrense*), bound to the state by the obligation of *strateia*, was initially the primary subject of legal protection, as defined in *Digesta* of Justinian I: Justinianus I, *Digesta* XLIX 17, 11, in: *Corpus Iuris Civilis*, v. 1, ed. T. Mommsen, Berlin 1889, p. 839. In this way, soldiers, withdrawn to the provinces in the second half of the 7th century, could relatively quickly build an economic base for future landed property. This, in turn, would not be recognized as inseparable from the ability to perform military service until the 10th century. It is also clear that this mechanism was not originally intended to lead soldiers to acquire land in their place of service, as this would distract them from their original duties: Justinianus I, *Digesta* XLIX 16, 3.

²³ Due to the lack of sources, this is merely a hypothesis, though one that resonates with some scholars (Treadgold, *Byzantium*, p. 144-145). We don't know exactly what the social contract was, or which elements of remuneration were replaced by land, since, for example, the *donativum* ascension remained in place. What initiated the process of creating "soldiers' estate" may not have been the act of allocating new land, but the return to the countryside of soldiers who "brought" with them the status of *strateia*, allowing them to obtain attractive tax exemptions, see Ragia, *The Social*, p. 172.

²⁴ It seems that regulating fiscal relations in rural areas, where quite suddenly many soldiers found themselves, was one of *Ecloga's* goals (Leon III, *Ecloga*, in: *Ecloga. Das Gesetzbuch Leons III. und Konstantinos' V*, Frankfurt 1983). More on the changes that occurred during this period is written by M. Kaplan in *Les hommes*, p. 234-235. E. Ragia rightly notes that, freed from many burdens, a soldier's personal property (*peculium*

It is also worth noting that the *strateia* originally linked a specific person to the state and after his death the family could decide whether someone would take it up again or not²⁵.

Finally, many researchers have also noted other patterns that cannot be ignored when attempting to reconstruct soldiers’ pay in the period under consideration. For example, between the mid-7th and the first half of the 9th century, the Byzantine economy significantly reduced monetary settlements in favour of in-kind payments, with particular emphasis on grain²⁶. At the same time, deposits are found even for this period, though they are mostly limited to metropolitan and coastal locations, and places associated with military presence. This may indicate, on the one hand, a high probability that the army, which during the Eastern Roman Empire generally received its pay in cash, was now rewarded differently, primarily through land grants. On the other hand, it is clear that the army continued to receive some portion of its former remuneration in cash²⁷.

The final issue, which has a significant impact on the matter under discussion, is the technical definition of the term “pay” in relation to Byzantine soldiers, particularly in the 9th and 10th centuries. It is important

castrense) was not unrelated to the functioning of the family estate, see Ragia, *The Social*, p. 145-147. On the one hand, the resources acquired by a soldier belonged, in *Ecloge*’s view, exclusively to him (*Ecloge* XVI 1, p. 221). On the other hand, family wealth sometimes contributed to a soldier’s equipment, which required determining who owed what to whom (*Ecloge* XVI 2, p. 221). For more scholarly literature, see Haldon, *Recruitment*, p. 67-73; Haldon, *Military Lands*, p. 21-22; Oikonomides, *Recruits*, p. 130-133; Oikonomides, *Fiscalité*, p. 37-38.

²⁵ Ragia, *The Social*, p. 150. It seems that for most of the period from the 7th to the 9th century the balance was positive, although it was not as good a deal as when Maurice promised soldiers the right to take their sons into service in the event of their death. See Theophylactus Simocatta, *Historiae* VII 1,1-1,9, ed. C. de Boor – P. Wirth, Stuttgart 1972, p. 245-247; Evagrius Scholasticus, *HE* VI 4, ed. J. Bidez – L. Parmentier, London 1898, p. 224. Some scholars believe that Priscus introduced the hereditary nature of military rank along with a decree amending the rules of pay, see M. Whitby, *The Ecclesiastical History by Evagrius Scholasticus*, Liverpool 2000, p. 294. W. Treadgold believes that this second concession only emerged in response to the mutiny, see Treadgold, *Byzantium*, p. 148.

²⁶ Brubaker – Haldon, *Byzantium*, p. 465-473. It’s worth noting that even during the monetary crisis, the government didn’t give up on its efforts to supply the market with coins. Interestingly, one of the most common locations where they are found are former military camps, see Hendy, *Studies*, p. 294-305.

²⁷ It is worth noting that although in the VII-VIII period such a part of the remuneration would have been calculated in gold, it is very possible that the soldiers de facto received an equivalent in silver, or, more likely, in bronze coins. See Hendy, *Studies*, p. 640-645, 659-662.

to define what we mean when we think of soldier pay, as it consisted of various components over the centuries. Importantly, some of these components were paid almost exclusively in cash, while others varied in form, allowing combatants to receive their pay in kind²⁸.

2. Soldiers' pay in the 9th and 10th centuries: An attempt at reconstruction

Due to the fact that Byzantium was the successor to the Roman Empire, I have divided my analysis of the available material into several stages. First, I will attempt to determine how much Roman legionaries earned in the Late Period. Next, I will address the remuneration of the soldiers during the reigns of Anastasius and Justinian. Only after that will I attempt to determine how changes in the 7th and subsequent centuries shaped the pay of Byzantine soldiers.

It seems reasonable to assume that significant changes occurred in soldiers' remuneration during Diocletian's reign. Their remuneration then consisted of cash and in-kind benefits, but the monetary component, consisting of the *stipendium* and the *donativum*, underwent significant evolution over time²⁹. The decline in the value of the former ultimately led to its abandonment, and in the 4th century, it was replaced by *annona*³⁰ (or a multiple thereof). The second element of remuneration (i.e. *donativum*) was paid to soldiers in two forms: a cyclical *donativum*, worth 5 *nomismata* every five years, and an occasional *donativum* distributed on

²⁸ This is the case, for example, with military equipment, which in Roman times soldiers received for free, in certain periods the state offered a financial equivalent for it, while in the period in question the burden of providing it rested with the soldier.

²⁹ It should be emphasized that the first of the indicated benefits has been significantly devalued, see Jones, *The Later*, v. 2, p. 623; Leszka – Wierzbiński, *Strategoí*, p. 33.

³⁰ For basic literature concerning *Annona militaris* see W.E. Kaegi, *The Annona Militaris in the Early Seventh Century*, "Byzantina" 13/1 (1985) p. 589-596. On the impact of Diocletian's reforms on the warehouse organization system E. Rizos, *Remarks on the logistics and infrastructure of the Annona Militaris in Eastern Mediterranean and Aegean areas*, "Antiquité Tardive" 23 (2015) p. 287-302. For the differences between *Annona militaris* and *Annona civica* see D. Van Berchem, *L'Annone militaire dans l'Empire romain au IIIe Siècle*, "Mémoires de la Société nationale des Antiquaires de France" 10 (1937) p. 117-202. Jones, *The Later*, v. 2, p. 448-469; B. Sirks, *Food for Rome: The Legal Structure of the Transportation and Processing of Supplies for the Imperial Distributions in Rome and Constantinople*, Amsterdam 1991.

the emperors’ accessions to the throne or important holidays³¹. The latter was usually worth the equivalent of 5 *nomismata* and a pound of silver, although the entire amount was sometimes paid in gold (the equivalent of 9 *nomismata*)³². It’s important to remember that initially, the costs of provisions rested on the legionaries, and it was not until the 4th century that the practice of shifting it to Roman citizens in the form of a tax became widespread. It is also worth remembering that primarily, this privilege didn’t apply to all combatants, but only to select armies³³. Consequently, we can assume that in Diocletian’s time, soldiers didn’t pay for their own food, though this didn’t change the devaluation of the *stipendium*, which ultimately had to be abandoned. Suffice it to say that the majority of legionaries’ income at that time consisted of the *donativum*, spoils of war, various rewards, and the *annona*, customarily defined as the equivalent of 4 *nomismata*³⁴. Legionnaires also received their equipment and weapons in kind, and although they didn’t pay for them, it’s difficult to count them as income. In summary, excluding free food, equipment, and the occasional *donativum*, which nevertheless constituted a real, if irregular, cash infusion, a soldier’s pay in the 4th century amounted to the equivalent of 4 *nomismata* plus cyclical *donativum*, so on average 5 *nomismata*. As can be seen, the cost of maintaining and equipping a soldier was significantly higher for the state.

The financial situation of soldiers continued to change in the first half of the 4th century due to the division of legions into field army units (*comitatenses*) and troops serving as garrison troops on the empire’s borders (*limitanei*). It seems clear, the former were better equipped and paid³⁵. If so, it seems reasonable to assume that the salary of field troops could

³¹ More on the nature on *donativum* see Hendy, *Studies*, p. 187-191; Jones, *The Later*, II, p. 623; Leszka-Wierzbiński, *Strategoï*, p. 33. The form of payment appears to have changed periodically. For example, during the reign of Diocletian, it was customary to pay both allowances in bronze coins, while during the reign of Constantine the Great, soldiers were paid in gold, see Treadgold, *Byzantium*, p. 167.

³² Treadgold, *Byzantium*, p. 145. This amount was clearly customary, as it was repeated from the time of Julian the Apostate until the time of Tiberius. In the latter case, no silver was paid, but an equivalent was offered, bringing the total payment to 9 gold *solidi*, see Hendy, *Studies*, p. 177.

³³ J.M. Carrié, *Eserciti e strategie*, in: *Storia dei Greci e dei Romani*, v. 18, Milano 2008, p. 100-102.

³⁴ An important element of the changes is relieving soldiers’ incomes of the obligation to pay for food. It seems reasonable to assume that the devaluation of the *stipendium* and the introduction of the *annona* system are linked to this process.

³⁵ Already A.H.M. Jones noticed that both *limitanei* and *pseudocomitatenses* earned less than *comitatenses* and *palatini* in his work (*The Later*, p. 626). The pay of

have been 2 *annona*, compared to 1 *annona* paid to frontier soldiers³⁶. To this should also be added the allowance for cavalymen of both formations (*capitus*), amounting to 4 *nomismata*. Assuming that the only regular element of remuneration paid in cash was the pay and the cyclical *donativum*, it should be assumed that, at least until the times of Anastasius and Justinian, soldiers of the *limitanei* received on average 5 *nomismata*, while those belonging to the *comitatenses* received 9 *nomismata*.

Although the purchasing power of soldiers' pay will be discussed later in this text, it must be emphasized that, with respect to Roman legionaries in the 4th century, the pay offered, especially in the case of frontier forces, was insufficient to enable a decent living, let alone support a family³⁷. This was not only a cause for recurring unrest but also one of the reasons why *limitanei* serving on the frontier and in numerous garrisons began to take up other casual activities³⁸. Interestingly, although edicts were issued as early as the 3rd century AD allowing *limitanei* soldiers to cultivate nearby fields in exchange for hereditary military service, this practice must have intensified in the 5th century³⁹. For example, during

soldiers stationed on the frontier was basically unchanged and its value did not exceed 4-5 *nomismata*, see Leszka – Wierzbiński, *Strategoí*, p. 34.

³⁶ We know that at least in times of Justinian the pay was calculated in *annona*'s, at least in one instance: Iustinianus I, *Codex Iustinianus* I 27, 2, in: *The Codex of Justinian. A New Annotated Translation with Parallel Latin and Greek Text based on a Translation by Justice F.H. Blume*, ed. B. Frier, Cambridge 2016, p. 335-341. It seems that W. Treadgold rightly relates the mentioned remunerations to the forces of the *limitanei*, which would explain their relatively low level, see Treadgold, *Byzantium*, p. 149.

³⁷ Due to the lack of sources, we can refer to the account of Procopius of Caesarea, who mentions that courtesans in Constantinople struggled to survive on 4-5 *nomismata* per year (Leszka – Wierzbiński, *Strategoí*, p. 35-36). The chronicler readily notes that the women in question offered their charms for 3 obols (i.e., a follis), see Procopius, *Anecdota* XVII 3-4, p. 198 (text), p. 199 (translation). Applying the ratio of the aforementioned coin to the *nomismata* provided by P. Grierson (180-210 follis for 1 *nomismata*), we would obtain the amount quoted by the author of the source, see P. Grierson, *Byzantine Coinage*, Washington 1999, p. 5. We can therefore cautiously assume that one *annona* is the actual cost of living for one person for a year.

³⁸ More on terms and conditions of the service of *limitanei* see Jones, *The Later*, v. 2, p. 626-631, 648-649; F.K. Haarer, *Anastasius I. Politics and Empire in the Late Roman World*, Cambridge 2006, p. 202-206.

³⁹ The earliest regulations allowing soldiers to cultivate the land adjacent to the forts where they served occurred as early as the reign of Emperor Alexander Severus. There is no doubt that this was one of the reasons why the remuneration of field troops improved over time, whereas it did not in the case of frontier forces. The laws introduced not only granted them the right to cultivate land in return for hereditary obligation of military service for their offspring, but also issued a ban on selling the plots

the time of Theodosius II, two decrees were issued relating to frontier soldiers, who apparently had to support themselves with farming, and treated military service as an additional occupation⁴⁰. It is worth noting that in the case of *limitanei*, the permit was accompanied by two legal restrictions: the hereditary nature of military service and a prohibition on the disposal of agricultural land. As I will attempt to demonstrate below, these aspects, while evoking numerous similarities with the situation of farmer-soldiers in the 9th and 10th centuries, have different legal bases.

Analyzing changes in Eastern Roman soldier pay in the 5th and 6th centuries, W. Treadgold put forward three hypotheses, based indirectly on historical sources. The first concerns the abolition of the five-year *donativum* and a permanent increase of the *annona* by one *nomismata*⁴¹. The scholar’s assumption is based on several premises. First, according to Procopius of Caesarea, this payment ceased after 518, while according to other sources, it was last paid in 511⁴². It is rather clear that this did not mean a reduction in soldiers’ income, but quite the opposite, as the value of the *annona* was supposedly permanently increased to five *nomismata*⁴³. This change, relatively insignificant from the perspective of the *limitanei* (as they received only one *annona*), had a major impact on the field forces, as for the average *comitatenses* soldier, it meant a permanent increase in pay to 10 *nomismata*⁴⁴. In this way one of the two

of land, see: Severus Alexander, *Leges LVIII*, in: *Scriptores Historiae Augustae*, t. 2, tr. D. Magie, Cambridge – London 1993, p. 294-297.

⁴⁰ This provision was reissued many times, e.g. under Theodosius II, in reference to *limitanei* soldiers serving in the East, see Theodosius II, *Constitutiones VII 15, 2*, ad. 423, in: *Theodosiani libri XVI cum constitutionibus Sirmondianis et leges Novellae ad Theodosianum pertinentes*, ed. T. Mommsen – P. Meyer, Berolini 1905, p. 342. The next mention comes from a later period, from 443. It is also attributed to Theodosius II (*Codex Iustinianus XI 60*, ad. 443, in: *Corpus Iuris Civilis*, v. 2, ed. P. Krueger, Berolini 1906, p. 447).

⁴¹ W. Treadgold argues that the reform in question was carried out earlier, already under Anastasius. See Treadgold, *Byzantium and Its Army*, p. 153-154.

⁴² The account of Procopius of Caesarea allows us to assume that it was during the reign of Justinian that there was a shift away from the payment of a *donativum* once every five years, in the amount of 5 *nomismata*, to a permanent increase of the amount of the *annona* from 4 to 5 *nomismata*. For soldiers earning more than 1 *annona*, represented a significant increase in real income and for the state a facilitation. See Procopius, *Anecdota XXIV 27-29*, p. 288 (text), p. 289 (translation).

⁴³ Henty (*Studies*, p. 649) points to Justinian as the one that have included *donativum* in *annona*; Treadgold (*Byzantium*, p. 153) argues that it was Anastasius, that should be associated with the idea; Leszka – Wierzbiński, *Strategoï*, p. 36.

⁴⁴ There is no doubt that the reforms introduced affected the attractiveness of military service. A.D. Lee provides more information on the aforementioned topic in his

types the *donativum* ceased to exist, while the benefit paid on imperial ascension lasted much longer. This hypothesis seems plausible, despite the scepticism of some scholars⁴⁵. W. Treadgold's second hypothesis was that during the reign of Emperor Anastasius another beneficial change occurred, namely the soldiers started to receive payment of monetary allowance instead of weapons and equipment in kind⁴⁶. The scholar cites accounts by John Malalas and Evagrius Scholasticus, and the authors of the sources do indeed state that the emperor introduced such reforms⁴⁷. However, W. Treadgold's third assumption poses a problem, as the scholar assumed that the emperor set the value of weapons and equipment at 10 *nomismata*, which would have increased the pay of field soldiers from 10 to 20 *nomismata*. The problem is that these figures do not appear in the source material and represent an arbitrary estimate made by the researcher. On the other hand, there is no doubt that the soldiers'

text *The Army*, in: *Cambridge Ancient History, vol. XIII: The Later Empire 337-425*, ed. A. Cameron – P. Garnsey, Cambridge 1998, p. 221-222. See arguments given by C. Zuckerman, *L'armée*, in: *Le monde byzantin*, v. 1, ed. C. Morriison, Paris 2012, p. 172-174. Also, an interesting interpretation of sources was given by A. Kaldellis and M. Kruse (*The field armies of the East Roman Empire, 361-630*, Cambridge – New York 2023, p. 13); see Leszka – Wierzbiński, *Strategoï*, p. 36-37.

⁴⁵ According to some researchers, the cyclical *donativum* was not abandoned in the times of Anastasius or Justinian. As evidence for this possibility, scholars point to the periodic increase in coinage corresponding to the five-year reigns of emperors. See C. Morriison, *Imperial generosity and its monetary expression: the rise and decline of the "largesses"*, in: *Donation et donateurs à Byzance*, ed. J.M. Spieser – É. Yota, Paris 2012, p. 25-46. This is most evident in the case of Maurice, see A. Gandila, *Money Talks: Financial Crisis and the Fate of the Roman Balkans, c. 582-602*, in: *Studia Romana Et Mediaevalia Europaensia: Miscellanea in Honorem Annos LXXXV Peragentis Professoris Emeriti Dan Gh. Teodor Oblata*, ed. D. Aparaschivei – G. Bilavschi, Bucuresti 2019, p. 115-121. It is worth noting, however, that the funds could just as easily have come from extraordinary rewards paid by individual rulers to buy the loyalty of their armies.

⁴⁶ It seems clear that this beneficial change also bypassed the *limitanei* soldiers, who were supplied "in kind", see Kaldellis-Kruse, *The Field*, p. 94.

⁴⁷ M. Whitby argues that Anastasius's reform was not only aimed at monetizing taxes and goods that had previously been collected in kind, but paradoxically, also at protecting the producing population from excessive burdens or the necessity of requisitions or *coemption*, see Whitby, *The Ecclesiastical*, p. 192-193. This account is directly confirmed by John Malalas: Ioannes Malalas, *Chronographia* XVI 3, 11-23, in: *Ioannis Malalae Chronographia*, ed. I. Thurn, Berlin – New York 2000, p. 320. The much more critical Evagrius Scholasticus attributes the emperor's motive to avarice, see Evagrius Scholasticus, *HE* III 42, p. 144. For additional comment see E. Stein, *Histoire du Bas-Empire*, v. 2, Paris 1974, p. 199-203; Treadgold, *Byzantium*, p. 153.

living conditions improved significantly during Anastasius’s reign, and it is this emperor who should be credited with the reforms that increased their pay⁴⁸. All in all, it seems safe to assume that soldiers’ pay increased again during the reign of the aforementioned emperor, reaching 15-20 *nomismata* for field troops. In the case of the *limitanei*, scholars agree that the beneficial reforms did not apply to them, which is not surprising considering they were supported by the land, and their combat value declined to the point that Justinian disbanded these formations in the mid-6th century⁴⁹.

Although W. Treadgold’s estimates remain hypothetical, it is clear that military pay was a significant burden on the Eastern Roman Empire in the second half of 6th century. Since the government’s budget was tense in Maurice’s time, the emperor tried every possible way to find savings⁵⁰. The fact that the emperor attempted to reduce soldiers pay by 25% indirectly indicates that the remuneration must have reached unsustainable levels⁵¹. It is clear that the soldiers perceived the exchange of part of their cash remuneration for equipment and weapons in kind as an injustice, but it also demonstrates that, at least, most of their remuneration was paid in cash⁵². At the same time, the attempt to mitigate the de-

⁴⁸ W. Treadgold’s theory is also supported by the fact that while Justinian’s predecessors managed to leave behind a well-stocked imperial treasury, after 540 emperors regularly struggled with financial liquidity and were sometimes late with their pay, as A. Kaldellis and M. Kruse rightly noted, see Kaldellis – Kruse, *The Field*, p. 86-87; Gandila, *Money*, p. 112-116. Therefore, if one were looking for a ruler who favored generous military rewards, Anastasius would be the best candidate.

⁴⁹ P.J. Casey, *Justinian, The limitanei, and Arab-Byzantine Relations in the 6th c.*, “Journal of Roman Archaeology” 9 (1996) p. 114. It is clear, that, whoever the thematic soldiers of the 9th and 10th centuries were, they came from the field armies, not the *limitanei* forces: Kaldellis – Kruse, *The Field*, p. 94; Treadgold, *Byzantium*, p. 150.

⁵⁰ There is no doubt that Maurice inherited an empty treasury not only from his immediate successor, but also due to the fiscal policies of other emperors, see A. Gandila, *Heavy Money, Weightier Problems: The Justinianic Reform of 538, and Its Economic Consequences*, “Revue numismatique” 169 (2012) p. 366-371.

⁵¹ The attempt to save money on the army was met with a violent reaction from the army, which started a mutiny, see Theophylactus Simocatta, *Historiae* VII 1,1-1,9, p. 245-247. Ultimately, the emperor had to withdraw from his reform attempts, but he continued to try to find savings, see Gandila, *Money Talks*, p. 115-116. This was not the only situation of this type, as the emperor had already tried to pay part of the debt to the soldiers in equipment and weapons, but in relation to the *donativum* in 586. See Gandila, *Heavy*, p. 370; Theophylactus Simocatta, *Historiae* III 3, 1, p. 110-112.

⁵² A. Gandila, *Free Market, Black Market or No Market? Money and Annona in the Northeastern Balkans (Sixth to Seventh Century)*, “Journal of Late Antiquity” 14/2 (2021) p. 314.

cree with the promise of ensuring hereditary military rank demonstrates that, at least in the eyes of the ruling elite, it was a profitable profession at the time⁵³. Perhaps, then, W. Treadgold's hypothesis has a strong foundation, although it was based on circumstantial evidence.

Another significant change before the period in question was the edict of Heraclius, which reduced soldiers' pay by half⁵⁴. Although not long ago such a decree would have led to the ruler's downfall, the circumstances were different, and the empire was literally fighting for survival. The aforementioned brief source mention indicates not only the state's enormous financial and political crisis but also the fact that, even Heraclius could not afford to cut the soldier's pay below the minimum necessary for survival. Consequently, the pay of soldiers in the first half of the 7th century would have been between 7 or 8 and 10 *nomismata*⁵⁵. However, this is the latest estimate based on direct or indirect source accounts up to the 9th century⁵⁶.

Taking into account the above conclusions and the comments made at the beginning of this text, one can attempt to answer the question about the remuneration of Byzantine soldiers in the period from the 8th to the 10th centuries. As was the case in previous centuries, the amount of actual pay and other benefits should be considered separately. The latter could take both cash and non-cash forms during the period. Within this category, provisions and equipment expenses should be distinguished.

The last category seems the easiest to explain. Both current literature and surviving sources hold that Byzantine soldiers reported for duty with their own equipment and were responsible for arming themselves appropriately for their type of troops⁵⁷. Some accounts, particularly those

⁵³ Among the concessions promised by the emperor were other provisions. For example, Theophylact mentions an amnesty, but also a promise that the state would henceforth provide food for demobilized veterans. See Theophylactus Simocatta, *Historiae* VII 1, 7, p. 247. The aforementioned record seems significant because it indicates that in the 6th century the relationship between the state and the soldier known as *strateia* could be severed not only due to the death of the latter, but also due to an arbitrary decision of the authorities, such as deleting a person from the catalogue. Evagrius, who was not favourable to Anastasius, does not repeat the account of Theophylactus, see Evagrius Scholasticus, *HE* VI 4, p. 224.

⁵⁴ *Chronicon Paschale*, ed. L. Dindorf, Bonn 1832, p. 706.

⁵⁵ Treadgold, *Byzantium*, p. 169.

⁵⁶ Some researchers suggest, for example, that as a result of the landing of soldiers in rural districts, the government completely abandoned the provision of *annona* and *capitus*, see Hendy, *Studies*, p. 662.

⁵⁷ Oikonomides, *Fiscalité*, p. 37, 117-118; Treadgold, *Byzantium*, p. 181; Brubaker – Haldon, *Byzantium*, p. 746. It seems that even at the very early stages of the new

concerning the lives of saints, indicate that ensuring the availability of appropriate equipment, such as a warhorse for cavalry units, was a significant cost to the soldier. This theme appears in both the lives of Philaretos and Eustratios⁵⁸. The accounts of the authors of the saints’ lives simultaneously demonstrate two things, both of which were pointed out by E. Ragia⁵⁹. First, there was a group of soldiers who, for various reasons (presumably financial), had difficulty fulfilling their military obligations, especially in relation to military equipment⁶⁰. Second, there must also have been a group for whom this was not a problem, namely, soldiers who were financially well-off enough to even support others⁶¹. This growing stratification among soldiers was, of course, noticed by the state, as

system, which replaced the realities of the 6th century, providing equipment and weapons was linked with great difficulty. This is evidenced by the fact that the cost of equipping a soldier becomes a significant element of the family’s financial settlements, see *Ecloga* XVI 2, p. 221. Perhaps the high penalties for theft of weapons should be linked to their significant value (*Ecloga* XVII 10, p. 228).

⁵⁸ *Vita Sancti Philareti Misericordis* 223-227, p. 72-74; *Vita Sancti Eustratioti*, p. 377. It’s worth noting that the aforementioned accounts concern a specific group. It seems clear that soldiers serving in the cavalry, at least in theory, possessed greater wealth than infantrymen. The topos of poverty in this case is relative, as soldiers fear the punishment they might face if they reported for duty without a warhorse, see *Vita Sancti Philareti Misericordis* 235-238, p. 74.

⁵⁹ Ragia, *The Social*, p. 151-155.

⁶⁰ The difficulties in meeting the requirements were certainly exacerbated by the corruption of commanders, see Theophanes Continuatus, *Chronographia* 7-8, ed. M. Featherstone – J. Signescodoñer, CFHB 53, Boston – Berlin 2015, p. 134-136.

⁶¹ The researcher points out that this was not the most common form of contributing to the cost of a poor soldier, but indicates that there was a group (*syndotai/ synaichmoi*) wealthy enough not only to be able to fulfill their obligations but also to guarantee the potential debts of others, see Kaplan, *Les hommes*, p. 243; Ragia, *The Social*, p. 162. Constantine Porphyrogitos’ reluctance to consent to equip poor holders of *strateia* through the aforementioned group may be related to the potential rights the latter might have acquired as a result. Consequently, this would have resulted with a decrease in the system’s efficiency. See Constantinus Porphyrogenitus, *De cerimoniis aulae byzantinae* II 49, p. 695-696. Leo VI did not have similar reservations, see Leo VI, *Tactica*, in *Leonis Tactica*, CFHB 49, ed. G. Dennis, Washington 2014, p. 610. However, it is worth noting that the awareness of the changes taking place in the relations between the stratiotes and other groups was also different than in the mid-10th century, see Leo VI, *Novellae Imperatorum* 1, p. 41-46. At the time of the decree’s publication, the authorities were not bothered by the land transfers by the holders of *strateia*. However, it is worth noting that the legal irregularities that were taking place were already far-reaching. For example, the prolonged blocking of the sale led to the *stratiotai* abandoning the plot and acquiring it for free. See McGeer, *The Land*, p. 35-36.

legislation provided for the possibility of forcing wealthier warriors to contribute to the cost of equipping poorer ones⁶². It is worth emphasizing, however, that our discussion is based on accounts concerning cavalry soldiers. Regardless of whether we are talking about *themata* or *tagmata*, these warriors must have had some source of income other than pay that would allow them to purchase and maintain a horse, not to mention themselves and their families⁶³. This source, for obvious reasons, had to be land. However, we have no guarantee that this was the case for ordinary foot soldiers, a category which included both small landowners and those without any means of living⁶⁴. There is no reason to assume that only

⁶² As mentioned before this solution posed a potential threat for the efficacy of the system. It seems that the rulers only truly began to reflect when the number of recruits began to decline. The turning point was likely the disastrous winter of 927/928, see McGeer, *The Land*, p. 10. It appears, that as a result not only many starved but the poverty also led many stratiotes to abandon their plots, since they were unable to meet the obligation to equip themselves for military service: Romanus I, *Novellae Imperatorum* 3, 75-100, p. 85-86.

⁶³ There is no doubt, however, that both earned more than the thematic infantry. It's worth noting that *tagmata* soldiers were also perceived as holders of *strateia*, see McGeer, *The Land*, p. 39; Ragia, *The Social*, p. 153. The researcher rightly points to the term στρατιωτικὴ δουλεία, a proof. See Petrus Monachus, *Vita p. Ioannicii II* 1, in: *Life of Ioannikios*, ed. J. van den Gheyn, Brussels 1894, p. 386-387. However, it seems unlikely that he was the future saint who saved emperor Constantine V's life, during the battle with Bulgars in the year 792, see D.F. Sullivan, *Life of Saint Ioannikios*, in: *Byzantine Defenders of Images. Eight Saints' Lives in English Translation*, ed. A.M. Talbot, Washington 1998, p. 260. At the same time, it is clear, that the status of *tagmatatic* warriors made them powerful relative to other thematic soldiers. See Kaplan, *Les hommes*, p. 235, 359-371; M. Kaplan, *La place des soldats dans la société villageoise byzantine (VIIe-Xe siècles)*, in: *Le combattant au Moyen Âge. [18e Congrès de la] Société des historiens médiévistes de l'enseignement supérieur public*, ed. J.C. Hélas, Paris 1995, p. 46-47; Haldon, *Warfare*, p. 127-128.

⁶⁴ Determining the size of a thematic infantryman's holding, assuming he owned any land at all, is purely speculative. A decree by Constantine VII Porphyrogenitus offers some guidance in this regard, setting the value of property not subject to alienation at 4 pounds gold for cavalry and 2 pounds for sailors. See Constantinus Porphyrogenitus, *Novellae Imperatorum* 5, A1, p. 118. It is clear that the latter figure is closer to the truth. Interestingly, the value given for sailors in *De cerimoniis* is higher and amounts to 3 pounds of gold, see Constantinus Porphyrogenitus, *De cerimoniis* II 49, p. 695. E. McGeer also rightly points out that the value of the mentioned property was minimal and when Nicephorus II Phokas ordered that the stratiotes with the sailors' property should serve as foot soldiers, it was considered an excessive burden, see McGeer, *The Land*, p. 106; Kaplan, *Les hommes*, p. 251-252, 436. Also, it should be remembered that in the mid-10th century, it was not uncommon for a single soldier's equipment to be shared by several landowners. See Ragia, *The Social*, p. 175. In this respect, N. Oikonomides's

those who were obliged were recruited into the Byzantine army, since for many, it may have been the only career path⁶⁵. That there may have been a large number of such soldiers is suggested by Leo VI in his *Taktika*, which indicates precisely that there were those who were poor but had a fighting spirit⁶⁶. Perhaps it is in this context that Theophanes’ account should be viewed, reporting the imposition of a tax of 18,5 *nomismata* by Nikefor to equip poor soldiers⁶⁷. E. Ragia agrees with the view, which sees the aforementioned expenditure as an extraordinary tax imposed on people who had no social or economic ties to the beneficiaries. It remains an open question whether the beneficiary of such funding was obligated to repay it, but legal solutions in this regard existed even earlier⁶⁸. If we assume so, it is not clear, however, whether and to whom the soldier repaid the debt, but the key seems to be the obligation to serve a certain number of years. This indirectly supports the hypothesis that at least some combatants served continuously, not in rotation, as would be implied by Constantine Porphyrogenitus’ narrative⁶⁹. There is also another possibili-

estimates should be considered overly optimistic, and E. Ragia’s opinion should be favored, see Oikonomides, *The Social*, p. 113-115, 123-124.

⁶⁵ One could even venture to say that poverty was one of the criteria for entering the service. See Ragia, *The „Politikon”*, p. 27.

⁶⁶ Leo VI, *Tactica* 1059, p. 610.

⁶⁷ Theophanes, *Chronographia* 25-26, ed. C. de Boor, Leipzig 1883, p. 486. The sum of 18,5 *nomismata* seems too high to be related to a soldier’s equipment, unless we are talking about cavalry. See C. Mango – R. Scott – G. Greatrex, *The Chronicle of Theophanes Confessor. Byzantine and Near Eastern History, AD 284-813*, ed. C. Mango – R. Scott – G. Greatrex, Oxford 1997, p. 669. It seems reasonable to assume that this benefit was in the nature of extraordinary taxation. Jones, *The Later*, v. 2, p. 615-616; Haldon, *Recruitment*, p. 22-25, 51-53; Haldon, *Military Lands*, p. 25-26; Ragia, *The Social*, p. 156-157. If this was indeed the case, then perhaps the soldiers who were to be equipped did not possess their own assets.

⁶⁸ The regulation, of course, concerned settlements between family members. See *Ecloga* XVI 2, 1, p. 220, 222. However, it’s worth noting that the regulations developed in the 8th century could have been easily applied more broadly. This isn’t the only instance where the government used an extraordinary tax to equip soldiers, see Constantine Porphyrogenitus, *De cerimoniis* II 44, p. 660. It seems clear, then, that in the 9th and 10th centuries, the practice was at least sometimes to shift the burden of equipping soldiers onto rural districts or townspeople, see Haldon, *Recruitment*, p. 67-73; Oikonomides, *Recruits*, p. 130-134; Oikonomides, *Fiscalité*, p. 37-38; Hendy, *Studies*, p. 635-636; Kaplan, *Les hommes*, p. 234. However, if the soldiers were not landed owners of *strateia*, the only logical explanation is to consider them volunteers, too poor to equip themselves.

⁶⁹ Constantine Porphyrogenitus, *Tres Tractatus C*, 647-652, ed. J. Haldon, CFHB 28, Wien 1990, p. 134. For the sake of simplicity, in the following footnotes I will

ty. Perhaps the units of soldiers serving in the thematic armies consisted of both combatants who owned land and periodically served in the army and participated in expeditions, as well as volunteers who constituted the permanent military personnel. It seems that, there is more evidence to support this hypothesis. To summarize the above, the cost of equipment, which for centuries was the responsibility of the state, is found in the 9th and 10th centuries as the soldier's obligation⁷⁰. Depending on the estimates used, the cost of a soldier's clothing, equipment and armament can be estimated at 5-10 *nomismata* based on earlier available data, and it must be admitted that for many thirst have been a significant burden⁷¹.

Another cost that for a long time fell under the state's responsibility was feeding the army. Traditionally, a portion of the legionaries' stipendium was earmarked for provisions, but during the 4th century, this practice evolved⁷². The *annona*, originally a new tax in kind, collected

provide an abbreviation of the entire work and the letter referring to the detailed treatise. W. Treadgold believes that it was paid annually, see Treadgold, *Byzantium and Its Army*, p. 138. Other researchers were convinced that the payment of pay took place every four years not only for commanders, but rank-and-file soldiers as well, see Oikonomides, *Middle-Byzantine*, p. 122-123. Although there is a lack of evidence to decide which researcher interprets the source material more accurately, it seems that the first hypothesis is closer to the truth.

⁷⁰ Unlike tagmata soldiers who received their equipment at the state's expense, see P. Rance, *The Army in Peace Time: the Social Status and Function of Soldiers*, in: *A Companion to the Byzantine Culture of War, ca. 300-1204*, ed. Y. Stouraltis, Leiden – Boston 2018, p. 401.

⁷¹ W. Treadgold's estimates are based on a distant source, i.e. the Edict of Diocletian, but we have few other sources for this time. See Treadgold, *Byzantium*, p. 148-149. The summary of equipment and inventory costs is based on the aforementioned source, as it was intended to limit prices in an environment of significant inflation. Nevertheless, a sum of 5-10 *nomismata* for equipment and weapons is possible, see Diocletianus, *Edictum de pretiis rerum venalium* 10, 8-10, 12, 9, 6-9.11, in: *Der Maximaltarif des Diocletian*, ed. H. Blumner, Berlin 1958, p. 28-30.

⁷² As mentioned earlier, Roman legionaries originally had to pay for their own food, although this changed in the course of the 4th century: A.K. Bowman, *Roman Military Records from Vindolanda*, "Brittania" 5 (1974) p. 367-368; J.P. Roth, *The Logistics of the Roman Army at War (264 B.C.-A.C. 235)*, Leiden – Boston – Köln 1999, p. 14-15. Moreover, it was the soldiers themselves who were responsible for carrying their rations for a period of 20 days, from the moment they were collected from the warehouse: J. Haldon, *Feeding the Army: Food and Transport in Byzantium, ca. 600-1100*, in: *Feast, Fast or Famine. Food and Drink in Byzantium*, ed. W. Mayer – P. Trzcionka, Brisbane 2005, p. 86-88. This hypothesis is confirmed by the sources, see *Codex Theodosianus* VII 4, 11, in: *Theodosiani Libri XVI cum Constitutionibus Sirmondianis et Leges Novellae ad Theodosianum Pertinentes*, ed. T. Mommsen – P.M. Meyer, Berlin

for military needs in the 5th century, was monetized and, alongside the *donativum*, became the basis for soldiers’ remuneration, and thus, their pay⁷³. However, this situation was unsustainable in the realities of 7th-century warfare, and in subsequent centuries, the state could no longer afford to reward its soldiers so generously. Moreover, when source accounts suggesting some form of military provision reappear, the Latin *annona* is replaced by Greek names (sometimes synonymous), such as *opsonion*, *siteresion*, or *chortasmata*⁷⁴. Some scholars suggest that, at least in the 7th century, the old system was restored, with the state paying soldiers money, so that they could buy their own food. According to this hypothesis, the system remained flexible and provisions could also be supplied in kind⁷⁵. The picture is further obscured by the fact that at least some soldiers, who earned their living from farming, did not receive rations from the state but used their own provisions⁷⁶. It is probably in this light that the hagiographic account concerning St Luke Stylite should be viewed, as he did not use the food rations he was entitled to, but lived on what his family, who

1905, p. 317. Interestingly, this state of affairs apparently still persisted in the times of Procopius of Caesarea, see Procopius Caesarensis, *Historia Bellorum* III 13, 20, in: *History of the Wars*, v. 2: *Books 3-4 (Vandalic War)*, ed. H.B. Dewing, Cambridge 1916, p. 122-123.

⁷³ It is worth noting that in the time of Anastasius frontier soldiers (*limitanei*) still received *annona* in kind: *Codex Iustinianus* I 4, 18, p. 158. At least in Justinian’s time the *annona* system had reached a stage where 1 *annona* benefit was finally equal to 5 *nomismata*, and a *capitus* to 4 *nomismata*, see *Codex Iustinianus* I 27, 1, p. 320-327. For other sources of income see W.E. Kaegi, *Annona Militaris in the early seventh century*, “Byzantina” 13/1 (1985) p. 589-596.

⁷⁴ Where *opsonion/siteresion* would have been the successors of *annona*, and *chortasmata* would have replaced *capitus*. It should be noted that the possibilities for change were limited by the minimal requirements of survival. See Rance, *Army*, p. 401; Oikonomides, *Fiscalite*, p. 159; S. Wierzbński, *The Burden, the Craving, the Tool The Provisioning of the 10th Century Byzantine Army in the Light of Leo’s Tactica and Sylloge Tacticorum*, “Studia Ceranea” 10 (2020) p. 484-485.

⁷⁵ According to J. Haldon’s theory, the system could be flexible. For example, soldiers could receive supplies in kind, but they also received money and bought their own provisions, see Brubaker – Haldon, *Byzantium*, p. 470, 482. The scholar also suggests that, at least to some extent, soldiers had to carry their own provisions (Haldon, *The Organisation and Support of an Expeditionary Force: Manpower and Logistics in the Middle Byzantine Period*, in: *Byzantium at War (9th-12th c.)*, ed. K. Tsiknakis, Athens 1997, p. 133-134).

⁷⁶ Oikonomides, *Middle-Byzantine*, p. 121-129; G. Dagron – H. Mihăescu, *Le Traité sur la guérilla (De velitatione) de l’empereur Nicéphore Phocas (963-969)*, Paris 1986, p. 260-264.

owned landed estates, provided him⁷⁷. Interestingly, both in the sources concerning the period in question and later, the authors identify the terms *opsonion* and *siteresion* with remuneration⁷⁸. The above material leaves no doubt that the provisions of the thematic army during the 7th-10th centuries changed depending on the circumstances. It is worth taking into account, however, that a return to the state of affairs before the political catastrophes of the 7th century was impossible, so the system that developed at the end of the aforementioned century had to be a compromise between the minimum survival conditions for soldiers and the fiscal capacity of the state. Bearing this in mind, it is worth considering several factors, as pointed out by J. Haldon. The first is the objective decline in the monetization of the Byzantine economy during the period in question⁷⁹. Of course, the issuance of coins (especially bronze ones) did not cease completely, and the scholar points out that their presence proves that the army paid for its rations⁸⁰. At the same time, however, it should be noted that the withdrawal of the army deeper into the territory after a period of defeats in the fight against the Arabs was intended, among other things, to facilitate their provisioning. This, in turn, makes it more likely that soldiers were supplied in kind rather than in coin. In any case, the key to understanding the principles of supplying soldiers seems to be two sources: the life of St Luke Stylites and the letter of Patriarch Nicholas I. The author of the first passage informs us that the future saint was called up soon after reaching the appropriate age, and served in a unit with two peers. The crucial part of the account concerns the information, that Luke did not benefit from the soldier's rations, which were

⁷⁷ *Vita Sancti Lucae Stylitae* 14-22, p. 201; Haldon, *Recruitment*, p. 45. The fragment (“τοῖς ἐκ τοῦ στρατοῦ δὲ πένοις καὶ ἀποροῦσι”) seems particularly important here, for it indicates Luc's fellow-soldiers as poor and deprived of possession (*Vita Sancti Lucae Stylitae* 17-20, p. 201).

⁷⁸ Nicephor Archiepiscopus Constantinopolitani, *Ep. L*, in: *Épistoliers byzantins du Xe siècle*, ed. J. Darrouzés, Paris 1960, p. 130-131. Other researchers also referred to the meaning of this term. See Haldon, *Recruitment*, p. 47-48; Kaplan, *Les hommes*, p. 241-242; Kaplan, *La place*, p. 51.

⁷⁹ Brubaker – Haldon, *Byzantium*, p. 465, 471-473. However, there were few exceptions from the situation: M. McCormick, *Origins of the European economy. Communications and commerce, A.D. 300-900*, Cambridge 2001, p. 627-629.

⁸⁰ J. Haldon argues that the army continued to receive payment in coin, and with some of the money received, they purchased equipment and provisions, with the funds ultimately returning to the treasury through the tax system, thus completing the cycle (see Brubaker – Haldon, *Byzantium*, p. 482). While this interpretation may be questionable in the case of provisions, it is very plausible in the case of equipment.

given to them, because he relied on provisions provided by his family⁸¹. One may have the impression that *opsonion* and *siteresion* were treated in the fragment under discussion as synonyms, with the first term having a more colloquial and the second more formal meaning (“οὐκ ὀψώνιον ἦτοι βασιλικὸν λαμβάνων σιτηρέσιον”). What is more important is that the author indicates its long-lasting nature (“ὡς ἔθος τοῖς στρατευομένοις δίδοσθαι”). Equally significant is the information according to which, the aforementioned Luke shared his rations with his comrades-in-arms⁸². The quoted description not only puts the future saint in a good light, but also points to several issues. First, resignation from *opsonion* was cited as a saint’s merit, likely to emphasize a lack of stinginess or a sense of responsibility to the state⁸³. Second, there was a system of free provisions for the thematic troops. Third, some soldiers were so poor that they had no choice but to rely on state rations, and these were clearly meager, since Luke saw the need to share his supplies⁸⁴. The second account adds more information about the form of the above-mentioned benefit. The aforementioned source is a letter from Patriarch Nicephorus pleading for the widow of a soldier who could not afford to properly equip her son for military service. The letter’s author emphasizes that this would not bring the woman any benefit (literally, wages/*opsonion*), but would only increase the woman’s grief (after the expected loss of her son)⁸⁵. This account is as significant as the previous one for at least several reasons. First, the family of a deceased or fallen soldier was obligated to provide a new recruit in his place, and the lack of financial capacity to purchase equipment was not a reason for failure to report for service⁸⁶. This

⁸¹ *Vita sancti Lucae Stylitae* 14-22, p. 201. Unfortunately, we do not know what this support looked like in practice and whether it was of a monetary nature or whether it consisted of buying products and delivering them directly to the future saint.

⁸² *Vita sancti Lucae Stylitae*, 20-22.

⁸³ One can imagine, that the *opsonio* constituted a substantial benefit in coin, which potentially might have been in addition to the family income derived from the soldier’s allotment: M. Kaplan, *The Producing Population*, in: *A Social History of Byzantium*, ed. J. Haldon, Oxford 2009, p. 153.

⁸⁴ Wierzbński, *The Burden*, p. 479.

⁸⁵ It seems clear that the term *opsonion* means a fee or remuneration paid in money, see Nicephor Archiepiscopus Constantinopolitani, *Ep. L.*, 20-21, p. 131.

⁸⁶ Moreover, such behavior could result in severe punishment from the commander. A good example is the soldier who begs Philaret to lend him his warhorse, fearing he would be flogged if he showed up without his full equipment. *Vita Sancti Philareti Misericordis* 223-227, p. 72-74.

clearly demonstrates the exceptional nature of the *strateia* obligation, constituting a relationship between the state and the soldier's family⁸⁷. Secondly, the aforementioned expected benefits (*opsonion*) should be more likely associated with monetary benefits. In this context, however, a term referring to pay, i.e., *roga* (ῥόγα), would be more appropriate⁸⁸. Of course, it is possible that in the 10th century, both terms would also have been synonymous, as E. Ragia seems to suggest⁸⁹. Nevertheless, the juxtaposition of both accounts allows us to put forward a hypothesis that would explain the poverty of St Luke Stylite's companions. If the *opsonion/siteresia* was paid in cash for the soldiers' needs to purchase provisions, it is very possible that the poorer among them tried to economize on food, so as to use part of the payment for other purposes, such as supporting their own families. We can only guess how high this amount was, but its lower limit is the minimum necessary for survival, i.e., roughly the same as under Justinian, i.e., 4-5 *nomismata*⁹⁰. It's worth remembering, however, that even if we knew the yearly amount of the aforementioned allowance in gold, in everyday practice,

⁸⁷ It is certain that the widow's inability to meet her obligations would have had dire consequences. Initially, however, these would primarily have involved the loss of a privileged tax position. See J. Haldon, *A Critical Commentary on the Taktika of Leo VI*, Washington 2014, p. 142-143, 427-428; Rance, *The Army*, p. 402-403. Nevertheless, it must not be forgotten that land cultivated by holders of *strateia* changed its legal status between the 8th and 10th centuries, although the details of this process remain elusive. The first limitation, stemming rather from the nature of *strateia*, is evident in the actions of Nicephorus I, who ordered a large soldier family to relocate and, consequently, sell their estates (Theophanes, *Chronographia* 25-26, p. 486; see J. Haldon, *Recruitment*, p. 50; Oikonomidès, *Fiscalité*, p. 38). Leo VI did not yet intervene in the ownership structure. However, Constantine VII did, limiting the right to trade according to the soldier's category, see *Novellae Imperatorum* 1, p. 46. This trade would be de facto closed by Nicephorus II Phocas (*Novellae Imperatorum* 10, p. 174-176). Under these circumstances, many holders of *strateia* chose to flee and abandon their land, a problem Constantine VII tried to address, see McGeer, *The Land*, p. 86-87.

⁸⁸ Constantinus Porphyrogenitus, *De cerimoniis* II 44-45, p. 654-660, 667-669; Haldon, *Theory*, p. 302-305.

⁸⁹ The researcher does not go into detailed discussions on the topic. However, E. Ragia associates *opsonion* with remuneration, while *siteresia* with a living allowance, see Ragia, *The Social*, p. 153. The researcher's interpretation is also confirmed by sources, as Nikephoros II Phokas uses the term *roga* to mean wages, but *siteresia* to refer to supplies. It's possible, therefore, that both terms changed their meaning over time, see Nicephorus II Phokas, *De velitatione bellica* XIX 4, 23, in: *Le traité sur la guérilla (De velitatione) de l'empereur Nicéphore Phocas (963-969)*, ed. G. Dagron – H. Mihăescu, Paris 1986, p. 109.

⁹⁰ *Codex Iustinianus* I 27, 1, p. 320-327; Treadgold, *Byzantium*, p. 151-153.

soldiers most likely received it on a monthly basis and probably in denominations other than gold coin. This view is supported by sources that, although later, seem to describe a reality consistent with the 9th and 10th century⁹¹. If soldiers did indeed receive monthly food allowances, the consequence would have been that the state paid them in silver, or more likely, in bronze coins⁹². To sum up, although it is difficult to arbitrarily decide whether *opsonion/siteresion* was payable in kind or in coin, it is slightly easier to estimate its value than in the case of equipment and weapons, and most importantly, it can be cautiously assumed that this cost was still borne by the state.

Before we proceed to the analysis of pay in the strict sense, it is important to note that, at least for a very large group of soldiers, land was the primary source of income. Although some researchers attempt to pinpoint a specific historical moment in which the change in the military reward system occurred, most formulate more cautious hypotheses⁹³. It also seems interesting, that from a longer perspective, a certain analogy can be observed between the history of *limitanei* and thematic armies. Both formations were originally intended to pose a certain combat capability. In both cases, soldiers eventually began to engage in agricultural activities in one way or another⁹⁴. Both the *limitanei* and thematic armies lost much of their value and were ultimately transformed into regular taxpayers. However, there are significant differences between the two. It is beyond doubt that thematic armies had their roots in field armies (*comitatenses*). Permission to cultivate land in the case of the *limitanei* resulted from structural changes, i.e., the role assigned to the aforementioned formation. In the case of field armies, the reward system emerged as a result of the state’s situation⁹⁵. Finally, in both cases it seems that

⁹¹ Nicephorus II Phokas, *De velitatione* 22-24, p. 109. In this context, the word “regularly” should probably be understood as more often than once a year. This is also confirmed by Kekaumen’s account, who advises the emperor to pay his soldiers’ monthly dues (without delay). See Kekaumenus, *Oratio admonitionis pro imperatore* 80, in: *Soveti i rasskazi Kekavmena: Socinenie vizantijskogo polkovodtsa XI veka*, ed. G.G. Litavrin, Moscow 1972, p. 292-295. However, it’s worth remembering that in the latter case, we’re talking about elite formations, not thematic ones.

⁹² Brubaker – Haldon, *Byzantium*, p. 470-474; Gandila, *Money Talks*, p. 116-118.

⁹³ Treadgold, *Byzantium*, p. 118-157. Haldon takes a more careful approach in *Warfare*, p. 126.

⁹⁴ In both cases the obligation of service was ultimately linked to the land, but in the case of themata not earlier than the 10th century.

⁹⁵ The consequences of this process reached beyond the logistical aspects of maintaining troops dispersed throughout the villages. Soldiers became an integral part of

the status of soldiers was determined by their relationship with the State, which we know as the duty of *strateia*. This bond was associated with numerous benefits, the most important of which were tax exemptions, the aforementioned benefits, and a salary⁹⁶. In Justinian's time, the removal from the list of *strateia*'s holders was perceived as a loss of social status and means of subsistence⁹⁷. The source's account of hungry veterans wandering the streets of Constantinople hardly supports the thesis that these soldiers had any landed estates to return to. Both older and more recent sources leave no doubt, therefore, that *strateia* was not necessarily linked to land, because at least in the 9th century, there was a large group of soldiers who clearly possessed such a status, though they did not own any land⁹⁸.

In practice, this would mean that in the thematic Byzantine armies in the 9th and 10th centuries there were *de facto* two groups of soldiers (both from a legal point of view treated as holders of *strateia*): those who served under hereditary obligation and owned estates that enjoyed tax benefits, and volunteers for whom soldiery was the only way of life. Of course, we know much more about the first category of soldiers, because as landowners they were actively monitored by the state's fiscal apparatus. The second group remains rather elusive, although all available evidence and sources confirm that it existed and could have been quite large. It is also worth remembering that when analysing the situation of farmer-soldiers obligated to serve under the *strateia*, we still know very little about their actual financial situation and how they transitioned from professional soldiers in field armies to landowners⁹⁹.

the community and quickly began to align their interests with the local district, see Brubaker – Haldon, *Byzantium*, p. 627-629; W.E. Kaegi, *Byzantine military unrest 471-843: an interpretation*, Amsterdam 1981, p. 195-208.

⁹⁶ These exemptions were of enormous value considering the scale of the burden, see Oikonomides, *Fiscalité*, p. 37-40, 86-98, 102-112.

⁹⁷ The removal from military directories was felt most acutely by those who were sick or too old: Procopius Caesarensis, *Anecdota* XXIV 8, p. 280. Patriarch Nikephoros also condemned such state behaviour toward aging soldiers in the early 9th century, see Nicephor Archiepiscopus Constantinopolitani, *Antirrhetici tres adversus Constantinum Copronymum* 30, p. 492. From this perspective, Maurice's guarantee of providing food for veterans could have been of great importance to the soldiers (Theophylactus Simocatta, *Historiae* VII 1, 7, p. 247).

⁹⁸ As J. Haldon notes, in the 9th century, fugitives from the caliphate, i.e. Khurramites were also actively recruited to serve in the provincial armies, see Brubaker – Haldon, *Byzantium*, p. 408.

⁹⁹ However, we can suspect that this was a result of several factors. Initially, the status of field troops differed from that of frontiers, who were already obligated

The emperors, who authored novels regulating land relations, including land owned by soldiers, were primarily concerned with cavalry and sailors¹⁰⁰. Furthermore, revitalized legislation on this topic began in the 10th century, a time when the mobilization system started to experience noticeable problems. This, incidentally, provides another argument for the hypothesis that the government was primarily concerned with the consistency in catalogues of enrolled soldiers, instead of land relations. Only when the emperors realized that the property system established to equip and equip soldiers had ceased to be effective (due to poverty, excessive land division, the death of male heirs, or abandonment of land), frantic attempts were made to remedy the situation¹⁰¹. Among the most important problems facing the soldier-farmers was not only personal reporting for duty but also maintaining the standard of weaponry appropriate to the formation to which they were assigned. The repeated references in the sources to the inability to equip themselves for service also indirectly indicate that initially (i.e., before the 7th century) this cost was borne by the state. The group of soldier-farmers was also strongly divided by the 10th century, and, as E. Ragia rightly suggests, clientele relations began to develop between them¹⁰². It seems reasonable to assume that it was precisely to impoverished or subordinated soldiers that various terms appearing in the sources, such as

to hereditary service for their lands. Factors that led to the creation of thematic armies included the status of *strateia* (originally for life), the withdrawal of armies deeper into the districts, and thus legal interferences organized in the *Ecloga*. The most significant change must have occurred between the mid-7th century and the creation of the *eclogue*, because during this period, the burden of equipment, a costly undertaking, fell on the soldiers.

¹⁰⁰ It’s telling that the analyzed novellas mention *stratiotes*, but don’t explicitly mention the category of foot soldiers (Constantinus Porphyrogenitus, *Novellae Imperatorum* V A1, p. 118). Information about the postulated size of the infantry’s assets is also not found in the novel by Nicephorus II Phocas, Nicephorus II Phocas (*Novellae Imperatorum* X, p. 174-176). Fortunately, they appear in narrative sources. For example, John Zonaras lamented that, as a result of the aforementioned ruler’s reform, sailors were ordered to serve as infantry (Ioannes Zonaras, *Epitomae Historiarum* 30, in: *Ioannis Zonarae Epitomae Historiarum*, v. 3, ed. M. Pinder – T. Biittner-Wobst, Bonn 1897, p. 505-506). Bearing in mind Constantine Porphyrogenitus’ account of the postulated value of this group’s assets, i.e., 2 pounds (novel nr 5) or 3 pounds (*De cerimoniis*), one should assume that even at this higher value, fielding an infantryman would have been perceived as an excessive fiscal burden.

¹⁰¹ Both of the above-quoted novellas were intended to de facto block the trade of soldiers’ land, see McGeer, *The Land*, p. 18.

¹⁰² Kaplan, *La place*, p. 50; Ragia, *The social*, p. 164.

hyperetoumenoi, *hetairoi*, or *boethoi*, should be applied¹⁰³. The emergence of this group resembling squires, or the creation of private routines by a group of wealthy dignitaries linked with the so-called *dynatoi*¹⁰⁴. There is, of course, no doubt that this process was disastrous for the state's recruitment capabilities, as it drew away from the military system both holders of *strateia*, who subordinated themselves to the more powerful, and potential volunteers. It is in this light that we should understand Nikephoros II Phokas's legislative attempt to reintegrate the aforementioned group into the ranks of soldiers bound to the state by the duty of *strateia*¹⁰⁵. However, both the attempt to rebuild the number of the thematic troops and the protection of the soldiers' lands came too late. If one were to attempt to estimate the landed estates that could equip an infantryman, a more accurate estimate would probably be 2 or 3 pounds of gold (144-216 *nomismata*)¹⁰⁶. It should be remembered, however, that during the period in question, the division of estates had advanced so far that it was common practice for several small owners to pool their resources to meet even the above standards.

As can be deduced from the above analysis, determining the wealth of soldiers, at least those who owned land, is a very complex issue. It is very possible that for some of this group, pay was not even perceived as their primary source of income, and service itself became increasingly perceived as a burdensome obligation over time. It seems that in the 10th century, this situation may have become increasingly common for holders of *strateia*, both due to difficulties securing equipment (poorer farmer-soldiers) and the increasingly rare military experience in subsequent generations living in the themata that had not seen war for years¹⁰⁷. Interestingly, even military

¹⁰³ It seems that the existence of this group was first noticed by Constantine Porphyrogenitus (*Novellae Imperatorum* V, p. 126). At this stage, the rulers did not fight for the status of the mentioned group, but only combated abuses, see Ragia, *Mutual*, p. 51-52.

¹⁰⁴ More on the relationship between the rich and the poor in the context of land, see McGeer, *The Land*, p. 25-31.

¹⁰⁵ Ragia, *The social*, p. 164-165; Ragia, *Mutuality*, p. 51-52. The ruler's goal was not only to prevent the sale of soldiers' land. While Constantine VII held the view that private groups of servants of soldiers or the military aristocracy constituted an abuse that must be combated (*Novellae Imperatorum* V, p. 126), Nicephorus, who himself belonged to the circle of the military aristocracy, understood the need to reintegrate the aforementioned client group into the official system, see Nicephorus II Phokas, *De velitatione bellica* XIX 5, 30, p. 109.

¹⁰⁶ Considering that 4 pounds of gold was enough to field a cavalryman, this seems a reasonable value, although as time passed it turned out to be insufficient.

¹⁰⁷ Thus, it was not unusual for the themata to bought themselves out of the obligation to participate in the expedition. This was probably the case with the farmer-soldiers

expeditions, which intuitively should have carried higher remuneration due to the risk of active warfare, did not entail high remuneration for thematic troops, in the case of the expeditions to Crete in 911 and 949¹⁰⁸. As J. Haldon has shown, the highest salaries were awarded to newly mobilized troops, who, in addition to regular pay (higher than most thematic troops), also received a cash allowance (*prochreon*) enabling them to equip themselves for expeditions¹⁰⁹. The rates explicitly given for rank-and-file soldiers range from 2-3 *nomismata* for conscripted holders of *strateia* to 8 *nomismata* for other regular infantry units. Interestingly, the difference between the amounts quoted aligns well with the (lower) estimates of W. Treadgold, who estimated the cost of weapons and equipment at 5-10 *nomismata*¹¹⁰. Perhaps, then, the period of military expeditions was a time when the state was more open to volunteers wishing to join the army. In any case, it is clear that the authorities were aware that soldier-farmers derived the bulk of their income from land.

The figures provided by Constantine Porphyrogenitus, however, provide a very fragmented picture of the thematic army’s reward system, as they pertain to specific military expeditions. Byzantium, however, did not wage wars continuously, and certainly did not mobilize its entire military potential at once. Paradoxically, the information cited tells us little about the regular pay of the thematic infantry. W. Treadgold’s analysis is incredibly detailed and valuable¹¹¹. However, while valuable in estimating the pay of higher- and lower-ranking commanders, the pay of ordinary soldiers is based on an average figure that is not confirmed by the sources. The only account we have that directly addresses the pay of Byzantine soldiers in the 9th century is the account by the Persian author Ibn Khurdadbeh. The scholar not only provides the pay amount (1-12 *nomismata*) but also explains that it depended on length of service, with the highest rate reserved for veterans¹¹². The quoted passage is

from the Peloponnese, who were released from participation in the expedition by Constantine VII in exchange for monetary compensation, see Constantinus Porphyrogenitus, *De administrando imperio* 52, ed. G. Moravcsik, CFHB 1, Washington 1967, p. 256. As W. Treadgold pointed out, this was by no means an incident (*Byzantium and Its Army*, p. 138).

¹⁰⁸ Constantinus Porphyrogenitus, *De cerimoniis* II 44-45, p. 654-660, 667-669.

¹⁰⁹ Haldon, *Theory*, p. 302-305.

¹¹⁰ Treadgold, *Byzantium*, p. 150.

¹¹¹ W. Treadgold’s work is necessarily based on hypotheses that are only partially supported by the source material. For more on the scholar’s comments on the work, see Haldon, *Warfare*, p. 314, 318-319, 321.

¹¹² Ibn Khurdadbeh, *Kitab al-Masalik wa ’l-Mamalik*, ed. M.J. de Goeje, Lugdunum 1889, p. 85.

also interesting for different reason, i.e. the scholar mentions young recruits receiving the lowest pay, i.e. ‘beardless’¹¹³. This information may suggest that he is referring to conscripts who had only recently reached the capacity to enter service¹¹⁴. The reason we find them among the ranks of the tagmata soldiers seems clear. Service in the tagmata forces in the 9th and 10th centuries already had an elite dimension, and it’s hard to believe that a young recruit could join its ranks without appropriate patronage and/or wealth¹¹⁵. However, the cautious lecture of Constantine Porphyrogenitus, leads to the conclusion that, at least for a long time, the thematic armies were conscripted for rotational service. Therefore, if length of service influenced the rate of pay, then the information provided by Ibn Khurdadbeh should be attributed to soldiers who served permanently. This is further evidence that the thematic armies included not only holders of *strateia*, cultivating land that, in the 10th century, was already subject to protective state legislation, but also volunteers and impoverished *stratiotai*, who owned no property (but were still included within military catalogues)¹¹⁶.

In summary, it seems reasonable to assume that the first category may not have received regular pay during their periodic service, being paid only when they embarked on a military expedition¹¹⁷. On the other hand, volunteers, who were also listed in the catalogues as having the status of those obligated to serve in *strateia*, earned regular pay. Both groups

¹¹³ Ibn Khordadbeh, *Kitab al-Masalik wa’l-Mamalik*, ed. de Goeje, p. 84-85.

¹¹⁴ It’s worth noting here that the group described here bears a resemblance to individuals who appear in 10th-century sources as “clients” of wealthier landowners, creating their private routines. However, the analogy to *hyperetoumenoi*, *hypaspistai/boethoi/hetairoi* does not seem justified, as it was Nikephoros II Phokas who attempted to “reclaim” these soldiers for the state system (as in his times they were not part of it). Ibn Khordadbeh’s work is much earlier, and the “beardless” recruits are clearly treated there as regular soldiers, i.e. holders of *strateia*.

¹¹⁵ It seems reasonable to assume that despite numerous parallels between the dualism of *comitatenses/limitanei* and tagmata/themata, the social realities were already different. It is also worth remembering that tagmata soldiers, although they had a different status and were referred to as *dynatoi*, were also treated as holders of *strateria*, as E. Ragia rightly notes, see Ragia, *The Social*, p. 153.

¹¹⁶ It seems reasonable to assume that this group was the most dissatisfied with the delay in the payment of wages, as it was their only real source of income, see Constantinus Porphyrogenitus, *De cerimoniis* II 44, 4-8, ed. Reiske, p. 658.

¹¹⁷ An interesting opinion was also given by N. Oikonomides. According to the scholar, if the mobilisation concerned their home territory, they were not entitled to any remuneration at all, as the mobilised were in fact defending their own homes, see Oikonomides, *Middle-Byzantine*, p. 127-128.

most likely received allowances for subsistence (*opsonion/siteresia* and in the case of cavalry *chortasmata*), but landowners had to equip themselves, while new soldiers could receive *prochreon* for this purpose or be equipped as part of an extraordinary tax. Although this value is purely calculative, assuming that the soldier saved part of the *opsonion* allowance (if it was paid in coin) and considering that he had served for several years, the annual income of an average thematic infantryman could be estimated at 5-10 *nomismata*.

3. Purchasing Power of Pay

Even fairly realistic estimates of the earnings of Byzantine soldiers will remain meaningless information without an attempt to link it to purchasing power. The basis for the analysis of the problem in this respect are the findings of C. Morrison and J.C. Cheynet¹¹⁸. The estimated values of individual salaries give some idea of the potential wealth of Byzantine soldiers, but it is worth emphasizing that their adoption requires certain preliminary assumptions. First, it should be emphasized that the prices of individual goods could change depending on random factors¹¹⁹. For example, in the case of grain, the price was different during the harvest season and at the end of winter. In addition, it is necessary to consider whether we are talking about a period of abundance or a period of crop failure¹²⁰. The preserved source information leaves no doubt that even in times when money was fully covered by precious metals (unlike in modern times), the impact of random events could double or even triple the price. Factors of a purely economic nature, such as supply and demand, also had an impact on costs. The simplest example is the difference in food prices in rural areas and in cities, and especially in the capital¹²¹. There is no doubt that it was in the latter locations that

¹¹⁸ C. Morrison – J.C. Cheynet, *Prices and Wages in the Byzantine World*, in: *Economic History of Byzantium from the Seventh through the Fifteenth Century*, v. 3, ed. A.E. Laiou, Washington 2002, p. 815-878.

¹¹⁹ Kaplan, *The Producing Population*, p. 121-132, 155.

¹²⁰ It is worth noting that land could become unfit for cultivation due to lack of maintenance, something that Byzantine commanders were aware of when conducting warfare in enemy territory, see *Sylloge Tacticorum* 64, ed. A. Dain, p. 112.

¹²¹ For example, as T. Wolińska points out, the situation could change very dynamically. While in 949 the inhabitants of Constantinople enjoyed prosperity, in 968 the capital was experiencing rampant high prices, cf. T. Wolińska, *Konstantynopol i jego mieszkańcy widziani oczyma Liutpranda z Kremony*, *VoxP* 52 (2008) p. 1237.

there were more people willing to buy grain, and here both producers and potential intermediaries realized their margins. Another factor influencing prices was, finally, the possibility of war. Both the destruction of fields and, for example, a siege could raise prices to levels unseen in times of peace¹²². Therefore, when considering the issue of purchasing power, for the sake of simplicity, it was assumed that we are dealing with conditions occurring in Constantinople. This assumption is also necessary because it is precisely from the realities of life in the capital that we can learn the most from written sources.

According to Pseudo-Symeon, 1 *modios* of grain (wheat) could be purchased in peacetime at an average price of $\frac{1}{8}$ *nomismata*¹²³. In the case of poor harvests, the price often doubled, reaching $\frac{1}{4}$ *nomismata*¹²⁴. Assuming that the aforementioned measure equaled 40 *litrai*, we will obtain information suggesting that for $\frac{1}{8}$ of a gold coin, one could buy an average of about 13 kg of wheat¹²⁵. 1 *nomismata* allowed the purchase wheat,

¹²² It seems clear that burning fields, destroying groves and killing livestock was unfortunately a common practice in war, as evidenced by the fact that these activities constitute a threat, cf *Sylloge Tacticorum* 11, ed. Dain, p. 32-33. The main aim of most if not all of the mentioned operations was ensuring safety of Byzantine citizens, cf *De Strategiis* 5, 7-10, in: *Three Byzantine Military Treaties*, ed. G. Dennis, Washington 1985, p. 20. According to Leo the strength of the empire lies in fact in two social classes, namely the farmers and soldiers, see Leo VI, *Tactica* XI 9, ed. G. Dennis, p. 196, 198. However, as J. Moralee stressed, in practice the symbiosis between Byzantine army and civilians of empire was a difficult and uneasy one, see J. Moralee, *It's in the Water: Byzantine Borderlands and the Village War*, "Humanities" 7 (2018) p. 4-5. The tricks used in war by Byzantine enemies were often intended to take advantage of the opponent's supply problems in order to force the division of forces, which the Byzantines then attacked: E.N. Luttwak, *The Grand Strategy of the Byzantine Empire*, Harvard 2009, p. 262. The plundering of enemy territory was in no way chaotic and Byzantine commanders were advised to wisely manage the enemy's resources in their territory, see Leo VI, *Tactica* XVII 34, ed. Dennis, p. 404; *Sylloge Tacticorum* 61, ed. Dain, p. 111.

¹²³ The matter, however, is of a complex nature and the size of the mentioned unit is still the subject of lively discussions, see Haldon, *Theory*, p. 296-297. For example, there is no doubt that the *annonikos modios* was lighter than the *thalassioi modios*, see E. Schilbach, *Byzantinische Metrologie*, Munich 1970, p. 99. For more information on this subject see R.P. Duncan-Jones, *The Size of the Modius Castrensis*, "Zeitschrift für Papyrologie und Epigraphik" 21 (1976) p. 53-62.

¹²⁴ Symeon Magister, *Chronographia*, a. 956, ed. I. Bekker, p. 759.

¹²⁵ It should also be added that the *modios* of wheat and the *modios* of barley differed from each other and the ratio between them was approximately 5 to 6, see Schilbach, *Byzantinische*, p. 55; C. Entwistle, *Byzantine Weights*, in: *The Economic History of Byzantium: From the Seventh through the Fifteenth Century*, ed. A.E. Laiou, Washington 2002, p. 611.

from which one could bake almost 200 large loaves of bread or 300 smaller ones. Assuming for the sake of simplicity that we are talking about feeding an entire family, consisting of two adults and two children, we can safely assume that the amount of 1.5-2 *nomismata* allowed them to provide bread¹²⁶. This is of course an estimated amount, and even if it reflected reality, it should be recognized that it could easily change¹²⁷. It is also worth noting that the dietary preferences of the inhabitants of the Empire also changed over time. Thus, in the times of Constantine Porphyrogenitus, barley rusks (*paximadia* rather than wheat *boukelatton*) were very popular¹²⁸. It should be noted that in the Roman army during the Empire, legionaries were also served wheat and barley biscuits, although the latter were treated as “penal” provisions¹²⁹. However, reading Constantine Porphyrogenitus allows us to assume that in the case of the general population of the capital, this change was dictated by other factors. Perhaps the increase in the popularity of barley was influenced by its price. According to information from 960, Pseudo-Symeon states that 1 *modios* of barley could be purchased for as little as $\frac{1}{6}$ of a *nomismata*¹³⁰. What is more, this is a price related to the capital, because in the provinces, the same measure could be purchased for as little as $\frac{1}{30}$ of a gold coin¹³¹. Apart from bread, another important food in the Byzantine diet was wine. Analysis of the sources allows us to assume that, depending on the conditions, 1 *nomismata* could buy from 13 to 21 measures of wine. This unit (*xestes*)¹³² was supposed to correspond, according to various

¹²⁶ *Chronicon Paschale*, a. 626, ed. Dindorf, p. 716.

¹²⁷ Material losses incurred during grain milling must also be taken into account. As J. Haldon points out, the grain-to-flour ratio was rarely 1 to 1 (Haldon, *Theory*, p. 298).

¹²⁸ Constantinus Porphyrogenitus, *De cerimoniis* II 44, ed. Reiske, p. 658; A. Dalby, *Tastes of Byzantium. The Cuisine of a Legendary Empire*, London 2010, p. 22; Z. Rzeźnicka, *Military Diet in Selected Greek, Roman and Byzantine Sources*, in: *Standards of Everyday Life in the Middle Ages and in Modern Times*, ed. K. Mutafova – N. Hristova – I. Ivanov – G. Georgieva, Veliko Tarnovo 2014, p. 649-650.

¹²⁹ Titus Livius, *Annales – Ab Urbe Condita* XXIII 38; XXVI 47, v. VI-VII, ed. F.G. Moore, Cambridge – London 1940, p. 134-135, 180-181. Occasionally the barley diet was issued also on defeated soldiers as a punishment, see Titus Livius, *Annales* XXVII 13, ed. F.G. Moore, p. 260-261.

¹³⁰ Symeon Magister, *Chronographia*, a. 956, ed. I. Bekker, p. 759. According to C. Morrison and J.C. Cheynet the regular price oscillated around $\frac{1}{12}$ per *modios*, see Morrison – Cheynet, *Prices and Wages*, p. 829.

¹³¹ Symeon Magister, *Tabulae* 83, 1-15, in: *Epistoliers byzantins du Xe siècle*, ed. J. Darrouze, Paris, 1960, p. 146.

¹³² E. Schilbach, *Measures*, in: *Oxford Dictionary of Byzantium*, v. 2, p. 1325-1326; C. Entwistle, *Late Roman and Byzantine Weights and Weighing Equipment*,

estimates, to 0.546 to 0.548 liters. In the case of wine, there is another problem related to the fact that the aforementioned beverage was rarely drunk in its pure form on a daily basis, because it was more often decided to dilute it, which obviously affected the consumption and cost of the aforementioned product. Olive oil was also, of course, a fairly accessible commodity. Considering that one litra was traditionally over two liters (2.1888), one gold coin could buy 32 liters of olive oil¹³³. To sum up the above analysis, it should be noted that at first glance, the salary of Byzantine soldiers was enough to provide food for the family, if we take into account veterans (serving at least 10 years) of the thematic troops and representatives of the tagmata forces. However, a closer analysis of purchasing power forces us to look at the discussed issue in a more complex way. While the earnings of soldiers allowed for the purchase of basic products such as bread, olive oil, or wine, in the case of the desire to buy farm animals, buyers had to prepare for higher expenses. As Constantine Porphyrogenitus informs us in *De cerimoniis*, the purchase of a cow in the 10th century was associated with the cost of three gold coins¹³⁴. The high price was probably related to the fact that in the case of the animals mentioned, they could not only be used for slaughter, but also provided milk and could be bred over time. The price of pigs was much lower, but still high. The purchase cost in this case ranged from $\frac{2}{3}$ to 1 *nomismata*. However, it was the price of horses that was truly prohibitive. Constantine Porphyrogenitus indicates that the purchase of an animal for draft purposes oscillated around 12 *nomismata*¹³⁵. It is worth noting that in the case of a soldier's family serving in cavalry units, this was not the only horse on the farm. There is no doubt that the aforementioned animal was not only a great help in cultivating the land, but was also used in war. The fact of having a suitable steed that would allow one to fulfil the duty related to the cultivated land was probably an important concern for soldiers, whose financial status could often hang in the balance in the event of the animal's death¹³⁶. Finally, it should be noted that the prices of luxury goods or even everyday items rarely dropped below

in: *The Oxford Handbook of Byzantine Studies*, ed. E. Jeffreys – J. Haldon – R. Cormack, Oxford 2008, p. 40.

¹³³ Theophanes, *Chronographia* 1, p. 419; Morrison – Cheynet, *Prices and Wages*, p. 837; Schilbach, *Byzantinische*, p. 260.

¹³⁴ Constantinus Porphyrogenitus, *De cerimoniis* 1, ed. Reiske, p. 695.

¹³⁵ Constantinus Porphyrogenitus, *De cerimoniis* 1, ed. Reiske, p. 458-459.

¹³⁶ *Vita sancti Philareti* 3, in: *The Life of St. Philaretos Written by his Grandson Niketas*, ed. L. Ryden, Uppsala 2002, p. 72-75; Kaplan, *The Producing Population*, p. 153.

1 *nomismata*¹³⁷. It seems that the pay of veterans and tagmata soldiers allowed for survival, but did not ensure prosperity¹³⁸.

To sum up, it should be emphasized that service in the Byzantine army was not an easy profession. When it comes to thematic troops, this path was most often chosen by those who were obliged to do so by law, resulting from the cultivation of a soldier’s plot, or those for whom there were no better prospects. Much indicates that despite occasional bonuses to pay, such as ascensional donatives or bonuses related to conducting warfare, soldiering was a hard and risky occupation. In the case of warriors who enlisted in the army for lack of better prospects, there are grounds to assume that provisioning rarely met expectations. Volunteers were paid rather modestly during the first years of service, and if their family did not cultivate a plot of *stratiotika ktemata*, these earnings did not allow soldiers to provide for the family or even themselves. This state of affairs seems to be confirmed by the authors of these sources, who refer directly to the period in question. Nevertheless, those soldiers who achieved veteran status most likely received higher wages, not only because of higher pay, but also because of promotion, opportunities to participate in profitable activities, etc. Although this salary was not exorbitant (unless they reached officer rank), it allowed for the purchase of food and was an important contribution to the family budgets of the Byzantine military. The fate of warriors depended, finally, on luck, and it was probably this that the soldiers themselves most often wished for.

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¹³⁷ Morrison – Cheynet, *Prices and Wages*, p. 851. In this light one can see why equipping a soldier was so expensive task. The uniform and partial armour oscillated around 2-3 *nomismata*, as indicated from estimates based on Diocletian’s decree see Diocletian, *Edictum* 10, 8-10, 12, 9, 6-9, 11, p. 28-30. One should also bear in mind, that the prices were given by the state and not necessarily followed the reality of free market.

¹³⁸ The salaries of professional soldiers, even veterans, cannot be compared to those of officers, imperial officials, and guests. They received their salaries in pounds of gold, see Wolińska, *Konstantynopol*, p. 1241.

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