

## BYZANTINE ASYMMETRIC WARFARE IN LIGHT OF “DE VELITATIONE BELLICA”

Łukasz Różycki

Uniwersytet im. Adama Mickiewicza w Poznaniu

### ABSTRACT

#### BYZANTINE ASYMMETRIC WARFARE IN LIGHT OF *DE VELITATIONE BELLICA*

This article deals with the significance of asymmetric warfare in the mountainous terrain during the Byzantine-Arab Wars in the 10<sup>th</sup> century. *De velitatione bellica* (the primary source) remains a unique kind of theoretical work which stems from the author’s own experience in minor engagements with enemy raids. The tactics described in the treatise are most likely the result of decades of evolution in frontier warfare on the mountainous Byzantine-Arab border. As such, they are an invaluable testament to the medieval understanding of asymmetric warfare. Thanks to the author of the treatise we know how the Romans/Byzantines repelled enemy invasions and halted the advance of large forces into their own territory. This makes *De velitatione bellica* a valuable resource, useful for the understanding of the 10<sup>th</sup>-century conflict between the Byzantine Empire and the Hamdanids.

**Key words:** Hamdanids, Byzantium, military treatises, *De vellitatione bellica*, assymmetric warfare, the Phokas dynasty

Since the earliest days of history there have been situations when a smaller force would face off against a numerically superior enemy. It wasn’t uncommon for David to achieve victory over Goliath, but that always required extra effort and ingenuity from the weaker side. Usually, instead of rushing into a pitched battle, the defenders would look for ways to negate the advantages of the other army. One solution, favored particularly by the civilian population, was to lock oneself away behind strong fortifications,<sup>1</sup> and if no suitable location was available, one could always seek refuge in the woods<sup>2</sup>

---

<sup>1</sup> In extreme situations it was often a better choice to actively oppose the enemy. Case in point – the defenders of Masada and their ultimate fate. See a study of the subject: M. Hadas-Lebel, *Massada, histoire et symbole*, Paris 2000.

<sup>2</sup> The Morini and Menapii elected to flee into the woods before the armies of Julius Caesar and wage a guerrilla campaign trusting in the security afforded by these natural obstacles. Despite numerous

or in the mountains. However, in order to carry out active defense it was best to stay outside of fortified strongpoints. Only then was it possible to employ guerrilla tactics, to exhaust the enemy by launching constant attacks, disrupting communication lines, cutting off supplies and destroying smaller units. Today, military operations against a significantly stronger enemy are referred to as asymmetric warfare.<sup>3</sup> In the antiquity and the middle ages there was no such distinction;<sup>4</sup> it was a regular conflict fought with the assumption that a pitched battle would be too risky. Interestingly enough, the idea was usually to weaken the enemy enough to eventually force a decisive battle and destroy the opponent's manpower.

But sometimes small frontier conflicts evolved into permanent hostilities, without any pitched battles or large-scale campaigns, but nevertheless burdensome for the civilians, absorbing the resources of both sides. This was precisely the case with the Byzantine Empire's eastern border neighboring the territories of the Hamdanid dynasty (حمدانيون), which at the beginning of the 10<sup>th</sup> century established its own, largely independent, emirate.<sup>5</sup> The conflict was not a spectacular one, although there have been some major expeditions, like for example in 960, when a large Arab force invaded the Roman territory.<sup>6</sup> But for the most part military activities were limited to attacks carried out by small local forces intent on looting and causing chaos, not conquering new lands. This forced the thematic *strategoï* to keep a large section of their forces on standby in the event of any sudden attack. What is more, these forces had to be dispersed along the whole border. As a result, in the first stage of any engagement the Arabs outnumbered the Romans and had the element of surprise on their side. So the local Roman commanders had to resort to activities that today would be classified as asymmetric warfare. It became the goal of border units to evacuate the civilians along with their belongings to a safe location, and then to follow the enemy, engaging only in minor skirmishes, to make sure that the invaders do not split their forces. At the same time the thematic *strategoï* from several neighboring military provinces would mobilize and gather their armies to neutralize the threat. It was common for border regions to be organized into smaller military-administrative units, which allowed for swift reaction. Individual *kleisourai* (κλεισούρα<sup>7</sup>) did not possess

---

attempts, the legionnaires were unable to dislodge the two tribes from the forests, forcing Caesar to make peace with them. *Commentarii de bello Gallico*, III. 29.

<sup>3</sup> See: I. Arreguin-Toft, *How the Weak Win Wars. A Theory of Asymmetric Conflict*, Cambridge 2005.

<sup>4</sup> According to Goldsworthy, most of the ancient peoples had no grasp of guerrilla warfare. A. Goldsworthy, *The Roman Army at War 100 BC–AD 200*, Oxford 2009, pp. 41–42.

<sup>5</sup> On the subject of the belligerent Hamdanids, see: R. Bikhazi, *The Hamdanid Dynasty of Mesopotamia and North Syria 254–404/868–1014*, Michigan 1981, as well as the classic series of articles devoted to the dynasty's historiography: G.W. Freytag, *Geschichte der Dynastien der Hamdaniden in Mosul und Aleppo*, „Zeitschrift der Deutschen Morgenländischen Gesellschaft” 1856, t. 10, pp. 432–498; idem, *Geschichte der Dynastien der Hamdaniden in Mosul und Aleppo*, „Zeitschrift der Deutschen Morgenländischen Gesellschaft” 1857, t. 11, pp. 177–252.

<sup>6</sup> The event was briefly described by Leo the Deacon, see: Leo Diaconus, II, 5–6.

<sup>7</sup> The word is derived from the Latin *claustra*, which denoted a section of fortifications located in the mountains with its own command structure. See, for example, on the defense of the most convenient

sufficient military forces, which is why in the event of an enemy attack the units from central *themata* had to be mobilized to reinforce the soldiers from the defending *kleisoura*. This required exceptional courage from both the soldiers and the leaders of the defending force; they also had to employ various stratagems to at least partially compensate for the enemy’s superior numbers and to slow down their raider’s advance into Roman territories. The life of Byzantine soldiers at the mountainous Arab border must have been harsh indeed. Living in a permanent state of readiness and under constant threat of death hardened the Roman soldiers, creating an elite breed of fighters, ready at a moment’s notice to stand against overwhelming odds.<sup>8</sup>

Roman and Byzantine chroniclers tended to focus their attention on major campaigns and decisive battles, rarely mentioning any smaller engagements, delaying activities or disruptive attacks on enemy communication lines. What is worse, only very few authors had military experience that would allow them to draw correct conclusions and reasonably comment on military operations. This is why gathering information on asymmetric warfare from ancient and medieval sources is very difficult. We know that such operations did take place, oftentimes swaying the outcome of a war, but according to the topos set forth by Thucydides,<sup>9</sup> the authors of the Antiquity and Middle Ages concentrated on political movements and major battles, with smaller clashes being either disregarded or mentioned only in the context of who had won.

Luckily, one military treatise survived to this day that does provide the answers we seek. Most likely written immediately after the period of the bloodiest fights with the Hamdanids, it is entitled *De velitatione bellica*<sup>10</sup> and it is the single most interesting piece of writing dealing with the border skirmishes between the Byzantium and the Arabs in the 10<sup>th</sup> century. The treatise is exceptional among other Byzantine military sources. For the first time in the history of the Empire the author, who must have been an experienced soldier, elected not to describe the grand strategy, but rather the methods of fighting suitable for smaller units tasked with keeping in check significantly larger enemy forces in the mountainous border territory of Byzantium in the 10<sup>th</sup> century. Thanks to this work we can at the very least theorize<sup>11</sup> about the

---

passages into Italia: T. Milavec, *The Defence of North-eastern Italy in the First Decennia of the 5<sup>th</sup> Century*, “Forum Iulii” 2009, t. 33, pp. 175–189. Byzantine *kleisourai* were also located in difficult mountainous terrain, and their armies were stationed in permanent forts guarding important passes. Although source materials indicate that Romans favored active defense and fortifications mostly served as refuges for the local population. *Oxford Dictionary of Byzantium*, ed. A. Kazhdan, Oxford 1991, p. 1132.

<sup>8</sup> Frontier forces also participated in attacks launched on Hamdanid lands. Both sides employed similar methods of warfare.

<sup>9</sup> See, for example: H.F. Harding, *The Speeches of Thucydides. With a General Introduction and Introductions for the Main Speeches and the Military Harangues*, Lawrence 1973. Thucydides has also set a standard for pre-battle speeches: M. Clark, *Did Thucydides Invent the Battle Exhortation?*, “Historia. Zeitschrift für Alte Geschichte” 1995, t. 44.3, pp. 375–376.

<sup>10</sup> The Latin title is generally used; the original title is: *Περί Παραδρομῆς*; hereinafter quoted as DVB.

<sup>11</sup> There are no available sources that could verify if the tactics presented in the treatise were actually implemented by Byzantine commanders.

tactics employed by frontier soldiers against Arab raiders. The piece was written in the years 963–969<sup>12</sup> and its author had ties with Emperor Nicephorus Phocas;<sup>13</sup> it is even possible that they were related.<sup>14</sup> The treatise deals mostly with military operations in the East, namely the Byzantine-Arab border. It is worth noting that the author wrote from the point of view of a victor, believing the conflict to have ended and wishing to record his practical knowledge for future generations, so that it wouldn't be forgotten.<sup>15</sup>

The character of the work is not the only thing that sets it apart. Compared to other military treatises the author of *De velitatione bellica* adopted a completely new approach to the theory of warfare. Earlier works show certain clear similarities – a pattern followed by all authors throughout the ages.<sup>16</sup> In *De velitatione bellica*, the speaker consciously rejects this tradition, eschewing the descriptions of grand armies, major battles and campaigns,<sup>17</sup> and instead focusing on border skirmishes, frequently fought between small units. Contemporary historians are able, to a certain extent, to verify the treatises dealing with army operations and the actions of Byzantine *strategoi* during large-scale campaigns,<sup>18</sup> but if it were not for *De velitatione bellica*, we would have no information whatsoever about the guerrilla tactics employed

<sup>12</sup> The framework dates refer to the short but eventful rule of Emperor Nikephoros II Phocas, who is mentioned by the author of the treatise.

<sup>13</sup> The question of authorship is difficult to answer. The emperor was certainly not the author, although the work was most likely written under his auspices. The ruler was mentioned in the treatise as one of the leaders, who employed the tactics described therein. DVB, pr. 42–58. For more information on the authorship, see: *Le Traité sur la guérilla de l'empereur Nicéphore Phocas (963–969)*, trans. G. Dagrón, H. Mihăescu, Paris 2011, pp. 137–153 (hereinafter quoted as *Le Traité sur la guérilla*).

<sup>14</sup> Dennis suggested that the piece was written by Leo Phocas – a prominent commander. This is quite probable, as it was Leo who commanded the ambush on the Hamdanids in 960 and he is the only great military leader from the Phocas dynasty whose name does not appear in the treatise. But this is only a hypothesis, which based on currently available sources is impossible to prove. *Skirmishing* [in:] *Three Byzantine Military Treatises*, ed., trans. G.T. Dennis, Washington 1985, p. 140. This piece is based on the Greek edition of *De velitatione bellica* by Dennis, and all footnotes refer to that particular edition.

<sup>15</sup> On the tradition of *De velitatione bellica*, see: *Le Traité sur la guérilla*, pp. 103–125. On the tradition of the whole genre, see more in: O. Spaulding Jr., *The Ancient Military Writers*, “The Classical Journal” 1933, vol. 28, issue 9, pp. 657–669. The history of Byzantine military treatises has been presented, respectively, by: A. Dain, *Les Stratégistes byzantins*, “Travaux et memoires” 1967, t. 2, pp. 317–392; В.В. Кучма, *Византийские военные трактаты VI–X вв. как исторический источник*, “Византийский временник” 1979, pp. 49–75.

<sup>16</sup> As noted by Kaegi, the synthesis of military literature with the experiences of past conflicts has led to the emergence of a completely new approach to warfare in the Empire, which did not come to be *ex nihilo*, but evolved out of Greek and Roman treatises and the events of successive wars. W.E. Kaegi Jr., *Some Thoughts on Byzantine Military Strategy* [in:] *Byzantine Warfare*, ed. J. Haldon, Aldershot 2007, pp. 260–261.

<sup>17</sup> Although the author himself emphasizes that despite the title he did not believe that smaller armies were more effective than larger formations, and that he decided to focus on the former because it is not always possible to assemble enough forces for a direct confrontation. DVB, pr. 21–30. Strategies for larger tactical units were described in a similar work *Praecepta militaria*. See a study of the treatise in: E. McGeer, *Sowing the Dragon's Teeth. Byzantine Warfare in the Tenth Century*, Washington 2008.

<sup>18</sup> This was done, e.g. in I. Svyânne, *The Age of Hippotoxotai. Art of War in Roman Military Revival and Disaster (491–636)*, Tampere 2004 with respect to 6<sup>th</sup> century works.

in frontier clashes. The treatise must have been written primarily for commanders of border administrative-military units – *themata*; particularly smaller ones (*μικρὰ θέματα*),<sup>19</sup> located directly at the border, and thus exposed to frequent enemy raids. The main responsibility of these leaders, like that of the Limes army leaders of old, was to neutralize smaller enemy units intent on plunder, and employ delaying tactics in the event of a major invasion. In the latter case, local archons were supposed to keep the enemy occupied with guerrilla skirmishes until the arrival of reinforcements from the neighboring theme or the central forces (*tagmata*).

The treatise has not yet been fully analyzed in the literature of the subject.<sup>20</sup> Unfortunately, there is no historical source that would confirm if the suggested stratagems were actually employed by Byzantine *strategoï*,<sup>21</sup> although the fact that the author was most likely an experienced commander would indicate as much.<sup>22</sup> Nevertheless, in the absence of suitable materials for a comparative analysis, studying the contents of *De velitatione bellica* will allow us to at least partially reconstruct the conditions of daily life on the turbulent border between the two cultures.<sup>23</sup>

Frontier commanders normally did not have to deal with large Arab armies – in the 10<sup>th</sup> century the border clashes evolved into a permanent state of conflict, in which both sides attempted to cause as much damage to the enemy as possible.<sup>24</sup> Arab raids were reminiscent of the barbarian attacks from the 4<sup>th</sup> and 5<sup>th</sup> century,<sup>25</sup> as more often than not their purpose was purely economic – to steal the cattle, rob the farmers and

<sup>19</sup> Small themes, usually housing about 1 thousand soldiers and a few fortresses.

<sup>20</sup> A commentary by G. Dagron and H. Mihaescu is currently the most extensive study available, but it is nowhere near exhaustive, and the literature of the subject is extremely scant. As yet there is still no comprehensive analysis of the Roman army of the 10<sup>th</sup> century. The work of E. McGeer cannot be considered as such, because it also is an edited version of the source text with added commentary. Partial studies of the subject can be found in general works dealing with the Byzantine army throughout the ages. See, for example: T. Kolias, *Byzantinische Waffen: ein Beitrag zur byzantinischen Waffenkunde von den Anfängen bis zur lateinischen Eroberung*, Wien 1988; W. Treadgold, *Byzantium and its Army 284–1081*, Stanford 1995; J. Haldon, *Recruitment and Conscription in the Byzantine Army c. 550–950 a Study on the Origins of the Stratiotika Themata*, Wien 1979; idem, *Aspects of Byzantine Military Administration. The Elite Corps, the Opsikon, and the Imperial Tagmata from the Sixth to the Ninth Century*, Birmingham 1975; idem, *Warfare, State and Society in the Byzantine World, 565–1204*, London 1999; idem, *Byzantium at war 600–1453*, New York 2003; A. Pertusi, *Odinamenti militari, guerre in occidente e teorie di Guerra dei bizantini (secc. VI–X)*, Spoleto 1968.

<sup>21</sup> This is partly possible by analyzing *Historia* by Leo the Deacon. A contribution from the point of view of a philologist was included in: J.-C. Cheynet, *Les Phocas* [in:] *Le Traité sur la guérilla de l'empereur Nicéphore Phocas*, p. 47.

<sup>22</sup> The author personally described himself as an experienced commander, who honed his skills fighting both in the West and the East. DVB, pr. 42–58.

<sup>23</sup> This isn't to say that the Byzantine-Arab border was a permanent warzone. On the contrary, even during raids and other periods of unrest the trade and cultural exchange was still taking place; both civilizations knew how to coexist in the 10<sup>th</sup> century. See: A. Hamdani, *Byzantine-Fatimid Relations before the Battle of Manzikert*, “Byzantine Studies” 1974, t. 1, pp. 169–179.

<sup>24</sup> Today we would refer to such activities as war of attrition. However, the goal of the Hamdanid dynasty was not simply to cause devastation in the borderlands; their motivation was territorial conquest.

<sup>25</sup> Compare: H. Elton, *Warfare in Roman Europe, AD 350–425*, Oxford 2004, pp. 45–89. Of course, the border regions were also the location of major engagements, fought by entire armies.

take prisoners.<sup>26</sup> These operations required mobile cavalry units that could quickly disperse and reassemble as needed. This allowed the raiders to cause devastation over a reasonably large area and made it impossible for the defenders to keep the entire attacking force in check. The Arabs were difficult adversaries, highly skilled in avoiding open confrontation. Worse still, Roman commanders often did not have enough men at their disposal,<sup>27</sup> and mobilizing the entire theme army or units from several themes required a lot of time. As a result, Roman frontier armies were forced to adopt less direct methods of operation.

Instead of drawing the enemy into a pitched battle, which in the event of being outnumbered might well have tragic consequences, the Romans relied on minor forays, ambushes and tracking of enemy activities.<sup>28</sup> These guerrilla tactics were used to exhaust the invaders and force them to maintain formation as a single large unit.<sup>29</sup> If they were to split their forces, they could cover a significantly wider area and the mobilized Roman army would have no one to fight against, while small groups of enemy raiders would slip away into Arab territory. Maintaining the feeling of threat in the invaders was a crucial factor; equally important were the delaying tactics that provided time to mobilize thematic armies or even reinforcements from close-by regions. Attacking scouting troops,<sup>30</sup> ambushing small foraging parties, blocking access to drinking water<sup>31</sup> and shadowing the main forces – these were all typical methods employed by the Romans. And if the defending commander was faced with an enemy of roughly equal strength and did not have to avoid confrontation, he had several other options to choose from. If the main Roman force was already mobilized and the invaders decided to move further inland, it created an opportunity to completely destroy or at least deplete the enemy's manpower. This, however, posed its own risks – the author of *De velitatione bellica* noted that the forces invading deeper into the theme are usually more careful, able

---

<sup>26</sup> A *strategos* from a minor theme would have about 1 thousand soldiers at his disposal. The forces of frontier themes were perfectly suited for repelling smaller predatory raids. See more in: J. Haldon, *Recruitment and conscription*. In the event of a major invasion, the soldiers of a single theme were not enough to stop the Arabs.

<sup>27</sup> See: DVB, X, where the author describes an enemy army consisting of both infantry and cavalry. In such cases the horsemen were sent to pillage the area and the foot soldiers provided protection, particularly in difficult terrain.

<sup>28</sup> The author devotes a lot of space to the issues of tracking the enemy army and setting traps for smaller units separated from the main forces. Scouting activities – DVB, VIII. Attacking groups tasked with setting up camp – DVB, XIII. Engaging small cavalry units – DVB, X.

<sup>29</sup> This limited the number of civilians affected by the raid. An army travelling as a unified group may only plunder areas along its intended route. Real losses were actually caused by small, scattered groups of horsemen who could travel quickly and so cover a wider area. If the enemy had split his forces the defenders should target the wagon train. The author of the treatise noted that Romans never lost such a fight and always managed to inflict heavy losses on the enemy. DVB, X. 80–94.

<sup>30</sup> These would include the enemy *mensuratores* responsible for scouting ahead and preparing a campsite. But we should bear in mind that the author used the Roman military term for “scouts” to refer to enemy units that carried out similar (but not the same!) tasks. DVB, XIII, particularly 20–32.

<sup>31</sup> DVB, V.

to counter ambushes and would attempt to catch the Romans off-guard as well.<sup>32</sup> On the one hand, it was important to inflict such losses on the enemy as to discourage any future raids into Roman lands.<sup>33</sup> But on the other hand, in the Roman-Byzantine military tradition a soldier’s life was precious, and a leader was not supposed to risk a battle unless victory was certain.<sup>34</sup>

## THE IMPORTANCE OF RECONNAISSANCE

In the case of an asymmetric border conflict it was crucial to achieve an advantage over the enemy well beforehand. Knowledge about the movements of enemy armies was a matter of life and death. The treatise suggests maintaining observation posts along the border, located at a distance of 4 Byzantine miles<sup>35</sup> from each other and manned by vigilant and experienced soldiers, well acquainted with a given territory. The men would be relieved every 15 days.<sup>36</sup> When an enemy was sighted, these soldiers were supposed to immediately move to a cavalry outpost located on the plains and give their report to a courier, who then delivered it to headquarters.<sup>37</sup>

Once the information about the attack had been delivered, the soldiers began evacuating the local population. Scouts (*expilatores*) and the crews of observation posts were responsible for notifying the taxpayers about the coming danger and leading them to safety along with all their possessions.<sup>38</sup> Next, the defenders should undertake offensive actions. This was done by light cavalry units (*trapezites*) or similar Armenian formations (*tasinarioi*)<sup>39</sup> – their task was to launch an attack on the enemy territory, possibly to force the invaders to retreat,<sup>40</sup> and to capture prisoners who would provide the Roman commander with information about the enemy plans. Once the regional Roman army has been mobilized, the *strategos* would act. If the Arab force was small, the leader was supposed to engage it immediately, forcing a battle

<sup>32</sup> DVB, XVII, 4–17.

<sup>33</sup> DVB, XVII, 16–17. *Καὶ αὐτῶν τραυματιζομένων παρὰ σοῦ, οὐδαμῶς χρονίσουσι τὰς ἡμετέρας χώρας ληϊζόμενοι.*

<sup>34</sup> The issue of protecting one’s forces takes up a separate chapter entitled: *Περὶ ἀσφαλείας*. DVB, XV. The author, however, focused mostly on gathering information about enemy activities. The need to evaluate one’s strength compared to the enemy’s is best summed up by the author of *Strategikon*: *Ὁ τὰς οἰκείας κ αὐ τῶν πολεμίων δυνάμεις μὴ συγκρίνων σφαιήσεται δυσχερῶς* [He, who does not carefully compare his own forces to that of the enemy, shall be defeated] *Strategikon*, VIII B. 7.

<sup>35</sup> One Byzantine mile is approximately 1574 meters.

<sup>36</sup> DVB, I, 18–24.

<sup>37</sup> DVB, I, 4–17.

<sup>38</sup> DVB, II, 3–10.

<sup>39</sup> In the West these light cavalry formations were known as *chosarioi* – the term evolved into the modern era *hussar*. See: M. Canard, *Sur deux termes militaires byzantins d’origine orientale*, “Byzantion” 1970, t. 40, p. 226–229.

<sup>40</sup> The treatise does not specify this explicitly, but we may assume that the Arabs would be less willing to fight knowing that in their absence their homes were being devastated by Byzantine units.

with a combined force of cavalry and infantry<sup>41</sup> – but that possibility is not taken into account in this study. If direct confrontation was not possible, the defenders had to resort to holding and delaying tactics.

## BLOCKING OF MOUNTAIN PASSES

If the theater of operations was a mountainous area, the defending commander could order his men to block the trails leading through the mountains and garrison the passages. Soldiers should be dispatched to mountain passes, valleys with streams running through them and defensible locations overlooking the surrounding area. In such terrain cavalry was of little use and it was the infantry that bore the brunt of the fighting, particularly units equipped with projectile weapons. In a blockade force the front line was made up of heavy infantry with shields and spears, while the second line consisted of bowmen and slingers.<sup>42</sup> The defending commander also had to be well acquainted with the area so as to secure any alternative trails, forcing the enemy into the prepared defensive position. An important aspect of holding the mountain passes was maintaining control over water sources, especially in areas with few water intakes. This was particularly crucial if the plan was to hold the enemy at bay for an extended period. Soldiers should always have access to fresh water and it was the leader's responsibility to keep the water source from becoming silted.<sup>43</sup> If everything had been prepared correctly then, God willing,<sup>44</sup> with a little luck the enemy might even decide to give up the raid<sup>45</sup> once it became clear that the defenders held all the choke points. But if the invaders decided to press on, the blockade would slow their advance, giving the Romans time to prepare further surprises. The best-case scenario was that the defending unit would keep repelling enemy attacks, which effectively ended the invasion. And if the attackers opted to look for another route, finding a passage in the harsh mountainous territory would have taken at least several days, which was tiring for the soldiers and bad for morale.<sup>46</sup>

If the enemy made it through the mountains it was necessary to adopt different tactics. Once on the plains, the Arabs became very aggressive. Most attacks were carried out by cavalry units, which gave the enemy the advantage of speed – something they made good use of.<sup>47</sup> To counter this, the *strategos* should send a trusted archon leading a small, elite unit on horseback to determine the strength of the raiding army

---

<sup>41</sup> DVB, III, 4–11.

<sup>42</sup> DVB, III, 28–29.

<sup>43</sup> DVB, V, 5–7.

<sup>44</sup> See comments in: M. Wojnowski, *Religia a wojskowość bizantyjska w świetle traktatów wojskowych IX–XI wieku*, “Przegląd Historyczny” 2009, t. 100.2, pp. 189–205.

<sup>45</sup> DVB, III, 19.

<sup>46</sup> DVB, III, 45–50. Further in the text, the author provides several examples of how the Romans defeated the Hamdanids.

<sup>47</sup> DVB, VI, 4–6.



and to track it.<sup>48</sup> This way, when the Roman force was fully assembled, the commander knew the strength and the position of the enemy, making it easier to mount an effective defense. If the Arabs split their forces, it was simply a matter of relocating the Roman army to the invaded area and intercepting the enemy’s smaller cavalry units. And if the enemy found out about the presence of the army from captured civilians before spreading through the province, it was assumed that the terrified invaders would retreat back to their own lands without a fight.<sup>49</sup>

### ENGAGING A LARGE ENEMY FORMATION THAT DOES NOT SPREAD OUT FOR MORE THAN A DAY

If the raiders decided to advance into Roman territory it was imperative to destroy or rout them. The Arab invaders acted similarly to the Tatars of the modern era. After crossing over into enemy territory, the Hamdanids would set up camp for one or two days, from which smaller cavalry detachments were dispatched during the day to pillage the area. But all these units returned to the safety of the camp for the night. If the Arabs invaded in force, the Byzantines could not afford to risk an open battle, because a defeat at the hand of the raiders would leave the whole area at the mercy of the enemy. Thus, it was necessary to employ suitable stratagems. The author of *De velitatione bellica* suggested the following tactic against any forces that stayed close to their camp. First, the commander had to select competent archons and experienced soldiers to track the enemy army.<sup>50</sup> Their only task was to keep the Roman force informed about the raiders’ movements and predict the possible locations of their campsites. Once the *strategos* found out in advance where the enemy would rest, it was time to take action. Under cover of night, a small cavalry unit led by a trusted officer would gather their weapons and wrap themselves in dark cloaks called *epanoklibana*.<sup>51</sup> Next, the unit would approach the Arab camp in complete silence, making sure that the raiders had already gone to sleep. The Romans would then split into several four-man teams, who took up positions overlooking the enemy force and began listening in on the sounds coming from the camp.<sup>52</sup> These night scouts were not only supposed to gather information about the invaders’ movements, but also warn the commander in case the main Roman force had been discovered.

The Byzantines wanted to know what the Arabs were up to, and the tactic was employed when the enemy infantry remained in the camp and the cavalry did not range far from the site. Groups of Arab horsemen left the camp in the morning, targeting Byzantine villages and small towns. Once they were sufficiently far, the Romans

---

<sup>48</sup> DVB, VI, 12–25.

<sup>49</sup> DVB, VI, 32–37.

<sup>50</sup> DVB, VII.

<sup>51</sup> DVB, VIII, 25.

<sup>52</sup> DVB, VIII, 40–44.

would act based on the reports of the night scouts. First, the Roman army had to move around the enemy camp, so as to flank the Arabs and occupy a suitable fighting position. The *strategos* had to personally estimate how many men were left in the raider encampment and decide if his own forces were enough to assure victory. If he decided that the Romans could handle the enemy infantry (bearing in mind that most of the Arab cavalry was away), he would attack. But if the force remaining in the camp was still too strong, the Romans would turn against the small raiding parties, dealing with them one at a time. While pursuing the looters it was necessary to keep an eye on the main Arab formation, which could move out to support the cavalry units. This procedure could be repeated every day until the weakened invaders decided to retreat. At that point the *strategos* should dispatch his infantry to move ahead of the enemy column and block mountain passes or other defensible choke points.<sup>53</sup> The rest of the Romans would harass the retreating invaders until it was possible to engage them in open battle on favorable terms.

#### ENGAGING CAVALRY UNITS DETACHED FROM THE MAIN ARAB FORMATION

The author of the treatise observed that sometimes Arab cavalry units would split off from the main force of infantry for longer periods. Their goal was to launch surprise attacks on the villages that had not yet been warned about the approaching enemy.<sup>54</sup> In that case, the only task of the enemy infantry was to protect the horsemen while crossing the mountain passes. On the plains the infantry set up camp and awaited the return of the cavalry raiding parties; then, the combined force retreated back over the mountains. If the enemy adopted this tactic, the Roman commander had to choose between two courses of action. He could try to intercept the Arab cavalry and force it to engage in battle, which was difficult to accomplish, or he could attack the remaining enemy forces encamped on the plains. The latter option required caution, as the enemy usually outnumbered the hastily assembled Roman army. But both tactics depended on reconnaissance and having detailed information about the enemy's movements. If the Arab infantry decided to relocate the camp, the *strategos* should organize an ambush along the enemy's intended route. First, the Romans would defeat the vanguard, which usually included the horsemen that were still left in camp; meanwhile the main Byzantine forces would be waiting to spring the ambush, hidden on both sides of the road. Once the advance guard was engaged in the front, the two ambushing units should attack the wagon train<sup>55</sup> and the infantry column from

---

<sup>53</sup> DVB, IX, 104–105.

<sup>54</sup> DVB, X, 10–11.

<sup>55</sup> The wagon train is being referred to by the Latin term “tuldōn” (τοῦλδων). The word became so widely used in the Byzantine military vocabulary that it became the basis for a bilingual *compositum* “touldofylaks” – camp guard.

the sides. Even if the surprised enemy was able to form his wagons into a defensive circle and receive the charge, the outcome of the battle was usually already decided. The Romans would surround the Arab formation and begin a regular siege. But if the Byzantine force consisted of well-equipped infantry, the wagon train was normally captured during the first engagement, without the need for a prolonged siege.<sup>56</sup> And if the Arabs had been surrounded in a place without access to fresh water, their surrender was only a matter of time. Even if a portion of the invading army broke out, its soldiers lost their fighting spirit and would be interested only in returning home. The author of the treatise claims, with a certain amount of pride, that whenever the Byzantine forces faced off against an Arab wagon train, victory would invariably go to the Romans.<sup>57</sup>

If the enemy did not plan on moving the encampment, the Romans would attempt to storm it. The assault would be launched according to typical methods, i.e. from every possible side, not giving the enemy the chance to rest even at night.<sup>58</sup> It is worth mentioning that the author suggested utilizing mechanisms that today might have been defined as battlefield psychology. The idea was to send out a detachment of light infantry during a night raid, allowing it to get inside the enemy camp and bring back some of the horses and mules bearing spoils. This was intended to encourage the rest of the army – making them assault the enemy position without regard for their own lives<sup>59</sup> hoping to win even more riches. Thanks to this simple ruse any resistance from the defenders would be crushed that much quicker.

When attacking the enemy encampment or ambushing infantry on their way to a new campsite the crucial thing was to bear in mind that the Arab cavalry could return at any moment. If they managed to take the Romans by surprise, they could very well swing the battle in their favor. In order to minimize this threat the commander should send out a party of forty riders. If these scouts spotted the enemy cavalry's vanguard away from the main force returning to the camp, they were to set up an ambush and destroy it. And if the Roman detachment happened upon the main body of enemy horsemen, the orders were to fall back to a suitable location and adopt defensive tactics.<sup>60</sup>

If the *strategos* did not manage to destroy the wagon train or inflict any losses on the cavalry, and the combined invading forces were already retreating to Arab territories, the Byzantines had to resort to a more direct approach. The Roman army had to do everything in its power to overtake the enemy, block the mountain passes and force the raiders to fight in that difficult terrain. Even if the Arabs managed to fight their way through such blockades, many Roman prisoners and looted goods could be liberated, and the invaders could suffer heavy losses in this last stage of their raid.<sup>61</sup>

---

<sup>56</sup> DVB, X, 84–86.

<sup>57</sup> DVB, X, 80–85.

<sup>58</sup> The author suggested night forays and constant firing on the enemy's position.

<sup>59</sup> DVB, X, 150–154.

<sup>60</sup> DVB, X, 170–173.

<sup>61</sup> DVB, X, 174–187. The author of the treatise emphasized that the Romans should never allow the enemy to retreat to safety unharmed. The defenders should inflict such losses as to discourage any future raids into Roman lands. DVB, IV, 29–39.

## ENGAGING A LARGE ARMY, WHICH CANNOT BE DEFEATED IN OPEN BATTLE<sup>62</sup>

Just like in previous cases, the first thing to do was to determine the route that the enemy was most likely to take. This usually led along territories, where it was possible to forage for food, fodder and drinking water.<sup>63</sup> Such supplies would normally be found in abandoned villages, whose residents in the event of a raid fled into the mountains or to Roman forts<sup>64</sup> along with such wealth as they could carry. Once the enemy's movements have been anticipated, a trap was prepared. The ambushing Roman unit should be 200–300 strong, consisting of bold cavalymen led by an experienced archon. The supreme commander of all Roman forces should have around 6,000 horsemen under his command.<sup>65</sup> The whole army, with the exception of the ambushing group, should be split into two formations. Two thousand mounted men were to serve as the advance guard; the other group consisted of about 3,000 horsemen and the hidden infantry. If there was a fort or a fortified city nearby, then despite the advantages offered by such structures, the army was not to occupy them, so as not to give up its mobility. The Romans were, after all, fighting with an enemy that outnumbered them – mobility could at least partially make up for this disproportion of forces. Also, this is where the author of the treatise shows consideration for the wellbeing of the whole province – if the Roman army had been besieged in a fortified position, the enemy would be free to plunder and lay waste to the surrounding area, which should be avoided at any cost.<sup>66</sup> Fortifications were to be utilized only in the event of major difficulties, and even then the bulk of the fighting should take place on open ground, with the garrisoned infantry providing support.<sup>67</sup>

The suggested plan of ambush is clearly divergent from the defensive Roman doctrine of the past ages.<sup>68</sup> Although the initiative was left in the hands of the enemy, the commanding archon used that fact to his advantage. The trap was set up at a location that would have been targeted by the enemy anyway, at the same time providing protection to the local population. A notable aspect of this tactic is the concern for maintaining mobility, which was of utmost importance for the success of the operation.

After setting up his forces, the archon appointed sentries at the targeted village to watch for the enemy. Once the enemy's vanguard had moved into the village and

---

<sup>62</sup> These particular tactics have also been described by the author of this article in: Ł. Różycki, *Pogranicze bizantyńsko-arabskie w świetle traktatu De velitatione bellica [in:] Kresy, granice i pogranicza w historii wojskowej*, eds. A. Olejko, J. Ślipiec, P. Korzeniowski, K. Mroczkowski, Oświęcim 2014, pp. 27–37.

<sup>63</sup> DVB, XVII, 18–23.

<sup>64</sup> DVB, XII, 4–15. See footnote 32 on the subject of protecting civilians.

<sup>65</sup> The author suggested a unit of 5 to 6 thousand soldiers. DVB, XVII, 18–22.

<sup>66</sup> Concern for the fate of the civilian population is clear throughout treatise. In the event of a sudden attack, the commander's first priority was to warn and evacuate civilians. DVB, XII.

<sup>67</sup> DVB, XVII, 40–41.

<sup>68</sup> See: Strategikon, VI; particularly VI.III and *Tactica*, XVII.

the soldiers had dismounted and began searching the buildings, a hundred Roman men<sup>69</sup> should spring the trap and attack the scattered raiders. Taken by surprise, the enemy became easy prey, and the author of the treatise predicted that a large number of Arabs would be slain or would surrender.<sup>70</sup> Those who managed to reach their horses and make it out of the ambush should be pursued immediately. A small victory like that before the main battle boosted the morale of one’s own soldiers and irritated the enemy, which was exactly what the Romans were hoping for. This part of the operation required discipline and clear judgment – the pursuing Romans were not supposed to kill the Arab vanguard to a man, but rather draw another unit into a trap.

Once they got near to the enemy’s second unit,<sup>71</sup> the Byzantines were to turn back and flee, encouraging the raiders to move after them. At this stage a large role was played by the archon commanding the Romans. If he decided that the pursuing Arabs are weaker than his own forces (the original ambushing unit) he should set up another trap. The main cavalry group should be kept in readiness off the road, somewhere out of sight from the raiders. Once the Romans and their pursuers passed this hidden unit, the main cavalry force should attack the back of the enemy. Although the author of *De velitatione bellica* does not specify anything else, we may assume that the retreating Romans would then turn around and join in the fighting, trapping the enemy in a classic pincer maneuver.<sup>72</sup>

Contrary to theorist tacticians, the author was well aware that any action on the field of battle would provoke a reaction from the opposing side.<sup>73</sup> When the Romans engaged the second enemy group, two things could happen. Either the Arabs would attempt to reinforce the ambushed unit by quickly sending additional men, or said unit would be destroyed before the relief force came. In both cases, the leader of the Roman unit was to act similarly. Captured raiders, along with their mounts and weapons, should be escorted away to the main Byzantine army. The cavalry participating in the trap should disengage from the enemy (if they were still fighting the first ambushed unit and the Arab reinforcements) or rally in good order and provoke the relief force to follow the Romans<sup>74</sup> (if the first raider unit had been destroyed before reinforcements came). This retreat after the ambush was intended to draw the whole enemy army into another – this time prepared by the supreme commander of Byz-

---

<sup>69</sup> However, the author did specify that the ambushing unit should outnumber the group robbing the village, which provided a certain degree of flexibility to the archon in charge. DVB, XVII, 46.

<sup>70</sup> DVB, XVII, 49.

<sup>71</sup> It is a reasonable assumption that the raider unit sent to the village would have been supported by another one, ready to render aid in case of trouble.

<sup>72</sup> Especially since in previously described maneuvers the unit that pretended to flee would also take part in springing the trap.

<sup>73</sup> To appreciate the difference one could, e.g. compare the treatise to the work of Vegetius, who did not take into account the possibility of the enemy reacting in any way. This is typical for theoreticians without any field experience.

<sup>74</sup> The author of the treatise refers here to the relief force, meaning most probably the main strength of the enemy. DVB, XVII, 61–83.

antine forces. None of the soldiers taking part in the first and second<sup>75</sup> stages of the battle could know the exact location of their main forces. The information was only provided to the archon leading the first ambushing force. This way there was little chance that the enemy would learn about the second trap.<sup>76</sup>

The retreating units that took part in the first and second ambush must have been tired,<sup>77</sup> some of the soldiers or mounts could be wounded, and the speed of the group would be further reduced as the beasts lost their strength. If the Arabs followed the Romans in a disorganized fashion, and the distance between the two forces remained the same, the Byzantine commander could attempt a counterattack.<sup>78</sup> He should appoint a number of his best men who, choosing an opportune moment, would turn back and engage the Arabs in ordered formation. This could help to increase the distance between the enemy and the retreating Romans. After fighting off the counterattack, the invaders would be forced to pick up the pace to make up for the lost time – thus they would further over-exert their horses and scatter their formation.

When the retreating horsemen reached the location of the trap set up by their main forces, the leading archon was to direct his men to the right or to the left of the road. The Roman army would be hidden on both sides of the path (or just one, depending on the terrain), and once the enemy drew level with them, the soldiers would attack from every direction. The fleeing unit would then stand their ground, trapping their pursuers completely. The author of *De velitatione bellica* noted that even if the enemy army was not routed,<sup>79</sup> it would suffer enough losses to force a retreat from Byzantine lands, and the invaders would think twice before attempting another raid in the future.<sup>80</sup>

Obviously, the tactics described in *De velitatione bellica* required flawless cooperation of all Roman forces, and as such could only be attempted by experienced fighters.

## CONCLUSION

Even though its author draws on the past tradition of military writing, the treatise *De velitatione bellica* is exceptional compared to other Roman military works. The

---

<sup>75</sup> That is, the ambush in the village and the engagement between the second Roman unit and the enemy soldiers pursuing the first ambushing unit.

<sup>76</sup> If the enemy saw through their plan, the Romans would have found themselves in deadly peril, which is why extreme caution was required.

<sup>77</sup> Particularly the soldiers fighting since the very beginning, i.e. the ones that set up the first ambush in the village.

<sup>78</sup> This course of action should probably also be taken into account even if the approaching enemy cavalry was in close formation. A counterattack by a detachment of retreating ambushers gave the rest of the unit a chance to reach the location of their main forces. The soldiers assigned to the counterattacking group had to be exceptionally brave, and their mounts the least tired. DVB, XVII, 61–83.

<sup>79</sup> And it was supposedly rare for the enemy to withstand such an attack.

<sup>80</sup> DVB, XVII, 123–131.

author was probably raised in the Roman-Byzantine military tradition<sup>81</sup> and most likely presented actual methods for dealing with large enemy raids with a much smaller force. As the border regions were under constant threat it was impossible to maintain a regular army of several dozen thousands in a state of battle readiness. This meant that the frontier units were often left to fend for themselves – and when facing the enemy they lived and died by their training and the skills of their leaders. Some of the ideas suggested by the author of *De velitatione bellica* were clearly intended as holding tactics. Soldiers were to block the roads, occupy narrow valleys and prevent the enemy’s access to sources of drinking water. The goal was to force the Arabs to remain in a single formation until the arrival of reinforcements from nearby themes that would make it possible to engage the raiders in open battle. Also, with a little luck, using the tactics presented in the treatise could help the frontier units defeat a much stronger enemy force without the need for aid. The author knew that in order to do that you had to goad the enemy into acting rashly, employ guerrilla tactics and whenever possible – eliminate smaller units that got separated from the main invading forces.

These ideas were not entirely novel. If examined closely, they seem to be the result of decades of evolution. Already in the 6<sup>th</sup> century, when cavalry began rising to prominence, the author of *Strategikon* noted that during a pursuit or retreat the formation of mounted units would become scattered, which could put them at risk. Horsemen were only effective if they operated as a cohesive unit; otherwise the enemy could easily break them with a charge or counter-charge. In *De velitatione bellica* we find ways to utilize this fact to our advantage. When the soldiers of the first and second ambushing group were retreating, the leading archon had to observe the enemy unit following them – if they broke formation, the Romans should seize the opportunity and attack. During such counter-charge the scattered and thus vulnerable enemy was faced with an impenetrable wall of horsemen. This tactic was characteristic for nomad tribes; the Romans began employing it on a large scale<sup>82</sup> during the Avar wars.<sup>83</sup> Developing such complex ambushes was also the result of evolution of Byzantine warfare. An in-depth reading of *Strategikon* shows<sup>84</sup> that its author suggested similar, although simpler, ideas for surprise attacks.

*De velitatione bellica* is a unique work. Border skirmishes and engagements led by theme *stratego*i were of little interest to military theoreticians, who focused their attention on the imperial armies of the *tagmata*. A similar lack of interest is shown by the chroniclers of Byzantium’s history, although there is a notable exception. In the year 960 an Arab force invaded Roman lands. A short account of this attack was included in the work of Leo the Deacon and it is worth noting that the author clearly

---

<sup>81</sup> As evidenced by his use of expert terminology that had originated in Latin times.

<sup>82</sup> This isn’t to say that similar tactics could not have been used earlier.

<sup>83</sup> Γ. Καρδαράς, *Το σχήμα των Αβάρων στο Στρατηγικόν του Μουρικού. Μια κριτική προσέγγιση*, “Βυζαντινός δομος” 2007–2008, t. 16, pp. 151–167.

<sup>84</sup> Strat. IV.III. This shows beyond a doubt that Byzantine military system was the result of ages of continuous evolution which led to the emergence of the Byzantine legions of the 10<sup>th</sup> century. This, in and of itself, is an interesting issue that deserves separate attention.

mentions the methods provided in *De velitatione bellica*. Leo Phokas, commanding the frontier units, set an ambush for the Hamdanid army in mountainous terrain.<sup>85</sup> The Byzantine army took up position in a pass, so that the invaders had the enemy soldiers on one side and a steep slope on the other. The Arabs were tired after a long march and burdened with spoils; additionally, their column was strung out, because the road through the pass was very narrow. The Romans assaulted the side and the rear of the enemy formation, causing panic and forcing the Hamdanid soldiers to crowd together, which in that difficult terrain had catastrophic results. Only a handful of raiders survived the massacre. The Romans retrieved all of the enemy's spoils and reclaimed most of the prisoners.

The aforementioned example is consistent with much of what was presented in *De velitatione bellica*. The Romans took up prepared positions and awaited the invaders, who were already heading home. The Arabs were exhausted from the road and laden with loot.<sup>86</sup> When the trap was sprung, the enemy was completely surprised. By carefully using the terrain to his advantage, Leo Phokas made the opposing army suffer even more losses. It is worth noting how the enemy had been surrounded virtually on all sides. The Hamdanids only had a glimmer of hope for survival, which must have turned their army into a panicked press of bodies. According to Leo the Deacon, the bones of dead invaders were still piled up at the field of that battle even in his times.

This account is a rare example of a historian focusing his attention on frontier engagements fought by thematic forces. The chronicler included it in his work for two reasons – the enemy army was led personally by the Hamdanid ruler, and the Romans by Leo Phokas, a close relative of the future emperor. This provides at least partial confirmation that the suggestions described in *De velitatione bellica* were actually followed in the field.<sup>87</sup>

*De velitatione bellica* remains a unique kind of theoretical work, which stems from the author's own experience in minor engagements with enemy raids. The tactics described in the treatise are most likely the result of decades of evolution in frontier warfare at the mountainous Byzantine-Arab border. As such, they are an invaluable testament to the medieval understanding of asymmetric warfare. Thanks to the author of the treatise we know how the Romans repelled enemy invasions and halted the advance of large forces on their own territory. This makes *De velitatione bellica* a valuable resource, useful for the understanding of the 10<sup>th</sup> century conflict between the Byzantine Empire and the Hamdanids.

---

<sup>85</sup> Leo Diaconus, II, 5–6.

<sup>86</sup> The spoils were reportedly so numerous that Roman soldiers began looting the bodies immediately after defeating the enemy, which allowed the Arab commander to slip away.

<sup>87</sup> In his description of the ambush Leo the Deacon uses the word *ἀτραποί*, same as the author of *De velitatione bellica*. This may indicate that Leo knew the work and so made a deliberate reference to it. See: J-C. Cheynet, *Les Phocas* [in:] *Le Traité sur la guérilla de l'empereur Nicéphore Phocas (963–969)*, p. 47 and *The History of Leo the Deacon Byzantine Military Expansion in the Tenth Century*, transl. A-M. Talbot, D. Sullivan, Washington 2005, p. 19. Although this is merely circumstantial evidence as no research on the relationship between the two texts has yet been carried out.



## REFERENCES

## Ancient sources

- Das Strategikon des Maurikios*, ed. G.T. Dennis, trans. E. Gamillscheg, Wien 1981.
- Gajusz Juliusz Cezar, *Wojna galijska*, trans. E. Konik, Wrocław 2004.
- Le Traité sur la guérilla de l'empereur Nicéphore Phocas (963–969)*, trans. G. Dagron, H. Mihăescu, Paris 2011.
- McGeer E., *Sowing the Dragon's Teeth. Byzantine Warfare in the Tenth Century*, Washington 2008.
- The History of Leo the Deacon Byzantine Military Expansion in the Tenth Century*, trans. A-M. Talbot, D. Sullivan, Washington 2005.
- The Taktika of Leon VI text, translation, and commentary*, ed., trans. G.T. Dennis, Washington 2010.
- Three Byzantine Military Treatises*, ed., trans. G.T. Dennis, Washington 1985.

## Modern works

- Arreguin-Toft I., *How the Weak Win Wars. A Theory of Asymmetric Conflict*, Cambridge 2005.
- Bikhazi R., *The Hamdanid Dynasty of Mesopotamia and North Syria 254–404/868–1014*, Michigan 1981.
- Canard M., *Sur deux termes militaires byzantins d'origine orientale*, “Byzantion” 1970, t. 40, pp. 226–229.
- Clark M., *Did Thucydides Invent the Battle Exhortation?*, “Historia. Zeitschrift für Alte Geschichte” 1995, t. 44.3, pp. 375–376.
- Dain A., *Les Stratégistes byzantins*, “Travaux et mémoires” 1967, t. 2, pp. 317–392.
- Elton H., *Warfare in Roman Europe, AD 350–425*, Oxford 2004.
- Freytag G.W., *Geschichte der Dynastien der Hamdaniden in Mosul und Aleppo*, „Zeitschrift der Deutschen Morgenländischen Gesellschaft” 1856, t. 10, pp. 432–498.
- Freytag G.W., *Geschichte der Dynastien der Hamdaniden in Mosul und Aleppo*, „Zeitschrift der Deutschen Morgenländischen Gesellschaft” 1857, t. 11, pp. 177–252.
- Goldsworthy A., *The Roman Army at War 100 BC–AD 200*, Oxford 2009.
- Hadas-Lebel M., *Massada, histoire et symbole*, Paris 2000.
- Haldon J., *Aspects of Byzantine Military Administration. The Elite Corps, the Opsikion, and the Imperial Tagmata from the Sixth to the Ninth Century*, Brimingham 1975.
- Haldon J., *Byzantium at War 600–1453*, New York 2003.
- Haldon J., *Recruitment and Conscription in the Byzantine Army c. 550–950 a Study on the Origins of the Stratiotika Ktemata*, Wien 1979.
- Haldon J., *Warfare, State and Society in the Byzantine World, 565–1204*, London 1999.
- Hamdani A., *Byzantine-Fatimid Relations before the Battle of Manzikert*, “Byzantine Studies” 1974, t. 1, pp. 169–179.
- Harding H.F., *The Speeches of Thucydides. With a General Introduction and Introductions for the Main Speeches and the Military Harangues*, Lawrence 1973.

- Kaegi W.E. Jr., *Some Thoughts on Byzantine Military Strategy* [in:] *Byzantine Warfare*, ed. J. Haldon, Aldershot 2007, pp. 260–261.
- Kolias T., *Byzantinische Waffen: ein Beitrag zur byzantinischen Waffenkunde von den Anfängen bis zur lateinischen Eroberung*, Wien 1988.
- Milavec T., *The Defence of North-eastern Italy in the First Decennia of the 5<sup>th</sup> Century*, “Forum Iulii” 2009, t. 33, pp. 175–189.
- Oxford Dictionary of Byzantium*, ed. A. Kazhdan, Oxford 1991.
- Pertusi A., *Odinamenti militari, guerre in occidente e teorie di Guerra dei bizantini (secc. VI–X)*, Spoleto 1968.
- Różycki Ł., *Pogranicze bizantyńsko-arabskie w świetle traktatu De velitatione bellica* [in:] *Kresy, granice i pogranicza w historii wojskowej*, eds. A. Olejko, J. Ślipiec, P. Korzeniowski, K. Mroczkowski, Oświęcim 2014, pp. 27–37.
- Spaulding O. Jr., *The Ancient Military Writers*, “The Classical Journal” 1933, vol. 28, issue 9, pp. 657–669.
- Syvänne I., *The Age of Hippotaxotai. Art of War in Roman Military Revival and Disaster (491–636)*, Tampere 2004.
- Treadgold W., *Byzantium and its Army 284–1081*, Stanford 1995.
- Wojnowski M., *Religia a wojskowość bizantyjska w świetle traktatów wojskowych IX–XI wieku*, “Przegląd Historyczny” 2009, t. 100.2, pp. 189–205.
- Καρδαράς Γ., *Το σχήμα των Αβάρων στο Στρατηγικόν του Μαυρικίου. Μια κριτική προσέγγιση*, “Βυζαντινός δομος” 2007–2008, t. 16, pp. 151–167.
- Кучма В. В., *Византийские военные трактаты VI–X вв. как исторический источник*, “Византийский временник” 1979, pp. 49–75.