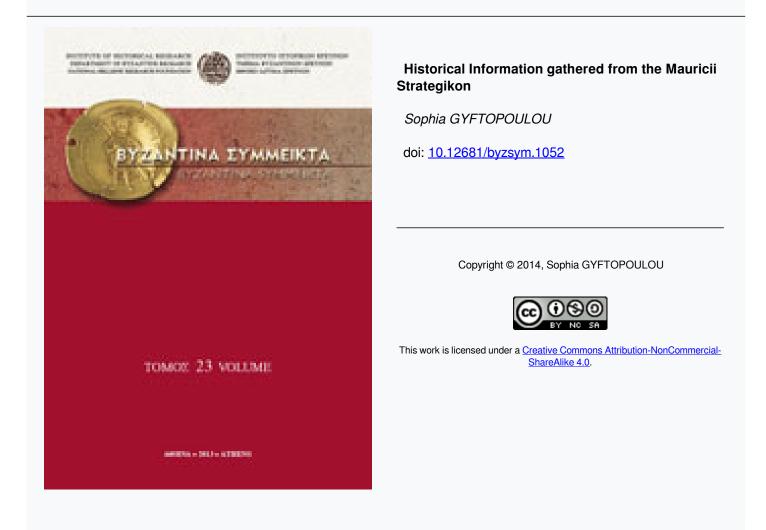




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HISTORICAL INFORMATION GATHERED FROM MAURICII STRATEGICON

This paper arose from the study of the military treatise of the late 6th c., which aims to translate the text into Modern Greek (forthcoming, followed by a commentary). The editions of the *Strategicon* by Mihăescu and by Dennis¹, provided the excellent background for the presentation of the military treatise to contemporary audiences in Greece. Additionally, the relevant titles of Mihăescu, Dennis and Rance, plus the secondary bibliography dealing with Byzantine military history of Late Antiquity, served as a special guide for the commentary. In this paper some of the comments are discussed in detail.

a. Alternative Reading

Σχολή (schola palatina) instead of σχολή (σχολή/ σχόλη i.e. spare time)

The Greek word $\sigma \chi o \lambda \hat{\eta}$ appears in the manuscripts of the *Strategicon* of Maurice twice in singular, I.6,6 (CFHB 17, 92); VII.A.4,2 (CFHB 17, 232), and once in plural, I.8,23 (CFHB 17, 100). Evidently, in accordance with the military terminology of the late 6th c., the meaning of the word $\sigma \chi o \lambda \hat{\eta}$ in the latter case is that of the military unit², i.e. $\sigma \chi o \lambda \hat{\eta}$ or $\tau \dot{\alpha} \gamma \mu \alpha$: ...

2. See A. A. M. JONES, The Later Roman Empire 284-602, v. 1-2, Oxford 1964 (Oxford 1990), 1.54, I.613-614; J. F. HALDON, Byzantine Praetorians: an Administrative, Institutional and Social Survey of the Opsikion and Tagmata, c. 500-900 [Ποικίλα Βυζαντινά 3], Bonn

^{1.} Das Strategikon des Maurikios, ed. G.T. DENNIS - trans. E. GAMILLSCHEG [CFHB 17], Wien 1981, hereafter CFHB 17; Mauricii Strategicon: Arta Militarâ, ed. H. MIHĂESCU [Scriptores Byzantini 6], Bucharest 1970, hereafter SB 6. The translation into Modern Greek was completed a few years ago, at a time that the study of Ph. Rance was not available (*The Roman Art of War in Late Antiquity: The Strategicon of the Emperor Maurice. A Translation with Introduction and Commentary*, trans. Ph. RANCE [Birmingham Byzantine and Ottoman Monographs 11], London 2006).

σωφρονίζεσθαι και ούλτίμους γίνεσθαι τῶν ἀρχομένων ὑπ' αὐτῶν ἤτοι $\tau \tilde{\omega} v \sigma \chi o \lambda \tilde{\omega} v \epsilon v \alpha \tilde{i} \zeta \alpha v \alpha \phi \epsilon \rho o v \tau \alpha i$ (... to be punished and to be reduced to the lower rank inside the schole in which they are registered). Gamillscheg (17, 101) by translating the original $\sigma \chi o \lambda \tilde{\omega} v$ into Truppenkörper does not convey the term $\sigma_{\chi o \lambda \eta}$, of which the use of the pure form might render to this passage a certain official (military) origin. The entry of the exact word $\sigma_{\chi o \lambda \dot{\eta}}$ occurred either because it was formally copied from a specific manuscript or accidentally because the oral speech was recorded at this point. In any case the interpretation of the I.8,24 is not affected at all³. The singular form of the word $\sigma \chi o \lambda \dot{\eta}$ appears at first as a military regulation to be taught to both soldiers and junior officers, I.6,6 (CFHB 17, 92/ CFHB 17, 93: freien Zeit). It has been placed at the front of the sentence of the remarkable final part of the first book that includes three chapters I.6; I.7; I.8; (CFHB 17, 92-100). The word in singular appears once again in relation to the moral encouragement of soldiers which had to be exercised by the officers or the candatores, i.e. the military orators, VII.A.4,2 (CFHB 17, 232/ CFHB 17, 233: während der Ruhe). In both cases the editors of the Strategicon, Mihăescu (SB 6, 62; 168) and Dennis (CFHB 17, 92; 232), interpret "spare time", given the undisputed meaning of the Greek word σχολή⁴.

In VII.A.4,2 (CFHB 17, 232), the phrase comes as a part of a small chapter of eight verses, which is standing in a subdivision of the treatise with plenty of different unofficial instructions, applicable to everyday life inside the camp⁵. In fact this is the end of a distinguished matter not

4. Meaning: Sudae Lexicon, ed. A. ADLER, v. I-IV, Leipzig 1928-32, (Stuttgart 1971), IV.492: n. 7066 σχολη ή εὐκαιρία; Etymology: D. DEMETRAKOS, Μέγα λεξικον ὅλης τῆς ἑλληνικῆς γλώσσης, Athens 1949-1950, 7066: σχόλη/σκόλη/σχολη [scholē (school)> a-scholia (occupation)> schole (spare time)].

5. VII.A. Περί στρατηγίας. Ποίων δεῖ \varkappa εφαλαίων φροντίσαι τὸν στρατηγὸν πρὸ τοῦ \varkappa αιροῦ τοῦ πολέμου. (*Maurice's Strategikon*, trans. DENNIS, 64: "Strategy. The Points which the General must consider").

^{1984, 119;} *ODB*, v. 3 entry *Scholae Palatinae* (A. KAZHDAN). The Late Roman elite units named *scholae palatinae* had been founded in order to serve the emperor as his personal guard; on *scholae palatinae* see R. I. FRANK, *Scholae Palatinae*, Rome 1969.

^{3.} See also *Maurice's Strategikon: Handbook of Byzantine military strategy*, trans. G. T. DENNIS, Philadelphia 1984, 20: ("...to be punished and to be reduced to the lower rank inside their unit or the *schola* in which they are registered").

discussed by the Strategicon, but several handbooks are devoted to it at the time, that actually perform a very special literature, called the *rhetorica militaris*⁶. The text reads as follows: $X \rho \dot{\eta} \, \epsilon \pi \dot{\eta} \, \sigma \chi \rho \lambda \tilde{\eta} \varsigma \, \sigma \nu \nu \alpha \gamma \epsilon \nu \kappa \alpha \tau \dot{\alpha} \, \mu \epsilon \rho \eta \, \dot{\eta}$ μοίρας τὸν στρατὸν ... καὶ διαλέγεσθαι τὰ εἰκότα καὶ προθυμοποιεῖσθαι .../ CFHB 17, 233: Während der Ruhe soll man das Heer nach Divisionen oder Regimenten ... ihnen das Passende sagen und sie anfeuern ... ("At some convenient time the troops should be assembled by meros or moira... Suitable speeches should be given to encourage them..."7) and therefore we learn that the officers had to take advantage of addressing the soldiers during their spare time, in order to polish their warrior spirit. The process of the encouragement of the army, presented by the author of the Strategicon in VII.A.4,2-8 (CFHB 17, 232, 234), could well be connected with the "spare time" of soldiers. The officers of higher or even middle rank, who had to supervise or simply watch any activity of the soldiers, were aware of the proper time to assemble the army and provide the men with some extra enthusiasm or at least to confirm it. Beyond any doubt, the factor that ordered every special treatment of military morale should have been certain particular situations plus all normal occasions (like march). As far as strengthening of the morale of the soldiers is concerned, it is worthwhile to recall that at that time, a very common practice was the attempt to enforce the men to sing or to listen to military songs and heroic stories, told by the

candatores habitually during the march⁸. In fact, the abstract in discussion relates to this very habit. The formal speech of the general that, according to the Roman tradition, used to take place before the battle, plus various, conventional, ruses also served to hearten the army⁹. Certain clichés are inaudibly cited within the *Strategicon*¹⁰.

^{6.} H. HUNGER, Die hochsprachliche Profane Literatur der Byzantiner, v.1-2, München 1978, v. 2, 328 [=Βυζαντινὴ Λογοτεχνία: ἡ λόγια κοσμικὴ γραμματεία τῶν Βυζαντινῶν, v. 1-3, Athens 2005, v.3 ("Πολεμική Τέχνη"), 155-182, trans. T. G. KOLIAS, Athens 2005, 165 and n. 25.

^{7.} Maurice's Strategikon, trans. DENNIS, 66.

^{8.} A routine of German origin, which became extremely popular inside the Roman army, see J. F. VERBRUGGEN, *The Art of Warfare in Western Europe during the Middle Ages*, London 1997, 88-89.

^{9.} On the rhetorical devices used by the Byzantine generals see Hunger, Hochsprachliche Literatur 2, 328 [=Βυζαντινὴ Λογοτεχνία 3, 165].

^{10.} VIII.A,47-48; 49-50; VIII.B,83-84; X.4, (CFHB 17, 270; 272; 284) [transmission

In contrast, the issue of the transmission of military regulations to the army, i.e. the case of the first mentioning of the word $\sigma_{\chi 0\lambda \eta}$, I.6,6 (CFHB 17, 92), could not have been an informal action. It has already been mentioned that this is the case of the introduction of a rather big part of the first book and not a simple entry of a piece of information. But above all, the *Strategicon* is unique source conveying the legal system of the camp in Byzantine military history, according to which the army was prepared to obey certain principles beyond drill commands. It is therefore quite important to establish an accurate interpretation. The full quotation forms the introductory paragraph of three relevant chapters, where the detailed rules plus the penalties could all be found. These are chapter nr. 6 comprising 41 verses containing 10 accurate rules for the interest of the soldiers (CFHB 17, 92, 94, 96), chapter nr. 7 comprising 19 verses containing four rules particularly for the officers (CFHB 17, 96, 98) and chapter nr. 8 comprising 33 verses (CFHB 17, 98, 100) which includes five rules for the concern of the entire army at war, I.6,3-6 (CFHB 17, 92). The text reads as follows: Μετά τὸ ὀρδινευθῆναι καὶ γενέσθαι τὰ κοντουβέρνια δεῖ συναγαγεῖν τὸ τάγμα κατὰ δεκαρχίαν, καὶ εἰ μὲν ἐπιγιγνώσκουσιν οἱ ἐν αὐτῶ τὰ διὰ τοῦ νόμου μανδάτα τῆς κοθοσιώσεως, ἐπεί τοί γε ἐγγράφως ἐπὶ σχολῆς διὰ τοῦ ἰδικοῦ ἄρχοντος εἰπεῖν ταῦτα./ CFHB 17, 93: "Nach der Gliederung und nach der Bildung der Gruppen muss man die Schwadron nach Gruppen versammeln. Und wenn die Soldaten in der Schwadron die gesetzlichen Vorschriften über die Disziplin kennen, (ist es gut), andererseits soll man ihnen in der freien Zeit schriftlich durch den eigenen Kommandanten folgendes mitteilen"; according to the current interpretation the meaning is the following: When the troops have been organized and the squads formed, the tagma should assemble by decarchies. It is well if the men are already familiar with the regulations about military crimes set down in the laws. Otherwise the commanding officer should read out of the written copy during their spare time¹¹.

of some false announcement of supposedly victory of the fellow units; concealment of the unpleasant news from the army; heartening pusillanimous soldiers via tricks]; X.4,14 (CFHB 17, 348) [formal, encouraging speech the day before the battle]. On the psychology of the army at war compare C. G. KARAPLI, Katevóδωσις στρατοῦ, ἡ ὀργάνωση καὶ ἡ ψυχολογικὴ προετοιμασία τοῦ βυζαντινοῦ στρατοῦ πρὶν ἀπὸ τὸν πόλεμο (610-1081), Athens 2010.

^{11.} Maurice's Strategikon, trans. DENNIS, 17-18: "When the troops have been organized and the squads formed, the tagma should assemble by decarchies. It is well if the men are

The testified delivery of the military regulation simultaneously to both soldiers, chapter nr. 6 and officers, chapter nr. 7, constitutes an important piece of information. Then only the literate senior officers could have been responsible for the transmission, i.e. at least the leaders of the $\mu \epsilon \rho \sigma_{\zeta}$, the force of the 1000 men, because, according to the *Strategicon* I.4,16-17 (CFHB 17, 88) those *mērarchae* were supposed $\epsilon i \delta \delta \tau \alpha_{\zeta}$, $\epsilon i \delta \nu \nu \alpha \tau \delta \nu$, $\varkappa \alpha i \gamma \rho \dot{\alpha} \mu \mu \alpha \tau \alpha$ (ought to be capable to read and write, if possible). Apparently the officers of even higher rank should had been educated as well, but as far as the recruiting of others is concerned, this factor is not an issue at all in the chapter that concerns the arrangement of the military force. However the accomplishment of certain tasks depended totally on literate officers, like the duties of the *mandatores* (heralds) who should had been acquainted with Greek, Latin and Persian, according to XII.B.7,3-4 (CFHB 17, 424), and thus the number of the highly educated officers should had been adequate within the army of the late 6th c.¹².

As far as the rank of the $(\varepsilon)i\delta(\varkappa)\delta\zeta$ $d\phi(\omega)v$ (the special officer/CFHB 17, 93: eigenen Kommandanten) is concerned, i.e. the officer who had to read the *mandatum* from the script, a certain penalty is worthy of attention. I.6,29-31 (CFHB 17, 94 rule nr. 8), applied to the commander of 10, the *decarch*, who had not attended to the duty of conveying the military law to his subordinates: $Ei \tau \iota \zeta \, \alpha \varkappa o \dot{\upsilon} \sigma \alpha \zeta \, \tau \dot{\alpha} \, \mu \alpha \nu \delta \dot{\alpha} \tau \alpha \, \bar{\upsilon} \, \delta \varepsilon \varkappa \dot{\alpha} \rho \chi o \upsilon \, \mu \dot{\eta}$ φυλάξη, σωφρονιζέσθω εί δὲ ἀγνοῶν τὰ μανδάτα πταίση, ὁ δεκάρχης σωφρονιζέσθω, ἐπειδὴ οὐ προεῖπεν αὐτῷ ("If anyone after hearing the orders of his *decarch* does not carry them out, he shall be punished. But if he does not do so out the ignorance of the orders, the *decarch* should be punished for not having informed him beforehand")¹³. This rule might apply to the orders on the battlefield. However it might well apply also to the duty of enforcing the soldiers to participate in the process of the formal reading. Any further involvement of the decarch in the transmission of military law should be considered as totally improbable, unless one accepts that every *decarch* was literate and therefore capable of reading from the

already familiar with the regulations about military crimes set down in the laws. Otherwise the commanding officer should read out of the written copy".

^{12.} S. Gyftopoulou, Το 'Target Group' του Στρατηγικού του Μαυρικίου και η ταυτότητα του συντάκτη, *Βυζαντινός Δόμος* 17 (2010), 341-360, esp. 344-345.

^{13.} Maurice's Strategikon, trans. DENNIS, 18.

script, plus having full access to the script, in other words owning a copy for personal use. The *decarch*, an archon according to VII.B.11,37 (CFHB 17, 254), is not mentioned among the officers who were given written copies with military instructions, i.e. in VII.B.16, 3-5 (CFHB 17, 260); VII.B.17,1-3 (CFHB 17, 262).

According to the routine described in I.6,3-6 (CFHB 17, 92) the decarch had to ask the men of the squad if they were aware of the rules or not and then, under his supervision, the veterans were dismissed; but everybody else had to be present and to listen to the special document, read by an authorized military officer to each unit ($\tau \dot{\alpha} \gamma \mu \alpha$ or $\sigma \gamma \alpha \lambda \dot{\eta}$) to all the squads of the unit (the groups of ten assembled for the occasion, i.e. the men and the officers of every low rank). This action had to take place immediately after the formation of the military force. It is difficult to assume that the actual reading took place during the spare time of the soldiers, when every military man involved was available. We should admit that the report of the defined process might well be justified, on condition that the transmission of the military law to the army had been a procedure of an administrative nature. Τὰ μανδάτα περì καθοσιώσεως, I.6,1-2 (CFHB 17, 92), (The mandates related to high treason) were not to be read occasionally. Nor could the literate high officer wait for the convenient moment in order to transmit the military law to the army force. Since the infantrymen had to assemble at a specified day in order to listen to the military law, according to XII.II.10,43 (CFHB 17, 430), the cavalry probably used to fulfill this obligation as well. Remarkably, no process is mentioned at all with regard to the fundamental vet not ritual, encouragement of the soldiers during their $\sigma \chi o \lambda \eta$ (spare time), in chapter VII.A, 1-3 (CFHB 17, 226).

Given the scholarly accuracy of the alternative reading $\Sigma \chi o \lambda \eta / tagma$ (= unit) instead of $\sigma \chi o \lambda \eta / \sigma \chi o \lambda \eta$ (= spare time), we should consent to the following interpretation of the introductory sentence of the *Strategicon* I.6,3-6 (CFHB 17, 92): Immediately after the troops have being organized and the squads formed, the tagma should assemble by *decarchies* and if the men (inside it) are aware of the offences against military law, it is fine; otherwise the special archon of each *schola* should tell them out of the writ. It has been suggested that the *mandatum*, in other words the short constitution, of the *scholae palatinae* could had served as the prototype for the author of the *Strategicon*, for the composition of certain chapters of the first book,

the ones with the regulation and the penalties¹⁴. This hypothesis should be connected with the fact that the *scholae* are documented twice in the first subdivision of the treatise, the $Ei\sigma\alpha\gamma\omega\gamma\dot{\eta}$ (Introduction), I.6,6:CFHB 17, 92; I.8,25: CFHB 17, 100.

The classic enemies of every Army: Starvation (limos: famine) and Contagion (loimos: epidemic)

All four sections of the twelfth book of the military treatise indubitably relate to the field forces¹⁵. The issues concerning the infantry are documented in XII.B within a rather swift presentation. Part B actually follows A, the one concerning the "convex" army force at the battlefield, and thus constitutes an absolutely useful manual for the interest of the cavalry as well. The overview of the infantry, which is discussed in a total of 27 chapters compared with the 108 chapters that are addressed to the cavalry, does not prevent the author of the *Strategicon* from communicating an authentic feature of the *peditum* of the late 6th c.

Firm instructions concerning the foundations of the camps of the infantry are presented by way of XII.B.22 (CFHB 17, 472-480). They relate to the conditions that were considered to be crucial for the effectiveness of the potential military camp and therefore they did draw attention: $\Pi\omega\varsigma \,\delta\epsilon\tilde{\epsilon}$ $\tau\dot{\alpha} \,\,\check{\alpha}\pi\lambda\eta\varkappa\tau\alpha \,\,\gamma(\imath\varepsilon\sigma\theta\alpha i\,\,\check{\eta}\tau o i\,\,\varphi o\sigma\sigma\dot{\alpha}\tau\alpha}$ ("Setting up Fortified Camps")¹⁶. A certain guideline concerning the setting up of camps acquaints us with special information, XII.B, 22.61 (CFHB 17, 476): $\mu\dot{\eta} \,\,\chi\rho\delta'\nu\nu \,\,\pio\lambda\dot{\nu}\,\,\dot{\epsilon}\nu\deltai\alpha\tau\rho(\beta\epsilon\iota\nu \,\,\dot{\epsilon}\nu\,\,\dot{\epsilon}\nu\,\,\dot{\epsilon}\nu\,\,\dot{\epsilon}\chi\omega\rho(\omega,\,\epsilon\dot{\epsilon}\,\,\mu\dot{\eta}\pi\omega\,\,\pi\epsilon\rho(\,\,\tau\epsilon\,\,\dot{\alpha}\epsilon\rho\alpha\varsigma\,\,\varkappa\alpha\,\,\dot{\tau}\alpha\,\,\dot{\epsilon}\pi\iota\tau\dot{\eta}\delta\epsilon\iota\alpha\,\,\chi\rho\epsilon\iota\omega\delta\epsilon\varsigma\,\,\dot{\epsilon}\sigma\tau\iota\nu,\,\delta\iota\dot{\alpha}$ $\tau\dot{o}\,\,\mu\dot{\eta}\,\,\lambda o\iota\mu\omega\tau\tau\epsilon\iota\nu\,\,\tau\dot{o}\nu\,\,\sigma\tau\rho\alpha\tau\dot{o}\nu$ ("healthy, clean places should be chosen for camps, and we should not stay too long in one spot. Otherwise, disease can spread among the troops")¹⁷. The same memorandum is repeated in the form of a $\gamma\nu\omega\mu\iota\varkappa\dot{o}\nu$ (saying), which is indubitably connected with the choice of the campground, VIII.B,206-207 (CFHB 17, 292 <nr. 75>): $\varkappa\alpha\tau\alpha\nuo\epsilon(\tau\omega$ $\tau\dot{o}\,\,\chi\omega\rho(\omega\nu\,\,\dot{o}\,\,\tau\epsilon\mu\gamma\dot{o}\varsigma,\,\epsilon\dot{e}\,\,\dot{\nu}\gamma\iota\nu\dot{o}\nu\,\,\tau\epsilon\,\,\varkappa\dot{a}\,\,\sigma\omega\tau\dot{\eta}\rho\iota\nu,\,\dot{\eta}\,\,\nuo\sigma\epsilon\rho\dot{o}\nu,\,\,\varkappa\dot{a}\,\,\tauo\varsigma$

^{14.} GYFTOPOULOU, Target Group, 346-347.

^{15.} *Maurice's Strategikon*, trans. DENNIS, 127; 137; 164; 165: XII.A "Mixed Order of Battle"; XII.B "Infantry Formations"; XII.C "Diagram of a Fortified Camp"; XII.D. Hunting Wild Animals without Serious Injury or Accident".

¹⁶ Maurice's Strategikon, trans. DENNIS, 158.

^{17.} Maurice's Strategikon, trans. DENNIS, 160.

οἰκείοις πολέμιον ... ("the general should know the country well, whether it is healthy and safe or unhealthy and thus hostile towards his troops ...")¹⁸.

In the ninth chapter of the first book, a common case of the assembly of the army inside a temporary camp occurs, in which the same principle of hygiene is detected. It is documented among certain fundamental regulations referring to the march of the army throughout the Roman dominion. Mihăescu read, I.9,8 (SB 6, 68): $\kappa \alpha i \mu \eta \sigma \nu \nu \alpha \gamma \epsilon \nu \epsilon \nu i \tau \delta \pi \omega \tau \delta \nu \pi \alpha \tau \tau \alpha$ στρατὸν διά τε τὸ μὴ λ [ο]ιμώττειν αὐτὸν εὐχερῶς, μηδὲ εὐσύνοπτον τοῖς έχθροῖς γίγνεσθαι, μηδὲ εἰς βοσκὰς στενοῦσθαι (the whole army should not be brought together in one place because disease could easily spread among the men, the army's size could be easily estimated by the enemy, and fodder might be hard to obtain). Mihăescu has provided the apparatus criticus with the relevant clause from Sylloge Tacticorum [SB 6, 68: the note on verse nr. 9 includes "Vari: $\lambda o \mu \lambda \lambda \alpha \sigma \sigma \nu \zeta \gamma (\nu \varepsilon \sigma \theta \alpha \lambda)$ " (contagious diseases are produced)], which in fact clarifies the insight of the editor at this point. Dennis, on the other hand, chose to convey (I.9,13-15: CFHB 17, 102): καὶ μὴ συνάγειν ἐν ἑνὶ τόπω τὸν πάντα στρατὸν διά τε τὸ μὴ λιμώττειν αὐτὸν εὐχερῶς, μηδὲ εὐσύνοπτον τοῖς ἐχθροῖς γίγνεσθαι, μηδὲ είς βοσκάς στενοῦσθαι ("the whole army should not be brought together in one place because the men might find themselves quickly starving, the army's size... etc)¹⁹.

But the *Strategicon* itself, as has already become evident, permits only one lucid interpretation, as far as the assembly of the army in the same camp is concerned: the gathering of men together is always, i.e. throughout the total text, combined with the peril of disease, which normally sprood in camps in such occasions. In several historical events the epidemic crises inside military camps were caused by the shortage of the water supplies or the contamination of the fresh water²⁰, a possibility which is recorded by the author of the *Strategicon*, in X.4,45; 50; XII.B.22,71-73 (CFHB 17, 350; 476); additionally the large number of men and animals in the same place could obviously favor insects, bacteria, viruses and the consequent diffusion

^{18.} Maurice's Strategikon, trans. DENNIS, 89.

^{19.} Maurice's Strategikon, trans. DENNIS, 21.

^{20.} D. Ch. STATHAKOPOULOS, Famine and Pestilence in the Late Roman and early Byzantine Empire [Birmingham Byzantine and Ottoman Monographs 9], Ashgate 2004, 97-99; 164.

of any infectious disease²¹, the existing conditions of sanitation inside the camp notwithstanding. Furthermore, the reading of Mihăescu coincides with our (modern) conception of the gathering of many people, something certainly to be avoided during an epidemic in order to be protected. The conclusion should be that, apparently, a usual *lapsus calami* is illustrated at this point, and therefore the reading of Mihăescu, I.9,8 (SB 6, 68) is the proper one. Precisely, the word in discussion was written down incorrectly in one manuscript, which actually represents the most reliable manuscript of the treatise: $\lambda \mu \delta \tau \tau \epsilon \nu (limottein)$, instead of $\lambda o \mu \omega \delta \tau \tau \epsilon \nu (loimottein < loimos: contagious disease) or <math>\lambda \mu \omega \delta \tau \tau \epsilon \nu (limottein < limos: starvation)$. The use of "o" instead of " ω " in this part of the verb is the grammatical rule that has been broken, what in fact unveils the *lapsus calami*, i.e. the transfer of the letter "o" from the first syllable and the consequential replacement of the " ω " in the following syllable. Then again the right form $\lambda o \mu \omega \delta \tau \epsilon \nu v$ has also entered into a reliable group of manuscripts, in addition to the corrupted

Poor nutrition could also result in weakness and consequently disease²³, but this case is not presented within the *Strategicon*. The issue of famine is naturally documented within the military treatise, as it happened to be a serious threat against the wellbeing, even the survival, of both men and animals. Starvation is presented as a grave threat, a sort of weapon that was used directly against the population under siege, a fact reported in the tenth book of the *Srategicon*, concerning the topic of siege, and by means of $\gamma v \omega \mu i \varkappa \partial v \vee VIII.B, 10$; 76,77 (CFHB 17, 278 <nr. 4>; 282 <nr. 28>): $\ddot{\eta} \delta \delta \lambda o_{15} \ddot{\eta} \dot{\epsilon} \phi \delta \delta o_{15} \ddot{\eta} \lambda \mu \tilde{\phi} \tau \partial v \sigma \pi \delta \epsilon \mu (\omega v \delta v \alpha \mu v \mu \tilde{\alpha} \lambda \lambda o v \ddot{\eta} \tau o \tilde{i} \varsigma \delta \pi \lambda o_{15} \varkappa \alpha \tau \alpha \lambda v \sigma \epsilon \mu \omega \omega \varepsilon$ ("it is well to hurt the enemy by deceit, by raids, or by hunger"; and "the general achieves the most who tries to destroy

λιμόττειν 22.

^{21.} STATHAKOPOULOS, Famine 115; 121; 300. Compare R.D.K. PETERSON, Insects, Disease and Military History: The Napoleonic Campaigns and Historical Perception, American Entomologist 41.3 (1995), 147-161, concerning the diseases that resulted to the death of many soldiers of Napoleon after the defeat in Russia in 1812, during the retreat through Poland in extremely frosty conditions that favored the assembly of the men.

^{22.} See CFHB 17, 102 (the apparatus criticus for I.9,14): "14 $\lambda\mu\omega\tau\tau\epsilon\nu$ VNPLp: $\lambda\mu\sigma\tau\epsilon\nu$ Alt".

^{23.} STATHAKOPOULOS, Famine 164; 275-276; 300.

the enemy's army more by hunger than by force of arms")²⁴. In the quotation discussed above, concerning the assembly of the army, famine is also mentioned in the context of camp management, relating though exclusively to military horses. At this point it should be underlined that the case of the difficulty of feeding the animals is presented in I.9,13-15 (CFHB 17, 102) as the third argument against the assembly of the total military force inside the same camp. In general the animals were to suffer severely if the servants were not capable of collecting enough grass to feed them, because of potential foe squads outside the camp. In such cases they became weak and the soldiers turned coward²⁵. The common occurence is also mentioned in IV.4,13-15 (CFHB 17, 212, 214) as well as in IX.3,11-15 (CFHB 17, 312).

The danger that an army force might face if deprivation of food ever arose does not appear anywhere in the treatise as a camp or a campaign topic. Indeed, providing for the soldiers of the imperial army is plainly presented to work out consistently, such as in I.2,86-91 (CFHB 17, 82). The author of the *Strategicon* assesses that weapons, clothing, and food formed one and the same category of the logistics in both the instructions just mentioned and the relevant $\gamma vo\mu u \varkappa \partial v$ (saying) VIII.B, 49-50 (CFHB 17, 280 <nr.19>). It is clear to the author of the military treatise that the men were to be fed from the supplies that had been collected throughout the proximate provinces, with the support of imperial services, and had been carried for them by the transport means of each military unit or/and available imperial means²⁶. Finally, a limited amount was captured during the military operation of pillaging. Although the instruction to ensure that the water resource should be accessible, no matter the circumstance, is given to the general in a plenty of clauses²⁷, field rationing does not appear to be considered

26. A single citation in IX.3,12 (CFHB 17, 312): $\delta i \alpha \beta \alpha \sigma \tau \alpha \gamma \tilde{\eta} \varsigma \delta \eta \mu o \sigma (\alpha \varsigma (by public means of carrying) which refers specifically to the invaded foreign land.$

^{24.} Maurice's Strategikon, trans. DENNIS, 83; 85.

^{25.} The relevant passage in the chapter concerning the collection of grass goes as follow, VII.B.10,18-24 (CFHB 17, 248-250): ... $o\dot{v}\delta\epsilon\dot{i}\varsigma \ \theta \alpha \varrho \varepsilon \tilde{i} \ \dot{\xi} \dot{\xi} \dot{\xi} \rho \chi \varepsilon \sigma \theta \alpha \iota \ \epsilon\dot{i}\varsigma \ \sigma \upsilon \lambda \lambda \sigma \gamma \eta \nu \ \chi \dot{o} \rho \tau \upsilon \ \varkappa \alpha \dot{i}$ $oi \ \tilde{i} \pi \pi \sigma \iota \lambda \iota \mu \dot{\omega} \tau \tau \sigma \tau \varepsilon \dot{\sigma} \dot{\sigma} \tau \rho \alpha \tau \iota \dot{\omega} \tau \alpha \iota \varsigma \ \pi \alpha \rho \dot{\xi} \rho \upsilon \sigma \iota \dots$ (... nobody dares to go out to gather fodder, so the starving *equi* result to soldiers without spirit).

equally fragile. Regarding to the extensive details on the management of the water supplies, X.4,41 -62 (CFHB 17, 348, 350), the mention of access to field rationing should be contrasted; this appears to become breakable only twice: in IX.3,11-15 (CFHB 17, 312) plus X.4,9 (CFHB 17, 346), applying to the invaded foreign land, and in X.2.31-34 (CFHB 17, 342), concerning the army force under siege.

Under Maurice (582-602), the most likely food supplies during war used to be within the competence of the imperial management, along with the armoury and the military livestock, that is to say far beyond the official concern of the particular military authorities during any specific campaign²⁸. According to the *Strategicon* the process of feeding the men runs on a fundamental schedule, after which the general had barely to guarantee the final course, i.e. to put the supplies into action in order to serve the well being of the units under his command. On balance, food was at hand in every army corps, for the military bases inside and outside the empire were definitely specified. Even the impermanent camps that served particular battle were specified²⁹. According to the penalty nr. 19 of the military law

28. This exact practice used to be the norm during Late Antiquity, see JONES, Later Roman Empire, 629-630; compare STATHAKOPOULOS, Famine, 197; during the 6th c., even further institutions, non military the most likely, concerning the provisions for the army at war were established and, as far as Balkans is concerned, they probably functioned during the first decades of the 7th c. see A. E. GKOUTZIOUKOSTAS – X. M. MONIAROS, $H \pi \epsilon \rho_i \varphi \epsilon \rho \epsilon_i \alpha \varkappa \eta$ διοιχητιχή αναδιοργάνωση της βυζαντινής αυτοχρατορίας από τον Ιουστινιανό Α΄ (527-565): η περίπτωση της Quaestura Iustiniana Exercitus [EBE 22] Θεσσαλονίκη 2009, 194, 213-232; on the supposed military nature of the latter see J. WIEWIOROWSKI, Quaestor Iustinianus Exercitus - A Late Military Commander?, Eos. Commentariis Societatis Philologae Polonorum 93.2. (2006), 317-340. See also E. RAGIA, The Geography of the Provincial Administration of the Byzantine Empire (ca 600-1200): I.1. The Apothekai of Asia Minor (7th c. - 8th c.), ByzSym 19 (2009), 195-245, esp. 197-200 on the probable interconnection between the economic institution of the Warehouses and the catering of the army forces from ca the middle 7th c. onwards, and 203-225: on the geographical distribution of Warehouses across Asia Minor in view of martial operations as well; EADEM, The geography of the provincial administration of the Byzantine empire (ca 600-1200): I.2. Apothekai of the Balkans and the islands of the Aegean Sea (7th - 8th c.), BSl 69 (2011), 86-113, esp. 87-113: establishment - distribution of Warehouses in Balkans and Aegean Sea.

29. SeeK. ZUCKERMAN, The Early Byzantine Strongholds in Easter Pontos, TM11(1991), 527-533, esp. 528, 531. On a later era, 10th c., military bases are documented at the northern coastline of the Black See, across Asia Minor (the famous " $\beta \alpha \sigma i \lambda i \varkappa \alpha \tilde{\alpha} \pi \lambda \eta \varkappa \tau \alpha$ ") and at specific islands of the Aegean See, see G. L. HUXLEY, Topics in Byzantine Historical Geography, *Proceedings of the* at war, lying in I.8,26-30 (CFHB 17, 100), units that faced dreadful danger ought to pursue refuge exclusively in those particular camps and they were not allowed to seek safeness elsewhere, where supplies or protection were not given. Occasionally in some situation the generals did not really have the choice to enter an actual camp³⁰. But apparently the official military theory could never allow the issue of famine to become a potential threat to the imperial army.

Skoulkatores (Patrols) instead of Mandatores (Heralds)

According to the VII.B.16,20 (CFHB 17, 260) the mandatores, i.e. the $\dot{\alpha}\gamma\gamma\epsilon\lambda\iota\sigma\varphi\dot{\sigma}\rho\iota$ (heralds), perform the duty of scouting: $X\rho\eta$ $\dot{\epsilon}v$ $\kappa\alpha\iota\rho\phi$ $\pi\alpha\rho\alpha\tau\dot{\alpha}\xi\epsilon\omega\varsigma$ $\delta\iota\dot{\alpha}$ $\mu\alpha\nu\delta\alpha\tau\dot{\sigma}\rho\omega\nu$ $\pi\rho\sigma\epsilon\rho\epsilon\nu\nu\alpha\nu$ $\tau\sigma\dot{\nu}\varsigma$ $\tau\eta\varsigma$ $\sigma\nu\mu\beta\sigma\lambda\eta\varsigma$ $\tau\dot{\sigma}\sigma\nu\varsigma$, $\tau\sigma\nu\tau\dot{\epsilon}\sigma\tau\iota\nu$ $\tau\sigma\dot{\nu}\varsigma$ $\mu\dot{\epsilon}\sigma\sigma\nu$ $\tau\eta\varsigma$ $\dot{\ell}\delta(\alpha\varsigma$ $\kappa\alpha\dot{\iota}$ $\tau\omega\nu$ $\dot{\epsilon}\chi\theta\rho\omega\nu$,... ("when the lines are being formed, heralds (spies) should scout the area where the battle is expected, that is, the ground between our lines and the enemy")³¹. Mihăescu as well in VII.B.16,15 (SB 6, 190) has written down $\mu\alpha\nu\delta\dot{\alpha}\tau\sigma\rho\epsilon\varsigma$ (heralds). The previous sentence, which is not included in the text of Dennis, clearly refers to patrols: VII.B.16,12-14 (SB 6, 190) $\omega\sigma\tau\epsilon$ $\dot{\epsilon}\nu$ $\kappa\alpha\iota\rho\phi$ $\mu\dot{\alpha}\chi\eta\varsigma$, $\dot{\omega}\varsigma$ $\dot{\sigma}$ $\tau\dot{\sigma}\pi\sigma\varsigma$ $\dot{\alpha}\pi\alpha\iota\tau\epsilon$, $\dot{\epsilon}\nu\theta\alpha$ $\tau\dot{\alpha}\sigma\sigma\epsilon\tau\alpha\iota$, $\sigma\upsilon\tau\omega\varsigma$ $\kappa\alpha\dot{\iota}$ $\tau\dot{\alpha}\sigma$ $\sigma\nu\dot{\iota}\lambda\kappa\alpha\varsigma$ $\dot{\epsilon}\chi\epsilon\iota\nu$ $\dot{\eta}$ $\dot{\alpha}\pi\dot{\alpha}$ $\delta\dot{\nu}o$ $\mu\iota\lambda\dot{\iota}\omega\nu$ (at the time of the conflict the scouts must perform according to the need of the area or from the distance of two miles...), what in fact is immediately repeated below, i.e. in the quotation discussed at this point.

The *scoulcator* (the patrol) was associated routinely with the action of exploration, as it is confirmed in every other relevant passage of the *Strategicon*. The patrol, who was also called spy at that time, had to scout:

Royal Irish Academy. Section C: Archaeology, Celtic Studies, History, Linguistics, Literature v. 82C.4, (1982), 89-110, esp. 97 and n. 3, 99, 106. The reliable documents are: Constantine Porphyrogenitus, De Administrando Imperio, ed. Gy. MORAVCSIK – trans. R. J. H. JENKINS, [CFHB 1 = Dumbarton Oaks Texts 1], Washington D. C. 1967, 55-110 (ch. 45); Constantine Porphyrogenitus. Three Treatises on Imperial Military Expeditions, ed. J. F. HALDON, [CFHB 28], Wien 1990, 80 (ch. A.3-5); G.L. HUXLEY, (ed.), A Porphyrogenitan Portulan, GRBS 17 (1976), 295-300.

^{30.} Once the defeated Byzantine army "suffered cruel death because of famine and cold, because they spend the harsh winter in the mountains", see details in STATHAKOPOULOS, *Famine*, 300.

^{31.} *Maurice's Strategikon*, trans. DENNIS, 76; on mandator see *ODB*, v. 2. entry *mandator* (A. KAZHDAN).

I.3,36 (CFHB 17, 88): Σκουλκάτορες οἱ κατάσκοποι λέγονται (the spies are called patrols); VII.A.3,4 p. 232 διὰ κατασκόπων ἥτοι ἐκσπλορατόρων (by spies in other words patrols); VII.B.13,1-21 (CFHB 17, 256) περὶ σκούλκας ("reconnaissance")³², and XII.B.20,21-23 (CFHB 17, 460) ... προπορεύεσθαι...καὶ ἑκατέρωθεν [τῆς τάξεως] περιπατεῖν, ἵνα μὲν καὶ σκουλκεύουσιν (... walk in advance... and march outside of both the sides [of the unit] in order to explore). It should be preferable to read σκουλκατόρων instead of μανδατόρων at the VII.B.16,20 (CFHB 17, 260), as well, for, obviously, in such a situation the appropriate request ought to have been the performance of the patrol. In addition, this suggestion complies perfectly with the military protocol of the *Strategicon*, as far as the "reconnaissance" issue is concerned. But no manuscript permits such a treatment of the text³³.

The Question Title

The $\beta(\beta\lambda o\varsigma)$ (treatise) that embodies the $\sigma v\gamma \rho \alpha q \eta$ (composition) of certain functional military treatises known as the *Strategicon* of Maurice³⁴, consists of 138 chapters arranged in 12 $\lambda \delta \gamma o\iota$ (books) and eight different sections³⁵, by means of which three books are formed (VII.A and B, VIII.A and B and XII.A, B, C and D). Thirty of a total of 138 titles of the chapters of the original text of the *Strategicon* commence with the word $\pi \omega_{\varsigma}$ (how). In almost every chapter of the treatise such titles are initiated through a sentence that normally gives a strict answer to a direct question. In view of the fact that the absence of any proper introductory word is remarkable, the reader enjoys the syntax of the first sentence if a question mark closes the title, like in I.1,3-5 (CFHB 17, 74): the title is $\Pi \omega_{\varsigma} \delta \varepsilon \tilde{\iota} \gamma \nu \mu \nu \alpha \zeta \varepsilon \iota \tau \partial \nu \varkappa \alpha \theta' \varepsilon \nu \alpha \delta \tau \delta \rho \alpha \ldots$ (how to train each individual soldier ...)

^{32.} *Maurice's Strategikon*, trans. DENNIS, 75; On scoulcator see Ph. RANCE, The *Fulcum*, the Late Roman and Byzantine *Testudo*: the Germanization of Roman Infantry Tactics?, *GRBS* 44 (2004), 265-326, esp. 309 n. 88.

^{33.} See CFHB 17, 260 (the *apparatus criticus* for VII.B.16,20): all manuscripts convey $\mu\alpha\nu\delta\alpha\tau\delta\rho\omega\nu$ (heralds).

^{34. &}quot;Treatise" is the equivalent for *biblos*, cited in XI.4, 228 (CFHB 17, 338) and "composition" for $\sigma v\gamma\gamma\rho\alpha\varphi\dot{\eta}$, cited in Praef. ,15-16 = 56-57 (CFHB 17, 68).

^{35.} $\lambda\delta\gamma\rho\varsigma$ literally is the "speech", the "lecture," and in fact each $\lambda\delta\gamma\rho\varsigma$ corresponds to one minor treatise; $\mu\epsilon\rho\varsigma\varsigma$ is the common Greek term for "section"; the three books comprising the eight sections are marked with numbers but bear no title; the two last sections of the 12th book, contain one chapter each.

 $\pi \varepsilon \zeta \tilde{\eta}$... (To shoot on foot...). The peculiar syntax can also be found in the nine sentences below the titles which commence with the word "what"; so the titles in question represent one fourth of the titles of the treatise³⁶. However, in a few cases, an introductory sentence has indeed been added between the title and the presentation of the topic; but it merely preserves the order of certain action, such as in the first and the twelfth books³⁷. In a far fewer cases even a whole paragraph can be found, which communicates to the reader some military theory, as it happens in the ninth book³⁸.

According to SB 6 (ed. Mihǎescu) all these titles are pure direct questions and therefore the text below naturally commences without any introduction. The impression is certainly given that Mihǎescu read the *Strategicons* with the mind set of a military officer, as he had been one. The choice of Mihǎescu appears to be the literal interpretation (the direct question-title). According to CFHB 17 (ed. Dennis) indirect questions eventually title all these chapters of the *Strategicon*. The syntactical irregularity appears quite often in section B of the twelfth book. Similarly in certain cases in which the title begins with the word $\pi \epsilon \rho i$ (*on*), the introductory word of the first sentence does not appear in the text, even though it is required by the syntax; but normally the chapters below such titles are complete texts. The typical introductory word of the treatise for the situation, if the text comes immediately right to the point, is $\chi \rho \eta$ (thou must), which sometimes is also given for the "how" case³⁹. Eventually the choice of Dennis appears to be the academic proposal (the indirect question-title).

Dennis included only one question mark by taking into consideration the XII.A.7, what actually comes as a double titled chapter, presented through a special array. In this case the title given by the editor of the CFHB 17 comes in a parenthesis and the first sentence of the chapter is a direct question. According to the XII.A.7, 1-3 (CFHB 17, 408) the title is $T\alpha\xi\iota\varsigma\eta$

37. Such as in I.2,3 (CFHB 17, 76); I.4,3-6 (CFHB 17, 88); I.5,4 (CFHB 17, 90); I.6,3-6 (CFHB 17,92); XII.B.17,3-5 (CFHB 17, 450).

38. Such as in IX.3,1-10 (CFHB 17, 312); IX.5,1-42 (CFHB 17, 326-328).

39. Compare the tenth book, where the titles begins with "how" X.1-4; in certain chapters of the twelfth book the words $\tilde{\omega}\sigma\tau\epsilon$ (*thus*) and $\delta\tau\iota$ (*so*) have also entered the text as the initiatives for the "how case" XII.B.18-23.

^{36. &}quot;How": I.1,2,3,4,5,9; III.9; VI.5; IX.3,4; I.1,2,3,4; XII.2,3,4; XII.A.1; XII .B.1,3,8,9,11,12,13,17,18,19,20,21,22,23; XII.D; what: I.6,7; XII.B.1,5,610,14,16,23; what for: XII.B.16,9.

 $\lambda \epsilon \gamma o \mu \epsilon \nu n \mu \alpha \mu \pi i \sigma \zeta \delta \pi i \sigma \theta \alpha (<7.$ The Formation Called Convex>) and the first sentence is Πῶς δεῖ τὴν σύμμικτον τάξιν ἤγουν ἐπικάμπιον ὀπισθίαν γίνεσθαι καὶ κατὰ τί χρησίμη ἐστίν; (How should the mixed or convex formation be drawn up and for what is it useful?)⁴⁰. The original text that had been reproduced by the author of the Strategicon at this certain point could indeed be, according to the sharp commentary of Rance, an obscure abstract of Arrianus⁴¹. Consequently, the form of the title at this point, i.e. the direct question, might provide a link to the author's bibliography, to the specific military texts, which he studied, copied, or compiled. At length the Strategicon of Maurice is extremely useful for the education of the potential military man, whose obvious queries were presented and solved by the text. The handbook known as the "Problemata of Leo VI", a version of the Strategicon dated at the late 10th c., in which no reference to the Strategicon has been recorded⁴², is in fact the accurate reproduction of the military treatise of the late 6th c. in the form of questions and answers, sentence by sentence, a purposeful, didactic, presentation of the text.

In the end, it should be within the bounds of probability to suggest that the "direct question" in the place of the title of certain chapters of the *Strategicon*, could had been the appropriate Byzantine style to point to the actual use of former texts and thus to illustrate the systematic copy of an authorized bibliography if a compilation had taken place. On the other hand, the chapters of the treatise titled "on" are actually the abstracts where the military theory is fully presented by means of arguments, like short compositions among the itemized instructions of the military protocol. They might reflect the philological style pointing to the personal contribution of the writer⁴³.

43. Compare Syrianus Magister (= *Three Byzantine Military Treatises*, ed. G.T. DENNIS [CFHB 25], Washington, D. C., 1985, 1-141, text in 10-134): 14 out of 47 chapters are titled after indirect questions the 7, 11, 12, 18, 20, 28, 33-38, 45-46 and the text below is initiated by some proper introductory word, the most usual. On the contrary the text below titles commencing with "on" is quite often an answer to a direct question. On the dating of the military treatise in the 6th c. or far later see Ph. RANCE, The Date of the Military

^{40.} According to the SB 6, 303,1-2 this precise question is the unique title and no text has been printed above.

^{41.} RANCE, The Fulcum, 277.

^{42.} Leonis VI Sapientis Problemata, ed. A. DAIN, Paris 1935; HUNGER, Hochsprachliche Literatur, 2, 331 = Βυζαντινή Λογοτεχνία 3, 169; A. DAIN, Les stratégistes byzantines, TM 2 (1967), 317-390, esp. 354.

The hypothesis concerning the structure of the titles, as discussed above, could be supported by the eleventh book, XI (CFHB 17, 352) Περί τῶν ἑκάστου έθνους έθῶν τε καὶ τάξεων (On the mores and the tactics of every nation), which commences with a formal introduction, the $\pi \rho \delta \lambda \rho \gamma \rho \zeta$ (preamble) in XI,3-13 (CFHB 17, 352). The book was created by the author himself, who probably had access to official documents of the "foreign bureau" of that date⁴⁴. All four chapters of XI are titled after the indirect question initiated with the word "how" and they are presented in the form of an inclusive composition of ideas, where pieces of official information have been put together and, as far as the syntax is concerned, all required introductory words. Finally the title of the antiquated XII.D comes double XII.D, 60-62 (CFHB 17, 490): Περὶ κυνηγίων. (On hunting.). $\Pi \tilde{\omega} \zeta \delta \tilde{\epsilon} \tilde{\ell} \, \check{\alpha} \gamma \rho_i \alpha \, \check{\zeta} \tilde{\omega} \alpha \, \varkappa \upsilon \nu \eta \gamma \tilde{\epsilon} \tilde{\iota} \nu$... (How one ought to hunt wild animals...). The text below is properly composed with every initiative required; the introductory paragraph links to some military philosophy which recalls the ideas presented via the opening of the book "On Strategy", VII.A,1-53 esp. 4-12, 45-49 (CFHB 17, 228, 230).

b. Four Notes

Σαγιττόβολον (bowshot)

The word " $\sigma \alpha \gamma \iota \tau \tau \sigma \beta \delta \lambda o - \varsigma / - \nu$ " (bowshot) identifies the target range of the archer, in other words the distance that corresponded to the flight of his arrow, and it has been used as a common distance measure since ancient times. Dennis has surmised that the distance mentioned within the *Strategicon* was a "not accurate target range"⁴⁵, in spite of the fact that other scholars have come to specific conclusions about the length of the Byzantine bowshot.

The range of the mounted archer at the time of Maurice (582-602) corresponded to a distance of about 133 m according to Bivar⁴⁶, who discussed the Byzantine bowshot of the late 6th c. /early 7th c. comparatively,

Compendium of Syrianus Magister (formerly the Sixth Century Anonymus Byzantinus), *BZ* 100 (2007), 701-737.

^{44.} Therefore the eleventh book has performed the touchstone of the authorship of the treatise, see J. E. WITTA, *The Ethnika in Byzantine Military Treatises*, Minessota University, Phil.D. diss., 1977, Ann Arbor 1988, 17-20.

^{45.} Maurice's Strategikon, trans. DENNIS, 31 n. 3.

^{46.} A. D. H. BIVAR, Cavalry Equipment and Tactics on the Euphrates Frontier, *DOP* 26 (1972), 271-291, esp. 282 n. 42, 283.

by taking into account "textbooks dealing with Muslim techniques of archery". Mc Leod also suggested the same length, paying attention to a certain quotation from the Strategicon, mentioned in III.8,43-46 (CFHB 17, 170), in which numbers are available, but he pointed to the hypothetical nature of the abstract⁴⁷. The example has been cited in order for the available space between the lines of the cavalry to be calculated at the minimum. The distance measured in III.8,43-46 appears to be the appropriate distance between the mounted units, which was equal to one bowshot according, for example to II.4,9-10, (CFHB 17, 80); II.15,7 (CFHB 17, 132). Mc Leod however was suspicious of its accuracy: the 'hypothetical example' determines that the space required for each fully equipped horseman should be 1,50 m., i.e. the length of the horse, while a knight normally needs ca three times this space. Consequently it appears to be "an example of typical military mathematics"48. At the end of his commentary Mc Leod underlined the variation between the common ancient bowshot (ca 300 m) and the supposed Byzantine (133 m), if III.8,43-46 (CFHB 17, 170) is considered to be accurate⁴⁹. In addition he compared the Byzantine measurements to the average Arabic and Turkish bowshots, from 160 m to 190 m.⁵⁰.

A formal reference dated in the late 10th c., recorded in the military treatise of Leo VI, lead modern scholars to assume that the full bowshot at that date should correspond to a distance from 297 m to 337 m.⁵¹. The valuable citation that provides us with clear numbers, came to enlighten the measures used at that time, in order to match the different devices to each other, then to make one rule for the bowshot, no matter the device used. Precisely two akin measuring devices are supposed to identify $\tau \eta v$ $\sigma \psi \mu \varepsilon \tau \rho \sigma \tau \sigma \delta \sigma \lambda \eta v$ (the full measured target range of the archer),

^{47.} W. Mc LEOD, The range of ancient bow, *Phoenix. Revue de la Société canadienne des études classiques* 19.1 (1965), 1-14, esp. 11.

^{48.} The speculation of Mc Leod could perfectly also apply to IX.5,9-11 (CFHB 17, 326): estimation of the size of any far-off army force.

^{49.} Mc LEOD, The range, 11.

^{50.} IDEM, 13; 14: average Arabic = 169 m-187 m; average Turkish = 160 m-190 m.

^{51.} E. SCHILBACH, Byzantinische Metrologie [Handbuch d. Altertumswiss. XII/4,] München 1970, 42; T. G. KOLIAS, Byzantinische Waffen. Ein Beitrag zur byzantinischen Waffenkunde von den Anfängen bis zur lateinischen Eroberung [BV 17], Wien 1988, 220; Three Treatises, ed. HALDON, 170.

either the 156 $\partial \rho \gamma viai$ (fathoms) or the 170 - 180 simple fathoms⁵², which are compatible with each other after the proportion 1,08 - 1,15 simple fathom to be the equivalent for the (current) fathom. Mc Leod did not interpret the clause, for he could not provide an undisputable number for the length of the "Byzantine fathom"⁵³. This coincides with the proposals of modern scholars, as far as the length of the full bowshot is concerned, for Mc Leod compares the Byzantine full measured bowshot to the super effective Turkish bowshot, of 310 m.⁵⁴. The accurate distance of the two kinds of fathoms notwithstanding, the information pinpoints a correlation between them, giving one and only distance for the length of the (full) bowshot, i.e. ca 330 m, with the proviso that the generally accepted proportion is 1 fathom = 210,8 cm.

Then again, for the sake of the valuable Strategicon, it is noteworthy that the measurements required for the effectiveness of the army were not connected exclusively with either the distance covered from the arrow or a certain, the same, distance, a fact which is indeed declared via this specific military treatise in relation to the infantry. In XII.B.17,17-18 (CFHB 17, 450) the distance of either 100 feet or 200 feet is equally right⁵⁵, and recalls the variation of the ancient bowshot to be from 60 m to 700 m.⁵⁶. Besides, the distance of 100 feet, a little less than 30 m, has been cited to be the distance required at war between the cavalry unit and its' medical corps, II.9,5-6 (CFHB 17, 126). Furthermore in XII.B.20,17 (CFHB 17, 458), at the exact place of the expected bowshot, we read that the distance measured corresponds to the flight of the stone: $\tau \dot{\alpha} \mu \epsilon \rho \eta \pi \epsilon \rho i \pi \alpha \tau \epsilon \tilde{i} \nu \dot{\alpha} \phi \epsilon \sigma \tau \tilde{\omega} \tau \alpha$ $\dot{\alpha}\lambda\lambda\eta\lambda\omega\nu$ $\dot{\omega}\zeta$ $\dot{\alpha}\pi\dot{\alpha}$ $\lambda(\theta\sigma\nu)$ $\beta\sigma\lambda\eta\zeta$ (the units should march keeping a distance of the flight of the stone between them). Every other distance concerning the infantry is recorded to have been the length of a bowshot, see XII.B (passim). The flight of the arrow was not considered to identify a specific distance, for there is mentioned the $\tau \epsilon \lambda \epsilon i \rho v \sigma \alpha \gamma i \tau \tau \delta \beta \rho \lambda \rho v$, i.e. long (perfect

^{52.} The relevant clause is cited in *Sylloge Tacticorum quae olim "inedita Leonis Tactica" dicebatur*, ed. A. DAIN, Paris 1933; see also commentary in SCHILBACH, *Byzantinische Metrologie*, 42 and calculations in KOLIAS, *Waffen*, 220: 1 fathom = 210,8 cm.

^{53.} Mc LEOD, The range, 12.

^{54.} Mc LEOD, The range, 14: super Turkish 310 m; see BIVAR, Cavalry, 283: the distance of the effective bowshot should have been 228,6 m.

^{55.} SCHILBACH, *Byzantinische Metrologie*, 13-16: 1 roman foot = 29,6 cm; 1 byzantine foot: 31,23 cm.

^{56.} Mc LEOD, The range, 1.

bowshot), in XII.B.18,2 (CFHB 17, 454) instead of the expected *sagittovolon* that matches the case perfectly.

The length of the Byzantine $\sigma\alpha\gamma\iota\tau\tau\delta\beta\delta\delta\sigma\nu$ (bowshot) and the $\tau\epsilon\delta\epsilon\iota\sigma\nu$ $\sigma \alpha \gamma i \tau \tau \delta \beta \delta \lambda \sigma v$ (long bowshot), depended on the archers and their bows or/ and the measuring device in use, along with certain subdivisions in relation to the launched object, which depended on men either mounted or on foot. It is then practical to admit the bowshot to have been long undersized from 297 m and the long bowshot closer possible to ca. 337 m, the "bowshot" and the "long bowshot" respectively, on condition that these distances are compatible a) (the bowshot) with the Arabic and the Turkish average bowshots; and b) (the long bowshot) to the super Turkish bowshot, as well as to modern calculations concerning the full measured Byzantine bowshot of the 10th c.⁵⁷. Furthermore, we should accept that every $\sigma\alpha\gamma\iota\tau\tau\delta\betao\lambda ov$ (bowshot) cited within the Strategicon with no further definition, should be a distance of ("not accurate target range" as Dennis proposed) closer to 133 m as Mac Leod suspected, Bivar proposed and the 'military mathematics' provided by the Strategicon in III.8,43-46 (CFHB 17, 170), support. Finally the distance that corresponded to the flight of the stone should have been close to 30 m.

Fossaton camp

More than one term ordinarily identifies the structure of the military camp within the *Strategicon*. i) $\ddot{\alpha}\pi\lambda\eta\varkappa\tau\sigma\nu$ (< *aplicitum*, i.e. a portable folding structure), which eventually applied to every guarded campground and prison; ii) $\varphi\sigma\sigma\sigma\dot{\alpha}\tau\sigma\nu$ (< *fossa* <*fodio*: to trench) which literally applied to the structure surrounded by a *fossa*, i.e. being reinforced with a trench; iii) ($\chi\dot{\alpha}\varphi\alpha\xi$) (< $\chi\alpha\varphi\dot{\alpha}\sigma\sigma\omega$: to engrave, i.e. to excavate); and iv) / $\ddot{\sigma}\rho\nu\gamma\mu\alpha$ ($\dot{\sigma}\rho\dot{\nu}\sigma\sigma\omega$: to mine, i.e. to excavate), also with the meaning of prison as well⁵⁸. As far as the military terminology within the *Strategicon* is concerned, it

^{57.} Mc LEOD, The range, 13: the average Arabic = ca 169m-187m; the average Turkish = 160m-190m and the super Turkish = 310 m; KOLIAS, *Waffen*, 220: 297 m-337 m; *Three Treatises*, ed. HALDON, 170: 328,8 m.

^{58.} Etymology: DEMETRAKOS, Μέγα λεξικόν, 757 (ἀπλίκιτον); 7633 (φοσσᾶτον); 5240 (δρυγμα); 7792 (χάραξ); meaning: Sudae Lexicon, v. I, 289 (n.3228: ἄπληκτον); v. III, 564 (n.5240: ὄρυγμα); v. IV, 788 (n.96: χάραξ). On military camps of the Roman and the Late Roman era see Syrianus Magister, ed. DENNIS, 329-335; H. ELTON, Warfare in Roman Europe AD 350-425, Oxford 1996, 247; C. M. GILLIVER, The De munitionibus castrorum: text and translation, Journal of Roman Equipment Studies 4 (1993), 33-48, esp. 35.

seems that the two latter terms, which are the Ancient Greek words for ditch, applied to the undersized trench⁵⁹ and appear to fit merely in the vernacular vocabulary of the infantry. Among these four terms, the almost archaic word $\delta \pi \lambda \eta \varkappa \tau \sigma v$ and the most recent $\varphi \sigma \sigma \sigma \delta \tau \sigma v$ are typical terms of Latin origin, which, at the late 6th c., used to be the common words for the military camp and are both documented frequently in the military treatise. At a first sight the terms appear to be equivalent, such as in I.3,35 (CFHB 17, 86): ... $\tau \lambda \delta \pi \lambda \eta \varkappa \tau \alpha \delta \tau \sigma \sigma \sigma \delta \tau \sigma$ (the *aplecta* camps that is to say the *fossata* camps); IX.5,83 (CFHB 17, 330): $\dot{\epsilon} \lambda v \delta \chi \delta \rho \alpha \xi$, $\tau \sigma \nu \tau \dot{\epsilon} \sigma \tau v \tau \dot{\sigma}$ $\varphi \sigma \sigma \sigma \delta \tau \sigma v$ (...the ditch, i.e. the *fossaton* camp). However, via a number of functional quotations, cited in several passages, an important difference is detected which points to technical improvements that applied to construction during Late Antiquity. This improvement was an extra *fossa* (i.e. trench, gr. $\tau \delta \phi \rho \sigma \varsigma$), which served for the protection of the main military camp.

The antiquated tenth book, which refers to the topic of sieges, conveys to the general advise concerning the construction of temporary military camps; the fence here appears to correspond to the complete fortification of the *aplecton* camp; X.4,74-75 (CFHB 17, 346): $\tau \delta \pi \sigma v \, \delta \chi v \varrho \delta v ... \xi \eta \varrho \tilde{\alpha} \, \tilde{v} \lambda \eta$ $\pi \varepsilon \varrho \iota \beta \lambda \eta \theta \tilde{\eta} v \alpha \iota$ (a stronghold... to be surrounded by dry woods)⁶⁰. Elsewhere it appears that either the fence or the trench performed the adequate fortification, IX.5,83-84 (CFHB 17, 330): $\delta \chi d\varrho \alpha \xi \tau o v \tau \epsilon \sigma \tau v \sigma \varphi o \sigma \sigma \alpha \tau o v$ $\tau d \varphi \varrho \omega \tilde{\eta} \, o \ell \varkappa o \delta \rho \mu \ell \alpha \iota \varsigma \, \omega \chi \psi \varrho \omega \tau \alpha \iota$ (...the camp is fortified either by the trench or by the structures). In general, however, the dyke that strengthened the structure, either was excavated in order to provide some soil in the function of building stuff, so the trench (i.e. the *fossa*) occurred artlessly, or it was extracted as a result of the creation of the required ditches, so that the camp could be provided with some additional protection. Indeed in XII.B.22,3-5 (CFHB 17, 472) a structure had to be established, if possible, then a trench had to be dug and a dyke had to be erected: ... o \ell \varkappa o \delta \rho \mu \epsilon \tilde{\nu}, \ell \alpha \nu \delta \tau \delta \sigma \epsilon \tilde{\chi} \eta,...

^{59.} The terms $\chi \dot{\alpha} \varrho \alpha \xi$ and $\dot{\delta} \varrho \nu \gamma \mu \alpha$ identify ditches other than the main trench, for example in IX.3,98-99 (CFHB 17, 318), and these other trenches are recorded to be smaller than the main one in XII.B.22,5-6 (CFHB 17, 472).

^{60.} Urbicius at the beginning of the 6th c. advised the army to be fenced around, in order to be fortified; ditches are not mentioned in the relevant clauses, 5,29-34 and 6,35-36, see G. GREATREX (ed.), Urbicius' Epitedeuma: an edition, translation and commentary, *BZ* 98 (2005), 35-72, esp. 56 and commentary 50.

 $\varkappa \alpha i \, \epsilon \xi \omega \theta \epsilon \nu \tau \alpha \varphi \varphi o \nu \pi o \iota \epsilon \tilde{\iota} \nu ... \varkappa \alpha i \tau \delta \chi \tilde{\omega} \mu \alpha \, \epsilon \nu \tau \tilde{\eta} \, \epsilon \sigma \omega \tau \epsilon \varphi q \, \delta \psi \epsilon \iota \tau \epsilon \theta \tilde{\eta} \nu \alpha \iota$ (to built if material exists... and to dig the trench outside... and to place the earth from the inner side...). Consequently one should admit that the *aplecta* camps used to be surrounded by a certain common ditch outside the fence.

It is important though to pay attention to the diagram in XII.C (CFHB 17, 488), in view of the fact that military camps were supposed to be erected according to this precise diagram with the intention that the structure would become stronger than usual, VII.A.7,6 (CFHB 17, 236): $\varphi o \sigma \sigma \dot{\alpha} \tau \alpha$ $\dot{\sigma} \chi v \rho \dot{\omega} \tau \epsilon \rho \alpha$ $\pi \sigma \iota \epsilon \tilde{\iota} v \kappa \alpha \tau \dot{\alpha} \tau \dot{\sigma} \dot{\upsilon} \pi \sigma \tau \epsilon \tau \alpha \gamma \mu \dot{\epsilon} v o v \sigma \chi \tilde{\eta} \mu \alpha$ (camps extra fortified ought to be constructed, according to the diagram below). The explanation of the above mentioned diagram, XII.C,2-3; 5-6 (CFHB 17, 488), should be that two trenches could reinforce further the illustrated military camp: $\Delta \epsilon \tilde{\iota} \delta \dot{\epsilon} v \alpha \iota \dot{\sigma} \tau \dot{\eta} \mu \dot{\epsilon} v \, \dot{\epsilon} \tilde{\xi} \omega \theta \epsilon v \tau \sigma \tilde{\upsilon} \kappa \alpha \rho \alpha \gamma \tilde{\upsilon} \chi \alpha \rho \alpha \gamma \dot{\eta} \delta \eta \lambda \sigma \tilde{\iota} \phi \sigma \sigma \alpha v, \tau \dot{\alpha} \delta \dot{\epsilon}$ $\lambda \dot{\alpha} \mu \beta \delta \alpha \tau \rho \iota \beta \delta \lambda \sigma v \zeta$ (the line outside the *caragos* indicates a *fossa*, the signs of letter λ after that caltrops); $\chi \rho \dot{\eta} \delta \dot{\epsilon} \kappa \alpha \iota \, \dot{\epsilon} \tilde{\xi} \omega \theta \epsilon v \tau \tilde{\omega} v \tau \rho \iota \beta \delta \lambda \omega v \, \dot{\delta} \rho v \gamma \mu \alpha$ $\gamma (\nu \epsilon \sigma \theta \alpha \iota (also a ditch ought to take place outside the caltrops' zone).$

Furthermore the inner *fossa* is certainly cited in VII.B.9,4 (CFHB 17, 248): $\pi\epsilon \rho i \tau \eta v \, \check{\epsilon} \sigma \omega \tau \dot{\alpha} \varphi \rho o v$ (around the inner trench). Additional ditches of non clarified purpose are also documented as required for the appropriate defense of the camp, in IX.3,98-99 (CFHB 17, 318): $\varkappa \alpha i \, \dot{\epsilon} v \tau \alpha \xi \epsilon i \tau \dot{\alpha} \dot{\delta} \rho \dot{\nu} \gamma \mu \alpha \tau \alpha \gamma \dot{\nu} \epsilon \sigma \theta \alpha i \, \delta \epsilon \dot{\delta} v \tau \omega \varsigma \tau \eta \varsigma \tau \tau \alpha \varphi \rho o v$ (the ditches ought to be made properly, especially the trench) and in XII.B.22,5-6 (CFHB 17, 472): $\check{\epsilon} \xi \omega \theta \epsilon v \dot{\delta} \epsilon \tau \alpha \dot{\tau} \eta \varsigma \dots \varkappa \alpha i \, \varphi \phi \sigma \sigma \alpha \varsigma \mu \iota \varkappa \rho \dot{\alpha} \varsigma$ (then outside it, i.e. outside of the trench, small trenches also). Such trenches could provide all potential infantrymen outside the camp with significant protection, as it is presented in X.4,18 (CFHB 17, 348)⁶¹. But within the *Strategicon* no front guards are recorded in relation to the defense of the camp, except for the $\gamma \nu \omega \mu \varkappa \delta v$ in VIII.B,99-100 (CFHB 17, 284 <nr. 36>), which might well have been the reminiscent of the ancient methods. Thus the reported unmanned ditches would serve the enemy, unless all trenches around the military camp used to fit together.

^{61.} More than one trenchs had to be excavated around the $\chi \dot{\alpha} \rho \alpha \xi$ according to Syrianus Magister, ed. DENNIS, 88: $\varkappa \theta'$, $2 \varepsilon \dot{\upsilon} \theta \dot{\varepsilon} \omega \zeta \dot{\alpha} \varkappa (\sigma \tau \alpha \sigma \theta \alpha \iota \varkappa \alpha) \delta \iota o \rho \dot{\upsilon} \tau \tau \varepsilon \iota \tau \dot{\alpha} \zeta \tau \dot{\alpha} \varphi \rho o \upsilon \zeta$ (89: "As soon as the soldiers have pitched their tents and gotten something to eat, they should get up and start digging trenches"). However only one trench was about to surround the camp, according to the detailed description below. The other trenches were supposed to protect the front guards and they had to be established at a distance of the camp, like "forward towers", idem, 90.

Accordingly, the $\varphi o \sigma \sigma \dot{\alpha} \tau o v$ should have been the improved $\dot{\alpha} \pi \lambda \eta \varkappa \tau o v$ camp, which enjoyed full protection by means of a fence, plus the trench, plus the caltrop zone, plus the extra trench or the ditches around it. Both mounted and foot warriors had to cover a long distance, full of traps, in order to approach the final fortification, i.e. the fence. The blockage against the mounted enemy consisted of three single but adjoining obstacles, even four, if an extra trench existed in front of the caltrop zone. The fortification at a row obviously turned to be a significant complex, the break of which required extremely trained horses and riders, as far as the animals have to pace specific number of steps of particular size in order to accomplish every jump over. The technological progress taking place during Late Antiquity, when the cavalry of the Late Roman Empire was at the zenith of its performance, as it adjusted to the challenge of the nomadic cavalry. It is noteworthy at this point to evoke the place name "Chandax" ($\chi \alpha v \delta \alpha \xi$ < arab. rabd al-khandāq: "Castle of the Moat" $< khand\bar{a}q$: deep brook), which was the medieval name of Herakleion at Crete due to the double trench full of water that protected the city⁶².

Touldos

a. Strategicon offers the most significant information on the issue of the $\tau \sigma \tilde{\nu} \lambda \delta \sigma \varsigma^{63}$. The term touldos/n identified the baggage train of the Byzantine cavalry as is confirmed by the Strategicon I.3,39-40 (CFHB 17, 88), i.e. the supplies for the soldiers that included servants and livestock: Kai $\tau \sigma \tilde{\nu} \lambda \delta \delta \varsigma$ ė $\sigma \tau \iota \nu \dot{\eta}$ å $\pi \sigma \sigma \varkappa \varepsilon \upsilon \eta \dot{\tau} \tilde{\omega} \nu \sigma \tau \rho \alpha \tau \iota \omega \tau \tilde{\omega} \nu$, $\tau \sigma \upsilon \tau \delta \sigma \tau \iota \nu \eta \alpha \tau \delta \varsigma \tau \varepsilon \varkappa \alpha \dot{\iota} \dot{\upsilon} \sigma \delta \zeta \dot{\nu} \iota \alpha \lambda$ tà $\lambda \sigma \iota \lambda \delta \tau \alpha \dot{\iota} \delta \sigma \alpha$ (touldos is the baggage of the soldiers, i.e., youngsters, equine of burden and further animals). The animals serving with the baggages of the infantry, the caragos (wagon train), are somethimes also called $\tau \sigma \tilde{\nu} \lambda \delta \sigma \varsigma$. Although only bodive are mentioned for the $\varkappa \alpha \rho \alpha \gamma \delta \varsigma^{64}$, the reference to $\tilde{\iota} \pi \sigma \sigma \nu \varsigma \sigma \alpha \gamma \mu \alpha \tau \alpha \rho (\sigma \upsilon \varsigma (saddle pack equi))$ in XII.B.6,11 (CFHB 17, 422)

63. Limited information is detected in relevant edicts of a later era and in certain passages of the military treatises of the 10th c., see P. COLLINET, Sur l'expression oi ἐν τοῖς τούλδοις ἀπερχόμενοι, 'ceux qui partent dans les bagages', in: Mélanges Charles Diehl I. Histoire, ed. E. LEROUX, Paris 1930, 49-54, esp. 49-51. However modern scholars have not exploited extensively the fascinating details from the Strategicon.

64. XII.B.18,8 (CFHB 17, 454); XII.B.22 passim (CFHB 17, 472-80).

^{62.} Leonis Diaconi, Historia, ed. C. B. HASE [CSHB, Bonn 1832], 11: in I.5.19-20 testified are the two trenches; etymology of the word chandax: G. D. BAMBINIOTES, Λεξικό της νέας ελληνικής γλώσσας, Αθήνα 2002, 1932 (χαντάκι).

clearly points towards the *equine* of burden, i.e. pack mules, what could be considered the reflection of the status of the cursus publicus of that date⁶⁵. So the obvious difference between the two words should naturally originate from the kind of animal serving the train: bodive served with caragos (wagon train), equine served with $\tau o \tilde{v} \lambda \delta o \zeta$ (baggage train). Elsewhere the term touldos applies to the baggage train in general, along with the term $\dot{\alpha}\pi\sigma\sigma\kappa\epsilon\nu\dot{\eta}$ (baggage) (I-XII passim, except for the books V [$\tau\sigma\tilde{\nu}\lambda\delta\sigma\varsigma$ only] and XI [$\dot{\alpha}\pi\sigma\sigma\kappa\epsilon\nu\eta$ only]). The interesting term $\dot{\eta}$ ($\pi\pi\sigma\sigma$ (the Equus) appears in certain citations, related exclusively to the war horses, both active and spare⁶⁶. Furthermore the distinction between the *Equus* (the military *equi* caballi) and the Baggage (the baggage train) is apparent throughout the eleventh book, but no citation of those terms occurs in the fifth book, where the topic of the baggage train is fully presented. Finally, along with the term $i\pi\pi\sigma\sigma$ (equus) the term $\ddot{\alpha}\lambda\sigma\gamma\sigma\nu$ (irrational being) is used with the meaning of "horse", passim, and it is generally accepted that this is indeed a neologism of the middle/late 6th c. and that the word entered the text of the Strategicon at that time⁶⁷. It is worthwhile to elucidate the exact use of the term by the author of the military treatise in view of the fact that the term $i\pi\pi\sigma\sigma$ (equus) applies almost exclusively to the military equi caballi at war, i.e. on the battle field, at the exact time of fighting or if being trained for fighting, whereas the term $\ddot{\alpha}\lambda o\gamma o\nu$ (horse) applies in general to the horses serving with the army, both skilled spare war horses and inexperienced equidae of burden. As far as the language of the Strategicon is concerned, it should be emphasized that άλογον (horse) is distinct from iππος (military equus caballus)⁶⁸.

The fifth book, which bears the title "on touldos" V.1-5 (CFHB 17, 208-214) refers to the spare war horses and the baggage train as if they were considered to be one military corps, since three out of the five chapters

^{65. &}quot;ό πλατὺς δρόμος" (the cursus clabularis) i.e. the imperial service of transportation that depended on *bodive*, had been abolished before the composition of the *Strategicon*, as a result of the replacement of the *bodive* by *equine*, see JONES, *Later Roman Empire*, 833; M. F. HENDY *Studies in the Byzantine Monetary Economy c.300-1450*, Cambridge Mass. 1985, 607-610.

^{66.} VII.A.9 (CFHB 17, 236); XI.1,20 (CFHB 17, 354); XI.4,116-18 (CFHB 17, 378).

^{67.} Etymology: DEMETRAKOS, *Μέγα λεξικόν*, 289-290 (*ἄλογον*) consecutively: animal of burden, military *equid* of burden, *equus caballus* or of burden.

^{68.} It is traditionally suggested that, at the beginning, $\ddot{\alpha}\lambda$ ογον (irrational being) was contrasted to soldier (rational being); *Strategicon* does not provide evidence to support the hypothesis.

plainly refer to both, the first chapter relating to the baggage train itself and the second to the reserved war horses alone⁶⁹. Indeed we read in V.3,6 (CFHB 17, 210): τὸν πλείονα καὶ ἄχοηστον τοῦλδον καὶ τὰ περισσὰ ἄλογα (the surplus and not required *touldos* and the extra horses); and in V.4.2-3 (CFHB 17, 212): Ἐκεῖθὲν τε ἐκ τοῦ τούλδου κινοῦντας τοὺς ἐπὶ μάχην παραλαβεῖν τὰ ἀδέστρατα καὶ ἢ τένδας μικρὰς (those [men] who move from the touldos up to the combat ought to take the spare horses plus either small tents... $)^{70}$. In reality, the *touldos* should have included the reserved *equi caballi* occasionally, given that in III.7 (CFHB 17, 168) the diagram explaining the modus operandi of the battle formation of the total army, corresponded to the reserved force being lined up along with the $\tau o \tilde{v} \lambda \delta o \zeta$, in order to increase the size of the army. The reasonable connection between every equine of the cavalry might be understood by the instruction concerning the size of the baggage train, according to which the number of the active war horses of each mounted unit determined the number of the spare horses, the number of the servants as well as the required equine of burden, V.1,14-17 (CFHB 17, 208, 210)⁷¹. Regarding the watering and the feeding of all those animals, it is stated that both equi caballi and equine of burden required similar treatment.

Both $\tau \sigma \tilde{v} \lambda \delta \sigma \varsigma$ and $\varkappa \alpha \rho \alpha \gamma \delta \varsigma$ accompanied the units they served and in fact each "train" had to follow in the back of its own unit, V.5,4-6 (CFHB 17, 214); XII.B.18,1-4 (CFHB 17, 454). However, if the cavalry was moving across insecure territory, its touldos had to be placed in the middle and to be well guarded, V.4,1-3 (CFHB 17, 214); IX.3,87-88 (CFHB 17, 316);

69. Book nr. V (CFHB 17, 208): περὶ τούλδου (on baggage train); V.1 Περὶ τοῦ μὴ ἐπάγεσθαι προχείρως τὸν τοῦλδον ἐν μάχῃ (on never driving the baggage train to the combat improperly); V.2 Περὶ ἀδεστράτων (on reserved war horses); V.3 Περὶ τοῦ μὴ ἀναγκαίου τούλδου (on the unnecessary baggage train); V.4 Περὶ τῶν ἐν μέσῷ ἀπλήκτων (on those laying intermediate camps); V.5 Περὶ φυλακῆς τούλδου όδοιποροῦντος (on the guarding of the baggage train on the march).

70. The $d\delta\epsilon\sigma\tau\rho\alpha\tau\sigma\nu$ (< the horse *ad dextram*, at the right side, of the groom) was the spare war horse.

71. S. GYFTOPOULOU, Riding and reserving *equi* in the Late Antique/Middle Byzantine Army, $Bv\zeta\alpha\nu\tau\iota\nu\delta\varsigma \ \Delta\delta\mu\sigma\varsigma$ 16 (2007-2008), 389-410, esp. 401: in view of the reports of the *Strategicon* counted are one to two war horses for each individual soldier of every regular unit (no more than one for the men of the assistant units) and two to four horses for the riders of the distinguished units, the *foederatoi* and the *boukellarioi*. On the number of spare horses inside the Byzantine army see also J. HALDON, *Warfare, State and Society in the Byzantine World*, 565-1204, London 1999, 143 (one spare horse per soldier).

XII.B.20,17-20 (CFHB 17, 458). The animals of the wagon train on the other hand were placed at some distance so that any wounded ox could not disturb the soldiers according to XII.B.22,108-09 (CFHB 17, 478). The distinction as far as the baggage trains of the field forces is concerned has to be drawn regarding their performance in the battlefield, where the non- guarded $\varkappa \alpha \rho \alpha \gamma \delta \varsigma$ was regularly transformed into a formal line of defense, even supported the flanks of the main force, XII.B.17,5-6 (CFHB 17, 450): $\tau \alpha \xi \alpha \iota$ τὴν παράταξιν καὶ τὸ λοιπὸν τοῦλδον ["line up the battle formation...and the touldos (of the infantry)]"; X.B.18,1 (CFHB 17, 454): $\Pi \tilde{\omega} \zeta \delta \tilde{\epsilon} \tilde{\iota} \tau \dot{\alpha} \zeta \dot{\omega} \mu \dot{\alpha} \xi \alpha \zeta$ $\pi \alpha$ τον το $\tilde{\nu}\lambda$ δον τάσσεσθαι ("How to line up the vehicles and the *touldos*")⁷². On the other hand the $\tau \sigma \tilde{v} \lambda \delta \sigma \zeta$ of the cavalry, i.e. the valuable reserved war horses among the other animals, was absolutely protected and ought to avoid getting involved in conflicts⁷³. Besides, the $\beta \dot{\alpha} v \delta o v$ of the $\tau o v \lambda \delta o \varphi \dot{v} \lambda \alpha \xi$, i.e. the unit that guarded the $\tau o \tilde{v} \lambda \delta o \varsigma$ according to III.7,10 (CFHB 17, 168), was considered to perform some crucial duty, and the author of the Strategicon states that its leader had to be an experienced soldier in VII.B.17.29-30 (CFHB 17, 264). But the $\tau o \tilde{v} \lambda \delta o \varsigma$ could take a special position inside the battlefield. It could be placed either between the rear guards, so that the feature of the war force could be enlarged, III.7 (CFHB 17, 166, 168), or at the side of the right flank of the second war line, in order to be protected should surprise attack occur, VII.B.9,12-14 (CFHB 17, 248). In the latter case the $\tau o \tilde{v} \lambda \delta o \varsigma$ ought to be accompanied by the appropriate guard unit. Otherwise, it was forbidden to all spare *equine* of the cavalry to approach the front, such as in V.2 (CFHB 17, 210): instruction plus military theory⁷⁴.

The baggage train of the cavalry depended on young servants "free or slaves" but even the less competent soldiers were transferred there from time to

^{72.} $K\alpha\rho\alpha\gamma\delta\varsigma <$ (gothic) *carago*; the term actually identified the fence of the military camp, which was formed by the vehicles of the baggage train.

^{73.} See for example V.1 (CFHB 17 pp. 208, 210); VII.B.9,8-9 (CFHB 17, 248).

^{74.} In III.7 (CFHB 17, 168) the spare horses are supposed to be in position inside the battle field, but no mention of grooms is quoted; Dagron believes that certainly every groom was present inside the combat zone at the late 10th c., *Le traité sur le guerilla (de velitatione bellica) de l'empereur Nichéphoros Phocas* (963-969), ed. – trans. G. DAGRON - H. MIHAESCU, Paris 1986, commentary, 189; Mc GEER also comments on the horses lined behind the lines of the cavalry in *Nicephoros Uranos, Praecepta militaria* (part), ed. E. McGEER, *Sowing the dragon's teeth: Byzantine warfare in the tenth century*, Washington, D.C. 1995, ch. 57.1: compare V.2 (CFHB 17, 210).

time, according to I.2,70-74 (CFHB 17, 82). The requirements of the campaign rested on the principle of one servant looking after three or four $\sigma\alpha\gamma\mu\dot{\alpha}\rho\iota\alpha$ (pack mules), I.2,70-74 (CFHB 17, 82), plus one servant for every three or four mounted soldiers. Then, each individual reserve *equus caballus* possibly enjoyed the full attention of one groom at the time of the battle, compare V.2 (CFHB 17, 210). The groom had also to drive the spare horse inside the battlefield, as is confirmed in V.4,2-3 (CFHB 17, 212). As far as the baggage train of the infantry is concerned, the procedure of recruiting the servants appears to have been the same, but no numbers are documented within the *Strategicon*.

b. Traditionally it is accepted that the etymology of the word $\tau \sigma \tilde{\nu} \lambda \delta \sigma \varsigma$ indicates a link between the past tense of the verb *fero*, from the medieval Latin, and the baggage train of the Byzantine army: *tuli>touldos*; the word bears the meaning of "lifting weigh" in the *Etymologies* of Isidore, bishop of Seville (556-636), which were composed shortly after the *Strategicon* or at the same time period⁷⁵. Collinet attempted to link the word $\tau \sigma \tilde{\nu} \lambda \delta \sigma \varsigma$ to German⁷⁶, given that the soundalike words *dult* and *tult* were common ancient Germanic words and thus they could be placed among the numerous barbaric military terms that entered both Latin and Greek languages⁷⁷. Nevertheless, both words meant "celebration"⁷⁸.

76. COLLINET, Bagages 54.

77. See H. ZILLIACUS, Zum Kampf der Weltsprachen im oströmischen Reich, Helsinki 1965, 128-133; 141-167. Latin had been the formal military language up to 630, and thus elements of the native languages of the soldiers, German but others as well, entered Latin, see H. and R. KAHANE, The Western Impact of Byzantium: the Linguistic Evidence, *DOP* 36 (1982), 127-153, esp. 130; RANCE, Fulcum, 269; ZILLIACUS, Zur Kampf, 113. The barbaric terms were romanized under Constantine I (313/324-337) and a military 'slang' was developed, see KAHANE idem; then, gradually, the words entered the Greek language as well, see H. MIHĀESCU, Die Lage der zwei Weltsprachen (Griechisch und Latein) im byzantinischen Reich des 7. Jahrhunderts als Merkmal einer Zeitwende, in: *Studien zum 7. Jhr. in Byzanz*, (BBA 47), Berlin 1976, 95-100, esp. 90; G. REICHENKRON, Zur römischen Kommandosprache bei byzantinischen Schriftstellern, *BZ* 54 (1961), 18-27, esp. 19, 20, 23.

78. H. MEIDINGER, Dictionnaire comparatif et étymologique des langues teutogothiques, Boston² 1875, 404.

^{75.} See A. DAIN, Touldos' et 'Touldon' dans les traités militaires, ΠΑΓΚΑΡΠΕΙΑ Mélanges Henri Grégoire II, Annuaire de l'Institut de Philologie et d'Histoire Orientales et Slaves, X (1950), 161-169, esp. 164-167 on the grammar (touldos, i.e. m., or touldon, i.e. n) and 169 on the etymology; see also COLLINET, Bagages, 53-54 and DAIN, Touldos, 162-163 on the terms touldos and aposkeuē (baggage).

But the speculation of Collinet should not be underestimated, since Byzantine military terminology normally arises from barbaric languages and cultures in the cases were those words identified special military articles or tactics that characterized certain barbarians at war⁷⁹. Thus it is suggested that the etymology of the word $\tau o \tilde{v} \lambda \delta o c$ might be located within the vocabulary of the nomads of Northeastern Asia, i.e. the Avars and the Turks⁸⁰. These people used to travel constantly, accompanied by a large number of horses, as is reported by the author of the Strategicon XI.2,31-2 (CFHB 17, 362): Ἀκολουθεῖ δὲ αὐτοῖς καὶ πλῆθος ἀλόγων, ἀρρένων τε καὶ θηλειῶν ἅμα μὲν πρὸς ἀποτροφήν, ἅμα δὲ διὰ πλήθους θεωρίαν (They are also followed by numerous of horses, both male and female, as they are fed from, plus they look numerous). Perhaps a specific Altaic word was used to identify the flexible group of horses that served the nomads as the ultimate resource, fertile and thus everlasting. At the date that the word $\tau o \tilde{v} \lambda \delta o \zeta$ entered both Greek and Latin, the soldiers of the Byzantine Empire were familiar with the art of war of those nomads. Although neither the Avars nor the Turks served within the Byzantine army, unlike the barbarians whose language entered Latin and Greek commonly, the soldiers of the Late Roman Empire had to be taught by the war methods of the nomadic cavalry as the author of the Strategicon precisely recommends⁸¹. The nomadic baggage train could have provided a model to the $\varkappa \alpha \rho \alpha \gamma \delta \zeta$ (wagon train) at the time that equine replaced bodive in the army⁸², in addition to the fact that it entered the Byzantine world as a unique campaign apparatus,

^{79.} Ph. RANCE, Drungus, δ<u>α</u>οῦγγος and δ<u>α</u>ουγγιστί: a Gallicism and Continuity in Late Roman Cavalry Tactics, *Phoenix* 58 (2004), 96-130, esp. 100-105.

^{80.} On Avars see W. POHL, Die Awaren. Ein Steppenvolk in Mitteleuropa, 567-822, Munich 1988; on contacts of Avars with the Byzantine Empire see, Die Awaren am Rand der byzantinischen Welt. Studien zur Diplomatie, Handel und Technologietransfer im Frühmittelalter ed. F. DAIM [Monographien Frühgeschichte und Mittelalterarchäologie 7], Innsbruck 2000; G. KARDARAS, To Buζάντιο και οι Άβαροι Στ΄-Θ΄ αι. [Institute for Byzantine Research- Hellenic National Research Foundation-Monographs 10], Athens 2010; on their contribution to the military technology see B. Sz. SZMONIEWSKI, The earliest Avarage stirrups, or the 'stirrup controversy' revisited, in: The other Europe in the Middle Ages. Avars, Bulgars, Khazars, and Cumans, eds. Fl. CURTA - R. KOVALEV, Boston 2008, 297-326. On Turks see C. V. FINDLEY, The Turks in World History, Oxford 2005.

^{81.} In I.2,45-46, 61 (CFHB 17 pp 80, 82) and in II.1,19-20 (CFHB 17, 110).

^{82.} On the issue of the replacement of the bodive by equine see above n. 65.

effective and thus worthwhile to be imitated. $To\tilde{v}\lambda\delta o\varsigma$ could be linked to the Altaic lexis, on condition that an unidentified complex of the Chinese $l\check{u}$ tú (voyage) and $du\dot{o}/tu\dot{o}$ (carry on the back) might have existed in the Middle Mongolic language⁸³.

Depotatus/os

Valuable information concerning the assistant unit of $\delta \eta \pi \sigma \tau \dot{\alpha} \tau \sigma \iota$ is recorded in the Strategicon⁸⁴. According to II.9 (CFHB 17, 126, 128) the unit incorporated trained regular soldiers of lower rank, who were excluded from their own units in order to perform unarmed on behalf of their own comrades at the time of conflict or immediately afterwards. Normally they represented three percent of the total army (eight to ten $\delta \eta \pi \sigma \tau \dot{\alpha} \tau \sigma i$ per $\beta \dot{\alpha} v \delta o v$, i.e. ca 300 men), as confirmed in II.9, 1-5 (CFHB 17, 126). According to the occasion, soldiers were excluded from the subdivision of each military unit, from every 100 or 50 men, after the proportion of six to eight men per unit⁸⁵. They plundered the corpses of the defeated enemy, took care of the wounded⁸⁶, and eventually acted as the official rescue team as is confirmed in V.2, 7-8 (CFHB 17, 210). As far as the Strategicon is concerned, they are always reported to be carrying out their mission exclusively inside the battlefield⁸⁷. The $\delta\eta\pi\sigma\tau\dot{\alpha}\tau\sigma\iota$ used to perform either on foot or mounted; actually they had access to one horse according to IX.3,69 (CFHB 17, 316); the saddle of this horse used to bear one extra stirrup, " $\sigma \varkappa \dot{\alpha} \lambda \alpha$ " (step) to

83. On the possible interconnection between the Proto-Turkic, the Mongolic-Tungusic, the Middle-Mongolic and the Chinese languages see G. STAROSTIN, Preliminary Lexicostatistics as a Basis for a Language Classification: a New Approach, *Journal of Language Relationship* 3 (2010), 79-116 (= URL: http://starling.rinet.ru/new100/Lexicostatistics.htm). On the translation from Chinese into English compare *CC-CEDICT dictionary*, URL:. http://www.mandarintools.com/worddict.html-trip; -carry.

84. On the civil office of *deputatus* see Jean Le Lydien, des magistratures de l'état roman, ed. J. SCHAMP, v. 1-2, Paris 2006, II. CCXXIX-CCXLIV.

85. IX.3,62-65 (CFHB 17, 316); IX.3,69 (CFHB 17, 316).

86. plunder: II.9, 13 (CFHB 17, 128); nursing: II.9,6-9 (CFHB 17, 126, 128); I.3,30-32 (CFHB 17, 86).

87. The ecclesiastical office of depotatus, which is mentioned in the sources from the 5th c. onwards, was tenured by clergymen of the lower rank, who, according to Leondaritou, exercised their duties exclusively inside the church, see V. A. LEONTARITOU, $E\varkappa\lambda\eta\sigma\iota\alpha\sigma\tau\iota\varkappa\alpha$ $\alpha\xi\iota\omega\mu\alpha\tau\alpha\varkappa\alpha\iota$ $\nu\pi\eta\varrho\epsilon\sigma\iota\epsilon\varsigma$ $\sigma\tau\eta\nu$ $\pi\varrho\omega\iota\mu\eta$ $\varkappa\alpha\iota$ $\mu\epsilon\sigma\eta$ $B\nu\zeta\alpha\nu\tau\iota\nu\eta$ $\pi\epsilon\varrho\iota\delta\sigma$ [Forschungen zur Byzantinischen Rechtsgeschichte- Athener Reihe 8], Athens-Komotini 1996, 162.

assist the man to mount, i.e. there were two single stirrups, both by the same side of the saddle, one for the *depotatos* (*depotatus*) – one for the wounded soldier as is confirmed in II.9,25-26 (CFHB 17, 128)⁸⁸.

Final note

The *Strategicon* of Maurice was completed at the end of Late Antiquity and the text reflects this fascinating era. Admittedly, the military treatise conveys more pieces of information concerning the actual life of both individual soldiers (of every rank or skill) and formed army forces (of every size or competence), either inside the camp or on the battlefield; along with the details on the suitable deployment- arm- drill command, the issue of timing comes as the apparent benefit for every military action plus the favorable geographical conditions. In addition, the text constitutes the most reliable source on several topics of military history (military technology - war tactics - the state and the art of war of the enemies of the Byzantine Empire at that time). But above, all the treatise communicates Byzantine military theory. It is noticeable, however, that the Strategicon has not been fully exploited, although the existing commentary on a great number of military issues that are recorded within the Strategicon is detailed. In spite of the fact that the literature on Byzantine military history has treated the subjects presented in this paper, our view is that the matters under discussion here were not addressed fully. But comparison between the similar quotations from different chapters/books' could enluminate the text and sometimes, as has become apparent in this paper, could provide clear meaning.

To the notes presented above, one should also add the wise management of the people who constituted the army, which formed a feature of the military culture of the late Roman Empire but has not been plainly detected, although it is very crucial within the *Strategicon*: instructions, advice, moral guidance aimed to train the potential soldier in gaining military expertise, spirit and discipline. Moreover, according to the military theories presented in several abstracts and in almost every introductory

^{88.} On the use of the stirrup by the Byzantines see St. LAZARIS, Considérations sur l'apparition de l'étrier: contribution à l'histoire du cheval dans l'Antiquité tardive, in: Les équidés dans le monde méditerranéen antique (Actes du colloque par l'École francaise d'Athènes, le Centre Camille Jullian, et l'UMR 5140 du CNRS Athènes, 26-28 Novembre 2003), ed. A. GARDEISEN, Paris 2005, 275-88 esp. 276-81.

passage, the general should aim at the protection of his soldiers in order to maintain the army in its best state, but also because he should act in respect of God and of his fellow humans. From every aspect the text keeps firmly to this concept. HISTORICAL INFORMATION GATHERED FROM MAURICII STRATEGICON

A few relevant sections from the *Strategicon* of Maurice are analyzed in order that Byzantine military tactics be further clarified: the meaning of the word *scholē*; contagion (epidemic) and starvation (famine) threatening the soldiers when gathered together; and the potential scouting mission of heralds. Additionally, certain facts provided by the treatise regarding specific military subjects are presented together so that they can be effectively elucidated: the length of both the bowshot and the long bowshot; the exact function of the multi trenches of the *fossaton* military camp; *touldos* (the baggage train: composition - function - etymology/origin); *depotatoi* (the unarmed units: recruitment - equipment - size - mission). Finally speculation on the composition of the text attempts to draw attention to The use of former treatises by the author and to the degree of his personal contribution.